Princes Highway upgrade program - Milton Ulladulla bypass

Application Number: **02628** Commencement Date: **14/10/2024** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Princes Highway upgrade program - Milton Ulladulla bypass

1.1.2 Project industry type *

Transport - Land

1.1.3 Project industry sub-type

Road

1.1.4 Estimated start date *

01/12/2027

1.1.4 Estimated end date *

01/12/2030

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

Transport for NSW (Transport) is proposing a road bypass of Milton and Ulladulla (the project). The project is in the Shoalhaven Local Government Area (LGA), about 200 kilometres south of Sydney and 60 kilometres north of Batemans Bay.

The objectives of the project are to:

- Improve network safety for all transport modes and customers.
- Improve transport network efficiency and connectivity to support regional economic development, tourism and freight.
- Improve transport network resilience.
- Enhance the amenity and liveability of Milton, Ulladulla and connected communities.
- Allow the separation of local and through trips and reduce heavy vehicle movements within the Milton and Ulladulla town centres.

Additionally, the project aims to respect both the local community and the environment in the project area.

The project largely follows the existing Shoalhaven Local Environment Plan 2014 (Shoalhaven LEP) corridor (which is zoned SP2 Infrastructure), facilitating several potential connections to service the townships of Milton and Ulladulla (refer to Attachment A). The northern extent of the project is at approximately 150.4236041°E 35.2750187°S and the southern extent is at approximately 150.4518332°E 35.3855658°S. The project is about 13 kilometres long.

Key features of the project include:

- A road network bypassing Milton and Ulladulla town centres
- A northern connection to the existing Princes Highway near Little Forest Road, Little Forest
- A central connection linking to the existing Princes Highway via an extension of Bishop Drive, Ulladulla
- A southern connection to the existing Princes Highway near Canberra Crescent, Ulladulla.

The project is subject to assessment by the NSW Department of Planning, Housing and Infrastructure (DPHI) via an Environmental Impact Statement (EIS) for State Significant Infrastructure under Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The indicative project and disturbance area is 326 hectares of which about 146 hectares is native vegetation and about 1.5 hectares is *Environment Protection and Biodiversity Conservation Act 1999 (*EPBC Act) listed threatened ecological community (applying a 15 metre buffer to mapped vegetation). The project will be subject to further design development during the preparation of the EIS to avoid and minimise impacts on native vegetation, and an avoidance area and retention area may be identified at that time. The project area, disturbance footprint and area of native vegetation impact is expected to be reduced significantly during further design development. A separate area (about 13,750 square metres) within the industrial area on Blackburn Road at Ulladulla has been identified as a potential compound / stockpile location. This land is cleared.

Transport does not consider the proposed action to be part of a larger action for the purposes of section 74A of the EPBC Act. The proposed action is not part of a staged development or related to any other current referrals in the region. While the project forms part of the Princes Highway upgrade program (PHup), each project in the PHup is a discrete standalone project, with their own funding, schedule and project objectives. Other projects under the PHup have been or would be subject to separate environmental assessment for each project. The proposed action specifically relates to the bypass of Milton and Ulladulla, which is a standalone project with individual funding, project specific objectives and anticipated benefits.

Completed or in construction projects along this section (Nowra to Victorian Border) of the Princes Highway include: (refer also to Attachment B):

- Batemans Bay Bridge replacement (opened mid-2022, referral not required).
- Termeil Creek upgrade (opened mid-2016, referral not required).
- Burrill Lake Bridge replacement (opened March 2018, referral not required).
- Nowra Bridge (opened late 2023, minor works continuing, referral not required).
- Jervis Bay Road intersection upgrade (in construction, referral not required) - Part of PHup

Other PHup projects in planning are (refer also to Attachment B):

- Nowra bypass (planning approval pathway yet to be determined)
- Jervis Bay Road to Hawken Road
- Hawken Road to Sussex Inlet Road

There have also been several other Princes Highway improvement projects completed on sections of the Highway to the north of Nowra which are not part of the PHup.

Key construction stage activities associated with the proposed action are detailed in Section 5.3.1 of the Princes Highway Milton Ulladulla bypass - Scoping Report (Att N, Section 5.3.1, pp42) with native vegetation clearing and earthworks being the main sources of potential environmental impacts.

Key operation stage activities associated with the proposed action are detailed in Section 5.3.2 (Att N, pp42) of the Scoping Report with the presence of the road formation, drainage and maintenance activities being the main sources of potential environmental impacts.

Potential construction and operation stage environmental impacts (including on Commonwealth listed threatened species and communities) are reviewed in Chapter 7 of the Scoping Report (Att N, pp.55, see p65 for Biodiversity).

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

No

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Legislation and planning frameworks

Key Commonwealth and NSW legislation relevant to the project is identified below.

Environment Protection and Biodiversity Conservation Act 1999

Under the EPBC Act a referral is required to the Australian Government for proposed actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land (i.e. the purpose of this referral).

Based on the assessment of the project's impact on matters of national environmental significance, particularly in relation to nationally listed threatened species and ecological communities, Transport is referring the proposed action to determine whether the proposal constitutes a controlled action. If the proposal is determined to be a controlled action, the approval of the Australian Government Minister for the Environment will be required. Should the project be determined to be a controlled action this will

also trigger a process to confirm whether it will be subject to the provisions of the bilaterial agreement between the Commonwealth and NSW relating to environmental assessment (amending agreement No.1, March 2020).

Native Title Act 1993

The Native Title Tribunal Native Title Vision website identifies one Native Title claim (NC2017/003) for the project location, lodged by the South Coast People and registered with the National Native Title Tribunal on 31 January 2018. The claim extends along the NSW South Coast from southern Sydney to Eden and is applicable to Crown land within this area.

Transport would provide a notice of the proposal to NTSCORP under section 24KA of the Act and would invite comment on the project.

Environmental Planning and Assessment Act 1979

Transport, as the Proponent, is seeking to have the project declared to be State Significant Infrastructure (SSI) as specified development on specified land under Division 5.2 (section 5.12(4)) of the EP&A Act.

Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) provides legal protection for biota of conservation significance in NSW. Section 7.3 of the BC Act requires a determination of whether an activity subject to Part 5 of the EP&A Act is likely have a significant impact on threatened species or ecological communities. The test for significant impact is described in section 7.3 of the BC Act. A significant impact also occurs if the activity is carried out in an area of outstanding biodiversity value pursuant to section 7.2 of the BC Act.

Under section 7.9 of the BC Act a biodiversity development assessment report is required to accompany an application for approval under Division 5.2 of the EP&A Act to carry out State significant infrastructure.

Fisheries Management Act 1994

Marine vegetation (including seagrass, macroalgae, mangroves and saltmarsh), whether alive or dead, are protected under the Fisheries Management Act 1994 (FM Act).

While approvals for dredging/reclamation, harming marine vegetation and blocking fish passage are not required for SSI, potential impacts in relation to these aspects will need to be addressed in the EIS.

National Parks and Wildlife Act 1974

The harming or desecrating of Aboriginal objects or places is an offence under section 86 of the *National Parks and Wildlife Act 1974* (NPW Act). Under section 90, an Aboriginal Heritage Impact Permit (AHIP) may be issued. An AHIP is not required for SSI, however, potential impacts to Aboriginal cultural heritage as a result of the project will need to be addressed in the EIS in accordance with assessment requirements.

State Environmental Planning Policy (Planning Systems) 2021

Transport is seeking a State significant infrastructure declaration for the project. As part of the declaration, Schedule 4 of State Environmental Planning Policy (Planning Systems) 2021 (SEPP (Planning Systems)) would be amended to include the project.

Shoalhaven Local Environment Plan 2014

The project largely follows the existing Shoalhaven LEP corridor (which is zoned SP2 Infrastructure). As the project is SSI, the NSW Minister for Planning and Public Spaces is the approval authority and consent is not required from Shoalhaven Council.

Policy documents

The proposed action is also relevant to Commonwealth and State policies, as outlined below.

Princes Highway Corridor Strategy

The Princes Highway Corridor Strategy (Department of Infrastructure, Transport, Cities and Regional Development, 2019, Att O, pp.1) provides a whole of corridor perspective of the current and future role of the Princes Highway as a transport route.

The Princes Highway Corridor Strategy specifically identifies a full Princes Highway bypass of Milton and Ulladulla as a long-term priority. The need to improve road safety and better balance the demand of local and through traffic with urban amenity in high pedestrian and vehicle conflict areas were identified as supporting the need for a bypass.

Princes Highway upgrade Roadmap 2040

Transport's strategic roadmap for the Princes Highway upgrade (Transport, 2020 (Princes Highway upgrade Roadmap 2040, Att P, pp7)) provides a plan for the highway over the next 20 years and identifies what needs to be done in the short, medium and long term to deliver the vision for the Princes Highway as a safe, reliable, efficient and connected network.

The project is one of five priority projects set out under the Roadmap to upgrade the Princes Highway in order to unlock economic, employment and social opportunities for the NSW southern region and to interconnect regional centres and essential services.

Staying Ahead: State Infrastructure Strategy 2022-2042

The Staying Ahead: State Infrastructure Strategy 2022-2042 (Infrastructure NSW, 2022, Att Q, pp15) provides a review of infrastructure investment for the previous 10 years and builds upon this with a 20-year strategy that aims to improve NSW's economic prosperity and global competitiveness while meeting the challenges of population growth and remaining a great place to live and work. The project contributes to achieving the goals for transport by:

- Connecting road passenger transport within and between regional centres and metropolitan areas
- Supporting corridor-wide improvement programs to overcome safety and reliability issues that impact freight and supply chains which are needed to support regional growth and liveability.

Future Transport Strategy

The Future Transport Strategy (Transport, 2022 (Future Transport Strategy: Our vision for transport in NSW, Att R, pp3) guide long-term land use, transport planning, and the design, delivery and management of transport infrastructure.

The proposal contributes to achieving several of the key objectives including:

- Supporting the transport network that connects regional cities (Wollongong) to outlying towns and centres (including Nowra, Vincentia, Ulladulla and Batemans Bay)
- Adopting a Safe Systems approach to ultimately eliminate risk and trauma
- Applying the Movement and Place Framework to inform outcomes for all streets and roads.

Regional NSW Services and Infrastructure Plan

The Regional NSW Services and Infrastructure Plan (Transport, 2018, Section 4, Att S, pp121) builds on the NSW Future Transport Strategy 2056 and identifies initiatives required in the short, medium and long term to meet customer needs now and into the future.

Connecting to the future – 10 year blueprint

Connecting to the future – Our 10 Year Blueprint (Transport for NSW, 2018, Att T, pp25)) lays out Transport's desired outcomes, ambitions and strategic priorities over a 10-year period.

The proposal contributes to achieving several of the key outcomes including:

- Safe, seamless journeys for people and goods.
- Transport investments and solutions that service the people of NSW.
- Quality assets and efficient networks managed at the right price.

Tourism and Transport Plan 2018

The NSW Tourism and Transport Plan (NSW Government, 2018, Att U, Chapter 3, pp54) is a key supporting plan to the Future Transport Strategy. The plan provides a framework of customer outcomes and initiatives that are designed to harness emerging technology and service models as well as visitor trends.

2026 Road Safety Action Plan

The 2026 Road Safety Action Plan (NSW Government, 2023, Att V, Foreword, pp2) outlines how Transport for NSW will work towards the target of halving fatalities and reducing serious injuries by 30 percent by 2030. The bypass would simultaneously improve road safety in the area for a diverse group of users including heavy vehicles, local traffic and vulnerable road users (such as pedestrians and cyclists), all of which are key targets of the plan.

Illawarra Shoalhaven Regional Transport Plan 2041

The project is consistent with the plan by supporting the integration of transport and land use planning to maximise the benefits of investments in the region, thereby supporting the NSW Government's approach to creating a connected, sustainable, innovative and vibrant region. The Princes Highway plays an important role in achieving this goal by connecting regional towns to larger centres like Nowra, Ulladulla and Sydney.

The Regional Plan (Att W, Section 4, pp63) specifically identifies a future bypass as a key component in enhancing the liveability of Milton and Ulladulla as the second largest centre in the Shoalhaven.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

Recent engagement and communication in relation to the project have included:

- Door knocking properties and businesses
- Subsequent follow ups via phone calls and face to face meetings
- Webpage containing project information and answers to frequently asked questions
- Project notifications to all households in the southern Shoalhaven at key intervals, including community updates, project notification postcards and frequently asked questions
- An online survey and phone surveys
- Project 1800 phone number and email address for the community to contact members of the project team

- Meetings and briefings with community groups, individuals and key stakeholders
- Media releases
- Print and digital advertising
- Hosting community information sessions.

Shoalhaven LEP corridor consultation

Transport sought community feedback on the on the identified corridor for the Milton Ulladulla bypass shown in the Shoalhaven LEP between 16 March and 13 April 2020. Transport also asked for feedback on current experiences travelling to and along the Princes Highway in Milton and Ulladulla. Community engagement activities during this period included:

- Distribution of a postcard with consultation information to over 7000 properties within the project study area
- A dedicated project webpage containing a project overview, map and frequently asked questions
- An online interactive map allowing users to submit feedback directly onto a map of the project area
- A project phone number and email address to contact members of the project team and provide feedback
- Advertising of consultation period in local newspapers, online and via social media
- An online Facebook Live information session that was viewed live by 126 participants.

Submissions were received from individuals, community groups and government representatives, who provided feedback through emails, phone calls and comments on the online consultation map.

A community consultation summary was released explaining how their feedback was considered in identifying the strategic option. Responses to community feedback on the identified corridor can be found in Milton Ulladulla bypass Community Consultation Report available at Attachment C.

Preferred strategic option assessment consultation

Transport invited community and stakeholder feedback on the preferred strategic option between Wednesday 25 November 2020 and Sunday 14 February 2021. Consultation on the preferred option assessment included:

- Door knocking properties and businesses immediately following the announcement
- Subsequent follow up with property owners via phone calls and individual face-to-face meetings
- A dedicated project webpage containing project information and frequently asked questions was published
- Distribution of a project notification to all households in the southern Shoalhaven Council area
- An online survey including questions to help inform the project's development. The survey also allowed for free text comments and feedback to be submitted
- A project 1800 number and email address for the community to contact
- A Facebook Live Q&A session
- Meetings and briefings with community groups and key stakeholders.

Several strategic bypass options were developed for the Milton Ulladulla bypass. The options were evaluated and, on balance, an alignment broadly following the existing corridor in the Shoalhaven LEP was found to best achieve the objectives of the project and the Princes Highway upgrade program and was announced in June 2021.

A community consultation summary has been released to the community, explaining how their feedback on the preferred strategic option was considered in further developing the project. Responses to community feedback on the strategic options can be found in the Milton Ulladulla bypass Consultation Summary Report – Preferred Strategic Corridor Option Report available at Attachment D.

Burrill Lake Co-Design process

Nominations to participate in the Burrill Lake Co-Design process for community representatives and stakeholder representatives, were advertised and promoted in the local community between 18 June 2021 and 11 July 2021 through a range of channels, including media release, project website, email to stakeholders, social media, community noticeboards, newspaper advertising and direct phone calls to stakeholder groups.

Transport established a Co-Design Committee to engage with community and stakeholder representatives, to identify a preferred option for a future upgrade of the Princes Highway at Burrill Lake. The first Co-Design meeting was held on 31 August 2021 and six meetings were held in total, ending on 23 November 2021.

The Burrill Lake Co-Design Committee: consultation process and outcomes report were released in September 2022 and is provided at Attachment E.

Aboriginal community consultation

Aboriginal community consultation undertaken by Transport for the Milton Ulladulla bypass follows Transport's Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI) (RMS, 2011, Att X, Section 5, pp 16).

In response to targeted letters and public notice, a total of 78 Aboriginal groups and individuals registered their interest in the project. An in-person session for Aboriginal community consultation was held on 29 May 2021 at the Dunn Lewis Centre in Ulladulla. Invitations were sent to all registered Aboriginal parties (RAPs).

Transport presented an overview of the project and results of the archaeological survey (PACHCI Stage 2), the test excavation methodology, an overview of the cultural values of a broader study area for PHup, as well as mapping for the project specifically. Four RAPs attended and were invited to discuss the significant cultural values within the Milton Ulladulla bypass.

All RAP groups were notified of the commencement date for test excavations. Sixteen RAP groups expressed interest in participating in the test excavation program.

In addition, six interviews were held with Aboriginal knowledge holders to understand the cultural values in the region.

Consultation during EIS exhibition and construction

The next phase of planning for the project will involve preparation of an EIS and further refinement of the concept design to reduce biodiversity impacts and other environmental impacts. The EIS will be exhibited for public comment and a Submissions Report would be prepared to address issues raised in the submissions by members of the public, as well as key stakeholder groups and government agencies. The aims of ongoing communications and consultation are to provide the community with:

- Accurate and accessible information about the processes and activities associated with the proposal
- Information in a timely manner
- Appropriate avenues for providing comment or raising concerns, and to ensure they are aware of the avenues
- A high level of responsiveness to their issues and concerns throughout development and delivery of the proposal.

After determination, subject to approval of NSW DPHI, the community would continue to be updated about the progress of construction and provided with notification of any road closures or night works in advance of the works occurring. A Community and Stakeholder Engagement Plan would be developed

and implemented by the construction contractor, to effectively and proactively manage consultation during the construction stage of the proposal.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint. Alternatively, email us at privacy@awe.gov.au.

☑ **Confirm that you have read and understand this Privacy Notice ***

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	18804239602
Organisation name	TRANSPORT FOR NSW

Organisation address	101 Crown Street, Wollongong 2500

Referring party details

Name	Fiona Robinson
Job title	Senior Environment and Sustainability Officer
Phone	1800570568
Email	fiona.robinson@transport.nsw.gov.au
Address	101 Crown Street, Wollongong 2500

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

Yes

Person proposing to take the action organisation details

ABN/ACN	18804239602
Organisation name	TRANSPORT FOR NSW
Organisation address	101 Crown Street, Wollongong 2500

Person proposing to take the action details

Name	Fiona Robinson
Job title	Senior Environment and Sustainability Officer
Phone	1800570568
Email	fiona.robinson@transport.nsw.gov.au

Address	101 Crown Street, Wollongong 2500

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

Transport is a State Government agency that is responsible for the delivery of major projects which require robust environmental management, minimising environmental impacts during the design and delivery stages.

Transport is committed to achieving good environmental outcomes and continual environmental performance improvement through the implementation of Environment and Sustainability Management Systems. Transport's efforts in responsible environmental management are detailed as follows:

- no prosecutions under any environmental statute in the last 10 years.
- the organisation has a detailed guide to environmental planning and assessment.
- a Planning and Environment Compliance Monitoring System is implemented across Transport for NSW's transport infrastructure activities.
- regular environmental inspections of construction work for all projects.
- representatives or independent environmental management representatives for all projects.

Transport has engaged appropriately qualified and experienced specialists to undertake environmental assessments for the proposed action to ensure impacts to the environment are comprehensively considered and impacts avoided or minimised wherever possible.

The Person (Transport representative) proposing to take this action is not subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

Transport is an NSW Government Agency constituted under the *Transport Administration Act 1988*.

Transport's Corporate Framework seeks to minimise impacts on the natural, cultural and built environment from all Transport activities. Transport demonstrates the commitment to meeting this priority in the Transport Environment and Sustainability Policy 2020 (refer to Attachment F) and the environmental considerations incorporated into its activities.

Transport is committed to planning and delivering infrastructure which contributes to economic prosperity and social inclusion in an environmentally responsible and sustainable manner. Transport also has detailed procedures and guidelines for undertaking environmental assessments of its activities, including specific requirements for biodiversity and heritage.

Transport has also implemented a Biodiversity Policy (Attachment G) which includes Transport's commitment to protect and enhance biodiversity and includes the goal of achieving a no net loss of biodiversity as a consequence of its infrastructure development activities.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details

ABN/ACN	18804239602
Organisation name	TRANSPORT FOR NSW
Organisation address	101 Crown Street, Wollongong 2500

Proposed designated proponent details

Name	Fiona Robinson
Job title	Senior Environment and Sustainability Officer
Phone	1800570568
Email	fiona.robinson@transport.nsw.gov.au
Address	101 Crown Street, Wollongong 2500

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	18804239602
Organisation name	TRANSPORT FOR NSW
Organisation address	101 Crown Street, Wollongong 2500
Representative's name	Fiona Robinson
Representative's job title	Senior Environment and Sustainability Officer
Phone	1800570568
Email	fiona.robinson@transport.nsw.gov.au
Address	101 Crown Street, Wollongong 2500

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

Same as Referring party information.

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

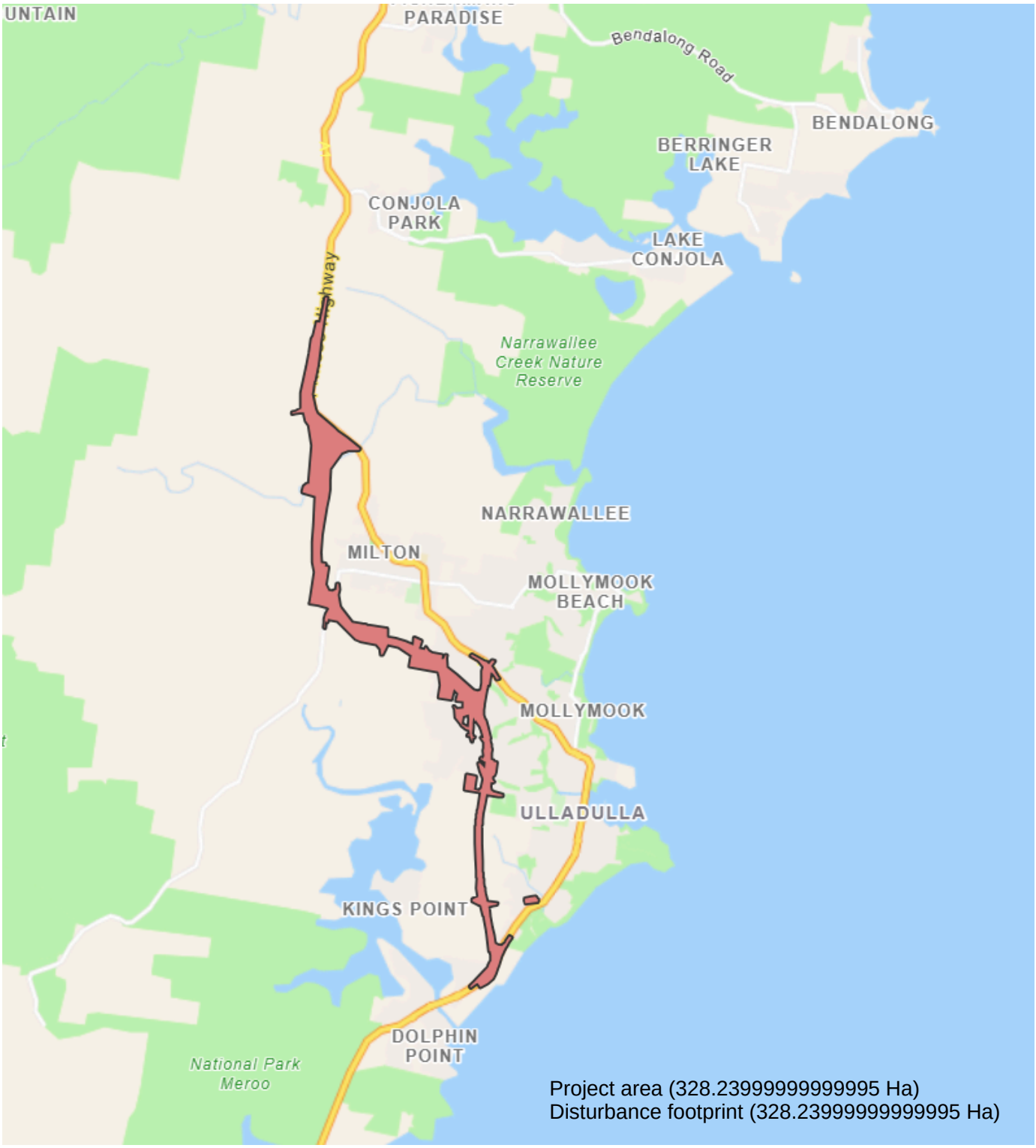
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Referring party

2. Location

2.1 Project footprint



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2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Milton and Ulladulla

2.2.2 Where is the primary jurisdiction of the proposed action? *

New South Wales

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

Tenure of the land within the project corridor consists of freehold, NSW Government, local government and Crown land.

A breakdown of land tenure within the project corridor is provided in Attachment H. The land parcels specified in the attached were collated by intersecting the project corridor with cadastral data provided by NSW Spatial Services. The land tenure provided is indicative and subject to refinement as design progresses.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The northern part of the project area is characterised by pasture lands with isolated rural dwellings. The central part of the project area includes residential uses (low density and large lot types). Further south the project area is characterised primarily by bushland but also includes (or adjoins) land used for

waste disposal / recycling and wastewater treatment. The southern most extent of the project area includes the existing Princes Highway at Burrill Lake with adjacent bushland, residential uses and a holiday park. Watercourses cross the project area at several locations and typically have vegetated riparian corridors. Agricultural and urban uses have seen the removal of native vegetation and modification of the landscape across much of the project area, with levels of disturbance lower in the area south of Green Street, Ulladulla.

The section of the project area to the south of Green Street has been previously affected by bushfire, including in the 2019–20 bushfire event. During that event, a substantial portion of the bushland south of Green Street was affected by high severity fire (where there is a full canopy scorch and partial canopy consumption). Smaller areas adjacent to the project area were affected by extreme fire severity (full canopy consumption) (refer to Attachment I). Observations made during January 2021 vegetation surveys (about a year after the fires) within the area that was subject to a high severity fire noted substantial regrowth, but an open canopy with the midstorey and shrub layer almost entirely scorched (absent). A predominantly grassy understorey with sedges was noted.

3.1.2 Describe any existing or proposed uses for the project area.

The project would involve use of the land for the purpose of providing a road and road related infrastructure, which is consistent with the ‘SP2 Infrastructure’ land use zoning under the Shoalhaven LEP and therefore the envisaged land use for the land within the project corridor.

Existing land uses have been described in Section 3.1.1. Land use zoning is a good indicator of intended future use. The project generally follows the alignment of the ‘SP2 Infrastructure’ corridor as set out in the Shoalhaven LEP. Other land use zones encroached by project area (and which typically reflect current land use patterns) are (refer to Attachment J):

- RU1 Primary Production
- C2 Environmental Conservation
- C3 Environmental Management
- R1 General Residential
- R5 Large Lot Residential
- RE1 Public Recreation

The northern portion of the project corridor is largely cleared of vegetation and is zoned ‘RU1 Primary Production’ either side of the project corridor. To the northwest of Milton, there is an area of land to the south of Croobyar Creek zoned ‘C3 Environmental Management’ that is currently used for agricultural purposes.

The northern section of the project corridor, near the connection to the existing Princes Highway is flanked either side by land zoned ‘RU2 Rural Landscape’. The future intersection with the existing Princes Highway is bounded (generally in a clockwise direction) by land zoned ‘SP2 Infrastructure’ (Road), ‘R2 Low Density Residential’, ‘RE1 Public Recreation’, ‘R1 General Residential’, ‘RU2 Rural Landscape’ and ‘C3 Environmental Management’.

The project corridor then passes residential zones ‘R1 General Residential’, ‘R2 Low Density Residential’ and ‘R5 Large Lot Residential’, followed by ‘SP2 Infrastructure' (Waste or Resource Management Facility) on the western boundary.

Following the project corridor south, either side abuts land zoned ‘C2 Environmental Conservation’, except for the intersection with Kings Point Road, which is zoned ‘SP2 Infrastructure’ (Road), the northwest corner of which contains ‘SP2 Infrastructure’ (Sewage Treatment Plant) and the southeast corner is zoned ‘C3 Environmental Management’.

Planning proposals for land use change under the Shoalhaven LEP within the locality of Milton and Ulladulla, were investigated by a search (conducted 3 March 2024) of the NSW Planning Portal (Planning Proposals | Planning Portal - Department of Planning and Environment, Link 3) and Shoalhaven City Council website (Planning Proposals | Shoalhaven City Council, Link 3). There are multiple planning proposals relating to a block of land in Ulladulla bounded by St Vincent Street, Deering Street, South Street and Princes Highway in relation to building height and rezoning. These planning proposals are indicative of a potential future shift in land use in Ulladulla's southern urban limits from 'E3 Productivity Support' and 'E4 General Industrial' to mixed use and commercial land uses (including one proposal with an associated development concept for 250 apartments, commercial uses and a childcare centre). Both existing and possible future land uses would be supported by the project. There are no Urban Release Areas near the project corridor.

Land either side of the southern part of the project corridor (between Green Street and Canberra Crescent) is owned by the Ulladulla Local Aboriginal Land Council. The project area does not impact this land.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

Section 7.8 of the Shoalhaven LEP sets out scenic protection areas, which are described as natural environment and scenic amenity of land that is of high scenic value. Mapped scenic protection areas are located in scenic rural and semi-rural landscapes along the eastern edge of the project corridor, between the project corridor and the eastern and southern urban limits of Milton, and to along the western edge of the middle section of the project corridor. Mapped scenic protection areas overlap with land zoned 'C2 Environmental Conservation', 'RU1 Primary Production', 'RU2 Rural Landscape' and 'R5 Large Lot Residential'.

The southern portion of the project corridor travels through a densely forested area between Burrill Lake to the west and Ulladulla to the east. This area is mapped as part of the Milton Ulladulla regional biodiversity corridor and is part of the "High Environmental Value" mapped by and referred to in the Illawarra Shoalhaven Regional Plan. High Environmental Value land includes areas with sensitive biodiversity, native vegetation of high conservation value, areas of key habitat for threatened species, important wetlands, coastal lakes and estuaries or areas of geological significance.

Burrill Lake, to the west of the project corridor is a place of natural beauty, largely surrounded by native woodland. Aboriginal cultural research undertaken on behalf of Transport indicates that Burrill Lake holds cultural significance for Aboriginal people. Croobyar Creek and Pettys Creek also have cultural significance noting that there are several Aboriginal sites associated with these watercourses and that they have been identified as important by Registered Aboriginal Parties (RAPs). Aboriginal cultural heritage is discussed further in Section 3.3.2.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

Gradient

The topography varies along the project corridor. Milton is on a ridgeline and overlooks the northern portion of the corridor, it is characterised by undulating hills and depressions where waterways are present, the most notable being Croobyar Creek.

South of Green Street the alignment generally follows the ridgeline and gently descends as it approaches the coast, where the suburban and forested areas at Ulladulla and Burrill Lake are relatively flat.

Elevation

At the northern end, the corridor crosses undulating terrain and low rolling hills with elevations between 10 and 85 metres above mean sea level. The corridor crosses Croobyar Creek about 2.5 kilometres north of Milton, where the corridor is at its lowest elevation, between 10 and 15 metres above mean sea level. The next kilometre of topography rises to approximately 75 metres above sea level as the corridor exits the floodplain of Croobyar Creek.

For about five kilometres, as it travels outside the town of Milton, the corridor declines to about 25 metres above mean sea level where it crosses Pettys Creek. Pettys Creek is a tributary of Stony Creek, which flows into Burrill Lake.

Following Pettys Creek, the corridor increases to 70 metres above mean sea level over the next kilometre.

To the west of Ulladulla, the corridor reaches elevations between about 60 and 85 metres above mean sea level for the next five kilometres on the approach to Kings Point Drive. As the corridor re-joins the existing Princes Highway north of Burrill Lake, it drops in elevation to about 30 metres above mean sea level.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

Transport has commissioned a substantial biodiversity survey effort within a study area (approximately 300 metres either side of the strategic corridor) focused on the project corridor, which is summarised in Attachment K, Section 2, pp3. This has included:

- Vegetation mapping over 22 working days between November 2020 and April 2022 (using plot and transect data in line with the Biodiversity Assessment Method (2020)
- Fauna habitat assessments November 2020, early 2021, and early 2022
- Targeted nest tree surveys for Glossy Black-Cockatoo (NSW and Commonwealth listed) and Powerful Owl (NSW listed) were completed between Green Street and Canberra Crescent over four days between 29 June and 2 July 2021.
- Targeted threatened flora surveys have been undertaken for 23 threatened flora species over 91 days between October 2020 and April 2022.
- Threatened fauna surveys between November 2020 and April 2022
- Targeted surveys for Greater Glider in late 2023.
- Additional surveys are currently being undertaken to confirm suitable habitat for several species.

Threatened flora

The following Commonwealth listed threatened flora were recorded in the biodiversity study area during targeted surveys:

- Thick-lipped Spider-orchid (*Caladenia tessellata*) (Endangered).

- Leafless Tongue-orchid (*Cryptostylis hunteriana*) (Vulnerable).
- Bauer's Midge Orchid (*Genoplesium baueri*) (Endangered).
- Scrub Turpentine (*Rhodamnia rubescens*) (Critically Endangered).
- Magenta Lilly Pilly (*Syzygium paniculatum*) (Vulnerable).

Threatened fauna

The following Commonwealth listed threatened fauna were recorded in the biodiversity study area during targeted surveys:

- White-throated Needletail (*Hirundapus Caudacutus*) (Vulnerable).
- Greater Glider (southern and central) (*Petauroides Volans*) (Endangered).
- Koala (*Phascolarctos cinereus*) (Vulnerable) (to be confirmed – refer below).
- Grey-headed Flying-fox (*Pteropus poliocephalus*) (Vulnerable).
- Large-eared Pied Bat (*Chalinolobus dwyeri*) (Vulnerable).
- Gang-gang Cockatoo (*Callocephalon fimbriatum*) (Endangered).
- South-eastern Glossy Black-Cockatoo (*Calyptorhynchus lathami lathami*) (Vulnerable).

In relation to Koala, there was a potential single scat location recording within the biodiversity study area but outside the project corridor (potential Koala scat was detected deep in leaf litter west of the project corridor). No living individuals were identified within the study area during surveys. It is expected further studies will occur.

Migratory species

The following migratory fauna species listed under the EPBC Act were recorded in the study area during targeted surveys

- White-throated Needletail (*Hirundapus Caudacutus*)
- Rufous Fantail (*Rhipidura rufifrons*)
- Black-faced Monarch (*Monarcha melanopsis*)

White-throated Needletail may occur above any part of the study area during November-March each year. This species is likely to preferentially forage over the larger areas of forest present in the study area. Rufous Fantail may forage and breed in any forested habitat in the study area particularly the wet sclerophyll forest and rainforest communities. Black-faced monarch may forage and breed in any area of wet sclerophyll forest or rainforest in the study area.

Additional surveys are currently ongoing for:

- Thick-lipped Spider-orchid (*Caladenia tessellata*) (Endangered).
- Pretty Beard Orchid (*Calochilus pulchellus*) (Endangered)
- Leafless Tongue-orchid (*Cryptostylis hunteriana*) (Vulnerable).
- Bauer's Midge Orchid (*Genoplesium baueri*) (Endangered).
- Scrub Turpentine (*Rhodamnia rubescens*) (Critically Endangered).
- Greater Glider (southern and central) (*Petauroides Volans*) (Endangered).
- Giant Burrowing Frog (*Heleioporus australiacus*) (Vulnerable).

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Vegetation

A total of 20 plant community types consisting of 46 vegetation zones (areas of vegetation categorised by broad condition) were recorded across the study area. Refer to Attachment K, Section 3, pp6.

The following Commonwealth listed threatened ecological communities were identified in the biodiversity study area during vegetation surveys:

- Illawarra and south coast lowland forest and woodland ecological community (Critically Endangered) (patch within the project area immediately north of Croobyar Creek)
- Illawarra-Shoalhaven subtropical rainforest of the Sydney Basin bioregion (Critically Endangered) (patch outside the project area, but within the northern part of biodiversity study area near Corks Lane)
- Littoral Rainforest and Coastal Vine Thickets of Eastern Australia (Critically Endangered) (patch at the southern extent of the project area and biodiversity study area near Princess Avenue)
- River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria (Critically Endangered) (located along Croobyar Creek in the northern part of the project area and biodiversity study area
- Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community (Endangered) (patch located outside the project area at the southern extent of the biodiversity study area, at 418 Princes Highway, Ulladulla
- Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland (patch located within the project area, south of Kings Point Drive) – associated with plant community type 1231 (Swamp Mahogany swamp sclerophyll forest on coastal lowlands of the Sydney Basin Bioregion and South East Corner Bioregion) within the meaning of the NSW Bio net Vegetation Information System classification database. This community was nominated for EPBC Act listing at the time of survey but has now been listed as Endangered (Date effective 08-Dec-2021).

Geology

The Ulladulla 1:250 000 Geological Map 218 ((Rose, 1966) DIGS Geological Survey of NSW Search, Att Y) indicates that the project area is generally underlain by the following lithologies:

- Milton Monzonite of the Mesozoic period along much of the northern portion of the project corridor, at the northern tie-in and to the east and south of the Milton township
- Alluvium gravel, swamp deposits and sand dunes of the quaternary period where the project corridor crosses Croobyar Creek
- Conglomerate, sandstone, silty sandstone as part of the Conjola Formation of the Shoalhaven Group of the Permian period in the middle portion of the project corridor, including the connection to the Princes Highway at the intersection with Bishop Drive, and at the southern tie-in with Princes Highway
- Gravel, sand, clay, quartzite, sandstone and conglomerate of the Tertiary period along the southern portion of the alignment, to the east and south of the Ulladulla township.

Soils

There are three eSpade soil profile sites within the project area and a number of other soil profile sites adjacent. Key soils data from these sites is summarised below:

- Site 1004425 Profile 57 (located near the northern extent of the project area, between the Princes Highway and Yackungarrah Creek) – Alluvial soil with a slight erosion hazard and no salting evident.
- Survey 1004037 Profile 2 (located about 400 metres south of Little Forest Road and about 600 metres west of the project area) – Solonchak soil group with a slight erosion hazard and no salting evident.
- Survey 1003639 Profile 14 (located adjacent to Croobyar Road, about 200 metres west of the project area) – Alluvial soil with a high erosion hazard and no salting evident.
- Survey 1003639 Profile 4 (located within the project area at Green Street) – Brown podzolic soil with a slight erosion hazard and no salting evident.

- Survey 1003639 Profile 3 (located within the project area at Green Street) – Yellow podzolic soil with a moderate erosion hazard and no salting evident.
- Survey 1003639 Profile 2 (located within the project area at Kissing Point Drive) – Podzolic soil with a high erosion hazard and no salting evident.
- Survey 1003639 Profile 2 (located within the southern extent of the project area adjacent to the Princes Highway) – Podzolic soil with a high erosion hazard and no salting evident.

Hydrogeological landscape mapping from eSpade indicates most of the project area has a low salinity risk. Areas of moderate salinity potential occur along Croobyar Creek and Yackungarrah Creek in the northern part of the project area.

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

The protected matters search (24 May 2024) did not identify any Commonwealth heritage places within or near the project area.

The following heritage items (all local heritage significance) are located within or near the project area:

- "Kendall Dale" - Dairy Farm Complex, including Homestead and Garden (Shoalhaven LEP Item No. 530)
- "Mimosa Farm" Dairy Farm Complex (Shoalhaven LEP, Item No. 249)
- Old Croobyar Farm and tree lined access (Former Dairy Farm Complex) (Shoalhaven LEP, Item No. 181)
- "Pine View" Federation Farmhouse Complex and trees (Shoalhaven LEP, Item No. 313)
- "Claydon Park" Dairy Farm Complex (Shoalhaven LEP, Item No. 267)
- "Applegarth" Dairy Farm Complex, including Garden and Cheese press (Shoalhaven LEP, Item No. 314)
- Post War Pseudo Stone Burrill Lake Community Hall (Shoalhaven LEP, Item No. 150)
- Croobyar Creek Weir No 1-5 (State Agency s170 register).

A detailed assessment of non-Aboriginal heritage has been carried out and will be finalised to inform the EIS.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

The existing environment for Aboriginal cultural heritage values in the context of the proposed action are informed by previous detailed studies undertaken on behalf of Transport. These studies will be finalised to inform the EIS.

Historical context – Aboriginal cultural heritage

Evidence of Aboriginal people occupying the South Coast of NSW dating back over the last 20,000 years. Lampert (1971, Link 1, pp.9) identified the Burrill Lake rock shelter to be one of the oldest known coastal sites. Occupation of the rock shelter occurred when sea levels were up to 100metres lower.

People within the area are known to have travelled along the coast and west to the Monaro tablelands for trade and ceremony.

Through the 1830s and 1840s, European settlement increased in the Shoalhaven region. Many of the roads that were established were generally based on Aboriginal tracks as in other parts of NSW (Goulding Heritage Consulting & Waters, 2005, Link 2, p.28). Aboriginal people were known to help newly arrived Europeans in the early decades of colonial intrusion, feeding early settlers and explorers and providing information on the environment and landscape, and also guided them to good areas for timber cutting and stock grazing (Goulding Heritage Consulting & Waters 2005, Link 2, pp.30–31).

Heritage sites – Aboriginal cultural heritage

An archaeological survey of the study area was undertaken between 19 and 22 January 2021 and was conducted on foot with a field team consisting of archaeologists and Aboriginal Site Officers (ASOs) from Ulladulla Local Aboriginal Land Council and South Coast Aboriginal Elders Corporation. An additional survey was also undertaken on 9 and 10 November 2021.

During the surveys, 14 Aboriginal sites and 23 potential archaeological deposits (PADs) were identified. These consist of three artefact scatters, 10 isolated artefacts, one possible scar tree and 23 PADs. Two cultural sites were also identified, which consisted of a resource gathering zone and an ochre deposit.

Archaeological test excavations were conducted within 18 PADs between 21 June and 27 July, 23 and 24 August, 30 August to 3 September 2021 and 31 January and 4 February 2022.

Aboriginal cultural sites

Aboriginal cultural sites identified as part of a detailed cultural assessment (which included interviews and cultural values mapping workshops) included:

- Resource gathering zones
- Pathways and other routes where Aboriginal people moved across the land.
- Undisturbed bushland
- Freshwater creeks (including Croobyar Creek and Millards Creek).

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

Catchment

The project area is within the Clyde-Jervis Bay catchment.

Most of the rivers and creeks in the Clyde River-Jervis Bay Basin are unregulated, meaning there are no major storages to capture and control flows. Most water users rely on natural flows or small structures, such as weirs for their water supplies. As in most unregulated rivers, flows are mostly affected during relatively dry times, when water is low and demand is high.

Stony Creek (flowing to Burrill Lake) is located to the west, while Millards Creek to the east flows to the coast. Croobyar Creek traverses the northern part of the project area, flowing to Narrawallee Creek and then to the coast to the north of the Narrawallee township. Watercourses are shown on the maps included in Attachment A.

Surface water quality

Water quality monitoring is available for several locations near the project area.

Croobyar Creek

Water quality in this creek is generally healthy in flowing sections, however water quality deteriorates in stagnant water upstream of weirs or in natural pools. This suggests that water quality may be poor within the project area, as it is upstream of a weir and backwater extends past the waterway crossing.

Water treatment plant

The water treatment plant is positioned on a ridgeline to the east of the project area, with flows directed to Croobyar Creek. Water quality is high in this area, likely reflecting its position at the top of the local catchment.

Stony Creek and Burrill Lake

Water quality along Stony Creek (which flows to Burrill Lake) is poor with Phosphorus and Nitrogen levels being very high in the downstream reaches of the creek. As the water mixes with Burrill Lake, overall concentrations decrease.

Water quality in Stony Creek is poor, possibly due to farming activities upstream. This would imply that water quality along Pettys Creek (to the east of the project area and flowing to Stony Creek) is also poor.

Water quality in Burrill Lake is rated as acceptable with lower Phosphorus and Nitrogen levels.

Millards Creek

Most testing locations along Millards Creek and its tributaries show that water quality is poor. This may be due to farming activities or livestock at the upstream areas of the catchment, or from urban activities. Both Phosphorus and Nitrogen levels were found to be unacceptably high in a number of testing locations.

Water quality within the project area is assumed to be poor.

Sewage treatment plant

The sewage treatment plant (STP) is located to the west of the southern part of the project area with flows directed east to Racecourse Creek. Water quality is rated as poor due to high concentrations of Phosphorus and Nitrogen.

As the project area is only a short distance downstream of the STP, the water quality within the project area at this location is assumed to be poor.

Racecourse Creek

Water quality in Racecourse Creek is high. This indicates that despite the poor water quality from the STP upstream, the quality of water coming from other parts of the catchment is good.

Groundwater

The groundwater system is recharged via the infiltration of rainfall and surface runoff. Infiltration is thought to occur primarily through the overlying weathered profile of the hard rock system and has been estimated to be 6% of annual surplus precipitation for the Sydney Basin - South Coast Groundwater Source (DPI 2016). Discharge is likely to primarily occur via evapotranspiration, potential groundwater springs or as surface water baseflow and flow through the aquifer.

There are 35 registered groundwater bores within two kilometres of the project area. Most are listed as household (stock and domestic) use (16 bores), followed by monitoring (6 bores). Registered uses for the remaining bores were listed as recreation (3 bores), water supply (2 bores), livestock water supply (1 bore) and irrigation (1 bore). The registered use(s) of five bores were not known. There are no registered bores within the project area.

The Bureau of Meteorology Groundwater Dependent Ecosystems Atlas (GDE Atlas) indicates there are areas of low, moderate and high potential terrestrial GDE in the groundwater study area. A review of the GDE Atlas categorises GDEs into three classes:

- ecosystems that rely on the surface expression of groundwater – this includes surface water ecosystems which may have a groundwater component, such as rivers, wetlands and springs
- ecosystems that rely on the subsurface presence of groundwater – this includes all vegetation ecosystems
- subterranean ecosystems – this includes cave and aquifer ecosystems.

The GDE Atlas shows twenty-five high-potential GDEs within two kilometres of the project area. Of these 24 were terrestrial GDEs and one was an aquatic GDE. Potential GDEs within the project area are shown in Attachment L.

No high priority GDEs listed in the South Coast Water Sharing Plan were identified within two kilometres of the project area.

Flooding

A review of the Burrill Lake Catchment Flood Study indicates the project area is located outside the 1% Annual Exceedance Probability (AEP) flood extent of the lake.

Verification of the existing flooding regime for the whole of the project area will be carried out as part of the EIS.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes

EPBC Act section	Controlling provision	Impacted	Reviewed
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The project is not near any World Heritage Property and would not impact directly or indirectly on the heritage values of any World Heritage Properties.

The results of the EPBC Act Protected Matters search conducted on 24 May 2024 (project area with one kilometre buffer – refer to Attachment M) did not return any results for World Heritage Properties.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The project is not near any National Heritage and would not impact directly or indirectly on the heritage values of any National Heritage Places.

The results of the EPBC Act Protected Matters search conducted on 24 May 2024 (refer to Attachment M) did not return any results for National Heritage Places.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The project would not impact upon any listed Ramsar Wetland, as impacts would be localised, and the project is not located within 10 kilometres of any listed Ramsar Wetland or Ramsar Wetland catchments.

The results of the EPBC Act Protected Matters search conducted on 24 May 2024 are provided in Attachment M.

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Anthochaera phrygia	Regent Honeyeater
No	No	Ardenna grisea	Sooty Shearwater
No	No	Balaenoptera musculus	Blue Whale
No	No	Botaurus poiciloptilus	Australasian Bittern

Direct impact	Indirect impact	Species	Common name
Yes	Yes	Caladenia tessellata	Thick-lipped Spider-orchid, Daddy Long-legs
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris canutus	Red Knot, Knot
No	No	Calidris ferruginea	Curlew Sandpiper
Yes	Yes	Callocephalon fimbriatum	Gang-gang Cockatoo
No	No	Calochilus pulchellus	Pretty Beard Orchid, Pretty Beard-orchid
Yes	Yes	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Carcharias taurus (east coast population)	Grey Nurse Shark (east coast population)
No	No	Carcharodon carcharias	White Shark, Great White Shark
No	No	Caretta caretta	Loggerhead Turtle
Yes	Yes	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	No	Chelonia mydas	Green Turtle
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
Yes	Yes	Cryptostylis hunteriana	Leafless Tongue-orchid
No	No	Dasyornis brachypterus	Eastern Bristlebird
No	No	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	Dermochelys coriacea	Leatherback Turtle, Leathery Turtle, Luth
No	No	Diomedea antipodensis	Antipodean Albatross
No	No	Diomedea antipodensis gibsoni	Gibson's Albatross
No	No	Diomedea epomophora	Southern Royal Albatross
No	No	Diomedea exulans	Wandering Albatross
No	No	Diomedea sanfordi	Northern Royal Albatross

Direct impact	Indirect impact	Species	Common name
No	No	Epinephelus daemelii	Black Rockcod, Black Cod, Saddled Rockcod
No	No	Eretmochelys imbricata	Hawksbill Turtle
No	No	Eubalaena australis	Southern Right Whale
No	No	Falco hypoleucos	Grey Falcon
No	No	Fregetta grallaria grallaria	White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian)
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes	Yes	Genoplesium baueri	Yellow Gnat-orchid, Bauer's Midge Orchid, Brittle Midge Orchid
No	No	Grantiella picta	Painted Honeyeater
No	No	Heleioporus australiacus	Giant Burrowing Frog
No	No	Hippocampus whitei	White's Seahorse, Crowned Seahorse, Sydney Seahorse
Yes	Yes	Hirundapus caudacutus	White-throated Needletail
No	No	Hoplocephalus bungaroides	Broad-headed Snake
No	No	Isoodon obesulus obesulus	Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern)
No	No	Lathamus discolor	Swift Parrot
No	No	Limosa lapponica baueri	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit
No	No	Litoria aurea	Green and Golden Bell Frog
No	No	Litoria watsoni	Southern Heath Frog, Watson's Tree Frog
No	No	Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel
No	No	Macronectes halli	Northern Giant Petrel
No	No	Melaleuca biconvexa	Biconvex Paperbark

Direct impact	Indirect impact	Species	Common name
No	No	Melanodryas cucullata cucullata	South-eastern Hooded Robin, Hooded Robin (south-eastern)
No	No	Mixophyes balbus	Stuttering Frog, Southern Barred Frog (in Victoria)
No	No	Natator depressus	Flatback Turtle
No	No	Neophema chrysogaster	Orange-bellied Parrot
No	No	Neophema chrysostoma	Blue-winged Parrot
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew
No	No	Pachyptila turtur subantarctica	Fairy Prion (southern)
No	No	Persicaria elatior	Knotweed, Tall Knotweed
Yes	Yes	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
Yes	Yes	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Phoebetria fusca	Sooty Albatross
No	No	Potorous tridactylus trisulcatus	Long-nosed Potoroo (southern mainland)
No	No	Prasophyllum affine	Jervis Bay Leek Orchid, Culburra Leek-orchid, Kinghorn Point Leek-orchid
No	No	Prototroctes maraena	Australian Grayling
No	No	Pseudomys novaehollandiae	New Holland Mouse, Pookila
No	No	Pterodroma leucoptera leucoptera	Gould's Petrel, Australian Gould's Petrel
No	No	Pterodroma neglecta neglecta	Kermadec Petrel (western)
Yes	Yes	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Pterostylis gibbosa	Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood
No	No	Pycnoptilus floccosus	Pilotbird

Direct impact	Indirect impact	Species	Common name
No	No	Rhincodon typus	Whale Shark
No	No	Rhizanthella slateri	Eastern Underground Orchid
Yes	Yes	Rhodamnia rubescens	Scrub Turpentine, Brown Malletwood
No	No	Rostratula australis	Australian Painted Snipe
No	No	Seriolella brama	Blue Warehou
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Sternula nereis nereis	Australian Fairy Tern
Yes	Yes	Syzygium paniculatum	Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry
No	No	Thalassarche bulleri	Buller's Albatross, Pacific Albatross
No	No	Thalassarche bulleri platei	Northern Buller's Albatross, Pacific Albatross
No	No	Thalassarche carteri	Indian Yellow-nosed Albatross
No	No	Thalassarche cauta	Shy Albatross
No	No	Thalassarche eremita	Chatham Albatross
No	No	Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross
No	No	Thalassarche melanophris	Black-browed Albatross
No	No	Thalassarche salvini	Salvin's Albatross
No	No	Thalassarche steadi	White-capped Albatross
No	No	Thesium australe	Austral Toadflax, Toadflax
No	No	Thinornis cucullatus cucullatus	Eastern Hooded Plover, Eastern Hooded Plover

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community
Yes	Yes	Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland
Yes	Yes	Illawarra and south coast lowland forest and woodland ecological community
Yes	Yes	Illawarra-Shoalhaven Subtropical Rainforest of the Sydney Basin Bioregion
Yes	Yes	Littoral Rainforest and Coastal Vine Thickets of Eastern Australia
Yes	Yes	River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

Transport has commissioned a substantial biodiversity survey effort within a study area focused on the project corridor, which is referenced in Section 3.2.1 and summarised in Attachment K. A likelihood of occurrence assessment was carried out for all the threatened species, populations and ecological communities identified from an initial desktop assessment as potentially occurring in the biodiversity study area. The likelihood of occurrence assessment was used to refine the results of the desktop assessment and to inform the requirement for targeted threatened species surveys.

Threatened ecological communities

The following Commonwealth listed threatened ecological communities are potentially affected by the project:

- Illawarra and south coast lowland forest and woodland ecological community (Critically Endangered) – about 0.17 hectares directly affected. There is also the potential for indirect impacts on adjacent areas of this community noting that the project would encroach the 30 metre minimum buffer zone recommended by the approved conservation advice for this community.
- Illawarra-Shoalhaven subtropical rainforest of the Sydney Basin bioregion (Critically Endangered) – less than 0.01 hectares directly affected. Potential for indirect impacts on adjacent areas of this community noting that the project would encroach the 100 metre minimum buffer zone recommended by the approved conservation advice for this community.
- Littoral Rainforest and Coastal Vine Thickets of Eastern Australia (Critically Endangered) – about 0.22 hectares directly affected. There is also the potential for indirect impacts on adjacent areas

of this community noting that the project would encroach the 100 metre minimum buffer zone identified in the recovery plan for this community.
- River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria (Critically Endangered) – about 4.16 hectares directly affected. Potential for indirect impacts on adjacent areas of this community noting that the project would encroach the 60 metre minimum buffer zone identified in the approved conservation advice for this community.
- Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland (Endangered) – about 0.05 hectares directly affected. Potential for indirect impacts on adjacent areas of this community noting that the project would encroach the 100 metre minimum buffer zone identified in the approved conservation advice for this community.

The buffer zones for each community do not form part of the threatened ecological community but aim to identify the area where actions could result in indirect damage.

Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community (Endangered) is not expected to be impacted by the project. This community (or its 30 metre buffer zone as noted in the approved conservation advice) does not encroach the project area.

Threatened flora

The following Commonwealth listed threatened flora are potentially affected by the project:

- Thick-lipped Spider-orchid (*Caladenia tessellata*) (Endangered) (recorded within the project area near Pettys Creek and Slaughterhouse Road, and adjacent to a potential ancillary site location near Blackburn Road).
- Leafless Tongue-orchid (*Cryptostylis hunteriana*) (Vulnerable) (recorded within the southern part of the project area between Green Street and Kings Point Drive, about 500 metres to the north-east of the Ulladulla Wastewater Treatment Plant).
- Bauer's Midge Orchid (*Genoplesium baueri*) (Endangered) (recorded within the southern part of the project area between Green Street and Kings Point Drive, east of the Ulladulla Wastewater Treatment Plant).
- Scrub Turpentine (*Rhodamnia rubescens*) (Critically Endangered) (recorded within project area including a large number of individuals the central portion of the project area between Wilfords Lane and Green Street).
- Magenta Lilly Pilly (*Syzygium paniculatum*) (Vulnerable) (one individual recorded within project area on the edge of the Croobyar Creek riparian zone).

Potential direct impacts on threatened flora are the removal of individual plants during vegetation clearing and road construction works. Potential indirect impacts (during operation) resulting from fragmentation, degradation of the roadside habitat from edge effects and sedimentation may result in the further loss of individuals.

Threatened fauna

The following Commonwealth listed threatened fauna were recorded in the biodiversity study area:

- White-throated Needletail (*Hirundapus caudacutus*) (Vulnerable) – a flock of 70 individuals were recorded within project area near Slaughterhouse Road, with other individual foraging adjacent to the project area within forest between Green Street and Canberra Crescent.
- Greater Glider (southern and central) (*Petauroides volans*) (Endangered) – 19 records within the southern part of the biodiversity study area, south of Green Street, where foraging and breeding habitat is present.
- Koala (*Phascolarctos cinereus*) (Vulnerable) – to be confirmed as there was a single scat record outside the project area. Subject to further study.

- Grey-headed Flying-fox (*Pteropus poliocephalus*) (Vulnerable) – eight records adjacent to Village Drive, at Slaughterhouse Road and Pettys Creek west of Wilfords Lane. No roosts or breeding habitat were identified.
- Large-eared Pied Bat (*Chalinolobus dwyeri*) (Vulnerable) – eight records within the biodiversity study area north of Little Forest Road, along Croobyar Creek, along Pettys Creek, near Winward Way and south of Green Street. No roosts were identified.
- Gang-gang Cockatoo (*Callocephalon fimbriatum*) (Endangered) – five records within the biodiversity study area near Tuckerman Road and Kings Point Drive. While suitable breeding habitat (Eucalypt tree species with hollows greater than nine centimetres diameter) is present within the biodiversity study area, no Gang-gang Cockatoos were recorded during targeted surveys conducted during the breeding season (October to January).
- Glossy-black Cockatoo (*Calyptorhynchus lathami*) (Vulnerable) (observations were of single birds, pairs, small flocks or chewed *Allocasuarina littoralis* cones in forested areas between the Ulladulla Waste Facility and the southern end of the project area – 30 individuals recorded within the biodiversity study area and 203 potential nest trees were recorded between Green Street and Canberra Crescent).

Potential direct impacts on threatened fauna during construction include removal of foraging and breeding habitat, removal of denning habitat (including tree hollows), injury/mortality, spread of pathogens and disease and disturbance associated with noise (and in some areas artificial light).

During operation, potential impacts include fauna injury/mortality from vehicle strikes and habitat fragmentation (loss of connectivity south of Green Street between bushland areas which may restrict fauna movements). A new road could also introduce edge effects causing changes in the vegetation structure, floristics or climatic conditions (solar access, wind exposure etc) and causing animals to become less abundant in the impacted areas.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

The impacts described in Section 4.1.4.2 are considered potentially significant in relation to Scrub Turpentine (*Rhodamnia rubescens*), Leafless Tongue-orchid (*Cryptostylis hunteriana*), Bauer's Midge Orchid (*Genoplesium baueri*) and Greater Glider (southern and central) (*Petauroides volans*). This preliminary conclusion is based on the number of records for these species, the type of habitat present and the considerations in the EPBC Act Policy Statement 1.1 Significant Impact Guidelines (DoE, 2013), whether there is a real chance or possibility that the proposed action will:

- lead to a long-term decrease in the size of a population
- reduce the area of occupancy of the species
- fragment an existing population into two or more populations
- adversely affect habitat critical to the survival of a species
- disrupt the breeding cycle of a population
- modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline
- result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat

- introduce disease that may cause the species to decline or interfere with the recovery of the species.

The project would have direct impacts on Scrub Turpentine (*Rhodamnia rubescens*) with a large number of individuals recorded in the central part of the project area between Slaughterhouse Road and Millards Creek. The conservation advice for *R. rubescens* notes that a greater than 80 per cent reduction in the population of this species is expected over the three generations given documented levels of mortality due to A. psidii (Myrtle Rust) infection and high susceptibility to A. psidii in both mature individuals and seedlings.

Leafless Tongue-orchid (*Cryptostylis hunteriana*) and Bauer's Midge Orchid (*Genoplesium baueri*) would be directly affected within the southern part of the project area between Green Street and Kings Point Drive. The conservation advice for both these species identifies land clearing and loss of habitat as ongoing threats to a number of extant populations. For the Leafless Tongue-orchid changes in drainage resulting in unsuitable soil micro-climatic conditions and weed invasion are identified as potential threats.

The project would pass through the middle of a relatively large patch of high-quality forest with a large population of resident greater gliders that will result in:

- Loss of large hollow-bearing trees potentially used as den trees.
- Fragmentation of the population into two smaller patches/halves, potentially negatively impacting the viability of the population in the long-term if mitigation is unsuccessful.
- Risk of Greater Glider mortality if they attempt to cross the project alignment.
- Direct loss of habitat to build the road.
- Indirect loss of habitat should Greater Gliders avoid edge areas or if the quality of the habitat is reduced along the road.

Direct impacts on EPBC Act listed threatened ecological communities (including a 15 metre buffer) are not expected to be significant due to the small areas affected (primarily buffers) and the presence of these communities in adjacent areas (to be retained).

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

The project is considered a controlled action due to the potential significant pre-mitigation impacts on the Greater Glider as described in 4.1.4.5, and potentially due to the impacts on Leafless Tongue-orchid (*Cryptostylis hunteriana*), Bauer's Midge Orchid (*Genoplesium baueri*) and Scrub Turpentine (*Rhodamnia rubescens*).

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

Environmental safeguards and management measures relevant to MNES (species and communities) would be included as part of the project and documented in the EIS. This would include adoption of relevant measures from the Transport for NSW Biodiversity Management Guideline (March 2024, Att Z, pp.16). As set out in Attachment G (Section 3.1, pp2), the order of consideration for managing biodiversity impacts for the project is:

- Avoid and minimise impact first
- Mitigate where avoidance is not possible
- Offset where residual impact cannot be avoided.

A conservative project area has been identified for this referral. The project area, disturbance footprint and area of native vegetation impact is expected to be reduced significantly during further design development. Further biodiversity surveys are expected with design responses to avoid/minimise impacts on threatened species and their habitats. Ancillary facilities (compounds, stockpile sites, plant/equipment laydown areas) will be located on cleared land where possible to reduce impacts on native vegetation.

In addition to minimising clearing width, mitigation options currently being investigated to reduce impacts on the Greater Glider include:

- Canopy connectivity – maintaining trees and shrubs as close to the road as possible and including median trees where feasible
- Vegetated median – overall distance across the road is made into two shorter glides because gliders can land in a widened central median where the existing vegetation has been retained
- Glider poles – timber poles installed on one or both verges of the road and/or in the median and provide a platform for gliders to launch from and/or land on when gliding across the road
- Vegetated land bridges – planted with native vegetation that matches the surrounding ecosystem and habitat and provide a relatively natural pathway for fauna
- Canopy bridges – structures, usually a flat or box-shaped rope-ladder, which connects the canopy of trees on opposite sides of the road together
- Bridge underpasses – A bridge underpass for greater gliders would need to be quite high to encourage gliders to pass underneath, rather than attempt to glide above the road, especially because greater gliders are often in the mid to upper canopy. While this measure has been considered, it is less likely to be an effective measure for gliders.

Transport is also currently conducting a review of survey and habitat for the Greater Glider in the study area. That work will inform a connectivity strategy that will identify general principles and locations for fauna connectivity requirements for the project.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

In addition to project level efforts to avoid, minimise and mitigate biodiversity impacts, Transport's Biodiversity Policy includes commitment to achieve a no net loss in biodiversity. This commitment involves protecting and enhancing biodiversity with the goal of achieving a no net loss of biodiversity as a consequence of its infrastructure development activities.

For State significant infrastructure, NSW biodiversity assessment requirements are prescribed by the *Biodiversity Conservation Act 2016* and these requirements will be reflected in project environmental assessment requirements.

The assessment requirements are expected to require the preparation of a Biodiversity Development Assessment Report in accordance with the Biodiversity Assessment Method (BAM) to assess project impacts on terrestrial biodiversity and required mitigation and offset requirements. The BAM requires the use of the BAM calculator (BAM-C) for calculating offset requirements in the form of biodiversity credits for all residual impacts. Offset requirements are captured in the NSW planning approval. Biodiversity offsets would be achieved prior to construction of the project commencing.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
No	No	Actitis hypoleucos	Common Sandpiper
No	No	Apus pacificus	Fork-tailed Swift
No	No	Ardenna carneipes	Flesh-footed Shearwater, Fleshy-footed Shearwater
No	No	Ardenna grisea	Sooty Shearwater
No	No	Balaenoptera edeni	Bryde's Whale
No	No	Balaenoptera musculus	Blue Whale
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris canutus	Red Knot, Knot
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper
No	No	Caperea marginata	Pygmy Right Whale
No	No	Carcharhinus longimanus	Oceanic Whitetip Shark
No	No	Carcharias taurus	Grey Nurse Shark

Direct impact	Indirect impact	Species	Common name
No	No	Carcharodon carcharias	White Shark, Great White Shark
No	No	Caretta caretta	Loggerhead Turtle
No	No	Charadrius leschenaultii	Greater Sand Plover, Large Sand Plover
No	No	Chelonia mydas	Green Turtle
No	No	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Dermochelys coriacea	Leatherback Turtle, Leathery Turtle, Luth
No	No	Diomedea antipodensis	Antipodean Albatross
No	No	Diomedea epomophora	Southern Royal Albatross
No	No	Diomedea exulans	Wandering Albatross
No	No	Diomedea sanfordi	Northern Royal Albatross
No	No	Eretmochelys imbricata	Hawksbill Turtle
No	No	Eubalaena australis	Southern Right Whale
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
Yes	Yes	Hirundapus caudacutus	White-throated Needletail
No	No	Lagenorhynchus obscurus	Dusky Dolphin
No	No	Lamna nasus	Porbeagle, Mackerel Shark
No	No	Limosa lapponica	Bar-tailed Godwit
No	No	Macronectes giganteus	Southern Giant-Petrel, Southern Giant Petrel
No	No	Macronectes halli	Northern Giant Petrel
No	No	Megaptera novaeangliae	Humpback Whale
No	No	Mobula birostris	Giant Manta Ray
Yes	Yes	Monarcha melanopsis	Black-faced Monarch
No	No	Natator depressus	Flatback Turtle
No	No	Numenius madagascariensis	Eastern Curlew, Far Eastern Curlew

Direct impact	Indirect impact	Species	Common name
No	No	Orcinus orca	Killer Whale, Orca
No	No	Pandion haliaetus	Osprey
No	No	Phaethon lepturus	White-tailed Tropicbird
No	No	Phoebetria fusca	Sooty Albatross
No	No	Rhincodon typus	Whale Shark
Yes	Yes	Rhipidura rufifrons	Rufous Fantail
No	No	Sternula albifrons	Little Tern
No	No	Thalassarche bulleri	Buller's Albatross, Pacific Albatross
No	No	Thalassarche carteri	Indian Yellow-nosed Albatross
No	No	Thalassarche cauta	Shy Albatross
No	No	Thalassarche eremita	Chatham Albatross
No	No	Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross
No	No	Thalassarche melanophris	Black-browed Albatross
No	No	Thalassarche salvini	Salvin's Albatross
No	No	Thalassarche steadi	White-capped Albatross

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

Three migratory species listed under the EPBC Act were recorded within three hundred metres of the project corridor during targeted surveys undertaken between November 2020 and February 2021:

- White-throated Needletail (*Hirundapus caudacutus*).
- Rufous Fantail (*Rhipidura rufifrons*).
- Black-faced Monarch (*Monarcha melanopsis*).

The proposed action would involve direct impact to forested foraging and breeding habitat for all three listed migratory species.

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

Three migratory species listed under the EPBC Act were recorded within 300 metres of the project corridor for the project during targeted surveys undertaken between November 2020 and February 2021. These were:

- White-throated Needletail (*Hirundapus Caudacutus*)
- Rufous Fantail (*Rhipidura rufifrons*)
- Black-faced Monarch (*Monarcha melanopsis*)

White-throated Needletail may occur above any part of the study area during November-March each year. This species is likely to preferentially forage over the larger areas of forest present in the study area. Rufous Fantail may forage and breed in any forested habitat in the study area particularly the wet sclerophyll forest and rainforest communities. Black-faced monarch may forage and breed in any area of wet sclerophyll forest or rainforest in the study area.

An action is likely to have a significant impact on a migratory species if there is a real chance or possibility that it will:

- Substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a Migratory species
- Result in an invasive species that is harmful to the Migratory species becoming established in an area of important habitat for the Migratory species, or
- Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a Migratory species.

An area of ‘important habitat’ for a migratory species is defined as:

- Habitat used by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species, and/or
- Habitat that is of critical importance to the species at particular life-cycle stages, and/or
- Habitat used by a migratory species which is at the limit of the species range, and/or
- Habitat within an area where the species is declining.

While migratory species of bird use habitats within the project area and locality, the project area would not be classed as an ‘important habitat’ as defined under the EPBC Act Policy Statement 1.1 Significant Impact Guidelines (DoE, 2013, Link 2) and noted above. Similar habitat would remain available within the broader locality and region. While all three species were recorded foraging, the project area is unlikely to support an ecologically significant proportion of the population of these migratory species.

As such, it is unlikely that the proposed action would significantly affect migratory species.

Potential impacts on migratory species will be further considered in the EIS.

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action. *

While migratory species of bird use habitats within the project area and locality, the project area would not be classed as an 'important habitat' as defined under the EPBC Act Policy Statement 1.1 Significant Impact Guidelines (DoE, 2013, Link 1, pp12). Similar habitat would remain available within the broader locality and region. As such, it is unlikely that the proposed action would significantly affect migratory species.

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

Environmental management measures relevant to MNES (migratory species) would be included as part of the project and documented in the EIS. Steps to avoid, minimise, mitigate and offset would be undertaken in accordance with the Transport for NSW Biodiversity Management Guideline (March 2024). As set out in Attachment G (Section 2, pp2), the order of consideration for managing biodiversity impacts for the project is:

- Avoid and minimise impact first (in this case avoid or minimise impacts on foraging habitat for migratory species as part of the design refinement process)
- Mitigate where avoidance is not possible

Offset where residual impact cannot be avoided.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

Where migratory species are also threatened species offsets will be calculated in accordance with the BAM and captured in the NSW planning approval.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action does not relate to any nuclear action (including uranium mining).

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action would not impact upon any Commonwealth Marine Area, as impacts would be localised and the proposed action is not located within 10 kilometres of any listed Commonwealth Marine Area.

The results of the EPBC Act Protected Matters search conducted on 24 May 2024 are provided in Attachment M.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action would not impact upon the Great Barrier Reef, as impacts would be localised and the proposed action is not located within 10 kilometres of the Great Barrier Reef.

The results of the EPBC Act Protected Matters search conducted on 24 May 2024 are provided in Attachment M.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action does not relate to coal mining or coal seam gas development.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The results of the EPBC Act Protected Matters search conducted on 24 May 2024 (provided in Attachment M) returned one result for Commonwealth land, named ‘Royal Australian Navy Central Canteens Board’.

A review of the ‘Commonwealth Owned Land’ dataset ((Department of Finance, 2023) (https://data.gov.au/data/dataset/commonwealth-owned-land)) undertaken on 27 March 2024 confirmed the proposed action would not impact upon the environment of any Commonwealth land.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action would not have an impact on Commonwealth Heritage Places Overseas, as it is located on the Australian mainland, within the NSW State jurisdiction.

The results of the EPBC Act Protected Matters search conducted on 24 May 2024 are provided in Attachment M.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

No alternative timelines, locations or activities form part of the referred action.

Timeline

Funding has been made available by the Commonwealth and NSW Governments to progress the planning phase of the proposed action.

The 2019-20 Federal Budget allocated $500 million towards the Princes Highway corridor in NSW as part of a $1 billion commitment to support implementation of the Princes Highway Corridor strategy. In November 2019, $145 million of the $500 million allocated by the Australian Government was brought forward to facilitate project development and expedite construction commencement of improvements within the Princes Highway corridor, including the proposed action. In November 2023 federal funding was re-confirmed following release of funding for the Princes Highway upgrade projects.

Transport considers the project to be a priority project in order to improve safety for users of the Princes Highway and therefore an alternative (i.e. later) timeline was not considered further.

Location

Transport initially identified a range of potential corridors for the project using one start point (north of Milton) and three bypass end points (Burrill Lake north, Burrill Lake south and Lake Tabourie south). These initial corridors were refined to eight options that represented reasonable engineering solutions (design, compliance, and safety) and minimised environmental impacts (biodiversity, wetlands, national parks, heritage).

The eight options were then assessed against the proposal objectives and relevant strategic priorities which included various key result areas (including ‘Minimise impact on terrestrial ecology’ and ‘Minimise impact on aquatic ecology’). This resulted in the shortlisting of four corridors (refer to the Preferred Strategic Corridor Option Report included in Link 2, pp50).

The project corridor (which aligns with the LEP corridor) was subsequently confirmed as the recommended option in July 2022 following a September 2020 value management process which evaluated and scored all options against 22 assessment criteria. This workshop was attended by a range of project team representatives as well as representatives from the Commonwealth Department of Infrastructure, Trade, Regional Development and Communications, the then NSW Department of Planning, Industry and Environment, NSW Police and Shoalhaven City Council. The current project corridor scored equal highest in terms of minimising impacts on terrestrial and aquatic ecology.

Transport is continuing to refine the design of the project with a view to reducing environmental impacts.

Activity

Due to the nature of the proposed action, the only alternative activity is considered to be to not take the action.

Not taking the action would not meet Transport's strategic objectives for the Princes Highway, as it would not provide a safe and efficient corridor that supports all transport modes and customers.

Under this alternative, this section of the Princes Highway would continue to experience reduced amenity and a potential increased safety risk for pedestrians during weekday and holiday peaks.

This congestion would increase as the level of traffic and congestion grows on the existing road network in the future. The growth in traffic would also likely result in an increase in the total number of crashes occurring and could increase the frequency of pedestrian/vehicle conflicts.

For these reasons, the alternative not to take the action was not considered further.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att A - Project Area.pdf Overview of project area	13/10/2024	Yes	Low or uncertain
#2.	Document	Att B - PHUP projects.pdf Other TfNSW projects	13/10/2024	No	Medium
#3.	Link	Att N - Milton Ulladulla bypass - Scoping Report https://majorprojects.planningportal.nsw.gov.au/..			Medium

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Att O - Princes Highway Corridor Strategy https://www.infrastructure.gov.au/sites/default/..			High
#2.	Link	Att P - Princes Highway Upgrade https://ca-v2.s3-ap-southeast-2.amazonaws.com/tf..			High
#3.	Link	Att Q - Staying Ahead: State Infrastructure Strategy 2022-2042 https://www.infrastructure.nsw.gov.au/media/onmb..			High

#4.	Link	Att R - Future Transport Strategy https://www.future.transport.nsw.gov.au/sites/de..	High
#5.	Link	Att S - Regional NSW Services and Infrastructure Plan https://www.future.transport.nsw.gov.au/sites/de..	High
#6.	Link	Att T - Connecting to the future – 10 year blueprint https://www.transport.nsw.gov.au/system/files/me..	High
#7.	Link	Att U - Tourism and Transport Plan 2018 https://www.monarorailtrail.com.au/assets/docume..	High
#8.	Link	Att V - 2026 Road Safety Action Plan https://towardszero.nsw.gov.au/sites/default/fil..	High
#9.	Link	Att W - Illawarra Shoalhaven Regional Transport Plan 2041 https://www.future.transport.nsw.gov.au/sites/de..	High

1.2.7 Public consultation regarding the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt C - Community Consult Rpt.pdf Community Consultation Report	31/07/2020	No	Medium
#2.	Document	Attt D - Preferred Strategic Corridor Rpt.pdf Preferred Strategic Corridor Report	31/05/2021	No	Medium
#3.	Document	Attt E - Burrill Lake Co-Design Rpt.pdf Burril Lake Co-design Report	30/11/2021		Medium
#4.	Link	Att X - Procedure for Aboriginal cultural heritage consultation and investigation https://www.transport.nsw.gov.au/system/files/me..			High

1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt F - Env Sus Policy.pdf Environment Sustainability Policy	12/01/2020	No	High
#2.	Document	Attt G - Biodiversity Policy.pdf Biodiversity Policy	31/07/2020	No	High

2.2.5 Tenure of the action area relevant to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att H -Property tenure.pdf Property Tenure	14/10/2024	No	High
#2.	Document	shapefiles for referral.zip Shapefiles for DCCEEW information	05/01/2025	Yes	Low or uncertain

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att I - Bushfire sev.pdf Bushfire severity 2019-2020	22/05/2024	No	Medium

3.1.2 Existing or proposed uses for the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att J - Zoning.pdf Zoning	22/05/2024	No	Medium
#2.	Link	NSW Planning Portal https://www.planningportal.nsw.gov.au/ppr			High
#3.	Link	Planning Proposals https://www.shoalhaven.nsw.gov.au/Development-an..			High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att K - Biodiversity Summary.pdf Biodiversity Summary	04/09/2024	Yes	Medium
#2.	Document	Att K - Biodiversity survey summary_redacted (1).pdf Redacted version of Att K - Biodiversity summary	05/01/2025	No	Low or uncertain

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att K - Biodiversity Summary.pdf Biodiversity Summary	04/09/2024	Yes	Medium
#2.	Document	Att K - Biodiversity survey summary_redacted (1).pdf Redacted version of Att K - Biodiversity summary	05/01/2025	No	Low or

uncertain			
#3.	Link	Att Y- Ulladulla 1:250 000 Geological Map 218 https://search.geoscience.nsw.gov.au/product/198	Medium

3.3.2 Indigenous heritage values that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Burrill Lake and Currarong : Coastal sites in southern New South Wales https://openresearch-repository.anu.edu.au/items..	31/12/1970		High
#2.	Link	Eurobodalla Aboriginal Cultural Heritage Study South Coast New South Wales. https://www.esc.nsw.gov.au/__data/assets/pdf_fil..			High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt A - Project Area.pdf Overview of project area	13/10/2024		Low or uncertain
#2.	Document	Attt L - GDEs.pdf Groundwater Dependant Ecosystems	14/07/2024	No	Medium

4.1.1.3 (World Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt M - PMST results.pdf PMST Results	22/05/2024	Yes	High

4.1.2.3 (National Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt M - PMST results.pdf PMST Results	22/05/2024		High

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt M - PMST results.pdf PMST Results	22/05/2024		High

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att K - Biodiversity Summary.pdf Biodiversity Summary	04/09/2024		Medium
#2.	Document	Att K - Biodiversity survey summary_redacted (1).pdf Redacted version of Att K - Biodiversity summary	05/01/2025		Low or uncertain

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Matters of National Environmental Significance Guideline https://www.dcceew.gov.au/sites/default/files/do..			High

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att G - Biodiversity Policy.pdf Biodiversity Policy	31/07/2022		High
#2.	Link	Att Z - Transport for NSW Biodiversity Management Guideline https://www.transport.nsw.gov.au/system/files/me..			High

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Matters of National Environmental Significance https://www.dcceew.gov.au/sites/default/files/do..			High

4.1.5.9 (Migratory Species) Why you do not think your proposed action is a controlled action

	Type	Name	Date	Sensitivity	Confidence
#1.	Link	Matters of National Environmental Significance https://www.dcceew.gov.au/sites/default/files/do..			High

4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

	Type	Name	Date	Sensitivity	Confidence

#1.	Document	Attt G - Biodiversity Policy.pdf Biodiversity Policy	31/07/2022		High
#2.	Link	Transport for NSW Biodiversity Management Guideline https://www.transport.nsw.gov.au/system/files/me..			High

4.1.7.3 (Commonwealth Marine Area) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt M - PMST results.pdf PMST Results	22/05/2024		High

4.1.10.3 (Commonwealth Land) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt M - PMST results.pdf PMST Results	22/05/2024		High

4.1.11.3 (Commonwealth heritage places overseas) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt M - PMST results.pdf PMST Results	22/05/2024		High

4.3.8 Why alternatives for your proposed action were not possible

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attt D - Preferred Strategic Corridor Rpt.pdf Preferred Strategic Corridor Report	31/05/2021		Medium
#2.	Link	Preferred Strategic Option Report https://www.transport.nsw.gov.au/sites/default/f..			Medium

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN 18804239602

Organisation name	TRANSPORT FOR NSW
Organisation address	101 Crown Street, Wollongong 2500
Representative's name	Fiona Robinson
Representative's job title	Senior Environment and Sustainability Officer
Phone	1800570568
Email	fiona.robinson@transport.nsw.gov.au
Address	101 Crown Street, Wollongong 2500

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ By checking this box, I, **Fiona Robinson of TRANSPORT FOR NSW**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

Same as Referring party information.

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Fiona Robinson of TRANSPORT FOR NSW**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is

a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

☑ I, **Fiona Robinson of TRANSPORT FOR NSW**, the Person proposing the action, consent to the designation of **Fiona Robinson of TRANSPORT FOR NSW** as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Fiona Robinson of TRANSPORT FOR NSW**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *