

# Brunswick Heads Marina Electrical Diversion

Minor works review of  
environmental factors

September 2024



# Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which the Brunswick Heads Marina Electrical Diversion is proposed.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



## Report review tracking

Draft No.	Date	Reviewed by	Comments
1	11/7/2024	Brett Fletcher, Amanda Jarred	
2	31/7/2024	Kate Dallimore	
3	30/9/2024		

## Approval and authorisation

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Date	3.10.24

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# 1. Introduction

The purpose of the minor works review of environmental factors (REF) is to describe the proposal, to document the likely impacts of the proposal on the environment, to detail mitigation measures to be implemented and to determine whether or not the proposal can proceed. For the purposes of this work Transport for NSW (Transport) is the proponent and determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The description of the proposed works and assessment of associated environmental impacts has been undertaken in the context of section 171 of the Environmental Planning and Assessment Regulation 2021, Guidelines for Division 5.1 Assessments (DPE, 2022), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act) and the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (EPBC Act).

In doing so the REF helps to fulfil the requirements of section 5.5 of the EP&A Act including that Transport examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.

The findings of the REF would be considered when assessing:

- Whether the proposal is likely to have a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act.
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The potential for the proposal to significantly impact a matter of national environmental significance, including nationally listed threatened biodiversity matters, or the environment of Commonwealth land. Where a significant impact is considered likely on nationally listed biodiversity matters, either the proposal must be reconsidered or a project REF must be prepared.

## 2. The proposal

### 2.1 Description

#### 2.1.1 Proposal location

Table 2-1: Proposal location details

Location details	
Title	Brunswick Heads Marina Electrical Diversion
File number	
Local government area	Byron Shire Council
Transport for NSW region	Northern

#### 2.1.2 Proposal description

Transport proposes to undertake an electrical diversion for the power supply at the Brunswick Heads Marina.

The existing power to Brunswick Heads Marina runs from the power pole adjacent to the Marina to a switch board on a private lot (Lot 328 DP755692) and then from the private lot to distribution boards at two locations at the Marina facilities.

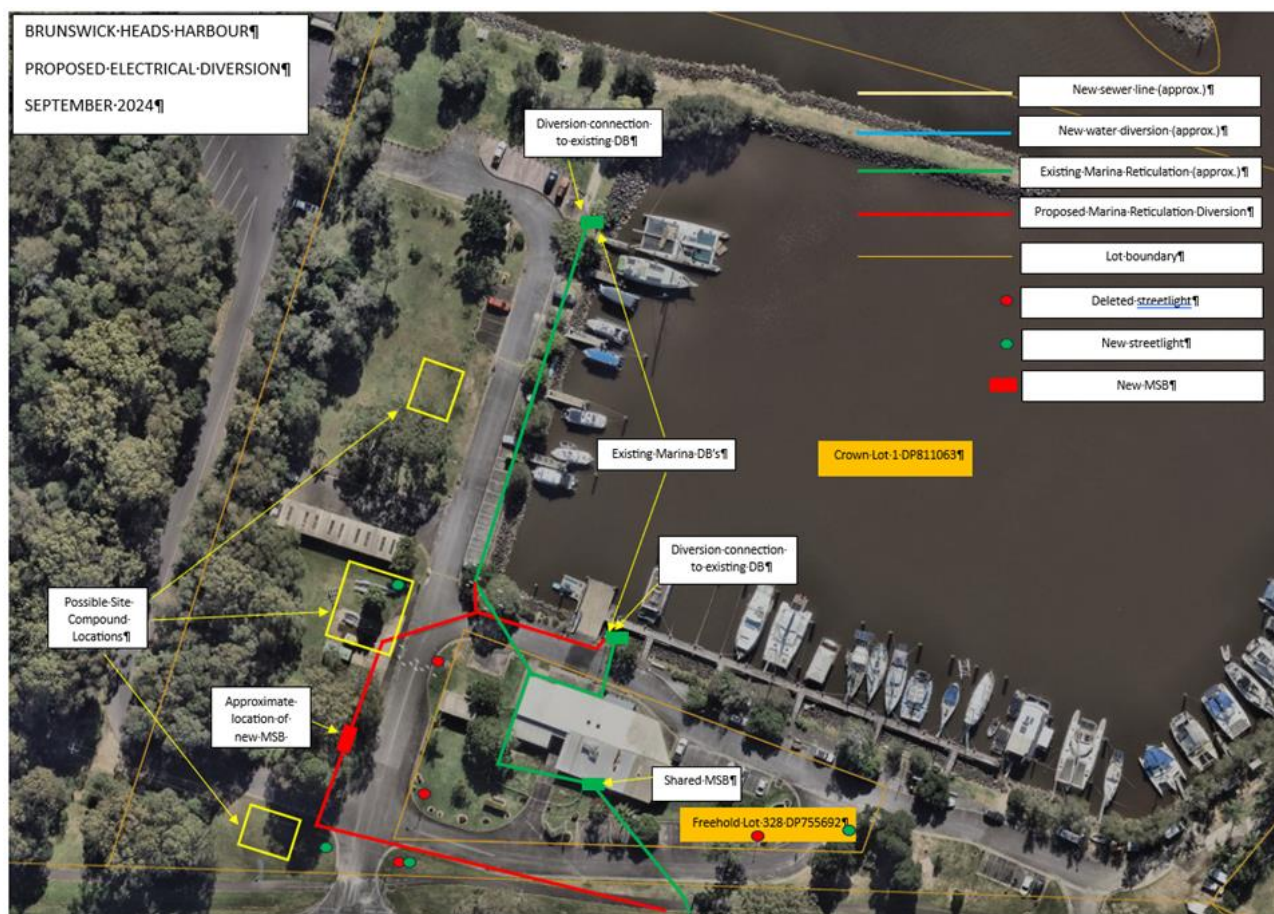
It is proposed to run a separate power supply and locate a separate main switchboard on Crown Land (Lot 1 DP811063) and disconnect from the private lot. The power would be run from the pole adjacent to the Marina through the Crown Land, diverting around the private lot, to a new main switchboard and connecting to the existing distribution boards at the Marina facilities. Existing street lighting would also be replaced. The proposal location is shown in Figure 1 and the proposed works overview is shown in Figure 2. Appendix A contains the design drawings and photographs of the proposal.

Essential Energy has assessed the installation of a new pole and substation at the location of the existing pole adjacent to the Marina. This new pole and substation will be installed at the same time as the works proposed under this minor works REF.



Figure 1: Location of proposed works (circled in red)





**Figure 2:** Overview of proposed works

Key features of the proposal include:

- Installation of an elevated electrical cabinet for the main switchboard with associated platform and stairway for access (see an example in Figure 3)
- Installation of four new street light poles with LED street lights to replace the four existing street lights, all new poles would be located within Crown Land, three of the poles would be moved to the opposite side of the road from the existing to avoid the private lot
- Excavation of a 600mm deep, 450mm wide trench on electrical cable route with pavement and path crossings trenched or underbored, where possible existing conduits and cables would be utilised
- Installation of electrical conduit
- Backfilling of trench and restoration of existing ground conditions where required, including grassed area, pavements and concrete paths
- Installation of electrical cables through the conduit
- Connections at main switchboard and distribution boards where required
- Connections at pole / substation
- Disconnection of cables within the adjacent freehold lot

The proposal is anticipated to involve the following work methodology:

- Survey land boundaries to confirm proposed assets are within the Crown Land lot
- Delineate site facilities, plant parking and work area
- Establish site facilities including a site office and toilet for the duration of the works



- Establish erosion and sediment controls in accordance with erosion and sediment control plan
- Excavate for electrical pits (approximately 800mm x 800mm x 800mm) and install pits, excavated soil to be spread over adjacent park area.
- Excavate trenches in stages between pits, excavated material to be retained adjacent to trench, and install conduit and backfill
- Potentially underbore under paved areas and install conduit or saw cutting of pavements to trench
- Pull cable through conduits
- Terminate new cables on Crown Land main switchboard or ensure existing terminations are satisfactory and then terminate to Essential Energy substation in accordance with Essential Energy requirements
- Disconnect cables from existing main switch board on freehold private lot
- Distribute grass seed or turf over bare ground
- Paving with spray seal or concrete as required
- Demobilise and remove erosion and sediment controls, site delineation and all waste from site
- Add cable route to Dial-before-you-dig plans

Equipment proposed for use includes:

- 5 tonne excavator
- Underboring machine (possible)
- Concrete saw
- EWP
- Cable roller
- Winch
- Concrete truck (possible)
- Small roller (possible)
- Spray truck (possible)
- Aggregate truck (possible)
- Hand tools

### 2.1.3 Proposal objectives

The objectives of the proposal are to provide power directly from the pole supply to the Brunswick Heads Marina facilities and ensure all assets are located in the Crown Land lot.

2.1.4 Ancillary facilities

Table 2-2: Ancillary facilities

Ancillary facilities		
<p>Will the proposal require the use or installation of a compound site?</p> <p>A small site compound with storage container, small office and lunch room and temporary ablutions would be established at one of the possible sites shown in Figure 2. The preferred location of the site compound is the existing hardstand adjacent to the Marine Rescue sheds as shown in Figure 4 below. If the compound site is established on a grassed area, geofabric would be placed over the existing ground and hardstand installed and once works are complete the hardstand and geofabric would be removed and the grassed area reinstated with seed or turf.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p>Will the proposal require the use or installation of a stockpile site?</p> <p>Material from the excavated pit locations would be thinly spread over the adjacent grass area or immediately removed to landfill. Material from the excavated trenches would be stored on plastic or geofabric adjacent to the trench and then returned to the trench as backfill within the same shift.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p>Are any other ancillary facilities required (e.g. temporary plants, parking areas, access tracks)?</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

2.1.5 Proposed date of commencement

The works are proposed to start in early February 2025.

2.1.6 Estimated length of construction period

Construction is expected to take a maximum of 6 weeks.



Figure 3: Proposed location of the new main switchboard and example of elevated cabinet



**Figure 4:** Preferred location for site compound on existing hardstand

## 2.2 Need and options

### 2.2.1 Options considered

The options considered for the proposal included:

Option 1 – Do nothing – retain the existing electrical supply arrangement, whereby power to the Marina comes from the switch board on private property and is on-charged to TfNSW by the freehold lot owner at a potentially unregulated rate.

Option 2 – Divert the electrical supply to the Marina – this option involves running new cables from the state electrical supply to a new main switchboard located on the Crown Land lot and supplying the existing distribution boards from the new main switchboard.

The preferred option is:

To divert the power supply from existing so that it is fully contained in the Crown Land lot.

### 2.2.2 Justification for the proposal

The proposal is required to provide better control, operation and management of the power supply to the Brunswick Heads Marina and ensure payments for power supply can be made directly to a chosen electricity retailer.

## 2.3 Statutory and planning framework

### 2.3.1 State Environmental Planning Policy (Transport and Infrastructure) 2021

The State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP (Transport and Infrastructure)) aims to facilitate the effective delivery of infrastructure across the state. This includes roads and road infrastructure facilities, and port, wharf or boating facilities.

Section 2.80 of the SEPP (Transport and Infrastructure) permits development on any land for the purposes of port, wharf or boating facility. As the proposal is appropriately characterised as development for the purposes

of a boating facility, it can be assessed under Division 5.1 of the EP&A Act. Development consent from council is not required.

The proposal is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under:

- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021
- State Environmental Planning Policy (Precincts – Central River City) 2021
- State Environmental Planning Policy (Precincts – Western Parkland City) 2021
- State Environmental Planning Policy (Precincts – Regional) 2021
- State Environmental Planning Policy (Planning Systems) 2021.

## 2.3.2 Other relevant legislation and environmental planning instruments

*Protection of the Environment Operations Act 1997* (POEO Act):

The Act and its regulations set out environmental requirements to prevent pollution, penalties associated with pollution and establishes a duty to notify pollution incidents. It also establishes licencing for scheduled activities. The proposed works would not require licencing under the Act.

*Biosecurity Act 2015:*

Under the latest NSW Biosecurity (Fire Ant) Emergency Order restrictions apply to the movement of fire ant carrier materials. Materials listed in the Emergency Order are considered fire ant carrier materials if they have originated in south east Queensland or in the fire ant movement control areas in NSW. See the latest Emergency Order for details.

*Marine Parks Act 1997:*

This Act establishes marine parks in NSW to conserve marine biological diversity and marine habitats. *Cape Byron Marine Park* has been established between Brunswick Heads, inclusive of the Brunswick River, south to Lennox Head. The proposed works are of a minor nature that is not likely to impact *Cape Byron Marine Park*.

*Coastal Management Act 2016:*

Under this Act public authorities other than Councils are to have regard to coastal management programs to the extent that those programs are relevant to the exercise of their functions. The proposed works are of a minor nature that is not likely to impact *The Coastal Zone Management Plan for Brunswick Estuary*.

*Native Title Act 1994:*

Native title is the recognition that some indigenous people continue to hold rights to their land and waters, which come from their traditional laws and customs. Crown Land and waters adjacent to the Brunswick Heads Marina has Native Title determined over it. Native Title has been extinguished on the Marina land where the works are proposed. An ILUA applies to the overall determination area. The TfNSW ACHO has provided a courtesy notification of the proposed works to the adjacent Native Title holders.

## 2.4 Community engagement and agency consultation

### 2.4.1 SEPP (Transport and Infrastructure) consultation

Part 2.2 of the SEPP (Transport and Infrastructure) contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. This is detailed below:



Table 2-3: Consultation required with Council

Is consultation with Council required under sections 2.10 -2.12 and 2.14 of the SEPP (Transport and Infrastructure)?		
Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of the system?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Will the works involve more than a minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is there a local heritage item (that is not also a state heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the proposal within the coastal vulnerability area and inconsistent with a certified coastal management program applying to that land? Note: See interactive map at <a href="https://www.nsw.gov.au/coastal-management">Coastal management - (nsw.gov.au)</a> . Note the coastal vulnerability area has not yet been mapped. Note: a certified coastal zone management plan is taken to be a certified coastal management program.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are the works located on flood liable land? If so, will the works change flooding patterns to more than a minor extent? Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the Floodplain Development Manual: the management of flood liable land ( <a href="https://www.nsw.gov.au/floodplain-development-manual">nsw.gov.au</a> ).	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>

Table 2-4: Consultation with other public authorities

Is consultation with a public authority (other than Council) required under sections 2.13, 2.15 and 2.16 of the SEPP (Transport and Infrastructure)?		
Are the works located on flood liable land? (to any extent) If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance? Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the <a href="https://www.nsw.gov.au/floodplain-development-manual">Floodplain Development Manual: the management of flood liable land (nsw.gov.au)</a> .	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are the works adjacent to a national park, nature reserve or other area reserved under the <i>National Parks and Wildlife Act 1974</i> , or on land acquired under that Act?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>



Are the works on land in Zone C1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Do the works include a fixed or floating structure in or over navigable waters?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional facility or group home in bush fire prone land?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in clause 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011).	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961</i> ?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are the works on, or reasonably likely to have an impact on, a part of the Willandra Lakes Region World Heritage Property?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are the works within a Western City operational area specified in Schedule 2 of the <i>Western Parkland City Authority Act 2018</i> with a capital value of \$30 million or more?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Table 2-5: Notification of council and occupiers of adjoining land

Do Council and occupiers of adjoining land need to be notified under section 2.111 of the SEPP (Transport and Infrastructure)?		
Does the proposal include a car park intended for the use by commuters using regular bus services?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Does the proposal include a bus depot?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Does the proposal include a permanent road maintenance depot or associated infrastructure, such as garages, sheds, tool houses, storage yards, training facilities and workers amenities?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

## 2.4.2 Other agency and community engagement

The works would require the power to the Marina and the private lot and associated businesses to be switched off for short periods. The stakeholders that would be directly affected would be consulted to determine the most appropriate timing for the power outages and notice would be provided about the dates and times that power would be switched off for all impacted users.

Transport is the Crown Land Manager of the Crown Land lot where the works are proposed. Consultation is ongoing in relation to Crown Lands, and notifications to Crown Lands would be carried out as required in accordance with the Crown Land licensing requirements.

The adjacent Aboriginal Native Title holders, Arakwal, have been notified of the proposed works as a courtesy.

### 3. Environmental assessment

This chapter provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposal. All aspects of the environment potentially impacted upon by the proposal are considered. This includes consideration of the factors specified in s171 of the Environmental Planning and Assessment Regulation 2021.

The matters of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) are also considered in Appendix B. Site-specific safeguards are provided to ameliorate the identified potential impacts.

General safeguards for the proposed works include:

Applies	General
<input checked="" type="checkbox"/>	<b>G1</b> If the scope of the works changes at any time, review the changes under the Transport for NSW <i>Environmental assessment procedure – routine and minor works</i> (EMF-PA-PR-0081) and complete any further requirements prior to carrying out works associated with the changed scope.
<input checked="" type="checkbox"/>	<b>G2</b> An environmental management plan or environmental work method statement will be prepared in accordance with the specifications set out in the QA Specification G36 – <i>Environmental Protection (Management System)</i> and implemented prior to the commencement of works.
<input checked="" type="checkbox"/>	<b>G3</b> No new access tracks will be created for the works.
<input checked="" type="checkbox"/>	<b>G4</b> Parking of vehicles and storage of plant/equipment will only occur on existing paved areas. Where this is not possible, vehicles and plant/equipment will be kept away from environmentally sensitive areas and outside the dripline of trees.

#### 3.1 Soil

Table 3-1: Soil

Description of existing environmental and potential impacts		
<p><b>Are there any known occurrences of salinity or acid sulfate soils in the area?</b></p> <p>Acid sulfate soils are not anticipated. Acid sulfate soil risk mapping on SEED indicates acid sulfate soil is low probability of occurrence at &gt;3m below ground surface at the site and recent geotechnical investigations at &gt;2m depth did not find any acid sulfate soil or potential acid sulfate soil. Excavation would be less than 1m depth, therefore acid sulfate soil is not expected to be excavated on site.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Does the proposal involve the disturbance of large areas (e.g., &gt;2ha) for earthworks?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Does the site have constraints for erosion and sedimentation controls such as steep gradients or narrow corridors?</b></p> <p>The site is relatively flat ground. Erosion and sediment controls would be used to mitigate any impacts from runoff from excavated materials.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Are there any sensitive receiving environments that are located in or nearby the likely proposal area or that would likely receive stormwater discharge from the proposal?</b></p> <p>The proposed works location is adjacent to the Brunswick River and there is the potential for stormwater to runoff the site into the river. The Brunswick River is a sensitive receiving environment as it is within the Cape Byron Marine Park and is a</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

Native Title determined waterway. Measures listed below would be taken to prevent stormwater contaminated with sediments or other contaminants from reaching the river.		
Is there any evidence within or nearby the likely footprint of potential contamination?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the likely proposal footprint in or nearby highly sloping landform?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the proposal likely to result in more than 2.5ha (area) of exposed soil?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Drilling mud may be used for directional drilling. All drilling mud would be contained within a pit at the end of the drilling route and collected by vacuum truck or similar for disposal to a licensed waste facility.		

### Safeguards

Safeguards to be implemented are:

Applies	Erosion and sedimentation	
<input checked="" type="checkbox"/>	E1	<p>Erosion and sediment control measures will be implemented and maintained to:</p> <ul style="list-style-type: none"> <li>prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets</li> <li>reduce water velocity and capture sediment on site</li> <li>minimise the amount of material transported from site to surrounding pavement surfaces</li> <li>divert clean water around the site.</li> </ul> <p>(in accordance with the Landcom/Department of Housing <i>Managing Urban Stormwater, Soils and Construction Guidelines</i> (the Blue Book)).</p>
<input checked="" type="checkbox"/>	E2	Erosion and sedimentation controls will be checked and maintained on a regular basis (including clearing of sediment from behind barriers) and records kept and provided on request.
<input checked="" type="checkbox"/>	E3	Erosion and sediment control measures will not be removed until the works are complete and areas stabilised.
<input checked="" type="checkbox"/>	E4	Work areas will be stabilised progressively during the works.
Applies	Hazard and risk	
<input checked="" type="checkbox"/>	R1	<p>All fuels, chemicals and liquids will be stored in an impervious bunded area as far away as possible from:</p> <ul style="list-style-type: none"> <li>rivers, creeks or any areas of concentrated water flow</li> <li>flooded or poorly drained areas</li> <li>slopes above 10%.</li> </ul>
<input checked="" type="checkbox"/>	R3	Refueling of plant and equipment and storage of hazardous materials will occur within a double-bunded area.
<input checked="" type="checkbox"/>	R4	Cleaning of spray bars (or equivalent equipment) will occur in suitable areas (e.g., not drains) and not cause water pollution.
<input checked="" type="checkbox"/>	R5	Vehicle wash down and/or cement truck washout will occur in a designated bunded area.
<input checked="" type="checkbox"/>	R6	An emergency spill kit will be kept on site at all times and maintained throughout the works. The spill kit must be appropriately sized for the volume of substances at the work site and personnel inducted in its use.

<input checked="" type="checkbox"/>	<b>R7</b>	If an incident (e.g., spill) occurs, the Transport <u>Environmental Incident Procedure</u> (EMF-EM-PR-0001) will be followed and the Transport Contract Manager notified as soon as practicable.
<input checked="" type="checkbox"/>	<b>R8</b>	Emergency contacts will be kept in an easily accessible location on vehicles, plant and site office. All workers will be advised of these contact details and procedures.
<input checked="" type="checkbox"/>	<b>R10</b>	All workers will be advised of the location of the spill kit and trained in its use.
<input checked="" type="checkbox"/>	<b>R11</b>	Vehicles and plant will be properly maintained and regularly inspected for fluid leaks.
<input checked="" type="checkbox"/>	<b>R12</b>	Drilling mud will be contained onsite and collected for removal to a licensed waste facility.

## 3.2 Waterways and water quality

Table 3-2: Waterways and water quality

Description of existing environmental and potential impacts		
<p><b>Is the proposal located within, adjacent to or near a waterway?</b></p> <p>The proposed works are within 50m of the Brunswick Heads Marina on the Brunswick River. The Brunswick River is a sensitive receiving environment as it is within the Cape Byron Marine Park and is a Native Title determined waterway. The site is flat and with the implementation of management measures listed in the section above and below there is a low risk of sediments and spills leaving site and entering the waterway.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p><b>Is the location known to flood or be prone to water logging?</b></p> <p>The location is subject to flooding when the Brunswick River undergoes a major flood event. The proposed works are short term and would be planned to be carried out during a period of forecast dry weather, however a flood management plan would ensure that if flooding does occur the worksite would be prepared.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p><b>Is the proposal located within a regulated catchments covered by chapter 6 of State Environmental Planning Policy (Biodiversity and Conservation) 2021 (SEPP (Biodiversity and Conservation))?</b></p> <p>Note: See maps <a href="#">here</a></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<b>Would the proposal be undertaken on a bridge or ferry?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<b>Is the proposal likely to require the extraction of water from a local water course (not mains)?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Precautions would be made to prevent drilling mud entering the adjacent waterways, such as drilling away from waterways or erecting barriers for mud movement towards the waterway.		

### Safeguards

Safeguards to be implemented are:

Applies	Water quality	
<input checked="" type="checkbox"/>	<b>W1</b>	No dirty water will be released into drainage lines and/or waterways.
<input checked="" type="checkbox"/>	<b>W2</b>	Visual monitoring of local water quality (i.e., turbidity, hydrocarbon spills/slicks) will be undertaken on a regular basis to identify any potential spills or deficient silt curtains or erosion and sediment controls.

<input checked="" type="checkbox"/>	W3	Water quality control measures will be used to prevent any materials (e.g., concrete, grout, sediment etc.) entering drain inlets or waterways.
<input checked="" type="checkbox"/>	W4	Measures to control pollutants from stormwater and spills will be investigated and incorporated in the pavement drainage system at locations where it discharges to receiving drainage lines. Measures aimed at reducing flow rates and potential scour during rain events will be incorporated in the design of the pavement drainage system.
<input checked="" type="checkbox"/>	W5	Excess debris from cleaning and washing will be removed using hand tools.
<input checked="" type="checkbox"/>	W9	Drilling mud will be prevented from entering waterways and built stormwater drainage systems.
<input checked="" type="checkbox"/>	W10	A Flood Management Plan will be prepared for the worksite, inclusive of flood indicators, duration for site demobilisation and the location where site equipment and materials will be moved.

### 3.3 Noise and vibration

Table 3-3: Noise and vibration

Description of existing environmental and potential impacts		
<p><b>Are there any residential properties or other noise sensitive areas near the location of the proposal that may be affected by the work (i.e., church, school, hospital)?</b></p> <p>The closest residential receiver is located approximately 90m from the nearest point of works on Newberry Parade. Residents and holiday makers within the adjacent caravan park are more than 100m from the proposed works. Harbour licensees may also be impacted by the works.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p><b>Is the proposal going to be undertaken only during standard working hours?</b></p> <p>Standard working hours</p> <ul style="list-style-type: none"> <li>Monday-Friday: 7:00am to 6:00pm</li> <li>Saturday: 8:00am to 1:00pm</li> <li>Sunday and Public Holidays: no work</li> </ul>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p><b>Is any explosive blasting required for the proposal?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Would construction noise or vibration from the proposal affect sensitive receivers?</b></p> <p>TfNSW Construction Noise Estimator Tool (Public Transport Infrastructure) has been completed for different scenarios including with and without the use of a concrete saw.</p> <p>If directional drilling is used to install the conduit under the roads and a concrete saw is not used, it was found that the residential receivers would have an exceedance of up to 5dBA above background levels during normal working hours. As such standard safeguards only apply. Any residents within 36m of the works should be notified. It is noted that harbour licensees would be notified of the works in accordance with Safeguard C1 under section 3.9 of this MWREF.</p> <p>If a concrete saw is used, as in the case of trenching across the roadway, then the cumulative noise level from the works is higher and residential receivers would have an exceedance of up to 21dBA above background levels during concrete saw cutting activities in normal working hours. In this case the impacted distance is 225m and there are a number of residential properties and caravan park sites that would require notification of works, as well as harbour licensees. It is noted that a concrete saw would be used for short periods only and it is not anticipated that noise verification monitoring would be required. If complaints are received for ongoing noisy works noise verification monitoring would be undertaken.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>



Would operation of the proposal alter the noise environment for sensitive receivers?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would the proposal result in vibration being experienced by any surrounding properties or infrastructure during operation?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
See Appendix C for the completed TfNSW Construction Noise Estimator Tool (Public Transport Infrastructure).		

### Safeguards

Safeguards to be implemented are:

Applies	Noise and vibration
<input checked="" type="checkbox"/>	<b>N1</b> Works will be carried out during normal work hours (i.e. 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). Any work that is performed outside normal work hours or on Sundays or public holidays must have measures in place to minimise noise impacts.
<input checked="" type="checkbox"/>	<b>N4</b> Behavioural practices will be carried out on site to minimise noise, including no swearing or unnecessary shouting or loud stereos/radios on site, no dropping of materials from height, throwing of metal items and slamming of doors.
<input checked="" type="checkbox"/>	<b>N5</b> The selection and location of equipment will consider noise minimisation, including ensure plant including the silencer is well maintained, use only the necessary size and power, the offset distance between noisy plant and adjacent sensitive receivers is to be maximised, noise-emitting plant to be directed away from sensitive receivers, plant used intermittently to be throttled down or shut down, and only have necessary equipment on site.
<input checked="" type="checkbox"/>	<b>N10</b> If concrete saw cutting for trenching for cable runs across concrete and other paved surfaces is undertaken complete periodic notification (monthly letterbox drop and website notification) detailing all upcoming construction activities delivered to the identified sensitive receivers at least 7 days prior to commencement of relevant works.
<input checked="" type="checkbox"/>	<b>N11</b> All standard mitigation measures as described in Transport's <i>Construction Noise and Vibration Guideline (Public transport infrastructure)</i> (EMF-NV-GD-0060) are to be implemented.

## 3.4 Air quality

Table 3-4: Air quality

Description of existing environmental and potential impacts		
Is the proposal likely to result in large areas (>2ha) of exposed soils?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Are there any dust-sensitive receivers located within the vicinity of the proposal during the construction period? Users of the Brunswick Heads Marina would be sensitive to any dust generated during the works.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is there likely to be an emission to air during construction? Earthworks and plant and equipment would create emissions to air, but measures would be taken to minimise the amount of emissions and they are not likely to have a significant impact.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

### Safeguards

Safeguards to be implemented are:

Applies	Air quality	
<input checked="" type="checkbox"/>	A1	Measures (including watering or covering exposed areas) will be used to minimise or prevent air pollution and dust.
<input checked="" type="checkbox"/>	A2	Works (including the spraying of paint and other materials) will not be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.
<input checked="" type="checkbox"/>	A3	Vegetation or other materials will not to be burnt on site.
<input checked="" type="checkbox"/>	A4	Vehicles transporting waste or other materials that may produce odours or dust will be covered during transportation.
<input checked="" type="checkbox"/>	A5	Stockpiles or areas that may generate dust will be managed to suppress dust emissions in accordance with the <i>Transport Stockpile Site Management Guideline</i> (EMS-TG-10).

### 3.5 Aboriginal cultural heritage

Table 3-5: Aboriginal cultural heritage

Description of existing environmental and potential impacts		
<p>Would the proposal involve disturbance in any area that has not been subject to previous ground disturbances?</p> <p>The location of the proposed works is likely to have been disturbed in the past, as the cable route follows existing infrastructure.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p>Has an online Aboriginal Heritage Information Management System (AHIMS) search been completed?</p> <p>An AHIMS basic search has been completed and no Aboriginal sites or Aboriginal places have been recorded in or near the proposed work location. The search results are contained in Appendix D.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p>Is there potential for the proposal to impact on any items of Aboriginal cultural heritage?</p> <p>Given the previous history of disturbance at the site, it is unlikely that the proposed works would impact on any items of Aboriginal cultural heritage.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p>Would the proposal involve the removal of mature native trees?</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p>Is the proposal consistent with the requirements of Transport's <i>Procedure for Aboriginal cultural heritage consultation and investigation</i> (PACHCI)?</p> <p>The PACHCI has been followed and the outcome is contained in Appendix D.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p>Crown Land adjacent to the Marina has Native Title determined over it. Native Title has been extinguished on the Marina land where the works are proposed. The TfNSW ACHO has provided courtesy notification of the proposed works to the adjacent Native Title holders.</p>		

#### Safeguards

Safeguards to be implemented are:

Applies	Aboriginal heritage
<input checked="" type="checkbox"/>	<b>B1</b> If Aboriginal heritage items are uncovered during the works, all works in the vicinity of the find must cease and the Transport Aboriginal cultural heritage officer and Senior Manager Environment and Sustainability contacted immediately. Refer to steps in the Transport <i>Unexpected heritage items procedure</i> (EMF-HE-PR-0076) which must be followed.

### 3.6 Non-Aboriginal heritage

Table 3-6: Non-Aboriginal heritage

Description of existing environmental and potential impacts		
Have online heritage database searches been completed? <ul style="list-style-type: none"> <li>Transport (including legacy Roads and Maritime) section 170 register</li> <li>NSW Heritage database</li> <li>Commonwealth Heritage List, established under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)</li> <li>Australian Heritage Places Inventory</li> <li>Local Environmental Plan(s) heritage items.</li> </ul> The results are contained in Appendix E.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Are there any items of non-Aboriginal heritage or heritage conservation areas listed on relevant heritage databases/registers that are located within the vicinity of the proposal?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the proposal likely to impact trees that form part of a heritage listing or have other heritage value?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the proposal likely to occur in or near features that indicate potential archaeological remains?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

#### Safeguards

Safeguards to be implemented are:

Applies	Non-Aboriginal heritage
<input checked="" type="checkbox"/>	<b>H2</b> If unexpected heritage items are uncovered during the works, all works must cease in the vicinity of the material/find and the steps in the Transport <i>Unexpected heritage items procedure</i> (EMF-HE-PR-0076) must be followed.

### 3.7 Biodiversity

Table 3-7: Biodiversity

Description of existing environmental and potential impacts		
Have relevant database searches been carried out? <p>Database searches have been carried out for the following:</p> <ul style="list-style-type: none"> <li>BioNet threatened species records within the locality (e.g. 10km radius)</li> <li>Commonwealth EPBC Act Protected Matters Search Tool (PMST)</li> </ul> Results of the searches are contained in Appendix F.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

<p><b>Did the database searches identify any endangered ecological communities, threatened flora and/or threatened or protected fauna, or migratory species in or within the vicinity of the proposed works? Both Commonwealth and State listed matters must be considered.</b></p> <p>The results listed a large number of endangered ecological communities, threatened species and migratory species that have been found or may have suitable habitat in the vicinity of the works.</p> <p>The works are proposed to be carried out in disturbed areas only, which are cleared and grassed or paved for roads and pathways. There are no trees or shrubs proposed to be removed. The results do not indicate any species that would be impacted by the proposed works in the disturbed location and as the proposed works are of a minor nature no impacts to flora or fauna are expected.</p> <p>Street lighting within the Marina is proposed to be replaced and it is proposed to ensure that the lighting is like for like. Three poles would be placed directly opposite the existing poles on the opposite side of the roadway in order to move the street lighting out of the private lot and into the Crown Land lot. The lighting would be directional and shielded to prevent light spill beyond the current lighting envelope. As such the changes proposed to the lighting would not increase the potential risks to wildlife within the vicinity of the Brunswick Heads Marina.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p><b>Does the proposal involve pruning, trimming or removal of any tree/s?</b></p> <p>Pruning is not planned to be carried out as part of the proposal, however if any pruning of mature trees is required for machinery access, a safeguard for pruning of mature trees has been included below to minimise impacts to the tree.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Is the proposal likely to impact nationally listed threatened species, ecological communities or migratory species?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Would the proposal require the removal of any other vegetation?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Would the proposal require the removal of any tree hollows?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Are there any known areas of outstanding biodiversity value or areas mapped as 'littoral rainforest' or 'coastal wetland' under chapter 2 of SEPP (Resilience and Hazards) in or within the vicinity of the proposed work?</b></p> <p>The proposed works are not within coastal wetlands or littoral rainforests or proximity area for coastal wetlands or littoral rainforests, although these areas do occur in other parts of the Brunswick River.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Would the proposal provide any additional barriers to the movement of wildlife?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Would the proposal disturb any natural waterways or aquatic habitat?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Would the proposal impact (directly or indirectly) any potential microbat roosting or breeding habitat such as on bridges and culverts?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

### Safeguards

Safeguards to be implemented are:

Applies	Biodiversity	
<input checked="" type="checkbox"/>	<b>F1</b>	There will be no disturbance or damage to threatened species or areas of outstanding biodiversity value.
<input checked="" type="checkbox"/>	<b>F2</b>	Works will not harm threatened fauna (including where they inhabit bridges or other structures e.g., timber fence posts or maritime piles).

Applies	Biodiversity	
<input checked="" type="checkbox"/>	<b>F5</b>	If threatened fauna or flora species are discovered unexpectedly, stop works immediately and follow the Transport <i>Unexpected Threatened Species Find Procedure</i> contained in the Transport <i>Biodiversity Guidelines – Guide 1 (Pre-clearing process)</i> (EMF-BD-GD-0032).
<input checked="" type="checkbox"/>	<b>F10</b>	Fauna handling must be carried out in accordance with Transport <i>Biodiversity Guidelines - Guide 9 (Fauna Handling)</i> (EMF-BD-GD-0032).
<input checked="" type="checkbox"/>	<b>F11</b>	Works will not create an ongoing barrier to the movement of wildlife.
<input checked="" type="checkbox"/>	<b>F12</b>	Pruning of mature trees will be in accordance with Part 5 of the Australian Standard 4373-2007 <i>Pruning of amenity trees</i> .
<input checked="" type="checkbox"/>	<b>F20</b>	All plant must be brought to site clean and free from pests and diseases and to reduce the risk of importing Red Imported Fire Ants to the worksite all works must be carried out in accordance with the requirements of the NSW <i>Biosecurity (Fire Ant) Emergency Order</i> and page 48 of Transport's <i>Biodiversity Management Guideline</i> (EMF-BD-GD-0039).

## 3.8 Traffic and transport

Table 3-8: Traffic and transport

Description of existing environmental and potential impacts		
Is the proposal likely to result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during construction?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Minor interruptions to access in the Marina carpark may occur if the proposed trench is excavated across the roadway. Diversions and measures would be put in place to ensure access is available at all times to all parts of the Marina.		
Is the proposal likely to result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the proposal likely to affect any other transport nodes or transport infrastructure (e.g., bus stops, bus routes) in the surrounding area? Or result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

### Safeguards

Safeguards to be implemented are:

Applies	Traffic	
<input checked="" type="checkbox"/>	<b>T1</b>	Where possible, current traffic movements and marina accesses will be maintained during the works. Any disturbance will be minimised. If access is temporarily removed stakeholders will be notified prior and alternative access arranged.
<input checked="" type="checkbox"/>	<b>T2</b>	Where possible, public accesses to the waterway and foreshore are to be maintained during works. Any disturbance is to be minimised as much as practicable. If access is temporarily removed stakeholders will be notified prior and alternative access arranged.



## 3.9 Socio-economic

Table 3-9: Socio-economic

Description of existing environmental and potential impacts		
<p><b>Is the proposal likely to impact on local business?</b></p> <p>There are several small businesses located in the Brunswick Heads Marina precinct. When the power is being switched over to the new circuit these businesses would lose power supply for a short period. Consultation will be undertaken with these businesses to minimise impacts to them.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p><b>Is the proposal likely to require any property acquisition?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Is the proposal likely to alter any access for properties (either temporarily or permanently)?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Is the proposal likely to alter any on-street parking arrangements (either temporarily or permanently)?</b></p> <p>Parking spaces in the Marina would be impacted for short periods where the cable route passes through car parking, however the Marina operations would ensure that parking is available throughout the works wherever possible.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Is the proposal likely to change pedestrian movements or pedestrian access (either temporarily or permanently)?</b></p> <p>Minor temporary diversions would be put in place within the Marina during the works,</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Is the proposal likely to impact on any items or places of social value to the community (either temporarily or permanently)?</b></p> <p>A small section of the grassed area adjacent to the Brunswick Heads Marina within the Marina precinct would be temporarily unavailable during the works. The location has been chosen as it is out-of-the way behind the Marine Rescue sheds and the impact is not considered significant.</p>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<p><b>Is the proposal likely to reduce or change visibility of any businesses, farms, tourist attractions or the like (either temporarily or permanently)?</b></p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p><b>Is the proposal likely to impact trees planted by a community group, Landcare group or by council or a tree that is a memorial or part of a memorial group e.g., has a plaque?</b></p> <p>A memorial is located within the Marina close to the proposed works, however this memorial would be avoided.</p> <p>Photo of Brunswick Heads Marina memorial:</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>



Is the proposal likely to impact trees that form part of a streetscape, an avenue or roadside planting?

Yes ☐

No ☒

### Safeguards

Safeguards to be implemented are:

Applies	Community consultation
<input checked="" type="checkbox"/>	<b>C1</b> Notification will be given to affected community members prior to the works taking place. The notification is to include: <ul style="list-style-type: none"> <li>• details of the proposal</li> <li>• duration of works and working hours</li> <li>• changed traffic or access arrangements</li> <li>• how to lodge a complaint or obtain more information</li> <li>• contact name and details.</li> </ul> Notification should be a minimum of 7 calendar days prior to the start of works.
<input checked="" type="checkbox"/>	<b>C2</b> All complaints will be recorded on a complaints register and attended to promptly.
<input checked="" type="checkbox"/>	<b>C3</b> Existing access for nearby and adjoining properties is to be maintained at all times during the works unless otherwise agreed to by the affected property owner.
<input checked="" type="checkbox"/>	<b>C5</b> All stakeholders affected by power shut downs will be consulted prior the works to determine and agree the dates and times for the shut downs that have the least impact on the stakeholders, and the power shut downs will be held in accordance with these agreed dates and times.
<input checked="" type="checkbox"/>	<b>C6</b> The memorial dedicated to the prawn trawlermen of Brunswick Heads will be protected throughout the works.
<input checked="" type="checkbox"/>	<b>C7</b> The number of parking spaces impacted by the works at any one time within the Marina will be minimised as much as possible.

### 3.10 Landscape character and visual amenity

Table 3-10: Landscape character and visual amenity

Description of existing environmental and potential impacts		
Is the proposed work over or near an important physical or cultural element or landscape? (For example, heritage items and areas, distinctive or historic built form, National Parks, conservation areas, scenic highways etc.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would the proposal obstruct or intrude upon the character or views of a valued landscape or urban area? (For example, locally significant topography, a rural landscape or a park, a river, lake or the ocean or a historic or distinctive townscape or landmark)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would the proposal require the removal of mature trees or stands of vegetation, either native or introduced?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would the proposal result in large areas of shotcrete visible from the road or adjacent properties?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would the proposal involve new noise walls or visible changes to existing noise walls?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would the proposal involve the removal or reuse of large areas of road corridor, landscape, either verges or medians?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would the proposal involve substantial changes to the appearance of a bridge (including piers, girders, abutments and parapets) that are visible from the road or residential areas?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p>If involving lighting, would the proposal create unwanted light spillage on residential properties at night (in construction or operation)?</p> <p>Existing street lighting at the vehicle entrance to the Brunswick Heads marina and at three locations along the marina roadway adjacent to the private lot would be replaced with new light poles and solar powered LED streetlights. The new lights would replace the existing streetlights, with minor modifications to move the poles from one side of the roadway to the opposite side of the road so that the infrastructure is located within the Crown Land lot rather than the private lot. The lighting is proposed to be replaced like-for-like. The lighting would be directed to the roadway and shielded to prevent light spillage. There are no residential dwellings within the vicinity of the proposed lights and it is not expected that there would be any additional impact from the new LED lights compared with the existing streetlights.</p>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Would any new structures or features to be constructed, result in over shadowing to adjoining properties or areas?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

#### Safeguards

There are no additional safeguards for Landscape Character and Visual Amenity.

### 3.11 Waste

Table 3-11: Waste

Description of existing environmental and potential impacts		
Is the proposal likely to generate >200 tonnes of waste material (contaminated and /or non-contaminated material)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the proposal likely to require a licence from EPA?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the proposal likely to require the removal of asbestos?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<p>The proposal would generate some general construction waste from conduit off cuts, concrete washout, packaging and materials, this would be disposed of to a licenced waste facility. Any extra cable, rinsed containers and other recyclables would be reused or recycled. Earthworks materials would generally be reused and any excess be spread on grassed areas adjacent to the compound site and stabilised. If there is significant unsuitable material this would be disposed of to a licenced waste facility.</p> <p>Drilling mud would be collected by vacuum truck and disposed of to a licenced waste facility.</p>		

#### Safeguards

Safeguards to be implemented are:

Applies	Waste management	
<input checked="" type="checkbox"/>	<b>M1</b>	A Waste Management Plan will be prepared that follows the Transport <i>Waste management guideline</i> (EMF-WM-GD-0055).
<input checked="" type="checkbox"/>	<b>M3</b>	<p>Resource management hierarchy principles will be followed:</p> <ul style="list-style-type: none"> <li>avoid unnecessary resource consumption as a priority</li> <li>avoidance is followed by resource recovery (including reuse of materials, reprocessing, recycling and energy recovery)</li> <li>disposal is undertaken as a last resort.</li> </ul> <p>(in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i>).</p>
<input checked="" type="checkbox"/>	<b>M7</b>	There is to be no disposal or re-use of construction waste on to other land (except for EPA licensed waste facilities).
<input checked="" type="checkbox"/>	<b>M8</b>	Waste is not to be burnt on site.
<input checked="" type="checkbox"/>	<b>M9</b>	Waste material is not to be left on site once the works have been completed.
<input checked="" type="checkbox"/>	<b>M10</b>	Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.
<input checked="" type="checkbox"/>	<b>M20</b>	Drilling mud would be collected by vacuum truck and disposed of at a licensed waste facility.

3.12 Climate change and greenhouse gas emissions

Table 3-12: Climate change and greenhouse gas emissions

Description of existing environmental and potential impacts		
Is the proposal located in an area likely to be permanently or tidally inundated in the future or subject to increased duration and intensity of flooding?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Have opportunities for reduced energy consumption during construction and operation been considered.  If yes, summarise actions taken e.g., material selection, local suppliers and construction staff, etc.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Greenhouse gas emissions sources during construction are likely to be largest from: <ul style="list-style-type: none"><li>• Operation of plant and equipment on site.</li><li>• Travel to and from the worksite.</li></ul>		
Where possible plant and equipment would be sourced from electrical fleet.		

Safeguards

There are no additional safeguards for Climate Change and Greenhouse Gas Emissions.

3.13 Cumulative impact

Table 3-13: Cumulative impact

Description of existing environmental and potential impacts		
Are there other projects and developments in the study area which could add to potential impacts in both construction and operation?  The electrical diversion is occurring as a standalone project within the Brunswick Heads Marina. There has been a proposal to upgrade the Marina, however this proposal is not occurring at this time and no other works are known to be occurring at the same time.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Safeguards

There are no additional safeguards for Cumulative Impact.



## 4. Summary of safeguards and environmental management measures

### 4.1 Safeguards and environmental management measures

This section provides a summary of the site-specific environmental safeguards and management measures identified in described in chapter 3 of this minor works REF. These safeguards will be implemented to reduce potential environmental impacts throughout construction and operation. A framework for managing the potential impacts is provided with reference to environmental management plans and relevant Transport QA specifications. Any potential licence and/or approval requirements required prior to construction are also listed.

Table 4-1: Summary of site-specific safeguards for proposed work

Factor	Safeguards
General	<b>G1</b> If the scope of the works changes at any time, review the changes under the Transport for NSW <i>Environmental assessment procedure – routine and minor works</i> (EMF-PA-PR-0081) and complete any further requirements prior to carrying out works associated with the changed scope.
	<b>G2</b> An environmental management plan or environmental work method statement will be prepared in accordance with the specifications set out in the QA Specification G36 – <i>Environmental Protection (Management System)</i> and implemented prior to the commencement of works.
	<b>G3</b> No new access tracks will be created for the works.
	<b>G4</b> Parking of vehicles and storage of plant/equipment will only occur on existing paved areas. Where this is not possible, vehicles and plant/equipment will be kept away from environmentally sensitive areas and outside the dripline of trees.
Erosion and Sedimentation	<b>E1</b> Erosion and sediment control measures will be implemented and maintained to: <ul style="list-style-type: none"> <li>prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets</li> <li>reduce water velocity and capture sediment on site</li> <li>minimise the amount of material transported from site to surrounding pavement surfaces</li> <li>divert clean water around the site.</li> </ul> (in accordance with the Landcom/Department of Housing <i>Managing Urban Stormwater, Soils and Construction Guidelines</i> (the Blue Book)).
	<b>E2</b> Erosion and sedimentation controls will be checked and maintained on a regular basis (including clearing of sediment from behind barriers) and records kept and provided on request.
	<b>E3</b> Erosion and sediment control measures will not be removed until the works are complete and areas stabilised.
	<b>E4</b> Work areas will be stabilised progressively during the works.
Hazard and Risk	<b>R1</b> All fuels, chemicals and liquids will be stored in an impervious bunded area as far away as possible from: <ul style="list-style-type: none"> <li>rivers, creeks or any areas of concentrated water flow</li> <li>flooded or poorly drained areas</li> </ul> slopes above 10%.

	R3	Refueling of plant and equipment and storage of hazardous materials will occur within a double-bunded area.
	R4	Cleaning of spray bars (or equivalent equipment) will occur in suitable areas (e.g., not drains) and not cause water pollution.
	R5	Vehicle wash down and/or cement truck washout will occur in a designated bunded area.
	R6	An emergency spill kit will be kept on site at all times and maintained throughout the works. The spill kit must be appropriately sized for the volume of substances at the work site and personnel inducted in its use.
	R7	If an incident (e.g., spill) occurs, the Transport <u>Environmental Incident Procedure</u> (EMF-EM-PR-0001) will be followed and the Transport Contract Manager notified as soon as practicable.
	R8	Emergency contacts will be kept in an easily accessible location on vehicles, plant and site office. All workers will be advised of these contact details and procedures.
	R10	All workers will be advised of the location of the spill kit and trained in its use.
	R11	Vehicles and plant will be properly maintained and regularly inspected for fluid leaks.
	R12	Drilling mud will be contained onsite and collected for removal to a licensed waste facility.
	W1	No dirty water will be released into drainage lines and/or waterways.
	W2	Visual monitoring of local water quality (i.e., turbidity, hydrocarbon spills/slicks) will be undertaken on a regular basis to identify any potential spills or deficient silt curtains or erosion and sediment controls.
	W3	Water quality control measures will be used to prevent any materials (e.g., concrete, grout, sediment etc.) entering drain inlets or waterways.
Waterways and Water Quality	W4	Measures to control pollutants from stormwater and spills will be investigated and incorporated in the pavement drainage system at locations where it discharges to receiving drainage lines. Measures aimed at reducing flow rates and potential scour during rain events will be incorporated in the design of the pavement drainage system.
	W5	Excess debris from cleaning and washing will be removed using hand tools.
	W9	Drilling mud will be prevented from entering waterways and built stormwater drainage systems.
	W10	A Flood Management Plan will be prepared for the worksite, inclusive of flood indicators, duration for site demobilisation and the location where site equipment and materials will be moved.
Noise and Vibration	N1	Works will be carried out during normal work hours (i.e. 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). Any work that is performed outside normal work hours or on Sundays or public holidays must have measures in place to minimise noise impacts.
	N4	Behavioural practices will be carried out on site to minimise noise, including no swearing or unnecessary shouting or loud stereos/radios on site, no dropping of materials from height, throwing of metal items and slamming of doors.

Air Quality	N5	The selection and location of equipment will consider noise minimisation, including ensure plant including the silencer is well maintained, use only the necessary size and power, the offset distance between noisy plant and adjacent sensitive receivers is to be maximised, noise-emitting plant to be directed away from sensitive receivers, plant used intermittently to be throttled down or shut down, and only have necessary equipment on site.
	N10	If concrete saw cutting for trenching for cable runs across concrete and other paved surfaces is undertaken complete periodic notification (monthly letterbox drop and website notification) detailing all upcoming construction activities delivered to the identified sensitive receivers at least 7 days prior to commencement of relevant works.
	N11	All standard mitigation measures as described in Transport's <i>Construction Noise and Vibration Guideline (Public transport infrastructure)</i> (EMF-NV-GD-0060) are to be implemented.
	A1	Measures (including watering or covering exposed areas) will be used to minimise or prevent air pollution and dust.
	A2	Works (including the spraying of paint and other materials) will not be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.
	A3	Vegetation or other materials will not to be burnt on site.
	A4	Vehicles transporting waste or other materials that may produce odours or dust will be covered during transportation.
	A5	Stockpiles or areas that may generate dust will be managed to suppress dust emissions in accordance with the Transport <i>Stockpile Site Management Guideline</i> (EMS-TG-10).
Aboriginal Cultural Heritage	B1	If Aboriginal heritage items are uncovered during the works, all works in the vicinity of the find must cease and the Transport Aboriginal cultural heritage officer and Senior Manager Environment and Sustainability contacted immediately. Refer to steps in the Transport <i>Unexpected heritage items procedure</i> (EMF-HE-PR-0076) which must be followed.
Non-Aboriginal Heritage	H2	If unexpected heritage items are uncovered during the works, all works must cease in the vicinity of the material/find and the steps in the Transport <i>Unexpected heritage items procedure</i> (EMF-HE-PR-0076) must be followed.
Biodiversity	F1	There will be no disturbance or damage to threatened species or areas of outstanding biodiversity value.
	F2	Works will not harm threatened fauna (including where they inhabit bridges or other structures e.g., timber fence posts or maritime piles).
	F5	If threatened fauna or flora species are discovered unexpectedly, stop works immediately and follow the Transport <i>Unexpected Threatened Species Find Procedure</i> contained in the Transport <i>Biodiversity Guidelines – Guide 1 (Pre-clearing process)</i> (EMF-BD-GD-0032).
	F10	Fauna handling must be carried out in accordance with Transport <i>Biodiversity Guidelines - Guide 9 (Fauna Handling)</i> (EMF-BD-GD-0032).
	F11	Works will not create an ongoing barrier to the movement of wildlife.
	F12	Pruning of mature trees will be in accordance with Part 5 of the Australian Standard 4373-2007 <i>Pruning of amenity trees</i> .

	<b>F20</b>	All plant must be brought to site clean and free from pests and diseases and to reduce the risk of importing Red Imported Fire Ants to the worksite all works must be carried out in accordance with the requirements of the NSW <i>Biosecurity (Fire Ant) Emergency Order</i> and page 48 of Transport's <i>Biodiversity Management Guideline</i> (EMF-BD-GD-0039).
<b>Traffic and Transport</b>	<b>T1</b>	Where possible, current traffic movements and marina accesses will be maintained during the works. Any disturbance will be minimised. If access is temporarily removed stakeholders will be notified prior and alternative access arranged.
	<b>T2</b>	Where possible, public accesses to the waterway and foreshore are to be maintained during works. Any disturbance is to be minimised as much as practicable. If access is temporarily removed stakeholders will be notified prior and alternative access arranged.
<b>Socio-economic</b>	<b>C1</b>	Notification will be given to affected community members prior to the works taking place. The notification is to include: <ul style="list-style-type: none"> <li>• details of the proposal</li> <li>• duration of works and working hours</li> <li>• changed traffic or access arrangements</li> <li>• how to lodge a complaint or obtain more information</li> <li>• contact name and details.</li> </ul> Notification should be a minimum of 7 calendar days prior to the start of works.
	<b>C2</b>	All complaints will be recorded on a complaints register and attended to promptly.
	<b>C3</b>	Existing access for nearby and adjoining properties is to be maintained at all times during the works unless otherwise agreed to by the affected property owner.
	<b>C5</b>	All stakeholders affected by power shut downs will be consulted prior the works to determine and agree the dates and times for the shut downs that have the least impact on the stakeholders, and the power shut downs will be held in accordance with these agreed dates and times.
	<b>C6</b>	The memorial dedicated to the prawn trawlermen of Brunswick Heads will be protected throughout the works.
	<b>C7</b>	The number of parking spaces impacted by the works at any one time within the Marina will be minimised as much as possible.
	<b>M1</b>	A Waste Management Plan will be prepared that follows the Transport <i>Waste management guideline</i> (EMF-WM-GD-0055).
<b>Waste</b>	<b>M3</b>	Resource management hierarchy principles will be followed: <ul style="list-style-type: none"> <li>• avoid unnecessary resource consumption as a priority</li> <li>• avoidance is followed by resource recovery (including reuse of materials, reprocessing, recycling and energy recovery)</li> <li>• disposal is undertaken as a last resort.</li> </ul> (in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i> ).
	<b>M7</b>	There is to be no disposal or re-use of construction waste on to other land (except for EPA licensed waste facilities).
	<b>M8</b>	Waste is not to be burnt on site.
	<b>M9</b>	Waste material is not to be left on site once the works have been completed.

	<b>M10</b>	Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.
	<b>M20</b>	Drilling mud would be collected by vacuum truck and disposed of at a licensed waste facility.

## 4.2 Licensing and approvals

A power connection application is required through Essential Energy. Essential Energy is being consulted directly and has separately assessed the connection offsite.

The NSW department of Crown Land would be notified of the works prior to commencement.

No other environmental licensing or approvals are required for the proposed works.

## 4.3 Other requirements

Table 4-2: Other requirements


Requirement		
Environmental management plan sent to SMES or their delegate (ESL) for review.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

## 5. Certification, review and determination

### 5.1 Certification

This minor works REF provides a true and fair review of the proposal in relation to its potential effects on the environment. It addresses, to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the proposal.

**Prepared by:**

Signature 

Name: Millie Plowman

Position: Senior Environment & Sustainability Officer

Company name: Transport for NSW

Date:

**Minor works REF reviewed by:**

Signature 

Name: ~~Brett Fletcher~~ Daniel Cini

Position: Project Manager

Company name: Transport for NSW

Date: 3.10.24



## 5.2 Environment and sustainability staff review

The minor works REF has been reviewed and considered against the requirements of sections 5.5 and 5.7 of the EP&A Act.

In considering the proposal this assessment has examined and taken into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of that activity as addressed in the minor works REF and associated information. This assessment is considered to be in accordance with the factors required to be considered under section 171 of the Environmental Planning and Assessment Regulation 2021.

The proposal described in this minor works REF will have some environmental impacts which can be ameliorated satisfactorily. Having regard to the safeguards and management measures proposed, this assessment has considered that these impacts are unlikely to be significant and therefore an approval for the proposal does not need to be sought under Division 5.2 of the EP&A Act.

The assessment has considered the potential impacts of the activity on areas of outstanding value and on threatened species, ecological communities or their habitats for both terrestrial and aquatic species as defined by the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994*.

The proposal described in the minor works REF will not affect areas of outstanding value. The activity described in the minor works REF will not significantly affect threatened species ecological communities or their habitats. Therefore, a species impact statement is not required.

The assessment has also addressed the potential impacts of the activity on matters of national environmental significance and any impacts on the environment of Commonwealth land and concluded that there will be no significant impacts. Therefore, there is no need for a referral to be made to the Australian Government Department of Climate Change, Energy, the Environment and Water for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the *Environment Protection and Biodiversity Conservation Act 1999*.

The minor works REF is considered to meet all relevant requirements.

## 5.3 Environment and Sustainability staff recommendation

It is recommended that the proposal to divert the electricity supply at Brunswick Heads Marina as described in this minor works REF proceed subject to the implementation of all safeguards identified in the minor works REF and compliance with all other relevant statutory approvals, licences, permits and authorisations.

The minor works REF has examined and taken into account to the fullest extent possible all matters likely to affect the environment by reason of the activity in accordance with the EP&A Act, EP&A Regulation and the Guidelines approved under clause 170 of the EP&A Regulation. The minor works REF has established that the activity is not likely to significantly affect the environment or threatened species, ecological communities or their habitats.

The minor works REF has concluded that there will be no significant impacts on matters of national environmental significance or any impacts on the environment of Commonwealth land.

If the proposal has not commenced within two years of the determination date the SMES must be consulted to identify any new or updated assessment or approval requirements.

### Recommended by:

Signature *Kate Dallimore*

Name: Kate Dallimore

Position: Senior Environment & Sustainability Officer

Date:

### Noted by:

Signature *Daniel P Cini*

Name: Daniel Cini

Position: Project Manager

Date: 3.10.24

5.4 Decision statement

In accordance with the above recommendation, I certify that I have reviewed and endorsed the contents of this minor works REF, and to the best of my knowledge, it is in accordance with the EP&A Act, the EP&A Regulation and the Guidelines approved under Section 170 of the EP&A Regulation, and the information is neither false nor misleading.

I determine that Transport for NSW may:

- proceed with the activity

Signature *D S Walker*  
Name: ~~Nicole Watts~~ Doug Walker

Position: Acting Director Maritime Infrastructure Delivery Office

Date: 3/10/24

5.5 EP&A Regulation publication requirement

Table 5-1: EP&A Regulation publication requirement

Requirement		
Does this minor works REF need to be published under section 171(4) of the EP&A Regulation?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

## Appendix A: Photographs of the Proposal

Photograph 1 –location of connection to pole, new infrastructure would be run under road and through grassed area in foreground of photograph



Photograph 2 –new infrastructure would run through grassed area and cross the road avoiding mature trees





Photograph 3 –site of proposed new main switchboard in the grassed area, avoiding existing trees



Photograph 4 –new infrastructure would cross roadway to service the existing distribution boards, avoiding existing car-parking where possible



Photograph 5 –existing infrastructure under the car-parking would be utilised to connect the northern-most distribution board



Photograph 6 –new infrastructure would be run to the southern-most distribution board in the Marina under the roadway





## Appendix B: Consideration of State and Commonwealth environmental factors

### Environmental Planning and Assessment Regulation 2021 section 171(2) factors

The following factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have been considered to assess the likely impacts of the proposal on the natural and built environment. This consideration is required to comply with sections 5.5 and 5.7 of the EP&A Act.

**Table A1: Consideration of section 171 of the EP&A Regulation factors**

Factor	Description of impact	Duration and extent
a) Environmental impact on the community.	<ul style="list-style-type: none"> <li>The construction phase would have a minor impact on the local businesses inside the Marina precinct and the Marina users when the power is off for short periods. The impact would be minimised through consultation.</li> </ul>	Short-term negative
b) The transformation of the locality.	<ul style="list-style-type: none"> <li>The power supply would be diverted away from private property to the Marina facilities only. This would minimise the number of parties involved in the power supply to the Marina and alleviate management requirements for the private property.</li> </ul>	Long term positive
c) Any environmental impact on the ecosystems of the locality.	<ul style="list-style-type: none"> <li>There is not likely to be any impact to the ecosystems of the locality.</li> </ul>	Nil
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality.	<ul style="list-style-type: none"> <li>As the works are minor and short term there is not likely to be any impact to the aesthetic, recreational, scientific or other environmental quality or value of the locality.</li> </ul>	Nil
e) Any effect on any locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations.	<ul style="list-style-type: none"> <li>There is not likely to be any impact to the locality, place or a building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations.</li> </ul>	Nil
f) Any impact on the habitat of protected fauna (within the meaning of the Biodiversity and Conservation Act 2016).	<ul style="list-style-type: none"> <li>There is not likely to be any impact to the habitat of protected fauna at the locality.</li> </ul>	Nil



Factor	Description of impact	Duration and extent
g) Any endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air.	<ul style="list-style-type: none"> <li>There is not likely to be any endangering of a species of animal, plant or other form of life from the proposed works.</li> </ul>	Nil
h) Any long-term effects on the environment	<ul style="list-style-type: none"> <li>The works are minor and short term and it is not anticipated that there would be any long-term effects on the environment.</li> </ul>	Nil
i) Any degradation of the quality of the environment.	<ul style="list-style-type: none"> <li>With implementation of the safeguards in this MWREF it is not likely that there would be any degradation of the quality of the environment.</li> </ul>	Nil
j) Any risk to the safety of the environment.	<ul style="list-style-type: none"> <li>With the implementation of the safeguards in this MWREF it is not likely that there would be any risk to the safety of the environment from the proposed works.</li> </ul>	Nil
k) Any reduction in the range of beneficial uses of the environment.	<ul style="list-style-type: none"> <li>The works are proposed in a highly disturbed location, it is not likely that there would be any reduction in the range of beneficial uses of the environment in this location.</li> </ul>	Nil
l) Any pollution of the environment.	<ul style="list-style-type: none"> <li>With the implementation of the safeguards in this MWREF it is not likely that there would be any pollution of the environment.</li> </ul>	Nil
m) Any environmental problems associated with the disposal of waste	<ul style="list-style-type: none"> <li>Waste would be disposed of to licenced waste facilities.</li> </ul>	Nil
n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply.	<ul style="list-style-type: none"> <li>New cable would be required to divert the power supply through the Marina lot. Copper is a finite resource, however the small amount of copper required is not likely to increase demand on the resource such that it becomes in short supply.</li> </ul>	Nil
o) The cumulative environmental effect with other existing or likely future activities.	<ul style="list-style-type: none"> <li>The proposed works are minor and short term and are not likely to have a cumulative environmental effect with other future projects.</li> </ul>	Nil
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions.	<ul style="list-style-type: none"> <li>The proposed works would be carried out at an existing Marina facility. The works would not impact on coastal processes or coastal hazards however over the long term there may be alterations required to the power supply from changes to sea level, which may require overall changes to the Marina itself.</li> </ul>	Nil
q) Applicable local strategic planning statements, regional strategic plans or district strategic	<ul style="list-style-type: none"> <li>None apply specifically to the proposed works.</li> </ul>	Nil

Factor	Description of impact	Duration and extent
plans made under the Act, Division 3.1		
r) Other relevant environmental factors		Nil

#### Matters of National Environmental Significance

Table A2: Matters of national environmental significance

Environmental factor	Impact
a) Any impact on a World Heritage property?	Nil
b) Any impact on a National Heritage place?	Nil
c) Any impact on a wetland of international importance (often called 'Ramsar' wetlands)?	Nil
d) Any impact on nationally threatened species, ecological communities or migratory species?	Nil
e) Any impact on a Commonwealth marine area?	Nil
f) Does the proposal involve a nuclear action (including uranium mining)?	Nil
Additionally, any impact (direct or indirect) on the environment of Commonwealth land?	Nil

# Appendix C: Construction Noise Estimator

Results for works not including concrete sawing:

Transport for NSW

## Noise Estimate Results



	Sound Power Level (dBA)	Distance (m)	Sound Pressure Level (dBA)	Air Attenuation n (dBA) Day and Evening	Air Attenuation n (dBA) Night	Additional Attenuation (whole site hoarding etc) (dBA) <sup>1</sup>	Predicted Noise level (SPL dBA LAeq) Day and Evening	Predicted Noise level (SPL dBA LAeq) Night
Oct to April	104	180	51	1.31	0.73		50	50

Area Type: R2

Standard Rating Background Level (RBL), or Measured RBL

RBL Exceedance

Noise Management Level (NML)

Standard Hours	OOHW P1 Day	OOHW P1/P2 Evening	OOHW P2 Night
45	45	40	35
5	5	10	15
55	50	45	40

Transport for NSW

	Standard Hours			
	≤20	20-30	>30	>75dBA*
Standard Mitigation Measures (CNVG-PTI Sec 7.1)	Yes			
Additional Mitigation Measures (CNVG-PTI Sec 7.2):				
Periodic notification				
Verification monitoring				
Specific Notification				
Respite Offer				
Respite Period				
Duration Reduction				
Alternative Accommodation				

\* Any work above 75dBA regardless of RBL exceedance

Mitigation distances without concrete sawing:

Transport for NSW



The mitigation distances for your activity are:

	Additional Mitigation Measure - Minimum Distance (m)				
	Standard Hours	OOHW Period 1 - Day	OOHW Period 1 - Evening	OOHW Period 2 - Evening	OOHW Period 2 - Night
Periodic notification	36	114	202	359	639
Verification monitoring	36	36	64	202	359
Specific Notification	11	36	64	202	114
Respite Offer	-	36	64	202	-
Respite Period	-	-	202	202	114
Duration Reduction	-	-	202	202	114
Alternative Accommodation	-	-	-	20	36

Assessment Summary

Site Locality	
Construction Scenario	Directional drilling and cable works in the Marina carpark area. Day works only.
User Name and Company	TfNSW - Maritime
Number of Sources and SWL	5 Sources with overall SWL of 104 dBA
Receiver Distance	180 m
Barrier/enclosure attenuation	0 dBA
Assessment Date	8 July 2024

Period	RBL	NML
Standard Hours	45	55
OOHW Period 1 - Day	45	50
OOHW Period 1/2 - Evening	40	45
OOHW Period 2 - Night	35	40

## Transport for NSW

Results with concrete sawing:

### Transport for NSW

### Noise Estimate Results



	Sound Power Level (dBA)	Distance (m)	Sound Pressure Level (dBA)	Air Attenuation n (dBA) Day and Evening	Air Attenuation n (dBA) Night	Additional Attenuation (whole site hoarding etc) (dBA) <sup>1</sup>	Predicted Noise level (SPL dBA LAeq) Day and Evening	Predicted Noise level (SPL dBA LAeq) Night
Oct to April	120	180	67	1.31	0.73		66	66

Area Type:

R2

Standard Rating Background Level (RBL), or Measured RBL

RBL Exceedance

Noise Management Level (NML)

Standard Hours	OOHW P1 Day	OOHW P1/P2 Evening	OOHW P2 Night
45	45	40	35
21	21	26	31
55	50	45	40

### Transport for NSW

	Standard Hours			
	≤20	20-30	>30	>75dBA *
Standard Mitigation Measures (CNVG-PTI Sec 7.1)		Yes		
Additional Mitigation Measures (CNVG-PTI Sec 7.2):				
Periodic notification		Yes		
Verification monitoring		Yes		
Specific Notification				
Respite Offer				
Respite Period				
Duration Reduction				
Alternative Accommodation				

\* Any work above 75dBA regardless of RBL exceedance

Mitigation distances with concrete sawing:

Transport for NSW



The mitigation distances for your activity are:

	Additional Mitigation Measure - Minimum Distance (m)				
	Standard Hours	OOHW Period 1 - Day	OOHW Period 1 - Evening	OOHW Period 2 - Evening	OOHW Period 2 - Night
Periodic notification	225	713	1267	2253	4007
Verification monitoring	225	225	401	1267	2253
Specific Notification	71	225	401	1267	713
Respite Offer	-	225	401	1267	-
Respite Period	-	-	1267	1267	713
Duration Reduction	-	-	1267	1267	713
Alternative Accommodation	-	-	-	127	225

Assessment Summary

Site Locality	
Construction Scenario	Trenching and cable works in the Marina carpark area. Day works only.
User Name and Company	TfNSW - Maritime
Number of Sources and SWL	5 Sources with overall SWL of 120 dBA
Receiver Distance	180 m
Barrier/enclosure attenuation	0 dBA
Assessment Date	8 July 2024

Period	RBL	NML
Standard Hours	45	55
OOHW Period 1 - Day	45	50
OOHW Period 1/2 - Evening	40	45
OOHW Period 2 - Night	35	40

Overall mapping of noise impacts from proposed works

Transport for NSW



A map showing the location of the proposed work area (source), nearest sensitive receiver, map scale and north arrow should be included into the noise estimator tool. The map should be clear with all required elements clearly visible and not cluttered with information.





# Appendix D: Aboriginal Heritage Results



**AHIMS Web Services (AWS)**  
**Search Result**

Your Ref/PO Number : Brunswick Heads marina  
Client Service ID : 904177

Lester Piggott  
76 Victoria Street  
Grafton New South Wales 2460  
Attention: Lester Piggott  
Email: lester.piggott@transport.nsw.gov.au

Date: 25 June 2024

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Lat. Long From : -28.5377, 153.542 - Lat. Long To : -28.533, 153.5497, conducted by Lester Piggott on 25 June 2024.**

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:

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



Transport  
for NSW

18 September 2024

Project Manager Brett Fletcher  
Organisational Unit Project Manager  
Department Infrastructure & Place  
Agency Transport For NSW

Dear Brett,

Preliminary assessment results for Brunswick Heads Boat Harbour Electrical Diversion. Based on Stage 1 of the *Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI)*. Desktop assessment 16.08.2024 and Site inspection 17.09.2024.

The project, electrical diversions as described in the Stage 1 assessment was assessed as being unlikely to have an impact on Aboriginal cultural heritage.

The assessment is based on the following due diligence considerations:

- The project is unlikely to harm known Aboriginal objects or places.
- The AHIMS search did not indicate moderate to high concentrations of Aboriginal objects or places in the study area.
- The study area does contain landscape features that indicate the presence of Aboriginal objects, based on the Office of Environment and Heritage's *Due diligence Code of Practice for the Protection of Aboriginal objects in NSW* and the Transport for NSW procedure. The cultural heritage potential of the study area appears to be reduced due to past disturbance. (Previous trenching for utilities)
- There is an absence of sandstone rock outcrops likely to contain Aboriginal art.

Your project may proceed in accordance with the environmental impact assessment process, as relevant, and all other relevant approvals.

If the scope of your project changes, you must contact me and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

If any potential Aboriginal objects (including skeletal remains) are discovered during the project, all works in the vicinity of the find must cease. Follow the steps outlined in the Transport for NSW *Unexpected Archaeological Finds Procedure*.

For further assistance in this matter do not hesitate to contact me.

Yours sincerely


A handwritten signature in black ink, appearing to read "Laura Bowen".

Laura Bowen  
Aboriginal Cultural Heritage Officer– Region North


Transport for NSW  
Level 1, 76 Victoria St, Grafton, NSW 2460  
M 0438 721 680 | E [laura.bowen@transport.nsw.gov.au](mailto:laura.bowen@transport.nsw.gov.au)

# Appendix E: Non-Aboriginal Heritage Database Search Results

Search results from the Australian Heritage Database:



Australian Government  
Department of Climate Change, Energy, the Environment and Water

Heritage  
Australian Heritage Database

You are here: [Environment home](#) > [Heritage](#) > [Australian Heritage Database](#)

Search Results

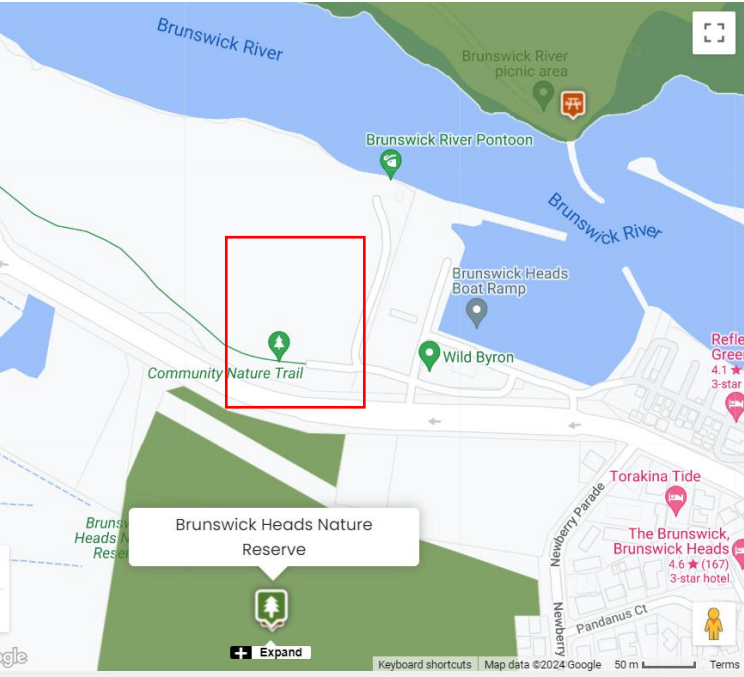
[new search](#) [edit search](#)

6 results found.

<a href="#">Brunswick Heads Nature Reserve (1979 boundary)</a>	Brunswick Heads, NSW, Australia	<a href="#">(Registered)</a> Register of the National Estate (Non-statutory archive)
<a href="#">Courthouse Including Police Station and Lockup</a> 61 Dalley St	Mullumbimby, NSW, Australia	<a href="#">(Indicative Place)</a> Register of the National Estate (Non-statutory archive)
<a href="#">Indigenous Place</a>	Billinudgel, NSW, Australia	<a href="#">(Indicative Place)</a> Register of the National Estate (Non-statutory archive)
<a href="#">Mullumbimby Post Office (original)</a> Myocum St	Mullumbimby, NSW, Australia	<a href="#">(Indicative Place)</a> Register of the National Estate (Non-statutory archive)
<a href="#">North Ocean Shores - Natural Area</a> Jones Rd	Billinudgel, NSW, Australia	<a href="#">(Indicative Place)</a> Register of the National Estate (Non-statutory archive)
<a href="#">Wilsons and Coopers Creek</a>	Lismore, NSW, Australia	<a href="#">(Indicative Place)</a> Register of the National Estate (Non-statutory archive)

Report Produced: Wed Jul 10 11:47:33 2024

Brunswick Heads Nature Reserve does not adjoin the proposed works location (marked in red) –see map below (source, NSW National Parks and Wildlife Service):



Commonwealth Protected Matters Search Tool results:

## 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](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	3
<a href="#">Listed Threatened Species:</a>	91
<a href="#">Listed Migratory Species:</a>	53

### 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.

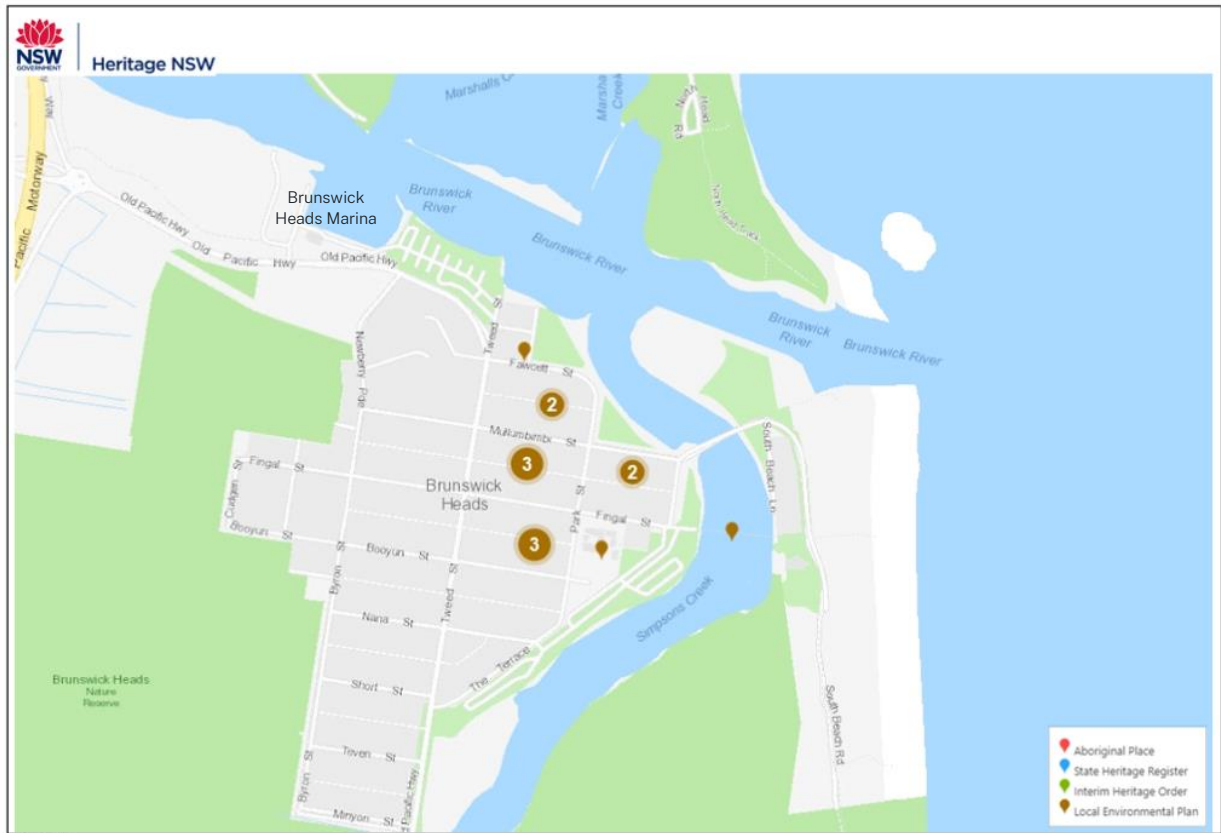
<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	60
<a href="#">Whales and Other Cetaceans:</a>	1
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

### Extra Information

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

<a href="#">State and Territory Reserves:</a>	2
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	1
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	None
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

No items of non-aboriginal heritage are listed on the NSW State Heritage Inventory within or adjacent to the Brunswick Heads Marina, see search results map below:





# Appendix F: Threatened Species Database Search Results

Commonwealth Protected Matter Search Tool results:

## 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
<a href="#">Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community</a>	Endangered	Community likely to occur within area
<a href="#">Littoral Rainforest and Coastal Vine Thickets of Eastern Australia</a>	Critically Endangered	Community likely to occur within area
<a href="#">Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions</a>	Endangered	Community likely to occur within 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
<b>BIRD</b>		
<a href="#">Anthochaera phrygia</a> Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Ardenna grisea</a> Sooty Shearwater [82651]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Botaurus poiciloptilus</a> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Calyptorhynchus lathami lathami</a> South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Climacteris picumnus victoriae</a> Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area
<a href="#">Cyclopsitta diophthalma coxeni</a> Coxen's Fig-Parrot [59714]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Diomedea antipodensis</a> Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diomedea antipodensis gibsoni</a> Gibson's Albatross [82270]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diomedea epomophora</a> Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diomedea exulans</a> Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
<a href="#">Erythrotriorchis radiatus</a> Red Goshawk [942]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Falco hypoleucos</a> Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Limosa lapponica baueri</a> Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Endangered	Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Pachyptila turtur subantarctica</a> Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
<a href="#">Stagonopleura guttata</a> Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Sternula nereis nereis</a> Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche cauta</a> Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche melanophrys</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche salvini</a> Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area
<a href="#">Turnix melanogaster</a> Black-breasted Button-quail [923]	Vulnerable	Species or species habitat may occur within area
<b>FISH</b>		
<a href="#">Epinephelus daemeli</a> Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area
<b>FROG</b>		
<a href="#">Assa darlingtoni</a> Pouched Frog [1965]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Litoria olongburensis</a> Wallum Sedge Frog [1821]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Mixophyes fleayi</a> Fleay's Frog [25960]	Endangered	Species or species habitat likely to occur within area
<b>INSECT</b>		
<a href="#">Argynnis hyperbius inconstans</a> Australian Fritillary [88056]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Phyllodes imperialis smithersi</a> Pink Underwing Moth [86084]	Endangered	Species or species habitat known to occur within area
<b>MAMMAL</b>		
<a href="#">Chalinolobus dwyeri</a> Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat may occur within area
<a href="#">Dasyurus maculatus maculatus (SE mainland population)</a> Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
<a href="#">Petaurus australis australis</a> Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area
<a href="#">Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)</a> Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area
<a href="#">Potorous tridactylus tridactylus</a> Long-nosed Potoroo (northern) [66645]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Pseudomys novaehollandiae</a> New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pteropus poliocephalus</a> Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area
<a href="#">Xeromys myoides</a> Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat may occur within area
<b>PLANT</b>		

Scientific Name	Threatened Category	Presence Text
<a href="#">Acronychia littoralis</a> Scented Acronychia [8582]	Endangered	Species or species habitat known to occur within area
<a href="#">Arthraxon hispidus</a> Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Baloghia marmorata</a> Marbled Baloghia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Bosistoa transversa</a> Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat may occur within area
<a href="#">Corokia whiteana</a> [17820]	Endangered	Species or species habitat may occur within area
<a href="#">Cryptocarya foetida</a> Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Cryptostylis hunteriana</a> Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area
<a href="#">Cynanchum elegans</a> White-flowered Wax Plant [12533]	Endangered	Species or species habitat known to occur within area
<a href="#">Davidsonia jerseyana</a> Davidson's Plum [67219]	Endangered	Species or species habitat known to occur within area
<a href="#">Davidsonia johnsonii</a> Smooth Davidsonia, Smooth Davidson's Plum, Small-leaved Davidson's Plum [67178]	Endangered	Species or species habitat may occur within area
<a href="#">Diospyros mabacea</a> Red-fruited Ebony, Silky Persimmon, Ebony [18548]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Diploglottis campbellii</a> Small-leaved Tamarind [21484]	Endangered	Species or species habitat may occur within area
<a href="#">Elaeocarpus williamsianus</a> Hairy Quandong [8956]	Endangered	Species or species habitat likely to occur within area
<a href="#">Endiandra floydii</a> Floyd's Walnut, Crystal Creek Walnut [52955]	Endangered	Species or species habitat known to occur within area
<a href="#">Endiandra hayesii</a> Rusty Rose Walnut, Velvet Laurel [13866]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Floydia praealta</a> Ball Nut, Possum Nut, Big Nut, Beefwood [15762]	Vulnerable	Species or species habitat may occur within area
<a href="#">Fontainea australis</a> Southern Fontainea [24037]	Vulnerable	Species or species habitat may occur within area
<a href="#">Gossia fragrantissima</a> Sweet Myrtle, Small-leaved Myrtle [78867]	Endangered	Species or species habitat may occur within area
<a href="#">Hicksbeachia pinnatifolia</a> Monkey Nut, Bopple Nut, Red Bopple, Red Bopple Nut, Red Nut, Beef Nut, Red Apple Nut, Red Boppel Nut, Ivory Silky Oak [21189]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Leichhardtia longiloba listed as Marsdenia longiloba</a> Clear Milkvine [91911]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Macadamia integrifolia</a> Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat may occur within area
<a href="#">Macadamia tetraphylla</a> Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat known to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Ochrosia moorei</a> Southern Ochrosia [11350]	Endangered	Species or species habitat likely to occur within area
<a href="#">Owenia cepiodora</a> Onionwood, Bog Onion, Onion Cedar [11344]	Vulnerable	Species or species habitat may occur within area
<a href="#">Phaius australis</a> Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area
<a href="#">Randia moorei</a> Spiny Gardenia [10577]	Endangered	Species or species habitat known to occur within area
<a href="#">Rhodamnia maideniana</a> Smooth Scrub Turpentine [20665]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Rhodamnia rubescens</a> Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Rhodomyrtus psidioides</a> Native Guava [19162]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Syzygium hodgkinsoniae</a> Smooth-bark Rose Apple, Red Lilly Pilly [3539]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Syzygium moorei</a> Rose Apple, Coolamon, Robby, Durobby, Watermelon Tree, Coolamon Rose Apple [12284]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Thesium australe</a> Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Vincetoxicum woollsii</a> listed as <a href="#">Tylophora woollsii</a> [40080]	Endangered	Species or species habitat may occur within area
REPTILE		

Scientific Name	Threatened Category	Presence Text
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Coeranoscincus reticulatus</a> Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat may occur within area
<a href="#">Delma torquata</a> Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Lepidochelys olivacea</a> Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
<b>SHARK</b>		
<a href="#">Sphyrna lewini</a> Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area
<b>SNAIL</b>		
<a href="#">Thersites mitchellae</a> Mitchell's Rainforest Snail [66774]	Critically Endangered	Species or species habitat likely to occur within area
<b>Listed Migratory Species</b>		
<b>[ Resource Information ]</b>		
Scientific Name	Threatened Category	Presence Text

Scientific Name	Threatened Category	Presence Text
<b>Migratory Marine Birds</b>		
<a href="#"><u>Anous stolidus</u></a> Common Noddy [825]		Species or species habitat likely to occur within area
<a href="#"><u>Apus pacificus</u></a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#"><u>Ardenna carneipes</u></a> Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area
<a href="#"><u>Ardenna grisea</u></a> Sooty Shearwater [82651]	Vulnerable	Species or species habitat likely to occur within area
<a href="#"><u>Calonectris leucomelas</u></a> Streaked Shearwater [1077]		Species or species habitat known to occur within area
<a href="#"><u>Diomedea antipodensis</u></a> Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
<a href="#"><u>Diomedea epomophora</u></a> Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area
<a href="#"><u>Diomedea exulans</u></a> Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
<a href="#"><u>Fregata ariel</u></a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
<a href="#"><u>Fregata minor</u></a> Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area
<a href="#"><u>Macronectes giganteus</u></a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Macronectes halli</a> Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Phaethon lepturus</a> White-tailed Tropicbird [1014]		Species or species habitat may occur within area
<a href="#">Sternula albifrons</a> Little Tern [82849]		Species or species habitat may occur within area
<a href="#">Thalassarche cauta</a> Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche melanophris</a> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche salvini</a> Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area
<a href="#">Thalassarche steadi</a> White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area
<b>Migratory Marine Species</b>		
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Foraging, feeding or related behaviour known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Lamna nasus</a> Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
<a href="#">Lepidochelys olivacea</a> Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding likely to occur within area
<a href="#">Mobula alfredi</a> as <a href="#">Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat known to occur within area
<a href="#">Mobula birostris</a> as <a href="#">Manta birostris</a> Giant Manta Ray [90034]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Sousa sahalensis</a> as <a href="#">Sousa chinensis</a> Australian Humpback Dolphin [87942]		Species or species habitat may occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Cuculus optatus</a> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area



Scientific Name	Threatened Category	Presence Text
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat likely to occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat known to occur within area
<a href="#">Symposiachrus trivirgatus as Monarcha trivirgatus</a> Spectacled Monarch [83946]		Species or species habitat known to occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat likely to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Gallinago megala</a> Swinhoe's Snipe [864]		Foraging, feeding or related behaviour likely to occur within area
<a href="#">Gallinago stenura</a> Pin-tailed Snipe [841]		Foraging, feeding or related behaviour likely to occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Numenius minutus</a> Little Curlew, Little Whimbrel [848]		Foraging, feeding or related behaviour likely to occur within area
<a href="#">Numenius phaeopus</a> Whimbrel [849]		Foraging, feeding or related behaviour known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat known to occur within area
<a href="#">Pluvialis fulva</a> Pacific Golden Plover [25545]		Foraging, feeding or related behaviour known to occur within area
<a href="#">Tringa brevipes</a> Grey-tailed Tattler [851]		Foraging, feeding or related behaviour known to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]	Endangered	Species or species habitat known to occur within area

## NSW BioNet Threatened Species search results:

Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive Report generated on 28/06/2024 11:11 AM

Kingdom	Class	Family	Species Code	Scientific Name	Exotic	Common Name	NSW status	Com m. status	Records	Info
Animalia	Amphibia	Myobatrachidae	3137	<i>Crinia tinnula</i>		Wallum Froglet	V,P		83	<a href="#">Species Description PDF file</a>
Animalia	Amphibia	Hylidae	3202	<i>Litoria olongburensis</i>		Olongburra Frog	V,P	V	8	<a href="#">Species Description PDF file</a>
Animalia	Reptilia	Cheloniidae	2004	<i>Caretta caretta</i>		Loggerhead Turtle	E1,P	E	36	<a href="#">Species Description PDF file</a>
Animalia	Reptilia	Cheloniidae	2007	<i>Chelonia mydas</i>		Green Turtle	V,P	V	7	<a href="#">Species Description PDF file</a>
Animalia	Reptilia	Cheloniidae	2008	<i>Eretmochelys imbricata</i>		Hawksbill Turtle	P	V	5	<a href="#">Species Description PDF file</a>
Animalia	Aves	Anseranatidae	0199	<i>Anseranas semipalmata</i>		Magpie Goose	V,P		1	<a href="#">Species Description PDF file</a>
Animalia	Aves	Anatidae	0214	<i>Stictonetta naevosa</i>		Freckled Duck	V,P		6	<a href="#">Species Description PDF file</a>
Animalia	Aves	Columbidae	0025	<i>Ptilinopus magnificus</i>		Wompoo Fruit-Dove	V,P		8	<a href="#">Species Description PDF file</a>
Animalia	Aves	Columbidae	0021	<i>Ptilinopus regina</i>		Rose-crowned Fruit-Dove	V,P		67	<a href="#">Species Description PDF file</a>
Animalia	Aves	Columbidae	0023	<i>Ptilinopus superbus</i>		Superb Fruit-Dove	V,P		1	<a href="#">Species Description PDF file</a>
Animalia	Aves	Apodidae	0334	<i>Hirundapus caudacutus</i>		White-throated Needletail	V,P	V,C,J,K	102	<a href="#">Species Description PDF file</a>
Animalia	Aves	Procellariidae	0072	<i>Ardenna carneipes</i>		Flesh-footed Shearwater	V,P	J,K	2	<a href="#">Species Description PDF file</a>
Animalia	Aves	Ciconiidae	0183	<i>Ephippiorhynchus asiaticus</i>		Black-necked Stork	E1,P		11	<a href="#">Species Description PDF file</a>
Animalia	Aves	Ardeidae	0197	<i>Botaurus poiciloptilus</i>		Australasian Bittern	E1,P	E	2	<a href="#">Species Description PDF file</a>
Animalia	Aves	Ardeidae	0196	<i>Ixobrychus flavicollis</i>		Black Bittern	V,P		17	<a href="#">Species Description PDF file</a>
Animalia	Aves	Accipitridae	0218	<i>Circus assimilis</i>		Spotted Harrier	V,P		1	<a href="#">Species Description PDF file</a>
Animalia	Aves	Accipitridae	0226	<i>Haliaeetus leucogaster</i>		White-bellied Sea-Eagle	V,P		28	<a href="#">Species Description PDF file</a>
Animalia	Aves	Accipitridae	0225	<i>Hieraaetus morphnoides</i>		Little Eagle	V,P		49	<a href="#">Species Description PDF file</a>
Animalia	Aves	Accipitridae	8739	<i>Pandion cristatus</i>		Eastern Osprey	V,P,3		32	<a href="#">Species Description PDF file</a>
Animalia	Aves	Falconidae	0238	<i>Falco subniger</i>		Black Falcon	V,P		3	<a href="#">Species Description PDF file</a>
Animalia	Aves	Gruidae	0177	<i>Grus rubicunda</i>		Brolga	V,P		1	<a href="#">Species Description PDF file</a>
Animalia	Aves	Rallidae	0053	<i>Amauornis moluccana</i>		Pale-vented Bush-hen	V,P		5	<a href="#">Species Description PDF file</a>
Animalia	Aves	Burhinidae	0174	<i>Burhinus grallarius</i>		Bush Stone-curlew	E1,P		32	<a href="#">Species Description PDF file</a>
Animalia	Aves	Burhinidae	0175	<i>Esacus magnirostris</i>		Beach Stone-curlew	E4A,P		6	<a href="#">Species Description PDF file</a>
Animalia	Aves	Haematopodidae	0131	<i>Haematopus fuliginosus</i>		Sooty Oystercatcher	V,P		7	<a href="#">Species Description PDF file</a>
Animalia	Aves	Haematopodidae	0130	<i>Haematopus longirostris</i>		Pied Oystercatcher	E1,P		49	<a href="#">Species Description PDF file</a>
Animalia	Aves	Jacaniidae	0171	<i>Irediparra gallinacea</i>		Comb-crested Jacana	V,P		4	<a href="#">Species Description PDF file</a>
Animalia	Aves	Scolopacidae	0161	<i>Calidris ferruginea</i>		Curlew Sandpiper	E1,P	CE,C,J,K	1	<a href="#">Species Description PDF file</a>
Animalia	Aves	Scolopacidae	0149	<i>Numenius madagascariensis</i>		Eastern Curlew	P	CE,C,J,K	25	<a href="#">Species Description PDF file</a>
Animalia	Aves	Laridae	0972	<i>Gygis alba</i>		White Tern	V,P		1	<a href="#">Species Description PDF file</a>
Animalia	Aves	Laridae	0117	<i>Sternula albifrons</i>		Little Tern	E1,P	C,J,K	11	<a href="#">Species Description PDF file</a>
Animalia	Aves	Cacatuidae	8862	<i>Calyptorhynchus lathami lathami</i>		South-eastern Glossy Black-Cockatoo	V,P,2	V	23	<a href="#">Species Description PDF file</a>
Animalia	Aves	Psittacidae	8028	<i>Cyclopsitta diophthalma coxeni</i>		Coxen's Fig-Parrot	E4A,P,2	CE	1	<a href="#">Species Description PDF file</a>
Animalia	Aves	Psittacidae	0309	<i>Lathamus discolor</i>		Swift Parrot	E1,P	CE	1	<a href="#">Species Description PDF file</a>
Animalia	Aves	Strigidae	0246	<i>Ninox connivens</i>		Barking Owl	V,P,3		5	<a href="#">Species Description PDF file</a>

Animalia	Aves	Tytonidae	0252	^^Tyto longimembris	Eastern Grass Owl	V,P,3	2	<a href="#">Species Description PDF file</a>	
Animalia	Aves	Tytonidae	9924	^^Tyto tenebricosa	Sooty Owl	V,P,3	1	<a href="#">Species Description PDF file</a>	
Animalia	Aves	Alcedinidae	0327	Todiramphus chloris	Collared Kingfisher	V,P	8	<a href="#">Species Description PDF file</a>	
Animalia	Aves	Meliphagidae	0603	^Anthochaera phrygia	Regent Honeyeater	E4A,P,2	CE	2	<a href="#">Species Description PDF file</a>
Animalia	Aves	Meliphagidae	0610	Lichenostomus fasciolaris	Mangrove Honeyeater	V,P	3	<a href="#">Species Description PDF file</a>	
Animalia	Aves	Campephagidae	0428	Coracina lineata	Barred Cuckoo-shrike	V,P	1	<a href="#">Species Description PDF file</a>	
Animalia	Aves	Artamidae	8519	Artamus cyanopterus cyanopterus	Dusky Woodswallow	V,P	1	<a href="#">Species Description PDF file</a>	
Animalia	Aves	Monarchidae	0376	Carterornis leucotis	White-eared Monarch	V,P	12	<a href="#">Species Description PDF file</a>	
Animalia	Aves	Petroicidae	0380	Petroica boodang	Scarlet Robin	V,P	3	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Dasyuridae	1008	Dasyurus maculatus	Spotted-tailed Quoll	V,P	E	1	<a href="#">Species Description PDF file</a>
Animalia	Mammalia	Dasyuridae	1045	Planigale maculata	Common Planigale	V,P	10	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Phascolarctidae	1162	Phascolarctos cinereus	Koala	E1,P	E	1435	<a href="#">Species Description PDF file</a>
Animalia	Mammalia	Potoroidae	1175	Potorous tridactylus	Long-nosed Potoroo	V,P	V	8	<a href="#">Species Description PDF file</a>
Animalia	Mammalia	Pteropodidae	1290	Nyctimene robinsoni	Eastern Tube-nosed Bat	V,P	1	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Pteropodidae	1280	Pteropus poliocephalus	Grey-headed Flying-fox	V,P	V	115	<a href="#">Species Description PDF file</a>
Animalia	Mammalia	Pteropodidae	1294	Syconycteris australis	Common Blossom-bat	V,P	18	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Emballonuridae	1321	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	V,P	1	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Molossidae	1329	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	V,P	5	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Vespertilionidae	1354	Chalinolobus nigrogriseus	Hoary Wattled Bat	V,P	1	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Vespertilionidae	1357	Myotis macropus	Southern Myotis	V,P	185	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Vespertilionidae	1336	Nyctophilus bifax	Eastern Long-eared Bat	V,P	42	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Vespertilionidae	1361	Scoteanax rueppellii	Greater Broad-nosed Bat	V,P	3	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Miniopteridae	1346	Miniopterus australis	Little Bent-winged Bat	V,P	122	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Miniopteridae	3330	Miniopterus orianae oceanensis	Large Bent-winged Bat	V,P	24	<a href="#">Species Description PDF file</a>	
Animalia	Mammalia	Muridae	1455	Pseudomys novaehollandiae	New Holland Mouse	P	V	1	<a href="#">Species Description PDF file</a>
Animalia	Mammalia	Dugongidae	1558	Dugong dugon	Dugong	E1,P	1	<a href="#">Species Description PDF file</a>	
Animalia	Insecta	Noctuidae	1021	Phyllodes imperialis southern subspecies	Southern Pink Underwing Moth	E1	E	1	<a href="#">Species Description PDF file</a>
Animalia	Insecta	Nymphalidae	1024	Argynnis hyperbius	Laced Fritillary	E1	CE	2	<a href="#">Species Description PDF file</a>
Animalia	Gastropoda	Camaenidae	1002	Thersites mitchellae	Mitchell's Rainforest Snail	E1	CE	2	<a href="#">Species Description PDF file</a>
Plantae	Flora	Acanthaceae	10847	Harnieria hygrophiloides	Native Justicia	E1	67	<a href="#">Species Description PDF file</a>	
Plantae	Flora	Apocynaceae	1226	Cynanchum elegans	White-flowered Wax Plant	E1	E	1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Apocynaceae	1233	Marsdenia longiloba	Slender Marsdenia	E1	V	13	<a href="#">Species Description PDF file</a>
Plantae	Flora	Apocynaceae	1176	Ochrosia moorei	Southern Ochrosia	E1	E	2	<a href="#">Species Description PDF file</a>
Plantae	Flora	Apocynaceae	1245	Tylophora woollsii	Cryptic Forest Twiner	E1	E	1	<a href="#">Species Description PDF file</a>

Plantae	Flora	Argophyllaceae	3224	<i>Corokia whiteana</i>	Corokia	E1	E	5	<a href="#">Species Description PDF file</a>
Plantae	Flora	Cunoniaceae	10943	<i>Davidsonia jerseyana</i>	Davidson's Plum	E1,2	E	167	<a href="#">Species Description PDF file</a>
Plantae	Flora	Cunoniaceae	10944	<i>Davidsonia johnsonii</i>	Smooth Davidson's Plum	E1	E	1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Ebenaceae	2564	<i>Diospyros mabacea</i>	Red-fruited Ebony	E1	E	3	<a href="#">Species Description PDF file</a>
Plantae	Flora	Elaeocarpaceae	2575	<i>Elaeocarpus williamsianus</i>	Hairy Quandong	E1,3	E	7	<a href="#">Species Description PDF file</a>
Plantae	Flora	Fabaceae (Caesalpinioideae)	8772	<i>Senna acclinis</i>	Rainforest Cassia	E1		3	<a href="#">Species Description PDF file</a>
Plantae	Flora	Fabaceae (Mimosoideae)	3711	<i>Acacia bakeri</i>	Marblewood	V		407	<a href="#">Species Description PDF file</a>
Plantae	Flora	Fabaceae (Mimosoideae)	7757	<i>Archidendron hendersonii</i>	White Lace Flower	V		103	<a href="#">Species Description PDF file</a>
Plantae	Flora	Flacourtiaceae	3114	<i>Xylosma terrae-reginae</i>	Queensland Xylosma	E1		47	<a href="#">Species Description PDF file</a>
Plantae	Flora	Lauraceae	3477	<i>Cryptocarya foetida</i>	Stinking Cryptocarya	V	V	869	<a href="#">Species Description PDF file</a>
Plantae	Flora	Lauraceae	8948	<i>Endiandra floydii</i>	Crystal Creek Walnut	E1	E	113	<a href="#">Species Description PDF file</a>
Plantae	Flora	Lauraceae	3491	<i>Endiandra hayesii</i>	Rusty Rose Walnut	V	V	27	<a href="#">Species Description PDF file</a>
Plantae	Flora	Lauraceae	8480	<i>Endiandra muelleri subsp. bracteata</i>	Green-leaved Rose Walnut	E1		145	<a href="#">Species Description PDF file</a>
Plantae	Flora	Lindsaeaceae	8126	<i>Lindsaea brachypoda</i>	Short-footed Screw Fern	E1,3		5	<a href="#">Species Description PDF file</a>
Plantae	Flora	Menispermaceae	3691	<i>Tinospora tinosporoides</i>	Arrow-head Vine	V		32	<a href="#">Species Description PDF file</a>
Plantae	Flora	Myrtaceae	15211	<i>Backhousia subargentea</i>	Giant Ironwood	E1,3		1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Myrtaceae	11894	<i>Gossia fragrantissima</i>	Sweet Myrtle	E1	E	4	<a href="#">Species Description PDF file</a>
Plantae	Flora	Myrtaceae	4282	<i>Rhodamnia maideniana</i>	Smooth Scrub Turpentine	E4A	CE	9	<a href="#">Species Description PDF file</a>
Plantae	Flora	Myrtaceae	4283	<i>Rhodamnia rubescens</i>	Scrub Turpentine	E4A	CE	22	<a href="#">Species Description PDF file</a>
Plantae	Flora	Myrtaceae	4284	<i>Rhodomyrtus psidioides</i>	Native Guava	E4A	CE	20	<a href="#">Species Description PDF file</a>
Plantae	Flora	Myrtaceae	4290	<i>Syzygium hodgkinsoniae</i>	Red Lilly Pilly	V	V	34	<a href="#">Species Description PDF file</a>
Plantae	Flora	Myrtaceae	4292	<i>Syzygium moorei</i>	Durobby	V	V	150	<a href="#">Species Description PDF file</a>
Plantae	Flora	Myrtaceae	4298	<i>Uromyrtus australis</i>	Peach Myrtle	E1	E	1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Orchidaceae	6672	<i>Geodorum densiflorum</i>	Pink Nodding Orchid	E1,P,2		11	<a href="#">Species Description PDF file</a>
Plantae	Flora	Orchidaceae	4479	<i>Peristeranthus hillii</i>	Brown Fairy-chain Orchid	V,P,2		15	<a href="#">Species Description PDF file</a>
Plantae	Flora	Orchidaceae	4480	<i>Phaius australis</i>	Southern Swamp Orchid	E1,P,2	E	1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Poaceae	4776	<i>Arthraxon hispidus</i>	Hairy Jointgrass	V	V	1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Polypodiaceae	8154	<i>Belvisia mucronata</i>	Needle-leaf Fern	E1		2	<a href="#">Species Description PDF file</a>
Plantae	Flora	Polypodiaceae	8156	<i>Drynaria rigidula</i>	Basket Fern	E1,3		2	<a href="#">Species Description PDF file</a>
Plantae	Flora	Proteaceae	5354	<i>Floydia praealta</i>	Ball Nut	V	V	3	<a href="#">Species Description PDF file</a>
Plantae	Flora	Proteaceae	5372	<i>Grevillea hilliana</i>	White Yiel Yiel	E1		122	<a href="#">Species Description PDF file</a>
Plantae	Flora	Proteaceae	5432	<i>Hicksbeachia pinnatifolia</i>	Red Boppel Nut	V	V	3	<a href="#">Species Description PDF file</a>
Plantae	Flora	Proteaceae	9680	<i>Macadamia integrifolia</i>	Macadamia Nut		V	1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Proteaceae	5446	<i>Macadamia tetraphylla</i>	Rough-shelled Bush Nut	V	V	30	<a href="#">Species Description PDF file</a>
Plantae	Flora	Rubiaceae	8297	<i>Randia moorei</i>	Spiny Gardenia	E1	E	279	<a href="#">Species Description PDF file</a>
Plantae	Flora	Rutaceae	6457	<i>Acronychia littoralis</i>	Scented Acronychia	E1	E	52	<a href="#">Species Description PDF file</a>
Plantae	Flora	Rutaceae	5765	<i>Bosistoa transversa</i>	Yellow Satinheart	V	V	1	<a href="#">Species Description PDF file</a>

Plantae	Flora	Rutaceae	✓	8658	<i>Melicope vitiflora</i>	Coast Euodia	E1	33	<a href="#">Species Description PDF file</a>
Plantae	Flora	Sapindaceae	✓	5889	<i>Diploglottis campbellii</i>	Small-leaved Tamarind	E1,2 E	1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Sapindaceae	✓	8291	<i>Lepiderema pulchella</i>	Fine-leaved Tuckeroo	V	1	<a href="#">Species Description PDF file</a>
Plantae	Flora	Sapotaceae	✓	11957	<i>Niemeyera whitei</i>	Rusty Plum, Plum Boxwood	V	1	<a href="#">Species Description PDF file</a>



