

Planning Secretary's Environmental Assessment Requirements

Section 5.16 of the *Environmental Planning and Assessment Act 1979*

Application Number	SSI-12422997
Project Name	Oven Mountain Pumped Hydro Energy Storage project, which includes the development of an underground pumped hydro power station, upper and lower reservoirs, grid connection and ancillary infrastructure.
Location	Adjacent to Kempsey Road and Macleay River near Georges Junction, approximately 60 km south-east of Armidale and 75 km north-west of Kempsey within Armidale Regional local government area.
Applicant	OMPS Pty Ltd
Date of Issue	10/06/2022
General Requirements	<p>The Environmental Impact Statement (EIS) must meet the minimum form and content requirements as prescribed by Part 8, Division 5 of the <i>Environmental Planning and Assessment Regulation 2021</i> (EP&A Regulation) and must have regard to the <i>State Significant Infrastructure Guidelines</i>.</p> <p>In particular, the EIS must include:</p> <ul style="list-style-type: none"> · a stand-alone executive summary; · a summary of the background to the project, including the alternatives that were considered to the project; · a full description of the project accompanied by suitable maps and plans, including the: <ul style="list-style-type: none"> - disturbance area; - physical layout of the project over time, including sections of key components; - key uses and activities to be carried out on site; - likely timing of the project including any stages, the key phases within each stage (site preparation, construction, commissioning, operation, decommissioning and rehabilitation) and the sequencing of these stages and phases; · the relevant strategic context for the project having regard to: <ul style="list-style-type: none"> - State and Commonwealth legislation, policies and guidelines, and current initiatives to improve energy security and reliability in the National Electricity Market; - key features of the environment that could affect or be affected by the project (including National Parks and Reserves, World Heritage Areas and areas of declared wilderness under the <i>NSW Wilderness Act 1987</i>); - any other existing, approved or proposed projects that could result in cumulative impacts with the project; · the relevant statutory context for the project, including: <ul style="list-style-type: none"> - the assessment pathway for the project under the <i>Environmental Planning and Assessment Act 1979</i>; - the approvals required before the project may be carried out, including any approvals under the Commonwealth <i>Environment Protection & Biodiversity Conservation Act 1999</i>; and - any relevant matters for consideration; · a description of the engagement that was carried out during the preparation of the EIS, the key issues raised during this engagement and the proposed engagement strategy for the project if it is approved; · an assessment of the likely economic, social and environmental impacts of the project having regard to the requirements in any relevant Government legislation,

	<p>policies and guidelines (see below), including:</p> <ul style="list-style-type: none"> - the state of the existing environment; - community views; - the measures that would be implemented to avoid or minimise impacts, including a consolidated summary of the proposed mitigation measures for the project; - the predicted impacts of the project, including any cumulative impacts of the site and existing or proposed developments in the region taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice including <i>Cumulative Impact Assessment Guideline</i> (DPIE, 2021); - actions proposed to deal with any uncertainties associated with the assessment; <p>· a detailed evaluation of the merits of the project as a whole.</p> <p>The EIS must also be accompanied by a report from a suitably qualified person providing:</p> <ul style="list-style-type: none"> · a detailed calculation of the capital investment value (CIV) (as defined in the Dictionary of the EP&A Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived; · an estimate of jobs that will be created during the construction and operational phases of the proposed infrastructure; and · certification that the information provided is accurate at the date of preparation.
<p>Key Matters</p>	<p>The level of assessment of key matters must be proportionate to the likely significance of the impacts on the matter.</p> <p>In particular, the EIS must include the following:</p> <ul style="list-style-type: none"> · Biodiversity: <ul style="list-style-type: none"> - an assessment of the biodiversity impacts of the project on terrestrial, aquatic and groundwater-dependent ecosystems, including listed Commonwealth and State threatened species and communities and listed Commonwealth migratory species, and impacts on National Parks and Reserves and World Heritage Areas), and Attachment A and; <ul style="list-style-type: none"> o an assessment of the biodiversity values and the likely biodiversity impacts of the project, in accordance the <i>Biodiversity Conservation Act 2016</i> (NSW), the Biodiversity Assessment Method (BAM) 2020 and documented in a Biodiversity Development Assessment Report (BDAR), including a detailed description of the proposed regime for avoiding, minimising, managing and reporting on the biodiversity impacts; o an assessment of the likely impacts on listed aquatic threatened species, populations or ecological communities, scheduled under the <i>Fisheries Management Act 1994</i>, and a description of the measures to minimise and rehabilitate impacts, - ;a strategy to offset the residual impacts of the project on these ecosystems · Heritage: <ul style="list-style-type: none"> - assess the impact to Aboriginal cultural heritage items (archaeological and cultural) in accordance with the <i>Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW</i> (OEH, 2011) and the <i>Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW</i> (DECCW, 2010); - provide evidence of consultation with Aboriginal communities in determining and assessing impacts, developing options and selecting options and mitigation measures (including the final proposed measures), having regard to the <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents</i> (DECCW, 2010); and - assess the impact to historic heritage (including East Kunderang Homestead) having regard to the <i>NSW Heritage Manual</i>.

• **Water:**

- a detailed site water balance for the project, including the water take from each surface and ground water source, any licensing requirements, and determine whether an adequate and secure water supply is available for the development;
- an assessment of the impacts of the project on:
 - o the quantity and quality of the region's surface and ground water;
 - o resources, including Macleay River and Fingerboard Crossing Creek;
 - o water security for local downstream receivers;
 - o hydrological flows on site, including any potential flooding impacts;
 - o key water features on site, including potential impacts on riparian land;
 - o type and extent of any dredging or reclamation activities within 'water land'
 - o water-related infrastructure, basic landholder rights and the entitlements of water users;
- a description of the likely changes to the hydrological regime of the Macleay River, and any associated biodiversity impacts;
- where the project involves works within 40 metres of the high bank of any river, lake or wetlands (collectively waterfront land), identify likely impacts to the waterfront land, and how the activities are to be designed and implemented in accordance with the *DPI Guidelines for Controlled Activities on Waterfront Land* (2018) and (if necessary) *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings* (DPI 2003); and *Policy & Guidelines for Fish Habitat Conservation & Management* (DPI, 2013);
- a strategy to manage spoil and enhance any new landforms created;

• **Land:**

- an assessment of impacts of the project on:
 - o soils including potential impacts associated with the use of hydrocarbons and chemicals, dealing with the spoil generated by the project;
 - o a soil survey to determine the soil characteristics and consider the potential for erosion to occur; and
 - o the topography of the site, including the creation of any new landforms;
 - o the geotechnical stability of the site;
 - o consideration of agricultural land and Crown lands;
 - o completion of a Land Use Conflict Risk Assessment in accordance with the Department of Industry's *Land Use Conflict Risk Assessment Guide*;
- a strategy to manage the progressive rehabilitation of the land disturbed by the project and enhance any new landforms created;

• **Transport and Access:**

- an assessment of the impacts of the project on the:
 - o capacity, condition, safety and efficiency of the local and State road network, including a road safety audit of the proposed haulage route;
 - o public access to recreational facilities (including rivers and trails);
- a strategy to enable regular and emergency management activities to be carried out on site during the project;

• **Amenity:**

- an assessment of the:
 - o construction, operational and road noise impacts of the project;
 - o blasting impacts of the project;
 - o visual impacts of the project, including lighting impacts and potential impacts on views of the project from key vantage points;
 including amenity impacts on National Parks and Reserves, Conservation Areas, World Heritage Areas and areas of declared wilderness under the *NSW Wilderness Act 1987*;

• **Air:**

- an assessment of the particulate matter and greenhouse gas emissions of

	<p>the project;</p> <ul style="list-style-type: none"> - an assessment of the likely greenhouse gas impacts of the project including a breakdown of scope 1, 2 and 3 emissions as defined by the Greenhouse Gas Protocol and measures to minimise emissions and consideration of climate change adaptation related to the project; <ul style="list-style-type: none"> • Hazards: <ul style="list-style-type: none"> - an assessment of: <ul style="list-style-type: none"> o any potentially hazardous impacts of the project; o any public safety risks, including bushfire and flooding risks (including potential impacts on National Parks and Reserves, State Forests and Conservation Areas and downstream landholdings); • Social: <ul style="list-style-type: none"> - an assessment of the social impacts of the project in accordance with <i>Social Impact Assessment Guideline</i> (DPIE, 2021), including impacts on: <ul style="list-style-type: none"> o the locality; o the demand for infrastructure and services in the Armidale Regional and Kempsey Shire local government areas; o users of nearby National Parks and Reserves, Conservation Areas, World Heritage Areas, areas of declared wilderness under the <i>NSW Wilderness Act 1987</i>, Macleay River and Bicentennial National Trail; • Economic: <ul style="list-style-type: none"> - an assessment of the economic impacts and benefits of the project on the locality and the State as a whole; • Waste: <ul style="list-style-type: none"> - an assessment must identify, quantify and classify the likely waste stream to be generated during construction and operation, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste, taking into consideration capacity and availability of local landfills.
Plans and Documents	<p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Part 3 of the Regulation. Provide these as part of the EIS rather than as separate documents.</p> <p>In addition, the EIS must include high quality files of maps and figures of the subject site, proposal, and proposed road upgrades.</p>
Legislation, Policies & Guidelines	<p>A list of some of the legislation, policies and guidelines that may be relevant to the assessment of the project can be found at:</p> <ul style="list-style-type: none"> • https://www.planning.nsw.gov.au/Policy-and-Legislation/Planning-reforms/Rapid-Assessment-Framework/Improving-assessment-guidance • https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines; and • https://www.awe.gov.au/environment/epbc/publications#assessments
Consultation	<p>During the preparation of the EIS, you should consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, affected landowners and any exploration licence and/or mineral, coal and petroleum title holders.</p> <p>The EIS must:</p> <ul style="list-style-type: none"> • detail how engagement undertaken was consistent with the <i>Undertaking Engagement Guide: Guidance for State Significant Projects</i> (DPIE, November 2021); and • describe the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, an explanation should be provided.
Expiry Date	<p>If you do not lodge an EIS for the infrastructure within 2 years of the issue date of these requirements, your SEARs will expire. If an extension to these SEARs will be</p>

	required, please consult with the Planning Secretary 3 months prior to the expiry date.
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APPENDIX A

Guidelines for preparing assessment documentation relevant to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) for proposals being assessed under the NSW Assessment Bilateral

Oven Mountain Pumped Hydro Energy Storage (Main Works) (EPBC 2020/8850)

Introduction

1. On 1 February 2021, a delegate of the Federal Minister for the Department of Agriculture, Water and the Environment (formerly Department of Environment and Energy) determined that Oven Mountain Pumped Hydro Energy Storage Project was a controlled action under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act controlling provisions for the proposed actions are:
 - i. listed threatened species and communities (sections 18 and 18A);
 - ii. World Heritage properties (sections 12 & 15A);
 - iii. National Heritage places (sections 15B & 15C).
2. The proposed action will be assessed in accordance with the bilateral assessment agreement *Amending Agreement No. 1*, and as such, is required to be assessed in the manner specified in Schedule 1 to that Agreement, including, addressing the matters outlined in Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations).
3. The proponent must undertake an assessment of all protected matters that may be impacted by the development under the controlling provision identified in paragraph 1. The Commonwealth Department of Agriculture, Water and the Environment considers that the proposed action is likely to have a significant impact on threatened species and communities and migratory species listed in **Appendix A** and the Gondwana Rainforests of Australia World Heritage Property and National Heritage Place criterion listed in **Appendix A**.
4. The proponent must consider each of the protected matters under the triggered controlling provisions that may be impacted by the action. Note that this may not be a complete list and it is the responsibility of the proponent to undertake an analysis of the relevant impacts and ensure all protected matters that are likely to be impacted are assessed for the Commonwealth Minister's consideration.

General Requirements

Relevant Regulations

5. The Environmental Impact Statement (EIS) must address all matters outlined in Schedule 4 of the EPBC Regulations and all matters outlined below in relation to the controlling provisions.

Project Description

6. The title of the action, background to the action and current status.
7. The precise location and description of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on Matters of National Environmental Significance (MNES).
8. How the action relates to any other actions that have been, or are being taken in the region affected by the action.

9. How the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts on MNES.

Impacts

10. The EIS must include an assessment of the relevant impacts of the action on the matters protected by the controlling provisions, including:
- i. a description and detailed assessment of the nature and extent of the likely direct, indirect and consequential impacts, including short term and long term relevant impacts;
 - ii. a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
 - iii. analysis of the significance of the relevant impacts; and
 - iv. any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

Avoidance, mitigation and offsetting

11. For each of the relevant matters protected that are likely to be significantly impacted by the action, the EIS must provide information on proposed avoidance and mitigation measures to manage the relevant impacts of the action including:
- i. a description, and an assessment of the expected or predicted effectiveness of the mitigation measures,
 - ii. any statutory policy basis for the mitigation measures;
 - iii. the cost of the mitigation measures;
 - iv. an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;
 - v. the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.
12. Where a significant residual adverse impact to a relevant protected matter is considered likely, the EIS must provide information on the proposed offset strategy, including discussion of the conservation benefit associated with the proposed offset strategy.
13. For each of the relevant matters likely to be impacted by the action the EIS must provide reference to, and consideration of, relevant Commonwealth guidelines and policy statements including any:
- i. conservation advice or recovery plan for the species or community;
 - ii. relevant threat abatement plan for the species or community;
 - iii. wildlife conservation plan for the species; and
 - iv. any strategic assessment.

Note: the relevant guidelines and policy statements for each species and community are available from the Department of Agriculture, Water and the Environment Species Profiles and Threats Database.
<http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>

Key Issues

Biodiversity (threatened species and communities and migratory species)

Assessment Requirements

14. The EIS must identify each EPBC Act listed threatened species and community and migratory species likely to be impacted by the action. For any species and communities that are likely to be impacted, the proponent must provide a description of the nature, quantum and consequences of the impacts. For species and communities potentially located in the project area or in the vicinity that are not likely to be impacted, provide evidence why they are not likely to be impacted.
15. Further analysis of the impacts of the 2019-2020 bushfires on EPBC Act listed threatened species and communities should be undertaken during the assessment. Further assessment will determine whether the remaining habitat within the proposed action area is of substantially greater importance to the survival of the listed threatened species following the fires and/or whether the population of the species in the area is considered an important population. This information, once obtained, can be considered when determining avoidance, mitigation and offset measures for these species.
16. For each of the EPBC Act listed threatened species and ecological communities and migratory species likely to be impacted by the proposed action the EIS must provide a separate:
 - i. description of the habitat (including identification and mapping of suitable breeding habitat, suitable foraging habitat, important populations and habitat critical for survival), with consideration of, and reference to, any relevant Commonwealth guidelines and policy statements including listing advice, conservation advice and recovery plans;
 - ii. details of the scope, timing and methodology for studies or surveys used and how they are consistent with (or justification for divergence from) published Australian Government guidelines and policy statements;
 - iii. description of the relevant impacts of the action having regard to the full national extent of the species or community's range;
 - iv. description of the specific proposed avoidance and mitigation measures to deal with relevant impacts of the action;
 - v. identification of significant residual adverse impacts likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account;
 - vi. a description of any offsets proposed to address residual adverse significant impacts and how these offsets will be established.
 - vii. details of how the current published NSW Biodiversity Assessment Method (BAM) has been applied in accordance with the objects of the EPBC Act to offset significant residual adverse impacts; and
 - viii. details of the offset package to compensate for significant residual impacts including details of the credit profiles required to offset the action in accordance with the BAM and/or mapping and descriptions of the extent and condition of the relevant habitat and/or threatened communities occurring on proposed offset sites;

Note: For the purposes of approval under the EPBC Act, it is a requirement that offsets directly contribute to the ongoing viability of the specific protected matter impacted by a proposed action and deliver an overall conservation outcome that improves or maintains the viability of the MNES i.e. 'like for like'. Like-for-like includes protection of native vegetation that is the same ecological community or habitat being impacted (preferably in the same region where the impact occurs), or funding to provide a direct benefit to the matter being impacted e.g. threat abatement, breeding and propagation programs or other relevant conservation measures.

17. Any significant residual impacts not addressed by the BAM may need to be addressed in accordance with the EPBC Act 1999 Environmental Offset Policy. <http://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy>.

Heritage (World Heritage Property and National Heritage Place)

Assessment Requirements

18. The EIS must assess the project's potential impacts on the listed values of the World Heritage Property, particularly regarding potential impacts on the diversity or composition of plant and animal species. The assessment must consider whether the project may fragment, isolate or substantially damage habitat important for the conservation or biological diversity in the World Heritage Property. The EIS must also assess the project's potential impacts on the listed values of the National Heritage Place.
19. The broad taxonomic groups that establish the biodiversity value of the World Heritage Property are listed within three supporting documents. These are the Statement of Outstanding Universal Value, Management Plan and the Nomination Document. Under the World Heritage criterion (x);
- i. All listed threatened species listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) and the EPBC Act that occur in the World Heritage property are automatically Matters of National Environmental Significance.
 - ii. Taxonomic groups that are listed in the aforementioned documents but are not separately listed as threatened species under either Commonwealth or State legislation, are attributes of the World Heritage Value of the property, and therefore become Matters of National Environmental Significance in the context of the World Heritage property.
20. For the World and National Heritage listed Gondwana Rainforests of Australia, the proponent should also consider:
- i. Identification and assessment of impacts to downstream environments under a range of climate scenarios.
 - ii. Assessment on the movement of species, that establish the biodiversity value of the World Heritage Property, from the adjacent World Heritage Property to the proposed action area.
 - iii. A description of the recent 2019/2020 bushfire event and its impacts on the World Heritage Property. Further consideration should be given to remaining vegetation patches and their importance for the preservation of the property.

Other approvals and conditions

21. Information in relation to any other approvals or conditions required must include the information prescribed in Schedule 4 Clause 5 (a) (b) (c) and (d) of the EPBC Regulations.

Environmental Record of person proposing to take the action

22. Information in relation to the environmental record of a person proposing to take the action must include details as prescribed in Schedule 4 Clause 6 of the EPBC Regulations.

Information Sources

23. For information given in an EIS, the EIS must state the source of the information, how recent the information is, how the reliability of the information was tested; and what uncertainties (if any) are in the information.

REFERENCES

- *Environment Protection and Biodiversity Conservation Act 1999* - section 51-55, section 96A(3)(a)(b), 101A(3)(a)(b), section 136, section 527E
- *Environment Protection and Biodiversity Conservation Regulations 2000 Schedule 4*
- Amending Agreement No. 1 (2020)
- *Matters of National Environmental Significance - Significant impact guidelines 1.1* (2013) EPBC Act
- *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* October 2012
- Listed threatened species and communities
 - o Australia's obligations under the:
 - the Convention on Biological Diversity,
 - the Convention on Conservation of Nature in the South Pacific (Apia Convention), or
 - the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
 - o Any relevant recovery plans or threat abatement plans.
- Gondwana Rainforests of Australia
 - o Australia's obligations under the World Heritage Convention
 - o The Australian World Heritage management principles
 - o Management plans that have been prepared for the property under section 316 of the EPBC Act or as described in section 321 of the EPBC Act.
<https://www.environment.gov.au/resource/world-heritage-central-eastern-rainforest-reserves-australia-strategic-overview-management>
 - o Any management plan that has been prepared for the place under section 324S of the EPBC Act or as described in section 324X of the EPBC Act
 - o The National Heritage management principles
 - o Any agreement to which the Commonwealth is a party in relation to a National Heritage place.
- Relevant strategic assessment reports
- Any relevant plan prepared for the management of a declared World Heritage property:
<http://www.environment.gov.au/heritage/places/world-heritage-list>

- Any relevant plan prepared for the management of a National Heritage place

<http://www.environment.gov.au/heritage/places/national-heritage-list>

Appendix A

Specific risks

Key risks associated with the proposed action include:

- Potential impacts to EPBC listed threatened species and ecological communities resulting from the clearing or inundation of up to 625 ha of native vegetation in the project footprint.
- Potential impacts to EPBC listed threatened species and ecological communities caused by changes to water resources within and downstream from the proposed storage reservoirs.
- Potential impacts to the values of a World Heritage Property and National Heritage place. These potential impacts include:
 - o Vehicle strike (animals moving on or near the ground).
 - o Habitat clearing and fragmentation effects such as altered microclimate (e.g. light, wind and humidity), increased noise of operation; decreased habitat connectivity and the introduction or increased ease of movement by weeds, pest animals and introduced pathogens (all species).
 - o Inundation of habitat in the proposed reservoir sites (all species, especially those occupying moist gullies).
 - o Hydrologic impacts on the Macleay River, including direct extraction and/or capture of groundwater or runoff that would have otherwise run into the river (aquatic and semi-aquatic species including frogs, fish, waterbirds, aquatic mammals, aquatic invertebrates such as crayfish). Management of runoff will be all the more important given that the referral indicates that the midstory and groundcover were burnt over much of the project area. While it is noted that the Macleay River itself is not included in the World Heritage property where it borders the proposed project area, its western tributaries would be.
 - o Noise impacts associated with construction and to some extent with operation (all species).
 - o Ongoing human presence in a previously natural landscape (all species).

Further information is required during the assessment stage to address these risks and determine the listed threatened species and ecological communities that will be directly and indirectly impacted by the proposed action.

Listed threatened species and communities

Proposed Site

Based on the information in the referral documentation, the location of the action and likely habitat present in the area, there are likely to be significant impacts to:

- Spotted-tailed Quoll (*Dasyurus maculatus maculatus* (SE mainland population)) – **endangered**;
- *Callistemon pungens* – **vulnerable**.

Additionally, there is a possibility that the proposed action will have or is likely to have significant impacts on the following species and ecological communities and levels of impact should be further investigated:

- Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) (*Phascolarctos cinereus*) – **Vulnerable**

- White-flowered Wax Plant (*Cynanchum elegans*) - **Endangered**
- *Diuris eborensis* - **Endangered**
- *Euphrasia arguta* - **Critically Endangered**
- *Tylophora woollsii* - **Endangered**
- Small Snake Orchid (*Diuris pedunculata*) - **Endangered**
- *Grevillea guthrieana* - **Endangered**
- Tall Velvet Sea-berry (*Haloragis exalata* subsp. *Velutina*) - **Vulnerable**
- Clear Milkvine (*Marsdenia longiloba*) - **Vulnerable**
- Scrub Turpentine (*Rhodamnia rubescens*) - **Critically Endangered**
- Ravine Orchid (*Sarcochilus fitzgeraldii*) - **Vulnerable**
- Regent Honeyeater (*Anthochaera phrygia*) - **Critically Endangered**
- Rufous Scrub-bird (*Atrichornis rufescens*) - **Endangered**
- Eastern Bristlebird (*Dasyornis brachypterus*) - **Endangered**
- White-throated Needletail (*Hirundapus caudacutus*) - **Vulnerable**
- Swift Parrot (*Lathamus discolor*) - **Critically Endangered**
- *Stuttering Frog (Mixophyes balbus)* - **Vulnerable**
- *Three-toed Snake-tooth Skink (Coeranoscincus reticulatus)* - **Vulnerable**
- Large-eared Pied Bat (*Chalinolobus dwyeri*) - **Vulnerable**
- Greater Glider (*Petauroides volans*) - **Vulnerable**
- Grey-headed Flying-fox (*Pteropus poliocephalus*) - **Vulnerable**
- Brush-tailed Rock-wallaby (*Petrogale penicillata*) - **Vulnerable**
- Long-nosed Potoroo (SE Mainland) (*Potorous tridactylus tridactylus*) - **Vulnerable**
- New Holland Mouse (*Pseudomys novaehollandiae*) - **Vulnerable**
- Hastings River Mouse (*Pseudomys oralis*) - **Endangered**
- Lowland Rainforest of Subtropical Australia - **Critically Endangered**
- Alpine Sphagnum Bogs and Associated Fens - **Endangered**
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland - **Critically Endangered**

Note: uncertainty around the extent and number of protected matters that may be impacted will need to be resolved through the assessment process once final alignment and construction plans have been completed.

Note: this may not be a complete list and it is the responsibility of the proponent to ensure any protected matters under these controlling provisions are assessed for the Commonwealth decision-maker's consideration.

Gondwana Rainforests of Australia World Heritage Property and National Heritage Place

The Gondwana Rainforests of Australia include the most extensive areas of subtropical rainforests in the world and represent outstanding examples of major stages of the Earth's evolutionary history, ongoing geological and biological processes, and exceptional biological diversity.

Under the Natural World Heritage listing criteria, the Gondwana Rainforests are listed under three criteria (vi, ix and x). Of which, two are relevant to this referral:

- Criterion (ix): To be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.
- Criterion (x): To contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

World Heritage listing protects the values of the property, whether or not individual organisms are within the boundaries of the property at the time the impact occurs. Therefore, the proposed action must be considered for potential impacts to species identified in the World Heritage property supporting documents (see assessment recommendations) that may move between the project boundary and the adjacent Property.

The proposed action area is located adjacent to parts of the Gondwana Rainforests in the Oxley Wild Rivers National Park and the Carrai State Conservation Area. The Gondwana Rainforests is nearby to the western border of the project area where the Macleay River is situated between the project area and the Gondwana Rainforests (close to its western bank). The proposal is likely to have a significant impact on the listed values of the World Heritage Property as it could reduce the diversity or modify the composition of plant and animal species. The proposed action also could fragment, isolate or substantially damage habitat important for the conservation of biological diversity in the World Heritage property.

The proposed action is also likely to significantly impact National Heritage Values as these are not separately described and are taken as equivalent to the World Heritage Values.