

Assessment of EPBC Act-listed threatened species and communities for projects

Suggested information for inclusion in the advice to DP&E

1. Identifying MNES

(a) **Confirm** whether all the EPBC Act-listed threatened species and communities that occur on the project site, or in the vicinity are identified in the EIS. Note which species and/or communities have not been identified. *The Commonwealth has provided NSW with referral documentation which includes a possible list of MNES recorded on and within the vicinity of the project site generated from the Environmental Reporting Tool (ERT Report). If you do not have the referral documentation contact the DP&E assessment officer.*

The *Environment Protection and Biodiversity Conservation Act 1999* (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 Environmental Impact Statement (EIS). An assessment of the likelihood of each entity occurring has been undertaken and a decision as to whether an assessment of significance is required has been made (Section 8 of the Biodiversity Assessment Report (BAR)).

All communities and species listed in the referral documentation that are likely to be significantly impacted have been identified in the BAR:

- White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland
- Koala (*Phascolarctos cinereus*) (Combined populations of Queensland, New South Wales and the Australian Capital Territory)
- Superb Parrot
- Latham's Snipe

Two MNES were considered to have 'potential' to occur in the project site but have not been included in the offset calculation; the superb parrot and Latham's snipe. One superb parrot was recorded directly south of the mine development while one Latham's snipe was recorded in the project site.

Two MNES considered to have 'potential' to occur in the project will be significant impacted and have been included in the offset calculation: White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland and the koala.

(b) **Comment** on whether the Framework for Biodiversity Assessment (FBA) has been applied to all EPBC Act-listed threatened species and communities that occur on the project site or in the vicinity.

The project involves the development and operation of an open cut gold mine. The mine comprises a single circular open cut mine with a maximum diameter of approximately 1,050 metres, a carbon-in-leach processing facility, waste rock emplacements, tailing storage facility and associated infrastructure. The development will impact 132.36 hectares of native vegetation.

The FBA has been fully applied in terms of survey effort and addressing the minimum information requirements for the biodiversity offset strategy (Table 22 of the FBA).

All entities that were identified as requiring an assessment of significance have been assessed. Impacts on the one ecological community and three fauna species listed in (1a) above that are likely to be significantly impacted were assessed using the FBA, and credit obligations have been determined for one community and one fauna species. Outcomes are discussed in (1d) below.

EPBC-Act listed threatened species and communities that are considered by DoEE to have a real chance or possibility that project activities will significantly impact on them are detailed in the table below:

Entity	Assessment of potential impact as stated by the proponent
Spotted-tailed quoll	Unlikely to occur as the species has not been recorded in the former Lachlan CMA area in which this area is located. The landscape in this area is highly fragmented, with few large patches of vegetation remaining that would provide suitable core habitat for this species.

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Swift parrot	Unlikely to occur. Although Yellow box, present in PCT 1330 is recognised by the National Recovery Plan for the Swift parrot in the former Lachlan CMA area (in which the project occurs), targeted surveys conducted in accordance with the Commonwealth guidelines did not record this species.
Superb parrot	Recorded from Last Chance Mine, 1 km south of the project area. According to Figure 1 of the species recovery plan, it is not known to breed in the project area and it likely to be a vagrant. Further assessment of this species is provided (section 8.2 of the BAR).
Koala	Recorded in February 2019 in apple box. PCT 591 contains manna gum, a primary food tree, while PCT 1330 contains apple box and yellow box, two secondary feed trees in the southern and central tablelands koala management area, in which the project occurs. Further assessment of this species is provided (section 8.2 of the BAR).
Regent honeyeater	Low likelihood. Although the project area represents habitat critical to the survival of the species in accordance with the National Recovery Plan and contains yellow box (foraging habitat) in an area where the species is likely to occur, targeted surveys conducted in accordance with the Commonwealth guidelines did not record this species.
Curlew sandpiper	Unlikely to occur as suitable foraging habitat (intertidal mudflats, swamps, lakes, lagoons) are absent.
Malleefowl	Unlikely to occur due to absence of required habitat types.
Eastern Curlew	Unlikely to occur given the absence of required foraging habitat types (i.e. mudflats, mangroves, coastal lakes).
Australian painted snipe	Unlikely to occur given the absence of preferred foraging habitat types including swamps and marshes.
Booroolong frog	Unlikely to occur as suitable habitat (i.e. cobble banks/rock structures) are absent.
Yellow-spotted tree-frog	Unlikely to occur as the species is locally extinct.
Large-eared pied bat	Unlikely to occur as suitable cave-roosting habitats are absent.
Greater glider	Unlikely to occur given the absence of tall moist eucalypt forest.
Grey-headed flying-fox	Unlikely to occur as there are no roosting camps within 20km of the project area.
Pink-tailed worm-lizard	Unlikely as the closest record, and the eastern boundary of the species distribution, is over 50 kilometres west of the project area.
Striped legless lizard	Unlikely to occur as the species is not known to occur in the former Lachlan CMA area, in which the project is located.

(c) In the circumstance where there are EPBC Act-listed species that are not addressed by the FBA (i.e. migratory species) **comment** on whether these species have been assessed in accordance with the SEARs and provide references to where the assessment information is detailed in the EIS.

All species have been assessed in accordance with the SEARs.

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(d) **Verify** that the proponent has expressed a statement about the potential impact i.e. likely significant, low risk of impact, not occurring, for each listed threatened species and community protected by the EPBC Act referred to in 1(a). Note which species and/or communities have not been addressed in this manner.

Entity	Assessment of potential impact as stated by the proponent
White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland	<p>PCT 1330 in moderate/high (good) and moderate/good (medium) condition meet the criteria for White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland as listed under the EPBC Act.</p> <p>PCT 1330 in moderate/good (poor) and moderate/good (other) condition do not meet the criteria.</p> <p>Approximately 18.5 hectares of the EPBC Act listed community will be impacted by the project.</p> <p>The project is expected to result in significant impacts on White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland.</p> <p>A credit requirement of 2,198 ecosystem credits has been calculated.</p>
Koala (<i>Phascolarctos cinereus</i>) (Combined populations of Queensland, New South Wales and the Australian Capital Territory)	<p>The koala is associated with two PCTs in the project area – PCT 951 and PCT 1330. PCT 727 does not contain greater than 15% koala food tree species and does not meet the criteria as koala habitat.</p> <p>Approximately 31.55 hectares of primary koala habitat and 44.22 hectares of secondary koala habitat occurs in the disturbance footprint of the mine development.</p> <p>With a score of seven, vegetation in the project area represents koala habitat in accordance with the referral guidelines.</p> <p>The project is expected to result in significant impacts on koala.</p> <p>A credit requirement of 1,970 species credits has been calculated.</p>
Superb parrot	<p>The project will remove 18.5 hectares of potential foraging habitat for the superb parrot.</p> <p>Superb parrots may occasionally forage in the project area; however, it does not contain the required vegetation types stated in the recovery plan and is not considered core breeding habitat.</p> <p>The project is not expected to result in significant impacts on the superb parrot.</p>
Latham's snipe	<p>The project will not remove any potential foraging habitat for the Latham's snipe.</p> <p>There is one record adjacent to the project area.</p> <p>The project area is not recognised as an internationally important wetland for the species.</p> <p>The project is not expected to result in significant impacts on Latham's snipe.</p>

(e) **Identify** where further information from the proponent is critical to the assessment of MNES particularly in relation to mapping Table 1 (A), analysis of impacts Table 1 (F) and Table 2 (F), avoidance, mitigation and offsetting, and 6. DP&E would like to be made aware of this as soon as practicably possible – a phone call will do.

No further information is required.

2. Assessment of the relevant impacts

All EPBC Act-listed species and/or communities that the Commonwealth consider would be significantly impacted (as noted in the referral documentation) should be assessed and offset. These are referred to as relevant impacts. *If you do not have the Commonwealth's referral brief contact the DP&E assessment officer.*

(a) **Verify** [by ticking the following boxes]:

- ✓ the nature and extent of all the relevant impacts has been described
- ✓ measures to avoid and mitigate have been described
- an appropriate offset for any residual adverse significant impact has been determined. *Note an offset is appropriate if calculated by the FBA and provides an offset specifically for the entity impacted.*

Offset requirements for MNES have been appropriately calculated under the FBA.

The proponent intends to meet the credit requirements through one, or a combination of, the following:

- Establishment of a biodiversity stewardship site;
- Purchase and retire credits available on the biodiversity credit register; and/or
- Payment into the Biodiversity Conservation Fund.

A specific on-ground "offset" has not been identified and may not be required to retire the credit liability of the project. The mechanisms to retire the offset requirement (as described above) will be included in the project's approval conditions.

(b) **Note** if information in relation to any of these boxes has not been provided for any relevant EPBC Act-listed species and communities.

As discussed in 2(a) above, the proponent has indicated that the credit obligation will be met through one or more of the offset options available. The credit obligation and the options available to retire the credits will be included as a project approval condition.

(c) There may be listed threatened species and communities for which the proponent will claim that the impact will be **not** significant in accordance with the *EPBC Act Significant Impact Guidelines*. Please **provide** advice for cases where OEH disagrees with this finding. *Note that generally the Commonwealth will not accept that a species determined to be significantly impacted at the referral decision stage is not likely to be significantly impacted unless strong evidence can be provided.*

BCD is satisfied that the impact to superb parrot and Latham's snipe is not significant.

The project area is outside the known breeding area for superb parrot although they may occasionally occur and forage in the area.

There is no suitable habitat for Latham's snipe within the project footprint.

(d) Provide references to where specific lists or tables are detailed in the EIS i.e. *List of EPBC Act-listed EECs Appendix J Table 4 pg 65*

- Vegetation zones identified along with broad condition states and ancillary - Table 4.2, page 26, Biodiversity Assessment Report (BAR)
- Vegetation zones 1-4 description – Table 4.3, page 30, BAR

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- Candidate threatened species assessment – Table 5.3, page 45, BAR
- Residual project impacts – Table 7.1, page 68, BAR
- Assessment of significance for White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Table 8.1, page 81, BAR
- Threatened species predicted to be present – Table 8.2, page 83, BAR
- Koala habitat assessment tool (Commonwealth of Australia 2014) – Table 8.3, page 85, BAR
- Assessment of significance for the koala – Table 8.4, page 86, BAR
- Assessment of significance for the superb parrot – Table 8.5, page 89, BAR
- Migratory species predicted to be present – Table 8.6, page 90, BAR
- Assessment of significance for Latham's Snipe– Table 8.7, page 91, BAR

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Table 1 Impact Summary Relevant EPBC Act –listed Ecological Communities (refer to section 3)

A	B	C	D	E		F	G
EPBC Act -listed EEC	Y/N	PCTs	Y/N/comment	Ha	Credits	Comment	Relevant page numbers in the EIS
White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Yes	PCT 1330 – Yellow Box – Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion	Yes	18.5	2,198	The impact footprint is largely determined by the location of the resource. High quality EEC has been avoided outside the open cut mine area. Analysis of both direct and indirect impacts is adequate and includes downstream impacts, limiting disturbance, pre-clearing and clearing procedures, weed and pathogen monitoring and control and rehabilitation.	Appendix C of the BAR – BioBanking credit report Section 7.2 of the BAR, p 66.

(A) **List** the relevant EPBC Act listed ecological communities that will be significantly impacted in accordance with the referral documentation.

(B) **Verify** that there is evidence in the EIS that listed EEC and species habitat has been mapped in accordance with relevant listing guidelines (Yes/No).

Proponents are required by the SEARs to ensure that EPBC-listed communities are mapped in accordance with EPBC Act listing criteria. It is important that any derived native grassland components of an EPBC listed EEC are included in the mapping of native vegetation extent.

(C) **List** the Plant Community Types (PCTs) associated with the ecological communities in accordance with Chapter 5 of the FBA.

(D) **Confirm** that the identification of PCTs has been correct (Yes/No) and comment if not correct.

(E) **Record** the area of impact (ha) and credits required.

(F) **Comment** on the analysis of the impacts in relation to the nature and extent of the impact and whether or not the EIS includes an analysis of the direct and indirect impacts to the EEC. Note whether further information might be required.

(G) **Cite** relevant page numbers for details provided the EIS and Appendices for each EEC.

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Table 2 Impact Summary Relevant EPBC Act –listed Species (refer to section 4)

A	B	C	D	E		F	G
Threatened species (listed under the EPBC Act)	Credit Type (SC/EC)	Record PCTs associated with ecosystem credits	Y/N/Comment	Ha (total species habitat)	Credits (total species habitat)	Comment	Relevant page numbers in the EIS and Appendices
Koala (<i>Phascolarctos cinereus</i>) (Combined populations of Queensland, New South Wales and the Australian Capital Territory)	SC		Yes	75.77	1,970	The impact footprint is largely determined by the location of the resource. High quality threatened species habitat has been avoided outside the open cut mine area. Analysis of both direct and indirect impacts is adequate and includes limiting disturbance, pre- clearing surveys and relocation and habitat rehabilitation. BCD has sought additional information regarding translocation of koalas found during pre- clearing surveys.	BAR, Section 7.2 p 66. Table 7.1, p 69 Table 7.4, p 76

- (A) **List** the relevant threatened species that will be significantly impacted in accordance with the referral documentation.
- (B) **Record** whether the relevant threatened species is classified as “species credit species” of ecosystem credit species for the purposes of the FBA.
- (C) **List** the PCTs associated with the ecosystem credit species.
- (D) **Verify** that the habitat polygons for MNES have been mapped appropriately representing the foraging and/or breeding habitat for the species that will be impacted by the development.
- (E) **Record** the area of impact (ha) and credits required. For impacts associated with ecosystem credit species identify the total credit requirements associated with the cleared PCTs identified as habitat for the species.
- (F) **Comment** on the adequacy of the analysis of the impacts in relation to the nature and extent of the impact and whether or not the EIS includes an analysis of the direct and indirect impacts to the species. Note if further information is required.
- (G) **Cite** relevant page numbers for details provided in the EIS and Appendices for each threatened species.

3. Avoid, mitigate and offset

Comment on whether or not the EIS identifies measures to avoid and minimise impacts on the relevant EPBC Act-listed threatened species and communities. Section 8 of the FBA requires that proponents detail these efforts and commitments in the EIS. Identify gaps in the discussion on measures to avoid and minimise impacts on Commonwealth matters. Provide references to sections and page numbers in the EIS.

Section 7.2 of the BAR discusses measures to avoid and minimise impacts.

All areas of PCT 1330 Moderate/Good (High) have been avoided except for a small area in the direct footprint of the mine. There has been a minimisation of impacts to PCT 1330 Moderate/Good (Medium) wherever feasible. The anticipated impact to the listed White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland at the time of the pre-referral meeting with DoEE was approximately 35.5 hectares. The residual impact is now 18.5 hectares (BAR p 67).

Koala habitat on site includes PCT 1330 (see comments above) and PCT 951. The residual impact for PCT 951 is 31.55 ha (BAR p 69). Avoidance of koala habitat has been largely achieved through avoidance of PCT 1330 (BAR p 67).

Comment on the adequacy and feasibility of measures to avoid and minimise impacts. Identify inadequacies where further efforts could be made to avoid and minimise impacts on Commonwealth matters. Provide references to sections and page numbers in the EIS that discuss avoidance and mitigation measures relevant to EPBC Act-listed species and communities.

The impact footprint is largely determined by the location of the resource. High quality EEC and threatened species habitat has been avoided outside the open cut mine area (see above).

Section 7.2 of the BAR discusses measures to avoid and minimise impacts.

4. Offsetting

(a) **Verify** [by ticking the following boxes] that the offsets proposed to address impacts to EPBC-listed threatened species and communities are in accordance with the requirements under the EPBC Act.

- ✓ An appropriate offset for any residual adverse significant impact has been determined.
- ✓ Proposed offsets for EECs provide a like for like outcome i.e. proponents have identified PCTs attributed to the specific threatened ecological community being impacted
- ✓ Proposed offsets have been determined using the FBA

If offsets have not been determined in accordance with the FBA, Planning is required to discuss the proposed approach with the Commonwealth as soon as possible.

Offset requirements for MNES have been appropriately calculated under the FBA.

The proponent intends to meet the credit requirements through one, or a combination of, the following:

- Establishment of a biodiversity stewardship site;
- Purchase and retire credits available on the biodiversity credit register; and/or
- Payment into the Biodiversity Conservation Fund.

A specific on-ground "offset" has not been identified. The mechanisms to retire the offset requirement (as described above) will be included in the projects Approval Conditions.

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5. **Comment** on whether the information and data relied upon for the assessment have been appropriately referenced in the EIS. Comment on the validity of the sources of information and robustness of the evidence.

The information and data used in the assessment has been appropriately referenced, and the sources of information are valid.

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Table 3 Summary of Offset Requirements

A	B	C	D	E	F
Threatened species or EEC (listed under the EPBC Act)	Credits required as calculated by the FBA	Credits generated from offsets in remnant vegetation	Credits generated from offsets proposed by other means	Comment on the proposed offsets.	Relevant page numbers in the EIS and Appendices
White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland	2,198	Not yet identified. May not be required.	Not yet identified. May not be required.	The proponent intends to meet the credit requirements through one, or a combination of, the following: <ul style="list-style-type: none"> • Establishment of a biodiversity stewardship site; • Purchase and retire credits available on the biodiversity credit register; and/or • Payment into the Biodiversity Conservation Fund. 	Section 7.6 of the BAR, p 76
Koala (<i>Phascolarctos cinereus</i>) (Combined populations of Queensland, New South Wales and the Australian Capital Territory)	1,970	Not yet identified. May not be required.	Not yet identified. May not be required.	The proponent intends to meet the credit requirements through one, or a combination of, the following: <ul style="list-style-type: none"> • Establishment of a biodiversity stewardship site; • Purchase and retire credits available on the biodiversity credit register; and/or • Payment into the Biodiversity Conservation Fund. 	Section 7.6 of the BAR, p 76

- (A) **List** the relevant threatened species or ecological community included in the proposed offset package (these are the listed species and communities that will be significantly impacted in accordance with the *EPBC Act Significant Impact Guidelines 1.1*). Identify any relevant species or ecological communities which have not been included in the proposed offset package.
- (B) **List** the total credit requirement identified by the FBA for impacted listed threatened species and ecological community. For EECs and ecosystem credit species this is the sum of the credits generated by PCTs associated.
- (C) **Identify** the total number of required credits which are proposed to be retired through conserving and managing remnant / mature vegetation.

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- (D) **Identify** the number of credits proposed to be met through other methods allowable under the FBA, such as rehabilitation of impacted areas or regrowth vegetation.
- (E) **Comment** on the adequacy of the proposed offset in meeting requirements of the FBA and the EPBC Act. In particular is there a reasonable argument for a shortfall in credits required for MNES and/or non-compliance with like-for like? Are the offsets proposed by means other than protection of remnant vegetation adequate?
- (F) **Reference** the relevant page numbers from the EIS and Appendices for each threatened species and community.