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Subject	Significant Impact Assessment	Project Name	Riddoch Highway Overtaking Lanes
Attention	DIT	Project No.	IW227800
From	Lucy Clive, Zeta Bull		
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Introduction

The Department for Infrastructure and Transport (DIT) has identified three locations along the Riddoch Highway, near Naracoorte in South Australia, for development of three overtaking lanes. To identify any Nationally threatened or State listed species that may occur in the area, a Protected Matters Search Tool (PMST) report was generated with a 1km and a 5km buffer around each of the three locations provided by DIT. Two of the species in this report were highlighted as potentially being impacted by the proposed vegetation clearance activity (Table 1): the Striped Legless Lizard (*Delma impar*, Nationally listed as Vulnerable, State listed as Endangered) and the SE Red-tailed Black Cockatoo (*Calyptorhynchus banksii graptogyne*, Nationally listed as Endangered, State listed as Endangered).

The purpose of this significant impact assessment is to ascertain whether there is the potential for these two species to be significantly impacted by the proposed works. Significant impact is assessed in relation to the criteria of the national significant impact guidelines (DotE 2013).

Table 1: Protected Matters Search Tool Results for the Striped Legless Lizard and the SE Red-tailed Black Cockatoo within both 1km and 5km of each OTL section.

Species	Northern OTL	Central OTL	Southern OTL
<i>Delma impar</i> (Striped Legless Lizard)	5km buffer: Species or species habitat known to occur 1km buffer: Species or species habitat likely to occur	5km buffer: Species or species habitat likely to occur 1km buffer: Species or species habitat likely to occur	5km buffer: Species or species habitat likely to occur 1km buffer: Species or species habitat likely to occur
<i>Calyptorhynchus banksii graptogyne</i> (South-eastern Red-tailed Black Cockatoo)	5km buffer: Breeding known to occur 1km buffer: Species or species habitat known to occur	5km buffer: Foraging, feeding or related behaviour known to occur 1km buffer: Species or species habitat known to occur	5km buffer: Foraging, feeding or related behaviour known to occur 1km buffer: Breeding likely to occur

DoEE provide the following guidance for proponents considering whether their actions represent potentially significant impact to Matters of National Environmental Significance:

"A 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment, which is impacted and upon the intensity, duration, magnitude and geographic extent of the impacts. You should consider all of these factors when determining whether an action is likely to have a significant impact on matters of national environmental significance "(DotE 2013).

"To be 'likely', it is not necessary for a significant impact to have a greater than 50% chance of happening; it is sufficient if a significant impact on the environment is a real or not remote chance or possibility. If there is scientific uncertainty about the impacts of your action and potential impacts are serious or irreversible, the precautionary principle is applicable. Accordingly, a lack of scientific certainty about the potential impacts of an action will not itself justify a decision that the action is not likely to have a significant impact on the environment" (DotE 2013).

Delma impar (Striped Legless Lizard)

Delma impar (Striped Legless Lizard) is a grassland specialist, endemic to South Australia, Victoria, New South Wales and the ACT (Cogger et al. 1993) and is found in both native and exotic grasslands. The area of occurrence is approximately 81,870 km² (Cogger et al. 1993) with the area of occupancy unknown due to the cryptic nature of the species. The species distribution is from south-eastern SA, through Victoria and the south-eastern NSW west of the Great Dividing Range (Cogger 2014).

Until recently, the species was thought to inhabit only native grasslands dominated by species such as Spear Grass (*Stipa bigeniculata*) and Kangaroo Grass (*Themeda triandra*) (Cogger et al. 1993; Coulson 1995). However, the species is now known to occur in some areas dominated by introduced species such as Toowoomba Canary-grass / Phalaris (*Phalaris aquatica*), Serated Tussock (*Nassella trichotoma*) and Cats'ear (*Hypochaeris radicata*) (Corrigan et al. 1996; Coulson 1990; Hadden 1995; Kukolic 1994; O'Shea 1996; Rauhala 1996; Rauhala et al. 1995). The species can also occur in modified grassland areas dominated by weed species such as Chilean Needlegrass (*Nassella neesiana*); and Cocksfoot (*Dactylis glomerata*).

The Naracoorte population is listed as an 'important population', genetically distinct from three other genetic lineages across the species range. However, populations listed as being important for the species' long-term survival and recovery are restricted to three larger, core populations in Victoria (Department of the Environment, 2020).

Here we consider the significant impact criteria for *Delma impar* (Striped Legless Lizard), a Nationally Vulnerable species. The criteria associated with vulnerable species, likelihood of a significant impact and justification are summarised below in Table 2. Based on the justification provided it is considered that the project is unlikely to result in a significant impact for any of the vulnerable species criteria.

Table 2: Consideration of Vulnerable Significant Impact Criteria (DotE 2013)

Significant Impact Criteria	Likelihood of significant impact	Justification
Lead to a long-term decrease in the size of an important population of a species	Unlikely	The area of vegetation targeted for clearance is a small, highly disturbed roadside fragment that has the potential to contain isolated individuals of <i>Delma impar</i> . However, the roadside vegetation is already fragmented and disturbed by existing infrastructure with no habitat connectivity to larger known South Australian populations such as those at Hack's Lagoon or Lake Ormerod. Vegetation within the footprint is not considered core habitat and not likely to provide habitat for an important population. Therefore, clearance associated with construction of the OTL's is unlikely to result in a long-term decrease in size of an important population.
Reduce the area of occupancy of an important population	Unlikely	Given the species occurs from south-eastern SA through Victoria to eastern NSW, and an important population is not known from the footprint site, it is unlikely that clearance within the footprint would significantly reduce the area of occupancy of an important population.
Fragment an existing important population into two or more populations	Unlikely	As above, clearance of small isolated pockets of non-core vegetation, where there is no known population for the project is unlikely to fragment an existing important population into two of more populations.
Adversely affect habitat critical to the survival of a species	Unlikely	The project would not be clearing habitat that is critical to the survival of the species. There are larger known populations on protected land nearby (Lake Ormerod, Hacks Lagoon etc) in the region and extensive RSSD sites between the northern and central OTL. In addition, 83% of a small area (total 0.19) of Exotic Grassland, that contains 5 % native groundcovers and could provide suitable habitat, is avoided by the southern OTL.
Disrupt the breeding cycle of an important population	Unlikely	Breeding habitat needs to be "floristically diverse with complex grass structures including areas of tussocks with high biomass, surface rocks or invertebrate burrows which provide sites for oviposition and protect eggs from disturbance" (Threatened Species Scientific Committee 2016). The OTL footprints do not contain potential breeding habitat. Known populations are avoided, RSSD sites are avoided and that majority of a small patch (0.19 ha) of exotic grassland (<i>Dactylis glomerata</i> and <i>Phalaris aquatica</i>) that include 5% native groundcover, is avoided by the project. The CEMP would also ensure these areas are marked as 'no go' during construction.
Modify, destroy, remove and isolate or decrease the availability	Unlikely	The local population is on the fringe of the distribution that occurs within SA. The species also extends across Victoria and NSW. Higher, better quality habitat occurs

Significant Impact Criteria	Likelihood of significant impact	Justification
or quality of habitat to the extent that the species is likely to decline		on protected land. Potential loss of individuals that may or may not occur in the primarily roadside grassland vegetation (or amenity / scattered trees) that will be cleared will not impact the species population size overall. Small populations are unlikely to persist in small pockets of non-core habitat (e.g. dominated by exotic grasses), particularly those that lack of habitat connectivity to known populations in core habitats.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	Unlikely	Earthworks will be undertaken to facilitate construction of three separate overtaking lanes. The targeted exotic roadside vegetation will be destroyed and will not be available for use by the Vulnerable species (<i>Delma impar</i>) or an invasive species. Standard CEMP protocols would also ensure invasive species do not persist in the area. Given the species core habitat is not within or adjacent the footprint, it is unlikely the project would result in an invasive species becoming established in the vulnerable species habitat.
Introduce disease that may cause the species to decline	Unlikely	Given that lack of core habitat or important population in footprint and CEMP activities that would be undertaken it is unlikely that the project would introduce a disease that would cause the species to decline, particularly in a region that has protocols to avoid spreading diseases to vineyards.
Interfere substantially with the recovery of the species	Unlikely	<p>The key actions of the recovery plan for the species are: to establish and maintain forums for the discussion and organisation of the conservation of the species across its natural distribution; determine the distribution of potential habitat; to determine the current distribution and abundance in VIC, NSW, ACT and SA; to establish a set of reserves to protect and maintain populations; to determine species habitat use and ecological requirements; to identify the nature and extent of threatening processes; to undertake monitoring to provide a basis for adaptive management; to increase community awareness; to assess the need for translocation and undertake a trial translocation if appropriate; and to ensure that captive populations are used to support education and research (Robertson & Smith 2010).</p> <p>Clearance of roadside vegetation, that does not contain a known population is unlikely to substantially interfere with any of the objectives detailed in the species recovery plan.</p>

Calyptorhynchus banksii graptogyne (South-eastern Red-tailed Black Cockatoo)

Calyptorhynchus banksii graptogyne (SE Red-tailed Black Cockatoo) is another species endemic to the South-east of South Australia. The species occurs in a single population in a small area of south-eastern Australia delimited by Keith to Lucindale to Mt Gambier in South Australia and Portland to Casterton, Toolondo, Natimuk, Dimboola, Nhill, and Kaniva in Victoria. The total extent of occurrence is approximately 18,000 km² with 28% of this area occupied (Burnard and Hill 2002). The species is described as being widespread, but rare within the range with breeding occurring across much of the range.

The SE Red-tailed Black-Cockatoo is restricted to Desert Stringybark *Eucalyptus arenacea* and Brown Stringybark *E. baxteri* woodlands occurring on deep aeolian sands in the Glenelg, Wimmera and Naracoorte Plains, and adjacent woodlands of River Red Gum *Eucalyptus camaldulensis*, Yellow Gum *E. leucoxylon* and Buloke *Allocasuarina leuhmannii* (Hill and Burnard 2001, Koch 2003).

Habitat critical to the species survival is defined as all potential habitat within its current normal range, potential habitat mapped to areas where habitats are known to occur, likely to occur or may occur. The species feeds primarily on the seeds of Desert and Brown Stringybark (*Eucalyptus baxteri* and *E. arenacea*), and seasonally on the seeds of Buloke (*Allocasuarina leuhmannii*) (Commonwealth of Australia 2007) and feeds in blocks of forest and scattered paddock trees, mainly restricted to trees with a dbh >19cm (L. Morcombe, University of Ballarat, unpublished data). The species requires very old, large hollow eucalypts for nesting (Joseph et al. 1991) with nests being recorded in *Eucalyptus camaldulensis*, *E. baxteri*, *E. arenacea*, *E. viminalis*, *E. leucoxylon* and *E. fasciculosa*. The SE Red-tailed Black Cockatoo has also been recorded roosting in clumps of tall eucalypts.

Here we consider the significant impact criteria for *Calyptorhynchus banksii graptogyne* (SE Red-tailed Black Cockatoo), a Nationally Endangered species. The criteria associated with endangered species, likelihood of a significant impact and justification are summarised below in Table 3. Based on the justification provided it is considered that the project is unlikely to result in a significant impact for any of the vulnerable species criteria.

Table 3: Consideration of Endangered Significant Impact Criteria (DotE 2013)

Significant Impact Criteria	Likelihood of significant impact	Justification
Lead to a long-term decrease in the size of a population	Unlikely	Species occurs in a single population in a small area of south-eastern Australia delimited by Keith to Lucindale to Mt Gambier in South Australia and Portland to Casterton, Toolondo, Natimuk, Dimboola, Nhill, and Kaniva in Victoria. The total extent of occurrence is ~18,000 km ² with 28% of this area occupied (Burnard and Hill 2002). The species is widespread but rare within this range, and breeds across much of the range. The proposed activity involves construction of overtaking lanes adjacent an existing busy highway that has been long established in this area. Whilst roadside vegetation will be cleared for the project (scattered medium River Red Gums with no hollows, some with evidence of coppice and amenity trees), these trees would only provide occasional roosting / perching for the species. The trees are not core nesting or feed trees and removal of the trees is unlikely to cause long-term decrease in the size of the population.

Significant Impact Criteria	Likelihood of significant impact	Justification
		<p>In the region records for the species are from patches of woodland that are protected on private property and or in conservation reserves or heritage agreement areas.</p>
<p>Reduce the area of occupancy of the species</p>	<p>Unlikely</p>	<p>The area of occupancy is 28% of the 18,000km² extent of occurrence and the species is described as being widespread but rare within this range (Burnard and Hill 2002). The trees targeted for removal do not represent core nesting or feeding habitat and are alongside an existing highway. The addition of the three overtaking lanes is unlikely to reduce the area of occupancy of the species as this is already a highly disturbed location within the species' habitat.</p>
<p>Fragment an existing population in two or more populations</p>	<p>Unlikely</p>	<p>The project proposes to widen an existing highway at three locations that are not known to provide core habitat for the existing population that is spread across the region. Clearance of occasional roosting trees adjacent a busy highway, avoiding larger patches of vegetation away from the highway that contain core / preferred habitat, is unlikely to result in fragmentation of the population.</p>
<p>Adversely affect habitat critical to the survival of a species</p>	<p>Unlikely</p>	<p>Habitat critical to the survival of the species is defined as potential habitat within the species' "current normal range" with potential habitat being mapped to areas where habitats are known to occur, likely to occur or may occur.</p> <p>Core feeding habitat (woodlands of <i>Eucalyptus baxteri</i>, <i>E. arenacea</i> and <i>Allocasuarina leuhmannii</i>) was not observed during the field survey. The SE Red-tailed Black cockatoo requires very old, large hollow eucalypts for nesting, approximately 200 years old (Joseph et al. 1991). Over 95% of known nest sites are within 2km of >5ha blocks of Stringybark (Hill and Burnard 2001).</p> <p>While the SE Red-tailed Black Cockatoo has been recorded nesting in <i>Eucalyptus camaldulensis</i> and <i>E. leucoxylon</i>, both of which were recorded within the project footprint, the hollows observed were not of a suitable size (15cm diameter) to support nesting by this species. The trees present were approximately 50-75 years old, with trees favoured by the SE Red-tailed Black cockatoo being approximately 200 years old.</p> <p>The species is known to roost in clumps of tall Eucalypts, such as River Red Gum <i>E. camaldulensis</i>, with an average DBH of 80cm and 26m in height. Given core habitat critical to the survival of the species is not being cleared, but rather occasional roosting trees present as scattered individuals along a major highway, it is considered unlikely that the project would impact the species. In addition, the species recovery plan (Commonwealth of Australia, 2007)</p>

Significant Impact Criteria	Likelihood of significant impact	Justification
		suggests that all Buloke (<i>Allocasuarina leuhmannii</i>) within the normal range is critical habitat. No Buloke would be cleared as a result of this project.
Disrupt the breeding cycle of a population	Unlikely	The species has been recorded nesting in hollows in <i>Eucalyptus camaldulensis</i> , <i>E. baxteri</i> , <i>E. arenacea</i> , <i>E. viminalis</i> , <i>E. leucoxyton</i> and <i>E. fasciculosa</i> . While individuals of <i>E. camaldulensis</i> and <i>E. leucoxyton</i> were observed in the project footprint, the hollows recorded were too small to be used by the species and therefore, no suitable nesting habitat was recorded during the survey of the project footprint. The SE Red-tailed Black Cockatoo is known to prefer hollows >15cm in diameter at least 6m above the ground, none of which were found during survey. Given core breeding trees would not be cleared as a result of the project, it is considered unlikely that the project would disrupt the breeding cycle of the population.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	Unlikely	The only potential habitat identified within the project footprint was occasional roosting habitat that is adjacent a busy highway, with larger and better quality scattered trees available in adjacent cleared paddocks and regional conservation parks and heritage agreement areas. With a lack of suitable or high quality habitat present in the project footprint, it is unlikely that clearance of the River Red Gum trees would cause the species to decline.
Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat	Unlikely	The vegetation in the road reserve of the three sections will be removed and the existing road will be extended. No habitat will remain for use by the SE Red-tailed Black Cockatoo or any other species (native or invasive) within the OTL footprints. CEMP protocols will ensure invasive species will not establish in the region and establish in known preferred habitat areas that are not within or adjacent the OTL footprints.
Introduce disease that may cause the species to decline	Unlikely	Given that lack of core habitat or important populations present within the footprint and CEMP activities that would be undertaken, it is unlikely that the project would introduce a disease that would cause the species to decline, particularly in a region that has protocols to avoid spreading diseases to vineyards.
Interfere with the recovery of the species	Unlikely	As detailed in the recovery plan (Commonwealth of Australia, 2007) the species recovery actions include: to identify and protect feeding habitat from clearing; link and reserve feeding habitat; encourage fencing of feeding habitat to protect it from stock; replant feeding habitat and identify and reduce threats from fire. As the habitat identified for clearance in this project does not represent suitable feeding or nesting habitat,

Significant Impact Criteria	Likelihood of significant impact	Justification
		this project is unlikely to interfere with the recovery of the species.

Summary by each OTL section

Northern OTL: The vegetation recorded along this section was largely amenity vegetation with an exotic understorey dominated by Phalaris and Cocksfoot (*Dactylis glomerata*). Additional to the amenity vegetation, there were also five scattered trees and a clump of scattered trees recorded (e.g. seven native River Red Gum in total).

The Striped Legless Lizard (*Delma impar*) is known to be found in both native and exotic grasslands and, therefore, has the potential to be present throughout the length of this OTL, the closest records being ~4km south of the OTL in Roadside Significant Site (RSS) 968. There are six RSS's along Riddoch Highway between the northern OTL and Naracoorte, including one extensive site (1027), all of which are being avoided by the planned activity.

The private land either side of the OTL has been mapped as being used for agricultural purposes such as cropping (northbound side of Riddoch Highway) or grazing (southbound of Riddoch Highway). *Delma impar* has been found to persist in grazed paddocks which provides a larger area of potentially suitable habitat adjacent to roadside vegetation. It is recommended to avoid clearing roadside vegetation adjacent to grazed land in order to preserve any fragmented *D. impar* populations as the patch size may be large enough to support a small population. The species, however, is unlikely to persist on ploughed land and individuals present in roadside vegetation that is adjacent to ploughed land and would likely be vulnerable to extirpation (local extinction) regardless of construction activity.

The SE Red-tailed Black Cockatoo (*Calyptorhynchus banksii graptogyne*) is known to utilise woodlands containing Desert Stringybark (*Eucalyptus arenacea*) and Brown Stringybark (*E. baxteri*) and adjacent woodlands of River Red Gum (*Eucalyptus camaldulensis*), Yellow Gum (*E. leucoxydon*) and Buloke (*Allocasuarina luehmannii*). The preferred stringybark species were not recorded along this OTL, although River Red Gum and Yellow Gum individuals were observed. Species usually roosts in clumps of tall eucalypts and nests in very large, old hollow eucalypts which were not present in this section, although one medium sized hollow was recorded indicating potential future suitability for nesting. Whilst, the SE Red-tailed Black Cockatoo has been recorded foraging in trees (of preferred species) with a dbh >19cm, hence trees which are present in this OTL section and are > 19cm should be avoided where possible as they provide potentially suitable perching and foraging habitat. Noting that the trees within the OTL footprint are not the preferred feed trees of the species, and some trees show evidence of coppice.

Central OTL: The vegetation recorded along this section was largely amenity plantings, over an exotic understorey, with three scattered River Red Gum trees and one scattered tree clump (*Acacia melanoxylon*).

The Striped Legless Lizard (*Delma impar*) is known to be found in both native and exotic grasslands and, therefore, has the potential to be present throughout the length of this OTL. The private land either side of the OTL has been mapped as being used for agricultural purposes such as cropping or grazing. While the species has been known to persist in grazed paddocks, the species is unlikely to be present at this OTL location as there are no nearby records and no Roadside Significant Sites (RSS) on Riddoch Highway between Naracoorte and the Central OTL location.

The River Red Gum (*E. camaldulensis*) trees recorded in this section were again unlikely to be used for roosting by the SE Red-tailed Black Cockatoo as they were not of an adequate height, with no hollows

present to provide nesting habitat. However, they could provide perching and foraging habitat as the dbh were all above 19cm. Although the trees species that are present are not the 'preferred' species of the Red-tailed Black Cockatoos.

It is noted that approximately 12 River Red Gums occur in the final footprint, and it is unlikely all of these will require clearance, and some trees show evidence of coppice (e.g. historical felling at the base resulting in multiple stems).

Southern OTL: The vegetation recorded along this section contained 33 live River Red Gums, 5 scattered tree clumps, a patch of native vegetation and amenity vegetation (trees and patches).

The disturbed patch of native vegetation (0.19 ha) was recorded on the west side of Riddoch Highway (northbound side of the road), dominated by exotic *Phalaris aquatica* and/or *Dactylis glomerata* Grassland, but containing 5% native groundcover species. *Delma impar* is known to occur in areas dominated by introduced species such as Toowoomba Canary-grass (*Phalaris aquatica*), Serated Tussock (*Nassella trichotoma*) and *Hypochaeris radicata* (Corrigan et al. 1996; Coulson 1990; Hadden 1995; Kukolic 1994; O'Shea 1996; Rauhala 1996; Rauhala et al. 1995). Species can also occur in modified grassland areas dominated by weed species such as Chilean Needlegrass (*Nassella neesiana*); and Cocksfoot (*Dactylis glomerata*). There is a possibility that *Delma impar* could be present within this patch of native vegetation and it has been identified as an area of vegetation to be avoided during construction of the overtaking lane in order to preserve possible habitat. The majority of this patch would be avoided, approximately 0.032 ha would be cleared.

This section contained 33 live River Red Gum trees and one dead tree which had a medium sized hollow recorded approximately 3m off the ground. Although this section contains large clumps of Eucalypt species, these trees are unlikely to provide roosting habitat as they were not tall enough (preferred roosting trees being 26m in height on average). In addition, some of the trees show evidence of coppice (historical felling at the base, multiple stems). The trees are unlikely to provide nesting habitat as only one medium sized hollow was recorded, 3m off the ground, with large hollows at least 6m off the ground being preferred. However, the trees do represent potential occasional perching and foraging habitat, noting that they are not core feed tree species.

More detail about the number of trees that could be cleared in this section will be provided in vegetation clearance approval documentation.

Conclusion

***Delma impar* (Striped Legless Lizard)**

The field survey associated with the OTL projects identified one patch of exotic grassland that include 5% native groundcover in the Southern OTL footprint. Whilst this habitat is not core habitat, it may be suitable for the species, hence the majority of the patch is to be avoided by construction works in order to preserve potential *Delma impar* habitat. Although there is the potential for the species to be present throughout all three OTLs, due to the species use of both native and exotic grasslands, the small isolated patches are unlikely to persist as viable habitat / populations due to lack of habitat connectivity with other individuals. The known larger populations in the Naracoorte vicinity are at Lake Ormerod and Hack's Lagoon and are protected habitat, which serve to sustain the genetic integrity of this lineage of the species.

Calyptrorhynchus banksii graptogyne (South-eastern Red-tailed Black Cockatoo)

The field survey associated with the OTL projects did not identify any suitable tree species for feeding (*Eucalyptus arenacea* and *E. baxteri*) or nesting (*Eucalyptus camaldulensis*, *E. baxteri*, *E. arenacea*, *E. viminalis*, *E. leucoxylon* and *E. fasciculosa*) within the project footprints. While individuals of *E. camaldulensis* and *E. leucoxylon* were identified during the field survey, the trees were not tall or old enough to provide suitable nesting habitat for this species. However, they potentially would be suitable for use by the species given an additional 100 years, but given the scattered location adjacent a busy highway the location is not optimal. The species is known to roost in clumps of tall eucalypts.

Individuals may use some of the larger eucalypts identified in the project footprint for roosting but they are known to prefer trees with an average DBH of 80cm and 26m in height. Scattered trees in adjacent paddocks, away from the busy highway, would be more suitable, however woodlands in larger patches of vegetation within the region would be even more suitable, particularly those that contain preferred tree species.

No Red-tailed Black Cockatoo's were observed during the field survey, although a flock of Yellow-tailed Black Cockatoos (*Calyptrorhynchus funereus*), (Rare, NPW) were observed flying over the project footprint in an adjacent cleared paddock.

Concluding Statement

It is considered unlikely that construction of three overtaking lanes will have any direct impacts on the species considered above as they would be constructed adjacent an existing busy highway, which already contributes disturbance to available habitat in the region. In addition, core habitats for the species occur in managed conservation areas that are not adjacent the project areas / avoided by the project. On the basis of the habitat assessment conducted during field survey and the desktop assessment carried out against the EPBC significant impact criteria for endangered species, the direct and potential indirect impacts from the Riddoch Highway Overtaking Lane project are not considered to represent a significant impact to the Red-tailed Black Cockatoo and the Striped Legless Lizard.

Therefore, it is considered that further field assessment (e.g. bird and reptile survey following national guidelines) and EPBC referral is not required.

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