

4.11 ECOLOGY

4.11.1 Flora and Fauna Survey Effort within Project Boundary

This section responds to submissions raised in relation to the adequacy of the survey effort undertaken within the Project Boundary and biodiversity offsets areas.

Submission reference: SIG8, SIG10 and P21

Summary response: The extent of the surveys was specific to the land impacted by the Project (including biodiversity offset areas). The surveys were undertaken in accordance with relevant guidelines and supplemented by existing site specific and locality data and literature. In this regard, the survey effort was deemed suitable to characterise site specific biodiversity of the Project Boundary.

Extent of Surveys

The majority of surveys presented within the Ecological Impact Assessment were undertaken within the Project Boundary, with some additional surveys having been undertaken within Breeza State Forest. Due to access restrictions, surveys could not be conducted in areas outside of the area covered by EL 7223. The information collected within the Project Boundary was supplemented by existing knowledge of the locality to assist in determining the likelihood of occurrence of threatened species.

General Surveys

A substantial amount of surveying was undertaken within the Project Boundary as outlined within Chapter 2 of the Ecological Impact Assessment. Surveys were undertaken within various seasons over the period between November 2010 and March 2012. Section 2.5 of the Ecological Impact Assessment outlined the limitations associated within the flora and fauna surveys conducted within the Project Boundary. As noted within Section 2.5.2 of the Ecological Impact Assessment, the OEH *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities* (Working Draft) (DEC, 2004) stipulate that “*Selection of the survey methods required will depend on the investigator’s assessment of the types of animals (and habitats) potentially present on the site, based on the preliminary assessment and habitat assessment*”. Deviations from the guidelines are outlined and justified within Section 2.5 of the Ecological Impact Assessment. The data obtained from literature review, database assessment and surveys of the Project Boundary furnished an appropriate level of information to support the Ecological Impact Assessment for the Project.

Further surveys of the grassland within the Project Boundary and agricultural areas were undertaken in September and October 2013 to supplement the existing data for the purpose of responding to relevant submissions (see **Appendix D**).

Fauna Surveys within Grassland and Agricultural Areas

The Project Boundary includes a mosaic of woodland remnants on hilltops and along roadsides and streams that occur amid broad areas of grassland and agricultural areas. Fauna surveys were focussed on the woodland areas rather than the very highly modified grassland and agricultural area, which include extensive areas of cropland and exotic pasture.

As noted within Section 2.5.2 of the Ecological Impact Assessment, ground dwelling small mammals and reptiles are under-represented within the Project Boundary as they are generally depleted in highly modified, fragmented woodland and farmland areas where introduced Foxes are abundant.

Despite limited targeted fauna surveys being undertaken within the grassland and agricultural areas, any fauna species observed within these areas were recorded throughout the survey period. Additional information on the habitat values of these areas was also collected. This information was supplemented by existing knowledge from the Project Boundary and locality to assist in determining the likelihood of occurrence of threatened species within these areas.

Threatened Species

As well as providing an overall census of the flora and fauna within the Project Boundary, the surveys undertaken as part of the Ecological Impact Assessment were also designed to target threatened species that were considered to have potential habitat in the area. The assessment of known and potential occurrence of threatened species within the Project Boundary was guided by:

- Data collected by Cumberland Ecology within the Project Boundary;
- Data collected by GHD within the Project Boundary (GHD, 2009);
- Data collected by Umwelt for the nearby Caroon Coal Project (Umwelt, 2009); and
- Database analysis (Atlas of NSW Wildlife and EPBC Protected Matters Search Tool).

As noted within Section 2.5.2 of the Ecological Impact Assessment, the guidelines state that “where limitations cannot be overcome, an assessment of the likelihood of threatened animals utilising the habitat must be made in order to comply with legislation”...“If it is not possible to sample for threatened species (e.g. bats, frogs) previously recorded in the general area during appropriate seasons and weather conditions, it must be assumed that these species occur in the study site if suitable habitat exists”. Such a precautionary approach was used in the preparation of the Ecological Impact Assessment to assume the presence of threatened species where the presence of suitable habitat was recorded (e.g. *Digitaria porrecta*, Hooded Robin, Spotted-tailed Quoll and Large-eared Pied Bat).

Surveys within Biodiversity Offset Areas

A substantial amount of field surveys has been undertaken within the biodiversity offset areas for the Project, particularly since the exhibition of the Ecological Impact Assessment. Surveys of the Offset Areas were targeted towards the threatened communities and species known or considered likely to be impacted by the Project. A detailed description of the survey methods and effort undertaken within the biodiversity offset areas is provided in the Biodiversity Offsets Report (**Appendix F**).

The biodiversity offset areas were surveyed on the following dates:

- Mt Watermark Offset Area: 14 December 2010, 1, 3-13 May 2011, 2 June 2011, 22 September 2011, 16 February 2012, 26-27 March 2012;
- Revised Offset Area 6: 21-24 February 2012, 28-30 March 2012, 9-16 September 2013;

- Existing Offsite Offset Area: 2, 4-5, 16-20 July 2013, 4-6, 9-16 September 2013; and
- Additional Offsite Offset Area: 15-16 August 2012, 21-22, 24 May 2013, 21-23, 28-30 August 2013, 2-3 September 2013.

A summary of survey effort for each of the offset areas is provided in **Table 43**. As discussed within Section 2.8 of the Biodiversity Offsets Report (**Appendix F**), adequate data exists for the assessment of the suitability of the biodiversity offset areas for the Project. The data produced by the surveys is indicative of the types of species that could occur and not an absolute census of all flora and fauna species of the biodiversity offset areas.

Table 43
Survey Techniques within the Onsite and Offsite Biodiversity Offset Areas

Survey Type	Mt Watermark Offset Area	Revised Offset Area 6	Existing Offsite Offset Area	Additional Offsite Offset Area
Flora				
Vegetation Mapping	Throughout survey period	Throughout survey period	Throughout survey period	Throughout survey period
Quadrat Sampling	10 quadrats	41 quadrats	54 quadrats	44 quadrats
BioBanking Surveys	10 BioBanking plots	41 BioBanking plots	54 BioBanking plots	44 BioBanking plots
Fauna				
Habitat Assessments	Throughout survey period	Throughout survey period	Throughout survey period	Throughout survey period
Diurnal Bird Surveys	3 sites and throughout survey period	3 sites and throughout survey period	22 sites and throughout survey period	38 sites and throughout survey period
Ultrasonic Call Detection	6 survey nights (3 sites)	6 survey nights (3 sites)	10 survey nights (5 sites)	16 survey nights (8 sites)
Harp Trapping	4 trap nights (2 sites)	8 trap nights (4 sites)		
Spotlighting Surveys and Call Playback	2 hours	1 hour		
IR Camera Detection	10 nights (1 site)			
Koala SAT Surveys	6 sites	31 sites		33 sites

4.11.2 Results of Flora and Fauna Surveys

Vegetation Communities and Quadrat Data

This section responds to the submission from OEH in relation to the provision of quadrat data to verify the vegetation communities within the Project Boundary.

Submission reference: RA9

Summary response: Quadrat data recorded during the surveys for the EIS are provided in Appendix E of the Ecological Impact Assessment.

Descriptions of vegetation communities occurring within the Project Boundary are provided in Section 3.1 of the Ecological Impact Assessment. These communities have been assessed within the Ecological Impact Assessment as to whether they conform to the NSW *Threatened Species Conservation Act 1995* (TSC Act) and EPBC Act listings of CEECs. No changes to this assessment or the listings of vegetation communities within the Project Boundary have been made since the exhibition of the Ecological Impact Assessment.

Quadrat data collected during the preparation of the Ecological Impact Assessment is provided in Appendix E of the Ecological Impact Assessment. Quadrat data from recent surveys within the Project Boundary and onsite and Offsite Biodiversity Offset Areas are provided in **Appendix D** (Grassland Assessment Report) and **Appendix F** (Biodiversity Offsets Report).

Grassland Mapping

This section responds to submissions from stakeholders in relation to the verification of mapping provided for grassland within the Project Boundary, specifically agricultural areas.

Submission reference: RA9 and SIG8

*Summary response: A supplementary assessment of different grassland communities within the Project Boundary, specifically areas within the Disturbance Boundary and agricultural areas, has been delineated and is provided in **Appendix D**. This has not resulted in any changes to the mapped extent of Derived Native Grassland, which is listed under the TSC Act or EPBC Act. In this regard, no further biodiversity offsets beyond that proposed within the Ecological Impact Assessment for this community is required.*

A detailed supplementary assessment of the grassland and agricultural areas within the Project Boundary, and specifically the Disturbance Boundary is provided in **Appendix D**. This assessment has verified the previously mapped extent of the grassland component of Box Gum Woodland under the EPBC Act and TSC Act that was included in the Ecological Impact Assessment.

In the assessment, the grassland and agricultural areas have been re-mapped within the Disturbance Boundary into the following categories:

- Derived Native Grassland;
- Low Diversity Native Grassland; and
- Cropland / Exotic Pasture.

The extent of each of these map units within the Disturbance Boundary and the Disturbance Area is provided in **Table 44** and shown on **Figure 65**.

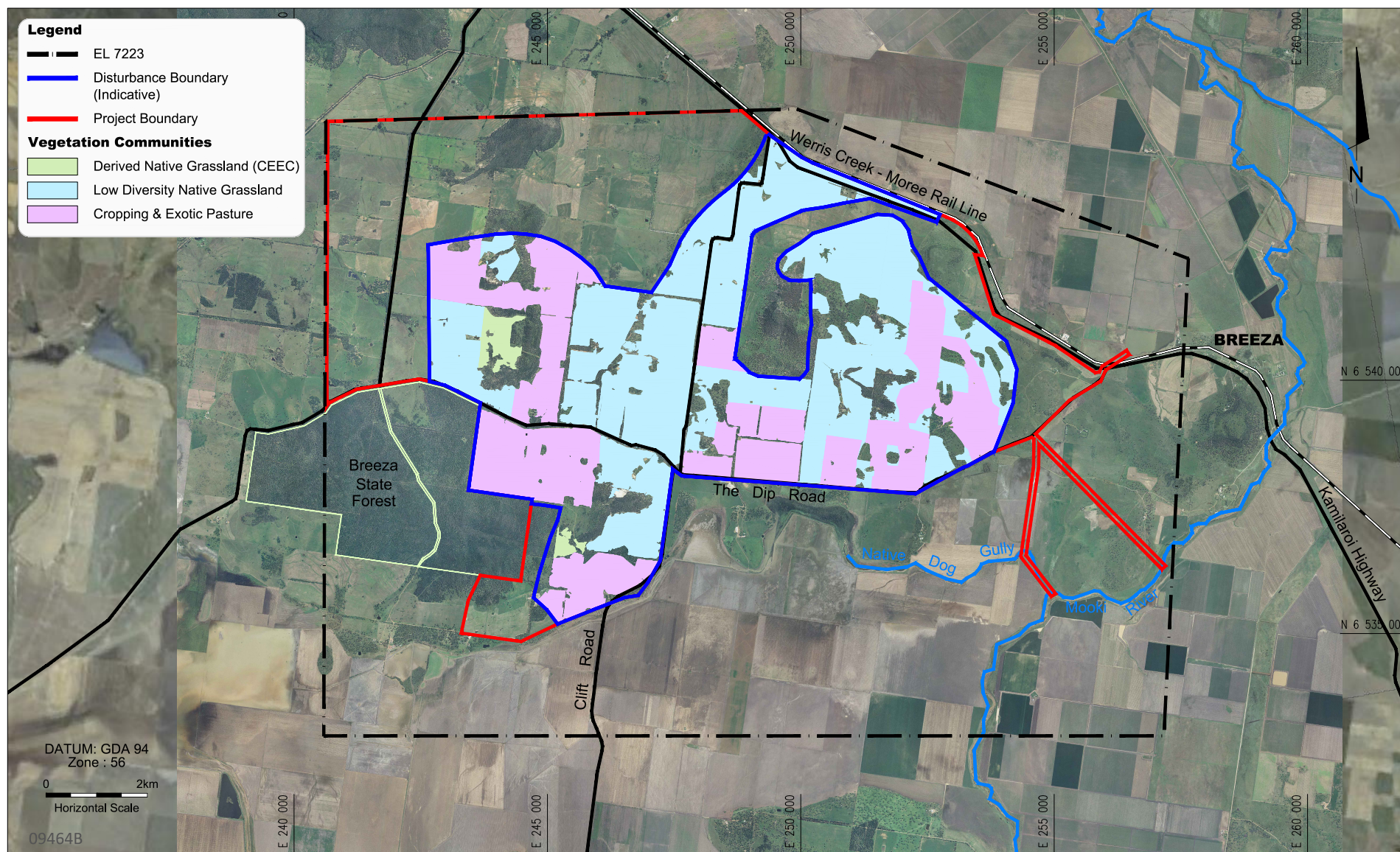
Table 44
Extent of Grassland and Agricultural Areas

Vegetation Community	Disturbance Boundary (ha)	Disturbance Area (ha)
Derived Native Grassland	73	73
Low Diversity Native Grassland	2,609	1,691
Cropland / Exotic Pasture	1,719	1,393

Despite the EPBC Act and TSC Act having different criteria for identifying grassland forms of Box Gum Woodland, the results of this assessment has found that within the Disturbance Boundary the conforming and non-conforming map units are the same. That is, grassland is either “*Low Diversity Native Grassland*” and/or “*Cropland / Exotic Pasture*” that does not comply with either the EPBC Act or TSC Act, or, it is more intact “*Derived Native Grassland*” that complies with both Acts.

The latter is confined to a few areas that have not been repeatedly used for agricultural purposes. All of the flatter, low-lying areas of grassland appear to have been repeatedly used for agricultural purposes, as indicated by historical photographs.

As no changes have been made to the mapped extent of Derived Native Grassland under the TSC Act or EPBC Act, no further offsetting than proposed within the Ecological Impact Assessment for this community is required. A revised Biodiversity Offset Strategy has been provided in **Appendix F**, which outlines the offsetting requirements for the Project and how the Biodiversity Offset Strategy addresses those requirements.



WATERMARK COAL PROJECT

4.11.3 Condition Mapping

This section responds to submissions raised in relation to the appropriateness of the condition mapping classifications presented within the Ecological Impact Assessment.

Submission reference: RA9

Summary response: Condition mapping of vegetation within the Project Boundary has been revised in accordance with relevant Biobanking assessment methodology, as requested by OEH. The condition classification assigned to woodland areas remains consistent with the Ecological Impact Assessment and aligns closely with BioBanking benchmark data.

Section 2.2.2.iv of the Ecological Impact Assessment presents two methods for determining the condition of vegetation within the Project Boundary. The first included a general assessment of the vegetation based on field observations, vegetation type (i.e. woodland versus grassland) and edge to area ratio. The second included comparing BioBanking data that was collected at each quadrat with BioBanking benchmark data for the applicable vegetation community in which the quadrat was located.

OEH has requested that the condition of the vegetation within the Project Boundary be mapped according to the following definitions provided within the *BioBanking Assessment Methodology and Credit Calculator Operational Manual* (Biobanking Assessment Methodology) (DECC, 2009):

*“Vegetation in **low condition** means:*

- 1. woody native vegetation with:*
 - native over-storey percent foliage cover less than 25% of the lower value of the over-storey percent foliage cover benchmark for that vegetation type, and*
 - less than 50% of groundcover vegetation is indigenous species, or*
 - greater than 90% of groundcover vegetation is cleared.*
- 2. native grassland, wetland or herbfield where:*
 - less than 50% of groundcover vegetation is indigenous species¹, or*
 - more than 90% of groundcover vegetation is cleared.*

*If native vegetation is not in low condition, it is in **moderate to good condition**.*

¹ *Means less than 50% of the percent foliage cover of the groundcover vegetation consists of indigenous groundcover species, not less than 50% of the groundcover species are indigenous species. Groundcover vegetation is herbaceous vegetation including grasses, forbs, herbs and similar low-growing non-woody plants.”*

Further to this, OEH has recommended that the vegetation be divided into the following categories:

- Cleared land;
- Low condition;
- >50% native ground cover with no native canopy present (derived native grasslands in moderate to good condition):

- Grasslands that equate to EPBC Act and TSC Act definition;
- Grasslands that only equate to TSC Act definition;
- Non-listed native grasslands; and
- >50% native ground cover with a native canopy present (native vegetation in moderate to good condition).

The relationship of each vegetation community mapped within the Project Boundary (including the updated grassland and agricultural area map units detailed in Section 3.1.2 of the Grassland Assessment Report) to the recommended OEH classification is provided in **Table 45**.

Table 45
Relationship of Updated Map Units to Recommended Office of Environment and Heritage Classification

OEH Classification	Updated Map Unit
a) Cleared land	Cleared Areas, Cropland / Exotic Pasture (part)
b) Low condition	Cropland / Exotic Pasture (part)
>50% native ground cover with no native canopy present (derived native grasslands in moderate to good condition):	
(i) grasslands that equate to EPBC Act and TSC Act definition	Derived Native Grassland
(ii) grasslands that only equate to TSC Act definition	N/A
(iii) non-listed native grasslands	Low Diversity Native Grassland
c) >50% native ground cover with a native canopy present (native vegetation in moderate to good condition).	White Box Grassy Woodland Regenerating White Box Grassy Woodland Blakely's Red Gum Grassy Woodland Regenerating Blakely's Red Gum Grassy Woodland Yellow Box Grassy Woodland Inland Grey Box Grassy Woodland Weeping Myall Woodland Brigalow Semi-evergreen Vine Thicket Fuzzy Box Woodland Poplar Box Woodland Belah Woodland Whitewood Woodland Tumbledown Red Gum Grassy Open Woodland White Box Shrubby Woodland Regenerating White Box Shrubby Woodland Blakely's Red Gum Shrubby Woodland Blakely's Red Gum Motherumbah Shrubby Woodland

Woodland Areas

As can be seen within **Table 45**, all woodland vegetation types have been classified as “*Moderate to Good Condition*” (which is the highest condition category). However, it is salient to recognise that within each of these vegetation communities there are varying levels of condition. The second condition assessment methodology presented within the Ecological Impact Assessment shows this variation on a plot by plot basis based on the information collected during BioBanking surveys (undertaken using the methodology described within the BioBanking Assessment Methodology). The methodology described within the Ecological Impact Assessment demonstrates how closely data from each plot aligns with the BioBanking benchmark data for the vegetation community that the plot occurs within.

Grassland and Agricultural Areas

As can be seen within **Table 45**, two of the vegetation communities forming the grassland and agricultural areas within the Project Boundary (namely “*Derived Native Grassland*” and “*Low Diversity Native Grassland*”) are classified as “*Moderate to Good Condition*”. Based on the supplementary grassland assessment presented in **Appendix D**, the classification of “*Low Diversity Native Grassland*” as “*Moderate to Good Condition*” vegetation is not an accurate representation of its condition.

The BioBanking Assessment Methodology recognises that despite being classified within the “*Moderate to Good Condition*” category (as defined above), vegetation can still be in degraded condition. Vegetation falls within this category when the majority of vegetation condition variables (i.e. native plant species richness, native overstorey cover, native midstorey cover, native ground cover (grasses, shrubs, other), exotic plant cover, number of trees with hollows, proportion of over-storey species occurring as regeneration and total length of fallen logs, are substantially outside benchmark, but does not meet the definition of low condition (DECC, 2009).

Therefore, despite being classified as “*Moderate to Good Condition*” vegetation, the “*Low Diversity Native Grassland*” map unit can be assessed as being in degraded condition.

Low Diversity Native Grassland is generally old cropland (or fallow cropland) that lacks eucalypts, lacks shrubs, has few native herbaceous plant species and which lacks other key habitat features such as tree hollows, tree stumps, fallen logs, rock outcrops, etc.

4.11.4 Threatened Species Habitat

This section responds to submissions from stakeholders in relation to the availability of threatened species habitat within the Project Boundary and wider locality given the localised fragmentation that will result from the Project.

Submission reference: RA17 and SIG10

Summary response: On the basis of habitat condition, features and species behaviour (where applicable), the land within the Project Boundary and its surrounds will provide sufficient available habitat to support those threatened species impacted by the Project.

Bothriochloa biloba

The DOE submission raises concerns that information regarding the extent of *Bothriochloa biloba* outside the Project Boundary has not been provided in sufficient detail, and that the Project may result in the fragmentation and loss of this population. DOE also consider that information regarding the distribution of this species outside the Project Boundary has not been provided.

It is considered that the habitat requirements of this species are relatively well known and the latest published information on its habitat requirements have been provided in the Ecological Impact Assessment.

It is acknowledged that as surveys were conducted primarily in and within close proximity to the Project Boundary, additional information regarding the local population of the species is not provided. However, based on the records from field surveys conducted for this Project and several others, it is considered that the likely distribution of this species outside the Project Boundary can be extrapolated with reasonable accuracy from such survey efforts. This species consistently occurs along roadsides where grazing pressure is reduced or absent, suggesting that is a limiting factor for its distribution. This was the pattern observed for the Project and this has also been observed in other mining projects, where the only records were from near the Project Boundary along road verges. Due to the numerous records of this species along roadsides in and near the Project Boundary, the majority of road verges in the vicinity of the Project Boundary are considered likely to support habitat for this species.

Breeding/Nesting Habitat within Project Boundary

Section 4.1 of the Ecological Impact Assessment identified habitat features present within the Project Boundary that could be utilised for breeding by fauna species. **Table 46** provides a summary of breeding/nesting habitat within the Project Boundary for each of the threatened species known to occur within the Project Boundary or with the potential to occur.

Habitat for Matters of National Environmental Significance

DOE has requested that information on the habitat condition and context for each Matter of National Environmental Significance (MNES) as likely to be impacted by the Project be provided, according to their behaviour and habitat requirements. This is to provide more information regarding the extent of the residual impacts and will demonstrate more clearly the conservation gain and benefits provided by the Biodiversity Offset Strategy. **Table 47** summarises the habitat available within the Project Boundary for MNES, including an assessment of connectivity.

Habitat Availability within the Wider Locality

The regional distribution and abundance of fauna habitat surrounding the Project Boundary is discussed within Section 4.1.7 of the Ecological Impact Assessment. The extent of woodland and grassland habitat within a 50 km radius of the Project Boundary is also shown within Figure 4.1 of the Ecological Impact Assessment. As noted within Section 4.1.7, with the absence of detailed surveys in woodland and grassland habitat within a 50 km radius, it is impossible to map the fauna habitat features present at a finer scale, however the major determinant of higher quality habitat in this area is the presence of woodland trees, and the extent of woodland has been used as a proxy for fauna habitat.

Approximately 204,234 ha of woodland habitat and 260,353 ha of grassland habitat occurs in a 50 km radius of the Project. These areas are likely to support similar assemblages of threatened flora and fauna species that have been recorded or have potential to occur within the Project Boundary.

Table 46
Assessment of Breeding Habitat for Threatened Species within the Project Boundary

Common Name	Scientific Name	TSC Act Status	EPBC Act Status	Occurrence within Project Boundary	Breeding/Nesting/Roosting Habitat Requirements	Assessment of Breeding/Nesting/Roosting Habitat within the Project Boundary
Birds						
Little Lorikeet	<i>Glossopsitta pusilla</i>	V		Known	Nests in proximity to feeding areas if possible, most typically selecting hollows in the limb or trunk of smooth-barked Eucalypts. Entrance is small (3 cm) and usually high above the ground (2–15 m). Riparian trees often chosen, including species like <i>Allocasuarina</i> .	Breeding/nesting habitat present in the form of tree hollows, particularly smooth-barked eucalypts.
Brown Treecreeper	<i>Climacteris picumnus victoriae</i>	V		Known	Breeds in pairs or co-operatively in territories which range in size from 1.1 to 10.7 ha. Hollows in standing dead or live trees and tree stumps are essential for nesting.	Breeding/nesting habitat present in the form of tree hollows.
Speckled Warbler	<i>Chthonicola sagittatus</i>	V		Known	Pairs are sedentary and occupy a breeding territory of about ten hectares. Rounded, domed, roughly built nest of dry grass and strips of bark is located in a slight hollow in the ground or the base of a low dense plant, often among fallen branches and other litter.	Breeding/nesting habitat present in the form of ground layer vegetation, fallen branches and leaf litter.
Grey-crowned Babbler	<i>Pomatostomus temporalis temporalis</i>	V		Known	Build and maintain several conspicuous, dome-shaped stick nests about the size of a football. Nests are usually located in shrubs or sapling eucalypts, although they may be built in the outermost leaves of low branches of large eucalypts.	Breeding/nesting habitat present in the form of shrubs, sapling eucalypts and low branches of large eucalypts.

Common Name	Scientific Name	TSC Act Status	EPBC Act Status	Occurrence within Project Boundary	Breeding/Nesting/Roosting Habitat Requirements	Assessment of Breeding/Nesting/Roosting Habitat within the Project Boundary
Diamond Firetail	<i>Stagonopleura guttata</i>	V		Known	Groups separate into small colonies to breed, between August and January. Nests are globular structures built either in the shrubby understorey, or higher up, especially under hawk's or raven's nests.	Breeding/nesting habitat present in the form of shrubby understorey vegetation and other nests.
Spotted Harrier	<i>Circus assimilis</i>	V		Known	Builds a stick nest in a tree and lays eggs in spring (or sometimes autumn).	Breeding/nesting habitat present in the form of woodland vegetation.
Little Eagle	<i>Hieraaetus morphnoides</i>	V		Known	Nests in tall living trees within a remnant patch, where pairs build a large stick nest in winter.	Breeding/nesting habitat present in the form of tall living trees.
Barking Owl	<i>Ninox connivens</i>	V		Known	Nests in hollows of large, old trees. Living eucalypts are preferred though dead trees are also used.	Breeding/nesting habitat present in the form of hollows in large, old trees, however this resource is limited within the Project Boundary.
Painted Honeyeater	<i>Grantiella picta</i>	V		Potential	Nest from spring to autumn in a small, delicate nest hanging within the outer canopy of drooping eucalypts, she-oak, paperbark or mistletoe branches.	Breeding/nesting habitat present in the form of drooping eucalypts, she-oaks and mistletoe branches.
Black-chinned Honeyeater	<i>Melithreptus gularis gularis</i>	V		Potential	Nest high in crowns of trees, usually in uppermost lateral branches and concealed by foliage. Usually in tall eucalypts, often box or ironbark.	Breeding/nesting habitat present in the form of eucalypts, particularly box species.

Common Name	Scientific Name	TSC Act Status	EPBC Act Status	Occurrence within Project Boundary	Breeding/Nesting/Roosting Habitat Requirements	Assessment of Breeding/Nesting/Roosting Habitat within the Project Boundary
Regent Honeyeater	<i>Anthochaera phrygia</i>	CE	E, M	Potential	Nests are usually built in rough-barked trees, which are mostly eucalypts such as ironbarks, stringybarks or River Sheoak, or sometimes in smooth or box-barked species.	Breeding/nesting habitat present in the form of smooth and box-barked species. However the species is unlikely to breed within the Project Boundary given the limited number of records and their distribution in the locality.
Swift Parrot	<i>Lathamus discolor</i>	E	E	Potential	Breeds in Tasmania during spring and summer.	No breeding/nesting habitat present in the Project Boundary.
Hooded Robin	<i>Melanodryas cucullata cucullata</i>	V		Potential	Occupy a wide range of Eucalypt woodlands, Acacia shrublands and open forests. Nest is a small, neat cup of bark and grasses bound with webs, in a tree fork or crevice, from less than 1 m to 5 m above the ground.	Breeding/nesting habitat present in the form of woodland vegetation.
Varied Sittella	<i>Daphoenositta chrysoptera</i>	V		Potential	Inhabits eucalypt forests and woodlands. Builds a cup-shaped nest of plant fibres and cobwebs in an upright tree fork high in the living tree canopy.	Breeding/nesting habitat present in the form of eucalypt woodland.
Turquoise Parrot	<i>Neophema pulchella</i>	V		Potential	Nests in tree hollows, logs or posts, from August to December.	Breeding/nesting habitat present in the form of tree hollows, logs and posts.
Superb Parrot	<i>Polytelis swainsonii</i>	V	V	Potential	On the South-western Slopes their core breeding area is roughly bounded by Cowra and Yass in the east, and Grenfell, Cootamundra and Coolac in the west. The other main breeding sites are in the Riverina along the corridors of the Murray, Edward and Murrumbidgee Rivers	No breeding/nesting habitat present in the Project Boundary.

Common Name	Scientific Name	TSC Act Status	EPBC Act Status	Occurrence within Project Boundary	Breeding/Nesting/Roosting Habitat Requirements	Assessment of Breeding/Nesting/Roosting Habitat within the Project Boundary
Bush Stone-curlew	<i>Burhinus grallarius</i>	E		Potential	Nest on the ground in a scrape or small bare patch.	Breeding/nesting habitat present in the form of an open ground layer in woodland.
Square-tailed Kite	<i>Lophoictinia isura</i>	V		Potential	Platform of sticks up to 90cm across usually high in fork of tree in forest or woodland. Nest sites generally located along or near watercourses, in a fork or on large horizontal limbs.	Breeding/nesting habitat present in the form of woodland, however limited locations in proximity to watercourses.
Black-breasted Buzzard	<i>Hamirostra melanosternon</i>	V		Potential	Breeds from August to October near water in a tall tree. The stick nest is large and flat and lined with green leaves.	Breeding/nesting habitat present in form of woodland, however limited locations in proximity to water. The species is unlikely to breed within the Project Boundary given it is an infrequent vagrant in the locality.
Masked Owl	<i>Tyto novaehollandiae</i>	V		Potential	Roosts and breeds in moist eucalypt forested gullies, using large tree hollows or sometimes caves for nesting.	Breeding/nesting habitat present in the form of large tree hollows, however this resource is limited within the Project Boundary. Additionally, there are a few areas of moist eucalypt gullies.
White-throated Needletail	<i>Hirundapus caudacutus</i>		M	Potential	Does not breed in Australia.	No breeding/nesting habitat present in the Project Boundary.
Fork-tailed Swift	<i>Apus pacificus</i>		M	Potential	Does not breed in Australia.	No breeding/nesting habitat present in the Project Boundary.

Common Name	Scientific Name	TSC Act Status	EPBC Act Status	Occurrence within Project Boundary	Breeding/Nesting/Roosting Habitat Requirements	Assessment of Breeding/Nesting/Roosting Habitat within the Project Boundary
Rainbow Bee-eater	<i>Merops ornatus</i>		M	Potential	Breed in open areas with friable, often sandy soil, good visibility, convenient perches and often near wetlands. Nests in embankments including creeks, rivers and sand dunes.	Limited breeding/nesting habitat in proximity to watercourses and dams.
Cattle Egret	<i>Bubulcus ibis</i>		M	Potential	Breeds in colonies in wooded swamps such as mangrove forests, Melaleuca swamps and the eucalypt/lignum swamps. Principal breeding sites are the central east coast from about Newcastle to Bundaberg. It also breeds in major inland wetlands in north NSW.	No breeding/nesting habitat present in the Project Boundary.
Great Egret	<i>Ardea alba</i>		M	Potential	Breed in colonies. Breeding sites are located in wooded and shrubby swamps including mangrove forests, Melaleuca swamps and mixed eucalypt/acacia/lignum swamps.	No breeding/nesting habitat present in the Project Boundary.
White-bellied Sea-eagle	<i>Haliaeetus leucogaster</i>		M	Known	Breeding has been recorded on the coast, at inland sites, and on offshore islands. Breeding territories are located close to water, and mainly in tall open forest or woodland, although nests are sometimes located in other habitats such as dense forest, closed scrub or in remnant trees on cleared land. Nests comprise a very large pile of sticks up to 1.7m across on cliff in large living or partly dead tree.	Breeding/nesting habitat present in the form of woodland vegetation and scattered trees, however limited areas close to water.
Mammals						
Koala	<i>Phascolarctos cinereus</i>	V	V	Known	Inhabit eucalypt woodlands and forests.	Breeding habitat in the form of woodland.

Common Name	Scientific Name	TSC Act Status	EPBC Act Status	Occurrence within Project Boundary	Breeding/Nesting/Roosting Habitat Requirements	Assessment of Breeding/Nesting/Roosting Habitat within the Project Boundary
Spotted-tailed Quoll	<i>Dasyurus maculatus</i>	V	E	Potential	Occurs in wide range of forest types, although appears to prefer moist sclerophyll and rainforest forest types, and riparian habitat. It has also been recorded from dry sclerophyll forest, open woodland and coastal heathland. Use hollow-bearing trees, fallen logs, small caves, rock crevices, boulder fields and rocky-cliff faces as den sites.	Breeding habitat present in the form of hollow-bearing trees, fallen logs, small caves and rock crevices, although the latter two are a limited resource within the Project Boundary.
Squirrel Glider	<i>Petaurus norfolcensis</i>	V		Potential	Nest in bowl-shaped, leaf lined nests in tree hollows. Require abundant tree hollows for refuge and nest sites.	Breeding/nesting habitat present in the form of tree hollows.
Yellow-bellied Sheath-tail Bat	<i>Saccolaimus flaviventris</i>	V		Known	Roosts singly or in groups of up to six, in tree hollows and buildings; in treeless areas they are known to utilise mammal burrows.	Breeding/roosting habitat present in the form of tree hollows.
Eastern Freetail-bat	<i>Mormopterus norfolkensis</i>	V		Potential	Roost mainly in tree hollows but will also roost under bark or in man-made structures.	Breeding/roosting habitat present in the form of tree hollows.
Little Pied Bat	<i>Chalinolobus picatus</i>	V		Potential	Roosts in caves, rocky outcrops, mine shafts, tunnels, tree hollows and buildings	Breeding/roosting habitat present in the form of tree hollows, rocky outcrops and caves, although the latter two are a limited resource within the Project Boundary.
Eastern Cave Bat	<i>Vespadelus troughtoni</i>	V		Potential	A cave-roosting species that is usually found in dry open forest and woodland, near cliffs or rocky overhangs. Has been recorded roosting in disused mine workings.	Breeding/roosting habitat present in the form of caves, although they are a limited resource within the Project Boundary.

Common Name	Scientific Name	TSC Act Status	EPBC Act Status	Occurrence within Project Boundary	Breeding/Nesting/Roosting Habitat Requirements	Assessment of Breeding/Nesting/Roosting Habitat within the Project Boundary
Large-eared Pied Bat	<i>Chalinolobus dwyeri</i>	V	V	Potential	Roosts in caves (near their entrances), crevices in cliffs, old mine workings and in the disused, bottle-shaped mud nests of the Fairy Martin	Breeding/roosting habitat present in the form of caves, although they are a limited resource within the Project Boundary.
Corben's Long-eared Bat	<i>Nyctophilus corbeni</i>	V	V	Potential	Roosts in tree hollows, crevices, and under loose bark.	Breeding/roosting habitat present in the form of tree hollows and woodland vegetation.
Reptiles						
Border Thick-tailed Gecko	<i>Underwoodisaurus sphyrurus</i>	V	V	Potential	This species often occurs on steep rocky or scree slopes, especially granite. Favours forest and woodland areas with boulders, rock slabs, fallen timber and deep leaf litter.	Suitable breeding habitat in the form of woodland in proximity to rocky outcrops.
Five-clawed Worm-skink	<i>Anomalopus mackayi</i>	E	V	Potential	Live in permanent deep tunnel-like burrows and deep soil cracks, coming close to the surface under fallen timber and litter, especially partially buried logs	Suitable breeding habitat in the form of woodland and grassland vegetation.
Pink-tailed Legless Lizard	<i>Aprasia parapulchella</i>	V	V	Potential	Inhabits sloping, open woodland areas with predominantly native grassy ground layers. Commonly found beneath small, partially-embedded rocks and appear to spend considerable time in burrows below these rocks; the burrows have been constructed by and are often still inhabited by small black ants and termite. Lays eggs inside the ant nests.	Suitable breeding habitat present in the form of grassy woodland and grassland.

Common Name	Scientific Name	TSC Act Status	EPBC Act Status	Occurrence within Project Boundary	Breeding/Nesting/Roosting Habitat Requirements	Assessment of Breeding/Nesting/Roosting Habitat within the Project Boundary
Pale-headed Snake	<i>Hoplocephalus bitorquatus</i>	V		Potential	Found mainly in dry eucalypt forests and woodlands, cypress woodland. Usually found near watercourses. Shelters under loose bark of tree or in hollow limbs.	Suitable breeding habitat in the form of woodland, although extensive areas are not located near watercourses.

TSC Act / EPBC Act Status: V = Vulnerable, E = Endangered, CE = Critically Endangered, M = Migratory

Table 47
Assessment of Habitat within the Project Boundary for Matters of National Environmental Significance

Scientific Name	Scientific Name	EPBC Act Status	Assessment of Habitat within the Project Boundary
Birds			
Regent Honeyeater	<i>Anthochaera phrygia</i>	E, M	Woodland is present in fragmented patches in the Project Boundary that provides potential habitat for this species. The majority of the vegetation is Box Gum Woodland, which is a known habitat. Key habitat resources are present, such as the presence of known important flowering species such as <i>Eucalyptus albens</i> (White Box) and <i>E. melliodora</i> (Yellow Box) which would be used as foraging habitat. Breeding/nesting habitat present in the form of smooth and box-barked species. However the species is unlikely to breed within the Project Boundary given the limited number of records and their distribution in the locality. The quality of the habitat for the Regent Honeyeater in the Project Boundary is considered to be relatively low overall however. This species is known to prefer wetter, more fertile sites, such as along creek flats, broad river valleys and lower slopes (Menkhorst et al., 1999), and these are the parts of the Project Boundary that have been heavily cleared for agriculture. The patches of woodland that remain are mostly found in the higher elevation areas that are characterised by shallow, infertile soils. Despite the relative isolation and fragmentation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats, the Regent Honeyeater is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Swift Parrot	<i>Lathamus discolor</i>	E	Woodland is present in fragmented patches in the Project Boundary that provides potential habitat for this species. The majority of the vegetation is Box Gum Woodland, which is a known habitat. Key habitat resources are present, such as the presence of flowering species including <i>Eucalyptus albens</i> (White Box), <i>E. dealbata</i> (Tumbledown Red Gum), <i>E. conica</i> (Fuzzy Box), <i>E. microcarpa</i> (Inland Grey Box) and <i>E. blakelyi</i> (Blakely's Red Gum) indicates that winter flowering trees can be found in the forest and woodland communities identified within the Project Boundary thereby providing foraging habitat for this species when it is likely to occur during winter. No breeding/nesting habitat present in the Project Boundary as the species breeds in Tasmania during spring and summer.

Scientific Name	Scientific Name	EPBC Act Status	Assessment of Habitat within the Project Boundary
			The quality of the habitat in the Project Boundary is considered to be relatively low overall however, as this species is known to prefer larger trees over smaller trees. As most of the woodland in the Project Boundary has regrown following previous clearing, the trees are still relatively small and are unlikely to be preferred habitat. Despite the relative isolation and fragmentation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats, the Swift Parrot is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Superb Parrot	<i>Polytelis swainsonii</i>	V	Woodland is present in fragmented patches in the Project Boundary that provides potential habitat for this species. The majority of the vegetation is Box Gum Woodland, which is a known habitat for the Superb Parrot. Key habitat resources are present, such as the presence of Eucalypts, Acacias, <i>Amyema miquelii</i>, <i>A. quandang</i> and numerous grass species. These resources would provide foraging habitat for this species. Historical disturbance and surrounding agricultural development has resulted in the relative isolation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats. As a result, the vegetation within the Project Boundary does not provide continuous connectivity with nearby vegetation, but rather provides “stepping stone” corridors for a range of highly mobile species such as birds and bats. Narrow strips of woodland vegetation along property boundaries and roads may also provide some additional movement corridors. The Superb Parrot is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
White-throated Needletail	<i>Hirundapus caudacutus</i>	M	This species is predicted to forage aerially across the Project Boundary. Roosting habitat is available in the form of woodland and tree hollows. No breeding/nesting habitat present in the Project Boundary as it does not breed in Australia. Considering the ability of this species to fly over disturbed areas, vegetated corridors are not considered to be important to this species. Despite the relative isolation and fragmentation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats, the White-throated Needletail is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to

Scientific Name	Scientific Name	EPBC Act Status	Assessment of Habitat within the Project Boundary
			prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Fork-tailed Swift	<i>Apus pacificus</i>	M	This species is predicted to forage aerially across the Project Boundary. No breeding/nesting habitat present in the Project Boundary as it does not breed in Australia. Considering the ability of this species to fly over disturbed areas, vegetated corridors are not considered to be important to this species. Despite the relative isolation and fragmentation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats, the Fork-tailed Swift is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Rainbow Bee-eater	<i>Merops ornatus</i>	M	The majority of the Project Boundary provides potential habitat for this widespread and highly adaptable species. It has potential to occur in all the vegetation communities present, including grasslands and degraded areas. This includes potential breeding sites such as dams and ephemeral creeks. Considering the ability of this species to fly over disturbed areas, vegetated corridors are not considered to be important to this species. Despite the relative isolation and fragmentation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats, the Rainbow Bee-eater is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Cattle Egret	<i>Bubulcus ibis</i>	M	The Project Boundary supports foraging habitat for this species throughout the grassland and agricultural areas. Farms dams may also provide foraging habitat for this species. No breeding/nesting habitat present in the Project Boundary. Considering this species favours the disturbed areas within the Project Boundary, vegetated corridors are not considered to be important to this species.
Great Egret	<i>Ardea alba</i>	M	The Project Boundary supports foraging habitat for this species throughout the grassland and agricultural areas. Farms dams may also provide foraging habitat for this species. No breeding/nesting habitat present in the Project Boundary.

Scientific Name	Scientific Name	EPBC Act Status	Assessment of Habitat within the Project Boundary
			Considering this species favours the disturbed areas within the Project Boundary, vegetated corridors are not considered to be important to this species.
White-bellied Sea-eagle	<i>Haliaeetus leucogaster</i>	M	The majority of the Project Boundary provides potential habitat for this species. It has potential to forage across all the vegetation communities, including grasslands. Breeding/nesting habitat is present in the form of woodland vegetation and scattered trees, however limited areas close to water. Considering the ability of this species to fly over disturbed areas, vegetated corridors are not considered to be important to this species. Despite the relative isolation and fragmentation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats, the White-bellied Sea-eagle is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Mammals			
Koala	<i>Phascolarctos cinereus</i>	V	Habitat for the Koala exists throughout the Project Boundary. Preferred habitat is located within vegetation communities dominated by Eucalypts, although other vegetation may be utilised for shelter. The dominate canopy species within the Project Boundary are secondary feed tree species, including <i>Eucalyptus albens</i> (White Box), <i>E. dealbata</i> (Tumbledown Red Gum), <i>E. conica</i> (Fuzzy Box), <i>E. microcarpa</i> (Inland Grey Box), <i>E. blakelyi</i> (Blakely's Red Gum), <i>E. melliodora</i> (Yellow Box) and <i>E. populnea</i> (Poplar Box). Scattered <i>E. camaldulensis</i> (River Red Gum), a primary fee tree species, has also been recorded in the Project Boundary. Vegetated corridors are considered to be important to this species. Historical disturbance and surrounding agricultural development has resulted in the relative isolation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats. As a result, the vegetation within the Project Boundary does not provide continuous connectivity with nearby vegetation, but rather provides "stepping stone" corridors. This species has potential to traverse these stepping stone corridors, however the degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Spotted-tailed Quoll	<i>Dasyurus maculatus</i>	E	The Spotted-tailed Quoll occurs in a wide range of communities, including those found in the Project Boundary, and the specific microhabitat features required are present to some degree across the site. Rocky overhangs and crevasses, and hollow bearing trees are present thereby providing suitable den habitat. The woodlands

Scientific Name	Scientific Name	EPBC Act Status	Assessment of Habitat within the Project Boundary
			provide some habitat for prey species such as possums and gliders; however these species are not present in high numbers due to the degree of degradation experienced by the Project Boundary. The shrub layer is relatively sparse and high numbers of mammalian and bird prey for this species are not present. There is potential for this species to utilise the Project Boundary as part of a much larger territory, however it is not expected to provide important habitat for the species. Although this species is very mobile and able to cover large distances and cross disturbed areas, vegetated corridors are considered to be important to this species. Historical disturbance and surrounding agricultural development has resulted in the relative isolation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats. As a result, the vegetation within the Project Boundary does not provide continuous connectivity with nearby vegetation, but rather provides “stepping stone” corridors. This species has potential to traverse these stepping stone corridors, however the degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Large-eared Pied Bat	<i>Chalinolobus dwyeri</i>	V	Although the Project Boundary contains habitat for the Large-eared Pied Bat, it is not likely to be high quality. Small caves and crevices are present in the higher rocky outcrops within the Project Boundary (e.g. Mt Watermark) that provide suitable roosting and breeding habitat for the Large-eared Pied Bat, and suitable foraging habitat is present in the sclerophyll woodland beneath. However, preferred foraging habitat in fertile valleys and plains and along watercourses is absent. The fertile lowlands of the Project Boundary have all been heavily cleared, and the remaining patches of woodland are on the higher altitude, poorer soils. Considering the ability of this species to fly over disturbed areas, vegetated corridors are not considered to be important to this species. Despite the relative isolation and fragmentation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats, the Large-eared Pied Bat is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
South-eastern Long-eared Bat	<i>Nyctophilus corbeni</i>	V	There is limited suitable habitat for this species in the Project Boundary, as it prefers moister woodland with a distinct shrub layer next to watercourses, and this habitat does not occur. The woodland is predominantly dry sclerophyllous vegetation and the shrub layer is generally poorly developed in the Project Boundary due to the long history of grazing. Furthermore, there are no permanent watercourses present. Generally suitable

Scientific Name	Scientific Name	EPBC Act Status	Assessment of Habitat within the Project Boundary
			sclerophyll woodland habitat is present however, that would provide foraging, roosting and breeding habitat for this species. Considering the ability of this species to fly over disturbed areas, vegetated corridors are not considered to be important to this species. Despite the relative isolation and fragmentation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats, the South-eastern Long-eared Pied Bat is highly mobile and is able to cross disturbed areas easily to access habitat areas, and this fragmentation is unlikely to prevent this species accessing the site. The degree of fragmentation of the Project Boundary is however likely to reduce the value of the habitat for this species.
Reptiles			
Border Thick-tailed Gecko	<i>Underwoodisaurus sphyrurus</i>	V	The majority of the Project Boundary does not provide suitable habitat for this species due to the lack of suitable rocky habitat, and due to the lack of specific habitat features such as deep leaf litter and fallen timber. Rocky outcrops within the Project Boundary (e.g. Mt Watermark) are likely to provide suitable habitat for the Border Thick-tailed Gecko, however its preferred substrate of granite is not present, and it is not likely to provide high quality habitat. Historical disturbance and surrounding agricultural development has resulted in the relative isolation of the small patches of woodland in the Project Boundary from other similar forest or woodland habitats. The Border Thick-tailed Gecko is a sedentary species, and is not likely to be able to cross disturbed areas easily to access other habitat areas. Therefore the degree of fragmentation of the Project Boundary is likely to reduce the value of the habitat for this species.
Five-clawed Worm-skink	<i>Anomalopus mackayi</i>	V	This species is highly adaptable and occurs in a wide range of communities, including those found in the Project Boundary. It is known to occur in similar agricultural environments as the Project Boundary, and the majority of the Project Boundary is likely to constitute potential habitat for this species. The small patches of woodland in the Project Boundary are relatively isolated from other similar forest or woodland habitats. However, as the Five-clawed Worm-skink utilises both grassland and woodland, it is expected to be able to disperse throughout the Project Boundary. That notwithstanding, the degree of fragmentation of the Project Boundary is likely to reduce the value of the habitat for this species.
Pink-tailed Legless Lizard	<i>Aprasia parapulchella</i>	V	This species occurs in a wide range of communities, including those found in the Project Boundary, and the

Scientific Name	Scientific Name	EPBC Act Status	Assessment of Habitat within the Project Boundary
			specific microhabitat features required are present to some degree across the site. The woodlands and derived grasslands have a predominantly native ground layer, and suitable sized rocks and minor rocky outcrops are present in the Project Boundary. Accordingly, the majority of the Project Boundary is likely to constitute potential habitat for this species. The small patches of woodland in the Project Boundary are relatively isolated from other similar forest or woodland habitats. However, as the Pink-tailed Legless Lizard utilises both grassland and woodland, it is expected to be able to disperse throughout the Project Boundary. That notwithstanding, the degree of fragmentation of the Project Boundary is likely to reduce the value of the habitat for this species.

EPBC Act Status: V = Vulnerable, E = Endangered, M = Migratory

4.11.5 Mapping within Biodiversity Offset Areas

This section responds to submissions from stakeholders requesting verification of the mapping of vegetation communities within the biodiversity offset areas.

Submission reference: SIG2, SIG9 and P21

*Summary response: Revisions to the Onsite Biodiversity Offset Area has resulted in revised mapping of vegetation communities and subsequently an overall review of the Biodiversity Offset Strategy (see **Section 4.14**). Additional flora surveys across the Offsite Biodiversity Offset Area also resulted in revisions to the associated vegetation mapping, which has allowed communities to be more accurately categorised and delineated.*

Revised Offset Area 6

Since the exhibition of the EIS, modifications have been made to the composition of the Biodiversity Offset Strategy for the Project (see **Section 4.14.1** of this RTS). Included in these modifications is the reduction in the extent of Offset Area 6. The Revised Offset Area 6 includes land owned by Shenhua Watermark and avoids BSAL. The north eastern face of Long Mountain (where it has been noted that Semi-Evergreen Vine Thicket occurs) no longer forms part of the Onsite Biodiversity Offset Area.

A substantial amount of field survey work has been undertaken within the biodiversity offset areas for the Project including within the Revised Offset Area 6. These surveys have included vegetation mapping and threatened flora and fauna surveys (see **Figure 66** and **Figure 67**). A detailed description of the survey methods and effort undertaken within the biodiversity offset areas is provided in the Biodiversity Offsets Report (**Appendix F**).

Offsite Biodiversity Offset Area

Since the exhibition of the Ecological Impact Assessment, additional flora surveys have been undertaken within the Existing Offsite Biodiversity Offset Area. The surveys undertaken, including vegetation mapping (see **Figure 68**) and quadrat surveys, have allowed for an adequate assessment of the types and extent of vegetation occurring within the offset. A description of the methods and results of surveys undertaken within the Existing Offsite Biodiversity Offset Area is provided in the Biodiversity Offsets Report (**Appendix F**).

The Box Gum Woodland occurring within the Existing Offsite Biodiversity Offset Area is dominated or co-dominated by one or a combination of the following tree species: *Eucalyptus albens* (White Box), *Eucalyptus melliodora* (Yellow Box) and *Eucalyptus blakelyi* (Blakey's Red Gum) and has a predominantly grassy understorey. A derived native grassland form of this community also occurs within the Existing Offsite Biodiversity Offset Area. Such grassland is co-dominated by a suite of native grass and herb species and the number of non-grass herbs per 1,000 m² generally exceeds 12 species as specified in the guidelines for identification of EPBC Act listed derived native grassland. Descriptions of both forms of the community (woodland and grassland) within the Offsite Biodiversity Offset Area are provided within the Biodiversity Offsets Report (**Appendix F**).