



NSW National Parks and Wildlife Service

Brimbin Nature Reserve

**Footbridge replacement review of
environmental factors**



Acknowledgement of Country

Department of Climate Change, Energy, the Environment and Water acknowledges the Traditional Custodians of the lands where we work and live.

We pay our respects to Elders past, present and emerging.

This resource may contain images or names of deceased persons in photographs or historical content.



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Artist and designer Nikita Ridgeway from Aboriginal design agency – Boss Lady Creative Designs, created the People and Community symbol.

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Environment and Heritage
Department of Climate Change,
Energy, the Environment and Water
Locked Bag 5022, Parramatta NSW 2124
Phone: +61 2 9995 5000 (switchboard)
Phone: 1300 361 967 (Environment and Heritage enquiries)
TTY users: phone 133 677, then ask for 1300 361 967
Speak and listen users: phone 1300 555 727, then ask for 1300 361 967
Email: info@environment.nsw.gov.au
Website: www.environment.nsw.gov.au

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Contents

Abbreviations	vi
1. Introduction	1
1.1 Brief description of the proposal	1
1.2 Estimated development cost of proposal	1
1.3 Estimated duration of proposal	1
2. Proponent's details	3
3. Permissibility and assessment pathway	4
3.1 Permissibility under NSW legislation	4
3.2 Environmental Planning and Assessment Act 1979	10
3.3 Other relevant NSW legislation	16
3.4 Commonwealth legislation	22
3.5 Consistency with national parks policy	23
3.6 Summary of licences and approvals	23
4. Consultation – general	25
4.1 Statutory consultation	25
4.2 Targeted consultation	26
5. Consultation – Aboriginal communities	27
5.1 Native title notification requirements	27
5.2 Parks under joint management arrangements other than an Indigenous land use agreement	28
6. Proposed activity (or activities)	29
6.1 Location of activity	29
6.2 Description of the proposed activity	29
7. Reasons for the activity and consideration of alternatives	40
7.1 Objectives and reasons for the proposal	40
7.2 Consideration of alternatives	40
7.3 Justification for preferred option	40
8. Description of the existing environment	41
8.1 Overview of the project area	41
8.2 Natural values	42
8.3 Cultural values	58
8.4 Social values	60
8.5 Matters of national environmental significance	60
9. Impact assessment during all stages of the activity	62
9.1 Physical and chemical impacts	63

9.2	Biodiversity impacts	69
9.3	Community impacts	73
9.4	Natural resource impacts	75
9.5	Aboriginal cultural heritage impacts	77
9.6	Other cultural heritage impacts	80
9.7	Impacts on matters of national environmental significance	81
9.8	Cumulative impacts	82
10.	Proposals needing more information	84
10.1	Lease or licence proposals under s 151 National Parks and Wildlife Act	84
10.2	Telecommunications facilities	84
10.3	Activities within regulated catchments	84
10.4	Activities in River Murray riverine land	84
11.	Summary of impacts and conclusions	85
12.	Supporting documentation	88
13.	Fees for external proponents	88
14.	Declarations	89
	References	90

List of tables

Table 1	Consistency with section 30J(2) principle for nature reserves	6
Table 2	Consistency of activity with coastal environment values	12
Table 3	Consistency of activity with coastal use values	13
Table 4	Triggers for publication of the review of environmental factors	24
Table 5	Consultation triggers under the Transport and Infrastructure SEPP	25
Table 6	Summary of activity location	29
Table 7	Description of items identified in the concept design	32
Table 8	Climate statistics for the Taree Airport automatic weather station	41
Table 9	Soil landscapes associated with the activity and walking track	45
Table 10	Structure and description of vegetation at the activity site	49
Table 11	Threatened fauna species likely to occur within the study area	54
Table 12	Local historic heritage items proximate to the subject site (Greater Taree LEP)	58
Table 13	Agency historic heritage items proximate to the subject site (HHIMS database)	58

Table 14	Environment Protection and Biodiversity Conservation Act matters of national environmental significance	61
Table 15	Physical and chemical impacts	63
Table 16	Biodiversity impacts	69
Table 17	Community impacts	73
Table 18	Natural resource impacts	75
Table 19	Aboriginal cultural heritage impacts	77
Table 20	Other cultural heritage impacts	80
Table 21	Impacts on matters of national environmental significance	81
Table 22	Cumulative impacts	82
Table 23	Consideration of significance of impacts for each environmental factor	85
Table 24	Documents that accompany the review of environmental factors	88

List of figures

Figure 1	Location of the activity	2
Figure 2	Overview of proposed scope of works	30
Figure 3	Concept design of proposed footbridge configuration (refer to Table 7 for description of numbered items) (Source: Facilities Fix)	31
Figure 4	Dominant lithology associated with the activity location	43
Figure 5	Quaternary geology associated with the activity site	44
Figure 6	Mapped soil landscapes associated with the activity	46
Figure 7	Mapped watercourses and key fish habitat proximate to the activity site	48
Figure 8	State Vegetation Type Map plant community types (PCTs) proximate to the activity site	50
Figure 9	Threatened flora records (BioNet) proximate to Brimbin Nature Reserve	56
Figure 10	Threatened fauna records (BioNet) proximate to Brimbin Nature Reserve	57
Figure 11	Local and agency heritage items proximate to the activity location	59

Abbreviations

Abbreviation	Meaning
AHIMS	Aboriginal Heritage Information Management System
DPIRD	Department of Primary Industries and Regional Development
NSW EPA	NSW Environment Protection Authority
HHIMS	Historic Heritage Information Management System
ILUA	Indigenous land use agreement
LALC	Local Aboriginal Land Councils
LEP	Local environmental plan
LGA	Local Government Area
LSPS	Local strategic planning statement
MNES	Matters of national environmental significance
NPWS	National Parks and Wildlife Service
PCT	Plant community types
REF	Review of environmental factors
TEC	Threatened ecological community

1. Introduction

1.1 Brief description of the proposal

One of the existing footbridges on the Dawson River walking track in Brimbin Nature Reserve requires replacement as it has collapsed after receiving significant damage following a localised flooding event.

Brimbin Nature Reserve (the reserve) is located approximately 12 km north of Taree (Figure 1) and covers an area of approximately 50.8 ha on the NSW Mid North Coast. The proposed activity (the activity) will occur within the central portion of the reserve on the Dawson River walking track, approximately 350 m south of Brimbin picnic area.

This review of environmental factors (REF) applies to land reserved under Part 4 of the *National Parks and Wildlife Act 1974*.

The activity will be carried out by the Hunter Central Coast Branch of the NSW National Parks and Wildlife Service (NPWS).

The activity is situated within the MidCoast Local Government Area (LGA) for which MidCoast Council is responsible, and within the Legislative Assembly district of Myall Lakes.

The activity will be carried out as development permitted without consent pursuant to section (s) 2.73(1)(a) of *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport and Infrastructure SEPP) and is therefore being assessed under Part 5 of the *Environmental Planning and Assessment Act 1979*. NPWS is the proponent, while Environment and Heritage, part of the NSW Department of Climate Change, Energy, the Environment and Water (the department) is the determining authority for the activity under Part 5, Division 5.1 of the Environmental Planning and Assessment Act.

Section 6 provides a more detailed description of the activity.

1.2 Estimated development cost of proposal

The estimated development cost of the activity is less than \$5 million.

1.3 Estimated duration of proposal

The activity is proposed to commence in the first quarter of 2025 and take approximately 2 months to complete. Once completed, the operation and maintenance of the new footbridge will be incorporated into NPWS's maintenance program.

Review of environmental factors: Brimbin Nature Reserve footbridge

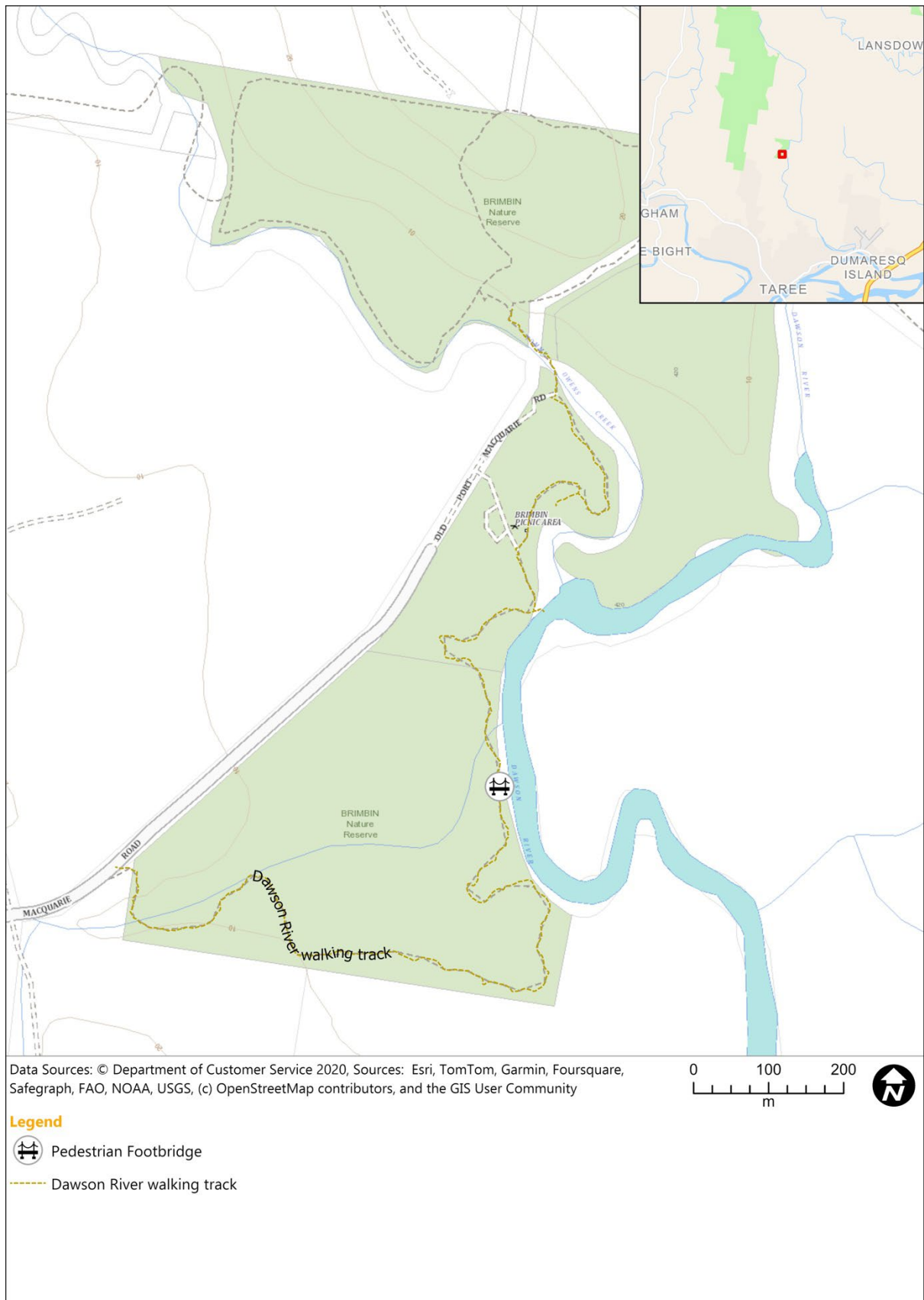


Figure 1 Location of the activity

2. Proponent's details

Contact name: Michael Thomas

Position: Senior Project Officer – Insurance Recovery

Street address: 117 Bull Street, Newcastle West, NSW 2302

Manager: Tamara Campbell, Area Manager, NSW National Parks and Wildlife Service

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

Under the National Parks and Wildlife Act, the Secretary for the NSW Department of Climate Change, Energy, the Environment and Water (the 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 (s 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 activity have been considered and shown to comply with the objects of the Act. The primary objective of the footbridge replacement in Brimbin Nature Reserve is to improve the condition and safety of infrastructure within the reserve to facilitate ongoing conservation and management activities associated with the reserve's values. Additional objectives of the activity are to facilitate the delivery of best practice conservation and management of the reserve by carrying out the activity to reduce ongoing impacts.

Specifically:

- The activity will not significantly impact on biodiversity and ecosystems or processes, with measures to conserve values and ameliorate any ongoing impacts.
- The activity will improve the condition of infrastructure, which will contribute to reducing adverse impacts to the reserve.
- The activity will improve the safety and accessibility of existing infrastructure, which will facilitate the fostering of public appreciation and enjoyment of the natural values of the reserve.
- The activity respects the cultural significance of the reserve, both Aboriginal and non-Aboriginal.

Review of environmental factors: Brimbin Nature Reserve footbridge

- 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 activity will be undertaken in line with the management principles applicable to the reserve and relevant plan of management (refer below for discussion on compliance with the management 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 National Parks and Wildlife Act. The principles of ecologically sustainable development, pursuant to s 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* adopted the above definition of ecologically sustainable development and added a fifth principle:

- (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 activity. Where uncertainty exists, a precautionary approach has been taken to mitigate and minimise potential environmental impacts. The activity is considered to be ecologically sustainable within the meaning of the above principles.

Review of environmental factors: Brimbin Nature Reserve footbridge

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

The purpose of reserving land as a nature reserve is to identify, protect and conserve areas containing outstanding, unique or representative ecosystems, species, communities or natural phenomena so as to enable those areas to be managed in accordance with the principles outlined in s 30J(2) of the National Parks and Wildlife Act. The principles of s 30J(2) are addressed in Table 1.

Table 1 Consistency with section 30J(2) principle for nature reserves

Section 30J(2) principles	Relevance to activity
(a) the conservation of biodiversity, the maintenance of ecosystem function, the protection of geological and geomorphological features and natural phenomena	The <i>Brimbin Nature Reserve plan of management</i> (NPWS 2005) outlines the main values, issues, management strategies and priorities of NPWS to manage the reserve. This REF is in accordance with the plan and considers the existing environment, assesses potential adverse impacts and how they relate to the key management directions for conservation, maintenance and protection of the reserve. Safeguards have been recommended to avoid or minimise impacts to the reserve's natural and cultural values.
(b) the conservation of places, objects, features and landscapes of cultural value	The National Parks and Wildlife 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 the Act. It is an offence under the National Parks and Wildlife Act to harm or desecrate an object that a person knows is an Aboriginal object. This REF is in accordance with the plan of management and considers the existing natural and cultural values and how they relate to the specific management directions. Safeguards have been recommended to avoid or minimise potential impacts to the reserve's natural and cultural values.
(c) the promotion of public appreciation, enjoyment and understanding of the nature reserve's natural and cultural values	The plan of management provides management strategies to ensure visitor use is nature-based and ecologically sustainable, as well as ensuring the reserve is used for educational purposes. The activity is in accordance with the plan and the infrastructure replacements will facilitate ongoing safe access throughout the reserve for a range of sustainable visitor or tourist use. This REF recommends safeguards to avoid or minimise adverse impacts to the reserve's natural and cultural values.
(d) provision for appropriate research and monitoring	The plan of management recognises the reserve provides several unique scientific and educational values associated with diversity of native plants and animals. The activity is in accordance with the plan, and safeguards have been provided to minimise adverse impacts.

Review of environmental factors: Brimbin Nature Reserve footbridge

Section 30J(2) principles	Relevance to activity
(e) 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 nature reserve that is permitted under s 185A having regard to the conservation of the nature reserve's natural and cultural values	Not applicable.

Part 6 Aboriginal objects and Aboriginal places

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

Section 86 of the Act mandates that:

- (2) a person must not harm an Aboriginal object, and ...
- (4) a person must not harm or desecrate an Aboriginal place.

Pursuant to s 87:

- (2) it is a defence to a prosecution for an offence under section 86(2) if the defendant shows that the defendant exercised due diligence to determine whether the act or omission constituting the alleged offence would harm an Aboriginal object and reasonably determined that no Aboriginal object would be harmed.
- (3) The regulations may provide that compliance with requirements specified in the regulations, or in a code of practice adopted or prescribed by the regulations, is taken for the purposes of subsection (2) to constitute due diligence in determining whether the act or omission constituting the alleged offence would harm an Aboriginal object.

Pursuant to s 57 of the National Parks and Wildlife Regulation 2021, compliance with the *Due diligence code of practice for the protection of Aboriginal objects in New South Wales* (DECCW 2010) is taken for the purposes of s 87(2) of the National Parks and Wildlife Act to constitute due diligence in determining whether the act or omission constituting the alleged offence would harm an Aboriginal object.

The activity either does not comprise exempt development, or it is the subject of a complying development certificate, therefore, it is not a low-impact activity pursuant to s 58 of the National Parks and Wildlife Regulation. Therefore, the generic due diligence process as determined by the *Due diligence code of practice for the protection of Aboriginal objects in New South Wales* has been applied to the proposal. A number of safeguards are recommended for the 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 nature reserve 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 activity is consistent with and will be undertaken in accordance with the following management directions of the *Brimbin Nature Reserve plan of management* (NPWS 2005):

- conserve native plants and animals, including threatened and regionally significant species
- maintain the current low-key recreation setting for day use with basic facilities for nature-based visitor use and as an educational resource.

Review of environmental factors: Brimbin Nature Reserve footbridge

The activity will contribute to achieving the general and specific objectives of management as described in the plan of management, and will be carried out in accordance with all applicable management strategies. The activity is therefore permissible pursuant to s 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. An asset of intergenerational significance can be any area of exceptional value that warrants special protection, including dedicated management measures.

The activity will not be undertaken on land declared an asset of intergenerational significance nor will the activity occur in close proximity to land declared as an asset of intergenerational significance.

No conservation action plans apply to the activity as no land declared under Part 12A of the National Parks and Wildlife Act exists within the subject area of the activity.

Leasing, licensing and easement provisions

Not applicable, as this is an NPWS activity.

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 of a nature reserve. 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 reserve'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 s 12 of the Act, NPWS 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 activity is consistent with the powers and responsibilities of NPWS under s 8 and s 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 s 5.5(3) of the Environmental Planning and Assessment Act, a determining authority shall consider the effect of an activity on any wilderness area (within the meaning of the Wilderness Act) in the locality in which the activity is intended to be carried on. No land within Brimbin Nature Reserve has been declared as wilderness, therefore, the Act does not apply to the activity.

3.1.3 Biodiversity Conservation Act 2016

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

Pursuant to s 7.8(2) of the Biodiversity Conservation Act, an activity under Part 5 of the Environmental Planning and Assessment Act that is 'likely to significantly affect threatened species' is regarded 'as an activity likely to significantly affect the environment'.

Where a significant impact is likely to occur, a species impact statement must be prepared in accordance with the Secretary's requirements or, if the proponent elects, a biodiversity development assessment report must be prepared by an accredited assessor in accordance with the *Biodiversity assessment method* (DPIE 2020a). However, an environmental impact statement 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 s 7.2 of the Biodiversity Conservation 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 Environmental Planning and Assessment Act (s 7.2(2) of the Biodiversity Conservation Act).

The activity has been assessed in accordance with the requirements of the Act, and an ecological assessment prepared to assist the preparation of the REF (WolfPeak 2024, supporting document A). The assessment states:

Impact of the Proposal

The footbridge replacement works will require the removal of a small amount of ground cover vegetation. The proposal will not impact hollow-bearing trees or mature mangroves; however, mangrove pneumatophores and possibly a few propagules may be impacted.

There is potential for the works to result in indirect impacts on adjoining vegetation or fauna species utilising the site. These include erosion and sedimentation, weed invasion, biosecurity risks, edge effects and increased noise at the time of works. Specific mitigation measures are recommended to reduce the potential for indirect impacts.

Summary

A test of significance as prescribed under section 7.3 of the [Biodiversity Conservation] 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. 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.

WolfPeak (2024)

3.1.4 NSW Reconstruction Authority Act 2022

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

Review of environmental factors: Brimbin Nature Reserve footbridge

Pursuant to Part 4, Division 3, s 38(4) of the 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 Act commenced on 17 December 2022 but did not include the commencement of Part 4 (as per s 2(a)). Pursuant to s 2(b), Part 4 of the Act will commence 'on a day or days to be appointed by proclamation', therefore, 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 firefighting 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 activity will not adversely impact on the objects of the Act and would not impede the ability of NPWS and other bushfire fighting agencies to carry out activities associated with bushfire fighting and bushfire prevention.

3.2 Environmental Planning and Assessment Act 1979

3.2.1 Assessment pathway

The *Environmental Planning and Assessment Act 1979* regulates development carried out in New South Wales. Part 5 of the Act permits activities to be assessed by a determining authority. Pursuant to s 5.1(1) of the Act:

- the proposal is an 'activity' which includes 'the carrying out of work'
- the 'determining authority' includes a 'public authority by or on whose behalf the activity is to be carried out'.

Pursuant to s 1.4 of the Act, a 'public authority' includes a 'Public Service agency'. NPWS 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 s 1.4 of the Act. For the purposes of the proposal, NPWS is the proponent and the department's Environment and Heritage group is the determining authority for the activity under Part 5 Division 5.1 of the Environmental Planning and Assessment Act.

Pursuant to s 4.1(1) of the Act, if an environmental planning instrument provides that specified development may be carried out without the need for development consent, a person may carry the development out, in accordance with the instrument, on land to which the provision applies.

Review of environmental factors: Brimbin Nature Reserve footbridge

The activity may be undertaken without development consent pursuant to s 2.73(1)(a) of the Transport and Infrastructure SEPP, as the activity is:

- on land reserved under the National Parks and Wildlife Act, or acquired under Part 11 of that Act, **and**
- is for a use authorised under that Act.

Other relevant sections of the Act include:

- s 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'
- s 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'
- s 5.6 which requires the determining authority to address the regulations for environment impact assessments (currently the Environmental Planning and Assessment Regulation 2021)
- s 5.7 which requires an environmental impact statement 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'.

Section 1.7 of the Act mandates that 'the Act has effect subject to the provisions of Part 7 of the *Biodiversity Conservation Act 2016* and Part 7A of the *Fisheries Management Act 1994* that relate to the operation of this Act in connection with the terrestrial and aquatic environment'. The provisions of the Biodiversity Conservation Act and Fisheries Management Act are discussed in the ecological assessment (WolfPeak 2024). The activity would not result in a significant impact on threatened species or ecological communities, or their habitats.

Further:

- The activity is not 'designated development' under Schedule 3 of the Environmental Planning and Assessment Regulation 2021.
- The activity is not declared to be state significant infrastructure under s 2.13 of the *State Environmental Planning Policy (Planning Systems) 2021*.
- The activity is not identified within a SEPP as not permissible without development consent under another environmental planning instrument that prevails over the Transport and Infrastructure SEPP. In particular:
 - the activity is not in a coastal wetland or littoral rainforest or does not otherwise meet the criteria for development requiring consent outlined in s 2.7(2) of the *State Environmental Planning Policy (Resilience and Hazards) 2021*, and
 - the activity is not coastal protection works or, if coastal protection works, the activity is one of the types of coastal protection works that may be carried out by or on behalf of a public authority without development consent, and
 - the activity is not a type of development requiring development consent under s 2.9 of the *State Environmental Planning Policy (Resources and Energy) 2021*.
- The activity is not declared to be exempt development under an environmental planning instrument or the activity fails to fully meet the requirements for exempt development.

3.2.2 State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 2 Coastal management

Chapter 2 of *State Environmental Planning Policy (Resilience and Hazards) 2021* (Resilience and Hazards SEPP) aims to promote an integrated and coordinated 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 area

The 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 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

The activity is 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 Environmental Planning and Assessment 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 (s 2.10(1))	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 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 of this REF to mitigate potential impacts.
(c) the water quality of the marine estate (within the meaning of the <i>Marine Estate Management Act 2014</i>), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1	Not applicable.

Review of environmental factors: Brimbin Nature Reserve footbridge

Coastal environment values (s 2.10(1))	How proposal is consistent
(d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms	A small amount of native vegetation comprising groundcover will be removed to facilitate construction. Grey mangrove (<i>Avicennia marina</i>) and/or river mangrove (<i>Aegiceras corniculatum</i>) pneumatophores and propagules, will also be impacted during removal of the existing footings. No works will occur on undeveloped headlands or rock platforms.
(e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability	No works will occur in public space areas. During construction, there is potential for short-term traffic delays and access restrictions, however, these are expected to be short-term and minor in nature.
(f) Aboriginal cultural heritage, practices and places	No Aboriginal objects or Aboriginal places have been recorded within or near Brimbin Nature Reserve, however, safeguards are provided in Section 9 of this REF to mitigate potential impacts to Aboriginal cultural heritage.
(g) the use of the surf zone	Not applicable.

Division 4 Coastal use area

The 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 Environmental Planning and Assessment 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 (s 2.11(1)(a))	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, there will be short-term access delays and/or restrictions to coastal use areas, however, these areas do not include the foreshore, beach, headland or rock platforms.
(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 foreshores.
(iii) the visual amenity and scenic qualities of the coast, including coastal headlands	No works will occur which will impact the visual amenity or scenic qualities of the coastal use area.
(iv) Aboriginal cultural heritage, practices and places	No Aboriginal objects or Aboriginal places have been recorded within or near Brimbin Nature Reserve, however, safeguards are provided in Section 9 of this REF to mitigate potential impacts to Aboriginal cultural heritage.
(v) cultural and built environment heritage	One heritage site is located adjacent to the north-eastern portion of the reserve. No works will occur which will impact cultural and built heritage, however,

Review of environmental factors: Brimbin Nature Reserve footbridge

Coastal use values (s 2.11(1)(a))

How proposal is consistent

safeguards are provided in Section 9 of this REF to mitigate potential impacts to heritage values.

Chapter 4 Remediation of land

Chapter 4 of Resilience and Hazards SEPP provides a statewide 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 Environmental Planning and Assessment 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 NSW contaminated sites notified to the EPA* (NSW EPA 2024a), the *Contaminated land record of notices* (NSW EPA 2024b) and the *NSW Government PFAS Investigation Program* (NSW EPA 2023) were undertaken on 2 August 2024. No contaminated land sites were found to occur in proximity to the proposal.

3.2.3 State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 2 Vegetation in non-rural areas

The aims of Chapter 2 of the *State Environmental Planning Policy (Biodiversity and Conservation) 2021* (Biodiversity and Conservation SEPP) are:

- (a) to protect the biodiversity values of trees and other vegetation in non-rural areas of the state, and
- (b) to preserve the amenity of non-rural areas of the state through the preservation of trees and other vegetation.

The activity involves negligible vegetation removal, however, pursuant to s 2.3(2), Chapter 2 does not apply to national park estate.

Chapter 4 Koala habitat protection

Chapter 4 of Biodiversity and Conservation SEPP aims to encourage the conservation and management of areas of natural vegetation that provide habitat for koalas (*Phascolarctos cinereus*) to support a permanent free-living population over their present range and reverse the current trend of koala population decline.

Chapter 4 applies to each local government area listed in Schedule 2 of the Biodiversity and Conservation SEPP, which includes the MidCoast LGA, however, pursuant to s 4.4(3)(a), Chapter 4 does not apply to land dedicated or reserved under the National Parks and Wildlife Act, or acquired under Part 11 of that Act. Notwithstanding, the requirements of Chapter 4 have been considered. The ecological assessment (WolfPeak 2024) has determined there are numerous koala records within the locality, however, no koala food trees will be impacted during the works. Minor indirect impacts may result during construction works which relate to potential noise and vibration which may deter individuals from using the area temporarily, however, impacts to koalas are not considered significant.

Chapter 6 Water catchments

The activity is not located within a water catchment listed under Chapter 6 of the Biodiversity and Conservation SEPP.

3.2.4 State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

The *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* aims to provide streamlined assessment processes for development that complies with specified development standards. The SEPP is not relevant as the proposal is not a development listed under an exempt development code.

3.2.5 Strategic plans

Hunter regional plan 2041

The *Hunter regional plan 2041* (regional plan) (DPE 2022) is a land-use plan prepared under the Environmental Planning and Assessment Act. It applies to the MidCoast, Cessnock, Dungog, Lake Macquarie, Maitland, Muswellbrook, Newcastle, Port Stephens, Singleton and Upper Hunter LGAs. The regional plan draws from each council's local strategic planning statement and acknowledges common interests without duplicating effort.

Objective 6 of the regional plan aims to ensure areas of 'high environmental value' are protected to contribute to a sustainable region. The regional plan describes that the NSW Government has adopted a number of criteria to define areas of 'high environmental value', including national parks and reserves (DPE 2022). The activity will contribute to the performance outcomes of Objective 6 by improving access within the reserve, therefore, improving management activities associated with protecting the natural and cultural values of the reserve.

Objective 7 of the regional plan aims to increase resilience for communities and the natural environment. The regional plan identified resilience as a combination of systems to prevent, absorb, accommodate and recover from a range of shocks and stresses (DPE 2022), including bushfires. The activity will contribute to the ability of NPWS and other bushfire fighting agencies to fully utilise the existing fire trail network to undertake operations to protect life, property and/or the environment.

MidCoast Council local strategic planning statement September 2020

The *MidCoast Council local strategic planning statement* (LSPS) (MidCoast Council 2020) guides decisions on future planning to achieve the community's vision and values while protecting the environment.

Planning Priority 7 of the LSPS addresses the requirements for the MidCoast area to improve resilience to natural disasters, including bushfires. Action 7.1 of Planning Priority 7 is to 'work with NSW Government to establish improved bushfire preparedness and flood planning practices' (MidCoast Council 2020). The activity will improve the condition of fire trails within the reserve, which will contribute to the ability of NPWS and other bushfire fighting agencies to fully utilise the existing fire trail network to undertake operations to protect life, property or the environment.

Manning River estuary and catchment management program 2021–2031

The *Manning River estuary and catchment management program 2021–2031* (MidCoast Council 2021) sets out a 10-year action program for MidCoast Council, the community and

Review of environmental factors: Brimbin Nature Reserve footbridge

partner organisations to improve the health and resilience of the Manning River and estuary. The Manning River program was prepared under the Coastal Management Act and requires MidCoast Council to achieve the objects of both the Coastal Management Act and the *Marine Estate Management Act 2014*. In accordance with the Coastal Management Act, the Manning River program identifies the 'coastal environment area' and 'coastal use area' of the Resilience and Hazards SEPP as coastal management areas to be managed for social, cultural and economic wellbeing. Consistency of the activity with the values of the coastal environment is assessed in Section 3.2.2 of this REF. The activity is unlikely to impact the values of the coastal environment, and safeguards are provided in Section 9 to avoid or minimise potential impacts to these areas.

3.3 Other relevant NSW legislation

3.3.1 Aboriginal Land Rights Act 1983

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

- (a) to provide land rights for Aboriginal persons in New South Wales
- (b) to provide for representative Aboriginal Land Councils in New South Wales,
- (c) to vest land in those Councils

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

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 NSW Aboriginal Land Council. However, pursuant to s 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 National Parks and Wildlife Act except in accordance with that Act.

The 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.

Section 54(4) of the Act mandates that a LALC has the following functions in relation to Aboriginal culture and heritage:

- (a) to take action to protect the culture and heritage of Aboriginal persons in the Council's area, subject to any other law
- (b) to promote awareness in the community of the culture and heritage of Aboriginal persons in the Council's area.

The activity is located within the boundary of the Purfleet/Taree LALC. This REF has been assessed in accordance with the *Due diligence code of practice for the protection of Aboriginal objects in New South Wales* (DECCW 2010), therefore, would fulfil the LALC's obligations under the Act.

3.3.2 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.

Review of environmental factors: Brimbin Nature Reserve footbridge

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.

NPWS has a general biosecurity duty to ensure the risk of 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.

3.3.3 Coal Mine Subsidence Compensation Act 2017

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

3.3.4 Coastal Management Act 2016

The objects of the *Coastal Management Act 2016* are to manage the coastal environment of New South Wales in a manner consistent with the principles of ecologically sustainable development for the social, cultural and economic wellbeing of the people of the state.

The activity is located within the coastal zone pursuant to s 5 of the Act and will contribute to the following objects of the Act:

- (b) to protect and support the social and cultural values of the coastal zone and maintain public access, amenity, use and safety ...
- (e) to facilitate ecologically sustainable development in the coastal zone and promote sustainable land use planning decision-making.

Division 4 of the Act provides obligations for public authorities which exercise functions in connection with the coastal zone to have regard to coastal management programs and the coastal management manual. The *Manning Valley coastal zone management plan* (MidCoast Council 2018) does not identify Brimbin Nature Reserve within its study area, therefore, Division 4 does not apply. Notwithstanding, the activity is consistent with the applicable coastal zones (refer Section 3.2.2), and the *Manning River estuary and coastal management program* (refer Section 3.2.5).

3.3.5 Contaminated Land Management Act 1997

The general objective of the *Contaminated Land Management Act 1997* is to establish a process for investigating and (where appropriate) remediating land that the NSW EPA considers to be contaminated significantly enough to require regulation. Considerations of the provisions and requirements of the Act are provided in Section 8.2.2. No remediation is proposed.

3.3.6 Fisheries Management Act 1994

The *Fisheries Management Act 1994* applies to all waters that are within the limits of the state of New South Wales. It aims, among 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.

Part 7, Division 3 of the Act aims to provide for the management of dredging work and reclamation work, consistent with the objectives of ecologically sustainable development.

Review of environmental factors: Brimbin Nature Reserve footbridge

Pursuant to s 198A:

Dredging work means—

- (a) any work that involves excavating water land, or
- (b) any work that involves moving material on water land or removing material from water land that is prescribed by the regulations as being dredging work to which this Division applies.

Reclamation work means any work that involves—

- (a) using any material (such as sand, soil, silt, gravel, concrete, oyster shells, tyres, timber or rocks) to fill in or reclaim water land, or
- (b) depositing any such material on water land for the purpose of constructing anything over water land (such as a bridge), or
- (c) draining water from water land for the purpose of its reclamation.

Water land means land submerged by water—

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

and includes wetlands and any other land prescribed by the regulations as water land to which this Division applies.

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

The existing footbridge is not situated over a mapped watercourse, however, it is situated within mapped key fish habitat (associated with the Dawson River) under the Act and within a water channel which is intermittently submerged by water. The activity involves both dredging and reclamation works on 'water land', therefore, pursuant to s 199 of the Act:

- (1) A public authority (other than a local government authority) must, before it carries out or authorises the carrying out of dredging work or reclamation work—
 - (a) give the Minister written notice of the proposed work, and
 - (b) consider any matters concerning the proposed work that are raised by the Minister within 21 days after the giving of the notice (or such other period as is agreed between the Minister and the public authority).

Notification of the activity was provided to the Department of Primary Industries and Regional Development (DPIRD) on the 9 September 2024. A response was received from DPIRD on the 17 October 2024 (DPIRD 2024a, supporting document B) which determined that s 199 consultation is not required as the unnamed channel is not considered to be key fish habitat.

Mangroves and marine vegetation

Part 7, Division 4 of the Fisheries Management Act provides requirements for the protection of mangroves and certain other marine vegetation. Grey mangroves and/or river mangroves are present both below and adjacent to the footbridge. The activity involves removing the existing footings from within the watercourse, which is anticipated to impact on mangrove pneumatophores and propagules present at the site. Pursuant to s 205 of the Act, an application for a permit to harm marine vegetation was provided to DPIRD on the 9 September 2024. A permit to harm marine vegetation (PN24/405) was received on the 17 October 2024 (DPIRD 2024b, supporting document C), which permits harming mangroves at the site and is valid for 2 years from the date of issue.

Part 7A, Division 12 of the Fisheries Management Act applies to environmental assessments under Part 5 of the Environmental Planning and Assessment Act (s 221ZT(b)).

Review of environmental factors: Brimbin Nature Reserve footbridge

Pursuant to s 221ZX, an activity under Part 5 of the Environmental Planning and Assessment 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 s 221ZV are therefore required to determine whether the activity is likely to significantly affect threatened species, populations or ecological communities. The southern purple spotted gudgeon (*Mogurnda adspersa*) is listed as endangered under Schedule 4 of the Fisheries Management Act and is mapped as occurring approximately 900 m upstream of the activity location. No other species or ecological communities listed under Schedule 4, Schedule 4A or Schedule 5 of the Act were recorded onsite or are recorded within the area. Consideration of threatened species or ecological communities has been assessed in the ecological assessment (WolfPeak 2024). 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 ss 144, 201 or 219 of the Fisheries Management Act is not required.

3.3.7 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:

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, Schedule 5 Environmental heritage of the *Greater Taree local environmental plan 2010* (LEP) and the Historic Heritage Information Management System (HHIMS) under s 170 of the Act. No items of state heritage significance occur near the activity site, however, several local and agency (that is, HHIMS) sites have been recorded near the reserve. No works will occur which will impact on the values of the heritage sites.

3.3.8 Local Land Services Act 2013

The *Local Land Services Act 2013* regulates the clearing of native vegetation across the state, however, pursuant to s 60A(b)(ii) land reserved under the National Parks and Wildlife Act or land acquired under Part 11 of that Act are not considered areas of the state to which the Local Land Services Act applies. Thus, consideration of the Act of not required.

3.3.9 Marine Estate Management Act 2014

The *Marine Estate Management Act 2014* aims to provide for the management of the marine estate of New South Wales consistent with the principles of ecologically sustainable development in a manner that:

- promotes a biologically diverse, healthy and productive marine estate
- facilitates
 - economic opportunities
 - cultural, social and recreational use
 - the maintenance of ecosystem integrity
 - the use of marine estate for scientific research and education.

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

3.3.10 Protection of the Environment Operations Act 1997

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

- 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 Act. Relevant licences must be obtained if required, however, no licences pursuant to ss 47, 48, 49 or 122 of the Act are required.

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

3.3.11 Waste Avoidance and Resource Recovery Act 2001

The *Waste Avoidance and Resource Recovery Act 2001* aims include:

- (a) to encourage the most efficient use of resources and to reduce environmental harm in accordance with the principles of ecologically sustainable development
- (b) to ensure resource management options are considered against a hierarchy ...
- (d) to minimise the consumption of natural resources and the final disposal of waste by encouraging the avoidance of waste and the reuse and recycling of waste.

The Act acknowledges that certain materials present either human or environmental risk, requiring classification, treatment and disposal of in accordance with specific waste management provisions.

Review of environmental factors: Brimbin Nature Reserve footbridge

The activity would generate waste during the construction phase, however, the principles of the waste management hierarchy and other relevant waste management requirements shall be implemented onsite. Further assessment of waste generation is provided in Section 9.

3.3.12 Water Management Act 2000

The *Water Management Act 2000* outlines approval requirements for activities at a specified location in, on or under waterfront land. The Act also outlines water access rights and surface water runoff.

Pursuant to s 91E(1), a 'controlled activity approval' is required to carry out a 'controlled activity' in, on or under 'waterfront land', which are defined in the Act as:

controlled activity means—

- (a) the erection of a building or the carrying out of a work (within the meaning of the *Environmental Planning and Assessment Act 1979*), or
- (b) the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or
- (c) the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or
- (d) the carrying out of any other activity that affects the quantity or flow of water in a water source

waterfront land means—

- (a) the bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river, or
- (a1) the bed of any lake, together with any land lying between the bed of the lake and a line drawn parallel to, and the prescribed distance inland of, the shore of the lake, or
- (a2) the bed of any estuary, together with any land lying between the bed of the estuary and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the estuary, or
- (b) if the regulations so provide, the bed of the coastal waters of the state, and any land lying between the shoreline of the coastal waters and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the coastal waters,

where the prescribed distance is 40 metres or (if the regulations prescribe a lesser distance, either generally or in relation to a particular location or class of locations) that lesser distance. Land that falls into 2 or more of the categories referred to in paragraphs (a), (a1) and (a2) may be waterfront land by virtue of any of the paragraphs relevant to that land.

river includes—

any watercourse, whether perennial or intermittent and whether comprising a natural channel or a natural channel artificially improved, and

any tributary, branch or other watercourse into or from which a watercourse referred to in paragraph (a) flows, and

anything declared by the regulations to be a river,

whether or not it also forms part of a lake or estuary, but does not include anything declared by the regulations not to be a river.

The activity meets the requirements of a controlled activity, however, pursuant to s 41 of the *Water Management (General) Regulation 2018*, a public authority is exempt from s 91E(1) of the Act in relation to all controlled activities that it carries out in, on or under waterfront land. NPWS is a 'public authority' as defined in s 1.4 of the *Environmental Planning and Assessment Act* and is therefore exempt from s 91E of the Act, therefore, the Act does not apply.

3.4 Commonwealth legislation

3.4.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* is the primary Commonwealth environmental legislation and is administered by the Commonwealth Department of Climate Change, Energy, the Environment and Water. It provides the legal framework to protect and manage nationally and internationally important values, including flora, fauna, ecological communities and heritage places defined under the Act as matters of national environmental significance (MNES).

The Environment Protection and Biodiversity Conservation Act requires that proposed 'actions' that the proponent believes will, or may be likely to, significantly impact MNES, the environment of Commonwealth land, or the environment generally if they are being carried out by an Australian Government agency, must be referred to the Australian Minister for the Environment and Water for assessment. The approval of the Minister is required if an action is likely to have a significant impact on or involve any of the following:

- 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
- a water resource, in relation to coal seam gas development and large coalmining development.

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

Evaluations of species and communities listed under the Act have been incorporated into Part 8.5 and Part 9.7 of this REF, and assessed within the ecological assessment (WolfPeak 2024). The Environment Protection and Biodiversity Conservation Act protected matters report is also included in the ecological assessment.

3.4.2 Native Title Act 1993

The main objects of the *Native Title Act 1993* 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 'future act' comprises an act carried out after the Native Title Act's commencement of 1 January 1994 that either validly affect native title or are invalid because of native title. Brimbin Nature Reserve was dedicated as a nature reserve in 2000 (NPWS 2005),

Review of environmental factors: Brimbin Nature Reserve footbridge

therefore, any acts carried out within the reserve are considered a future act pursuant with the Native Title Act. Determination of validity of the activity as a future act is assessed in Section 5 of this REF.

3.5 Consistency with national parks policy

3.5.1 Visitor safety policy

The activity is consistent with the objectives of the *Visitor safety policy* (Environment and Heritage 2024a) in that the proposed works would:

- contribute to NPWS's duty of care for visitor safety and prohibit conduct which does not discharge that duty
- prioritise and resource higher-rated risks than lesser-rated risks
- approach risk management that promotes conservation of alternatives which may compromise conservation
- protect property (including park infrastructure)
- contribute to the objectives of the plan of management (NPWS 2005) which is a management planning instrument consistent with the policy.

3.5.2 Walking tracks policy

The activity is consistent with the *Walking tracks policy* (Environment and Heritage 2024b) because the new footbridge has been appropriately designed to minimise environmental impacts, and has considered public safety and resources required to keep the track maintained.

3.6 Summary of licences and approvals

3.6.1 Approval required from National Parks and Wildlife Service

NPWS approval or authorisation, including expenditure, is required.

3.6.2 Other approvals

No other approvals have been identified for the activity.

3.6.3 Publication triggers

The publication triggers under s 171(4) of the Environmental Planning and Assessment Regulation 2021 are set out in Table 4. This REF requires publication on the department's website or the NSW planning portal following determination as it requires a permit under s 205 of the Fisheries Management Act (see Section 3.3.6 of the REF).

Review of environmental factors: Brimbin Nature Reserve footbridge

Table 4 Triggers for publication of the review of environmental factors

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

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 Table 5.

Table 5 Consultation triggers under the Transport and Infrastructure SEPP

Authority (SEPP 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	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 National Parks and Wildlife Act	No
Consultation with NPWS (s 2.15(2)(b))	Development on land in Zone C1 that is yet to be reserved under the National Parks and Wildlife 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 Cwlth 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

Review of environmental factors: Brimbin Nature Reserve footbridge

Authority (SEPP 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 statutory consultation has been identified for the activity.

4.2 Targeted consultation

4.2.1 Adjacent landowners

The activity is located on land reserved under Part 4 of the National Parks and Wildlife Act and would not impact on adjacent landowners.

4.2.2 Wider community consultation and/or notification of works

Notification would be undertaken prior to the commencement of works which would include temporary signage in place for the duration of the activity and notification of the activity on the Brimbin Nature Reserve page on the NPWS website. The NPWS website will list the walking tracks as 'closed' and include the duration of the activity.

4.2.3 Interest groups and/or notification

Notification of the activity will be placed on the NPWS website.

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 National Native Title Tribunal *Native Title Vision* geospatial viewer was undertaken on 2 August 2024 which did not identify any ILUAs present within or close to the activity.

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. An online search of the National Native Title Register was undertaken on 2 August 2024 which did not identify any native title applications over the 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?

No.

5. If native title is not confirmed as extinguished and the circumstances of Question 4 do not otherwise apply (for example, 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)?

Yes.

Subdivision L – Low-impact future acts

Subdivision L, s 24LA of the Native Title Act applies to a future act if:

(a) the act takes place before, and does not continue after, an approved determination of native title is made in relation to the land or waters, if the determination is that native title exists; and

(b) the act does not consist of, authorise or otherwise involve:

(i) the grant of a freehold estate in any of the land or waters; or

(ii) the grant of a lease over any of the land or waters; or

(iii) the conferral of a right of exclusive possession over any of the land or waters; or

(iv) the excavation or clearing of any of the land or waters; or

(v) mining (other than fossicking by using hand-held implements); or

(vi) the construction or placing on the land, or in the waters, of any building, structure, or other thing (other than fencing or a gate), that is a fixture; or

Review of environmental factors: Brimbin Nature Reserve footbridge

- (vii) the disposal or storing, on the land or in the waters, of any garbage or any poisonous, toxic or hazardous substance.

Pursuant to s 24LA(2), subparagraph (1)(b)(iv) does not apply to:

- (a) excavating or clearing that is reasonably necessary for the protection of public health or public safety; or
- (b) tree lopping, clearing of noxious or introduced animal or plant species, foreshore reclamation, regeneration or environmental assessment or protection activities.

The existing footbridge asset is in poor condition and requires replacement to improve the safety of visitors to the reserve. The activity is therefore necessary for the protection of public safety, therefore, this subdivision applies to a future act. The Act is therefore valid pursuant to s 24LA(3) of the Native Title Act.

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

The management of the reserve is not subject to another joint management arrangement such as a memorandum of understanding.

6. Proposed activity (or activities)

6.1 Location of activity

Table 6 provides a summary of the location of the activity.

Table 6 Summary of activity location

Description of location	Brimbin Nature Reserve is located approximately 12 km north of Taree and covers an area of approximately 50.8 ha on the NSW Mid North Coast. The activity will occur within the central portion of the reserve on the Dawson River walking track, approximately 350 m south of the Brimbin picnic area.
Site commonly known as	Brimbin Nature Reserve
Park name	Brimbin Nature Reserve
Other tenures	This REF applies only to land reserved under Part 4 of the National Parks and Wildlife Act.
Lot/DP	Lot 106 DP754410
Street address	Not applicable
Site reference	Easting: 448905 Northing: 6476897 MGA zone: 56J

6.2 Description of the proposed activity

NPWS proposes to carry out the replacement of one of the existing footbridges on the Dawson River walking track which has collapsed after receiving significant damage following a localised flooding event. The footbridge will be replaced with a modular footbridge mounted on a Surefoot concrete-free footing system. The approaches to the bridge will be upgraded to facilitate improved access, and a small existing cleared area near the footbridge will be used to store materials and equipment during construction stages.

Figure 2 provides an overview of the scope of works and a concept design is provided in Figure 3. Table 7 provides a description of the numbered items shown in Figure 3. The existing condition of the footbridge is shown in Photo 1 and Photo 2.

Review of environmental factors: Brimbin Nature Reserve footbridge



Figure 2 Overview of proposed scope of works

Review of environmental factors: Brimbin Nature Reserve footbridge

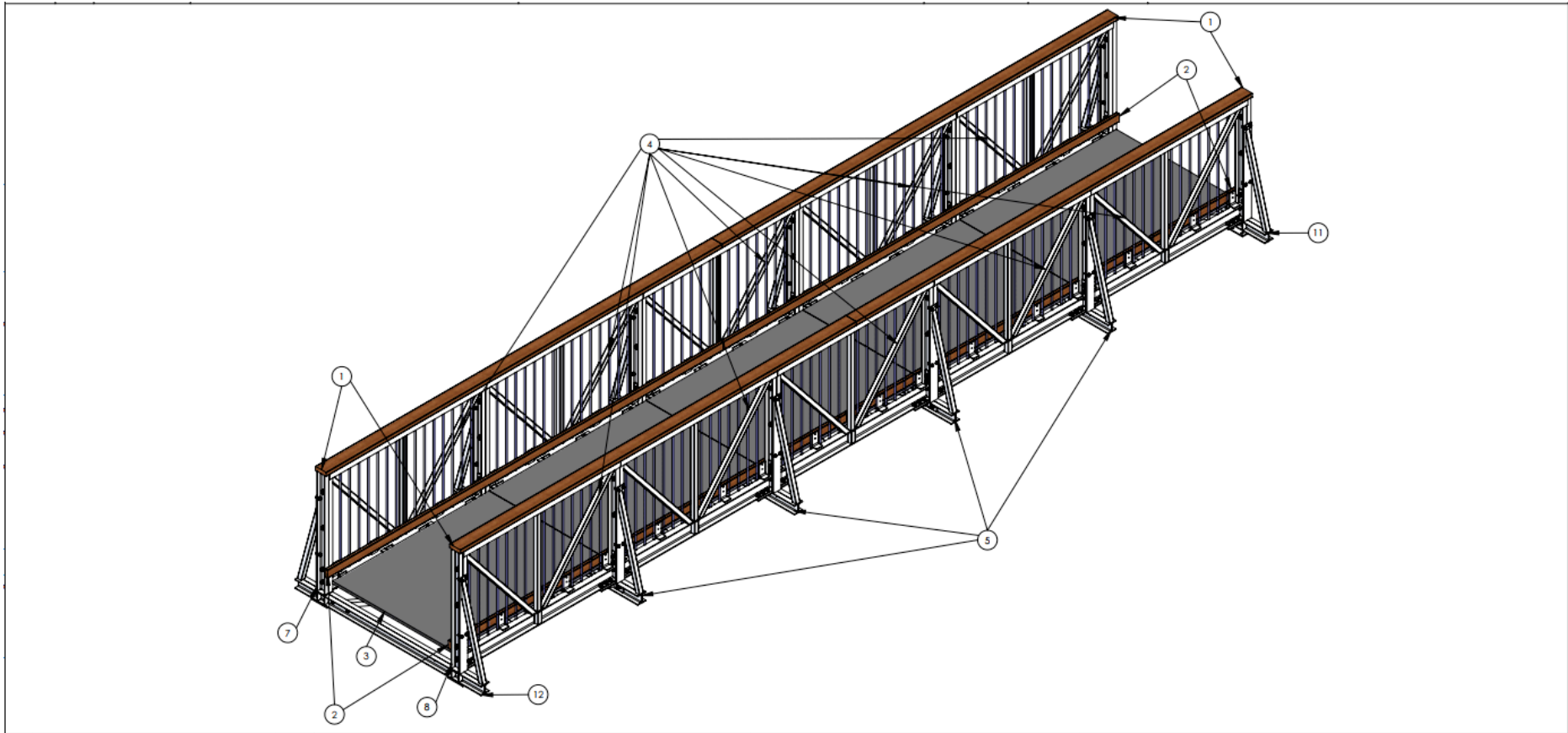


Figure 3 Concept design of proposed footbridge configuration (refer to Table 7 for description of numbered items) (Source: Facilities Fix)

Review of environmental factors: Brimbin Nature Reserve footbridge

Table 7 Description of items identified in the concept design

Item no.	Description	Specification
1	Handrail	Hardwood, 140 × 45 mm
2	Kickboard	Hardwood, 90 × 35 mm
3	Fibre-reinforced polymer grating	Mini mesh 19 × 19 to 38 × 38 mm
4	Assembly – 2 m side section	Natural
5	Assembly – mid brace	Natural
7	Assembly – end channel – right	Natural
8	Assembly – end channel – left	Natural
11	Assembly – blue gum end brace 1	Natural
12	Assembly – blue gum end brace 2	Natural

Review of environmental factors: Brimbin Nature Reserve footbridge



Photo 1 Collapsed bank and bridge failure



Photo 2 Example of the current condition of the bridge within the tidal channel

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

Pre-construction

- Prior to the removal of any vegetation, a qualified ecologist or suitably experienced NPWS representative shall thoroughly inspect the clearing area to identify and mark trees and/or other habitat features to be retained. Vegetation requiring removal is to be clearly marked using a separate method to vegetation being retained.
- A thorough pre-clear survey is to be conducted by a qualified ecologist or suitably experienced NPWS officer prior to commencement of clearing works to check for fauna.
- All personnel working onsite shall be made aware of the environmental protection requirements to be implemented during the project. This is to include site inductions and regular 'toolbox' briefings. Site-specific areas of high sensitivity may include Aboriginal objects and/or places, threatened species and their habitat, and threatened ecological communities.
- Erosion and sediment controls are to be installed in areas within and adjacent to watercourses and drainage lines to prevent sediment moving offsite and sediment-laden water entering watercourses or drainage lines. These controls will be consistent with the NPWS field guide *Erosion and sediment control on unsealed roads* (OEH 2012) and currently accepted best management practice, that is, *Managing urban stormwater: soils and construction* (4th edition) (Landcom 2004, also known as the 'Blue book').

Review of environmental factors: Brimbin Nature Reserve footbridge

- 'No go' areas are to be identified and clearly delineated to prevent vegetation harm beyond what has been assessed and marked.
- Any tools or machinery used during construction are to be appropriately cleaned, degreased and serviced prior to use at or entry into the site. Any materials such as gravel, if required, are to be free from weeds and pathogens (clean).

Construction

- As much loose and disturbed material as possible shall be removed from existing surfaces prior to works commencing to minimise silt and debris entering the waterway.
- Sediment control structures are to be placed where there is a potential for soil/silt entering the watercourse.
- Install Surefoot footing system on the southern approach using the current structure for access (with plates to make the access safe) as per the manufacturer specifications.
- Remove existing bridge using mechanical methods and hand tools.
- Remove existing footings from within the waterway by way of mini excavator pulling concrete footings and timber uprights vertically ('plucking') from the south northward and in accordance with DPIRD permit PN24/405 (DPIRD 2024b, supporting document C).
- Install Surefoot footing system on the northern approach in accordance with manufacturer specifications.
- Place erosion control on any bare earth/disturbed areas. The new bridge is longer than the existing bridge, therefore, a section of the old track will need to be covered.
- Install new footbridge in accordance with manufacturer specifications.
- Raise and stabilise bridge approaches to match new bridge height and improve quality of access.
- The existing bollard rails will be relocated, or new bollards installed on either approach to the bridge, to prevent illegal motorbike access along the track.

Post-work remediation

- All waste generated by the activity will be removed from the site and recycled/disposed of as necessary.
 - Where suitable, timber logs removed from the current bridge shall be introduced to the adjacent forested areas as fauna refuge. The treated pine timbers of the existing bridge structure are to be removed from the site and disposed of at an approved waste facility.
- 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 the site has been stabilised and controls are no longer required.
- Regular inspection of the new bridge will be incorporated into NPWS's maintenance program to ensure the asset is maintained to the required standards.

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

The maximum footprint of disturbance has been assessed to be approximately 100 m² which includes works associated with the footbridge approaches, footbridge replacement, and the equipment and material storage location.

6.2.3 Proposed construction methods, materials and equipment

Appropriate erosion and sediment control measures will be implemented at each works site prior to the commencement of work, including sediment fences and sediment traps. Erosion and scour protection will be installed where required.

Minor works on the steep descent and the retaining area on the footbridge approach are required to stabilise access and facilitate material delivery to the bridge. Small amounts of gravel may be imported to improve the condition of the walking track to facilitate equipment and material delivery to the construction site.

The existing footbridge and footings will be removed using a combination of tools and equipment, and a temporary structure will be required to facilitate machinery access to the other side of the crossing. Surefoot footings with the capacity to support the new structure will be installed on either side of the crossing prior to the replacement of the new footbridge. The new footbridge and associated track approaches will be lifted to a new height to reduce potential impacts to the receiving environment. The existing bollard rails will be relocated, or new bollards installed, to prevent illegal motorbike access along the track.

Materials used in the activity shall comply with all guidelines and approved construction documents, and will generally include the following:

- The new bridge frame and supports will be constructed of stainless steel and designed to withstand the brackish environment in which it will exist.
- Fibre-reinforced polymer panels will be used as the platform of the new bridge.
- Hardwood timber will be used for the handrails.
- Surefoot 4-way S250 (SF150) footings will be used to support the bridge.
- Gravel sourced from a certified supplier may be imported to raise the bridge approaches.
- If required, timber may be used as a retaining system for imported gravel.
- If the existing bollards cannot be reused onsite, new steel bollard/rails will be installed where necessary.

6.2.4 Receipt, storage and onsite management for materials used in construction

Materials and equipment will be delivered via vehicles to the Brimbin picnic area, then transported by side-by-side vehicles with attached trailers along the Dawson River walking track to the storage site (Photo 3) located near the footbridge. All plant and materials are to arrive clean to ensure no weeds or pathogens are transported to site.

The watercourse will be protected from runoff and pollution by sediment fencing and traps. Existing infrastructure components are to be reused where practicable or removed from the reserve as directed by NPWS staff. Where concrete components are unable to be reused, items would be recycled into crushed rubble where it can be used for alternative purposes. Any timber logs removed would be reintroduced to the forest as fauna refuge where practicable (not including treated pine).



Photo 3 Existing cleared area (with minor regrowth) adjacent to the walking track to be used to store equipment and materials

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

The impact area has been previously disturbed by the construction of the original walking track and footbridge, however, the works will occur adjacent to sensitive areas including aquatic zones and vegetation occurring either side of the water crossing. A small extent of groundcover will be removed, and mangrove pneumatophores and propagules will also be impacted during removal of the footings.

All works will be protected by suitable erosion and sediment controls. Areas that are disturbed will be rehabilitated (material shaped with regard to drainage) on completion of works. It is not anticipated that seeding or replanting will be necessary if appropriate soil protection works are implemented.

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 during the preparation of this REF. A number of safeguards and mitigation measures have been identified in order to minimise potential adverse environmental impacts associated with the activity. The safeguards and mitigation measures outlined in Section 9 of this REF shall be applied prior to and during the construction and operation stages of the activity. 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 is to be segregated to maximise recycling opportunities.
- The use of plastic bags during waste removal will be avoided where practicable.
- Waste disposal shall be undertaken in accordance with the Waste Avoidance and Resource Recovery Act.
- Regular maintenance of construction equipment shall be carried out to improve its energy efficiency and reduce environmental impact.
- Water-efficient practices are 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.

6.2.8 Construction timetable and staging and hours of operation

Works are proposed to commence in the first quarter of 2025 and take approximately 4 weeks to complete. Works will be undertaken during standard working hours as outlined below:

- Monday to Saturday: 6 am to 6 pm

Review of environmental factors: Brimbin Nature Reserve footbridge

- Sunday, public holidays and school holidays – with written approval from the Area Manager or their delegate.

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 or their delegate.

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

The primary objective of the activity is to improve the safety and condition of the existing footbridge on the Dawson River walking track to improve access and safety for NPWS staff and visitors.

7.2 Consideration of alternatives

Do nothing

The 'do nothing' option is not consistent with the management directions specified in the *Brimbin Nature Reserve plan of management* (NPWS 2005) or the objectives of the National Parks and Wildlife Act. The 'do nothing' option fails to improve the safety and condition of the footbridge which is currently unsafe and poses a safety risk to NPWS staff and visitors to the reserve. The existing footbridge is closed because it has completely failed and requires replacement to prevent further impacts on the receiving environment.

7.3 Justification for preferred option

The proposed bridge replacement is the preferred option for the following reasons:

- The existing footbridge has collapsed and poses a risk to NPWS staff and the community. Replacing the footbridge will significantly improve the ability of NPWS to carry out reserve management operations; and will contribute to the objects of the National Parks and Wildlife Act which are to foster public appreciation, understanding and enjoyment of nature and cultural heritage of the reserve.
- The activity utilises areas of existing disturbance and undertaking the works within the proposed location will minimise adverse impacts on the receiving environment.
- Carrying out the activity will contribute to preventing further deterioration of the sensitive aquatic environment.

8. Description of the existing environment

8.1 Overview of the project area

Brimbin Nature Reserve is located approximately 12 km north-west of Taree on the NSW Mid North Coast. The closest open meteorological station is the Taree Airport automatic weather station (AWS) which is situated approximately 7.3 km south-east of the reserve. The station is detailed as follows:

- site name: Taree Airport AWS
- site number: 060141
- latitude: 31.89 °S
- longitude: 152.51 °E
- elevation: 8 m
- commenced: 1997
- status: open.

The mean maximum and minimum temperatures, and mean rainfall statistics, for the years 1997 to 2024 are detailed in Table 8 (BoM 2024).

Table 8 Climate statistics for the Taree Airport automatic weather station

Month	Mean max. temp (°C)	Mean min. temp (°C)	Mean rainfall (mm)
January	29.0	18.5	93.8
February	28.4	18.3	155.9
March	26.8	16.8	195.4
April	24.3	13.6	104.8
May	21.4	10.0	79.5
June	18.9	7.9	93.2
July	18.7	6.7	64.0
August	20.2	6.8	44.0
September	23.1	9.3	47.8
October	24.8	12.0	83.7
November	26.0	14.9	105.3
December	27.8	16.8	90.0
Annual	24.1	12.6	1,155.4

8.2 Natural values

8.2.1 Geology, geomorphology and topography

Brimbin Nature Reserve is situated on a flat to gently undulating landscape with gradients of approximately 10 to 15 m above sea level (NPWS 2005). Brimbin Nature Reserve is situated on several formations of the New England Orogen of the Carboniferous Age, however, the activity site is situated on the Colrairie Mudstone formation (Figure 4) which consists of grey to black friable siltstone, rare calcareous sandstone and limestone (Regional NSW 2024).

Quaternary geology associated with the activity location is associated with a floodplain deposited by an alluvial plain (Figure 5), which consists of silt, fluvial sand and clay of the Holocene Age (Regional NSW 2024). Dawson River, which is adjacent to the activity location, comprises an alluvial channel (subaqueous) consisting of fluvial sand, gravel, silt and clay of the Holocene Age.

A search of the Heads of Asbestos Coordination Authorities' published maps of natural occurring asbestos (see DPIRD 2024c) was undertaken on 2 August 2024 which did not identify any asbestos present within the reserve.

Review of environmental factors: Brimbin Nature Reserve footbridge

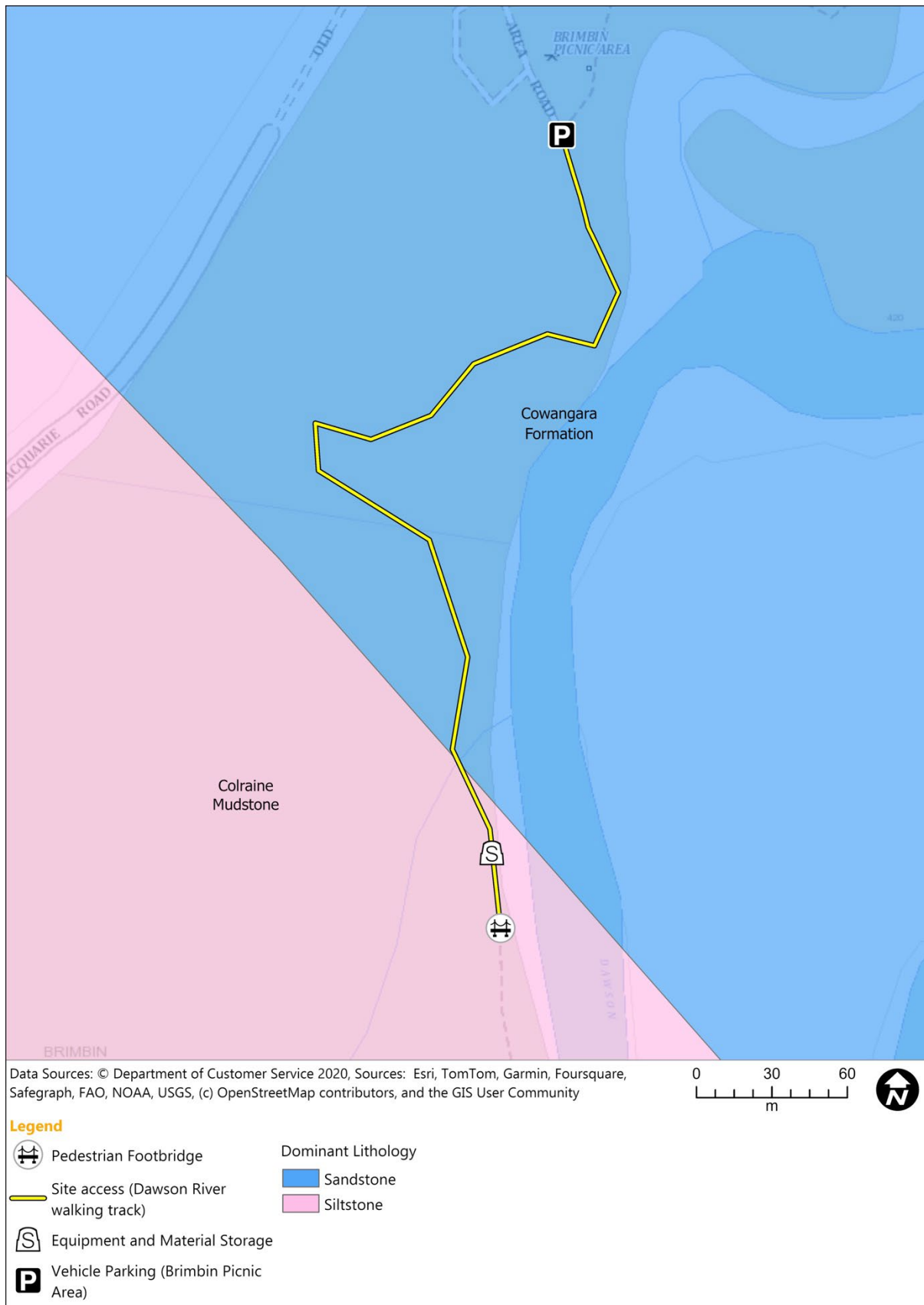


Figure 4 Dominant lithology associated with the activity location

Review of environmental factors: Brimbin Nature Reserve footbridge

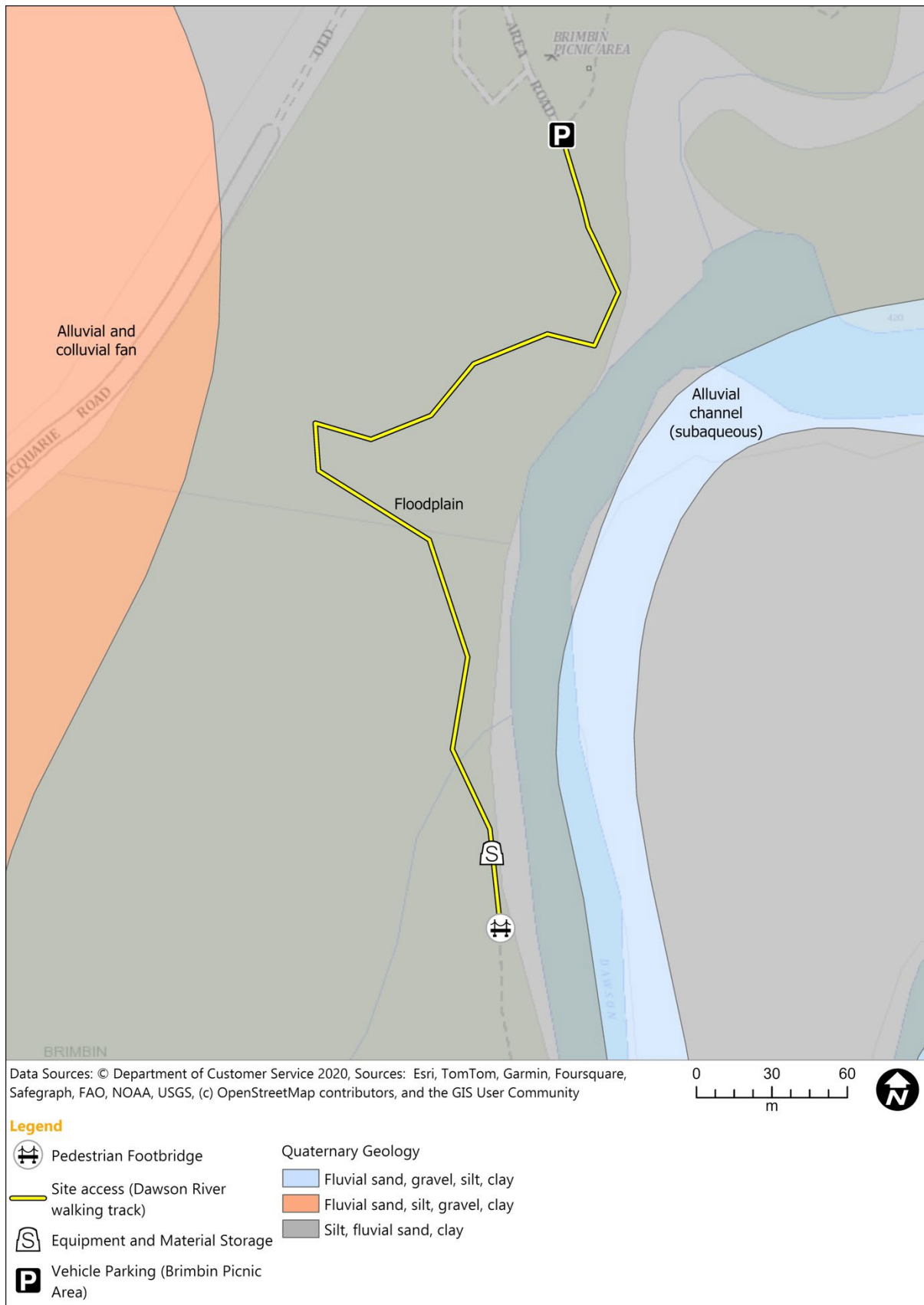


Figure 5 Quaternary geology associated with the activity site

8.2.2 Soil types and properties (including contamination)

Brimbin Nature Reserve is located on a variety of soil landscapes, however, the activity is predominately associated with the Pipeclay Creek and Shinglers Creek soil landscapes (Figure 6). Access along the Dawson River walking track is also associated with the Kew soil landscape. Soil landscapes associated with the activity are described in Table 9.

Table 9 Soil landscapes associated with the activity and walking track

Soil landscape	Description	Qualities and limitations
Kew	Shallow to moderately deep (25 to <100 cm), moderately to imperfectly drained brown and yellow kurosols (yellow podzolic soils and soloths) occasionally bleached or mottled, and lithic brown-orthic tenosols (lithosols); and shallow to moderately deep (25 to <100 cm), imperfectly drained mottled and bleached-mottled, yellow and brown kurosols (yellow podzolic soils and soloths) and grey kurosols (gleyed podzolic soils).	Localised shallow soils, widespread foundation hazard, localised recharge zone, localised discharge zone, widespread sheet erosion hazard, widespread poor drainage, widespread seasonal waterlogging.
Pipeclay Creek	Deep (100 to <150 cm), imperfectly to moderately well-drained bleached/mottled, brown and yellow kurosols (brown clays and yellow podzolic soils) and deep (100 to <150 cm), imperfectly drained grey kurosols and sodosols (soloths and grey clays).	Widespread foundation hazard, localised discharge zone, localised gully erosion hazard, localised streambank erosion hazard, widespread high run-on, widespread poor drainage, widespread seasonal waterlogging.
Shinglers Creek	Very deep (150 to 500 cm), slowly permeable and poorly drained bleached-sodic natric brown kurosols (soloths); deep (100 to <150 cm), slowly permeable and imperfectly drained eutrophic mottled-subnatric yellow sodosols (soloths and solods); and moderately deep (50 to <100 cm) to very deep (150 to 500 cm), slowly permeable and poorly drained acidic-sodic kurosolic redoxic hydrosols (humic gleys).	Widespread foundation hazard, widespread discharge zone, widespread gully erosion hazard, widespread sheet erosion hazard, localised streambank erosion hazard, widespread high run-on, widespread poor drainage, localised permanently high water tables, widespread seasonal waterlogging, localised flood hazard.

Source: DPIE eSPADE data portal search 2024.

The NSW 'Statewide land and soil mapping' (DPIE 2024) layer covers the activity site and the majority of Brimbin Nature Reserve, and maps kurosols (natric) as occurring as per the Australian Soil Classification. There are no potential acid sulfate soils within the area in accordance with the Greater Taree LEP.

Searches of the NSW EPA *List of NSW contaminated sites notified to the EPA* (NSW EPA 2024a), the *Contaminated land record of notices* (NSW EPA 2024b) and the *NSW Government PFAS Investigation Program* (NSW EPA 2023) did not identify any contaminated land sites occurring in proximity to the activity. Further, the activity is not situated within an area identified as having potential for unexploded ordnance (Australian Government 2024).

Review of environmental factors: Brimbin Nature Reserve footbridge

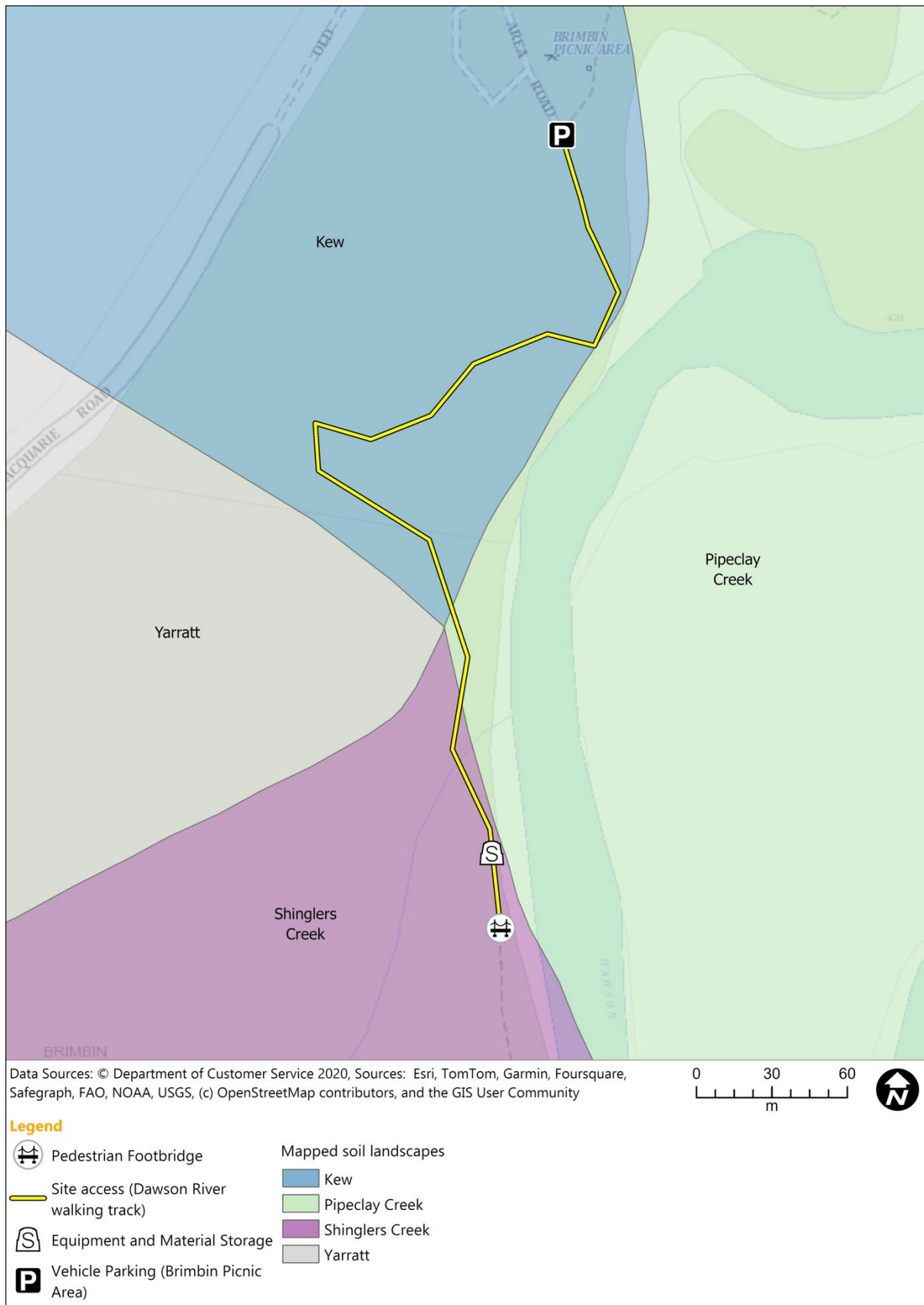


Figure 6 Mapped soil landscapes associated with the activity

8.2.3 Watercourses, waterbodies and their catchments

The existing footbridge is not situated over a mapped watercourse, however, it is situated within a water channel associated with the Dawson River and is intermittently submerged by water. The Dawson River is a fifth order Strahler stream and is mapped as key fish habitat under the Fisheries Management Act and ultimately drains into the Manning River, approximately 7 km south-east of the activity site. Watercourses and mapped key fish habitat proximate to the activity are shown in Figure 7. No wetlands in accordance with the Resilience and Hazards SEPP or the Greater Taree LEP occur within the area.

Brimbin Nature Reserve is situated within the Manning catchment which is bordered in the north-east by the Hastings catchment, in the north by the Macleay catchment, in the north-west by the Namoi catchment, in the south-west by the Hunter, and to the south by the Karuah catchment (DCCEEW 2024).

The Manning River catchment covers an area of approximately 8,420 km² and flows for 250 km, rising in the Great Dividing Range and flowing south-east through a coastal floodplain to Taree where it splits in 2. The southern arm meets the Pacific Ocean at Old Bar, and the northern arm is joined by the Dawson and Landsdowne rivers, meeting the ocean at Harrington (DCCEEW 2024).

8.2.4 Coasts and estuaries

Brimbin Nature Reserve is situated adjacent to the Dawson River which forms part of the Manning River, a major coastal river system. The activity is situated wholly on land both within the coastal environment area (Part 2.2, Division 3) and coastal use area (Part 2.2, Division 4) as determined under the Resilience and Hazards SEPP. Potential impacts to the coastal zone are assessed in Section 3.2.2, with safeguards provided in Section 9 of this REF. The activity is consistent with the requirements of Chapter 2 of Resilience and Hazards SEPP, and it is considered unlikely any adverse impacts to the coastal zone would occur as a result of the activity.

Review of environmental factors: Brimbin Nature Reserve footbridge

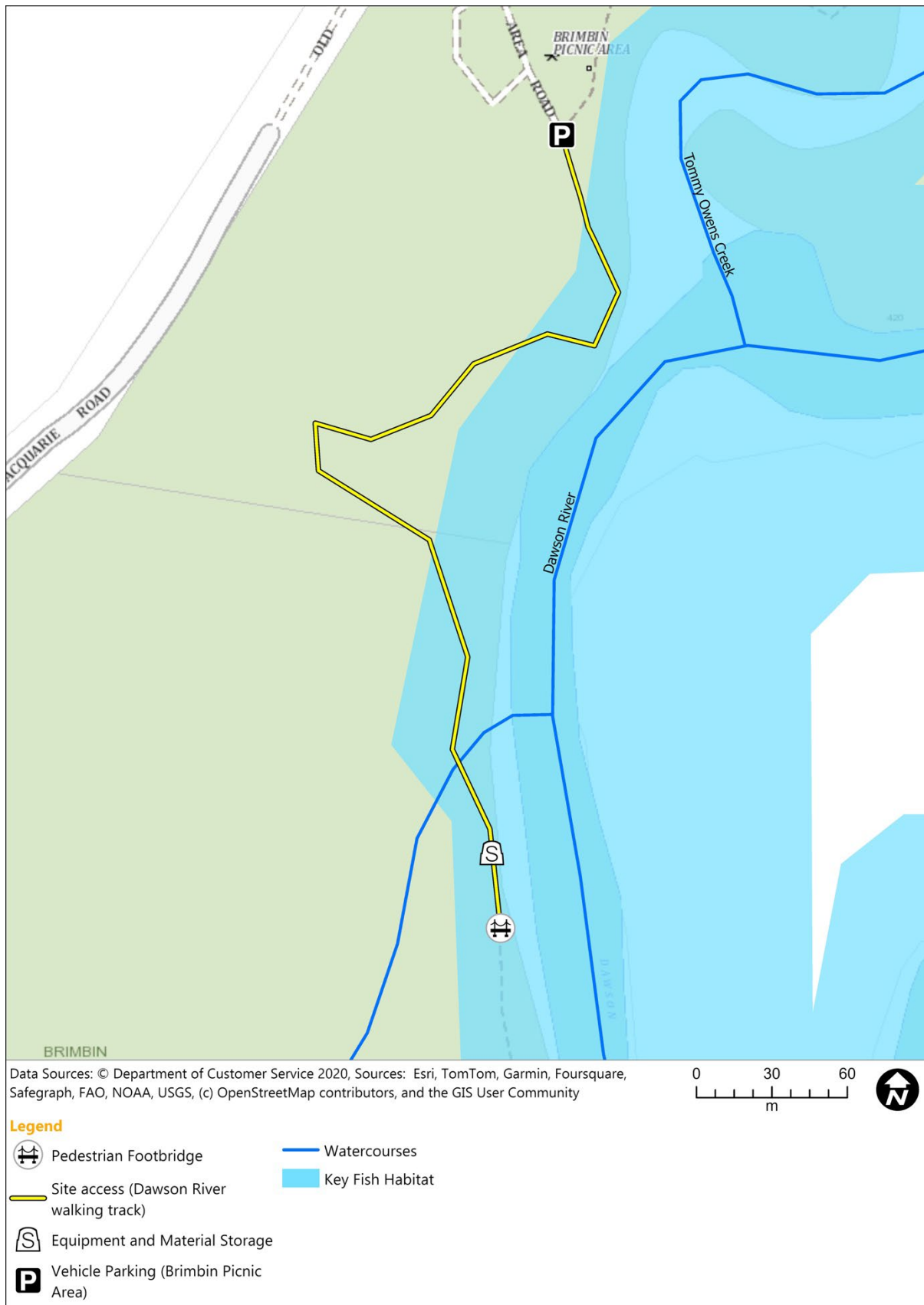


Figure 7 Mapped watercourses and key fish habitat proximate to the activity site

8.2.5 Biodiversity

Terrestrial biodiversity

The plan of management (NPWS 2005) states that the vegetation in the reserve is predominantly sclerophyll forest with a variety of coastal species. The following extract provides a detailed description of the main forest ecosystems within the reserve:

The main forest ecosystems include grey gum – grey ironbark – thick leaved white mahogany (*Eucalyptus propinqua* – *Eucalyptus siderophloia* – *Eucalyptus carnea*), white stringybark (*Eucalyptus eugenioides*), tallowwood (*Eucalyptus microcorys*), narrow leaved red gum (*Eucalyptus seeana*) and turpentine – tallowwood – pink bloodwood (*Syncarpia glomulifera* – *Eucalyptus microcorys* – *Corymbia intermedia*). Common riparian trees include grey myrtle (*Backhousia myrtifolia*), swamp oak (*Casuarina glauca*) and watergum (*Tristaniopsis laurina*). River mangrove (*Aegiceras corniculatum*) and grey mangrove (*Avicennia marina*) line the riverbank below the tidal limit at the confluence of the Dawson River and Tommy Owens Creek.

NPWS 2005

The NSW State Vegetation Type Map identifies several dominant plant community types (PCTs) occurring throughout the reserve, however, vegetation communities in close proximity to the activity site include:

- PCT 0 – Not classified, which represents cleared lands and does not conform to a native vegetation community
- PCT 4042 – Lower North Riverflat Eucalypt-Paperbark Forest.

PCT 3253 – Northern Hinterland Grey Gum-Turpentine Mesic Forest and PCT 3269 – Northern Bloodwood-Ironbark Moist Grassy Forest also occur along the access track to the activity site. State Vegetation Type Map vegetation communities proximate to the activity are shown in Figure 8. The ecological assessment (WolfPeak 2024) determined the vegetation occurring at the activity site is PCT 4042 – Lower North Riverflat Eucalypt-Paperbark Forest. Table 10 provides a description of the vegetation community as per the ecological assessment.

Table 10 Structure and description of vegetation at the activity site (Source: WolfPeak 2024)

Vegetation structure	Description of structure and species present
Canopy	Dominant species comprise swamp oak (<i>Casuarina glauca</i>) and prickly-leaved tea tree (<i>Melaleuca styphelioides</i>), with willow bottlebrush (<i>Callistemon salignus</i>) commonly found. Height ranges from 12 to 15 m and cover is approximately 30%.
Understory	A sparse layer dominated by grey myrtle (<i>Backhousia myrtifolia</i>), prickly-leaved tea tree and swamp oak. Other understory species occasionally found comprise forest oak (<i>Allocasuarina torulosa</i>) and red ash (<i>Alphitonia excelsa</i>). Height ranges from approximately 4 to 8 m with a cover of approximately 25%.
Shrub layer	A sparse shrub layer dominated by river mangrove (<i>Aegiceras corniculatum</i>) within the creekline. Native species, including green wattle (<i>Acacia irrorata</i>), hop goodenia (<i>Goodenia ovata</i>), rough fruit pittosporum (<i>Pittosporum revolutum</i>) and muttonwood (<i>Myrsine variabilis</i>) were also occasionally recorded in this layer in the riparian zone. Height ranges from 0.5 to 2.5 m with a cover of approximately 20%.
Ground layer	The ground layer is open to moderately dense throughout the forested areas. Commonly recorded species include red-fruit saw-sedge (<i>Gahnia sieberiana</i>), creeping beard grass (<i>Oplismenus imbecillis</i>), common reed (<i>Phragmites australis</i>), spiny-headed mat-rush (<i>Lomandra longifolia</i>), and common maidenhair (<i>Adiantum aethiopicum</i>). Height ranges from 0.1 to 0.8 m with a cover of approximately 80%.

Review of environmental factors: Brimbin Nature Reserve footbridge

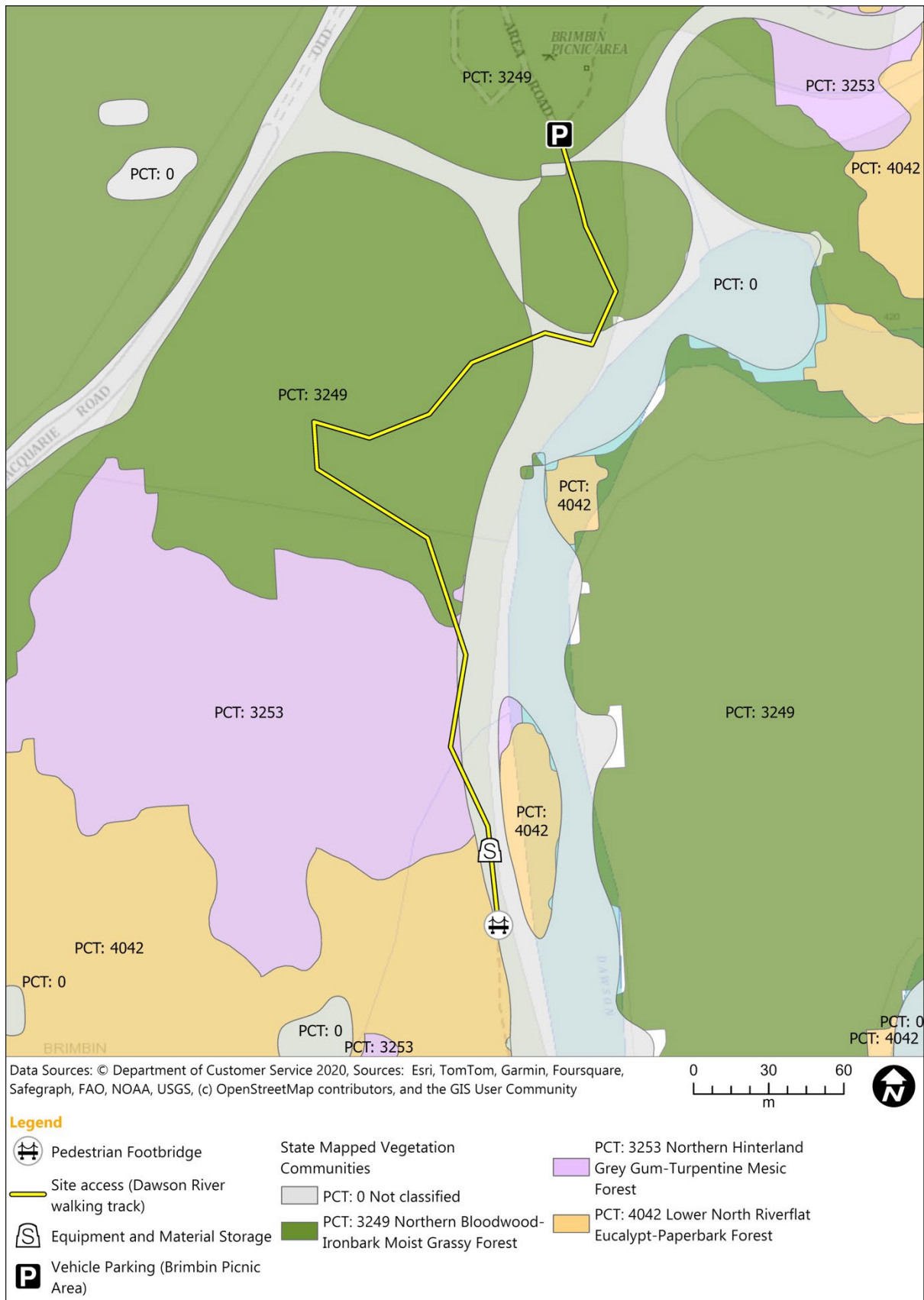


Figure 8 State Vegetation Type Map plant community types (PCTs) proximate to the activity site

Review of environmental factors: Brimbin Nature Reserve footbridge

Aquatic biodiversity

Dawson River is a tidal waterway and a tributary to the Manning estuary. It is a fifth order stream under the Strahler system and is mapped as key fish habitat under the Fisheries Management Act. As per the *Policy and guidelines for fish habitat conservation and management* (Fisheries NSW 2013), Dawson River and the tidal channel which the current bridge spans are both classified as 'Type 2 – Moderately sensitive key fish habitat' and 'Class 2 – moderate key fish habitat'.

The DPIRD Fisheries NSW Spatial Data Portal (DPI n.d.) maps potential distribution of the southern purple spotted gudgeon within the Dawson River adjacent and north-east of the reserve, approximately 900 m upstream of the activity site. Given the Dawson River is tidal at the activity location, and the southern purple spotted gudgeon is a freshwater species, the activity is considered unlikely to adversely impact the species or its habitat. Further, the activity is unlikely to contribute to a key threatening process which would impact on the species or its habitat.

Grey mangroves also occur adjacent the bridge (Photo 4), while a number of pneumatophores and propagules are present around the site (Photo 5). Removal of the existing concrete footings is anticipated to harm mangrove pneumatophores, as such, all works will be carried out in accordance with the DPIRD permit PN 24/405.

To date, one endangered marine vegetation population and 4 endangered aquatic ecological communities have been listed under the Fisheries Management Act. None of these occur within the study area and are not considered likely to occur based on geographical limitations.

Review of environmental factors: Brimbin Nature Reserve footbridge



Photo 4 **Grey mangroves adjacent to the footbridge**



Photo 5 Grey mangrove pneumatophores within close proximity to the existing footings

Areas of outstanding biodiversity value or critical habitat

The 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

The activity will not directly or indirectly affect any environmental assets of intergenerational significance as none have been declared within or in close proximity to the proposed works area.

Threatened ecological communities

Biodiversity Conservation Act 2016

The Coastal Floodplain Forest community present within the site is likely to conform to the Biodiversity Conservation Act-listed threatened ecological community (TEC) Subtropical Coastal Floodplain Forest of the New South Wales North Coast Bioregion. This ecological community is listed as endangered under the Biodiversity Conservation Act. The community onsite contains a number of characteristic species from this TEC and is situated on a coastal floodplain associated with the Dawson River.

The extent of this TEC within the study area forms part of a larger patch extending offsite. A small extent of this TEC occurs within the impact footprint, however, impacts would be very minor and only comprise impacts to groundcover species.

Review of environmental factors: Brimbin Nature Reserve footbridge

Environment Protection and Biodiversity Conservation Act 1999

The Lower North Riverflat Eucalypt-Paperbark Forest (PCT 4042) has an associated TEC under the Environment Protection and Biodiversity Conservation Act, comprising the Subtropical Eucalypt Floodplain Forest and Woodland of the New South Wales North Coast and South East Queensland bioregions. This community is listed as endangered under the Environment Protection and Biodiversity Conservation Act.

Threatened species and populations

NSW BioNet searches for threatened species and populations were carried out on 2 August 2024 to determine all valid records of threatened species (listed under the Biodiversity Conservation Act) within the study area.

An Environment Protection and Biodiversity Conservation Act protected matters report was generated on 2 August 2024 and is included in the ecological assessment (WolfPeak 2024) which indicates a number of threatened species likely to occur within the study area.

Both searches were carried out within a 10-km radius of the activity site.

Threatened flora

The BioNet search returned a total of 502 records of 7 threatened flora species occurring within the study area, however, none were recorded during the field survey. The results of the BioNet search are contained in the ecological assessment.

Threatened flora records proximate to the activity site are shown in Figure 9.

Threatened fauna

The BioNet search returned a total of 355 records of 28 threatened fauna species occurring within the study area. No threatened fauna species were recorded during the field survey, however, threatened species which are considered to be potentially occurring within the study area are listed in Table 11.

Threatened fauna records proximate to the activity site are shown in Figure 10.

Table 11 Threatened fauna species likely to occur within the study area

Common name	Scientific name	Status (BC Act)	Status (EPBC Act)
Brush-tailed phascogale	<i>Phascogale tapoatafa</i>	Vulnerable	–
Eastern coastal free-tailed bat	<i>Micronomus norfolkensis</i>	Vulnerable	–
Greater broad-nosed bat	<i>Scoteanax rueppellii</i>	Vulnerable	–
Grey-headed flying-fox	<i>Pteropus poliocephalus</i>	Vulnerable	Vulnerable
Koala	<i>Phascolarctos cinereus</i>	Endangered	Endangered
Large bent-winged bat	<i>Miniopterus orianae oceanensis</i>	Vulnerable	–
Little bent-winged bat	<i>Miniopterus australis</i>	Vulnerable	–
Little lorikeet	<i>Glossopsitta pusilla</i>	Vulnerable	–
Masked owl	<i>Tyto novaehollandiae</i>	Vulnerable	–
Powerful owl	<i>Ninox strenua</i>	Vulnerable	–
Southern myotis	<i>Myotis macropus</i>	Vulnerable	–

Review of environmental factors: Brimbin Nature Reserve footbridge

Common name	Scientific name	Status (BC Act)	Status (EPBC Act)
Squirrel glider	<i>Petaurus norfolcensis</i>	Vulnerable	–
Varied sitella	<i>Daphoenositta chrysoptera</i>	Vulnerable	–

BC Act = Biodiversity Conservation Act; EPBC Act = Environment Protection and Biodiversity Conservation Act.

Discussion

A test of significance as prescribed under s 7.3 of the Biodiversity Conservation Act and an assessment of impacts on MNES in accordance with the Commonwealth *Matters of national environmental significance: significant impact guidelines 1.1* (CoA 2013) have been prepared to determine whether the activity is likely to significantly affect threatened species or ecological communities, or their habitats. The assessments are included in the ecological assessment (WolfPeak 2024), which determined the activity is unlikely to significantly affect threatened species listed under the Biodiversity Conservation Act or MNES values under the Environment Protection and Biodiversity Conservation Act.

The requirements of s 221ZV of the Fisheries Management Act were considered to determine whether the activity is likely to significantly affect threatened species, populations or ecological communities. No aquatic species listed under that Act are predicted to occur within proximity to the works, 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 listed under the Fisheries Management Act.

Review of environmental factors: Brimbin Nature Reserve footbridge

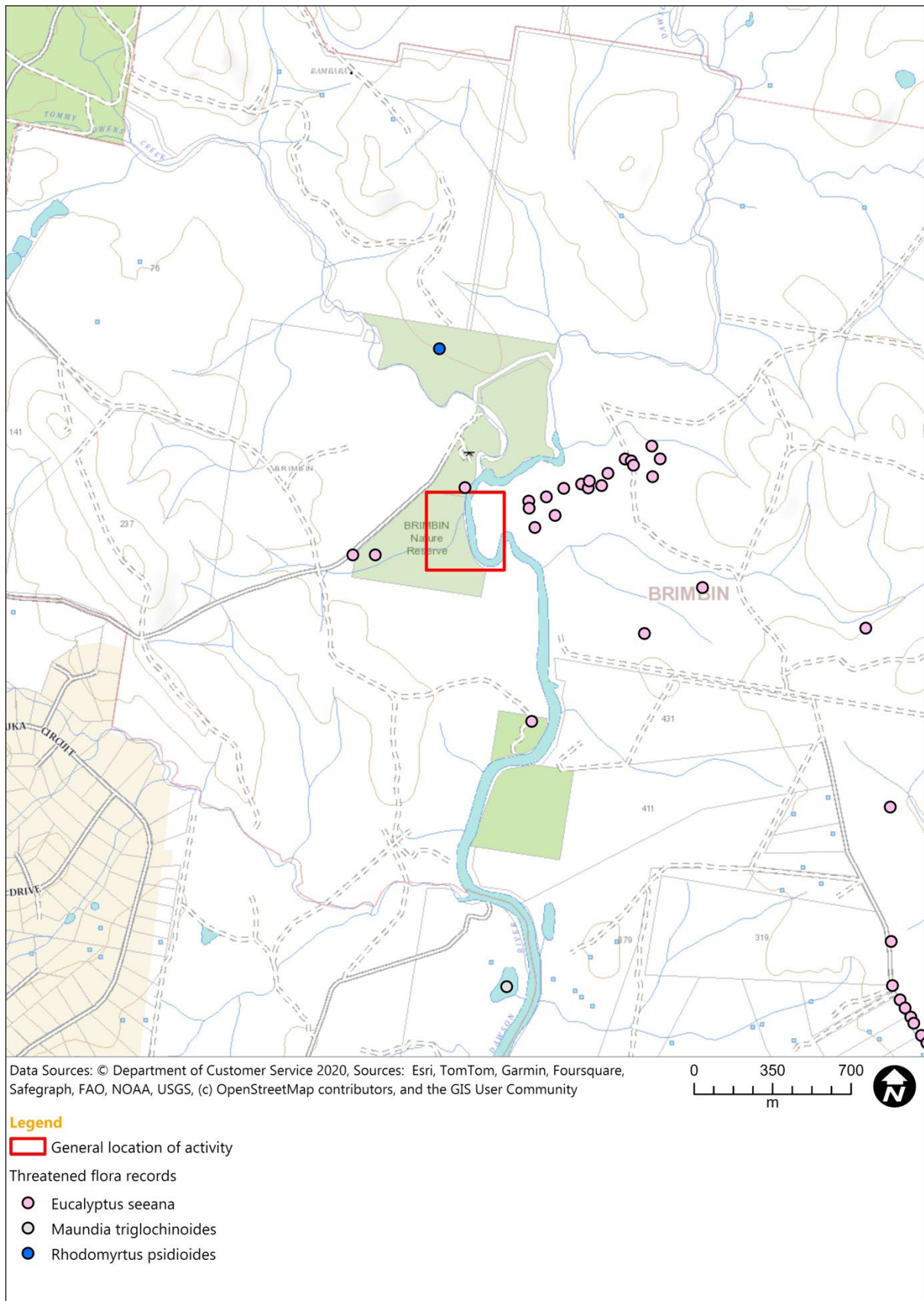


Figure 9 Threatened flora records (BioNet) proximate to Brimbin Nature Reserve

Review of environmental factors: Brimbin Nature Reserve footbridge

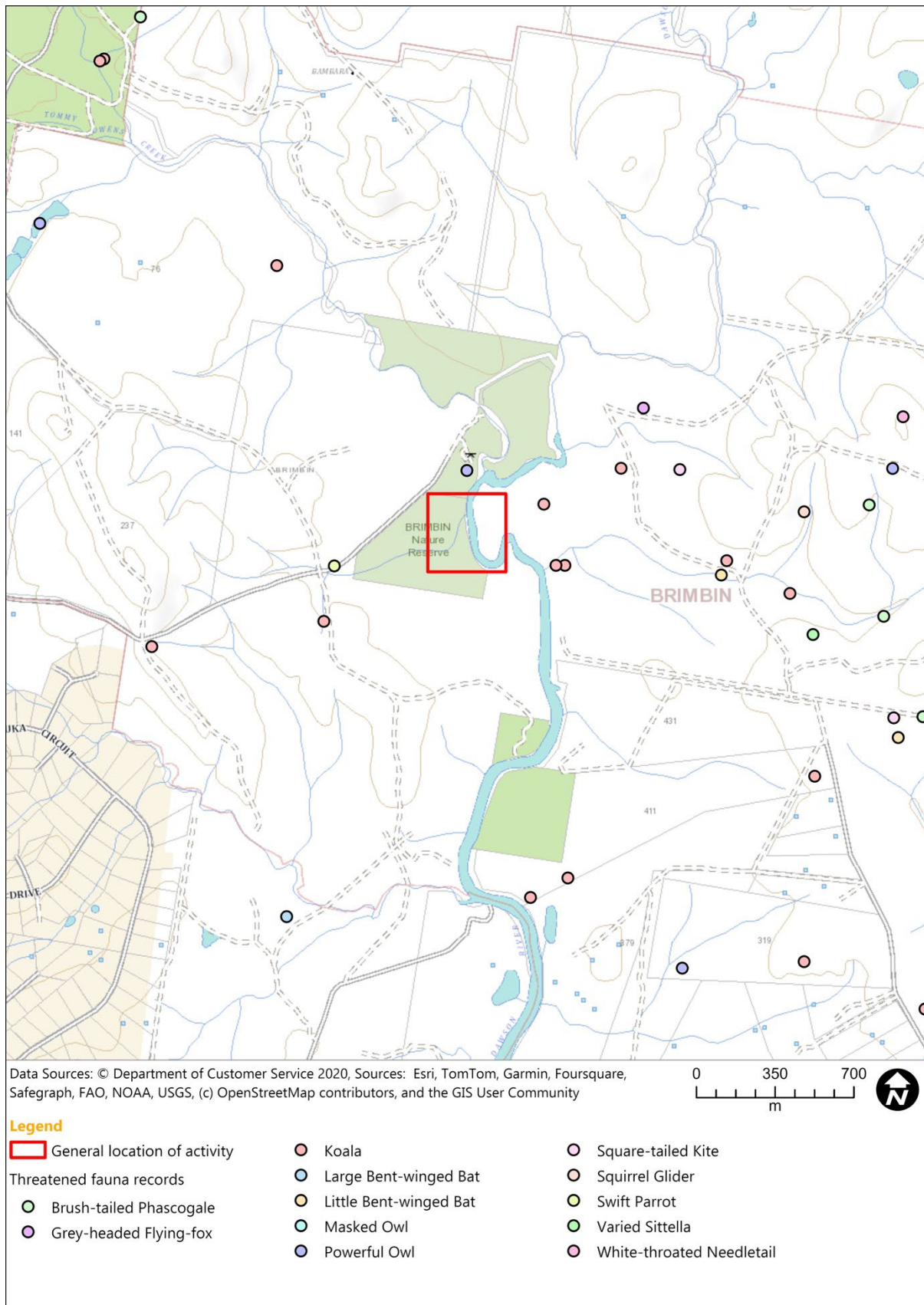


Figure 10 Threatened fauna records (BioNet) proximate to Brimbin Nature Reserve

8.3 Cultural values

8.3.1 Aboriginal cultural heritage

Aboriginal communities have a strong connection to the land and water, which are central to their spirituality and identity. They view natural resources as essential for food, medicine, land care, cultural transmission, kinship and social bonds, and this inseparable heritage and connection to nature requires integrated landscape management.

At the time of European settlement, the Manning Valley was occupied by the Biripi tribe. The Biripi People have traditionally used places like the reserve for the collection of bush tucker and other cultural purposes, such as social gatherings (NPWS 2005). A search of the Aboriginal Heritage Information Management System (AHIMS) was carried out on 2 August 2024 which did not identify any Aboriginal items or Aboriginal places previously recorded within the reserve (Heritage NSW 2024, supporting document D). Notwithstanding, there is potential for Aboriginal objects to be identified during construction, therefore, safeguards are provided in Section 9 to limit potential impacts to unrecorded Aboriginal objects.

8.3.2 Historic heritage values

The reserve has a long history of European settlement and folklore. From the late 1830s, the first timber cutters reached the Manning Valley and formed logging camps along the Manning and Dawson rivers (NPWS 2005).

Searches have been undertaken of Australia’s National Heritage List, the NSW State Heritage Inventory, Schedule 5 Environmental heritage of the Greater Taree LEP and the HHIMS database under s 170 of the Act. No items of national or state heritage significance occur near the activity site. However, several local and agency (HHIMS) sites have been recorded near the reserve, mostly to the east within or in close proximity to the newly acquired and as yet gazetted addition to Brimbin Nature Reserve. Historic heritage items proximate to the subject site are detailed in Table 12 and Table 13 and shown in Figure 11.

Table 12 Local historic heritage items proximate to the subject site (Greater Taree LEP)

Item name	Map ref.	Significance	Address
Wingham to Port Macquarie old road (1860s)	A311	Local	Wingham to Port Macquarie old road pavements, original alignment and fenced road boundaries, Kellys Crossing of Dawson River and all associated structures, road signs and mileposts

Table 13 Agency historic heritage items proximate to the subject site (HHIMS database)

Item name	Easting	Northing	Significance
Kate Kellys Crossing	449329	6477636	Agency (s 170)
Timber Fence and Yard Remnants	449448	6477249	Agency (s 170)

Review of environmental factors: Brimbin Nature Reserve footbridge

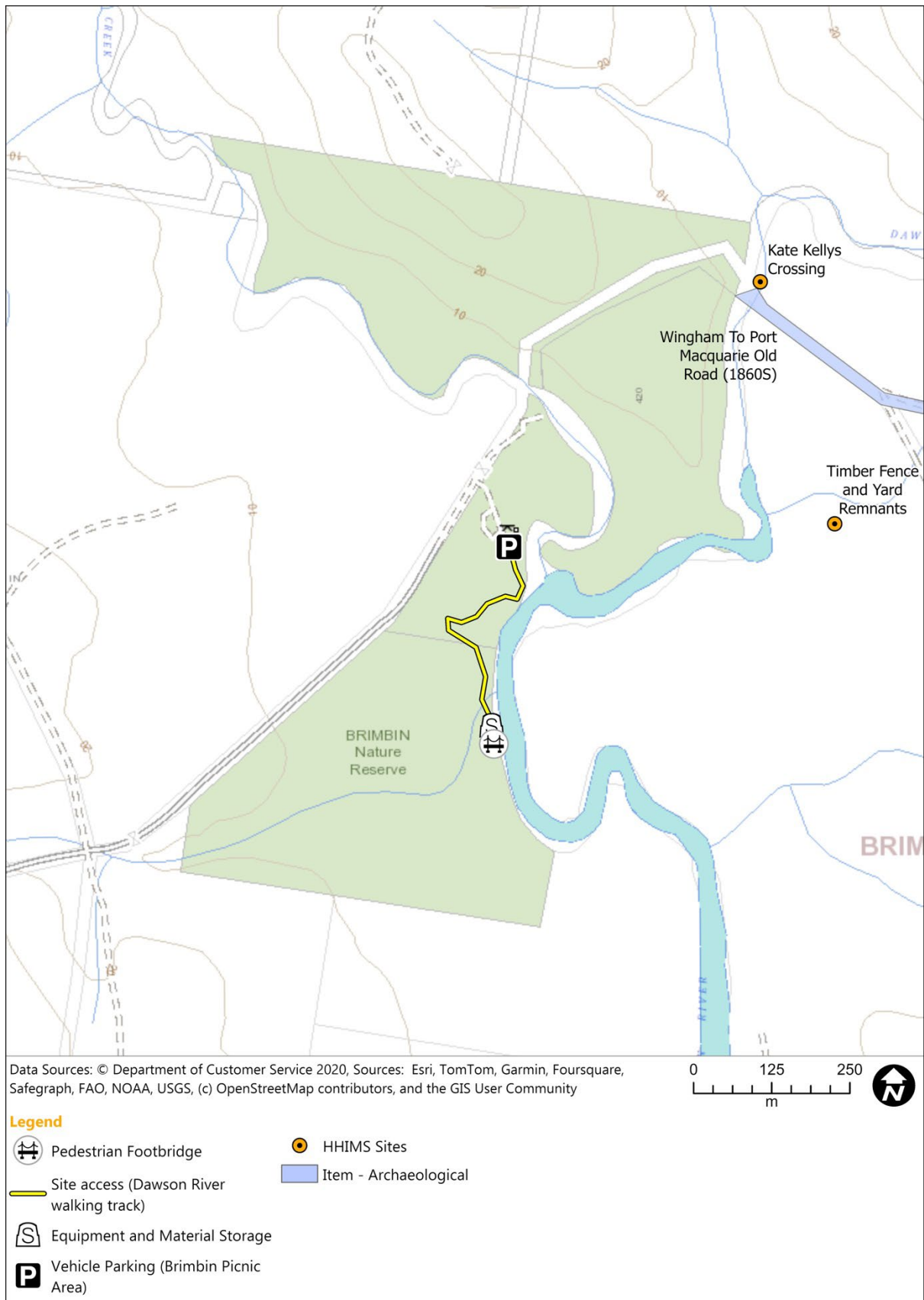


Figure 11 Local and agency heritage items proximate to the activity location

8.4 Social values

8.4.1 Recreation values

The reserve's close proximity to Taree provides opportunities for low-key recreational activities including bushwalking, picnicking, canoeing and bird watching. There is a low level of visitation to the reserve mainly by the local community, schools and tertiary institutions (NPWS 2005).

There are 2 walking tracks in the reserve. The northern track is Ms Kellys walking track and the southern track is the Dawson River walking track. The activity involves replacing one of the footbridges on the Dawson River walking track, which has collapsed and is a safety hazard for visitors using the track.

8.4.2 Scenic and visually significant areas

No known scenic or visually significant areas have been identified within Brimbin Nature Reserve.

8.4.3 Education and scientific values

There is very limited resource information and knowledge on the fauna of the reserve, however, flora studies have previously been carried out which provide a comprehensive list of the native species within the reserve (NPWS 2005). There is also limited information on the reserve's cultural values, as such, the reserve provides numerous research opportunities.

The diverse natural and cultural values of the reserve also provide an opportunity for nature-based education for local schools and tertiary institutions, for example, TAFE students have used the reserve for nature-based field trips (NPWS 2005).

8.4.4 Interests of external stakeholders

Brimbin Nature Reserve is valued by a variety of external stakeholders for a variety of purposes, including:

- recreational and social values associated with day use activities
- Aboriginal communities who maintain a connection to the reserve for education and cultural purposes.

8.5 Matters of national environmental significance

The provisions of the Environment Protection and Biodiversity Conservation 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 ecological assessment (WolfPeak 2024).

In accordance with the Environment Protection and Biodiversity Conservation Act's significant impact guidelines (CoA 2013), 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 is not required.

A summary of the results is included in Table 14.

Review of environmental factors: Brimbin Nature Reserve footbridge

Table 14 Environment Protection and Biodiversity Conservation Act matters of national environmental significance

Matters of national environmental significance	Results *	Comment
Any significant impact on a World Heritage property?	None	The activity will not impact a World Heritage property as none occur within or in close proximity to the reserve.
Any significant impact on a national heritage place?	None	The activity will not impact a national heritage place as none occur within or in close proximity to the reserve.
Any significant impact on a wetland of international importance (Ramsar)?	None	The activity will not impact a wetland of international importance as none occur within or in close proximity to the reserve.
Any significant impact on a listed threatened species or ecological community?	83 threatened species and 5 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 activity.
Any significant impact on listed migratory species?	42	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 activity.
Any significant impact on Commonwealth marine areas?	None	The activity will not impact a Commonwealth marine area.
Any significant impact on the Great Barrier Reef Marine Park?	None	The activity will not impact the Great Barrier Reef Marine Park.
Does the proposed activity involve a nuclear action (including uranium mining)?	N/A	The 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 coalmining development?	N/A	The activity is not related to coal seam gas development and large coalmining development, therefore, will not impact (directly, indirectly or cumulatively) on a water resource.

* The results are based on a 10-km search radius.

9. Impact assessment during all stages of the activity

The tables in this section of the REF detail: what the activity is likely to impact or effect; the level of impact (either negligible, low, medium, high adverse or positive); the reasons for the impact; and the safeguards or mitigation measures to be put in place to ameliorate those impacts.

The following tables are provided:

- Table 15 Physical and chemical impacts
- Table 16 Biodiversity impacts
- Table 17 Community impacts
- Table 18 Natural resource impacts
- Table 19 Aboriginal cultural heritage impacts
- Table 20 Other cultural heritage impacts
- Table 21 Impacts on matters of national environmental significance.

9.1 Physical and chemical impacts

Table 15 Physical and chemical impacts

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
1. impact on soil quality or land stability?	Yes	Low, adverse	<p>The activity includes minor disturbance to soil profiles and groundcover vegetation to facilitate replacement of the footbridge. The activity will contribute to a risk of erosion and sedimentation through:</p> <ul style="list-style-type: none"> erosion of disturbed soils transport of sediments in runoff and deposition. 	<ul style="list-style-type: none"> Erosion and sediment control measures in accordance with the NPWS field guide for <i>Erosion and sediment control on unsealed roads</i> (OEH 2012) and currently accepted best management practice (Landcom [2004] <i>Managing urban stormwater: soils and construction</i> [4th Edition] – the ‘Blue book’) are to be implemented and maintained to: <ul style="list-style-type: none"> prevent sediment moving offsite and sediment-laden water entering the watercourse or drainage lines reduce water velocity and capture sediment onsite minimise the amount of material transported from the activity site to surrounding surfaces divert upslope and clean water around each site sediment controls shall be inspected regularly by the relevant contractor and by NPWS staff sediment control measures shall be in place for the storage of any spoil as required. Soil disturbance shall be limited to the areas required to undertake the activity.

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
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 activity is situated within a tidal channel associated with the Dawson River. During construction, works have the potential to negatively impact on the tidal channel, and thus the Dawson River, in the following ways:</p> <ul style="list-style-type: none"> erosion and sedimentation which may affect 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 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"> Materials (Surefoot) have been selected to minimise ground disturbance to the greatest extent possible. All areas disturbed by works will be stabilised and rehabilitated to ensure stable surfaces are obtained as soon as practical (progressively where possible). 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. Erosion and sedimentation, and waste management safeguards will be effectively implemented to minimise associated water quality impacts. Visual monitoring of local water quality (i.e. turbidity, hydrocarbons spills/slicks) will be periodically undertaken to identify any water quality issues. 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 40 m from drainage lines or waterways. Refuelling, fuel decanting and equipment maintenance work if required would take place in a designated sealed and bunded area. Stockpile sites are not to be located within 10 m of drainage lines.

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
				<ul style="list-style-type: none"> • Stockpiles shall be located on previously disturbed areas, away from areas that receive concentrated runoff. • No work is to be undertaken during or immediately following periods of high rainfall. • Sediment fencing and sediment traps will be used to protect the watercourse and drainage line during works. Works are only to be undertaken during periods of low flow. • As much earth and gravel as possible is to be removed from the footbridge surfaces prior to works commencing to minimise silt and debris entering adjacent waterways. • Store oils and fuels in a suitably bunded, covered and secure area with sufficient capacity to contain at least 110% of the volume of the largest container. • Spare fuels are to be stored in containers within pre-existing cleared areas and a minimum of 40 m from drainage lines and/or waterways. • Spills and leaks are to be contained within the worksite and site clean-up to occur. • Spill kits to be available onsite.
3. change flood or tidal regimes, or be affected by flooding?	Yes	Negligible, adverse	The activity is not situated on land identified as flood prone in accordance with the Great Lakes LEP, however, the channel is tidal and has the potential to be impacted by storm events, flash flooding and tidal regimes.	<ul style="list-style-type: none"> • Erosion and sediment controls as per the NPWS field guide for <i>Erosion and sediment control on unsealed roads</i> (OEH 2012). • Regular inspection of the structure will be incorporated into NPWS's maintenance program and assessed for damage following storm and flash flooding events.

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
4. affect or be affected by coastal processes and coastal hazards, including those under climate change projections (e.g. sea level rise)?	Yes	Negligible, adverse	The activity is situated within the coastal environment area where processes including rainfall and runoff have the potential to create minor impacts to soil profiles, however, it is not anticipated that coastal processes and coastal hazards would significantly affect the new structure.	<ul style="list-style-type: none"> Materials and construction methods should be selected to withstand events which could adversely impact the new footbridge. Regular inspection of the new footbridge shall be incorporated into NPWS's 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 structure (e.g. rainfall, runoff and flooding). Site induction and delineation of 'no go' areas to ensure construction works do not impact on retained vegetation (including roots).
5. involve the use, storage or transport of hazardous substances, or use or generate chemicals which may build up residues in the environment?	Yes	Low, adverse	<p>A variety of dispersible liquid materials would be used and stored which pose a potential threat of pollution. These liquids include but are not 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>	<ul style="list-style-type: none"> Store oils and fuels in a suitably bunded, covered and secure area with sufficient capacity to contain at least 110% of the volume of the largest container. Spare fuels are to be stored in containers within pre-existing cleared areas and a minimum of 40 m from watercourses and drainage lines. Spills and leaks are to be contained within the worksite and site clean-up to occur. Spill kits to be available onsite. 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 <i>Code of practice: Managing risks of hazardous chemicals in the workplace</i> (Safe Work Australia 2023) to ensure gaseous, liquid,

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
6. involve the generation or disposal of gaseous, liquid or solid wastes or emissions?	Yes	Low, adverse	<p>Existing materials which cannot be reused or recycled will require disposal.</p> <p>Waste materials will be generated by the removal of the existing footbridge.</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>	<p>or solid wastes or emissions are managed appropriately.</p> <ul style="list-style-type: none"> • If hazardous substances are discovered on the site, suspend all work which may result in exposure to such hazardous substances and notify NPWS immediately. Asbestos, material containing asbestos, polychlorinated biphenyl (PCB) and lead-based paints are recognised as hazardous substances. Treated pine logs to be handled and disposed of correctly. Other substances in certain situations are also considered hazardous and therefore require controlled handling. • 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 ○ reuse of waste ○ recycling, processing or reprocessing waste ○ recovery of energy ○ disposal. • Characterise and manage waste in accordance with the NSW EPA's <i>Waste classification guidelines</i> (NSW EPA 2014). • Waste generated during construction will be collected and disposed of at a suitably licensed 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.

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
7. involve the emission of dust, odours, noise, vibration or radiation?	Yes	Low, adverse	<p>Some low levels of dust and noise will be generated during construction activities associated with the works, however, the work site will be closed to the public for the duration of the activity.</p> <p>Vehicles will be used to transport workers, machinery and tools to the works site.</p> <p>The activity is unlikely to produce significant emissions of dust, odours, noise or vibration and is unlikely to impact adjacent landholders, however, emissions and airborne particulate matter would be generated by:</p> <ul style="list-style-type: none"> • the delivery and transport of construction vehicles, staff and materials to the works site • vehicle and machinery (exhaust) emissions • dust emissions from vegetation removal (chainsaws etc.) and soil disturbance. 	<ul style="list-style-type: none"> • Minimise the use of machinery and plant where practicable; turn off machinery when not in use and reduce throttle speed of machines; ensure machinery is in good, serviced condition to reduce emissions. • Machinery onsite must be registered, clean and devoid of oil/fuel leaks. • Use electric machinery instead of diesel/petrol powered machinery where practicable. • Imported materials (e.g. rock rubble) being delivered to site by trucks are to be covered to minimise tracking of dust, etc. • 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 <i>Interim construction noise guideline</i> (DECC 2009) which are: <ul style="list-style-type: none"> ○ Monday to Saturday 6 am to 6 pm. ○ No works on Sundays or public holidays (without written approval from the Area Manager or their delegate). ○ 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 in writing by the Area Manager or their delegate.

9.2 Biodiversity impacts

Table 16 Biodiversity impacts

Is the proposed activity likely to...	Applies?	Impact level	Reasons	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 Brimbin Nature Reserve.	Not applicable
2. result in the clearing or modification of vegetation, including ecological communities and plant community types of conservation significance?	Yes	Negligible, adverse	<p>A small amount of groundcover vegetation will be removed to facilitate construction. Grey and/or river mangrove pneumatophores and propagules will also be impacted during removal of the existing footings.</p> <p>A small extent of a TEC listed under both the Biodiversity Conservation Act and Environment Protection and Biodiversity Conservation Act occurs within the impact footprint, however, impacts would be very minor and only comprise impacts to groundcover species.</p>	<ul style="list-style-type: none"> • Parking and storage of materials to be restricted to the existing cleared areas at the picnic area. Materials may be set down at the site near the bridge. • The areas of vegetation to be cleared/modified should be clearly marked (e.g. with stakes and bunting) before clearing in order to prevent inadvertent clearance beyond what is required and has been assessed. Trees to be removed should be clearly marked with flagging tape or spray paint. • Onsite NPWS park induction process and toolbox meetings to ensure workers/contractors are aware of vegetation to be removed and retained.
3. endanger, displace or disturb terrestrial or aquatic fauna, including fauna of conservation significance, or	Yes	Low, adverse	The vegetation communities present within the works footprint provide habitat for a range of threatened species, however, given that minimal vegetation is to be removed, it is not anticipated the activity would endanger, displace or disturb terrestrial or aquatic fauna.	<ul style="list-style-type: none"> • A qualified ecologist or suitably trained NPWS officer will remain available for any call outs during construction to assist with animal welfare management and rescue of any fauna within the impact areas.

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
create a barrier to their movement?			The location of works has been selected to avoid any impacts to large habitat or hollow-bearing trees.	<ul style="list-style-type: none"> 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 enroute to the picnic area and will be limited to a maximum of 40 km/h. The following 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 a qualified ecologist or suitable 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?	No	Low, adverse	The activity involves harm to mangrove pneumatophores and propagules which are protected under the Fisheries Management Act.	<ul style="list-style-type: none"> All works shall be carried out in accordance with the DPIRD permit PN24/405 (DPIRD 2024b, supporting document C).
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 key threatening processes. For example, the introduction and establishment of weeds or the introduction of diseases and pathogens.</p> <p>Removal of native vegetation is required to carry out the activity.</p>	<ul style="list-style-type: none"> Basic hygiene protocols as per the <i>Hygiene guidelines: protocols to protect priority biodiversity areas in NSW from Phytophthora cinnamomi, myrtle rust, amphibian chytrid fungus and invasive plants</i> (DPIE 2020b) would be implemented to reduce the risk of spreading weeds, diseases and pathogens:

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
			Human-induced activities as a result of energy use will occur, however, would not be sufficient to significantly contribute to anthropogenic climate change.	<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 ○ remove seeds from clothing, footwear, tools and equipment by hand; and where possible, have a co-worker double-check that all seeds are removed ○ where practicable, ensure hands, 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 from vehicles and machinery ○ remove all soil, plant material and other debris from vehicle interior ○ where practicable, allow vehicle or machinery to dry before proceeding. ● The clearing extent shall be clearly marked onsite 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; ensure machinery is in good, serviced condition to reduce emissions.

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
6. introduce weeds, pathogens, pest animals or genetically modified organisms into an area?	Yes	Low, adverse	<p>There is a risk of the introduction or spread of diseases such as phytophthora, myrtle rust and chytrid via contaminated tools, plant, vehicles, shoes and clothing both in construction and operation stages.</p> <p>Weeds are existing throughout the reserve, and there is a risk of introducing weeds through machinery, tools, materials and personal items (clothing, boots etc.).</p> <p>The activity will be confined to the existing infrastructure footprints and would not significantly contribute to improving access for pest animals.</p>	<ul style="list-style-type: none"> • Use electric equipment instead of diesel/petrol equipment where practicable. • Basic hygiene protocols (as listed above) to be implemented to reduce the risk of spreading weeds, diseases and pathogens. • Disturbed areas shall be monitored for weeds post-construction and treated as necessary to ensure weed establishment does not occur. • All materials delivered to site are to arrive clean. • All machinery, equipment and tools are to be thoroughly inspected for the presence of weeds prior to works commencing or relocation to a new works area. • Weed and seed/biosecurity checklists are to be undertaken and documented by NPWS. • Invasive plants listed under the Biosecurity Act are to be appropriately treated and collected prior to clearing and disposed of at a licensed landfill facility.

9.3 Community impacts

Table 17 Community impacts

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
1. affect community services or infrastructure?	Yes	Positive	<p>The walking track is typically open to the public, however, it has been closed for safety reasons since the collapse of the footbridge.</p> <p>Upon completion, the new footbridge will significantly improve safety and access on the Dawson River walking track.</p>	<ul style="list-style-type: none"> Notification of the works and trail closures is to be placed on the NPWS website informing the public of the nature and duration of the works and that alternative routes should be considered. During construction, there will be clear delineation between construction zones and areas of public access. During construction, appropriate signage will be displayed and the area will be closed off to the public.
2. affect sites important to the local or broader community for their recreational or other values or access to these sites?	Yes	Positive	<p>The walking track is typically open to the public, however, it has been closed for safety reasons since the collapse of the footbridge.</p> <p>Upon completion, the new footbridge will significantly improve safety and access on the Dawson River walking track.</p>	<ul style="list-style-type: none"> Notification of the works is to be placed on the NPWS website informing the public of the nature and duration of the works. During construction, there will be clear delineation between construction zones and areas of public access. During construction, appropriate signage will be displayed and the area will be closed off to the public.
3. affect economic factors, including employment, industry and property value?	Yes	Low, positive	<p>The activity would have a small but positive impact on the local economy through the employment of local staff/contractors undertaking the works.</p>	None required
4. have an impact on the safety of the community?	Yes	Low, adverse	<p>There is the potential for personal injury during construction (e.g. from construction-related activities).</p>	<ul style="list-style-type: none"> Regard to public safety will always be maintained; and public access to the construction site will be restricted.

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
		Positive	<p>Safety risks to the community are considered to be low and no public access would be permitted to the work site during construction.</p> <p>Upon completion, the new footbridge will significantly improve the safety of all users by removing a high-risk area.</p>	<ul style="list-style-type: none"> The contractor will be responsible for the preparation and implementation of any SafeWork method statements in accordance with the <i>Work Health and Safety Act 2011</i>. Visitor safety risks associated with the operation of the upgrades will be assessed and managed through NPWS's risk management system. Relevant stakeholders, neighbours and nearby landholders shall be notified of the activity and associated construction traffic prior to works commencing.
5. cause a bushfire risk?	Yes	Low, adverse	<p>The activity will occur within vegetation classified as category 1 under the NSW Rural Fire Service <i>Guide for bush fire prone land mapping</i> (RFS 2015). Vegetation category 1 is considered to be the highest risk for bushfire and has the highest combustibility and likelihood of forming fully developed fire including heavy ember production.</p> <p>There will be limited ignition risks and works would occur primarily within and adjacent to watercourse environments.</p>	<ul style="list-style-type: none"> Machinery use is to be limited during periods of extreme and higher fire danger ratings.
6. affect the visual or scenic landscape?	Yes	Negligible, adverse	<p>The activity is situated within disturbed areas which have altered the original landscape. During construction, there will be temporary impacts to visual amenity by way of additional construction vehicles and staff, however, impacts will be temporary and short term.</p> <p>Any vegetation removed would permanently alter the visual amenity of the activity site, however, this is not anticipated to be significant.</p>	<ul style="list-style-type: none"> Vegetation removal is to be kept at the minimum necessary to complete works. The construction site shall be kept clean and tidy, and site clean-up shall occur daily. Ensure post-construction vegetation rehabilitation works are completed.

9.4 Natural resource impacts

Table 18 Natural resource impacts

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
1. result in the degradation of the park or any other area reserved for conservation purposes?	No	Not applicable	Not applicable	Not applicable
2. affect the use of, or the community's ability to use, natural resources?	Yes	Positive	The walking track is typically open to the public, however, it has been closed for safety reasons since the collapse of the footbridge. Upon completion, the new footbridge will facilitate improved access for the community to use natural resources.	None required
3. involve the use, wastage, destruction or depletion of natural resources including water, fuels, timber or extractive materials?	Yes	Negligible, adverse	Small amounts of extractive materials will be used within materials selected for the activity. Minimal natural resources (fossil fuels) will be used to power machinery used during construction and ongoing maintenance of the assets.	<ul style="list-style-type: none"> The activity has been designed to avoid vegetation clearing as much as practicable. If imported gravel/rock is required, it shall be sourced from a certified supplier. Material use will be minimised as much as practicable. Machinery and vehicles are to be serviced regularly to prevent unnecessary use of resources. Machinery use is to be limited where practicable. Use electric equipment instead of diesel/petrol equipment where practicable.
4. provide for the sustainable and efficient use of water and energy?	Yes	Low, adverse	The amount of water and energy used to undertake the activity would be minimal, however, vehicles and machinery will be used	<ul style="list-style-type: none"> Contractors and materials are to be sourced locally where practicable to reduce the use of energy.

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
			which require the use of water and fossil fuels to generate energy.	<ul style="list-style-type: none"> • Minimise the use of machinery and plant where practicable; turn off machinery when not in use and reduce throttle speed of machines; ensure machinery is 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.

9.5 Aboriginal cultural heritage impacts

Table 19 Aboriginal cultural heritage impacts

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
1. disturb the ground surface or any vegetation likely to contain culturally modified trees?	Yes	Low, adverse	Minor excavation, ground surface disturbance and minimal vegetation removal are required to facilitate construction works. The majority of the works will be undertaken in areas which have been previously disturbed by the construction of the original footbridge.	<ul style="list-style-type: none"> • Works would proceed with caution, and if any Aboriginal objects or human remains are located during the proposed works the <i>Due diligence code of practice for the protection of Aboriginal objects in New South Wales</i> (DECCW 2010) would be followed. • Should unanticipated Aboriginal archaeological material be encountered during site works, all work must cease in the vicinity of the find and an archaeologist or suitably qualified NPWS officer contacted to assess 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. • 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

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
				<ul style="list-style-type: none"> do not recommence any work at that location unless authorised in writing by Heritage NSW.
2. affect or occur near known Aboriginal objects, Aboriginal places or an Aboriginal cultural asset of intergenerational significance? If so, can impacts be avoided? How?	No	Not applicable	A search of AHIMS did not identify any recorded Aboriginal objects or Aboriginal places within Brimbin Nature Reserve.	As above
3. affect areas: 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? If so, can impacts be avoided? How?	Yes	Low, adverse	<p>The activity involves works within waterways which is a landscape feature indicative of the presence of Aboriginal objects. The reserve is also known to be traditionally used by the local Biripi People.</p> <p>The activity is situated within an area which contains existing infrastructure which has disturbed the ground surface previously, however, the potential for undiscovered items to be uncovered does exist. Following the mitigation measures should ensure that any potential impacts are negated.</p>	As above
4. affect wild resources which are used or valued by the Aboriginal	Yes	Positive	The activity will improve the safety and condition of the footbridge which will improve long-term access to any potential wild	None required

Review of environmental factors: Brimbin Nature Reserve footbridge

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
community or affect access to these resources?			resources valued by the Aboriginal community.	
5. affect access to culturally important locations?	Yes	Positive	The activity will improve the safety and condition of the footbridge which will improve long-term access to any potential culturally important locations.	None required

9.6 Other cultural heritage impacts

Table 20 Other cultural heritage impacts

Is the proposed activity likely to...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
1. affect or occur near places, buildings or landscapes of heritage significance?	No	Not applicable	<p>Searches have been undertaken of Australia's National Heritage List, the NSW State Heritage Inventory, Schedule 5 Environmental heritage of the Greater Taree LEP and the HHIMS under s 170 of the Heritage Act.</p> <p>No items of national or state heritage significance occur near the activity site, however, several local and agency (HHIMS) sites have been recorded near the reserve, mostly within or in close proximity to the newly acquired and as yet gazetted addition to Brimbin Nature Reserve.</p>	<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?	No	Not applicable	The activity would not impact on relics or moveable heritage items, or an area with a high likelihood of containing relics.	Not applicable
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 activity would not impact on vegetation of cultural landscape value.	Not applicable

9.7 Impacts on matters of national environmental significance

Table 21 Impacts on matters of national environmental significance

Is the proposal likely to affect MNES, including:	Applies?	Likely impact	Reasons	Safeguards/mitigation measures
1. listed threatened species or ecological communities)?	Yes	Low, adverse	The activity 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 and other processes would remain as current.	As detailed in Section 9.2
2. listed migratory species?	Yes	Negligible, adverse	The activity would see very minor impact on the potential habitat of such species. Breeding, foraging, dispersal and other processes would remain as current; and no barrier to movement, entanglement or strike risk would be created.	As detailed in Section 9.2
3. the ecology of Ramsar wetlands?	No	Not applicable	The proposal would not impact on the ecology of Ramsar wetlands as none are located close to the works area.	Not applicable
4. world heritage values of World Heritage properties?	No	Not applicable	The activity will not impact on the values of any World Heritage properties as none are recorded within the area.	Not applicable
5. the national heritage values of national heritage places?	No	Not applicable	The activity will not impact the values of national heritage places as none are recorded within the area.	Not applicable

9.8 Cumulative impacts

Table 22 Cumulative impacts

When considered with other projects, is the proposed activity likely to affect...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
1. natural landscape or biodiversity values through cumulative impacts?	Yes	Low, adverse	Vegetation removed to carry out the activity has the potential to cumulatively impact biodiversity values including a reduction of available habitat. There will be an increase in human-induced activities throughout the reserve during construction, which has the potential to temporarily displace fauna.	<ul style="list-style-type: none"> All works must be coordinated to minimise impacts to natural landscape or biodiversity values. Coordinate delivery of resources to limit vehicle and machinery movements to and from the site as far as practicable.
2. cultural (Aboriginal, shared and historic heritage) values through cumulative impacts?	No	Not applicable	The activity is unlikely to contribute to cumulative impacts to cultural (Aboriginal, shared and historic heritage) values.	Not applicable
3. social (amenity, recreation, education) values through cumulative impacts?	Yes	Negligible, adverse	Upon completion, maintenance of the new footbridge will be incorporated into the NPWS maintenance schedule. General maintenance activities including clearing and soil disturbance, additional vehicle movements and noise-generating activities will 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.	<ul style="list-style-type: none"> All works must be coordinated to minimise impacts to social values.
		Positive	The walking track is typically open to the public, however, it has been closed for safety reasons since the collapse of the footbridge.	

Review of environmental factors: Brimbin Nature Reserve footbridge

When considered with other projects, is the proposed activity likely to affect...	Applies?	Impact level	Reasons	Safeguards/mitigation measures
4. the community through cumulative impacts on any other part of environment (e.g. due to traffic, or waste generation)?	Yes	Low, adverse	<p>Upon completion, the new footbridge will reinstate and significantly improve safety and access on the Dawson River walking track.</p> <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 will be via the Old Port Macquarie Road and resources will be delivered on an as-needs basis.</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.

10. Proposals needing more information

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

No lease or licensing requirements are attached to the footbridge replacement in Brimbin Nature Reserve project. Any and all future commercial business or ecotourism proposals would be addressed separately in accordance with NPWS park policy.

10.2 Telecommunications facilities

The footbridge replacement in Brimbin Nature Reserve project has no telecommunication facility component so assessment under s 153D of the National Parks and Wildlife Act is not required.

10.3 Activities within regulated catchments

The footbridge replacement in Brimbin Nature Reserve 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 footbridge replacement in Brimbin Nature Reserve project is not located within lands defined as Murray riverine land so further assessment is not required.

11. Summary of impacts and conclusions

Table 23 summarises the consideration of significance of impacts for each environmental factor.

Table 23 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

Review of environmental factors: Brimbin Nature Reserve footbridge

Environmental factor	Consideration	Significance of impact
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 change as described in Sections 9.1, 9.3 and 9.4.	Not significant
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 activity on coastal processes, and impacts on the 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 3.2.3.	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:

1. There **is not** likely to be a significant effect on the environment and an environmental impact statement is not 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 activity.

This has included consideration of impacts on cultural values (including Aboriginal and non-Aboriginal heritage), socioeconomic values (including potential impacts on the community resulting from construction works) and threatened species, populations and ecological

Review of environmental factors: Brimbin Nature Reserve footbridge

communities and their habitats. It has also considered potential impacts to threatened species and matters of national environmental significance (MNES) listed under the Commonwealth Environment Protection and Biodiversity Conservation 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 reserve's 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 and condition of the footbridge on the Dawson River walking track which will improve access and safety for NPWS staff and users of this section of Brimbin Nature Reserve.

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

Reason(s): Tests of significance pursuant to s 7.3 of the Biodiversity Conservation Act, assessments of significance in accordance with the Environment Protection and Biodiversity Conservation Act, and consideration of the requirements of Part 7 of the Fisheries Management Act have been undertaken as part of the ecological assessment (WolfPeak 2024, supporting document A) to determine whether the activity is likely to have a significant effect on threatened species, populations, ecological communities or their habitats. The ecological assessment concluded that the activity is unlikely to result in a significant impact on threatened species, populations, ecological communities or their habitats, therefore, a species impact statement is not required.

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

Reason(s): In accordance with the Environment Protection and Biodiversity Conservation Act significant impact guidelines (CoA 2013), 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 is not required.

4. 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

Table 24 provides details of supporting documentation that accompanies this REF.

Table 24 Documents that accompany the review of environmental factors

Document number	Document title	Author	Date
A	Brimbin Nature Reserve footbridge replacement – ecological assessment	WolfPeak	September 2024
B	AHIMS search results	Heritage NSW	1/08/2024
C	Statutory notification response from DPIRD Fisheries	DPIRD	17/10/2024
D	DPIRD permit to harm marine vegetation PN24/405	DPIRD	17/10/2024

13. Fees for external proponents

Not relevant as the proponent is not external to NPWS.

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 Environmental Planning and Assessment Act, the Environmental Planning and Assessment Regulation and the Guidelines approved under s 170 of the Regulation, and the information it contains is neither false nor misleading.

Name (printed)	Grant Bennett
Position	Environmental Consultant
Date	11/12/2024

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.

Name (printed)	Michael Thomas
Position	Senior Project Officer – Insurance
Date	11/12/2024

Seal (if signing under seal):

References

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- DECC (NSW Department of Environment and Climate Change) (2009) *Interim construction noise guideline* [PDF 1.2MB], DECC, Sydney.
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- DPIRD (2024b) *PN24/405 Permit to harm marine vegetation under Part 7 of the Fisheries Management Act 1994*, issued to NPWS on 17 October 2024, REF supporting document C.
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- Environment and Heritage (2024b) *Walking tracks policy*, Environment and Heritage website.
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- Landcom (2004) *'Managing urban stormwater: soils and construction - volume 1'*, NSW Government.
- MidCoast Council (2018) *Manning Valley coastal zone management plan* [PDF 4.8MB], MidCoast Council, Taree, NSW.

Review of environmental factors: Brimbin Nature Reserve footbridge

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