

**BCS GUIDANCE NOTE
PROJECT ASSESSMENT OF
EPBC ACT LISTED THREATENED SPECIES AND COMMUNITIES**

1. Purpose and Scope

This Guidance Note is intended for use by Biodiversity, Conservation and Science Directorate (BCS) teams, in their review of project-related biodiversity assessment documentation and the provision of expert advice to the project assessment teams within Department of Planning, Industry & Environment (DPIE) on matters of national environment significance (MNES) under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

This Guidance Note applies to projects determined to be a 'controlled action' by the Australian Government Minister for the Environment and where the NSW Minister for Planning and Public Spaces (as delegated) has provided notice that the project will be assessed by an assessment process accredited under the Assessment Bilateral Agreement between NSW and the Commonwealth.

For these projects, the NSW Government has committed to undertaking an assessment of matters protected by Part 3 of the EPBC Act relating to the relevant controlling provisions and can include species and communities, world heritage values and ecological character of Ramsar sites. These matters are often described as MNES. Governments are working to streamline the assessment and where the NSW *Biodiversity Offset Scheme's* (BOS's) *Biodiversity Assessment Method* (BAM) (2020) can provide an adequate assessment of EPBC-listed threatened species and communities, this should be reflected in the Biodiversity Development Assessment Report (BDAR). Where the assessment of MNES cannot be assessed by applying the BAM, the assessment must be presented elsewhere in the assessment documentation in accordance with the Secretary's Environmental Assessment Requirements (SEARs).

To assist in this process, DPIE has developed this Guidance Note and the attached checklist templates for use by BCS teams when providing advice on EPBC-listed species and communities.

2. Role of BSC Officers

The key role for BCS teams in the Bilateral process is to provide comments and advice to DPIE on the adequacy of a proponent's assessment of the impacts and offsets for EPBC Act-listed threatened species and communities within an Environmental Impact Statement (EIS), or in the case of a modification to an approved project, a Modification Report, and associated Biodiversity Development Assessment Report (BDAR).

Additionally, BCS is required to verify whether the BAM has been appropriately applied. BCS is also required to advise whether projects are consistent with applicable Australian Government guidelines and policy statements.

During the assessment process, DPIE will typically seek expert advice from BCS in response to an EIS and/or a report prepared by a proponent.

In reviewing assessment documentation, it is particularly important for BCS assessment officers to provide expert advice in relation to the adequacy of evidence-based justifications for decisions about methods, techniques and outcomes. This is required to demonstrate the scientific rigor of the assessments and determine a level of confidence in DPIE's decision making process.

3. Reference Documentation

Key information typically required to be reviewed by BCS officers includes the project EIS (or Modification Report), BDAR and the associated BAM Calculator (BAM-C) report, and any supplementary information provided during the assessment process (including any revisions of the BDAR and associated documentation). Officers may also need to refer to additional information, including but not limited to:

- Referral documentation from the Australian Government Department of Agriculture, Water and the Environment (DAWE), including the referral decision brief;
- Secretary's Environmental Assessment Requirements (SEARs) in relation to Commonwealth matters;
- Supporting databases and directories (such as the NSW BioNet Vegetation Classification, NSW BioNet Threatened Biodiversity Data Collection, NSW BioNet Atlas, NSW BioNet (Mitchell) Landscapes, Commonwealth Species Profile and Threats Database and the Directory of Important Wetlands in Australia, and Biogeographic Regionalisation for Australia);
- Australian Government plans and agreements (such as International environmental obligations, Recovery Plans, Approved Conservation Advice and Threat Abatement Plans) <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>; and
- NSW and Australian Government policies and guidelines (such as DPIE's Guidance to Assist a Decision-Maker to Determine a Serious and Irreversible Impact and the Australian Government's Significant Impact Guideline).

4. Information Requirements

Tables 1 and **2** provide checklist templates for use by the BCS teams when providing project assessment advice to DPIE on Australian Government matters. The templates generally follow the minimum information requirements for BDARs (refer to Appendix K of the BAM) but focus on and include additional information relevant to MNES.

The **Table 1** template requires BCS officers to verify whether the assessment documentation includes relevant required information by crossing boxes and providing written advice on the adequacy of the information, and/or any additional information requirements. In addition, the **Table 1** template requires officers:

- to provide summaries of proposed impact avoidance, minimisation, mitigation and management measures;
- to confirm the EPBC Act listed threatened species and communities that occur on the subject land, or in the vicinity (i.e.. on land to which impacts may extend), that have been identified in the BDAR/EIS;
- for **each** EPBC Act listed threatened species and/or community, to provide summaries of the:
 - nature and consequences of impacts (i.e. direct and indirect);
 - duration of impact;
 - quantum of impact;
 - consequences of impacts on the species, the population and / or extent of the community at local, state and national scales, and
 - confirmation of the level of predicted impact (likely high risk or low risk of impact).
- to confirm impacts requiring offsetting, the number and class of biodiversity credits needed in accordance with the BAM and, if known, the proposed offsetting approach;
- to consider any relevant Australian Government guidelines and policy statements, and
- to recommend any conditions of development consent.

The BCS officer will need to add or delete dot points and rows in this table, as required for each MNES.

The **Table 2** template requires BCS officers to complete a MNES impact and offsets summary table. Information in both **Table 1** and **2** will provide the basis of the information to be included in the Secretary's Assessment Report.

TABLE 1: BCS OFFICER PROJECT ADVICE TO DPIE ON EPBC ACT LISTED THREATENED SPECIES AND COMMUNITIES

Requirement	Information	Reference (BAM / BLA ¹)
Background & Description of Action	<p>Does the EIS/BDAR²:</p> <ul style="list-style-type: none"> <input type="checkbox"/> clearly show how operational and construction footprints, including clearing boundaries, structures to be built and elements of the action are situated with regard to MNES <input type="checkbox"/> depict stages and timing of the action that may impact on MNES <input type="checkbox"/> provide a map(s) of the subject land boundary showing the final proposal/disturbance footprint with respect to location of MNES, including GIS shape files <p>Include references to where this detail is provided.</p> <p>Provide advice on the adequacy of the background and action description with respect to MNES and identify any recommended additional information requirements:</p> <p>The BDAR has been provided the below to address the above criteria:</p> <ul style="list-style-type: none"> • Figure 1.3 of the BDAR displays the conceptual layout (including the ancillary features including the processing and stockpile areas, detention basins, weight bridge, site sheds, parking and haul and access roads) and vegetation disturbance area. • Table 2.1 of Appendix B of the BDAR includes a summary of key aspects for this project <p>However, Figure 4.4 of the BDAR identifies the modelled extent of drawdown in Stage 7 and 8 occurring outside of the Project Area, with drawdown predicted in an area predicted as high probability Groundwater Dependent Ecosystem (GDE). This area of GDE is likely to be EPBC Act listed Threatened Ecological Community (TEC) Subtropical Coastal Floodplain Forest of the New South Wales North Coast Bioregion. Section 8.3.7 of the BDAR states potential impacts to GDEs include alterations in species composition and richness to both increased depth and reduced quality of available groundwater.</p> <p>Additional information is required to assess the impact of predicted drawdown on EPBC Act listed TECs outside of the Project Area.</p>	BAM Chapters 3, 4, 5 and 8
Landscape Context of the MNES	Provide advice on the adequacy of the landscape context information and identify any additional information requirements:	BAM Section 3.1 BLA clause 7.4

¹ Bilateral agreement (BLA) made under section 45 of the EPBC Act, including Amending Agreement No. 1 (2020)

² Or revisions of the BDAR and associated documentation made as a result of previous reviews or project changes post-exhibition.

Requirement	Information	Reference (BAM / BLA ¹)
	<p>The landscape setting of the project site has been adequately assessed and detailed within the BDAR. Specific reference to where data is located within the BDAR has been provided below:</p> <ul style="list-style-type: none"> • Section 1.2.2 includes a general description of subject land topographic and hydrological setting, geology and soils • Figure 1.1 and 1.2 display a site map and location map which include landscape features identified in BAM Subsection 3.1.3 	
<p>EPBC Act Listed Threatened Species & Communities</p>	<p>Verify that the EIS/BDAR includes relevant information on the identification of all EPBC Act listed threatened species and communities on the site or in the vicinity³ via:</p> <ul style="list-style-type: none"> <input type="checkbox"/> field based survey effort <input type="checkbox"/> published peer reviewed literature <input type="checkbox"/> local data <input checked="" type="checkbox"/> supporting databases (such as the NSW BioNet Vegetation Classification, NSW BioNet Threatened Biodiversity Data Collection, NSW BioNet Atlas, Commonwealth Species Profile and Threats Database search results) <input type="checkbox"/> Verify that the EIS/BDAR includes appropriate mapping of all EPBC Act listed threatened species and communities in accordance with the relevant Commonwealth Listing Advice. The EIS/BDAR should include important populations and critical habitat as defined in Approved Listing Advice, Approved Conservation Advice and Recovery Action Plans. <p>Provide advice on the adequacy of the identification methods and mapping information / any additional information requirements:</p> <p>Additional information is required to ensure swift parrot (<i>Lathamus discolor</i>) and regent honeyeater (<i>Anthochaera phygria</i>) surveys have been undertaken in accordance with <i>Survey guidelines for Australia's threatened birds</i> (DEWHA 2010a). Additional information should include, but is not limited to, photographs of survey location (heavily flowering eucalypts), timing and weather during surveys, and GPS files of transect lines.</p> <p>Survey guidelines for Australia's threatened mammals (DSEWPC 2011b) does not include camera trapping as an appropriate survey technique to detect small-sized ground dwelling mammals in the field. Four (4) BioNet records of new holland mouse (<i>Pseudomys gracilicaudatus</i>) exist 0.8 km south of the Development Footprint - the latest record from 2018. Additional surveys should be undertaken for</p>	<p>BAM Chapters 4 and 5</p>

³ On land to which impacts may extend

Requirement	Information	Reference (BAM / BLA ¹)
	<p>new holland mouse in accordance with section 4.3 of Survey guidelines for Australia’s threatened mammals (DSEWPC 2011b).</p> <p>Additional information is required to ensure breeding habitat for south-eastern glossy black-cockatoo (<i>Calyptorhynchus lathami</i>) and gang-gang cockatoo (<i>Callocephalon fimbriatum</i>) have been adequately surveyed. Additional information should include, but is not limited to, photographs of survey location (presence of <i>Allocasuarina</i> sp. and appropriately sized hollows), timing and weather during surveys, and GPS files of transect lines.</p> <p>White-bellied sea eagle (<i>Haliaeetus leucogaster</i>) was recorded on site and should be included for further assessment. Additional information is required to ensure breeding habitat for red goshawk (<i>Erythrotriorchis radiatus</i>) and white-bellied sea eagle have been adequately surveyed per relevant guidelines. Additional information should include, but is not limited to, geospatial files of transect lines, and timing and weather during surveys.</p> <p>Additional information required to ensure green and golden bell frog (<i>Litoria aurea</i>) has been adequately surveyed per relevant guidelines. Additional information should include timing, rainfall and weather conditions during surveys.</p> <p>If the above requested information cannot be provided, additional surveys should be conducted per relevant guidelines.</p> <hr/> <p>Confirm that all EPBC Act listed threatened species and communities that occur on the subject land, or in the vicinity, have been identified in the BDAR/EIS including those that are ecosystem credit species.</p> <p>If any species and communities identified in the referral documentation (provided by DAWE) have been ruled out because they don’t occur on or near the site, verify that there is robust analysis and justification for why these species can be ruled out.</p> <p>Provide advice on whether there are any other MNES species or communities that are missing from the assessment based on BCS knowledge and experience.</p> <hr/> <p>Advise whether there is appropriate justification and supporting evidence for the addition and/or exclusion of any EPBC Act listed threatened species and/or communities from the list (if applicable):</p> <p>The EPBC Act listed threatened species and communities that occur on the project site or in the vicinity as generated from the Protected Matters Search Tool have been identified in the EIS. An assessment of the likelihood of each entity occurring has been undertaken (Section 5 of Appendix B of</p>	

Requirement	Information	Reference (BAM / BLA ¹)
	<p>the BDAR) and a decision as to whether an assessment of significance is required has been made (Section 6 of Appendix B of the BDAR).</p> <p>The EPBC Act listed TEC Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland (Coastal Swamp Sclerophyll Forest) has been excluded from further assessment from within the BDAR as a result of being absent from the Project Area. BCD accepts the proponent's conclusion that no vegetation is present within the Project Area which is representative of Coastal Swamp Sclerophyll Forest TEC. An assessment can be found in Table C2.2 in Appendix C of the BDAR.</p>	
<p>Avoidance, Minimisation, Mitigation & Management</p>	<p>Verify that the EIS/BDAR demonstrates all feasible alternatives and efforts to avoid and minimise impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including an analysis of alternative:</p> <ul style="list-style-type: none"> <input type="checkbox"/> designs and engineering solutions <input type="checkbox"/> modes or technologies <input type="checkbox"/> routes and locations of facilities <input type="checkbox"/> sites within the subject site <input checked="" type="checkbox"/> Verify that the EIS/BDAR identifies any other site constraints in determining the location and design of the proposal (such as bushfire protection requirements, flood planning levels, servicing constraints, etc). <p>Verify that the EIS/BDAR provides feasible measures to mitigate and/or manage impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> techniques, timing, frequency and responsibility <input type="checkbox"/> identify measures for which there is risk of failure <input type="checkbox"/> evaluate the risk and consequence of any residual impacts <input checked="" type="checkbox"/> any adaptive management strategy proposed to monitor and respond to impacts. <p>Provide advice on whether all feasible impact avoidance, minimisation, mitigation and management measures have been considered and are adequately justified:</p> <p>The BDAR does not describe the nature and extent of all relevant indirect impacts to MNES. Figure 4.4 of the BDAR identifies the modelled extent of drawdown in Stage 7 and 8 occurring outside of the Project Area, with drawdown predicted in an area predicted as high probability GDE. This area of GDE is likely to be EPBC Act listed TEC Subtropical Coastal Floodplain Forest of the New South Wales North Coast Bioregion. Section 8.3.7 of the BDAR states potential impacts to GDEs include alterations in species composition and richness to both increased depth and reduced quality of available</p>	<p>BAM Chapters 6, 7 and 8 BLA clause 7.1</p>

Requirement	Information	Reference (BAM / BLA ¹)
	<p>groundwater. Additional information is required to assess the impact of predicted drawdown on EPBC Act listed TECs outside of the Project Area.</p> <p>Section 7.1 of the BDAR mentions the Development Footprint has been refined multiple times with minimal demonstration. Further information should be provided to demonstrate project refinement. Section 7.1 of the BDAR should be amended to include figures displaying the repositioning of infrastructure to alternative routes and sites. It is recommended any additional survey effort conducted outside of the proposed Development Footprint to demonstrate the footprints lesser biodiversity value is included in the BDAR.</p> <p>Impacts from vibration to EPBC Act listed microbats roosting within Balickera Tunnel have not been adequately assessed. Table 8.3 of the BDAR states the blasting will have low impact with minimal justification. Additional information should be provided to support this statement such as peer reviewed literature or an expert report. If impacts cannot be adequately measured, BCD recommends an adaptive management plan is provided.</p> <p>Insufficient measures have been provided to mitigate vehicle strike for threatened mammals, including koala. It is recommended additional mitigation measures are included in the BDAR such as, but not limited to, installing artificial connectivity measures to establish connections between habitat and favoured transport corridors.</p>	
Impact Assessment	<p>Verify that the EIS/BDAR:</p> <ul style="list-style-type: none"> <input type="checkbox"/> identifies the residual adverse impacts likely to occur to each EPBC Act listed threatened species and/or community after the proposed avoidance and mitigation measures are taken into account <input type="checkbox"/> provides adequate justification and evidence for the predicted level of impact, with reference to the: <ul style="list-style-type: none"> • Commonwealth's Significant Impact Guideline: https://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf • DPIE Guidance to Assist a Decision-Maker to Determine a Serious and Irreversible Impact (SAIL): https://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf 	BAM Chapters 8 and 9 BLA clauses 6.2(b)(i)-(ii) and 7.1

Requirement	Information	Reference (BAM / BLA ¹)
	<p>Complete the following information for each EPBC Act listed threatened species and/or community (add/remove rows as necessary):</p> <ul style="list-style-type: none"> • EPBC Act listed threatened species and/or community • nature and consequences of impacts (i.e. direct and indirect) • duration of impact (e.g. construction, operation, life of project) • quantum of impact • consequences of impacts on the species, the population and / or extent of the community at local, state and national scales <p>Confirm the level of predicted impact (cross appropriate): <input type="checkbox"/> high risk of impact (requiring offsets)[#] or SAll <input type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>[#] For purposes of EPBC approval, as a minimum, significant adverse residual impacts must be offset (significant impact can be evaluated with reference to the significance impact guidelines)</p> <p>Provide advice on whether adequate justification and evidence is provided for species and communities that have been identified as being at low risk of impact.</p> <p><u>Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions</u></p> <ul style="list-style-type: none"> • The Project will remove approximately 5.12 ha of this ecological community. • Impact would occur during construction and operation of the project. • <i>'The Project will reduce the overall size of each of all three patches, however only patch 1 in the southwestern section of the Project Area will be fragmented into separate areas. The area to be fragmented. Patch 3 will only be reduced by approximately 7% in area and the isolation distance between the patches will only be approximately 15 m wide'</i> (from Section 1.2.1.2 in Appendix B of the BDAR). • <i>'The like-for-like credit rules will be followed for offsetting nationally listed entities which require credits. For this EEC offsetting will be undertaken through the provision of ecosystem credits for associated PCTs'</i> (from Section 1.2.1.2 in Appendix B of the BDAR). <p>Confirm the level of predicted impact (cross appropriate): <input checked="" type="checkbox"/> high risk of impact (requiring offsets)[#] or SAll <input type="checkbox"/> Low risk of impact (not requiring offsets)</p>	

Requirement	Information	Reference (BAM / BLA ¹)
	<p><u>Spotted-tailed quoll (<i>Dasyurus maculatus maculatus</i>)</u></p> <ul style="list-style-type: none"> The Project is likely to remove 79.02 ha of suitable habitat for the Spotted-tailed Quoll. Impact would occur during construction and operation of the project. <i>‘A National Recovery Plan for the Spotted-tailed Quoll (<i>Dasyurus maculatus</i>) (DELWP 2016) has been prepared. Any impacts to known habitat for the Spotted-tailed Quoll will likely contravene the objectives of the recovery plan, yet it is considered that the loss of habitat connectivity and foraging habitat associated with the Project is unlikely to significantly interfere with the recovery of the species’</i> (from Section 1.3.1 in Appendix B of the BDAR). <i>‘There are larger areas of suitable habitat available for this species in the locality, including within the Wallaroo National Park (2,780 ha), the Karuah National Park (3,534 ha), the Medowie State Conservation Area (2,851 ha), the Karuah State Conservation Area (74 ha), the Medowie Nature Reserve (238 ha) and the Karuah Nature Reserve (824 ha)’</i> (from Section 1.3.1 in Appendix B of the BDAR). This species is classified as an ‘Ecosystem Credit Species’ in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme (table 7.4 of the BDAR). <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input checked="" type="checkbox"/> high risk of impact (requiring offsets)# or SAll <input type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>BCD does not accept the assessment of the likelihood of impact to the spotted-tail quoll. The National Recovery Plan states habitat loss and modification are the greatest threats to this species and road mortality is a significant factor to the species decline. The Project will contribute to both threats.</p> <p><u>Koala (<i>Phascolarctos cinereus</i>)</u></p> <ul style="list-style-type: none"> The Project will lead to a long-term decrease of approximately 79.02 ha of suitable koala habitat. Impact would occur during construction and operation of the project. <i>‘The National Recovery Plan for the Koala (DAWE 2022c) identifies that the disturbance of habitat used by koalas for feeding or resting may adversely affect habitat critical to the survival of the species. The Development Footprint contains known koala habitat and has the potential</i> 	

Requirement	Information	Reference (BAM / BLA ¹)
	<p><i>to adversely affect habitat critical to the survival of the species'</i> (from Section 1.3.2 in Appendix B of the BDAR).</p> <ul style="list-style-type: none"> <i>'The Project involves the removal of 79.02 ha of koala habitat which will reduce the extent of habitat occupied. Direct offsets will be provided for this impact'</i> (from Section 1.3.2 in Appendix B of the BDAR). <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input checked="" type="checkbox"/> high risk of impact (requiring offsets)# or SAI <input type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>BCD accepts the assessment on the likelihood of impact to koala.</p> <p><u>Swift parrot (<i>Lathamus discolor</i>)</u></p> <ul style="list-style-type: none"> The Project will result in the loss of up to approximately 79.02 ha of habitat containing the key foraging resources including spotted gum (<i>Corymbia maculata</i>) and/or forest red gum (<i>Eucalyptus tereticornis</i>) in the Development Footprint. It is acknowledged that the Development Footprint does not provide any areas of Important Habitat mapped under the NSW Government's Biodiversity Assessment Method (BAM) for the swift parrot (DPE 2022a). No breeding habitat would be cleared as the species does not breed in NSW. Impact would occur during construction of the project 'The swift parrot has not been observed within the Development Footprint and the Project is unlikely to result in a significant impact on the population of the swift parrot' (from Section 1.3.3 in Appendix B of the BDAR). This species is classified as an 'Ecosystem Credit Species' in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme (table 7.4 of the BDAR). <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input checked="" type="checkbox"/> high risk of impact (requiring offsets)# or SAI <input type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>BCD does not accept the assessment of the likelihood of impact to the swift parrot. The National Recovery Plan for the Swift Parrot (Saunders and Tzaros 2011) lists clearing of native vegetation as a key threatening process federally and in NSW. The project will directly contribute to the loss of 79.02 ha of habitat containing the key foraging resources including spotted gum (<i>Corymbia maculata</i>) and/or forest red gum (<i>Eucalyptus tereticornis</i>).</p>	

Requirement	Information	Reference (BAM / BLA ¹)
	<p><u>Yellow-bellied glider (Petaurus australis australis)</u></p> <ul style="list-style-type: none"> • The Development Footprint is considered to comprise up to 79.02 ha of potential foraging habitat • Impact would occur during construction and operation of the project. • <i>the Project will result in the loss of up to approximately 79.02 ha of suitable habitat for the Yellow-bellied Glider, however this species has not been observed during comprehensive surveys undertaken over several years. It is therefore considered that the Project will not modify, destroy, remove, isolate, or decrease the availability or quality of habitat to the extent that the Yellow-bellied Glider would decline (section 1.4.1 in Appendix B of the BDAR)</i> • This species is classified as an ‘Ecosystem Credit Species’ in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme (table 7.4 of the BDAR). • <i>Considering the scale of the Project and associated impacts proposed, it is considered unlikely that the Project will interfere substantially with the recovery of this species (section 1.4.1 in Appendix B of the BDAR).</i> <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input type="checkbox"/> high risk of impact (requiring offsets)# or SAll <input checked="" type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>BCD accepts the assessment on the likelihood of impact to yellow-bellied glider.</p> <p><u>Grey-headed flying fox (Pteropus poliocephalus)</u></p> <ul style="list-style-type: none"> • The Project will result in the loss of up to approximately 79.02 ha of foraging habitat for grey-headed flying fox. No camps were identified on site, however individuals were recorded during surveys. • Impact would occur during the construction phase of the project. • According to the National Recovery Plan for the Grey-headed Flying-fox (DAWE 2021), foraging habitat that contains important winter and spring flowering species is considered habitat critical to the survival of the species. The Development Footprint will impact approximately 79.02 ha of vegetation containing the identified winter and spring flowering species <i>Eucalyptus</i> 	

Requirement	Information	Reference (BAM / BLA ¹)
	<p><i>tereticornis, Eucalyptus fibrosa, Eucalyptus siderophloia, Corymbia maculata and Melaleuca styphelioides.</i></p> <ul style="list-style-type: none"> This species is classified as an ‘Ecosystem Credit Species’ in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme (table 7.4 of the BDAR). Considering the scale of the Project and associated impacts proposed, it is considered unlikely that the Project will interfere substantially with the recovery of this species (section 1.4.2 in Appendix B of the BDAR). <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input checked="" type="checkbox"/> high risk of impact (requiring offsets)# or SAIL <input type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>BCD does not accept the assessment on the likelihood of impact to grey-headed flying fox. The project will directly contribute to the loss of habitat considered critical to the survival of the species.</p> <p><u>Large-eared pied bat (Chalinolobus dwyeri)</u></p> <ul style="list-style-type: none"> The Project will result in the removal of approximately 33.39 ha of suitable foraging habitat for this species, no areas of breeding habitat have been observed. Impact would occur during construction and operation of the project. ‘...tunnels by Eco Logical Australia (2021) did not identify any use by this species and the tunnel is not likely to be directly impacted by the proposal. Therefore, the Project is not likely to disrupt the breeding cycle of an important population of this species’ (from Section 1.4.3 in Appendix B of the BDAR). <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input type="checkbox"/> high risk of impact (requiring offsets)# or SAIL <input checked="" type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>BCD accepts the assessment on the likelihood of impact to large-eared pied bat as the Project is not likely to interfere with the actions required to implement the specific recovery objectives for this species.</p> <p><u>New Holland Mouse (Pseudomys novaehollandiae)</u></p>	

Requirement	Information	Reference (BAM / BLA ¹)
	<ul style="list-style-type: none"> • The Project will result in the removal of approximately 79.02 ha of potential habitat for this species • Impact would occur during construction and operation of the project. • <i>‘Project will result in the loss of up to approximately 79.02 ha of suitable habitat for the New Holland Mouse, however this species has not been observed during comprehensive surveys’</i> (from Section 1.4.4 in Appendix B of the BDAR) • <i>‘This species is classified as an ‘Ecosystem Credit Species’ in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme’</i> (from Table 7.4 of the BDAR). <p>Given surveys were not undertaken in accordance with Commonwealth guidelines and the proximity of existing records, BCD recommends additional survey is undertaken to determine the risk of impact to the species.</p> <p><u>White-throated needletail (<i>Hirundapus caudacutus</i>)</u></p> <ul style="list-style-type: none"> • The Project is not likely to remove aerial foraging habitat for this species, however, it may modify the habitats present through the removal of approximately 79.02 ha of woodland and forest habitat which may be used for time to time for opportunistic roosting. • Impact would occur during construction and operation of the project. • <i>‘The white-throated needletail has not been identified within the Development Footprint during surveys. There are eleven (11) records for this species within the Development Footprint locality, though no records directly within the Development Footprint. This species is a nomadic aerial foraging species which may fly over the Development Footprint from time to time. The Development Footprint also provides a relatively small area of suitable roosting habitat for this species’</i> (from Section 1.4.5 in Appendix B of the BDAR). • <i>‘This species is classified as an ‘Ecosystem Credit Species’ in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme’</i> (from Table 7.4 of the BDAR). <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input type="checkbox"/> high risk of impact (requiring offsets)[#] or SAIL <input checked="" type="checkbox"/> Low risk of impact (not requiring offsets)</p>	

Requirement	Information	Reference (BAM / BLA ¹)
	<p>BCD accepts the assessment on the likelihood of impact to white-throated needletail as the Project is considered unlikely to contribute to threats noted in the Approved Conservation Advice for White-throated Needletail (Threatened Species Scientific Committee, 2019).</p> <p><u>South-eastern glossy black-cockatoo (<i>Calyptorhynchus lathami lathami</i>)</u></p> <ul style="list-style-type: none"> Foraging habitat identified as habitat critical to the survival of this species in the Conservation Advice for this species (DCCEW, 2022) occurs within the site. Evidence of feeding was recorded during surveys. The Project will result in the removal of approximately 79.02 ha of potential breeding and known foraging habitat for this species. This species was not recorded breeding on site, however, additional information is required to determine surveys were conducted per relevant guidelines. Eight (8) BioNet records exist within the Development Footprint. Impact would occur during the construction phase of the project <i>'This species is classified as an 'Ecosystem Credit Species' in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme' (from Table 7.4 of the BDAR).</i> <p>BCD recommends additional information be provided to confirm threatened species surveys were conducted in accordance with relevant guidelines. If additional information cannot be provided, additional surveys should be conducted.</p> <p><u>Rufous fantail (<i>Rhipidura rufifrons</i>)</u></p> <ul style="list-style-type: none"> The Project will result in the removal of approximately 5.12 ha of potential breeding and foraging habitat for this species. This species was observed within the Project Area during surveys Impact would occur during the construction phase of the project <i>'The Project Area is considered to not contain important habitat for this species and therefore the Project is not likely to substantially modify or destroy important habitat for this species. Similarly, the Project will not seriously disrupt the lifecycle of an ecologically significant proportion of the population of this species; or result in an invasive species that is harmful to this species becoming established within the Project Area' (from Section 1.5.2 in Appendix B of the BDAR).</i> 	

Requirement	Information	Reference (BAM / BLA ¹)
	<ul style="list-style-type: none"> • <i>'This species is classified as an 'Ecosystem Credit Species' in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme'</i> (from Table 7.4 of the BDAR). <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input type="checkbox"/> high risk of impact (requiring offsets)# or SAll <input checked="" type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>BCD accepts the assessment on the likelihood of impact to rufous fantail given the context of the Project.</p> <p><u>Black-faced monarch (<i>Monarcha melanopsis</i>)</u></p> <ul style="list-style-type: none"> • The Project will result in the removal of approximately 5.12 ha of potential breeding and foraging habitat for this species. This species was not detected during surveys. • Impact would occur during the construction phase of the project • <i>'The Project Area is considered to not contain important habitat for this species and therefore the Project is not likely to substantially modify or destroy important habitat for this species. Similarly, the Project will not seriously disrupt the lifecycle of an ecologically significant proportion of the population of this species; or result in an invasive species that is harmful to this species becoming established within the Project Area'</i> (from Section 1.5.3 in Appendix B of the BDAR) • <i>'This species is classified as an 'Ecosystem Credit Species' in the BioNet threatened Biodiversity Data Collection. The ecosystem credit generated by the project would be offset in accordance with the NSW Biodiversity Offsets Scheme'</i> (from Table 7.4 of the BDAR). <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input type="checkbox"/> high risk of impact (requiring offsets)# or SAll <input checked="" type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>BCD accepts the assessment on the likelihood of impact to black-faced monarch given the context of the Project.</p>	
Offsets	<p>Verify that the EIS/BDAR:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> identifies any MNES that haven't been offset using the BAM <input checked="" type="checkbox"/> identifies how impacts requiring offsets correlate to MNES impacts <input checked="" type="checkbox"/> identifies the plant community types (PCTs) requiring offset and the number and type of ecosystem credits required for impacts to MNES 	BAM Chapter 10 BLA clauses 7.1 and 7.2

Requirement	Information	Reference (BAM / BLA ¹)
	<p><input checked="" type="checkbox"/> identifies threatened species requiring offset and the number of species credits required for impacts to MNES</p> <p><input type="checkbox"/> correctly uses the BAM (and BAM calculator) to identify the number and class of biodiversity credits that need to be offset to achieve a standard of 'no net loss' of biodiversity</p> <p><input checked="" type="checkbox"/> identifies if ecological rehabilitation and/or biodiversity conservation actions are proposed for offsetting</p> <p><input checked="" type="checkbox"/> if known, identifies any other offsetting approach proposed, such as land-based offsets, retiring credits by payment into the Biodiversity Conservation Fund and/or through supplementary measures[#].</p> <p>[#]In accordance the BAM there is no longer a requirement to define the offsetting approach at EIS stage.</p> <p>Complete the Impacts and Offsets Summary table below (Table 2)</p> <hr/> <p>Provide advice on the adequacy of the proposed offsets in meeting the requirements of the BAM:</p> <p>Table C2.3 in Appendix C of the BDAR states PCTs 762, 1618 and 1716 all correspond to the Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions EEC listed under the EPBC Act. However, this is not recorded within the BAM-C.</p> <p>The BAM-C should be amended to include PCTs 762, 1618 and 1716 as commensurate with EEC Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregion listed under the EPBC Act.</p>	
Other Considerations	<p>Verify if any relevant Commonwealth guidelines and policy statements are applicable to the action and listed threatened species and/or community, including but not limited to:</p> <p><input type="checkbox"/> International environmental obligations</p> <p><input checked="" type="checkbox"/> Recovery Plans</p> <p><input checked="" type="checkbox"/> Approved Conservation Advice</p> <p><input type="checkbox"/> Threat Abatement Plans</p> <p><i>The relevant Commonwealth guidelines and policy statements for each species and community are available at: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl</i></p> <hr/> <p>For each EPBC Act listed threatened species and/or community, provide advice on whether the assessment has been adequately informed by applicable Commonwealth guidelines and/or policy statements. For example, the interaction between the proposed action and important populations or</p>	BLA clauses 6.2(b)(iv), 7.2(c), 7.3 and 7.4

Requirement	Information	Reference (BAM / BLA ¹)
	<p>critical habitat identified in policy documents and/or the interaction between the proposed action and threatening processes or recommended conservation actions outlined in Commonwealth policies and plans.</p> <p><u>Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions</u></p> <ul style="list-style-type: none"> • A comparative assessment of equivalency has identified that this TEC is present within the project site and meets the condition thresholds outlined in the Approved Conservation Advice (including listing advice) for Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions. • The MNES assessment for the community has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment does not refer to the approved Conservation Advice (DCCEW, 2022) for this TEC. • Further consideration should be given to threats identified in the Conservation Advice (DCCEW, 2022), specifically the Projects impact on hydrological changes, weeds, diseases and pathogens for this TEC. <p><u>Spotted-tailed quoll (<i>Dasyurus maculatus maculatus</i>)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment of the species references the National Recovery Plan for the Spotted-tailed Quoll (DELWP 2016). • The assessment acknowledges the Project will contribute to a threat identified in the National Recovery Plan, however concludes the Project is unlikely to interfere with the recovery of the species. Further justification should be provided. <p><u>Koala (<i>Phascolarctos cinereus</i>)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has accurately recognised that the project will likely lead to an impact to the species within the project site, according to the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. 	

Requirement	Information	Reference (BAM / BLA ¹)
	<ul style="list-style-type: none"> • The assessment of the species references the National Recovery Plan for the Koala (DAWE 2022c) and acknowledges the Project has the potential to adversely affect habitat critical to the survival of the species. <p><u>Swift parrot (Lathamus discolor)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment acknowledges the Project will result in the removal of key foraging tree species, forest red gum and Spotted Gum as recognised in the National Recovery Plan for the Swift Parrot (Saunders and Tzaros 2011). However, the assessment fails to acknowledge the Project will contribute to a threat identified in the National Recovery Plan <p><u>Yellow-bellied glider (Petaurus australis australis)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment does not reference the Recovery Plan for the Yellow-bellied Glider (NSW National Park and Wildlife Services, 2003) <p><u>Grey-headed flying-fox (Pteropus poliocephalus)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment acknowledges the Project will contribute to the removal of habitat considered critical to the survival of the species in the National Recovery Plan for the Grey-headed Flying-fox (SAWE 2021), however concludes the Project is unlikely to interfere with the recovery of the species. Further justification should be provided. <p><u>Large-eared pied bat (Chalinolobus dwyeri)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment references the Recovery Plan for the Large-eared Pied Bat (DERM, 2011) and concludes the Project is unlikely to contribute to threats identified in the recovery plan. <p><u>New holland mouse (Pseudomys novaehollandiae)</u></p>	

Requirement	Information	Reference (BAM / BLA ¹)
	<ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment does not reference the Threat abatement plan for predation by feral cats (DPE, 2015). • The assessment does not reference the Threat abatement plan for disease in natural ecosystems caused by <i>Phytophthora cinnamomic</i> (DPE, 2018). <p><u>White-throated needletail (<i>Hirundapus caudacutus</i>)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has accurately recognised that the project is unlikely to lead to an impact to the species within the project site, according to the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment references the Approved Conservation Advice (TSSC, 2019) for this species. <p><u>South-eastern glossy black-cockatoo (<i>Calyptorhynchus lathami lathami</i>)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • The assessment does not refer to the Conservation Advice (DCCEW, 2022) for this species. • There are no recovery plans or threat abatement plans for this species. <p><u>Rufous fantail (<i>Rhipidura rufifrons</i>)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • There is no approved conservation advice, recovery plans or threat abatement plans for this species. <p><u>Black-faced monarch (<i>Monarcha melanopsis</i>)</u></p> <ul style="list-style-type: none"> • The MNES assessment for the species has been prepared in accordance with the Commonwealth Matters of National Environmental Significance: Significant Impact Guidelines. • There is no approved conservation advice, recovery plans or threat abatement plans for this species. 	

Requirement	Information	Reference (BAM / BLA ¹)
Recommended Conditions	<p>Provide advice on any recommended conditions and reasons for imposing the conditions:</p> <p>BCD recommend that if this project is approved by DAWE that any consent issued includes approval conditions that include the following requirements and outcomes:</p> <ul style="list-style-type: none"> • Impacts to EPBC Act Listed TEC Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions identified within groundwater drawdown zones outside of the development Footprint are included in the assessment and adequately offset. • An adaptive management plan is created and implemented to mitigate unknown impacts from blasting and drawdown. This is particularly important to minimise impacts to roosting EPBC Act listed microbats within Balickera Tunnel and groundwater dependent threatened entities. • Investigate and implement measures to minimise vehicle strike to koala and enable connectivity across Italia Road. • Weed and pathogen management to effectively prevent weed and pathogen incursion from disturbed areas such as Italia Road and the Pacific Highway into remaining areas of EPBC Act Listed TEC Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions. 	BLA clause 6.2(c)(iii)

TABLE 2: MNES IMPACT AND OFFSET SUMMARY

Threatened Species / Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community (if applicable)	Area of Impact (ha)	Credits Required	Offsetting Approach	Reference (EIS, BDAR)
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	762, 1618, 1716	5.12	178	Offsetting using ecosystem credits for associated PCTs	Table 7.4 in Appendix B of the BDAR
Spotted-tailed Quoll (southeastern mainland population) <i>Dasyurus maculatus maculatus</i>	762, 1590, 1618, 1619, 1716	79.02	2,228	Offset under BC Act requirements using ecosystem credits	Table 7.4 in Appendix B of the BDAR
Koala <i>Phascolarctos cinereus</i>	762, 1590, 1618, 1619, 1716	79.02	2,929	Offsetting like-for-like species credits	Table 7.4 in Appendix B of the BDAR
Yellow-bellied Glider (south-eastern) <i>Petaurus australis australis</i>	762, 1590, 1618, 1619	75.11	2,097	Offset under BC Act requirements using ecosystem credits	Table 7.4 in Appendix B of the BDAR
Grey-headed Flying-fox <i>Pteropus poliocephalus</i>	762, 1590, 1618, 1619, 1716	79.02	2,228	Offset under BC Act requirements using ecosystem credits	Table 7.4 in Appendix B of the BDAR
Large-eared Pied Bat <i>Chalinolobus dwyeri</i>	Not provided	Not provided	Not provided	Not provided	Not provided

New Holland Mouse Pseudomys novaehollandiae	1590, 1618, 1619, 1716	78.69	2,215	Offset under BC Act requirements using ecosystem credits	Table 7.4 in Appendix B of the BDAR
White-throated Needletail Hirundapus caudacutus	762, 1590, 1618, 1619, 1716	79.02	2,228	Offset under BC Act requirements using ecosystem credits	Table 7.4 in Appendix B of the BDAR
Swift Parrot Lathamus discolor	762, 1590, 1618, 1619, 1716	79.02	2,228	Offset under BC Act requirements using ecosystem credits	Table 7.4 in Appendix B of the BDAR
South-eastern Glossy Black Cockatoo Calyptorhynchus lathami lathami	762, 1590, 1618, 1619, 1716	79.02	2,228	Offset under BC Act requirements using ecosystem credits	Table 7.4 in Appendix B of the BDAR
Rufous Fantail Rhipidura rufifrons	N/A	79.02	<i>No requirement although species will be indirectly offset through retirement of ecosystem credits</i>	Indirect offsetting through retirement of ecosystem credits	Table 7.4 in Appendix B of the BDAR
Black-faced Monarch Monarcha melanopsis	762, 1618 and 1716	79.02	<i>No requirement although species will be indirectly offset through retirement of ecosystem credits</i>	Indirect offsetting through retirement of ecosystem credits	Table 7.4 in Appendix B of the BDAR