

Review of environmental factors: Macleay Coast Destination – Cardwell Street Precinct

Arakoon National Park



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1. Introduction

1.1 Brief description of the proposal

A series of facilities and services within the Cardwell Street precinct of Arakoon National Park (park) require upgrading to strengthen the region's appeal as a quality destination. The Cardwell Street precinct is located within the central portion of Arakoon National Park in South West Rocks as shown in Figure 1, approximately 32-kilometres northeast of the township of Kempsey on the mid north coast of NSW. The activity will occur at multiple locations within the precinct.

This Review of Environmental Factors (REF) applies to land reserved under Part 4 of the *National Parks and Wildlife Act 1974* (NPW Act), and on Council owned and managed roads.

The proposed activity will be carried out by the Hastings-Macleay Area (North Coast Branch) of the NSW National Parks and Wildlife Service (NPWS).

The activity is situated within the Kempsey Local Government Area for which Kempsey Shire Council is responsible, and within the Legislative Assembly District of Oxley.

Section 6 provides for a more detailed description of the activity.

1.2 Estimated development cost of proposal

The proposed activity forms part of the Macleay Coast Destination project which has an estimated capital cost of \$6.7 million.

Pursuant to section 171(4)(a) of the Environmental Planning and Assessment Regulation 2021, this REF must be published on NPWS' website or the NSW planning portal if as the activity has an estimated development cost of more than \$5 million.

1.3 Estimated duration of proposal

The estimated duration of the proposal is approximately five (5) years. Upon completion, operation and maintenance of the precinct improvements will be incorporated into the NPWS maintenance program.

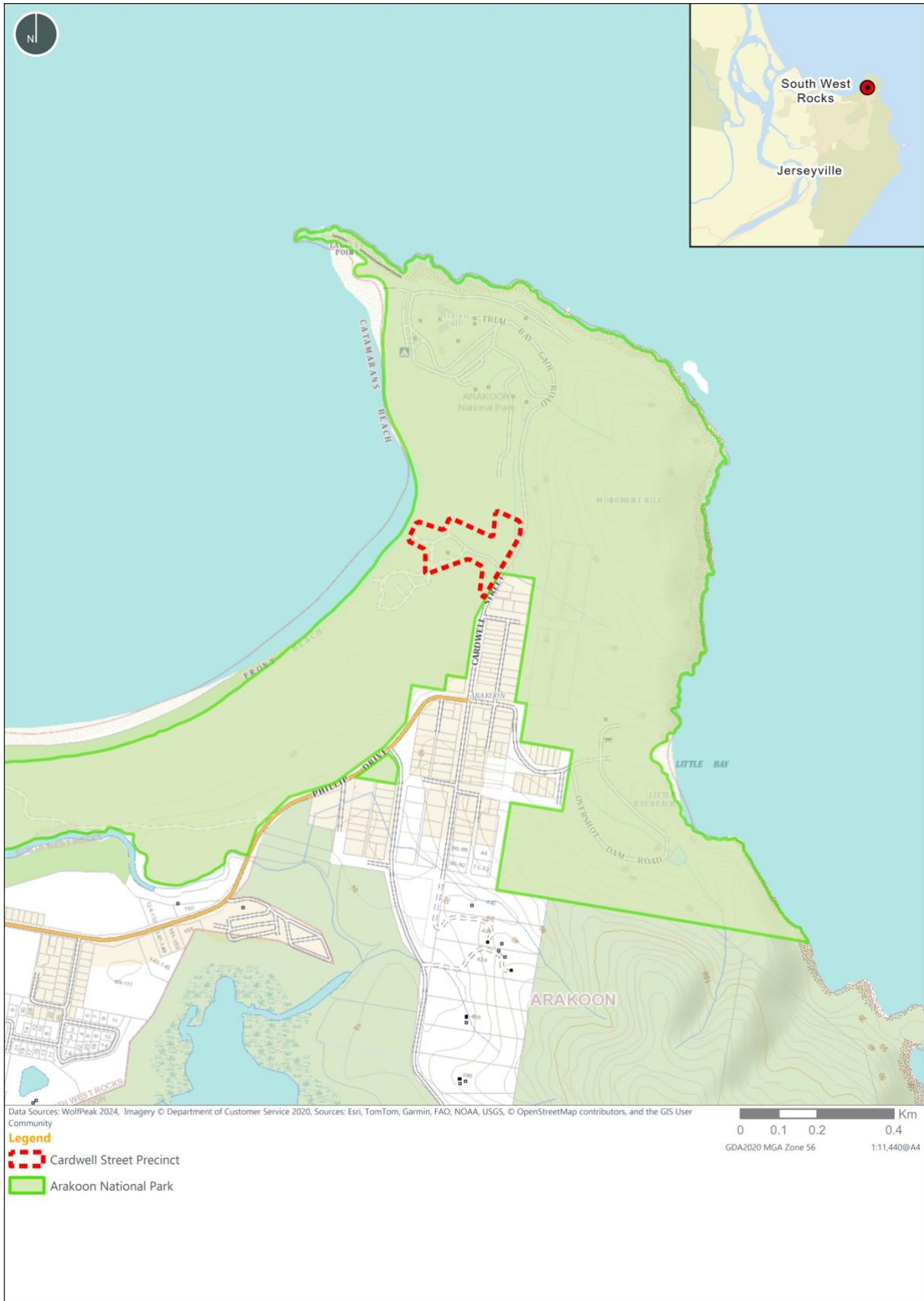


Figure 1. Location of the activity

2. Proponent's details

Contact name

Position

Street address

Postal address (if different to above)

Contact phone number

Email

Manager

3. Permissibility and assessment pathway

3.1 Permissibility under NSW legislation

The following sections outline how the activity is permissible under applicable NSW legislation.

3.1.1 National Parks and Wildlife Act 1974

On land reserved or acquired under the National Parks and Wildlife Act 1974

Objects of the Act (S.2A)

Under the *National Parks and Wildlife Act 1974* (NPW Act), the Secretary for the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) (Secretary) has the responsibility for the care, control and management of all lands reserved and acquired under that Act and may arrange for the carrying out of such works as is considered necessary for or in connection with the management and maintenance of that land.

The objects of this Act (section 2A(1)) are as follows:

- (a) the conservation of nature, including, but not limited to, the conservation of—
 - (i) habitat ecosystems and ecosystem processes, and
 - (ii) biological diversity at the community, species and genetic levels, and
 - (iii) landforms of significance, including geological features and processes, and
 - (iv) landscapes and natural features of significance including wilderness and wild rivers,
- (b) the conservation of objects, places or features (including biological diversity) of cultural value within the landscape, including, but not limited to—
 - (i) places, objects and features significance to Aboriginal people, and
 - (ii) places of social values to the people of New South Wales, and
 - (iii) fostering public appreciation, understanding and enjoyment of nature and cultural heritage and their conservation, and
- (c) fostering public appreciation, understanding and enjoyment of nature and cultural heritage and their conservation, and
- (d) providing for the management of land reserved under this Act in accordance with the management principles for each type of reservation

Impacts of the proposed activity (proposal) have been considered and shown to comply with the Objects of the Act. The primary objective of the proposed improvements is to strengthen the region's appeal as a quality destination and will encourage a greater diversity of people to visit the national park and increase the average length of stay and spend in the region. Additional objectives of the proposal are to allow for the delivery of best practice conservation and management of the park by carrying out the improvements to reduce impact. Specifically:

- The proposal will not significantly impact on biodiversity and ecosystems or processes, with measures to conserve and protect potential impacts.
- The proposed works will improve the condition and accessibility of walking tracks, vehicle access and parking options which will contribute to reducing erosion and ongoing impacts to the park.
- The proposal will benefit the park by:

- clearly defining parking and track alignments to improve conservation outcomes and protect ecosystems and cultural values, and
- improving the quality and accessibility of experiences for park visitors by upgrading safety features, facilities and delivery of information in a range of formats to foster the appreciation and opportunity for enjoyment of nature, cultural heritage and the environment.
- The proposal respects the cultural significance of the park, both Aboriginal and non-Aboriginal historic heritage.
 - An Aboriginal Cultural Heritage Assessment (ACHA) has been prepared (Apex Archaeology 2023 at Appendix A) and is summarised in this REF. The report will not be published and will only be made available to registered Aboriginal parties and National Parks and Wildlife Service (NPWS). The works will provide a level of protection and reduce ongoing harm and damage to Aboriginal values by formalising vehicle and pedestrian movements.
 - A Statement of Heritage Impact (SoHI) has been prepared (Dan Tuck Archaeology + Heritage 2023 at Appendix B) and is summarised in this REF. The SoHI acknowledges that the proposed activity would improve the functionality, safety, accessibility and appearance of the locale; however, there is some potential to impact on known or potential archaeological resources. Thus, recommendations have been made to minimise impacts to known and/or potential archaeological values.
- Potential impacts to flora and fauna have been considered in section 9.2 of this REF, and safeguards have been identified in section 9.2.
- Potential impacts to cultural values have been considered in section 9.5 and section 9.6 of this REF, and safeguards have been identified within those sections.

The proposal will encourage a greater diversity of visitors to experience the natural environment and facilities on offer in the park and surrounding region. The current precinct already fosters appreciation, understanding and enjoyment of nature and cultural heritage and their conservation; however, the proposal would enhance this and would be undertaken in line with the management principles applicable to the park and relevant plan of management (refer below for discussion on compliance with the principles and plan of management).

Ecologically sustainable development

References to ecologically sustainable development are included in New South Wales and Commonwealth legislation, and specifically the NPW Act. The principles of ecologically sustainable development, pursuant to section 6(2) of the *Protection of the Environment Administration Act 1991*, include:

- (a) the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by—

- (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
 - (ii) an assessment of the risk-weighted consequences of various options,
- (b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,

- (c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,
- (d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as—
 - (i) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
 - (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,
 - (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) adopted the above definition of ecologically sustainable development and added a fifth principle, which includes:

- (e) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations

This REF has been guided by these principles when assessing the potential impact of the proposed activity. Where uncertainty exists, a precautionary approach has been taken to mitigate and minimise potential environmental impacts. The proposal is considered to be ecologically sustainable within the meaning of the above principles.

Protection of the values for which land is reserved under the Act and the appropriate management of those lands.

Arakoon State Recreation Area became Arakoon National Park in October 2010 (NSW DPE, n.d.(a)); thus, the management principles of section 30E National parks apply to the proposal.

The purpose of reserving land as a national park is to identify, protect and conserve areas containing outstanding or representative ecosystems, natural or cultural features or landscapes or phenomena that provide opportunities for public appreciation and inspiration and sustainable visitor or tourist use and enjoyment so as to enable those areas to be managed in accordance with the principles outlined in section 30E(2) of the NPW Act. The principles of section 30E(2) have been addressed in Table 1.

Table 1: Consistency with section 30E(2) principles for national parks

Section 30E(2) principles	Relevance to proposed activity
(a) the conservation of biodiversity, the maintenance of ecosystem function, the protection of geological and geomorphological features and natural phenomena and the maintenance of natural landscapes	The <i>Arakoon State Recreation Area Plan of Management (PoM)</i> outlines the policies and framework for conserving the natural and cultural environment of the park. This REF is in accordance with the PoM and considers the existing environment and assesses potential adverse impacts and how they relate to the policies and framework for conservation, maintenance and protection of the park. Safeguards have been recommended to avoid or minimise impacts to the park’s natural and cultural values.

<p>(b) the conservation of places, objects, features and landscapes of cultural value</p>	<p>The NPW Act specifies that the Secretary shall be responsible for the proper care, preservation and protection of any Aboriginal object or Aboriginal place on any land reserved under this Act. It is an offence under the NPW Act to harm or desecrate an object that a person knows is an Aboriginal object.</p> <p>The PoM provides policies which mandates that all Aboriginal and historic sites in the park will be protected, and all new earthworks within the park will be preceded by an archaeological survey.</p> <p>An ACHA has been prepared to describe and assess potential impacts to Aboriginal heritage and is summarised in this report. Impacts to Aboriginal heritage, and required safeguards, are described in section 9.5 of this REF.</p>
<p>(c) the protection of the ecological integrity of one or more ecosystems for present and future generations</p>	<p>The PoM outlines the policies and framework for the protection of the ecological integrity of ecosystems within the park. This REF is in accordance with the PoM and considered the existing environment and assesses potential adverse impacts and how they relate to the policies and framework for protecting the ecological integrity of ecosystems within the park. Safeguards have been recommended to avoid or minimise impacts to the ecological integrity of ecosystems for present and future generations.</p>
<p>(d) the promotion of public appreciation and understanding of the national park’s natural and cultural values</p>	<p>The PoM outlines the policies and framework for recreational opportunities and sustainable visitor use of the natural qualities of the park. The proposed activity is in accordance with the PoM and the existing low key natural qualities of the park will be maintained, while the proposed development will cater for a wide variety of recreation pursuits. This REF recommends safeguards to avoid or minimise adverse impacts the park’s natural and cultural values.</p>
<p>(e) provision for sustainable visitor or tourist use and enjoyment that is compatible with the conservation of the national park’s natural and cultural values</p>	<p>The PoM mandates that a diversity of recreational opportunities will be provided in the park, ranging from highly modified settings to undeveloped natural settings. The proposed activity is in accordance with the PoM and the existing low recreational opportunities will be maintained. This REF recommends safeguards to avoid or minimise adverse impacts the park’s natural and cultural values.</p>
<p>(f) provision for the sustainable use (including adaptive reuse) of any buildings or structures or modified natural areas having regard to the conservation of the national park’s natural and cultural values</p>	<p>The PoM provides for sustainable use and adaptive reuse of structures within the park and maintains regard to the conservation of the park’s natural and cultural values. The proposal is in accordance with the PoM which will ensure ongoing use and enjoyment of the park’s natural</p>

	and cultural values. This REF recommends safeguards to avoid or minimise adverse impacts the park’s natural and cultural values.
(fa) provision for the carrying out of development in any part of a special area (within the meaning of the <i>Hunter Water Act 1991</i>) in the national park that is permitted under section 185A having regard to the conservation of the national park’s natural and cultural values,	Not applicable
(g) provision for appropriate monitoring and research	The PoM recognises the park provides considerable scientific and educational values associated with geological and rainforest features. The proposal is in accordance with the PoM, and safeguards have been provided to minimise adverse impacts to the park.

Part 6 Aboriginal objects and Aboriginal places

Section 85(2)(a) provides for the proper care, preservation and protection of any Aboriginal object or Aboriginal place on any land reserved under this Act.

An ACHA has been prepared to assess potential impacts to Aboriginal objects and Aboriginal places with respect to the proposed upgrades within the Cardwell Street precinct. The outcomes of the assessment determined that the precinct is considered to be highly disturbed by previous construction works and the proposed works are considered unlikely to impact on any Aboriginal archaeological material within the precinct. The proposed access track to link with Bridle Track was inspected but was heavily vegetated with limited visibility. However, the landscape context of the new track area was unlikely to have been utilised by Aboriginal people in the past as a camping area and the proposed new track was considered unlikely to impact on any Aboriginal cultural material in the vicinity. A number of safeguards are recommended for the proposed activity and are detailed in section 9.5 of this REF.

Section 81 Operations under a plan of management

Section 81(1) of the Act states that where the minister has adopted a plan of management for a national park, historic site, nature reserve, karst conservation reserve, Aboriginal area or wildlife refuge, it shall, be carried out and given effect to by the Secretary. No operations may be undertaken in relation to the lands to which the plan relates unless the operations are in accordance with the plan.

The proposal is consistent with the policies and framework of the *Arakoon State Recreation Area Plan of Management*, which applies to Arakoon National Park in following its name change in October 2010 (NSW DPE, n.d.(a)).

Arakoon State Recreation Area Plan of Management

The proposed Cardwell Street precinct upgrades will be undertaken in line with the following sections of the Arakoon State Recreation Area Plan of Management dated September 1987:

- Section 4.1 Natural Resources
 - No works will be undertaken which adversely affect the special features of the State Recreation Area
- Section 4.2 Cultural Resources
 - All Aboriginal and historic sites on the State Recreation Area will be protected

- All new earthworks within the State Recreation Area will be preceded by an archaeological survey, with particular attention being given to the prison and its grounds
- Work or other intrusions which detract from the cultural significance of the historic precinct will be prohibited
- Section 4.3 Recreation Opportunities
 - A diversity of recreational opportunities will be provided in the State Recreation Area, ranging from the highly modified settings around the Prison and at Little Bay to undeveloped natural settings at Gap Beach and Saltwater Lagoon
 - The environmental impact, including economic and social costs and benefits, of all new developments will be assessed before any development is undertaken

The proposed activity will contribute to achieving the specific objectives of management as described in the PoM, and will be carried out in accordance with the policies and framework listed above. The proposed activity is therefore permissible pursuant to section 81 of the Act.

Assets of Intergenerational Significance

Part 12A of the Act allows the Minister for the Environment to declare an area to be an environmental or cultural Asset of Intergenerational Significance (AIS). An Asset of Intergenerational Significance can be any area of exceptional value that warrants special protection including dedicated management measures.

The proposed activity will not be undertaken on land declared an Asset of Intergenerational Significance (AIS) nor will the activity occur in close proximity to land declared as AIS.

No conservation action plans (CAPs) apply to the activity as no land declared under Part 12A of the NPW Act exist within the subject area of the activity.

Leasing, licensing and easement provisions

Not applicable, as this is an internal NPWS activity.

Internal NPWS projects

Section 8(3) of the Act requires that the Secretary shall arrange for the carrying out of such works as the Secretary considers necessary for or in connection with the management and maintenance thereof of a national park. As the proposal is consistent with the plan of management and would meet the conservation outcomes under the Act, the Secretary is the appropriate authority to authorise the activity. The proposal is considered to be relevant to the management and maintenance practices used to protect the park's natural and cultural values and to provide opportunities for the public to appreciate, understand and enjoy the natural and cultural heritage of the area.

Pursuant to section 12 of the Act, the Service is to carry out such works and activities as the Minister may direct, either generally or in a particular use case, in relation to the conservation and protection of wildlife, Aboriginal objects and Aboriginal places, and the provision of facilities and opportunities for sustainable visitor and tourist use.

The proposed activity is consistent with the powers and responsibilities of the Service under section 8 and section 12 of the Act.

3.1.2 Wilderness Act 1987 (for activities in wilderness areas)

The objects of the *Wilderness Act 1987* are to provide for the permanent protection and proper management of wilderness areas and to promote the education of the public in the appreciation, protection and management of wilderness.

Pursuant to section 5.5(3) of the EP&A Act, 'a determining authority shall consider the effect of an activity on any wilderness area (within the meaning of the *Wilderness Act 1987*) in the locality in which the activity is intended to be carried on. No land within Arakoon National Park has been declared as wilderness; thus, the Act does not apply to the proposed activity.

3.1.3 Biodiversity Conservation Act 2016

The purpose of the *Biodiversity Conservation Act 2016* (BC Act) is to maintain a healthy, productive, and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.

The proposed activity will largely utilise existing trails and disturbed areas to facilitate construction of the required improvements. The proposal will increase available vehicle parking and improve vehicle and pedestrian movements throughout the site which will reduce encroachment into the adjacent vegetation and fauna habitat. The proposed walking trail link between the existing informal path and Bridle Trail will weave around existing vegetation where possible; thus, limiting ground disturbance and grading. Formalising the walking path and creating a formal link to Bridle Trail will contribute to a reduction of informal pedestrian paths and associated impacts with habitat degradation. Thus, the proposal will contribute to the following purposes of the BC Act:

- (c) to improve, share and use knowledge, including local and traditional Aboriginal ecological knowledge, about biodiversity conservation
- (g) regulate human interactions with wildlife by applying a risk-based approach
- (h) to support conservation and threat abatement action to slow the rate of biodiversity loss and conserve threatened species and ecological communities in nature

Pursuant to section 7.8(2) of the BC Act, an activity under Part 5 of the EP&A Act that is "likely to significantly affect threatened species" is regarded "as an activity likely to significantly affect the environment".

In this circumstance, an EIS is required and must include or be accompanied by a species impact statement or a biodiversity development assessment report.

However, an EIS is not required if the likely significant effect on threatened species is the only likely significant effect on the environment. In this situation, a species impact statement or a biodiversity development assessment report is still required.

In accordance with section 7.2 of the BC Act, an activity is likely to significantly affect threatened species if:

- (a) it is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3, or
- (c) it is carried out in a declared area of outstanding biodiversity value.

Reliance on the Biodiversity Value Map is not relevant to this assessment as the biodiversity offsets scheme does not apply to development under Part 5 of the EP&A Act (section 7.2(2) of the BC Act).

A test of significance as prescribed under section 7.3 of the BC Act has been prepared to determine whether the proposed activity is likely to significantly affect threatened species or ecological communities, or their habitats and is included within the Ecological Assessment for Macleay Coast Destination (Ecological Assessment) in Appendix C. The test of

significance has determined that the proposed activity would not result in a significant impact on threatened species or ecological communities, or their habitats.

3.1.4 NSW Reconstruction Authority Act 2022

The primary objective of the *NSW Reconstruction Authority Act 2022* (NSW RA Act) is to promote community resilience to the impact of disasters in NSW through disaster prevention, preparedness and adaptation, and recovery and reconstruction following disasters.

Pursuant to Part 4, Division 3, section 38(4) of the NSW RA Act, NPWS must have regard to the State disaster mitigation plan and any relevant disaster adaptation plan in exercising the planning authority's functions that are prescribed by the regulations.

The RA Act commenced on 17 December 2022 which did not include the commencement of Part 4 (as per section 2(a)). Pursuant to section 2(b), Part 4 of the Act will commence *on a day or days to be appointed by proclamation*; thus, the Act does not currently apply to this REF.

3.1.5 Rural Fires Act 1997

The objects of the *Rural Fires Act 1997* are to provide—

- (a) For the prevention, mitigation and suppression of bush and other fires in local government areas (or parts of areas) and other parts of the State constituted as rural fire districts, and
- (b) for the co-ordination of bush fire fighting and bush fire prevention throughout the State, and
- (c) for the protection of persons from injury or death, and property from damage, arising from fires, and
- (c1) for the protection of infrastructure and environmental, economic, cultural, agricultural and community assets from damage arising from fires, and
- (d) for the protection of the environment by requiring certain activities referred to in paragraphs (a)–(c1) to be carried out having regard to the principles of ecologically sustainable development described in section 6 (2) of the *Protection of the Environment Administration Act 1991*.

The existing layout of the site constrains vehicle movements and creates conflict issues with user groups due to a lack of separation between access points. The proposed works will have a positive impact on the ability of the NPWS and other bush firefighting agencies to fully utilise the road network within the precinct to undertake operations to protect life, property or the environment, making it consistent with the objects of the *NSW Rural Fire Act 1997* (RF Act).

The proposal will improve the condition of the access road to the precinct, which is identified as a Primary (Cat 1) fire trail on the Arakoon State Conservation Area and Hat Head National Park Fire Management Strategy (Type 2) 2008 (NPWS, 2008).

3.2 Environmental Planning and Assessment Act 1979

3.2.1 Assessment pathway

The *Environmental Planning and Assessment Act 1979* (EP&A Act) regulates development carried out in NSW. Part 5 of the Act permits activities to be assessed by a determining authority. Pursuant to section 5.1(1) of the Act:

- the proposal is an ‘activity’ which includes (d) the carrying out of work; and
- ‘determining authority’ includes a ‘public authority by or on whose behalf the activity is to be carried out’

Pursuant to section 1.4 of the Act, a ‘public authority’ includes a ‘Public Service agency’. The NSW National Parks and Wildlife Service is a Public Service agency of the NSW Department of Climate Change, Energy, the Environment and Water and is therefore a public authority as defined in section 1.4 of the Act. For the purposes of the proposal, the NSW National Parks and Wildlife Service is the proponent and determining authority.

The relevant sections of the Act include:

- section 5.5(1) which requires the determining authority to ‘examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity’;
- section 5.5(3) which requires the determining authority to ‘consider the effect of an activity on any wilderness area (within the meaning of the Wilderness Act 1987) in the locality in which the activity is intended to be carried on’;
- section 5.6 which requires the determining authority to address the regulations for environment impact assessments (currently the Environmental Planning and Assessment Regulation 2021); and
- section 5.7 which requires an Environmental Impact Statement (EIS) to be prepared if the proposed activity is ‘a prescribed activity, an activity of a prescribed kind or an activity that is likely to significantly affect the environment’.

The proposed activity may be undertaken without development consent pursuant to the following sections of *State Environmental Planning Policy (Transport and Infrastructure) 2021* (SEPP Transport and Infrastructure):

Section 2.73:

- (a) Development for any purpose may be carried out without consent—
 - (a) on land reserved under the *National Parks and Wildlife Act 1974*, or acquired under Part 11 of that Act, if the development is for a use authorised under that Act.

The activity also involves works on Cardwell Street and Trial Bay Gaol Access Road which are not land reserved or acquired under the NPW Act; therefore, the following section of SEPP Transport and Infrastructure applies:

Section 2.109:

- (1) Development for the purpose of a road or road infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land.

Further:

- The proposed activity is not ‘designated development’ under Schedule 3 of the *Environmental Planning and Assessment Regulation 2021*.
- The proposed activity is not declared to be state significant infrastructure under section 2.13 of *State Environmental Planning Policy (Planning Systems) 2021*.
- The proposed activity is not ‘designated development’ under section 2.7(2) of *State Environmental Planning Policy (Resilience and Hazards) 2021*.
- The proposed activity is not a type of development requiring development consent under section 2.9 of *State Environmental Planning Policy (Resources and Energy) 2021*.

Pursuant to section 2.74(1)(a) of SEPP Transport and Infrastructure, construction or maintenance of the following items are exempt development within parks and other public reserves if the development is carried out on land referred to in section 2.73(1) and carried out by or on behalf of a public authority:

- (i) walking tracks, raised walking paths (including boardwalks), ramps, stairways of gates, or
- (ii) bicycle-related storage facilities, including bicycle racks and other bicycle parking facilities (except for bicycle paths), or
- (viii) seats, picnic tables, barbeques, bins (including frames and screening), shelters or shade structures

As such, parts of the proposal are considered exempt development for the purpose of SEPP Transport and Infrastructure; however, NPWS will process all elements of the proposal as an activity for the purpose of Division 5.1 of the EP&A Act.

3.2.2 Strategic plans

North Coast Regional Plan 2041

The North Coast Regional Plan 2041 (regional plan) is a land use plan prepared under the EP&A Act. It applies to the local government areas (LGAs) of Ballina, Bellingen, Byron, Clarence Valley, Coffs Harbour, Kempsey, Kyogle, Lismore, Nambucca, Port Macquarie-Hastings, Richmond Valley and Tweed. The regional plan draws from each council’s local strategic planning statements and acknowledges common interests without duplicating effort.

The activity will contribute to the Kempsey Local Government Narratives identified within the regional plan, which includes to:

“Promote the shire as a premier regional visitor destination and continue to expand nature-based, adventure and cultural tourism by leveraging the area’s environmental and iconic assets such as World heritage Gondwana rainforests, the Five Headlands Trail, Trial Bay Gaol and Smoky Cape Lighthouse, the Slim Dusty Centre, the Macleay Valley Mountain Bike Park and the proposed Macleay Valley Adventure Park” (DPE, 2022a).

Kempsey Coastal Zone Management Plan October 2016

The Kempsey Coastal Zone Management Plan (CZMP) was prepared through the NSW Coastal Management Framework and is currently being reviewed and updated to a Coastal Management Program to comply with coastal management legislation (KSC, 2024). The KCZMP is underpinned by technical assessments of coastal processes and related hazards for the Kempsey Coast and provides an assessment of risks, values and options for the Kempsey Shire Council.

The overarching aim for the CZMP is to provide practical and affordable actions to improve community use and facilities of the coastal zone, and to plan and initiate actions that protect values and build resilience to existing and future coastal hazards (BMT WBM, 2016).

The proposed activity will contribute to the following specific objectives identified in the CZMP:

- Managing and reducing the risks to existing development and values,
- Preparing to manage future risks to existing development and values, and
- Providing safe access within the coastal zone to the community and visitors.

Macleay Valley Coast Destination Management Plan 2019-2029

The proposed activity, which forms part of the Macleay Coast Destination project, is identified as an important achievement which needs to be capitalised upon with a strategic, project-focused approach to destination management of the Macleay Valley Coast Destination Management Plan 2019-2029. Kempsey Shire Council has identified the opportunity to forge a lasting relationship with NPWS for the benefit of the visitors experiencing the Macleay (Kempsey Shire Council, 2019).

3.3 Other relevant NSW legislation

3.3.1 Coal Mine Subsidence Compensation Act 2017

The activity does not involve the erection or alteration of an improvement of a NPWS asset within the mapped mine subsidence district as specified under the *Coal Mine Subsidence Compensation Act 2017*.

3.3.2 Fisheries Management Act 1994

The *Fisheries Management Act 1994* (FM Act) applies to all waters that are within the limits of the State of NSW. It aims, amongst other things, to conserve fish stocks and key fish habitats, threatened species, populations and ecological communities of fish and marine vegetation, and promote ecologically sustainable development, including the conservation of biological diversity.

Pursuant to section 221ZX of the FM Act, an activity under Part 5 of the EP&A Act that is “likely to significantly affect threatened species, populations or ecological communities” is considered to be an activity that is “likely to significantly affect the environment”.

Consideration of the requirements of section 221ZV of the FM Act is therefore required to determine whether the proposed activity is likely to significantly affect threatened species, populations or ecological communities. No aquatic species listed under the FM Act are known or predicted to occur within the locality, and no species or ecological communities listed under the Act were recorded on site. Therefore, the activity is not likely to “significantly affect threatened species, populations or ecological communities”, and the activity does not require concurrence of the Minister for Agriculture. Further, an approval pursuant to sections 144, 201, 205 or 219 of the FM Act is not required.

The proposed pathway establishment linking the Cardwell Street precinct to Bridle Trail will involve dredging and/or reclamation works over a Strahler 1st order stream which is not classified as key fish habitat under the FM Act.

One of the primary objectives of the FM Act is to conserve fish stocks and key fish habitats. The term ‘key fish habitats’ is not defined in the FM Act or the *Fisheries (General) Regulation 2019* (FM Regs); thus, the NSW Department of Primary Industries (NSW DPI) provide a definition of ‘key fish habitats’ on their public webpage ([Protecting habitats](#)) and through the

NSW DPI Policy and guidelines for fish habitat conservation and management: Update 2013 (DPI, 2013).

For the purpose of the FM Act and under these guiding publications, NSW DPI does not consider Strahler first and second order streams as ‘key fish habitats’ (DPI, n.d.); thus, notification under section 199(1) of the FM Act is not required.

3.3.3 Heritage Act 1977

The objectives of the *Heritage Act 1977* include to encourage the conservation of the State’s heritage and to assist owners with the conservation of items of State heritage significance. Section 4 of the Act broadly defines environmental heritage as comprising the following items:

- those places, buildings, works, relics, moveable objects, and precincts, of State or local heritage significance

The Act defines a relic as ‘any deposit artefact, object or material evidence that—

- (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
- (b) is of State or local heritage significance

Sections 139 to 145 within Division 9 of the Act prevent the excavation or disturbance of land for the purpose of discovering, exposing or moving a relic, except by a qualified archaeologist to whom an excavation permit from Heritage NSW has been issued.

Section 146 of the Act requires that ‘a person who is aware or believes that he or she has discovered or located a relic (in any circumstances, and whether or not the person has been issued with a permit) must—

- (a) within a reasonable time after he or she first becomes aware or believes that he or she has discovered or located that relic, notify the Heritage Council of the location of the relic, unless he or she believes on reasonable grounds that the Heritage Council is aware that the Heritage Council is aware of the location of the relic, and
- (b) within the period required by the Heritage Council, furnish the Heritage Council with such information concerning the relic as the Heritage Council may reasonably require.

Searches have been undertaken of the NSW State Heritage Inventory, the Historic Heritage Information Management System (HHIMS) under section 170 of the Act, and Schedule 5 Environmental heritage of the *Kempsey Local Environmental Plan 2013* (LEP).

The Cardwell Street precinct is predominantly situated within the State Heritage Register (SHR) listing curtilage of the Trial Bay Gaol, Breakwater and Environs (Figure 2) which is listed with the following details.

Item	SHR ID	HHIMS - S170	Location	Notional Geolocation
Trial Bay Gaol, Breakwater and Environs	01825	Yes	Arakoon National Park	506726E; 6584016N; 56J

No additional listed items of State or local significance have been recorded within or near the proposed works area.

A SoHI was prepared in June 2023 which determined the precinct is not historically associated with the gaol or the settlement of Arakoon, and that works will have no deleterious historic heritage impact.

The proposed works within the SHR-listed curtilage area of the Trial Bay Gaol, Breakwater and Environs will require section 60 approval from Heritage NSW, or relevant section 57(2) exemption(s).



Figure 2: Location of the Cardwell Street precinct within the State Heritage listed Trial Bay Gaol, Breakwater and Environs curtilage

3.3.4 Marine Estate Management Act 2014

The proposal would not affect, nor does it directly adjoin a marine park or aquatic reserve in this location, thus, consideration of the Act is not required.

3.3.5 Water Management Act 1993

The *Water Management Act 1993* (WM Act) outlines approval requirements for activities at a specified location in, on or under waterfront land. The WM Act also outlines water access rights and surface water runoff.

Section 91E of the WM Act establishes an approval regime for controlled activities in, on or under “waterfront land”, which is the bed of any river, lake or estuary, and the land within 40 metres of the highest bank of the river, the shore of the lake or the mean high-water mark of the estuary.

A “controlled activity” approval is required for certain types of activities on waterfront land (unless an exemption applies). A “controlled activity” is defined in the WM Act to include the erection of a building or the carrying out of work within the meaning of the EP&A Act and the carrying out of any other activity that affects the quantity or flow of water in a water source.

However, section 41 of the Water Management (General) Regulation 2018 (WM Regulation) provides an exemption for public authorities in relation to all controlled activities carried out in or under waterfront land; thus, approval under the WM Act is not required.

3.3.6 Roads Act 1993

The proposed activity relates to carrying out works within the road corridors of Cardwell Street and Trial Bay Gaol Access Road, which are public roads as per the Transport for NSW ‘NSW Road Network Classifications’ (TfNSW, 2023), which is defined in the *Roads Act 1993* (Roads Act) as:

- (a) any road that is opened or dedicated as a public road, whether under this or any other Act or law, and
- (b) any road that is declared to be a public road for the purposes of the Act.

Pursuant to section 138 of the Roads Act:

- (1) A person must not—
 - (a) erect a structure or carry out work in, on or over a public road, or
 - (b) dig up or disturb the surface of a public road, or
 - (c) remove or interfere with a structure, work or tree on a public road, or
 - (d) pump water into a public road from any land adjoining the road, or
 - (e) connect a road (whether public or private) to a classified road.

The proposed activity involves works on public roads which are owned by both NPWS and Kempsey Shire Council; thus, the following sections of the Roads Act apply to the proposal:

- Pursuant to section 188B of the NPW Act, section 138 of the Roads Act does not apply to anything done under a provision of the NPW Act in relation to a road that is, or is on, land reserved under the NPW Act, and
- Pursuant to pursuant to Part 2, Division 1, section 5 of the Roads Act, section 138 does not require a public authority to obtain a roads authority’s consent to the exercise of the public authority’s functions in, on or over an unclassified road other than a Crown road. Accordingly, consent is not required under section 138 of the Roads Act

3.3.7 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) is the key environmental protection and pollution statute. The POEO Act is administered by the Environment Protection Authority (EPA) and establishes a licensing regime for waste, air, water and pollution. Relevant sections of the Act are listed below:

- Part 5.3 Water Pollution
- Part 5.4 Air Pollution
- Part 5.5 Noise Pollution
- Part 5.6 Land Pollution and Waste

Any work potentially resulting in pollution must comply with the POEO Act. Relevant licences must be obtained if required; however, no licences pursuant to sections 47, 48, 49 or 122 of the Act are required.

Further, the proposed activity is not a scheduled activity or scheduled development work identified in Schedule 1 of the POEO Act.

3.3.8 Local Land Services Act 2013

The *Local Land Services Act 2013* (LLS Act) regulates the clearing of native vegetation across the State; however, pursuant to section 60A(b)(ii) land reserved under the NPW Act or land acquired under Part 11 of that Act are not considered areas of the State to which the LLS Act applies. Thus, consideration of the Act is not required.

3.3.9 Biosecurity Act 2015

The primary objective of the *Biosecurity Act 2015* is to provide a framework for the prevention, elimination and minimisation of biosecurity risks posed by biosecurity matter, dealing with biosecurity matter, carriers and potential carriers, and other activities that involve biosecurity matter, carriers or potential carriers.

Part 3 of the Act provides mandatory measures which require persons who deal with biosecurity matter or carriers to take specified actions to prevent, eliminate or minimise a biosecurity risk posed or likely to be posed by the biosecurity matter, carrier or dealing.

The Ecological Assessment notes the works areas are relatively free of weeds; however, weeds are present in some areas of high disturbance. Thus, NPWS has a general biosecurity duty to ensure the risk of further weed contamination is prevented, eliminated or minimised, so far as reasonably practicable.

Mitigation measures are provided in section 9.2 to reduce the risk of spreading weeds.

3.3.10 Aboriginal Land Rights Act 1983

The purposes of the *Aboriginal Land Rights Act 1983* include:

- to provide land rights for Aboriginal persons in New South Wales,
- to provide for representative Aboriginal Land Councils in New South Wales,
- to vest land in those Councils.

Native title rights (as discussed in section 5.1 below) are different to and separate from the statutory right of Aboriginal Land Councils to make claims for land under the *Aboriginal Land Rights Act 1983*.

The Local Aboriginal Land Councils (LALCs) must comply with the Act and the *Aboriginal Land Rights Regulation 2020* when they want to 'deal with land' that is 'vested' in them. This

includes the requirements for the LALC to apply to/notify dealings with the New South Wales Aboriginal Land Council. However, pursuant to section 42A(1) of the Act, an Aboriginal Land Council must not deal with land that is vested in it and that is reserved or dedicated under Part 4 of the NPW Act except in accordance with that Act.

The proposed activity does not require a dealing to be entered into with a LALC; therefore, there is no legislative requirement for application or notification with the NSW Aboriginal Land Council under the Act. Consultation with Kempsey LALC has occurred as part of the Aboriginal Cultural Heritage Assessment process for the proposal (refer to Appendix A).

3.3.11 State Environmental Planning Policy (Resilience and Hazards) 2021

The aim of *State Environmental Planning Policy (Resilience and Hazards) 2021* (SEPP Resilience and Hazards) is to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objectives of the *Coastal Management Act 2016*, including the management objectives for each coastal management area.

Division 1 Coastal wetlands and littoral rainforests

The proposed activity is not situated on land identified as “coastal wetlands” or “littoral rainforest” on the *Coastal Wetlands and Littoral Rainforests Area Map*.

Division 2 Coastal vulnerability area

The proposed activity is not situated on land that is within the area identified as “coastal vulnerability” on the *Coastal Vulnerability Area Map*.

Division 3 Coastal environment area

Sections of the proposal are situated on land that is within the coastal environment area. Section 2.10 requires the consent authority to consider whether the proposed development is likely to cause an adverse impact on coastal environment areas prior to consent of an application. Section 2.10 only applies to development applications under Part 4 of the EP&A Act and therefore does not apply to this proposal.

Notwithstanding, potential impacts to the coastal environment area have been considered in Table 2.

Table 2: Consistency of activity with coastal environment values

Coastal environment values	How proposal is consistent
(a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment	The activity will predominately occur within previously disturbed areas and does not involve significant ground disturbance or vegetation removal to an extent that would impact on the receiving biophysical, hydrological and ecological environment. Safeguards are provided in section 9.2 of this REF to mitigate potential impacts
(b) coastal environmental values and natural coastal processes	The activity will predominately occur within previously disturbed areas and does not involve significant ground disturbance or vegetation removal to an extent that would impact on coastal environmental values and natural coastal processes. Safeguards are provided in section 9.2 of this REF to mitigate potential impacts

(c) the water quality of the marine estate (within the meaning of the <u>Marine Estate Management Act 2014</u>), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1	The activity is not situated within or adjacent to a marine estate (within the meaning of the <u>Marine Estate Management Act 2014</u>).
(d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms	The activity does not involve the removal of marine vegetation, or any significant amounts of native vegetation which would impact on fauna and their habitats. Safeguards are provided in section 9.2 of this REF to mitigate potential impacts
(e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability	Public open spaces associated with the coastal environment area will be temporarily closed during construction; however, upon completion, these spaces will be significantly improved for the public to access and appreciate coastal environment values.
(f) Aboriginal cultural heritage, practices and places	An ACHA has been prepared to assess potential impacts to Aboriginal objects and Aboriginal places with respect to the proposed activity. The outcomes of the assessment determined that the works would provide a level of protection and reduce ongoing harm and damage to Aboriginal values by formalising vehicle and pedestrian movements.
(g) the use of the surf zone	Not applicable

Division 4 Coastal use area

The proposed activity is situated on land within the coastal use area. Section 2.11 requires the consent authority to consider whether the proposed development is likely to cause an adverse impact on coastal use areas prior to consent of an application. Section 2.11 only applies to development applications under Part 4 of the EP&A Act and therefore does not apply to this proposal.

Notwithstanding, potential impacts to the coastal use area have been considered in Table 3.

Table 3: Consistency of activity with coastal use values

Coastal use values	How proposal is consistent
(i) existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability	During construction, access to coastal use areas will be temporarily closed; however, upon completion, these areas will be significantly improved for safety for the public.
(ii) overshadowing, wind funnelling and the loss of views from public places to foreshores	The activity will not create overshadowing, wind funnelling or the loss of views from public places to the foreshore.
(iii) the visual amenity and scenic qualities of the coast, including coastal headlands	During construction, there will be minor impacts to visual amenity associated with construction activities and machinery and materials stored on site. Impact will; however, be temporary and short-term in duration. Upon completion, the upgraded areas will improve the visual amenity of coastal use values.

(iv) Aboriginal cultural heritage, practices and places	An ACHA has been prepared to assess potential impacts to Aboriginal objects and Aboriginal places with respect to the proposed activity. The outcomes of the assessment determined that the works would provide a level of protection and reduce ongoing harm and damage to Aboriginal values by formalising vehicle and pedestrian movements.
(v) cultural and built environment heritage	A SoHI has been prepared to assess potential impacts to cultural and built heritage values. The SoHI acknowledges that the proposed activity would improve the functionality, safety, accessibility and appearance of the locale; however, there is some potential to impact on known or potential archaeological resources. Thus, safeguards are included in section 9.6 to minimise impacts to known and/or potential archaeological values.

Chapter 4 Remediation of land

Chapter 4 of SEPP Resilience and Hazards provides a state-wide planning approach for the remediation of contaminated land and aims to promote the remediation of contaminated land to reduce the risk of harm to human health or the environment. Section 4.6(1) requires the consent authority to consider whether land is contaminated prior to consent of an application; however, Chapter 4 only applies to development applications under Part 4 of the EP&A Act and therefore does not apply to the proposal.

Notwithstanding, potential impacts from contaminated land have been considered in the preparation of this REF. Searches of the NSW Environment Protection Authority (EPA) List of Notified Sites and the Contaminated Land Public Record were undertaken on 23 October 2023 which did not identify any contaminated land sites occurring in proximity to the proposal.

3.4 Commonwealth legislation

3.4.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) applies as the activity is on land that contains the following, or the activity may affect:

- nationally listed threatened species and ecological communities or listed migratory species.

The EPBC Act provides an assessment and approvals system for actions that impact on Matters of National Environmental Significance (MNES) and actions that have a significant impact on Commonwealth land. The approval of the Minister for the Department of the Climate Change, Energy, the Environment and Water is required if an action is likely to have a significant impact on or involve:

- world heritage properties
- national heritage places
- wetlands of international importance
- nationally threatened species and ecological communities
- migratory species
- Commonwealth marine areas

- the Great Barrier Reef Marine Park
- nuclear actions,
- or a water resource, in relation to coal seam gas development and large coal mining development.

Under the Act, any action which has a significant impact on a MNES value triggers a referral under the EPBC Act. There are no significant impacts detected on MNES values on or near the activity area and therefore the EPBC Act is not triggered by this proposal.

Evaluations of species and communities listed under the EPBC Act have been incorporated into Part 8.5 and Part 9.7 of this REF and assessed within the Ecological Assessment. The EPBC Act Protected Matters Report is also attached in the Ecological Assessment in Appendix C.

3.4.2 Native Title Act 1993

The main objects of the *Native Title Act 1993* (NT Act) are:

- (a) to provide for the recognition and protection of native title; and
- (b) to establish ways in which future dealings affecting native title may proceed and to set standards for those dealings; and
- (c) to establish a mechanism for determining claims to native title; and
- (d) to provide for, or permit, the validation of past acts, and intermediate period acts, invalidated because of the existence of native title.

A ***past act*** is an act done before this Act's commencement on 1 January 1994. Arakoon State Park was reserved as a State Recreation Area in 1974 under the NPW Act, and has since been added to multiple times. The proposed activity will be carried out in line with the *Arakoon State Recreation Area Plan of Management* which is in accordance with the purpose of the reservation of a national park.

Refer to section 5.1 for validation of the act under the NT Act.

3.5 Consistency with national parks policy

Policy name	How proposal is consistent
Accessible Parks Policy	<p>A new path/boardwalk suitable for equitable access from the carpark to the seating area on the beach will be provided. The existing pathway to Trial Bay will be formalised and be constructed as a shared pedestrian/cycleway. The path establishment will be undertaken in accordance with the guiding principles of the Accessible Parks Policy (NSW DPE, 2023a) and as such, NPWS recognises:</p> <ul style="list-style-type: none"> - the health and wellbeing benefits of access to national parks for all people - the landscapes, cultural and historic heritage protected by national parks can present a range of barriers to access that impact people with a disability - barriers to accessing national parks may have compounding impacts on Aboriginal people, for whom health and wellbeing is tied to the management and health of their Country and being able to care for and access Country and its resources

Policy name	How proposal is consistent
	<ul style="list-style-type: none"> - considering and planning for accessibility should address the many ways in which people connect with national parks, including passive and active engagement in recreational, educational and cultural activities <p>The proposed formalisation of the walking track from the old NPWS depot will link to Bridle Trail which is not all-accessible. In accordance with the Accessible Parks Policy, NPWS recognises:</p> <ul style="list-style-type: none"> - it will not always be feasible to provide physical access to national parks for all people
<p>Tree Risk Management Policy</p>	<p>NPWS has a duty of care to manage and, where possible, to minimise the risks from hazardous trees to people in parks. The proposal will contribute to the principles of the Tree Risk Management Policy (NSW DPE, 2021a) by:</p> <ul style="list-style-type: none"> - trimming of tree branches where necessary to minimise risk of injury from falling limbs - manage tree risk as part of regular park management activities, including identifying, assessing and treating hazardous trees - focusing on tree risk management in high use areas where exposure is greatest for workers and visitors
<p>Trial Bay Gaol: Conservation Management and Cultural Tourism Plan</p>	<p>The Trial Bay Gaol: Conservation Management and Cultural Tourism Plan (Davies, 2004) (Plan) provides a framework of a set of head policies which support the vision of the Trial Bay Gaol and precinct in which it is situated. The proposal is situated within the SHR curtilage of the Trial Bay Gaol, Breakwater and Environs; thus, the objectives of the proposal will be undertaken in line with the following head policies of the Plan:</p> <ul style="list-style-type: none"> - The core activities at the place will be conservation, interpretation, education and recreation. These activities will relate to all aspects of the place's significance - The current uses of interpretation (including gaol access), camping, day visitation and their associated activities are an appropriate mix of uses for the site. Each use should be managed to provide a high quality experience for those visiting the site for each purpose - Any future development within the gaol precinct should be related to conservation, education and interpretation of the significant elements of the place, or to provide quality and levels of amenities for the recreational use of the place
<p>Vehicle Access Policy</p>	<p>Installation of a new road which is wide enough for two-way traffic will be installed, as well as upgrading and formalising available parking. The proposal is consistent with the objectives of the Vehicle Access Policy (NSW DPE, 2023b) in that the proposed works would:</p> <ul style="list-style-type: none"> - not cause unacceptable impacts on the environment and cultural heritage; - be designed with sensitivity to the landscape; and - be appropriate and necessary to meet park management needs.
<p>Visitor Safety Policy</p>	<p>The proposal is consistent with the objectives of the Visitor Safety Policy (NSW DPE, 2022b) in that the proposed works would:</p> <ul style="list-style-type: none"> - contribute to NPWS' duty of care for visitor safety and prohibit conduct which does not discharge that duty - prioritising and resourcing higher rated risks than lesser-rated risks

Policy name	How proposal is consistent
	<ul style="list-style-type: none"> - approaching risk management that promotes conservation of alternatives which may compromise conservation - protecting property (including park infrastructure) - contribute to the objectives of the plan of management which is a management planning instrument consistent with the policy
Walking Tracks Policy	<p>The proposed formalisation and additional walking tracks will be undertaken in accordance with the following policies of the Walking Tracks Policy (NSW DPE, 2021b):</p> <ul style="list-style-type: none"> - walking tracks will be planned in accordance with the park’s plan of management, the Park Visitor Facilities Policy (internal NPWS document), and the Park Facilities Manual (internal NPWS document) - the tracks will be located and designed to minimise environmental impacts and be appropriate to the setting - the tracks will incorporate information and signs to communicate walking track experiences in accordance with the Park Signage Manual (internal NPWS document)

3.6 Summary of licences and approvals

3.6.1 Approval required from National Parks and Wildlife Service

Internal NPWS approval or authorisation, including expenditure.

3.6.2 Other approvals

No approvals in addition to those described above have been identified for the proposed activity. A summary of approvals required is provided below:

- Works within the SHR-listed curtilage area will require Section 60 approval from Heritage NSW, or relevant section 57(2) exemption(s) under the Heritage Act.

3.6.3 Publication triggers

Table 4. Triggers for publication of the review of environmental factors

Permit or approval	Applicable?
<i>Fisheries Management Act 1994</i> , sections 144, 200, 205 or 219	No
<i>Heritage Act 1977</i> , section 57(1) (commonly known as a section 60 and not an Exemption under section 57(2))	Yes
<i>National Parks and Wildlife Act 1974</i> , section 90 (AHIP)	No
<i>Protection of the Environment Operations Act 1997</i> , sections 47–49 or 122	No

The Cardwell Street precinct forms part of the Macleay Coast Destination project which has a capital investment value of more than \$5 million.

In accordance with section 171(4)(a) and (b)(ii) of the *Environmental Planning and Assessment Regulation 2021* this REF must be published on the NPWS website or the NSW planning portal following determination.

4. Consultation – general

4.1 Statutory consultation

4.1.1 Transport and Infrastructure SEPP

The Transport and Infrastructure SEPP requires consultation with relevant authorities as identified in the following table.

Table 5. Consultation triggers under the Transport and Infrastructure State Environmental Planning Policy

Authority (TISEPP section)	Trigger	Applicable to proposal?
Consultation with local council (s 2.10)	Development with impacts on council infrastructure or services (such as stormwater, sewer, water, roads and footpaths)	No
Consultation with local council (s 2.11)	Development with impacts on heritage items listed under the local environmental plan (LEP)	No
Consultation with local council (s 2.12)	Development that will change flood patterns on flood-labile land	No
Consultation with State Emergency Service (s 2.13)	Development on flood-labile land	No
Consultation with local council (s 2.14)	Development that is inconsistent with a certified coastal management program affecting land within the mapped coastal vulnerability area	No
Consultation with NPWS (s 2.15(2)(a))	Development adjacent to land reserved or acquired under the NPW Act	No
Consultation with NPWS (s 2.15(2)(b))	Development on land in Zone C1 that is yet to be reserved under the NPW Act	No
Consultation with Transport for NSW (s 2.15(2)(c))	Development comprising a fixed or floating structure in or over navigable waters	No
Consultation with the Director of the Siding Spring Observatory (s 2.15(2)(d))	Development that may increase the amount of artificial light in the night sky and that is on land within the mapped dark sky region	No
Consultation with the Cth Department of Defence (s 2.15(2)(e))	Development located within the buffer around the defence communications facility near Morundah as mapped under the Lockhart, Narrandera or Urana LEPs	No
Consultation with the Subsidence Advisory NSW (s 2.15(2)(f))	Development on land in a mine subsidence district	No
Consultation with the Willandra Lakes Region World Heritage Advisory Committee and Heritage NSW (s 2.15(2)(g))	Development on, or reasonably likely to have an impact on, a part of the Willandra Lakes Region World Heritage Property	No

Authority (TISEPP section)	Trigger	Applicable to proposal?
Consultation with the Western Parkland City Authority (s 2.15(2)(h))	Development within a Western City operational area (Western Parkland City Authority Act 2018, Schedule 2) with a capital investment value of \$30 million or more	No
Consultation with Transport for NSW (s 2.221)	Traffic-generating development listed in Schedule 3	No

4.1.2 Other statutory consultation

No other consultation is required under other legislation in addition to the that which has been described above (e.g. under the Fisheries Management Act or Defence Act).

4.2 Targeted consultation

4.2.1 Adjacent landowners

The proposed activity will be undertaken on land reserved under Part 4 of the NPW Act and would not impact on adjacent landowners; however, the project team posted an invitation to join the register of interest to nearly 1,000 properties that adjoin or are located close to Arakoon and Hat Head national parks, so they may be notified about public consultation opportunities.

4.2.2 Wider community consultation and/or notification of works

NPWS consulted widely and considered a range of community input during the development of the master plan through the following channels:

Stakeholder meetings

- Field inspections and monthly project team meetings were held with NPWS staff, internal experts and NPWS regional advisory committee.
- Engagement with Traditional custodians and Aboriginal community groups was undertaken, including South West Rocks Figtree Descendants and South West Rocks Aboriginal corporations.
- 15 meetings were conducted with key stakeholders, including Kempsey Shire Council, Destination North Coast, Dunecare, Voices of South West Rocks and others.

Market sounding

A research review and series of 18 interviews with tourism sector experts to understand visitor market trends and opportunities was undertaken by Mayvin Global.

Visitor surveys

A total of 58 visitor groups were surveyed over the 2020 summer school holidays with 25% being day visitors and 75% staying overnight. They were asked about their visit motivations, activities, satisfaction and suggested enhancements.

Post-visit campground surveys

All visitors staying at Trial Bay campground are offered the opportunity to complete a short survey about their stay. NPWS analysed 941 post-visit survey responses from July 2019 to

June 2020, including ratings, comments and suggested improvements. Local staff monitored all ongoing responses.

Register of interest

Almost 200 people have registered their interest in the Macleay Coast Destination project and park plan of management as promoted by 25 posters. The comments they provided about their interests, values and ideas for future management have informed the project.

Public exhibition

The draft master plan was placed on public display on the NPWS website from late November 2022 to 10 January 2023. During exhibition, the community and stakeholders were invited to ‘Have your say’ and provide feedback on the draft master plan.

During the exhibition period, two (2) drop-in information sessions were held at Little Bay to give the community an opportunity to learn more about the Macleay Coast Destination project. NPWS representatives were available to provide information and answer questions about the project.

4.2.3 Interest groups and/or notification

Local Aboriginal Communities

In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010*, the Aboriginal community was consulted as part of the ACHA for the proposed activity. During preparation of the ACHA, a sampling strategy was developed and provided to the Registered Aboriginal Parties (RAPs) as part of the consultation process. The strategy included assessment of all landforms within the study area that have the potential to be impacted by the proposed activity. Areas considered likely to have archaeological potential were closely scrutinised; however, the entire precinct was considered.

As part of the consultation process, a total of five (5) Aboriginal people and organisations registered an interest in being consulted for the proposed activity. A site inspection was undertaken on 17 August 2023 by archaeologists from Apex Archaeology and were accompanied by RAPS, NPWS staff and WolfPeak staff which determined that no newly identified or previously recorded Aboriginal sites would be impacted as part of the proposed works. Much of the proposal is located within areas containing existing infrastructure and relates to upgrades to improve existing elements. As such, and in consultation with the Aboriginal community, the proposed works are considered to have a minimal effect on the Aboriginal cultural values of precinct.

5. Consultation – Aboriginal communities

5.1 Native title notification requirements

1. Is the land subject to an Indigenous land use agreement (ILUA)? No

An online search of the Register of Indigenous Land Use Agreements was undertaken as part of the ACHA which did not identify any ILUAs present within or close to the study area.

2. Has native title been **extinguished**? No or unclear
3. Has there been a determination of native title applicable to the land or is there a native title claim pending? No

As part of the consultation process of the ACHA, an online search of the National Native Title Tribunal (NNTT) was undertaken which did not identify any Native Title Applications over the study area. The closest Native Title claim is by the Gumbaynggirr People which commences approximately 18-kilometres north of the current study area.

4. If native title is not confirmed as extinguished, **and** the activity is occurring on land reserved as park on or before 23 December 1996, is it an act in accordance with the purpose of reservation **and will it:**
 - a. be a 'public work' as per subdivision 24J of the Native Title Act (e.g. a building or other structure that is fixed to the landscape, a road or bridge, a well or a bore, or involves major earthworks, carried out by a public authority)**or**
 - b. involve the grant of a lease or easement?

Yes

Arakoon State Park was reserved as a State Recreation Area in 1974 under the NPW Act, and has since been added to multiple times. The proposed activity will be carried out in line with the *Arakoon State Recreation Area Plan of Management* which is in accordance with the purpose of the reservation of a national park. Further, the activity is considered 'public work' pursuant to subdivision 24J of the Native Title Act as it relates to a structure which is fixed to the landscape and will be carried out by a public authority.

5. If native title is not confirmed as extinguished and the circumstances of Question 4 do not otherwise apply (e.g. the park was reserved after 23 December 1996), is the activity either:
 - a. a facility for service to the public (as defined in subdivision 24K of the Native Title Act)**or**
 - b. a low-level activity (as defined in subdivision 24L of the Native Title Act)?

N/A

The proposed activity does not have a high risk of adversely affecting native title (e.g., major infrastructure works, new buildings or granting of leases).

5.2 Parks under joint management arrangements other than an indigenous land use agreement

Is the park's management subject to another joint management arrangement such as a memorandum of understanding? No

5.3 Other parks

Arakoon National Park is not under a joint management arrangement. In accordance with the *Aboriginal cultural heritage consultation requirements for proponents 2010* the Aboriginal community were consulted as part of the ACHA. Consultation included notification to interested parties, providing information on the proposal, and seeking cultural advice. The consultation process also included a site survey of the proposed activity with members of the Aboriginal community.

6. Proposed activity (or activities)

6.1 Location of activity

Table 6. Summary of activity location

Description of location	Arakoon National Park is located within South West Rocks which is situated on the Mid North Coast of New South Wales, approximately 32-kilometres northeast of Kempsey. The proposal includes a range of improvements within the Cardwell Street precinct, which is accessed via Cardwell Street approximately 650-metres south of Trial Bay Gaol.		
Site commonly known as	Cardwell Street precinct		
Park name	Arakoon National Park		
Other tenures	This Review of Environmental Factors applies to lands reserved under Part 4 of the NPW Act and on Council owned and managed roads. <i>Note: During the preparation of this REF, Trial Bay Gaol Access Road and the sections of Cardwell Street adjacent to Arakoon National Park are owned and managed by Kempsey Shire Council. They are in the process of being transferred to NSW NPWS; however, it is not understood when this will be finalised.</i>		
Lot/DP	Not applicable		
Street address	Cardwell Street, Arakoon NSW 2431		
Site reference	Easting: 506786	Northing: 6583362	MGA zone: 56J

6.2 Description of the proposed activity

The NSW National Parks and Wildlife Service have received funding to undertake works to complement the existing historic and cultural significance of key visitor precincts in Arakoon and Hat Head national parks by increasing the range and quality of experiences on offer and improving park visitor facilities. The Cardwell Street precinct is one of four individual precincts identified in the Macleay Coast Destination project which aims to improve community wellbeing, enhance the regional visitor economy and increase nature-based tourism in NSW.

The scope of works proposed for the precinct improvement plan are listed in Table 7, while the location of each improvement item is shown in Figure 3 (NPWS, 2022b).

Table 7: Cardwell Street precinct improvement plan

Item No.	Description of Improvement
1	Vehicular beach access to be restricted to emergency vehicles only, with area used for 4WD parking to be regenerated
2	Shower to be relocated, with new shower facilities located at proposed amenities item 5

3	Nursery to be relocated and space to be converted to maximise area for public use and events with authorised vehicle access for event set up
4	Road will require some slight vegetation removal, road widening and drainage to be upgraded to ensure all-weather access
5	Amenities with showers and accessible toilets
6	Vehicle access to carparking areas will be via a one-way system to create a safe pedestrian zone. Option to close parking area during events for use such as transition zone etc
7	Car and trailer parking provided for camp ground users to enable early arrivals/ checkouts to park vehicles and utilise precinct facilities
8	Installation of new road will require widening and culvert upgrades to enable 2-way traffic flow
9	Pedestrian access improved by road widening and line marking to provide safe separation from vehicles
10	Building space to be converted to NPWS Trial Bay campground office with shortstay parking for visitors accessing the office and information. Vehicle access to depot will need to be addressed to prevent vehicle/pedestrian conflict
11	Track intersection node with directional signage
12	Parking for the Bridle Trail will be promoted at the Cardwell Street precinct with a new access path linking to the existing trail to provide a safe crossing point maximising sight lines along the Trial Bay Access Road
13	Shared pedestrian/cycleway linking Trial Bay to South West Rocks
14	Path/boardwalk to be of a suitable surface for equitable access to enable wheelchairs, prams, walkers etc. to have access to a low-level deck with seat located to gain maximum views of the bay. Bike racks positioned to provide secure location to leave bikes



Figure 3: Cardwell Street precinct improvement plan layout (source: Macleay Coast Destination Draft Master Plan)

6.2.1 The proposed activity: pre-construction, construction, operation and remediation

Pre-construction

- Erosion and sediment controls consistent with the NPWS field guide for Erosion and Sediment Control on Unsealed Roads and currently accepted best management practice (i.e., Landcom [2004] Managing Urban Stormwater: Soils and Construction [4th Edition] – The Blue Book) are to be installed where required to prevent sediment moving off-site and sediment laden water entering a watercourse or drainage line
- ‘No Go’ areas are to be identified and clearly delineated to prevent vegetation harm beyond what has been assessed and marked
- Establish traffic and pedestrian controls as required
- Site inductions are to occur informing workers of ‘No Go’ areas, vegetation to be cleared and/or maintained, and the location of any threatened flora. The site induction will also inform workers of potential Aboriginal site locations and provide examples (pictures) of Aboriginal objects, and known historic heritage values
- Vegetation requiring removal is to be clearly marked using a separate method to the ‘No Go’ areas
- Any tools or machinery used during construction are to be appropriately cleaned, degreased and serviced prior to use/entry at the site.

Construction

The proposed construction methods will vary depending on the nature of each precinct improvement; therefore, the construction methodology for the required improvements have been generalised into similar categories and will generally be undertaken as described in Table 8. All works will be carried out in accordance with the NPWS Park Facilities Manual, relevant Australian Standards and manufacturer’s specifications.

Table 8: Construction methodology for proposed improvements

Description of Improvement	Construction Methodology
Relocation of existing shower and installation of new amenities	<ul style="list-style-type: none"> • Water/sewer services will be disconnected to facilitate construction • Existing showers will be removed using a combination of hand tools and machinery • Excavation of ground surface for new concrete slab • Provide fill and construct concrete slab as specified by approved engineering plans • Construct framing, walls, roof framing and cladding • Install sanitary fixtures • Connect water/sewer • Establish stormwater drainage
Concrete slabs/pathways for the flowing activities: <ul style="list-style-type: none"> - New equitable pedestrian footpaths/cycleways - Slabs for seating/picnic tables/bike racks etc - New bridge/steps for the link to Bridle Trail 	<ul style="list-style-type: none"> • Minor earthworks, benching, and levelling as required • Walking tracks will be upgraded in accordance with AS/NZS 2156.2-2001 Walking tracks, Part 2: Infrastructure design • Temporary formwork will be established prior to the base being packed and concrete pouring • Concrete surfaces will be screed to a smooth surface and joints will be controlled if required

Description of Improvement	Construction Methodology
	<ul style="list-style-type: none"> Concrete surface will be left to harden, followed by the realignment and installation of seating A footbridge and steps/stairway will be installed to link to Bridle Trail in accordance with the Parks Facilities Manual Remove temporary formwork
<p>Roadworks for the following:</p> <ul style="list-style-type: none"> - Installation/widening of new road - New parking suitable for vehicles with and without trailers/caravans etc 	<ul style="list-style-type: none"> Minor earthworks and benching to facilitate road works Clean road base will be imported to establish base-layers as required Sub-base layers will be overlain with a new base course layer and sealed in a manner which maintains the existing pavement and site character The pavement design will be undertaken in accordance with the Austroads Guidelines Drainage to be established in accordance with approved road plans Culverts will be installed at strategic locations Parking spaces will be upgraded in accordance with AS/NZS 2890.1:2004 Parking facilities – Off-street car parking Establish and shape drainage as necessary Installation/delineation of safe pedestrian zones Install car wheel stops and paint markings as necessary
<p>Signage required for:</p> <ul style="list-style-type: none"> - Interpretation - Wayfinding - Education 	<ul style="list-style-type: none"> Minor earthworks to facilitate footings as necessary Installation of concrete footings and signs as required
<p>Relocate nursery</p>	<ul style="list-style-type: none"> The nursery will be relocated to a suitable location
<p>Manage vegetation to establish new walking track and facilitate roadworks</p>	<ul style="list-style-type: none"> Removal/pruning of vegetation as necessary using chainsaws, brush cutters, pole saws etc. Vegetation removal/pruning shall be undertaken in accordance with the Ecological Assessment

Post-work Remediation

- All waste generated by the activity will be removed from each site and recycled/disposed of as necessary
- Check the upstream and downstream banks of the watercourse (item no. 12) are not eroding into the stream and stabilise as necessary
- Monitor all works for settling and manage as required
- Monitor all sites for weed establishment and treat as necessary
- Remove temporary erosion and sedimentation controls once sites have been stabilised and controls are no longer required
- All disturbed sites will be regenerated using a diverse combination of local native plants or native vegetation mulch.

6.2.2 The activity footprint (size of the area of impact)

The investigation area of the precinct within the master plan covers an area of approximately 2.98-hectares; however, the area of impact is anticipated to be significantly less and the size of the area of impact will generally be restricted to pre-existing disturbed areas.

6.2.3 Proposed construction methods, materials and equipment

The sequence of works will be selected on an ‘as needed’ basis as determined by safety, and available contractors and materials.

Appropriate erosion and sedimentation controls will be implemented at each improvement location prior to works commencing, dependent on the conditions and requirements of each site.

A combination of hand tools and small plant/machinery will be used at each improvement location. Larger road plant including graders/rollers may be required for the road upgrades. All works will be undertaken in accordance with the NPWS Park Facilities Manual, relevant Australian Standards and manufacturer’s specifications.

Materials used in the activity will generally comprise the following:

- Timber/galvanised steel facilities and cladding used for toilets, picnic tables/benches etc.
- Concrete for new pedestrian pathways and timber for formwork
- Galvanised steel gates and bike racks
- Timber posts/galvanised steel and aluminium panels for signage
- Clean road base as required and sealed to match existing site character
- Local granite may be utilised to match existing site character (steps, seating etc.)
- Timber/galvanised steel footbridge and steps
- A diverse combination of local native plants or native vegetation mulch for site revegetation and stabilisation

6.2.4 Receival, storage and on-site management for materials used in construction

Vehicle access to the precinct is via Cardwell Street, South West Rocks. Materials and equipment will be delivered on an ‘as needed’ basis for each improvement activity identified in Table 7 and stored in secure, pre-existing cleared areas of the precinct. The existing NPWS depot provides a secure area for which materials and equipment may be stored.

Drainage lines leading to the beach and watercourses shall be protected from stockpile runoff by sediment fencing and traps, and no vegetation beyond what it required for the works shall be removed to facilitate material storage or stockpiling.

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

The proposed earthworks and/or site clearing required for the proposal comprises the following; however, earthworks and vegetation removal will be limited where possible.

- minimal vegetation pruning where required for new park infrastructure and maintaining views to and from the precinct

- micro-siting the walking track link to Bridle Trail with NPWS, any contractors and project ecologists to set out the track to prevent impacts to large or habitat trees, and sensitive cultural sites
- vegetation clearing for the new track to be restricted to the immediate track corridor along the confirmed track alignment
- excavation for:
 - locations requiring erosion and sediment controls
 - levelling of any area requiring concrete slabs
 - landscaping
 - post holes for signage

6.2.6 Environmental safeguards and mitigation measures

The proposed areas of impact have been surveyed and inspected for natural, cultural and heritage values by suitably qualified persons prior to this REF being prepared. A number of safeguards and mitigation measures have been identified in order to minimise potential adverse environmental impacts associated with the proposal. Should the proposed activity proceed, the safeguards and mitigation measures outlined in section 9 of this REF shall be applied during construction and operation of the proposal. Compliance with the safeguards and mitigation measures, and any associated approval conditions, shall be periodically audited during the construction and operation stages.

6.2.7 Sustainability measures – including choice of materials and water/energy efficiency

- Labour and materials are to be sourced from local suppliers where possible
- Vegetation removed is not to be burnt
- Vegetation clearing shall not occur beyond what has been marked and assessed
- Any waste generated by the activity and by workers undertaking the activity to be segregated to maximise recycling opportunities
- Regular maintenance of construction equipment shall be carried out to improve their energy efficiency and reduce their environmental impact
- Water-efficient practices to be implemented during construction, such as using recycled or treated water for non-potable uses to minimise water wastage
- Energy-efficient equipment and practices will be used where possible, such as selecting electric equipment and machinery, and optimising their use to minimise energy consumption during construction activities
- Avoid the use of plastic bags during waste removal where practicable
- Waste disposal shall be undertaken in accordance with the Waste Avoidance and Resource Recovery Act 2001

6.2.8 Construction timetable and staging and hours of operation

Works are proposed to commence in the last quarter of 2024 and be completed over a period of five (5) years. Works will be undertaken during recommended standard working hours as outlined below:

Monday – Friday: 7:00am to 6:00pm

Saturday: 8:00am to 1:00pm

Sunday, Public Holidays and school holidays – No work

If works are required outside of the standard hours on weekends or nights, it will need to be clearly justified and approved in writing by the Area Manager.

Other construction outside the recommended standard hours may include:

- The delivery of oversized plant or structures that police or other authorities determine require special arrangements to transport along public roads
- Emergency work to avoid the loss of life or damage to property, or to prevent environmental harm
- Maintenance and repair of public infrastructure where disruption to essential services and/or considerations of worker safety do not allow work within standard hours.

7. Reasons for the activity and consideration of alternatives

7.1 Objectives and reasons for the proposal

Existing facilities within the Cardwell Street precinct have been developed in an ad hoc manner for many years. The precinct will play an increasingly important role as an alternative location to Front Beach in the Trial Bay precinct, particularly during peak visitor periods. Catering for visitor demand will necessitate an improvement in the quality and quantity of visitor services and facilities. They will also increase the length of time people stay and support sustainable levels of visitation throughout the year.

The primary objects include:

- Enhance enjoyment and understanding
- Protect cultural and historic heritage
- Minimise environmental impacts
- Improve vehicle access and movement, and
- Manage vehicle parking and improve walking and cycling opportunities.

7.2 Consideration of alternatives

Do Nothing

The 'Do Nothing' approach is not consistent with the policies and framework for management of the *Arakoon State Recreation Area Plan of Management*. The Cardwell Street precinct will play an increasingly important role in relieving visitor pressure from the Trial Bay visitor precinct. The provision of new facilities and rationalisation of access and vehicle parking will ensure that visitors have an alternative option to the Trial Bay precinct when visitor numbers are high.

Given the key role this precinct plays as part of the Trial Bay Gaol major visitor attraction, any downturn in visitation would have major impacts on the regional visitor economy and the many local people and businesses who rely on this to support livelihoods and the ongoing provision of community services.

7.3 Justification for preferred option

The Cardwell Street precinct proposal forms part of the Macleay Coast Destination project which aims to improve community wellbeing, enhance the regional visitor economy and increase nature-based tourism in NSW. The proposed precinct upgrade is the preferred option for the following reasons:

- Existing facilities are in a poor condition which pose a risk to NPWS staff, the community using the site, and the environment.
- The proposed option utilises areas of existing disturbance and undertaking the works in the proposed locations will minimise potential impacts on the receiving environment.
- The proposed upgrade meets the policies and framework for the management actions of the *Arakoon State Recreation Area Plan of Management*.
- The proposed precinct upgrade meets the objectives of the Macleay Coast Destination project which aims to provide a much-needed boost to the regional visitor economy and community wellbeing.

8. Description of the existing environment

8.1 Overview of the project area

Arakoon National Park is situated on the Mid North Coast of New South Wales approximately 450-kilometres north of Sydney and a similar distance south of the Gold Coast. The closest town of South West Rocks, less than 5-kilometres from the site, has a permanent population of approximately 4,600; however, during peak holiday periods the town booms with tourists. South West Rocks experiences a mild and generally warm and temperate climate, and experienced precipitation even during the driest months. The nearest open meteorological station is the Smoky Cape Lighthouse station approximately 5-kilometres southeast of the site, and is detailed as follows:

Site name: South West Rocks (Smoky Cape Lighthouse)

Site number: 059030

Latitude: 30.92 °S **Longitude:** 153.09 °E

Elevation: 117m

Commenced: 1939 **Status:** Open

The mean maximum and minimum temperatures and the mean rainfall statistics for the years 1939-2023 are detailed in Table 9 (BoM, 2023):

Table 9: Climate statistics for South West Rocks (Smoky Cape Lighthouse) meteorological station

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean max temp (°C)	27.0	27.0	26.3	24.1	21.5	19.3	18.8	20.0	21.9	23.3	24.6	26.0	23.3
Mean min temp (°C)	19.6	19.7	18.9	16.7	14.3	12.2	11.3	11.8	13.5	15.2	16.8	18.5	15.7
Mean rainfall (mm)	142.9	169.6	197.8	168.1	126.8	135.2	74.8	79.2	56.4	93.0	111.5	121.1	1478.5

8.2 Natural values

8.2.1 Geology, geomorphology and topography

Arakoon National Park and the Cardwell Street precinct are situated on the Smoky Cape Syenogranite unit of the New England Orogen which comprises white to pink, coarse-grained, equigranular biotite-hornblende syenogranite with a finer-grained, porphyritic margin, and a granophyric carapace of the Late Triassic period (Regional NSW, 2023).

Surface geology of the precinct comprises a mix of marine sand and indurated sand of a coastal deposits. The precinct entrance and former NPWS depot is situated on marine-deposited and aeolian-reworked coastal sand dunes, partially consolidated, with fine to very fine quartzose sand with a low to moderately heavy mineral content and no shells of the Holocene Age (Regional NSW, 2023). The central portion of the precinct is situated on marine sand comprising fine to very fine quartzose sand with a low shell and heavy mineral content which derive from marine-deposited and aeolian-reworked coastal sand dunes of the Holocene Age (Regional NSW, 2023). The beach and location of the new seats and bike racks comprises marine-deposited quartz-lithic fine- to medium-grained sand, shell and shell material, and polymictic gravel of the Quaternary Age. The Quaternary subsurface proximate to the precinct is shown in Figure 4.

The topography of the area is defined by coastal beaches and foredunes on the coastal fringe of the North Coast Barrier Dunefields, and the terrain typically comprises beaches, incipient foredunes, foredunes, hind dunes and backplains landward of foredunes (Eddie, 2000).

A review of State mapping indicates that no Naturally Occurring Asbestos (NOA) is potentially occurring within or near the location of the proposed activity.

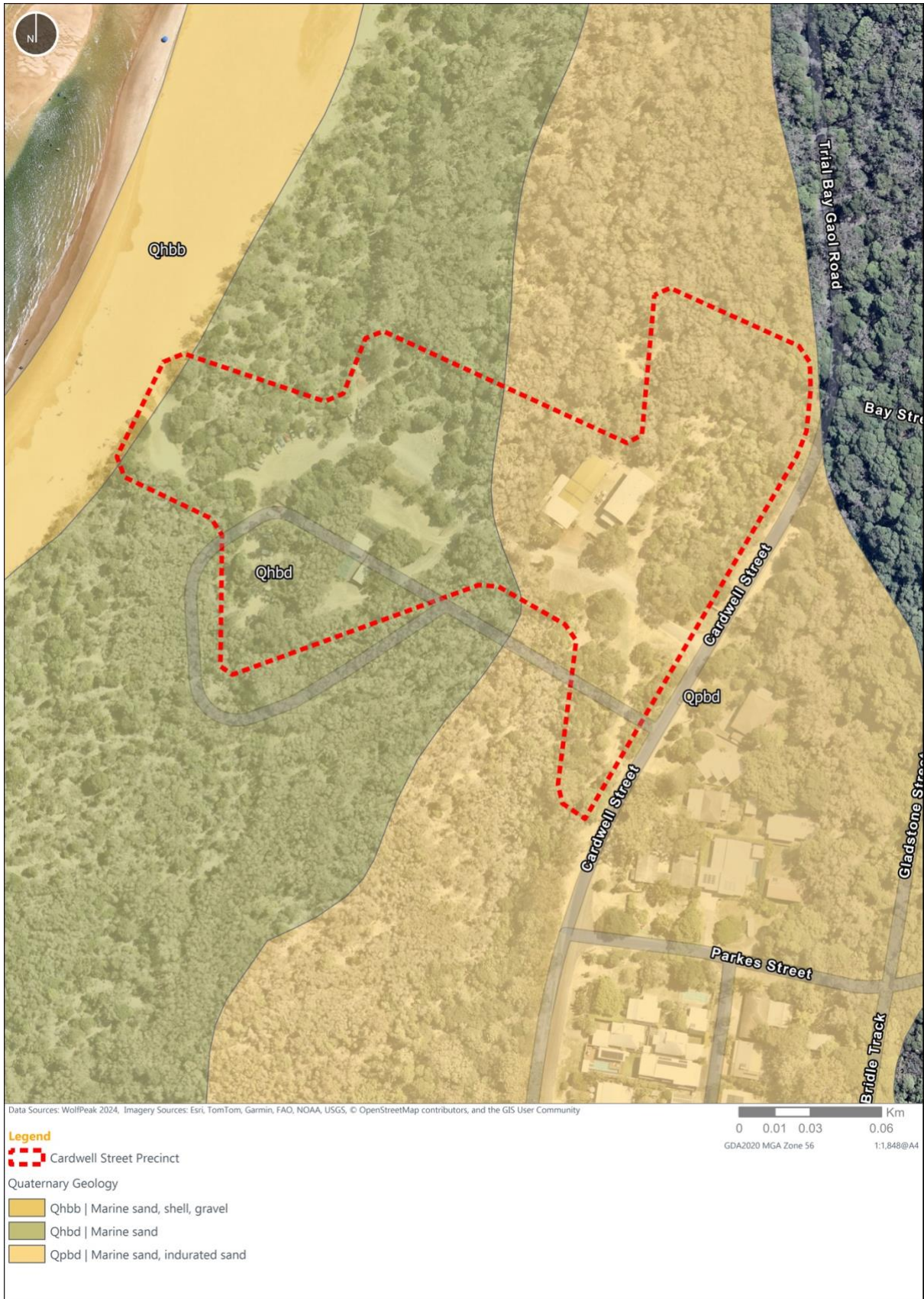


Figure 4: Quaternary geology proximate to the Cardwell Street precinct

8.2.2 Soil types and properties (including contamination)

The Cardwell Street precinct occurs on the Goolawah soil landscape comprising >300cm rapidly drained Shelly Rudosols (Siliceous Sands) on beaches, while incipient foredunes are comprised of loose yellow sand (saline and alkaline) with little variation except in grain size and shell content. Weakly developed Aeric Podosols (Podzols) occur on stable, undisturbed dunes and Arenic Rudosols (Siliceous Sands) on devegetated dunes (Eddie, 2000). The dominant soil type, as classified under the Australian Soil Classification (ASC), comprises Rudosols (RU).

The proposed development is wholly situated on Class 5 Acid Sulfate Soils. Acid Sulfate Soils are not typically found in Class 5 areas; however, are classified as Class 5 due to their locations within 500m of adjacent classified land. In accordance with the *Kempsey Local Environmental Plan 2013* (Kempsey LEP), Acid Sulfate Soils are likely to be found below 5m and by which the water table is likely to be lowered by 1m. Given the soil disturbance required to undertake the proposed works is anticipated to be significantly less than 5m; it is considered unlikely that Acid Sulfate Soils may be disturbed during the proposed works.

Searches of the NSW Environment Protection Authority (EPA) List of Notified Sites (NSW EPA, 2023a) and the Contaminated Land Public Record (NSW EPA, 2023b) were undertaken on 23 October 2023 which did not identify any contaminated land sites occurring in proximity to the proposed works locations.

8.2.3 Watercourses, waterbodies and their catchments

A first order stream runs parallel to Cardwell Street as shown in Figure 5, which will require a permanent crossing to be established for the new access path linking the existing trail to Bridle Trail. No other watercourses, waterbodies or wetlands are located near the Cardwell Street precinct.

The precinct is situated within the Macleay River catchment which covers an area of approximately 11,450 km² and includes extensive areas of the northern tablelands, a sparsely populated escarpment area and a coastal area ranging from the foothills to coastal plains (DPE, n.d.(b)). The primary water uses of the catchment include use by local councils, water utilities, conservation, livestock grazing, forestry and tourism.



Figure 5: Mapped watercourses proximate to the Cardwell Street precinct

8.2.4 Coasts and estuaries

The proposed works are located on the eastern edge of Trial Bay which is protected from the swell of the South Pacific Ocean by a purpose-built break wall. Trial Bay is a tourist destination hotspot and is a key site and landscape feature within the NPWS Coastal Reserve System (NPWS, 2022a). The area provides for a range of recreational activities associated with the beach, foreshore and surrounding natural environment, and is widely regarded as one of NSW's premier coastal holiday destinations.

Resulting from a long history of coastal geomorphic processes, major storms, climate change and visitor activity, the beach and foreshore have experienced significant erosion and shoreline recession. The Trial Bay Visitor precincts Coast and Foreshore Protection Strategy was subsequently developed which identified a total of 25 recommended actions to address coastal hazards. With relevance to the Cardwell Street precinct, the Strategy identified that shoreline recession, particularly Front Beach, has increased over the past decade with shoreline realignment of approximately 30-metres recorded in the precinct's eastern-most corner (NPWS, 2022a).

The Cardwell Street precinct is predominately situated within the coastal environment area (Part 2, Division 3) and wholly within the coastal use area (Part 2, Division 4) of SEPP Resilience and Hazards as shown in Figure 6. No coastal wetlands or littoral rainforests (Part 2, Division 1) or coastal vulnerability area (Part 2, Division 2) are mapped as occurring within or near the precinct. Potential impacts to the coastal zone are assessed in section 3.3.11, with safeguards provided in section 9 of this REF. The activity is consistent with the requirements of Part 2, and it is considered unlikely any adverse impacts to the coastal zone would occur as a result of the activity.



Figure 6: Mapped coastal environment and coastal use areas proximate to the precinct

8.2.5 Biodiversity

Overview of terrestrial and aquatic biodiversity

A thorough assessment of the natural values associated with the proposed activity was prepared by WolfPeak in November 2023 and is attached in Appendix C. The following information provides a summary of biodiversity values identified in that report.

Terrestrial biodiversity

The distribution of vegetation communities occurring throughout Arakoon National Park is strongly influenced by climate, geology, aspect and topographical position. In accordance with the NSW State Vegetation Type Map (SVTM) (DPE, 2023c) the dominant Plant Community Type (PCT) throughout the precinct consists of PCT 3801 – Far North Sandplain Wallum Heath, while small patches of PCT 3410 Spinifex Strandline Grassland occur on Front Beach proximate to the beach entrance as shown in Figure 7.

The site survey carried out as part of the Ecological Assessment site-verified the vegetation communities within the precinct are shown in Figure 8 and consist of the following:

- PCT 3122 – Far North Littoral Rainforest
- PCT 3788 – Coastal Foredune Wattle Scrub
- PCT 3791 – Far North Headland Dune Scrub, and
- PCT 4007 – Northern Sands Paperbark Sedge Low Forest

Habitat values occurring within the precinct provides for both opportunities and constraints for a range of species, including threatened species. Koala food trees (KFTs) were not identified in abundance within the precinct; however, a small patch of Forest Red Gum (*Eucalyptus tereticornis*) was recorded along the southern boundary of the precinct. *Allocasuarinas* were noted in abundance within vegetation along the trail north of the precinct, while an abundance of fruiting species were recorded within the study area with species such Beach Alectryon (*Alectryon coriaceus*), Hard Quandong (*Elaeocarpus obovatus*), Geebung (*Persoonia sericea*), Acronychia and a variety of figs which provide fruiting resources for threatened frugivores including the Wompoo Fruit-dove (*Ptilinopus magnificus*), Rose-crowned Fruit-dove (*Ptilinopus regina*), Barred Cuckoo Shrike (*Coracina lineata*) and the Grey-headed Flying-fox (*Pteropus poliocephalus*). Small to medium-sized hollow-bearing trees and hollow logs were also noted in the vegetation in the north of the precinct as shown in Figure 9; however, no large hollow-bearing trees were recorded within the study area and are considered likely more abundant in the forested areas within other areas of the park.

Land within the study area may provide habitat for fauna that forages in or around the shoreline including marine birds, waders and shorebirds, while groundcover throughout the precinct offers suitable habitat for small, ground-dwelling fauna species.



Figure 7: State mapped vegetation communities within proximity to the precinct



Figure 8: Site-verified vegetation communities within the Cardwell Street precinct



Figure 9: Recorded hollow-bearing trees and hollow logs proximate to the precinct

Areas of outstanding biodiversity value or critical habitat

The proposed activity will not directly or indirectly affect an Area of Outstanding Biodiversity Value or critical habitat as none are mapped as occurring within or proximate to the proposed works area.

Environmental Assets of Intergenerational Significance (AIS)

The proposed activity will not directly or indirectly affect any environmental Assets of Intergenerational Significance (AIS) as none are mapped as occurring within or in close proximity to the proposed works area.

Threatened ecological communities

Review of the site-verified vegetation communities within the precinct has determined that PCT 3122 – Far North Littoral Rainforest qualifies as the endangered ecological community (EEC) *Littoral Rainforest in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions* under the BC Act (Schedule 2, Part 2), and the threatened ecological community (TEC) *Littoral Rainforest and Coastal Vine Thickets of Eastern Australia* under the EPBC Act (Part 13, Division 1). This community occurs in the south east portion of the precinct as shown in Figure 8.

Threatened species and populations

BioNet searches for threatened species and populations were carried out on 17 October 2023 for the Macleay Coast Destination Project (to which this proposed activity is an element of). The search was carried out to determine all valid records of threatened (listed under the BC Act) or Commonwealth listed flora species within the study area of the Kempsey Local Government Area (LGA).

An EPBC Act Protected Matters Report was created on 17 October 2023 and is included in the Ecological Assessment.

Note: Databases searches consisted of a 10km search radius around all four (4) precincts of the Macleay Coast Destination Project.

The field survey and assessment methodology is outlined in section 4 of the supporting Ecological Assessment.

Threatened flora

The BioNet search returned a total of 11,622 records of 85 flora species; however, no records exist within Arakoon National Park.

The site survey conducted as part of the Ecological Assessment identified a number of flora species of the *Acronychia* species which is believed to be Logan Apple (*Acronychia imperforata*); however, due to finite nuances between this species and the endangered Scented *Acronychia* (*Acronychia littoralis*), confirmation of the species identification is currently being sought from the National Herbarium of New South Wales. Identification of this species as Scented *Acronychia* is considered to be of low likelihood; hence, this Ecological Assessment has been based on the assumption that field identifications are correct in identifying this plant as Logan Apple. Should herbarium results indicate the contrary, the Ecological Assessment will be updated accordingly. The location of these individuals are shown in Figure 10.



Figure 10: Location of Acronychia species within the precinct

Threatened fauna

The BioNet search returned a total of 7,731 records of 148 threatened fauna species, several of which have been recorded within or in close proximity to the Cardwell Street precinct as shown in Figure 11. A number of threatened fauna species under the BC Act and EPBC Act were recorded during the field survey which are listed in Table 10, while those with the potential to occur within the study area are listed in Table 11.

Table 10: Threatened fauna species recorded during the field survey

Common Name	Scientific Name	BC Act Status	EPBC Act Status
Eastern Osprey	<i>Pandion cristatus</i>	Vulnerable	-
Koala	<i>Phascolarctos cinereus</i>	Endangered	Endangered
Little Bent-winged Bat	<i>Miniopterus australis</i>	Vulnerable	-
Pied Oystercatcher	<i>Haematopus longirostris</i>	Endangered	-
Powerful Owl	<i>Ninox strenua</i>	Vulnerable	-
South-eastern Glossy Black-Cockatoo	<i>Calyptorhynchus lathami lathami</i>	Vulnerable	Vulnerable
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>	Vulnerable	-

Table 11: Threatened fauna species considered a potential to occur in the study area

Common Name	Scientific Name	BC Act Status	EPBC Act Status
Australian Fur-seal	<i>Arctocephalus pusillus doriferus</i>	Vulnerable	-
Barred Cuckoo-shrike	<i>Coracina lineata</i>	Vulnerable	-
Beach Stone-curlew	<i>Esacus magnirostris</i>	Critically Endangered	-
Brush-tailed Phascogale	<i>Phascogale tapoatafa</i>	Vulnerable	-
Common Planigale	<i>Planigale maculata</i>	Vulnerable	-
Eastern Coastal Free-tailed Bat	<i>Micronomus norfolkensis</i>	Vulnerable	-
Eastern False Pipistrelle	<i>Falsistrellus tasmaniensis</i>	Vulnerable	-
Flatback Turtle	<i>Natator depressus</i>	-	Vulnerable
Greater Broad-nosed Bat	<i>Scoteanax rueppellii</i>	Vulnerable	-
Green Turtle	<i>Chelonia mydas</i>	Vulnerable	Vulnerable
Grey-headed Flying-fox	<i>Pteropus poliocephalus</i>	Vulnerable	Vulnerable

Common Name	Scientific Name	BC Act Status	EPBC Act Status
Hawksbill Turtle	<i>Eretmochelys imbricata</i>	-	Vulnerable
Large Bent-winged Bat	<i>Miniopterus orianae oceanensis</i>	Vulnerable	-
Little Eagle	<i>Hieraaetus morphnoides</i>	Vulnerable	-
Little Lorikeet	<i>Glossopsitta pusilla</i>	Vulnerable	-
Little Tern	<i>Sternula albifrons</i>	Endangered	-
Loggerhead Turtle	<i>Caretta caretta</i>	Endangered	Endangered
Masked Owl	<i>Tyto novaehollandiae</i>	Vulnerable	-
New Zealand Fur-seal	<i>Arctocephalus forsteri</i>	Vulnerable	-
Red Knot	<i>Calidris canutus</i>	-	Endangered
Rose-crowned Fruit-Dove	<i>Ptilinopus regina</i>	Vulnerable	-
Sanderling	<i>Calidris alba</i>	Vulnerable	-
Sooty Owl	<i>Tyto tenebricosa</i>	Vulnerable	-
Sooty Oystercatcher	<i>Haematopus fuliginosus</i>	Vulnerable	-
Spotted-tailed Quoll	<i>Dasyurus maculatus</i>	Vulnerable	Endangered
Square-tailed Kite	<i>Lophoictinia isura</i>	Vulnerable	-
Squirrel Glider	<i>Petaurus norfolcensis</i>	Vulnerable	-
Swift Parrot	<i>Lathamus discolor</i>	Endangered	Critically Endangered
White-throated Needletail	<i>Hirundapus caudacutus</i>	-	Vulnerable
Wompoo Fruit-Dove	<i>Ptilinopus magnificus</i>	Vulnerable	-
Yellow-Bellied Sheath-tail-bat	<i>Saccolaimus flaviventris</i>	Vulnerable	-

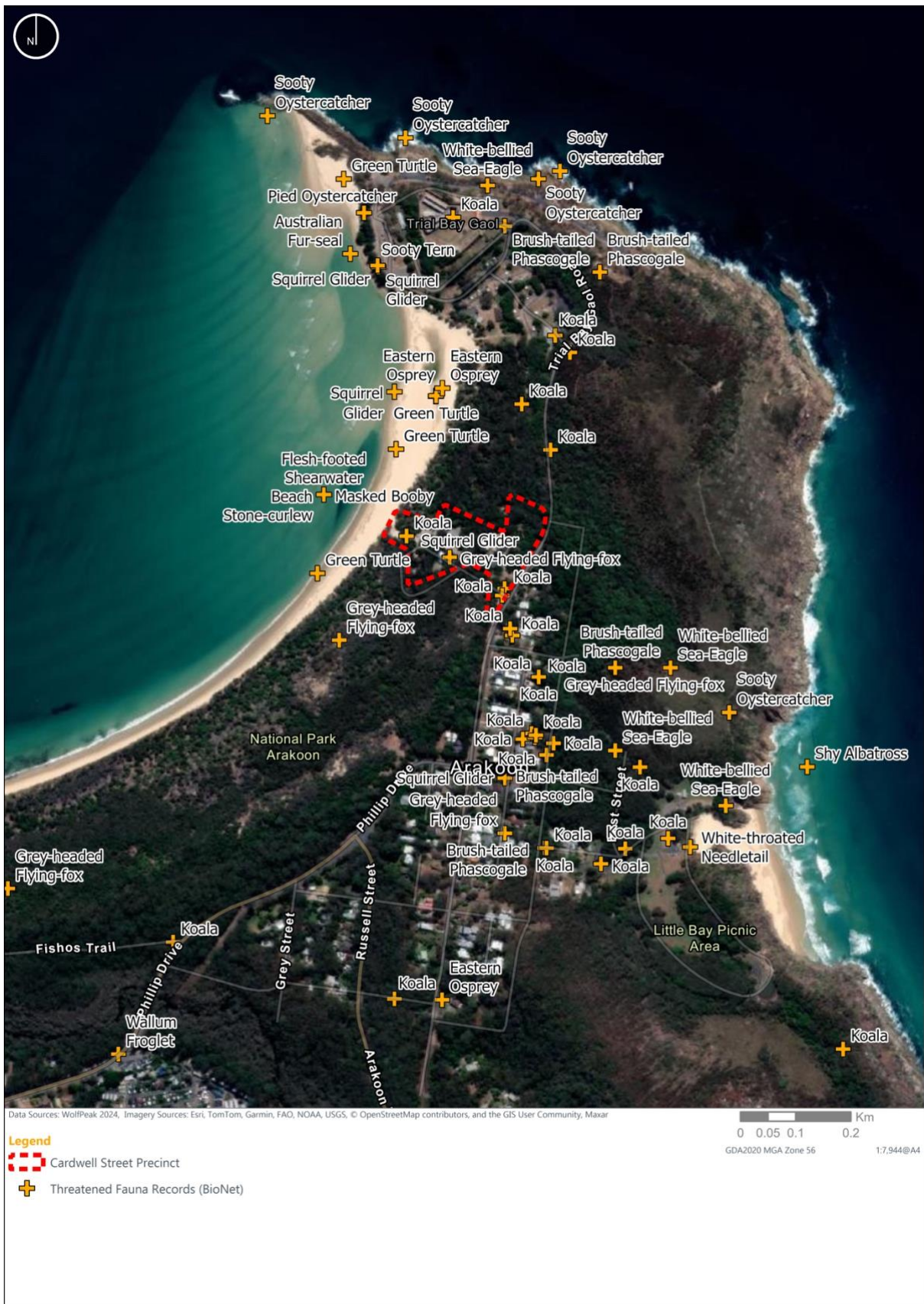


Figure 11: Threatened fauna records proximate to the precinct

Aquatic

As per the Policy and Guidelines and Fish Habitat Conservation and Management (DPI, 2013), the Pacific Ocean qualifies as a Class 1 waterway for fish passage, representing major key fish habitat. The single mapped, unnamed watercourse running parallel to Trial Bay Road in the northern portion of the precinct qualifies as a Class 4 waterway and is considered unlikely to contain key fish habitat. At the time of survey, the waterway contained little to no standing water and did not contain defined drainage channels.

Discussion

A test of significance as prescribed under section 7.3 of the BC Act and an assessment of impacts on matters of national environmental significance in accordance with the *Matters of National Environmental Significance: Significant guidelines 1.1* (Department of the Environment, 2013) have been prepared to determine whether the proposed activity is likely to significantly affect threatened species or ecological communities, or their habitats. The assessments are included within the Ecological Assessment, which determined the proposed activity is unlikely to significantly affect threatened species listed under the BC Act or on MNES values under the EPBC Act.

8.3 Cultural values

8.3.1 Aboriginal cultural heritage

A thorough assessment of Aboriginal cultural heritage values associated with the proposed activity was prepared by APEX Archaeology in November 2023 and is attached in Appendix A. The following information provides a summary of Aboriginal cultural values identified in the report.

Aboriginal communities have a strong association and connection to the land and water within a landscape and are central to Aboriginal spirituality and contribute to Aboriginal identity. Aboriginal communities associate natural resources with the use and enjoyment of foods and medicines, caring for the land, passing on cultural knowledge, kinship systems and strengthening social bonds.

The supporting ACHA suggest that prior to European settlement, the Macleay Valley was occupied by the Dughutti people whose land extended from the coast to the Tablelands in the west, to the Macksville region in the north, and south to the Wilson River. It is not known when Aboriginal people first occupied the Arakoon and Smoky Cape areas as the landscape has changed significantly over the last thousands of years and older sites maybe further offshore on the ocean floor; however, the ACHA suggests Aboriginal people would have camped on the resource rich river flats and their tribal borders until the rains and rising rivers flooded. At that stage, they would have likely relocated to the hills west of valley into the Tablelands. The coastal Aboriginal people were also noted by early European observers in the 1800s to engage in a variety of fishing practices, including:

- hunting with a four-pronged spear
- using nets made from curryjong bark
- matted fences
- and fish traps made of stones extended from the coastal shoreline.

Men and women were also recorded as gathering shellfish while observers recorded men hunting individually or in groups and fishing with spears and nets.

The ACHA prepared to assist the REF process was carried out to identify Aboriginal cultural heritage values within and proximate to the study area, and to determine if the proposed activity is likely to harm Aboriginal cultural heritage. As part of the ACHA, an extensive

search was undertaken of the Aboriginal Heritage Information Management System (AHIMS) on 13 August 2023 for registered sites within the study areas and surrounds. The search area was approximately 8km x 8km and extended from the northern most point of Arakoon National Park to 2.5km south of Smoky Cape Light House, and from the Macleay River in the west to the Pacific Ocean in the east. This resulted in the identification of 78 registered sites; however, no previously registered sites are located within or near the Cardwell Street precinct.

The outcomes of the assessment determined that the precinct is considered to be highly disturbed by previous construction works and the proposed works are considered unlikely to impact on any Aboriginal archaeological material within the precinct. The proposed access track to link with Bridle Track was inspected but was heavily vegetated with limited visibility. However, the landscape context of the new track area was unlikely to have been utilised by Aboriginal people in the past as a camping area and the proposed new track was considered unlikely to impact on any Aboriginal cultural material in the vicinity. A number of safeguards are recommended for the proposed activity and are detailed in section 9.5 of this REF.

8.3.2 Historic heritage values

Historic heritage values within Arakoon National Park are recognised by the dominant Trial Bay Prison which is the only example of a nineteenth century works prison in NSW (NPWS, 1987). The gaol, which is situated at the extreme northern end of the park, contains the ruins of the mess hall, two cell blocks, ablution buildings, stores, kitchen, hospital, and silent cells. The gaol, breakwater, and environs have high cultural heritage significance at a State level which is related to its unique cultural, historical, natural, scientific, and recreational values. The Cardwell Street precinct is predominantly situated within the State Heritage Register (SHR) listing curtilage for the gaol and surrounds (Figure 2) and is listed with the following information.

Item	SHR ID	HHIMS - S170	Location	Notional Geolocation
Trial Bay Gaol, Breakwater and Environs	01825	Yes	Arakoon National Park	506726E; 6584016N; 56J

The State Heritage Register (NSW Government, 2010) summarises the significance of Trial Bay Gaol, Breakwater and Environs as follows:

Trial Bay Gaol, breakwater and environs is of State heritage significance for its place in the development several aspects of the history and evolution of NSW. The gaol, designed and constructed under the auspices of penal reformer, Harold Maclean between 1877 and 1900, is a unique example of his ideas for prison reform and the evolution of the penal system in NSW. The construction of the breakwater at Laggars Point to provide a safe haven for wind powered shipping on the NSW coast is evidence of a significant phase in coast shipping and the development of maritime infrastructure along the North Coast of NSW. The historical significance of the place was further developed through the gaol's significant usage as one of only five internment camps for Germans in NSW during WWI.

The gaol's State heritage significance is enhanced through its historic association two figures important to the historical development of NSW; Comptroller of Prisons Harold Maclean who was a noted penal reformer and also Edmund Orpen Moriarty, Engineer in Chief of the Harbours and Rivers proponent and designer of the breakwater and an important figure in the development of water and maritime infrastructure in the later 19th Century.

Significant contemporary social/community associations with the site include the ongoing association of the Thungutti people living throughout the State and the former German internees interned at the gaol during WWI and their families.

The gaol's technical significance and rarity lies in its layout, design and construction. The high perimeter walls, entry gates, pair of cell blocks is a unique demonstration of the principle tenets of 'enlightened' nineteenth century prison design in NSW. The gaol, sited as it is, high on the peninsular above Trial Bay is aesthetically distinctive and has significant landmark qualities as a ruin which are unique throughout the State.

Trial Bay Gaol is a rare example of a large scale gaol constructed in NSW in a remote location for the purpose of carrying out a public work, the construction of Trial Bay Breakwater, a rare and ambitious project in itself. The gaol contains the only example of a double storey cell block constructed in precast mass concrete block in NSW.

The use of the gaol and environs as a German internment camp during WWI contributes to the rarity values of the site as it was one of only five such camps in NSW and the only one of these to house Germans of high social standing in the business and professional and political arenas. It was also the only internment camp to house internees from other colonial outposts.

The gaol and breakwater provide a unique research opportunity for the study of Victorian engineering works and construction. The impact the breakwater has had on the bay similarly provides a rare insight into the effects of human intervention on the landscape.

The significant potential archaeological resource at Trial Bay Gaol may provide a valuable insight into the construction, use and evolution of the gaol and breakwater and later internment camp, the life of former inmates, internees and visitors. The archaeology on site has the potential to contribute to knowledge of a wider complex of penal and correctional institutions in NSW.

A Statement of Heritage Impact (SoHI) was prepared in June 2023 to support this REF and determine the potential impacts which the proposed activity may have on the historic heritage values of the Trial Bay Gaol and environs. The Cardwell Street precinct forms part of a NPWS service node and beach access point which was established in the late 1980s. The SoHI determined the precinct is not historically associated with the gaol or the settlement of Arakoon, and that works will have no deleterious historic heritage impact (Tuck, 2023).

Searches have also been undertaken of Australia's National Heritage List, the NSW State Heritage Inventory, the Historic Heritage Information Management System (HHIMS) under section 170 of the NPW Act, and Schedule 5 Environmental heritage of the Kempsey LEP.

Trial Bay Gaol is registered on the Register of the National Estate (RNE) which is a non-statutory archive with a Place ID of 3479. The RNE closed in 2007 and Trial Bay Gaol was not transferred to Australia's National Heritage List; thus, it is not protected under Commonwealth law.

Multiple items registered on HHIMS occur throughout the gaol; however, none are within proximity to the Cardwell Street precinct.

Two (2) items listed under the Kempsey LEP have been identified within the study area; however, these do not occur within close proximity to the precinct.

8.4 Social values

8.4.1 Recreation values

The Cardwell Street precinct provides significant recreation values for tourists and the local community accessing Front Beach for walking and general beach usage and is also a popular location for four-wheel-drive vehicles.

The precinct is situated within the broader context of the Trial Bay Gaol, which is a popular tourist attraction with self-guided tours available. Facilities in the area include car parking, public toilets, picnic facilities with barbeques and tables, and the Trial Bay campground.

The Trial Bay Gaol Conservation Management and Cultural Tourism Plan (Davies, 2004) discusses the recreational values of the site as follows:

Trial Bay Gaol is perhaps the most well-known historic site of the mid-north coast of NSW. It is a feature of countless tourism websites about the region, and is described and recommended in many books and information brochures about touring NSW and Australia.

As a public works prison it is unique in Australia's history, made even more dramatic and impressive by its setting amidst spectacular natural beauty on a bare promontory extending into the sometimes peaceful waters of Trial Bay. Even before the prison was constructed, Aboriginal people recognised the special qualities of the site and its environs, and it was a centre for communal events and activities that retains its significance for the Dunghutti people to this day.

The gaol was built to provide the workforce for a grand public work, the construction of a breakwater to create a harbour – a space wherein the navy of Great Britain might anchor in easily. During World War I it became a German internment camp, and the extensive photographic and oral history archive, as well as the remarkable object collection dating from that period of use should be considered one of the richest and most important collections of its type in NSW.

Holiday-makers have long recognised the attractions of the place: the precinct has an unbroken history of recreational camping, fishing and water sports dating back almost a century that is an additional dimension in its meaning and importance to the people of NSW.

8.4.2 Scenic and visually significant areas

The Cardwell Street precinct is located on the eastern side of Front Beach and Trial Bay which is one of only a few places on the east coast of Australia where visitors can experience a sunset over the ocean.

8.4.3 Education and scientific values

The Trial Bay Gaol north of the precinct provides unique research opportunities and studies relating to Victorian engineering works and construction; however, given the precinct is not associated with the gaol, it is unlikely to contain significant education and scientific values.

The Arakoon State Recreation Area Plan of Management (NPWS, 1987) states that:

The Smoky Cape Ademellite is the only coastal outcrop of granite between Bundaberg in Queensland and Moruya Heads in southern N.S.W. The contact site on Little Smoky between these rocks and the adjacent sedimentary rocks of the Kempsey Beds is of both scientific and educational value, as are the folds and fault lines exposed at the southern end of Gap Beach.

The major part of the Smoky Cape Range is covered by dry sclerophyll open forest. Littoral rainforest exists on the dunes behind Gap Beach and dry rainforest on the steep northern headland of the beach. These two areas of rainforest "do not possess any unique or even outstanding vegetation features (but) they are of considerable educational value in that they represent types of forest which have been almost eliminated by rutile mining and residential/tourist development. It is probably the best remaining area south of the Bellingen River" (Floyd, unpublished report, 1976).

8.4.4 Interests of external stakeholders

Arakoon National Park is highly valued by a variety of external stakeholders for a combination of reasons, including:

- Recreational and social values associated with day use and overnight camping
- Previous Arakoon State Recreation Trust members who contributed to the original Arakoon State Recreation Area Plan of Management
- The residents of Arakoon and South West Rocks who retain a strong connection to the area for the recreational values
- Ancestry values associated with people who were imprisoned or interned at Trial Bay Gaol
- The Aboriginal community who maintain a connection and cultural obligation to Country
- Volunteer groups associated with the park
- The Kempsey Shire Council, which has identified the opportunity to forge a lasting relationship with NPWS for the benefit of the visitors experiencing the Macleay.

The Cardwell Street precinct is of particular interest to external stakeholders for the following reasons:

- Commercial fishing businesses who utilise the beach access for launching fishing vessels
- The volunteers of Pandanus Nursery
- Four-wheel-drive communities accessing the beach for recreational purposes
- Community event organisers and participants who utilise the precinct for large-scale events (charity runs etc.)
- General recreation activities including swimming, dog walking and fishers who launch small boats off the beach.

8.5 Matters of national environmental significance

The provisions of the EPBC Act require determination of whether the proposal has, will or is likely to have a significant impact on a Matter of National Environmental Significance (MNES). These matters have been addressed in the supporting Ecological Assessment.

In accordance with the EPBC Act significant impact guidelines, the Ecological Assessment has determined there is unlikely to be a significant impact on relevant MNES and that referral to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) is not required.

A summary of the results is included in Table 12.

Table 12: EPBC Act matters of national environmental significance

Matters of National Environmental Significance	Results	Comment
Any significant impact on a World Heritage property?	None	The proposed activity would not impact on a World Heritage property as none are occurring within or near the proposed activity location.
Any significant impact on a National Heritage Place?	None	The proposed activity would not impact on a National Heritage place as none are occurring within or near the proposed activity location.
Any significant impact on a wetland of international importance (Ramsar)?	None	The proposed activity would not impact on a wetland of international importance as none are occurring within or near the proposed activity location.
Any significant impact on a listed threatened species or ecological community?	87 threatened species and six (6) threatened ecological communities	A number of threatened species and/or ecological communities occur within the study area; however, the Ecological Assessment has determined that no listed threatened species or ecological communities are likely to be significantly impacted by the proposed activity.
Any significant impact on listed migratory species?	62	Several migratory species are considered potential occurrences in the study area; however, the Ecological Assessment has determined that no migratory species are likely to be significantly impacted by the proposed activity.
Any significant impact on Commonwealth marine areas?	1	The proposed development will not affect a Commonwealth marine area.
Any significant impact on the Great Barrier Reef Marine Park?	None	The proposed activity would not impact on the Great Barrier Reef Marine Park.
Does the proposed activity involve a nuclear action (including uranium mining)?	N/A	The proposed activity does not involve a nuclear action (including uranium mines).
Is there any impact on a water resource, in relation to coal seam gas development and large coal mining development?	N/A	The proposed activity is not related to coal seam gas development and large coal mining development, thus, will not impact (directly, indirectly or cumulatively) on a water resource.

An assessment of threatened entities, known or potentially occurring within the locality is included in Appendix B of the supporting Ecological Assessment. Assessments on the likelihood of threatened entities occurring within the study area based on:

- Habitat extent (e.g., sufficient to support an individual or the local population; comprises all of home range; forms part of larger territory, etc.); quality (i.e., condition, including an assessment of threats, historical land uses on and off-site, and future pressures); interconnectivity to other habitat; and ability to provide all the species life-cycle requirements (either the site alone, or other habitat within its range),
- Occurrence frequency (i.e., on-site resident; portion of larger territory or seasonal migrant), and
- Usage i.e., breeding or non-breeding; opportunistic foraging (e.g., seasonal, migratory or opportunistic); marginal fringe of core range; refuge; roosts; etc.

9. Impact assessment during all stages of the activity

9.1 Physical and chemical impacts

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. impact on soil quality or land stability?	Yes	Low, adverse	<p>The proposal includes disturbance to soil profiles and groundcover throughout the precinct to accommodate the required works. Disturbance to existing areas will occur predominantly with widening and drainage upgrades to the access road and works to formalise the shared pedestrian/cycleway. The proposed link from the shared pedestrian/cycleway to Bridle Trail will involve minor excavation on undisturbed soils of varying topography which has the potential to impact on land stability.</p> <p>The proposed works will contribute to a risk of erosion and sedimentation through:</p> <ul style="list-style-type: none"> • Erosion of disturbed soils • Transportation of sediments from the road pavement from vehicle movements • Transport of sediments in runoff and deposition <p>In addition, a Geotechnical Assessment was carried out (Hunter Civilab, 2024) which confirmed the site is classified, in accordance with AS2870-2011 Residential Slabs and Footings, as Class P.</p>	<ul style="list-style-type: none"> • Erosion and sediment control measures in accordance with the NPWS field guide for Erosion and Sediment Control on Unsealed Roads and currently accepted best management practice (i.e., Landcom [2004] Managing Urban Stormwater: Soils and Construction [4th Edition] – The Blue Book) are to be implemented and maintained to: <ul style="list-style-type: none"> ○ Prevent sediment moving off-site and sediment laden water entering drainage lines ○ Reduce water velocity and capture sediment on site ○ Minimise the amount of material transported from site to surrounding pavement surfaces ○ Divert clean water around the site ○ Sediment controls shall be inspected regularly by the relevant contractor and by NPWS staff ○ Sediment control measures shall be in place the storage of any spoil as required • Soil disturbance shall be limited to the area required to undertake the proposed activity • All areas disturbed by works will be progressively stabilised and rehabilitated to ensure stable surfaces are obtained as soon as practical (progressively where possible)

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
		Positive	Carrying out the proposed works will contribute positively to the stabilisation of the precinct by formalising vehicle parking and the walking trails.	<ul style="list-style-type: none"> Track micro siting shall be undertaken by NPWS staff and contractors to maintain a high level of focus on minimising soil erosion Revegetation of exposed surfaces will be encouraged by maintaining suitable grades, carefully separating, retaining and respreading topsoil and covering exposed soil surfaces with weed-free mulch or matting to protect soils The founding of the amenities block shall be designed and installed in accordance with approved engineering plans Proposed foundation areas for box culverts shall be stripped to remove all vegetation, root affected soils, topsoil and existing fill down to design foundation level. Installation of culverts shall be installed as per approved engineering documents
2. affect a waterbody, watercourse, wetland or natural drainage system – either physically or chemically (e.g. due to runoff or pollution)?	Yes	Low, adverse	<p>The precinct is located adjacent to the ocean, a first order stream, and drainage lines. The construction of the proposal has the potential to negatively impact on the ocean in the following ways:</p> <ul style="list-style-type: none"> Erosion and sedimentation that may affect the ocean, watercourses, and/or drainage lines Pollution of local water quality from machinery and construction materials and spills A variety of dispersible liquid materials would be used which pose a potential pollutant threat to local water quality. These liquids include but are not limited to diesel, unleaded petrol, machinery oils and 	<ul style="list-style-type: none"> Erosion and sedimentation, and waste management safeguards will be effectively implemented to minimise associated water quality impacts All equipment is to be maintained in good working condition and operated according to manufacturer's specifications Refuelling of plant and equipment is to occur a minimum of 40m from the ocean, waterways, and drainage lines Stockpile sites are not to be located within drainage lines (+10m) Stockpiles shall be located on previously disturbed areas, away from areas that receive concentrated runoff

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
			lubricants. The nature of these liquids and their ability to disperse away from the site means that they could have a negative impact on ground or surface water on or adjacent to the study area, especially during rain	<ul style="list-style-type: none"> • Sediment fencing and sediment traps will be used to protect watercourses during the works. Works are only to be undertaken during periods of low flow • Store oils and fuels in a suitably bunded, covered, and secure area with sufficient capacity to contain at least 110 percent of the volume of the largest container • Spare fuels to be stored in containers within pre-existing cleared areas and a minimum of 40m from the ocean, waterways, and drainage lines • Spills and leaks are to be contained within the worksite and site clean-up to occur • Spill kits to be available on site and/or in construction vehicles
3. change flood or tidal regimes, or be affected by flooding?	Yes	Low, adverse	The new trail which crosses the unnamed stream has the potential to be impacted by storm events and flash flooding.	<ul style="list-style-type: none"> • Regular inspection of the assets will be incorporated into the NPWS maintenance program and assessed for damage following exceptionally high tides and storm and flash flooding events • Materials and construction methods should be selected to withstand events which could adversely impact the structures
4. affect or be affected by coastal processes and coastal hazards, including those under climate change projections (e.g. sea level rise)?	Yes	Medium, adverse	<p>The proposal is situated within both the coastal environment area and coastal use area under Part 2 of SEPP Resilience and Hazards.</p> <p>Coastal hazards associated with beach erosion and shoreline recession has the potential to impact on the stability of the new seats and bike racks.</p>	<ul style="list-style-type: none"> • Regular inspection of the asset will be incorporated into the NPWS maintenance program and assessed for damage associated with coastal hazards • Materials and construction methods should be selected to withstand events which could adversely impact the structures
5. involve the use, storage or transport of hazardous	Yes	Low, adverse	A variety of dispersible liquid materials would be used and stored which pose a potential threat of pollution. These liquids include but are not	<ul style="list-style-type: none"> • Store oils and fuels in a suitably bunded, covered and secure area with sufficient capacity to contain at

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
<p>substances, or use or generate chemicals which may build up residues in the environment?</p>			<p>limited to diesel, unleaded petrol, machinery oils and lubricants. The nature of these liquids and their ability to disperse away from the site means that they could have a negative impact on ground or surface water on or adjacent to the study area, especially during rain.</p> <p>Machinery involved in the works may accidentally spill fluids hazardous to the environment.</p> <p>Spare fuels are likely to be stored in containers within construction vehicles.</p>	<p>least 110 percent of the volume of the largest container</p> <ul style="list-style-type: none"> • Spare fuels to be stored in containers within pre-existing cleared areas and a minimum of 40m from the ocean, waterways, and drainage lines • Spills and leaks are to be contained within the worksite and site clean-up to occur • Spill kits to be available on site and/or in construction vehicles • Where practicable, electric equipment should be used rather than diesel/petrol equipment to limit transport and storing fuels • Contractors shall be conversant with and adhere to the measures and controls outlined in the NSW Government’s Code of Practice: Managing risks of hazardous chemicals in the workplace to ensure gaseous, liquid, or solid wastes or emissions are managed appropriately • If hazardous substances are discovered on the site, suspend all work which may result in exposure to such hazardous substances and notify the NPWS immediately. Asbestos, material containing asbestos, polychlorinated biphenyl (PCB) and lead based paints are recognised as hazardous substances. Other substances in certain situations are also considered hazardous and therefore require controlled handling
<p>6. involve the generation or disposal of gaseous, liquid or solid wastes or emissions?</p>	<p>Yes</p>	<p>Low, adverse</p>	<p>Soil, rock, and other material excavated during the works will be stockpiled nearby to each works area and reused where practicable. Existing road base or materials which cannot be reused or recycled will require disposal.</p>	<ul style="list-style-type: none"> • Resource management hierarchy principles shall be followed in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i>: <ul style="list-style-type: none"> ○ avoidance and reduction of waste ○ re-use of waste

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
			<p>Waste materials may be generated by the relocation of the nursery and existing shower facility.</p> <p>No hazardous waste is anticipated to be generated.</p> <p>Minor consumable and putrescible waste will be generated from workers undertaking the activity.</p>	<ul style="list-style-type: none"> ○ recycling, processing or reprocessing waste ○ recovery of energy ○ disposal ● Characterise and manage waste in accordance with the NSW EPA's Waste Classification Guidelines ● Waste generated during construction will be collected and disposed of at a suitably licenced waste facility ● Where feasible, recyclable material is to be segregated to maximise recycling opportunities ● Use electric machinery instead of diesel/petrol powered machinery where practicable ● Minimise the use of machinery and plant where practicable; turn off machinery when not in use and reduce throttle speed of machines; machinery shall be in good, serviced condition to reduce emissions
<p>7. involve the emission of dust, odours, noise, vibration or radiation?</p>	<p>Yes</p>	<p>Low, adverse</p>	<p>The proposed works will occur within areas which are open to the public.</p> <p>Some low levels of dust and noise will be generated during construction activities associated with the works.</p> <p>Vehicles would be used to transport workers, machinery, and tools to the works site.</p> <p>The primary sources of emissions and airborne particulate matter generated by the activity would include:</p> <ul style="list-style-type: none"> ● The delivery and transport of construction vehicles, staff, and materials to the works site 	<ul style="list-style-type: none"> ● Machinery on site must be registered, clean and devoid of oil/fuel leaks ● Use electric machinery instead of diesel/petrol powered machinery where practicable ● If imported materials (e.g., rock fines) are required to be delivered to site, trucks are to be covered to minimise tracking of dust etc. ● Any vegetation removed is not to be burnt ● Noise generating works are to be limited to the recommended standard hours for construction work outlined in the Interim Construction Noise Guideline which are: <ul style="list-style-type: none"> ○ Monday to Friday 7:00am to 6:00pm ○ Saturday 8:00am to 1:00pm

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
			<ul style="list-style-type: none"> • Vehicle and machinery (exhaust) emissions • Dust emissions from vegetation removal (chainsaws etc) and soil disturbance <p>The proposal is unlikely to produce significant emissions of dust, odours, noise, or vibration and would not impact adjacent landholders.</p>	<ul style="list-style-type: none"> ○ No works on Sundays, Public Holidays or school holidays ○ If works are required outside of the standard hours or on weekends due to emergencies or weather patterns, it would need to be clearly justified and approved by the Area Manager

9.2 Biodiversity impacts

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. affect a declared area of outstanding biodiversity value, critical habitat or environmental Asset of Intergenerational Significance?	No	Not applicable	No areas of outstanding biodiversity value, critical habitat or Assets of Intergenerational Significance occur within Arakoon National Park.	Not applicable
2. result in the clearing or modification of vegetation, including ecological communities and plant community types of	Yes	Low, adverse	Lower stratum vegetation requires removal to create the pedestrian pathway within the precinct; however, only a thin strip of the lower stratum will be impacted. No upper stratum vegetation will be impacted by the proposal as the pathway will weave around any vegetation.	<ul style="list-style-type: none"> • Parking and storage of materials to be restricted to the existing disturbed area • Vegetation requiring clearing shall be clearly marked on site prior to construction works commencing and works shall be restricted to the specified area. No vegetation clearance shall occur beyond what is marked and has been assessed

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
conservation significance? ^		Positive	<p>A thin strip of vegetation will require removal through the forested area for the link to the Bridle Trail; however, the pathway can be micro sited and strategically aligned to avoid impacts for canopy tree removal.</p> <p>Upon completion, the proposed works will contribute to limiting vehicle encroachment into adjacent vegetation.</p>	<ul style="list-style-type: none"> • Onsite NPWS park induction process and toolbox meetings to ensure workers/contractors are aware of vegetation to be removed and retained • A qualified ecologist or suitably trained NPWS Officer shall be on site prior to any clearing works. The ecologist or NPWS Officer shall assist with delineating the exact pathway through the forested area to the Bridle Trail to ensure the path of least environmental impact is taken • Exclusion zones are to be established around the retained littoral rainforest (i.e. physical barriers to prevent NPWS staff or contractors entering or placing materials)
3. endanger, displace or disturb terrestrial or aquatic fauna, including fauna of conservation significance, or create a barrier to their movement? ^	Yes	Negligible, adverse	<p>The vegetation communities present within the precinct provide habitat for a range of threatened species; however, given that minimal vegetation is to be removed, it is not anticipated the proposed activity would endanger, displace or disturb terrestrial or aquatic fauna.</p> <p>With the exception of the new pathway linking Bridle Trail, existing movements within the precinct is unlikely to change significantly.</p>	<ul style="list-style-type: none"> • A qualified ecologist or suitably trained NPWS Officer will remain on site to assist with animal welfare management and rescue of any fauna within the impact area • Works shall not be undertaken at night, and works shall be undertaken in the shortest timeframe possible to minimise the period which fauna may be impacted • Speed limits shall be enforced within and directly around the activity sites will be limited to a maximum of 40kmph • Wildlife management protocols are to be established in the event that fauna is endangered or injured <ul style="list-style-type: none"> ○ Wildlife management care groups and local veterinary clinics contact details are to be provided to workers

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
				<ul style="list-style-type: none"> ○ A qualified ecologist or suitably trained NPWS Officer shall be on standby to transport injured fauna if treatment is required ○ Reporting protocols shall be implemented to report and notify NPWS of any injury or death of fauna
4. result in the removal of protected flora or plants or fungi of conservation significance? ^	Yes	Negligible, adverse	No threatened or protected flora or plants or fungi of conservation significance were identified during the site inspection; however, in the event the <i>Acronychia</i> species are confirmed a threatened species, safeguards shall be implemented accordingly.	<ul style="list-style-type: none"> ● A pre-clearing survey by an ecologist or suitably trained NPWS Officer is required prior to the commencement of works to survey for threatened flora species. If a threatened species is identified within the vicinity of the project, a 'No Go Zone' will be erected to reduce potential impacts to the species ● Onsite NPWS park induction process and toolbox meetings to ensure workers/contractors are aware of buffer zones and any identified threatened species ● Exclusion zones shall be placed around any threatened flora species, particularly <i>Acronychia</i> species should they be confirmed threatened ● Exclusion zones shall be delineated using a different method to that which is used for clearing
5. contribute to a key threatening process to biodiversity or ecological integrity?	Yes	Low, adverse	<p>There is potential for indirect impacts during works that could contribute to a key threatening process. For example, the introduction and establishment of weeds or the introduction of diseases and pathogens to disturbed areas.</p> <p>Removal of native vegetation is required for the proposed activity.</p> <p>Human induced activities as a result of energy use will occur; however, would not be sufficient to</p>	<ul style="list-style-type: none"> ● Basic hygiene protocols as per the NSW Hygiene Guidelines: Protocols to protect priority biodiversity areas in NSW from <i>Phytophthora cinnamomi</i>, myrtle rust, amphibian chytrid fungus and invasive plants would be implemented to reduce the risk of spreading weeds, diseases, and pathogens: <ul style="list-style-type: none"> ○ Check personnel, clothing, footwear, backpacks and equipment for soil, plant material/propagules and other debris ○ Remove all soil, plant material and other debris

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
			<p>significantly contribute to anthropogenic climate change.</p> <p>Hollow-bearing trees and hollow logs occur within the precinct; thus, there is potential for the loss of hollow-bearing trees to occur.</p>	<ul style="list-style-type: none"> ○ Remove seeds from clothing, footwear, tools and equipment by hand. Where possible, have a co-worker double-check that all seeds are removed ○ Where practicable, ensure hand, clothing, footwear, and equipment are dry before proceeding ○ Check the exterior and interior of vehicles and machinery for soil, plant material and other debris ○ Remove large clods of dirt and soil ○ Remove all soil, plant material and other debris from interior ○ Where practicable, allow vehicle or machinery to dry before proceeding ● The clearing extent shall be clearly marked on site prior to construction works commencing and works shall be restricted to the specified area. No vegetation clearance shall occur beyond what is specified and marked ● No removal of hollow-bearing trees or significant dead wood would occur ● Minimise the use of machinery and plant where practicable; turn off machinery when not in use and reduce throttle speed of machines; machinery shall be in good, serviced condition to reduce emissions ● Use electric equipment instead of diesel/petrol equipment where practicable
6. introduce weeds, pathogens, pest animals or genetically modified	Yes	Low, adverse	There is a risk of the introduction of diseases such as Phytophthora, Myrtle Rust, and Chytrid via contaminated tools, plant, vehicles, shoes,	<ul style="list-style-type: none"> ● Basic hygiene protocols (as listed above) to be implemented to reduce the risk of spreading weeds, diseases, and pathogens

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
organisms into an area?			<p>and clothing both in construction and remediation stages.</p> <p>Weeds are existing throughout the precinct, and there is a risk of introducing weeds through machinery, tools, materials and personal items (clothing, boots etc.).</p> <p>The works will generally be confined to the existing footprint of each project location and would not significantly contribute to improving access for pest animals.</p>	<ul style="list-style-type: none"> • Hygiene protocols as per the Commonwealth’s Department of Sustainability, Environment, Water, Population and Communities (now DCCEE) Hygiene protocols for the control of diseases in Australian frogs shall be implemented for works likely to impact frog species at the unnamed creek: <ul style="list-style-type: none"> ○ Hands, arms, knees etc. should be cleaned to remove debris and washed or wiped with a suitable disinfectant ○ Footwear must be thoroughly cleaned and disinfected at the commencement of fieldwork ○ Equipment shall be cleaned and disinfected prior to use at the site ○ Wheels and tyres should be cleaned and disinfected to prevent mud and water entering the site • Each area shall be monitored for weeds post-construction and treated as necessary to ensure weed establishment does not occur

9.3 Community impacts

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. affect community services or infrastructure?	Yes	Low, adverse	A single 11kV overhead span crosses the entrance road which terminates at the NPWS	<ul style="list-style-type: none"> • Consult with Essential Energy and undertake a ‘Before You Dig Australia’ prior to works commencing

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
			<p>depot. An underground 11kV cable tracks north from the depot to the café at the Trial Bay Gaol.</p> <p>Roads and pathways throughout the precinct will require temporary closures and detours to facilitate the improvements, which may cause temporary disruptions to vehicle and pedestrian movement. It is not anticipated that any public roads will require the implementation of closures or detours; thus, no Traffic Management Plans are proposed.</p>	<ul style="list-style-type: none"> • Buffer zones to be created around electrical poles, overhead spans and underground cables • Site induction to occur detailing locations of electrical services • Where practicable, maintain current vehicle and pedestrian movements. Disturbance should be minimised to prevent unnecessary delays • Ensure clear delineation between construction zones and areas of public access
2. affect sites important to the local or broader community for their recreational or other values or access to these sites?	Yes	<p>Low, adverse</p> <p>Positive</p>	<p>The proposal will occur in areas which are typically open to the public; however, the precinct will be closed to the public during road works.</p> <p>Upon completion, the proposed works will significantly improve the safety and condition of the existing infrastructure and improve long-term accessibility throughout the park.</p>	<ul style="list-style-type: none"> • Establish 'no-go zones' with signage and pedestrian barriers to prevent public access to construction zones • During construction appropriate signage will be displayed and the area would be fenced off to the public • Detour signage should be placed at strategic location informing the public of alternative routes • Notification of the works to be placed on the NPWS website informing the public of the nature and duration of the works • Carry out works in the shortest timeframe possible to reduce impacts on the community
3. affect economic factors, including employment, industry and property value?	Yes	<p>Low, adverse</p> <p>Positive</p>	<p>The 4WD access to Front Beach is currently used for launching boats by commercial fishing businesses. The proposed closure of the access has the potential to impact on the economic factors of those businesses.</p> <p>Access to the Pandanus Nursery may be temporarily impacted which could adversely impact its economic capacity.</p>	<ul style="list-style-type: none"> • Consultation to be undertaken with commercial fishing businesses to discuss alternate access or a licence under section 153C of the NPW Act • Notification to be provided to the Pandanus Nursery a minimum of five (5) business days prior to works commencing

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
6. affect the visual or scenic landscape? ^	Yes	Low, adverse	The visual landscape will be temporarily impacted by construction activities, 'no-go zones' etc. Vegetation clearing will be required to facilitate construction works.	<ul style="list-style-type: none"> Vegetation removal to be kept at the minimum necessary to complete works Construction sites are to be kept clean and tidy, and site clean-up to occur daily Ensure post construction vegetation rehabilitation works are completed
		Positive	Upon completion, the works will provide improved visual amenity throughout the site for park visitors and the community.	

9.4 Natural resource impacts

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. result in the degradation of the park or any other area reserved for conservation purposes?	Yes	Positive	Upon completion, the proposed works will contribute to limiting vehicle encroachment into adjacent vegetation. Vehicle and pedestrian pathways will be stabilised which will reduce potential impacts to soil and land stability.	Not applicable
2. affect the use of, or the community's ability to use, natural resources?	Yes	Low, adverse	The proposal will occur in areas which are typically open to the public. The works will create short-term access restrictions; however, the precinct will remain open for the duration of the activity.	<ul style="list-style-type: none"> Establish 'no-go zones' with signage and pedestrian barriers to prevent public access to construction zones During construction appropriate signage will be displayed and the area would be fenced off to the public

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
3. involve the use, wastage, destruction or depletion of natural resources including water, fuels, timber or extractive materials? ^	Yes	Negligible, adverse	<p>The impact on natural resources would be negligible as there would be negligible use, wastage, destruction or depletion of natural resources required for the upgrade works.</p> <p>Minimal natural resources (fossil fuels) will be used to power machinery used during construction and ongoing maintenance of the assets.</p>	<ul style="list-style-type: none"> • Detour signage should be placed at strategic location informing the public of alternative routes • Notification of the works to be placed on the NPWS website informing the public of the nature and duration of the works • Permanent signage is recommended advising the public of alternative beach access/boat launching locations • Machinery and vehicles to be serviced regularly to prevent unnecessary use of resources • Machinery use to be kept at a minimum • Use electric equipment rather diesel/petrol equipment where practicable
4. provide for the sustainable and efficient use of water and energy? †	Yes	Low, adverse	<p>The amount of water and energy used to undertake the activity would be negligible; however, vehicles and machinery will be used which require the use of water and fossil fuels to generate energy.</p> <p>The shower and amenities block will be connected to water and sewerage. Given this is a relocation of existing assets, the new amenities are unlikely to contribute to significantly higher use of water.</p>	<ul style="list-style-type: none"> • Contractors and materials to be sourced locally where practicable to reduce the use of energy • Minimise the use of machinery and plant where practicable; turn off machinery when not in use and reduce throttle speed of machines; machinery shall be in good, serviced condition to reduce emissions • Use electric equipment instead of diesel/petrol equipment where practicable • Limit vehicle and machinery movements to and from the site as far as practicable • Water-efficient appliances and fixtures to be selected for the amenities block

9.5 Aboriginal cultural heritage impacts

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. disturb the ground surface or any vegetation likely to contain culturally modified trees?	Yes	Low, adverse	<p>The proposal requires minor excavation and disturbance of the ground surface to facilitate the required upgrades. With the exception of the new access trail linking Bridle Trail, all works will be undertaken in areas which have been previously disturbed.</p> <p>No vegetation likely to contain culturally modified trees will be removed.</p>	<ul style="list-style-type: none"> • A NPWS officer qualified in Aboriginal site and object identification shall be on site during excavation works to inspect soil and ground disturbance for Aboriginal objects • Works would proceed with caution, and if any Aboriginal objects or human remains are located during the proposed works, the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW would be followed • If Aboriginal objects are detected, the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW apply, and consultation with Heritage NSW is required. NPWS shall also be notified immediately • If suspected human remains are discovered and/or harmed in, on or under the land within the activity footprint, the following actions must be undertaken: <ul style="list-style-type: none"> ○ The remains must not be harmed/further harmed ○ Immediately cease all works at that location ○ Secure the area to avoid further harm to the remains ○ Notify NPWS who will contact the NSW Police and the Environment Line (Heritage NSW) on 131 555 as soon as practicable and provide any details of the remains and their location ○ Do not recommence any work at that location unless authorised in writing by Heritage NSW
2. affect or occur near known Aboriginal	Yes	Low, adverse	The proposal does not comprise exempt development or is the subject of a complying	In addition to the measures outlined above, the ACHA identifies the following recommendations:

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
<p>objects, Aboriginal places or an Aboriginal cultural Asset of Intergenerational Significance? If so, can impacts be avoided? How?</p>			<p>development certificate; thus, the proposed work is not a low impact activity as defined by the <i>National Parks and Wildlife Regulation 2021</i>; therefore, an ACHA has been undertaken in accordance with the generic due diligence process as determined by the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.</p> <p>The ACHA determined that it is not considered that there is a high probability that Aboriginal objects or burials will be located within the study area. An AHIP or additional archaeological investigation is not required prior to works commencing, and works may proceed with caution.</p> <p>Much of the proposal is located within areas containing existing infrastructure and relates to upgrades to improve existing elements; however, the potential for undiscovered items to be uncovered does exist. Following the mitigation measures should ensure that any potential impacts are negated.</p>	<ul style="list-style-type: none"> • The proposed works must be contained within the assessed boundary for this project. If there is any alteration to the boundary of the proposed works to include additional areas not assessed as part of the archaeological investigation, further investigation of those areas should be completed to assist in managing Aboriginal object and places which may be present in an appropriate manner. • Should unanticipated Aboriginal archaeological material be encountered during site works, all work must cease in the vicinity of the find and an archaeologist contacted to make an assessment of the find and to advise on the course of action to be taken. Further archaeological assessment and Aboriginal community consultation may be required prior to the recommencement of works. Any objects confirmed to be Aboriginal in origin must be reported to Heritage NSW. <p>Human remains of Aboriginal people have previously been recorded in shell middens and within sand dune deposits along the Macleay Coast. In the unlikely event that suspected human remains are identified during rectification works, all activity in the vicinity of the find must cease immediately and the find protected from harm or damage. The NSW Police and the Coroner’s Office must be notified immediately. If the finds are confirmed to be human and of Aboriginal origin, further assessment by an archaeologist experienced in the assessment of human remains and consultation with both Heritage NSW and the RAPs for the project would be necessary.</p>

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
<p>3. affect areas:</p> <ul style="list-style-type: none"> a. within 200 m of waters b. within a sand dune system c. on a ridge top, ridge line or headland d. within 200 m below or above a cliff face e. in or within 20 m of a cave, rock shelter or a cave mouth? <p>If so, can impacts be avoided? How?</p>	Yes	Low, adverse	<p>The proposed activity involves works within 200m of Trial Bay and one unnamed watercourse. The outcomes of the ACHA determined that the precinct is considered to be highly disturbed by previous construction works and the proposed works are considered unlikely to impact on any Aboriginal archaeological material within the precinct.</p> <p>The proposed access track to link with Bridle Track was inspected but was heavily vegetated with limited visibility. However, the landscape context of the new track area was unlikely to have been utilised by Aboriginal people in the past as a camping area and the proposed new track was considered unlikely to impact on any Aboriginal cultural material in the vicinity.</p>	<ul style="list-style-type: none"> • As above
<p>4. affect wild resources which are used or valued by the Aboriginal community or affect access to these resources?</p>	No	Not applicable	<p>The proposal would not affect wild resources which are used or valued by the Aboriginal community.</p>	Not applicable
<p>5. affect access to culturally important locations?</p>	Yes	Positive	<p>The proposed works will improve the safety and condition of the infrastructure and improve long-term access to any potential culturally important locations.</p>	None required

9.6 Other cultural heritage impacts

Is the proposed activity likely to...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. affect or occur near places, buildings or landscapes of heritage significance? ^	Yes	Negligible	The Cardwell Street precinct is predominantly situated within the State Heritage Register (SHR) listing curtilage for the gaol and surrounds; however, the supporting SoHI determined the precinct is not historically associated with the gaol, and that works are unlikely to impact historic heritage values.	<ul style="list-style-type: none"> • If unexpected historic heritage items are uncovered during the works, all works must cease in the vicinity of the material/find • Establish a 'no-go zone' around the material/find • Inform all site personnel about the no-go zone • Inform NPWS and Heritage NSW immediately
2. impact on relics or moveable heritage items, or an area with a high likelihood of containing relics? ^	Yes	Negligible	The precinct is situated within the State Heritage Register (SHR) listing curtilage for the gaol and surrounds; however, it is not situated within an area with a high likelihood of containing relics.	<ul style="list-style-type: none"> • As above
3. impact on vegetation of cultural landscape value (e.g. gardens and settings, introduced exotic species, or evidence of broader remnant land uses)?	No	Not applicable	The proposal would not impact on vegetation of cultural landscape value.	Not applicable

9.7 Impacts on matters of national environmental significance

Is the proposal likely to affect MNES, including:	Applicable?	Likely impact (negligible, low, medium or high adverse; or positive; or N/A)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. listed threatened species or ecological communities)?	Yes	Low, adverse	<p>The proposal would see very minor modification of potential habitat of a number of threatened fauna species. The impacts comprise a minimal level of vegetation removal. Breeding, foraging, dispersal, etc., processes would remain as current.</p> <p>There is the potential for threatened flora species to be adversely impacted by the proposed works; however, none have been recorded as occurring within or near the activity site.</p> <p>The proposal would see the removal of a very small area of the lower stratum of Littoral Rainforest; however, potential impacts have been assessed and are unlikely to be significant.</p>	<ul style="list-style-type: none"> As detailed in section 9.2
2. listed migratory species?	Yes	Negligible, adverse	<p>The proposal would see very minor impact on the potential habitat of such species. Breeding, foraging, dispersal, etc., processes would remain as current; and no barrier to movement, entanglement or strike risk would be created.</p>	<ul style="list-style-type: none"> As detailed in section 9.2
3. the ecology of Ramsar wetlands?	No	Not applicable	<p>The proposal would not impact on the ecology of Ramsar wetlands as none are located close to the works area.</p>	Not applicable
4. world heritage values of World Heritage properties?	No	Not applicable	<p>The proposal would not impact on the world heritage values of World Heritage properties as none are recorded within the area.</p>	Not applicable

Is the proposal likely to affect MNES, including:	Applicable?	Likely impact (negligible, low, medium or high adverse; or positive; or N/A)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
5. the national heritage values of national heritage places?	No	Not applicable	The proposal would not impact the national heritage values of national heritage places as none are recorded within the area.	Not applicable

9.8 Cumulative impacts

When considered with other projects, is the proposed activity likely to affect...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. natural landscape or biodiversity values through cumulative impacts?	Yes	Low, adverse	The Cardwell Street precinct project is one of four precincts identified in the Macleay Coast Destination master plan. In addition, a new walking trail linking the precincts of Arakoon National Park and Hat Head National Park will be established. Vegetation removal will be required in each precinct and to establish the new trail which has the potential to cumulatively impact biodiversity values including available habitat.	<ul style="list-style-type: none"> • All works must be coordinated to minimise impacts to natural landscape or biodiversity values • Vegetation clearing should be staged where practicable to limit potential impacts to available habitat
2. cultural (Aboriginal, shared and historic heritage) values through cumulative impacts?	No	Not applicable	The proposal is unlikely to contribute to cumulative cultural (Aboriginal, shared and historic heritage) values.	Not applicable
3. social (amenity, recreation, education) values	Yes	Low, adverse	Each precinct identified in the Macleay Coast Destination master plan will involve works to improve existing park facilities and recreational	<ul style="list-style-type: none"> • Works should be coordinated where practicable to minimise impacts to social values

When considered with other projects, is the proposed activity likely to affect...	Applicable?	Impact level (negligible; or low, medium or high adverse; or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
through cumulative impacts?			<p>values associated with the parks and adjacent coastal areas.</p> <p>General maintenance activities including clearing and soil disturbance, additional vehicle movements and noise generating activities occur on a regular basis which has the potential to impact social values. Activities associated with the proposal will not be substantially different to routine NPWS activities and will be well regulated and managed on a project-by-project basis.</p> <p>Potential social impacts are considered justifiable based on the significant community benefits identified in the master plan.</p> <p>It is understood works associated with another NPWS project (the Trial Bay Foreshore Protection project) have commenced or are likely to commence concurrently with this activity. There is potential for additional construction vehicles/activities to be working within the park simultaneously which could impact on social values.</p>	<ul style="list-style-type: none"> Notification of works should be placed on signs within the precinct and on the NPWS website informing the community of the nature and duration of the works
4. the community through cumulative impacts on any other part of environment (e.g. due to traffic, or waste generation)?	Yes	Low, adverse	<p>There will be an increase of vehicle/machinery activity during construction stages of the activity from the delivery of workers, material and machinery required to undertake the works.</p> <p>All access to the site will be via Cardwell Street, an important local road used by residents and visitors. Resources will be delivered on an as-needed basis and stored on site for the duration of the works; therefore, limiting potential</p>	<ul style="list-style-type: none"> Coordinate delivery of resources to limit vehicle and machinery movements to and from the site as far as practicable Notification of works should be placed on signs within the precinct and on the NPWS website informing the community of the nature and duration of the works

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When considered with other projects, is the proposed activity likely to affect...	Applicable?	Impact level	Reasons	Safeguards/mitigation measures
		(negligible; or low, medium or high adverse; or positive; or NA)	(describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	
			<p>impacts to the community through cumulative activities.</p> <p>It is understood works associated with another NPWS project (the Trial Bay Foreshore Protection project) have commenced or are likely to commence concurrently with this activity. There is potential for additional vehicles utilising Cardwell Street for staff access and to deliver materials to both projects, which may increase traffic within this area of the park and cause perceptions of over development.</p>	

10. Proposals needing more information

10.1 Lease or licence proposals under s 151 National Parks and Wildlife Act

No lease or licencing requirements are attached to the Cardwell Street precinct project. Any and all future commercial business or ecotourism proposals would be addressed separately in accordance with the NPWS Park Policy – [Parks Eco Pass program for commercial tour operators | NSW Environment and Heritage](#).

10.2 Telecommunications facilities

The Cardwell Street precinct project has no telecommunication facility component so assessment under section 153D of the NPW Act is not required.

10.3 Activities within regulated catchments

The Cardwell Street precinct project does not fall within any regulated catchment, including the Sydney Drinking Water Catchment so further assessment is not required.

10.4 Activities in River Murray riverine land

The Cardwell Street precinct project is not located within lands defined as Murray Riverine land so further assessment is not required.

11. Summary of impacts and conclusions

Table 13. Consideration of significance of impacts for each environmental factor

Environmental factor	Consideration	Significance of impact*
1. the environmental impact on the community	Social, economic and cultural impacts as described in sections 9.3, 9.5 and 9.6.	Not significant
2. the transformation of the locality	Human and non-human environment as described in sections 9.1, 9.2 and 9.4.	Not significant
3. the environmental impact on the ecosystems of the locality	Amount of clearing, loss of ecological integrity, habitat connectivity/fragmentation and changes to hydrology (both surface and groundwater) as described in sections 9.1, 9.2 and 9.4 and, for nationally listed threatened ecological communities, in section 9.7.	Not significant
4. reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality	Visual, recreational, scientific and other impacts as described in section 9.3.	Not significant
5. the effects on any locality, place or building that has— a. aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or b. other special value for present or future generations	Impacts to Aboriginal and historic heritage associated with a locality (including intangible cultural significance), architectural heritage, social/community values and identity, scenic values and others, as described in sections 9.3, 9.5 and 9.6 and (for MNES heritage places) section 9.7.	Not significant
6. the impact on the habitat of protected animals, within the meaning of the Biodiversity Conservation Act	Impacts to all native terrestrial species, including but not limited to threatened species, and their habitat requirements, as described in section 9.2.	Not significant
7. the endangering of a species of animal, plant or other form of life, whether living on land, in water or in the air	Impacts to all listed terrestrial and aquatic species, and whether the proposal increases the impact of key threatening processes, as described in section 9.2.	Not significant
8. long-term effects on the environment	Long-term residual impacts to ecological, social and economic values as described in all parts of section 9.	Not significant
9. degradation of the quality of the environment	Ongoing residual impacts to ecological, social and economic as described in section 9.4.	Not significant
10. risk to the safety of the environment	Impacts to public and work health and safety, from contamination, bushfires, sea level rise, flood, storm surge, wind speeds, extreme heat, rockfall and landslip, and other risks likely to increase due to climate	Not significant

Environmental factor	Consideration	Significance of impact*
	change as described in sections 9.1, 9.3 and 9.4.	
11. reduction in the range of beneficial uses of the environment	Impacts to natural resources, community resources and existing uses as described in sections 9.3 and 9.4.	Not significant
12. pollution of the environment	Impacts due to air pollution (including odours and greenhouse gases); water pollution (water quality health); soil contamination; noise and vibration (including consideration of sensitive receptors); or light pollution, as described in sections 9.1 and 9.3.	Not significant
13. environmental problems associated with the disposal of waste	Transportation, disposal and contamination impacts as described in section 9.3.	Not significant
14. increased demands on natural or other resources that are, or are likely to become, in short supply	Impacts to land, soil, water, gravel, minerals and energy supply as described in section 9.4.	Not significant
15. the cumulative environmental effect with other existing or likely future activities	The negative synergisms with existing development or future activities as considered in section 9.8.	Not significant
16. the impact on coastal processes and coastal hazards, including those under projected climate change conditions	Impacts arising from the proposed activity on coastal processes, and impacts on the proposed activity from those coastal processes and hazards, both current and future, as considered in section 9.1.	Not significant
17. applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1	Inconsistency with the objectives, policies and actions identified in local, district and regional plans, as considered in section 3.2.2.	Not significant
18. other relevant environmental factors.	Any other factors relevant in assessing impacts on the environment to the fullest extent, such as native title.	Not significant

In conclusion:

- There **is not** likely to be a significant effect on the environment and an environmental impact statement is required

Reason(s): This REF has examined and taken into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the proposed activity.

This has included consideration of impacts on cultural values (including Aboriginal and non-Aboriginal heritage), socio-economic values (including potential impacts on the community resulting from construction works) and threatened species, populations and ecological communities and their habitats. It has also considered potential impacts to threatened species and matters of national environmental significance listed under the Commonwealth EPBC Act.

A number of potential environmental impacts from the proposal have been identified and amended during the design development and options assessment. The proposal as described in the REF best meets the project objectives and will result in some impacts on the biological values. These will be short-term in nature. Safeguards and management measures as detailed in this REF will ameliorate or minimise these expected impacts. The proposal will also provide positive environmental, social, cultural and economic benefits. On balance the proposal is considered justified. The project will significantly improve the safety, facilities and experiences in the Cardwell Street precinct.

- There **is not** likely to be a significant effect on threatened species, populations, ecological communities or their habitats and a species impact statement is required

Reason(s): Tests of significance pursuant to section 7.3 of the BC Act have been undertaken as part of the Ecological Assessment (Appendix C) to determine whether the proposed activity is likely to have a significant effect on threatened species, populations, ecological communities or their habitats. The test of significance concluded that the proposed activity is unlikely to result in a significant impact on threatened species, population, ecological communities or their habitats; therefore, a Species Impact Statement is not required.

- The activity **is not** likely to have a significant impact on matters of national environmental significance listed under the Cwth Environment Protection and Biodiversity Conservation Act

Reason(s): In accordance with the EPBC Act significant impact guidelines, the Ecological Assessment has determined there is unlikely to be a significant impact on relevant MNES and that referral to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) is not required.

- The activity **will not** require certification to the Building Code of Australia, Disability (Access to Premises – Buildings) Standards 2010 or Australian Standards in accordance with the NPWS [Construction Assessment Procedures](#).

12. Supporting documentation

Please provide details of documentation included with this application.

Table 14. Documents that accompany the review of environmental factors

Document title	Author	Date
1. Aboriginal Cultural Heritage Assessment	APEX Archaeology	August 2024
2. Statement of Heritage Impact: Macleay Coast Destination Project – Trial Bay Campground + Cardwell Street	Dan Tuck	01 June 2023
3. Ecological Assessment for Macleay Coast Destination Project	WolfPeak	June 2024

13. Fees for external proponents

Not relevant – internal proponent.

14. Declarations

As the person responsible for the **preparation** of the REF, I certify that, to the best of my knowledge, this REF is in accordance with the EP&A Act, the EP&A Regs and the Guidelines approved under section 170 of the EP&A Regs, and the information it contains is neither false nor misleading.

Signature

Name (printed)

Position

Date

By endorsing the REF, the proponent confirms that the information in the REF is accurate and adequate to ensure that all potential impacts of the activity can be identified.

Signature

Name (printed)

Position

Date

Seal (if signing under seal):

15. References

- Australian Government (Bureau of Meteorology) (2023). Climate statistics for Australian locations: *Summary statistics South West Rocks (Smoky Cape Lighthouse)*. Retrieved from http://www.bom.gov.au/climate/averages/tables/cw_059030.shtml
- BMT WBM (2016). *Kempsey Coastal Zone Management Plan October 2016*. Retrieved from <https://www.kempsey.nsw.gov.au/Your-Valley/Your-environment/Waterways/Coast-estuaries-wetlands>
- Davies, P. (2004). *Trial Bay Gaol: Conservation Management and Cultural Tourism Plan – Volume 1*. Paul Davies Pty Ltd: Architects Heritage Consultants. April 2004.
- Eddie, M. W. (2000). *Soil Landscapes of the Macksville and Nambucca 1:100 000 Sheets*. Department of Land and Water Conservation, Sydney.
- Kempsey Shire Council (2019). *Macleay Valley Coast Destination Master Plan 2019-2029*. Retrieved from <https://www.kempsey.nsw.gov.au/files/sharedassets/public/docs/departments/commercial-business/ec-dev/mvc-destination-management-plan-2019-2029.pdf>
- Kempsey Shire Council (2024). *Coasts, estuaries & wetlands*. Retrieved from <https://www.kempsey.nsw.gov.au/Your-Valley/Your-environment/Waterways/Coast-estuaries-wetlands>
- Murray, K., Skerratt, L., Marantelli, G., Berger, L., Hunter, D., Mahony, M. and Hines, H. (2011). Hygiene protocols for the control of diseases in Australian frogs. A report for the Australian Government Department of Sustainability, Environment, Water, Population and Communities. Regional Development Australia. (2023). *MNC Strategic Regional Plan 2023-2033*. Retrieved from https://rdamnc.org.au/wp-content/uploads/2023/05/RDA_Regional_Plan_P10.pdf
- Hunter Civilab (2024). *Geotechnical Assessment: Proposed Upgrades Cardwell Street access to Trial Bay, Arakoon National Park*. Hunter Civilab, Thornton, NSW.
- NSW Department of Planning and Environment (2021a). *Tree Risk Management Policy*. Retrieved from <https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/tree-risk-management-policy>
- NSW Department of Planning and Environment (2021b). *Walking Tracks Policy*. Retrieved from <https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/walking-tracks>
- NSW Department of Planning and Environment (2022a). *North Coast Regional Plan 2041*. Retrieved from <https://www.planning.nsw.gov.au/sites/default/files/2023-03/north-coast-regional-plan-2041.pdf>
- NSW Department of Planning and Environment (2022b). *Visitor Safety Policy*. Retrieved from <https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/visitor-safety>
- NSW Department of Planning and Environment (2023a). *Accessible Parks Policy*. Retrieved from <https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/accessible-parks-policy>
- NSW Department of Planning and Environment (2023b). *Vehicle Access Policy*. Retrieved from <https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-policies/vehicle-access>

- NSW Department of Planning and Environment (2023c). *NSW State Vegetation Type Map*. Retrieved from <https://datasets.seed.nsw.gov.au/dataset/nsw-state-vegetation-type-map>
- NSW Department of Planning and Environment (n.d.(a)). *Arakoon State Recreation Area Plan of Management*. Retrieved from <https://www.environment.nsw.gov.au/research-and-publications/publications-search/arakoon-national-park-plan-of-management>
- NSW Department of Planning and Environment (n.d.(b)). *Water in New South Wales: Macleay*. Retrieved from <https://www.industry.nsw.gov.au/water/basins-catchments/snapshots/macleay>
- NSW Department of Primary Industries (n.d.) *Protecting habitats*. Retrieved from <https://www.dpi.nsw.gov.au/fishing/habitat/protecting-habitats>
- NSW Department of Primary Industries (2013). *Policy and guidelines for fish habitat conservation and management: Update 2013*. Retrieved from https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0009/468927/Policy-and-guidelines-for-fish-habitat.pdf
- NSW Environment Protection Authority (2023a). *List of notified sites*. Retrieved from <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/clm/site-list/contaminated-sites-list-pdf-october-2023.pdf?la=en&hash=D6BE1DF099CC2B64ADD6D6D89B78884DF03072B4>
- NSW Environment Protection Authority (2023b). *Search the contaminated land record*. Retrieved from <https://app.epa.nsw.gov.au/prclmapp/searchregister.aspx>
- NSW Government (2020). *Hygiene guidelines Protocols to protect priority biodiversity areas in NSW from Phytophthora cinnamomi, myrtle rust, amphibian chytrid fungus and invasive plants*. Environment, Energy and Science Department of Planning, Industry and Environment 4 Parramatta Square, Parramatta NSW 2150.
- NSW National Parks and Wildlife Service (1987). *Arakoon State Recreation Area Plan of Management*. Sydney.
- NSW National Parks and Wildlife Service (2008). *Mid North Coast Region: Arakoon State Conservation Area and Hat Head National Park Fire Management Strategy (Type 2) 2008*. Retrieved from <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Fire-management-strategies/arakoon-hat-head-national-park-fire-management-strategy-080065.pdf>
- NSW National Parks and Wildlife Service (2022a). *Trail Bay Visitor Precincts: Coast and Foreshore Protection Strategy*. Retrieved from <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Parks-management-other/arakoon-national-park-trail-bay-coast-foreshore-protection-strategy-220516.pdf>
- NSW National Parks and Wildlife Service (2022b). *Macleay Coast Destination draft master plan: Arakoon and Hat Head national parks*. Environment and Heritage Group, Department of Planning and Environment, Parramatta NSW 2124.
- Regional NSW (2023). *MinView*. Retrieved from <https://minview.geoscience.nsw.gov.au/#/?lon=153.0656&lat=-30.88439&z=16.5&bm=3&l=ge611:n:100,ge610:n:100,ge69:n:100,ge68:n:100,ge67:y:36,ge66:n:100,ge65:n:100,ge64:n:100,ge63:n:100,ge62:n:100,ge61:n:100,ge612:n:40,hi1:n:25,wa1:n:100,ut1:n:50,ad0:n:100>
- State of New South Wales (Department of Planning and Environment). (2010). *Trial Bay Gaol, Breakwater and Environs*. Retrieved from: <https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=5055109>

Transport for NSW (2023). *NSW Road Network Classifications*. Retrieved from <https://maps.transport.nsw.gov.au/egeomaps/road-network-classification/>

Tuck, D. (2023). Statement of Heritage Impact, Macleay Coast Destination Project: *Trial Bay Campground + Cardwell Street, Arakoon National Park NSW*. Dan Tuck, Bangalow NSW.