Appendix A: Ecology Assessment

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Chapter 4

Impact Assessment

4.1 Vegetation

4.1.1 Vegetation communities

The vegetation in the section where a powerline is to be constructed had been largely cleared in the road reserve, although scattered mature trees occurred in numerous locations. These areas of cleared land have very limited conservation potential and there are not expected to be any negative ecological impacts in these areas as a result of the proposed development.

The land adjoining the road reserve contained bushland in several areas, separated by exotic and native pasture. It would be necessary to remove or trim numerous trees adjacent to the road reserve to provide adequate separation between the overhead cable and nearby vegetation. In some places bushland occurred on both sides of the road and would require clearing of trees in the powerline corridor. This vegetation did not comprise an EEC and the Talus-slope Woodland community that occurs in this section is widespread in the locality. Therefore it is unlikely that the limited clearing that would take place in order to construct a powerline corridor would have a significant impact on this community.

4.1.2 Plant species

One specimen of *Persoonia marginata* (Clandulla Geebung), listed under Schedule 2 of the TSC Act as being vulnerable, was recorded on the road margin, approximately 10.6 km south-west of the gate into the proposed resort property, as shown in Figure 3.1. This location falls within section 5 of the proposed powerline corridor. The specimen was located on the eastern side of the road less than one metre from the road surface, in the location of the proposed corridor.

To lessen the impact on this species, the powerline corridor has been recommended to remain on the western side of the road in this section. However, it is a single specimen in a highly disturbed environment and its long term survival is by no means assured even without the proposed powerline. It was narrowly missed by road surface maintenance at the time of this survey in October 2006, but might not survive future road maintenance

activities unless specifically protected. This plant does not represent a viable population of the species and it is likely to be unable to persist in that location in the long term. That notwithstanding, an assessment of significance has been prepared and is presented in Appendix B. This assessment indicates that no significant impact is expected to this species as a result of the proposed development.

Several specimens of *Brachychiton populnea* (Kurrajong) were recorded during the survey. Trevor Evans has stated (pers. comm) that is now rare in Wolgan Valley. Whilst this could be true, the sighting of five individuals in or near the road corridor indicates that their population in Wolgan Valley is probably not as endangered as previously considered.

4.2 Significance of Impacts on Threatened Fauna

Fauna habitat values in the powerline corridor are limited, particularly along the valley floor. Clearing of woodland in this area is likely to be minimal, and is not expected to reduce habitat areas substantially for any threatened fauna species which may occasionally utilise roadside vegetation.

A small number of mature Eucalypts with hollows will be cleared in these sections. These eucalypts provide potential roosting habitat for microbats, but none of the hollows are large enough to provide nesting habitat for large forest owls or cockatoos.

The lower slopes and some part of the valley floor below Wolgan Gap provide extensive fauna habitats that have been subject to lower levels of past and present disturbance than the rest of the powerline corridor on the valley floor. Clearing in these sections will be limited to the existing powerline corridor in the road section, where trimming occurs for present maintenance. The two tower locations have previously been cleared for the establishment and maintenance of the existing towers.

The first tower at Wolgan Gap will be located where the current tower poles occur. Minimal, if any, clearance into the Ben Bullen State Forest vegetation will therefore be required to maintain a 10 metre radius cleared area around the new tower. Mainly young regrowth Eucalypts were recorded at this point, the main fauna habitat values to be impacted therefore being the potential removal of flowering Eucalypts and Acacias.

Overall, with careful site selection of poles along the extended powerline route, and use of appropriate machinery for stringing the new wires to existing poles without clearing vegetation outside the existing maintained corridor, minimal potential fauna habitat will be removed. No impacts on any of the potentially occurring threatened fauna species mentioned in Table 3.1 are expected in terms of the assessment of significance, provided in Appendix B.

4.2.1 SEPP 44 Assessment

State Environmental Planning Policy No. 44 - Koala Habitat Protection (SEPP 44) is intended "to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas, to ensure permanent, free-living populations over their present range". The Policy incorporates prescriptions regarding potential and core Koala habitat for Councils (listed under Schedule 1) to consider during the development application process and before granting development consent. Lithgow LGA is listed under Schedule 1 of the Policy as an area to which SEPP 44 applies (Department of Planning 1995).

Field surveys of the resort site and surrounding lower slopes were undertaken by AMBS in August 2005 to determine the potential for the site to constitute Koala habitat, as defined under SEPP 44. Surveys involved searches for known Koala food tree species as well as searches for evidence of the presence of Koalas on the site and in adjoining areas,. The searches included nocturnal spotlight surveys, and diurnal searches for individuals, scratches on tree trunks and scats beneath potential food trees. No evidence of Koalas was recorded.

i. Potential Koala Habitat

Potential Koala habitat is defined under SEPP 44 as "areas of native vegetation where trees of the type listed in Schedule 2 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component". On the basis of this definition, only one Schedule 2 food tree species; Grey Gum, occurs in this density, and only at the top of Wolgan gap and the lower slopes surrounding the first 3 tower locations, At these locations Grey Gum constitutes greater than 15% of the total number of trees and Foliage Projective Cover. Grey Gum is considered a secondary food tree species in the Central Coast/Sydney Basin Koala Management Area (NPWS, 2003).

In this area, there will be minimal clearing of eucalypts, and therefore potential Koala habitat will not be impacted by the construction of the tower at Wolgan Gap.

ii. Core Koala Habitat

SEPP 44 defines core koala habitat as "an area of land with a resident population of koalas, evidenced by attributes such as breeding females (that is, females with young) and by recent sightings of and historical records of a population".

Koalas are known from the surrounding locality and immediate vicinity of the site, with records from the adjoining Wollemi National Park and Blue Mountains National Park further a field (DEC (NSW) 2006). One record exists for the Wolgan Valley, comprising a road mortality along Wolgan Road in 1991.

However, there are no recent or historical records of a resident population or individuals on the site and no evidence of the Koala was recorded during the recent field

investigations despite targeted surveys for individuals in areas of potentially suitable habitat, and intensive searches for Koala droppings under potential Koala food trees.

Whilst it is theoretically possible that Koalas could occur on site given their occurrence in the surrounding locality and the presence of potential food trees, on the basis of the lack of historical or recent records, it is considered unlikely that the site supports "a resident population" of the Koala. The study area does not, therefore, constitute "core koala habitat" as defined under SEPP 44.

As the study area does not constitute "core koala habitat", the provisions of SEPP 44 are not relevant to the proposed development and consequently there is no requirement for the preparation of a *Koala Plan of Management* for the works site.

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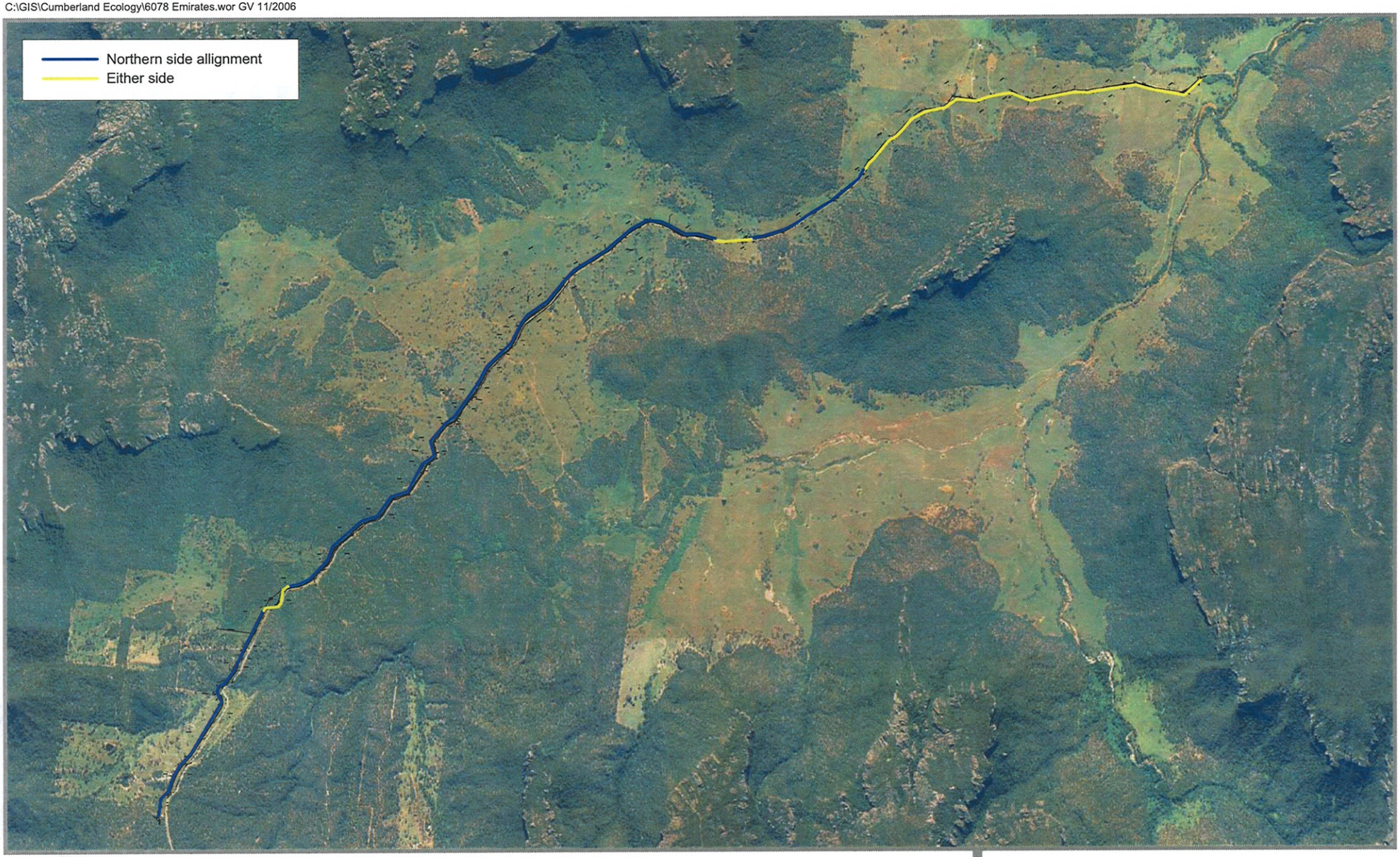

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Kilometres

Figure 4.1 Preferred Powerline Corridor Location

Cumberland Ecology

Chapter 5

Conclusions and Recommendations

5.1 Conclusions

5.1.1 Flora

With the exception of one *Persoonia marginata* (Clandulla Geebung) recorded at the edge of Wolgan Road within the proposed powerline corridor, no threatened flora was recorded in the study area. No endangered ecological community was recorded in the impact zone or adjoining it.

Bushland occurs in various parts of the proposed powerline works; however most of this occurs outside the existing road reserve. Despite this, it will be necessary to remove or trim numerous trees adjacent to the road reserve and in the vicinity of the three towers to be upgraded at the top of Wolgan Gap and the first two towers at the bottom of the valley.

On the powerline route, pasture occurs in most locations on the opposite side of the road to bushland. In these areas, t may be possible to locate the powerline within the pasture rather than in bushland, thereby avoiding any impact to that bushland. It may also be possible to zigzag the powerline over the road to enable best use of existing cleared and disturbed locations.

The impact on native flora in the powerline corridor is expected to be minor and could be minimised if the recommendations regarding final route selection, rehabilitation and offsets for loss of bushland are implemented.

5.1.2 Fauna

Fauna habitats at the roads edge are limited in the majority of sectors along the proposed powerline corridor route. The use of existing poles in the upper section of the line should also ensure that vegetation which is part of more extensive tracts of woodland, within Ben Bullen State Forest, will not be disturbed more than is currently required for maintenance.

No significant impacts on species or ecological communities listed on the NSW TSC Act or the Commonwealth EPBC Act have been predicted in terms of the assessments of Significance, as provided in Appendix B. No Species Impact Statement or referral to the

Department of the Environment and Conservation is required to further assess these species.

5.2 Recommendations

It is recommended that:

- All bushland and individual large trees be retained in the final powerline and route where possible;
- The vulnerable *Persoonia marginata* be protected from the powerline construction or maintenance if it is possible to move the proposed pole location at this point;
- The natural ground cover should be retained and disturbance avoided during construction work on the powerline. Special care should be taken on any steep sites to avoid initiating active soil erosion;
- Any loss of trees should be compensated for by replacement with suitable species in other appropriate locations. This could involve planting and maintenance of tubestock trees until they are established and drought-resistant, or protection of existing natural seedlings until they develop to maturity;
- A pre-construction inspection should be made of the specific locations of power-poles to ensure minimal impact on bushland will be incurred. Any significant fauna habitat trees, as indicated by the presence of hollows, spouts or stags, will be individually marked at this time; and
- A fauna protection protocol should be prepared and all works staff briefed on the potential risks to fauna and the requirement to follow other environmental protection protocols. During vegetation clearance, felling of trees should be supervised by a wildlife rescue person or ecological consultant.

In most locations of the proposed powerline route, pasture occurs on the opposite side of the road to bushland. The following guidelines (in km from the resort main gate, Figure 4.1) are suggested for the powerline route to minimise clearing of the adjacent bushland: (a) 3.0 – 4.0 the powerline be placed on the north side of the road, (b) 4.2 – 9.2 the powerline be placed on the north side of the road, (c) 9.6 –11.6 the powerline be placed north of the road.

In consideration of the above guidelines the following amendments are recommended for the power services site plan:

- Poles 126-128 be relocated to the north side of the road;
- Poles 120-122 be relocated to the north side of the road;

- Poles 114-118 be relocated to the north side of the road;
- Pole 99 be relocated to the north side of the road;
- Poles 77- 80 be relocated to the north side of the road; and
- Poles 64- 66 be relocated to the north side of the road.

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Appendix A

Flora Species List

Table A.1 FLORA SPECIES LIST FROM TRANSECT IN THE STUDY AREA

Family	Scientific Name	Common Name
Trees		
Casuarinaceae	*Allocasuarina littoralis*	Black She-oak
Fabaceae	*Acacia parvipinnula*	
	A. penninervis	Mountain Hickory
Myrtaceae	*Angophora floribunda*	Rough-barked Apple
	Eucalyptus albens	White Box
	E. blakelyi	Blakelys Red Gum
	E. bridgesiana	Apple Box
	E. dives	Broad-leaved Peppermint
	E. eugenioides	Thin-leaved Stringybark
	E. fibrosa	Broad-leaved Ironbark
	E. globoidea	White Stringybark
	E. macrorhyncha	Red Stringybark
	E. mannifera	Brittle Gum
	E. melliodora	Yellow Box
	E. punctata	Grey Gum
	E. rossii	Inland Scribbly Gum
	E. sparsifolia	a stringybark
	E. viminalis	Ribbon Gum
Santalaceae	*Exocarpos cupressiformis*	Cherry Ballart
Sterculiaceae	*Brachychiton populnea*	Kurrajong
Shrubs		
Asteraceae	*Cassinia arcuata*	
Epacridaceae	*Brachyloma daphnoides*	
	Lissanthe strigosa	Peach Heath
Fabaceae	*Indigofera australis*	Australian Indigo
	Podolobium ilicifolium	Native Holly
	Acacia buxifolia	Box-leaved Wattle
	A. obtusifolia	
	A. terminalis	Sunshine Wattle
Myrtaceae	*Leptospermum obovatum*	
	L. polygalifolium	Yellow Tea Tree

Table A.1 FLORA SPECIES LIST FROM TRANSECT IN THE STUDY AREA

Family	Scientific Name	Common Name
Pittosporaceae	*Bursaria spinosa*	Blackthorn
Proteaceae	*Banksia spinulosa*	Hairpin Banksia
	Hakea dactyloides	
	Persoonia linearis	Narrow-leaved Geebung
	P. marginata	Clandulla Geebung
	P. laurina	
Herbs – Fern		
Dennstaedtiaceae	*Pteridium esculentum*	Bracken Fern
Sinopteridaceae	*Cheilanthes sieberi*	Rock Fern
Herbs – Dicots		
Apiaceae	*Hydrocotyle laxifolia*	
Asteraceae	**Cirsium vulgare*	Spear Thistle
	**Conyza bonariensis*	a Fleabane
	Helichrysum scorpiodes	
Caryophyllaceae	*Stellaria pungens*	
Clusiaceae	**Hypericum perforatum*	St Johns Wort
Fabaceae	**Trifolium sp*	a Clover
Plantaginaceae	*Plantago gaudichaudii*	
	**P. lanceolata*	Lambs Tongue
Verbenaceae	**Verbena sp*	a Purpletop
Herbs – Monocots		
Cyperaceae	*Gahnia aspera*	Rough Saw-sedge
	G. sp	
Iridaceae	*Patersonia sericea*	Purple Flag
Lomandraceae	*Lomandra cylindrica*	
	L. longifolia	Spiny-headed Mat-rush
	L. multiflora	Many-flowered Mat-rush
Phormiaceae	*Dianella revoluta*	Paroo Lily
Poaceae	*Aristida vagans*	a Three-awned Grass
	Danthonia sp	a Wallaby Grass
	**Pharis aquatica*	Phalaris

Table A.1 FLORA SPECIES LIST FROM TRANSECT IN THE STUDY AREA

Family	Scientific Name	Common Name
	Poa sieberiana	Snow Grass
	Themeda australis	Kangaroo Grass
	**Vulpis sp*	
Vines		
Fabaceae	*Hardenbergia violacea*	Purple Coral Pea
Rosaceae	**Rubus fruticosus*	Blackberry
Mistletoe		
Loranthaceae	*Amyema ?miquelii*	

Table A.2 FLORA SPECIES RECORDED IN A QUADRAT OF YELLOW BOX-BLAKELYS RED GUM WOODLAND IN SECTION 2 OF THE CORRIDOR SURVEY

Family	Scientific Name	Common Name	Abundance in quadrat
Trees			
Fabaceae	Acacia parvipinnula		3
Myrtaceae	Eucalyptus blakelyi	Blakelys Red Gum	5
	E. melliodora	Yellow Box	5
Shrub			
Epacridaceae	Lissanthe strigosa	Peach Heath	2
Herbs – Fern			
Sinopteridaceae	Cheilanthes sieberi	Rock Fern	2
Herbs – Dicots			
Apiaceae	Hydrocotyle laxiflora		1
Clusiaceae	*Hypericum perforatum	St Johns Wort	2
Plantaginaceae	Planatgo gaudichaudii		1
Herbs – Monocots			
Cyperaceae	Gahnia aspera	Rough Saw Sedge	adj
Lomandraceae	Lomandra multiflora	Many-flowered Mat-rush	3
Poaceae	?Danthonia racemosa	a Wallaby Grass	2
	Poa sieberiana	Snow Grass	5
	Themeda australis	Kangaroo Grass	3
Vine			
Rosaceae	*Rubus fruticosus	Blackberry	1

Key: Cover abundance in quadrat
1 = rare
2 = occasional
3 = common
4 = very common but less than 5%
5 = 5-25%
* = introduced species
adj = adjacent to quadrat in similar community

Appendix B

Assessments of Significance

B.1 Masked Owl (*Tyto novaehollandiae*)

A medium-sized owl to 40 - 50 cm long, with dark eyes set in a prominent flat, heart-shaped facial disc that is encircled by a dark border. The feet are large and powerful, with fully feathered legs down to the toes. The owl exists in several colour forms, with wide variation in plumage. The distribution of this species extends from the coast where it is most abundant to the western plains. Overall records for this species fall within approximately 90% of NSW, excluding the most arid north-western corner. The Masked owl lives in dry eucalypt forests and woodlands but often hunts along the edges of forests, including roadsides. The typical diet consists of tree-dwelling and ground mammals, especially rats. It roosts and breeds in moist eucalypt forested gullies, using large tree hollows or sometimes caves for nesting.

The Masked Owl is listed as Vulnerable on the schedules of the NSW TSC Act; however this species is not listed under the Commonwealth EPBC Act. A draft recovery plan has been written for large forest owls which includes the Masked Owl.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal, with no potential nesting habitat present. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

A recovery plan has been drafted for Large Forest Owls which includes the Masked Owl. The action proposed is consistent with the objectives of this plan as effort has been made to minimise Masked Owl habitat loss and no known nest trees are being removed.

No threat abatement plan is relevant to this species.

g) *Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.*

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Masked Owl habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.2 Barking Owl (*Ninox connivens*)

The Barking Owl is a typical hawk-owl, with staring, yellow eyes and no facial-disc. It is grey to greyish-brown above, with white spots on the wings and almost white underneath with greyish-brown vertical streaks. The Barking Owl is found throughout Australia except for the central arid regions and Tasmania. It is quite common in parts of northern Australia, but is generally considered uncommon in southern Australia. The species inhabits eucalypt woodland, open forest, swamp woodlands and, especially in inland areas, timber along watercourses. Denser vegetation is used occasionally for roosting. During the day they roost along creek lines, usually in tall understorey trees with dense foliage such as Acacia and Casuarina species, or the dense clumps of canopy leaves in large Eucalypts

The Barking Owl is listed as Vulnerable on the schedules of the NSW TSC Act, however this species is not listed under the Commonwealth EPBC Act. A draft recovery plan has been written for this species.

a) *In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,*

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal with no potential nesting habitat present. Large areas of better quality habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) *In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,*

Not applicable.

c) *In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:*

(iii) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(iv) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) *In relation to the habitat of a threatened species, population or ecological community:*

(iv) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(v) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(vi) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

A recovery plan has been drafted for the Barking Owl. The action proposed is consistent with the objectives of this plan as effort has been made to minimise Barking Owl habitat loss and no known nest trees are being removed.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Barking Owl habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.3 Broad Headed Snake (*Hoplocephalus bungaroides*)

The Broad-headed Snake is generally black above with yellow spots forming narrow, irregular cross-bands. Other yellow scales may link these cross-bands laterally to form a straight or zigzagged stripe along the body. The average length is about 60 cm, with a maximum of around 150 cm. The Broad-headed Snake is largely confined to Triassic and Permian sandstones, including the Hawkesbury, Narrabeen and Shoalhaven groups, within the coast and ranges in an area within approximately 250 km of Sydney. The species is nocturnal and shelters in rock crevices and under flat sandstone rocks on exposed cliff edges during autumn, winter and spring. It moves from the sandstone rocks to shelters in hollows in large trees within 200 m of escarpments in summer.

The Broad-headed Snake is listed as Endangered on the schedules of the NSW TSC Act, and Vulnerable under the Commonwealth EPBC Act.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

Potential habitat for this species occurs in the rocky areas of the escarpments and some of the lower slopes. The tower at the top of Wolgan Gap is the only impact zone likely to constitute potential habitat for this species. However, there will be minimal clearing in this area as the upgraded concrete tower will be located in place of the existing wooden towers. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the potential removal a small area of vegetation during the construction of the first tower will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(v) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(vi) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

(vii) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(viii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(ix) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that has previously occurred for the construction and maintenance of the existing tower poles already slightly fragments the landscape, however, no more so than the road adjoining the tower location, and the additional minor clearing will not act to exacerbate this. Habitat will not become isolated for this species as a result of the project, as the road already acts to fragment habitat in Newnes State Forest.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a very small area, and large amounts of potential habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for the Broad-headed Snake.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is very small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of potential habitat for Broad-headed Snake will occur, the amount of habitat that will be removed is very small. Due to the location and extent of the clearance, no areas of habitat will be further fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.4 Rosenbergs Goanna (*Varanus rosenbergi*)

Rosenberg's Goanna reaches up to 1.5 metres in length. It is dark grey above, finely spotted with yellow or white, and with paired, blackish cross-bands from the neck to the end of the tail. Rosenberg's Goanna occurs on the Sydney Sandstone in Wollemi National Park to the north-west of Sydney, in the Goulburn and ACT regions and near Cooma in the south. Found in heath, open forest and woodland. This species is associated with termites, the mounds of which this species nests in; termite mounds are a critical habitat component. Individuals require large areas of habitat and feed on carrion, birds, eggs, reptiles and small mammals. Rosenberg's Goanna shelters in hollow logs, rock crevices and in burrows, which they may dig for themselves, or they may use other species' burrows, such as rabbit warrens.

Rosenberg's Goanna is listed as Vulnerable on the schedules of the NSW TSC Act, however this species is not listed under the Commonwealth EPBC Act.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. No termite mounds were recorded in the powerline corridor therefore, no area of foraging habitat is likely to be removed by the proposal.

Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(vii) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(viii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

(x) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xi) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Rosenberg's Goanna habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.5 Spotted Tailed Quoll (*Dasyurus maculatus*)

The Spotted-tailed Quoll is about the size of a domestic cat with rich-rust to dark-brown fur above, with irregular white spots on the back and tail, and a pale belly. The spotted tail distinguishes it from all other Australian mammals, including other quoll species. The range of the Spotted-tailed Quoll has contracted considerably since European settlement. It is now found on the east coast of NSW, Tasmania, eastern Victoria and north-eastern Queensland. Only in Tasmania is it still considered common. This species has been recorded across a range of habitat types, including rainforest, open forest, woodland, coastal heath and inland riparian forest, from the sub-alpine zone to the coastline. Individual animals use hollow-bearing trees, fallen logs, small caves, rock crevices, boulder fields and rocky-cliff faces as den sites. It is mostly nocturnal, although will hunt during the day; spends most of the time on the ground, although may raid possum and glider dens and prey on roosting birds.

The Spotted-tailed Quoll is listed as Vulnerable on the schedules of the NSW TSC Act, and as Endangered under the Commonwealth EPBC Act.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) *In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,*

Not applicable.

c) *In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:*

(ix) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(x) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) *In relation to the habitat of a threatened species, population or ecological community:*

(xiii) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xiv) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xv) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Spotted Tailed Quoll habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.6 Squirrel Glider (*Petaurus norfolcensis*)

Adult Squirrel Gliders have a head and body length of about 20 cm. They have blue-grey to brown-grey fur above, white on the belly and the end third of the tail is black. There is a dark stripe from between the eyes to the mid-back and the tail is soft and bushy averaging about 27 cm in length. The species is widely though sparsely distributed in eastern Australia, from northern Queensland to western Victoria. It inhabits mature or old growth Box, Box-Ironbark woodlands and River Red Gum forest west of the Great Dividing Range and Blackbutt-Bloodwood forest with heath understorey in coastal areas. Squirrel Gliders prefer mixed species stands with a shrub or *Acacia* midstorey and live in family groups of a single adult male one or more adult females and offspring. They require abundant tree hollows for refuge and nest sites.

The Squirrel Glider is listed as Vulnerable on the schedules of the NSW TSC Act, however this species is not listed under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal and no potential nesting hollows were observed. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(xi) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

(xvi) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xvii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xviii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, is not likely to contain nest/roost sites and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Squirrel Glider habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.7 Yellow-bellied Sheathtail Bat (*Saccolaimus flaviventris*)

The Yellow-bellied Sheathtail-bat is a very distinctive, large, insectivorous bat up to 87 mm long. It has long, narrow wings, a glossy, jet-black back, and a white to yellow belly extending to the shoulders and just behind the ear. Characteristically, it has a flattened head and a sharply-pointed muzzle. The Yellow-bellied Sheathtail-bat is a wide-ranging species found across northern and eastern Australia. It roosts singly or in groups of up to six, in tree hollows and buildings; in treeless areas they are known to utilise mammal burrows. Forages in most habitats across its very wide range, with and without trees; appears to defend an aerial territory.

The Yellow-bellied Sheathtail-bat is listed as Vulnerable on the schedules of the NSW TSC Act; however this species is not listed under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) *In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,*

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) *In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,*

Not applicable.

c) *In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:*

(xiii) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xiv) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

(xix) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xx) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xxi) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for the Yellow-bellied Sheathtail Bat.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Yellow-bellied Sheathtail Bat habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.8 Large-eared Pied Bat (*Chalinolobus dwyeri*)

A small to medium-sized bat with long, prominent ears and glossy black fur. The lower body has broad white fringes running under the wings and tail-membrane, meeting in a V-shape in the pubic area. It is found mainly in areas with extensive cliffs and caves, from Rockhampton in Queensland south to Bungonia in the NSW Southern Highlands. It is generally rare with a very patchy distribution in NSW. The Large-eared Pied Bat roosts in caves, crevices in cliffs and old mine workings, frequenting low to mid-elevation dry open forest and woodland close to these features. They remain loyal to the same cave over many years. This species is found in well-timbered areas containing gullies, and is likely to hibernate through the coolest months.

The Large-eared Pied-bat is listed as Vulnerable on the schedules of the NSW TSC Act; and also as Vulnerable under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) *In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:*

(xv) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xvi) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) *In relation to the habitat of a threatened species, population or ecological community:*

(xxii) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xxiii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xxiv) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) *Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,*

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) *Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.*

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Large-eared Pied Bat habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.9 Eastern False Pipistrelle (*Falsistrellus tasmaniensis*)

The Eastern False Pipistrelle is relatively large with a head-body length of about 65 mm. It weighs up to 28 grams. It is dark to reddish-brown above and paler grey on its underside. It has long slender ears set well back on the head and some sparse hair on the nose. The Eastern False Pipistrelle is found on the south-east coast and ranges of Australia, from southern Queensland to Victoria and Tasmania. It prefers moist habitats, with trees taller than 20 m and generally roosts in eucalypt hollows, but has also been found under loose bark on trees or in buildings. This species hunts beetles, moths, weevils and other flying insects above or just below the tree canopy and hibernates in winter.

The Eastern False Pipistrelle is listed as Vulnerable on the schedules of the NSW TSC Act; however this species is not listed under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) *In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,*

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species.

Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) *In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,*

Not applicable.

c) *In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:*

(xvii) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xviii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) *In relation to the habitat of a threatened species, population or ecological community:*

(xxv) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xxvi) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xxvii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Eastern False Pipistrelle habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.10 Greater Broad-nosed Bat (*Scoteanax rueppellii*)

The Greater Broad-nosed Bat is a large powerful bat, up to 95 mm long, with a broad head and a short square muzzle. It is dark reddish-brown to mid-brown above and slightly paler below. The Greater Broad-nosed Bat is found mainly in the gullies and river systems that drain the Great Dividing Range, from north-eastern Victoria to the Atherton Tableland, however it does not occur at altitudes above 500 m. It utilises a variety of habitats from woodland through to moist and dry eucalypt forest and rainforest, though it is most commonly found in tall wet forest. Open woodland habitat and dry open forest suits the direct flight of this species as it searches for beetles and other large, slow-flying insects; this species has been known to eat other bat species. Although this species usually roosts in tree hollows, it has also been found in buildings.

The Greater Broad-nosed Bat is listed as Vulnerable on the schedules of the NSW TSC Act; however this species is not listed under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(xix) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xx) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

(xxviii) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xxix) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xxx) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Greater Broad-nosed Bat habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.11 Eastern Freetail Bat (*Mormopterus norfolkensis*)

The Eastern Freetail-bat has dark brown to reddish brown fur on the back and is slightly paler below. Like other freetail-bats it has a long (3 - 4 cm) bare tail protruding from the tail membrane. The Eastern Freetail-bat is found along the east coast from south Queensland to southern NSW. They occur in dry sclerophyll forest and woodland east of the Great Dividing Range and roost mainly in tree hollows, but will also roost under bark or in man-made structures. They are solitary and probably insectivorous.

The Eastern Freetail-bat is listed as Vulnerable on the schedules of the NSW TSC Act; however this species is not listed under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(xxi) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xxii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

(xxxi) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xxxii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xxxiii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Eastern Freetail Bat habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.12 Eastern Bentwing Bat (*Miniopterus schreibersii oceanensis*)

The Eastern Bent-wing Bat has chocolate to reddish-brown fur on its back and slightly lighter coloured fur on its belly. It has a short snout and a high 'domed' head with short round ears. It weighs up to 20 grams, has a head and body length of about 6 cm and a wingspan of 30 - 35 cm. Eastern Bent-wing Bats occur along the east and north-west coasts of Australia. Caves are the primary roosting habitat, but also use derelict mines, storm-water tunnels, buildings and other man-made structures. They form discrete populations centred on a maternity cave that is used annually in spring and summer for the birth and rearing of young. Maternity caves have very specific temperature and humidity regimes. At other times of the year, populations disperse within about 300 km range of maternity caves. Breeding or roosting colonies can number from 100 to 150,000 individuals. This species hunts in forested areas, catching moths and other flying insects above the tree tops.

The Eastern Bent-wing Bat is listed as Vulnerable on the schedules of the NSW TSC Act; however this species is not listed under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the

endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) *In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:*

(xxiii) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xxiv) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) *In relation to the habitat of a threatened species, population or ecological community:*

(xxxiv) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xxxv) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xxxvi) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Eastern Bentwing Bat habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.13 Eastern Cave Bat (*Vespadelus troughtoni*)

The Eastern Cave Bat is a small chestnut-brown bat with rufous tones on the head, and darker wings. It has smallish, conical ears and a short, up-tipped nose. The species is very difficult to separate from several other closely related species that occur in similar areas. The Eastern Cave Bat is found in a broad band on both sides of the Great Dividing Range from Cape York to Kempsey, with records from the New England Tablelands and the upper north coast of NSW. This is 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, occasionally in colonies of up to 500 individuals. Occasionally iot is found along cliff-lines in wet eucalypt forest and rainforest.

The Eastern Cave Bat is listed as Vulnerable on the schedules of the NSW TSC Act; however this species is not listed under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) *In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,*

Not applicable.

c) *In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:*

(xxv) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xxvi) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) *In relation to the habitat of a threatened species, population or ecological community:*

(xxxvii) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xxxviii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xxxix) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Eastern Cave Bat habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.14 Square-tailed Kite (*Lophoictinia isura*)

The Square-tailed Kite is a reddish, medium-sized, long-winged raptor, about the size of a Little Eagle or harrier. Adults have a white face with thick black streaks on the crown and finer streaks elsewhere. The saddle, rump and central upper tail coverts are blackish with grey-brown barring. The Square-tailed Kite ranges along coastal and subcoastal areas from south-western to northern Australia, Queensland, NSW and Victoria. It is a summer

breeding migrant to the south-east, including the NSW south coast, arriving in September and leaving by March. Found in a variety of timbered habitats including dry woodlands and open forests, showing a particular preference for timbered watercourses. In arid north-western NSW, has been observed in stony country with a ground cover of chenopods and grasses, open acacia scrub and patches of low open eucalypt woodland.

The Square-tailed Kite is listed as Vulnerable on the schedules of the NSW TSC Act; however this species is not listed under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(xxvii) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(xxviii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

Not applicable.

d) In relation to the habitat of a threatened species, population or ecological community:

(xl) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(xli) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(xlii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

A strip approximately 4 m wide and 10 km long will be cleared directly adjacent to an existing road in order to construct the transmission line, although much of this length is already cleared pastoral land.

The vegetation clearance that will take place along the existing road will not further fragment or isolate habitat as the existing road already fragments the landscape and the additional clearing will not act to exacerbate this. Habitat will not become isolated for this species as the strip will be relatively narrow and will not form a barrier to this highly mobile species.

The habitat to be removed is not important to the long term survival of this species in the locality as it is a relatively small area, and large amounts of habitat exist in the vicinity.

e) *Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),*

No critical habitat for the subject species has currently been listed in the critical habitat registry by the Director-General of the DEC.

f) Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

No recovery plan has been drafted for this species.

No threat abatement plan is relevant to this species.

g) Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The proposed development will involve native vegetation clearance which is a listed Key Threatening Process under the TSC Act. However, the area to be cleared is relatively small and large amounts of habitat will remain in the vicinity of the development.

Conclusion

Although some removal of Square-tailed Kite habitat will occur, the amount of habitat that will be removed is relatively small. Due to the location and extent of the clearance, no

areas of habitat will be fragmented or isolated from other areas of habitat. Large tracts of similar vegetation occur around the subject site and foraging habitat occurs across the study area that will not be affected. Consequently, no significant impact is likely on this species and no Species Impact Statement is required.

B.15 Glossy Black Cockatoo (*Calyptorhynchus lathami*)

The Glossy Black-cockatoo is a dusky brown to black cockatoo with a massive, bulbous bill and a broad, red band through the tail. The red in the tail is barred black and edged with yellow. The species is uncommon although widespread throughout suitable forest and woodland habitats, from the central Queensland coast to East Gippsland in Victoria, and inland to the southern tablelands and central western plains of NSW, with a small population in the Riverina. This species feeds almost exclusively on the seeds of several species of she-oak (*Casuarina* and *Allocasuarina* species), shredding the cones with the massive bill. It inhabits open forest and woodlands of the coast and the Great Dividing Range up to 1000 m in which stands of she-oak species occur. In the Riverina area, it inhabits open woodlands dominated by Belah (*Casuarina cristata*). The Glossy Black-Cockatoo is dependent on large hollow-bearing eucalypts for nest sites.

The Glossy Black-cockatoo is listed as Vulnerable on the schedules of the NSW TSC Act and is listed as Endangered under the Commonwealth EPBC Act. No draft recovery plan has been written for this species.

a) In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

The potential habitat to be affected by the proposal consists of sections of native vegetation within a narrow corridor predominantly within a road verge for the construction of a transmission line. Much of the impact zone is within pastoral land and the areas of native vegetation to be removed are minimal. Large areas of habitat are available within adjoining areas of Ben Bullen State Forest, and the removal of narrow strips of roadside vegetation will not make this area of extensive habitat less suitable for this species. Therefore the proposed development will not have an adverse effect on the life cycle of this species such that a viable local population of the species is likely to be placed at risk of extinction.

b) In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable.

c) In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed: