

12 May 2021

Nicole Brewer
Director
Energy Assessments
Department of Planning Industry and Environment



Nicole.Brewer@planning.nsw.gov.au
cc: May.Patterson@planning.nsw.gov.au

Dear Nicole

Re: 20-432 Wollar Solar Farm Offsets – Request for further extension of time

This letter has been prepared to seek a further extension for submission of the Biodiversity Stewardship Assessment Report (BSSAR) from Department of Planning, Industry and Environment (DPIE).

An extension was granted on 31 July 2020 (attached) until 31 April 2021. NGH lodged a progress report in December 2020 as required under the extension. While NGH are nearing completion of the documents for lodgement, liaison with the current owner around grazing restrictions and remodelling their impact on the credit calculations is taking additional time.

I provide below a further update to demonstrate we are in the final stages of the BSSAR. As of today:

1. All background searches are complete ready to accompany lodgement.
2. All field work is complete to inform the BSSAR.
3. The credit calculations which assumed full grazing restrictions were provided to the client and demonstrated a surplus in NSW ecosystem credits (as well as the additional credits required for the Commonwealth approval); Appendix B.
4. Due to survey timing not being appropriate for several species during the preparation of the Environmental Impact Statement and supporting Biodiversity Development Assessment Report, several species were assumed to occur along the Barigan Road impact areas and generated species credits. Targeted Species Credit surveys were conducted to address these species, prior to clearing and disturbance for the project (see pages 3 - 5: Appendix C). Surveys were conducted within the Development Footprint of Stage 1 of the Wollar Solar Farm. None of the target species were detected during any of the survey efforts. The applicant is currently considering the possibility of preparing a modification to reduce the residual credit requirement in line with the results of this survey work.
5. Consultation has been undertaken with Santos in relation to exploration licence PEL 456 (Appendix D).



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Further work to now complete the lodgement however, requires:

1. Remodelling credit outcomes to allow some grazing under restrictions (i.e. visual cues and seasonal restrictions).
2. Documentation of the grazing restrictions in the BSSAR, including consideration of fencing on the Total Fund Deposit calculations.
3. Client and landowner liaison to ensure the outcomes are satisfactory to all parties.
4. Lodge the BSSAR.

We anticipate this will take an additional 6 weeks based on our current resourcing. The work must be undertaken by trained and accredited persons in the Biodiversity Assessment Method and there has been a delay in training since Covid that has caused shortages for NSW ecological consultancies in this area.

Please let me know if you would like additional information in relation to this request.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Brooke Marshall', followed by a period.

Brooke Marshall

Manager, NSW SE & ACT

Accredited BAM Assessor BAAS18149

Certified Environmental Practitioner (CEnvP)

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Appendix A Extension Request Approval 2021

Beth Noël
Senior Environmental Consultant (Ecology)
NGH Pty Ltd
By email ngh@nghconsulting.com.au

31/07/2020

Dear Ms Noël

**Wollar Solar Farm (SSD 9254)
Biodiversity Offsets**

I refer to your request dated 25 June 2020 seeking the Planning Secretary's approval to vary the timing of the retirement of biodiversity credits beyond the commencement of the development under condition 13 of Schedule 3 of the development consent for the Wollar Solar Farm (SSD 9254) and attached Biodiversity Offset Strategy.

The Department has carefully reviewed your request for additional time to meet the offset obligation under the development consent in order to:

- maximise the use of residual areas within the property boundary to secure all ecosystem credits in a Stewardship Agreement under the *Biodiversity Conservation Act 2016*; and
- negotiate a trade via the credit market or pay into the Biodiversity Conservation Fund for the remaining species credits.

The Department notes that:

- you have undertaken desktop investigations and you believe that ecosystem credits could be generated by the stewardship agreement to meet NSW and Commonwealth offset obligations;
- you have prepared a detailed time frame incorporating seasonal and project objectives to meet all offset obligations by the end of December 2021; and
- retiring credits before construction begins on the project will drive the need to secure credits via the Biodiversity Conservation Fund, which is less desirable than creating a stewardship agreement over residual areas of the project site.

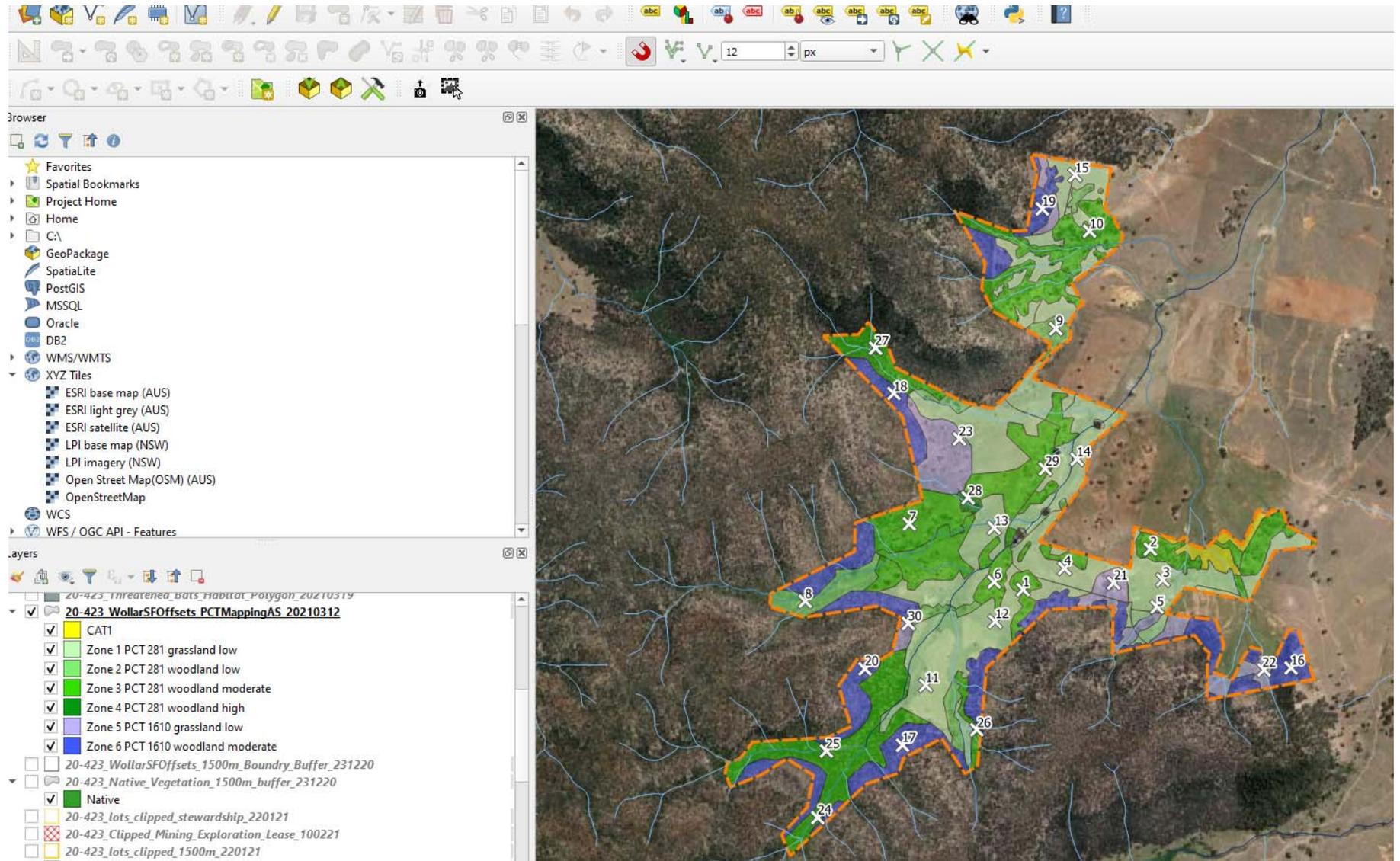
The Department is satisfied with the proposed approach to your offset obligations on the condition that you strictly adhere to your proposed timetable.

Accordingly, the Planning Secretary approves the commencement of development prior to the retirement of biodiversity credits required under condition 13 of Schedule 3 of the development consent, subject to the following conditions:

- provide a status report to the Department on the outcome of your field work and a preliminary analysis of the stewardship agreement by 31 December 2020;
- apply for a Biodiversity Stewardship Agreement and upload all relevant supporting documents to the Biodiversity Offsets and Agreement Management System by 30 April 2021; and
- retire any residual credits negotiated through the market and/or pay residual obligations to the Biodiversity Conservation Fund by 31 December 2021.

Appendix B Credit Calculations April 2021

PCT	Formation	Condition	Credits generated	Management assumed (ie no grazing)	Comment	Credit totals at the offset site	NSW consent	Additional CW consent	Net	
NA	Grassland	Not native	0	No management (can graze)	Can be grazed with no restrictions and no impact on credits	0	0	0		
281	Grassland	Low	563	Yes management (can't graze)	Grazing will reduce credits and must have restrictions placed on it	1438	721	655	62	surplus
281	Woodland	Low	87	Yes management (can't graze)	Grazing will reduce credits and must have restrictions placed on it					
281	Woodland	Moderate	782	No management (can graze)	Can be grazed with restrictions but no impact on credits					
281	Woodland	High	6	No management (can graze)	Can be grazed with restrictions but no impact on credits					
1610	Grassland	Low	34	No management (can graze)	Can be grazed with restrictions but no impact on credits	547	2	0	545	surplus
1610	Woodland	Moderate	513	No management (can graze)	Can be grazed with restrictions but no impact on credits					



Appendix C Consultation: Santos (PEL 456)

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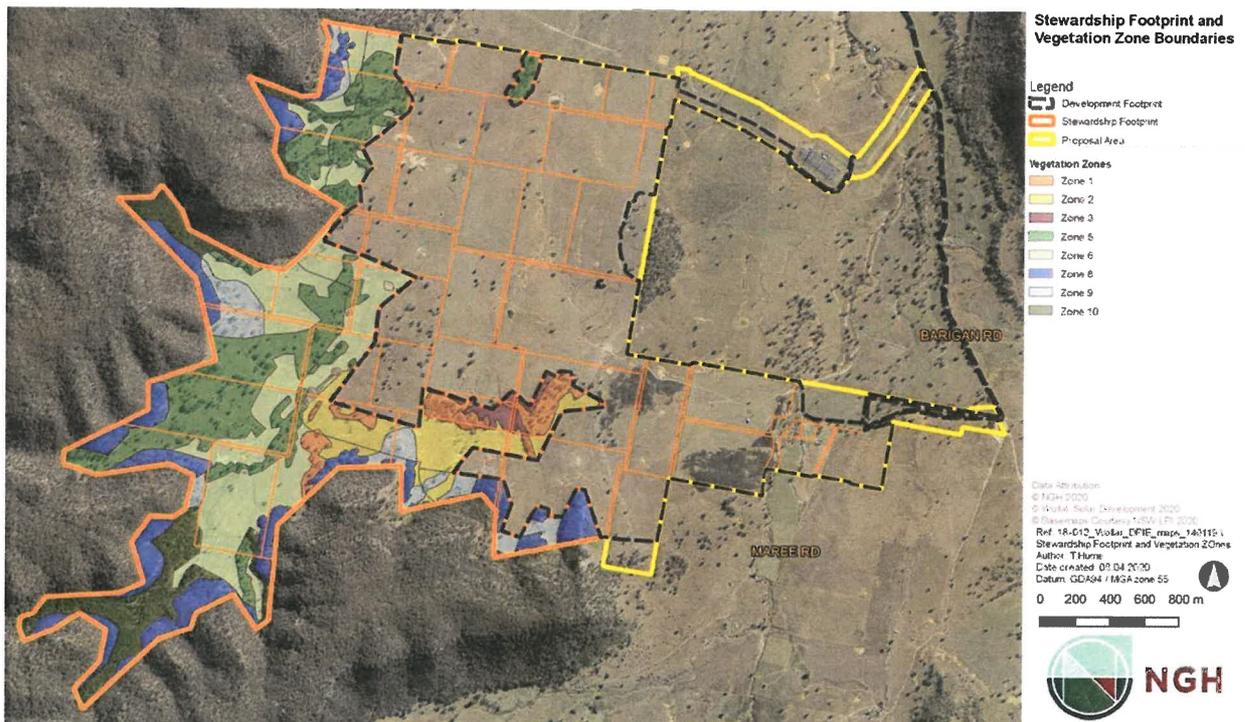
08 March 2021

Bruce Howard
Managing director
Wollar Solar Development
PO Box K1053
Haymarket NSW

Dear Bruce

RE: Wollar Solar Farm biodiversity offset

Santos has reviewed the proposed biodiversity offset area that you identified in your email of 29 January 2021. The proposed area does not impact the petroleum prospectively of PEL456. Santos has no objection to the proposed offset area.



Yours sincerely,

Kelvin Askew
Joint Venture Manager

Appendix D Targeted survey work for species credit species

24 August 2020

Mr Williamson
Project Manager
Beijing Jingeng Clean Energy (Australia)
Suite 3, Level 21, 1 York Street
Sydney NSW 2000



robbie.williamson@bjceaustalia.com
Cc: Ian.Rothe@midwestern.nsw.gov.au

Dear Mr Williamson

Re: 20-070 Wollar Solar Farm - Targeted Species Surveys, Pre-clearing Inspection and Clearing Supervision

NGH was engaged by Beijing Jingneng Clean Energy (Australia) to provide targeted species surveys, pre-clearing surveys and clearing supervision along Barigan Road, Wollar to enable road upgrade works. This area is ~7.1km of road, which has presence of 55 hollow bearing trees as previously identified by an NGH ecologist, plus one stag at the northernmost point of the road.

Targeted species surveys were undertaken by two NGH ecologists on 9th and 10th July 2020 as well as 13th and 14th July 2020. These surveys included scat surveys, general opportunistic fauna surveys, as well as call playback and spotlighting. Additionally, a pre-clearing survey was conducted by two NGH ecologists on the 11th August 2020. These surveys included inspection of the base of trees for wombat burrows and checking for scat, looking for evidence of nests, spotlighting along the proposal boundary and checking for any other signs of fauna presence. No threatened fauna species were observed during surveys. Surveys conducted were in accordance with NSW State and Federal guidelines for the targeted species, and the results warrant updates to the BDAR and seeking to remove species credit obligations for the targeted species. This letter details the methodology and results of each of these surveys, along with results of tree felling supervision.

Trees (HBT ID) 2, 4, 74, 75 and one stag were removed on 12th August 2020. Trees 23 and 72 were also previously approved to be cleared, however were determined to be outside of the development footprint and were able to forego clearing as some trimming of low hanging limbs was deemed sufficient. The locations of these trees are displayed in Attachment A.

Approximately 7.1km of Barigan Road, south from Wollar road, was intended to be upgraded. Prior to tree clearing, it had been decided that an alternate option would be undertaken which would avoid the southern ~2km of road being upgraded, as the northern entrance to the Solar Farm site from Barigan Road would be the 'main' entrance to the solar farm, rather than the southern entrance. This information was relayed on 11th August 2020 to an NGH ecologist who would be present to supervise the tree clearing. This alternate option resulted in avoiding the removal of 7 hollow bearing trees in the southern ~2km section of road.

If you have any questions, please do not hesitate to contact myself or reviewers Mitch Palmer (02 4917 3974), or Brooke Marshall (02 6492 8303).

Yours sincerely,



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Sarah Downey
Ecologist
02 4917 3973

Targeted Species Credit Survey

METHODOLOGY

Species credit obligations for the Wollar Solar Farm form part of the Development Consent for this project. Due to survey timing not being appropriate for several species during the preparation of the Environmental Impact Statement and supporting Biodiversity Development Assessment Report, several species were assumed to occur along the Barigan Road impact areas and generated species credits.

Targeted Species Credit surveys were conducted by two ecologists on 9th, 10th July, 13th and 14th July 2020 to address these species, prior to clearing and disturbance for the project. Surveys were conducted within the Development Footprint of Stage 1 of the Wollar Solar Farm: upgrades to Barigan Road, totalling approximately 7.1km. Targeted surveys were undertaken for the following species:

- *Phascolarctos cinereus* (Koala)
- *Petaurus norfolcensis* (Squirrel Glider)
- *Burhinus grallarius* (Bush Stone-curlew)
- *Tyto novaehollandiae* (Masked Owl)
- *Ninox connivens* (Barking Owl) and
- *Ninox strenua* (Powerful Owl).

The surveys met the timing requirements set out in the BAM for these species and the survey method and minimum survey effort as set out in the Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities - November 2004 (DECC 2004).

The following survey techniques were used for the six target species listed above:

- Road transects
- Nocturnal spotlighting visual encounter surveys
- Call playback surveys and
- Faecal pellet (scat)/owl regurgitation pellet surveys.

During each night/survey occasion, the entirety of the Project area was surveyed via road transects and nocturnal spotlighting visual encounter surveys. This involved one ecologist driving at ~5km/hr along Barigan Road and another ecologist surveying the area with a spotlight to visually detect any fauna presence within the site. Call playback surveys were conducted in two different locations each survey night (see Figure 1). Call playback surveys involved a minimum of 20 minutes of call playback for each target species (using pre-recorded calls of the species broadcast through a megaphone). Any species detected during surveys were recorded.

At each tree within the Project Area, a maximum of two minutes was spent searching for faecal pellets (scats) within a one metre radius of the base of each tree. Searching ceased if a Koala, squirrel glider faecal pellet or owl regurgitation pellet was located before this time expired. Searching for faecal pellets and owl regurgitation pellets involved an initial inspection of the ground surface followed by a robust disturbance (raking) of the leaf litter to search for faecal pellets. The species and location of each tree was recorded if presence of Koala faecal pellets. Notes were made on whether the scats were fresh or old and a photograph and/or sample was taken.

Area searches for the Koala were also undertaken at each of the trees surveyed, irrespective of results of the faecal pellet searches. At each tree, a five-minute visual inspection of trees was conducted within a 25m radius of the tree being surveyed. Any individual Koalas, Squirrel Gliders or Owls present during this inspection were recorded.



Figure 1 Call Playback Locations along Barigan Road

RESULTS

Table 1 details species that were detected during targeted survey efforts. None of the target species were detected during any of the survey efforts. No Koala or other arboreal mammal or marsupial scat was observed during scat survey efforts. Scat surrounding trees was identified to belong to Kangaroos (*Macropodidae spp*) and Wombats (*Vombatus ursinus*) White wash was detected in two locations of the site. 'White wash' is paint-like spots of urates from faeces, which is often typical under roosts of many nocturnal birds. No threatened fauna species were observed during survey efforts.

Table 1 Species observed during surveys on 9 to 10 July 2020 and 13 to 14 July 2020

Species Name	BC Status	EPBC Status
Common wombat (<i>Vombatus ursinus</i>)	-	-
Australian raven (<i>Corvus coronoides</i>)	-	-
Eastern Rosella (<i>Platycercus eximius</i>)	-	-
Galah (<i>Eolophus roseicapilla</i>)	-	-
Tawny Frogmouth (<i>Podargus strigoides</i>)	-	-
Red-rumped parrot (<i>Psephotus haematonotus</i>)	-	-

Legend

V= Vulnerable

E= Endangered

CE= Critically Endangered

CONCLUSION

No threatened fauna species were found during targeted species survey efforts. The survey methods detailed in this letter report were conducted in accordance with relevant NSW State and Federal survey guidelines for the targeted species. A modification would be warranted to update the BDAR with these results and seeking to remove the associated credit obligations for these species would be justified.

Pre-clearing Survey and Clearing Supervision

METHODOLOGY

In accordance with the endorsed Biodiversity Management Plan (NGH 2020) for the Wollar Solar Farm, pre-clearing protocols were implemented, prior to construction or disturbance activities in Stage 1 of the project; Barigan Road upgrades.

Two NGH ecologists were on site from approximately 4pm to 9:30pm on 11th August 2020 to conduct pre-clearing surveys along the entirety of the Barigan Road project site. The following was undertaken along with the following methodology;

- Inspecting hollow bearing trees for signs of fauna
- Checking for nests in trees
- Bird surveys
- Wombat burrow inspections below trees to be removed
- Spotlighting along the extent of Barigan Road.

Whilst the southern ~2km of Barigan Road was determined to not be undergoing upgrades, a brief inspection of this area and the Hollow bearing trees present was also undertaken as a precautionary measure.

At the site, there was one wombat burrow beneath tree 72 which was to be removed. In the case that a wombat was present in a burrow beneath a tree to be removed, clearing of that tree would have been postponed until ecologists could confirm that the burrow was vacant of a wombat, or any other fauna. Two burrows were surveyed overnight using two methods, one at tree 72 and one at tree 76. Tree 76 was not to be removed. Trees 74 and 75 on the opposite side of Barigan road to tree 76, were to be removed, along with some smaller vegetation surrounding tree 76. Firstly, sand was placed around the opening of the burrow overnight, which could then be checked the following morning for any tracks in and out of the burrow. Secondly, a camera trap (Reconyx camera traps) was set up on a nearby tree or log where view of the burrow was clear. The cameras were set to night mode to take a burst of photos if the motion sensor was alerted. Sand was also set up at the opening of two other burrows near tree 81. These burrows were just outside of the development footprint (approximately 1m), on raised ground where some embankment would be removed in front of the burrows to enable widening of the road (see Figure 2).



Figure 2 Burrows near tree 81, close to roadside

RESULTS

On 12th August 2020 prior to any tree clearing or felling, the wombat monitoring equipment left at burrows was inspected. Upon checking sand around burrows for track marks, and checking images captured by the camera traps, no wombats were observed entering or leaving either of the burrows where camera traps were set up (trees 72 and 76). Some track marks left by *Rattus rattus* were present at tree 76, along with images captured of this species via a camera trap. Sand set up at the two burrows near tree 81 had no evidence of wombats entering or leaving these two burrows. However, there was fresh scat nearby the entrances. These burrows were marked with large 'B's in pink spray paint near the entrances as a form of 'no go' zone.



Figure 3 Wombat Burrows near tree 81 (not to be removed), with built up bank to be levelled out to the road in front of burrows

There was also one stick nest observed in tree 80 (refer to Attachment A for location of tree). This was a tree which was to be trimmed but retained. The nest was high in the tree canopy, further up than what needed to be removed (limbs hanging above Barigan road at a height lower than 6m).

During the pre-clearing surveys, no threatened species were observed. Species common to the locality were sighted either through spotlighting and bird surveys. The species sighted are listed below in Table 2.

Table 2 Species observed during pre-clearing survey on 11 August 2020

Species Name	BC Status	EPBC Status
Australian Magpie (<i>Cracticus tibicen</i>)	-	-
Australian raven (<i>Corvus coronoides</i>)	-	-
Black Rat (<i>Rattus rattus</i>)	-	-
Boobook (<i>Ninox boobook</i>)	-	-
Common wombat (<i>Vombatus ursinus</i>)	-	-
Eastern Rosella (<i>Platycercus eximius</i>)	-	-
Galah (<i>Eolophus roseicapilla</i>)	-	-
Kookaburra (<i>Dacelo novaeguineae</i>)	-	-
Sulphur Crested Cockatoo (<i>Cacatua galerita</i>)	-	-

Species Name	BC Status	EPBC Status
Superb Fairy Wren (<i>Malurus cyaneus</i>)	-	-
Tawny Frogmouth (<i>Podargus strigoides</i>)	-	-
Willy wagtail (<i>Rhipidura leucophrys</i>)		

After checking the burrow sites and doing a brief 'sweep' of the road, ecologists were onsite to supervise tree felling and clearing. Four trees and one stag resulted in being removed. Trees 72 and 23 were determined to be outside of the proposal boundary and were able to forgo clearing, however some trimming of low hanging limbs occurred. These limbs were determined not to have any hollows present. Trees 2, 4, 74, 75 and one stag were successfully removed. Each tree was felled carefully, and as limbs were chopped and placed on the ground, ecologists had the opportunity to inspect limbs and trunks for hollows and any signs of fauna. At the ecologists direction, arborists were able to carefully saw through these limbs whilst limbs were on the ground, in order to shorten the hollow by sections, to enable ecologists to look deep into the hollow to establish any presence of fauna. The stag had minimal hollowing and upon close inspection had no signs of fauna present. Large hollows were present in trees 2 and 4 and previous nesting use by bird species was evident in both of these trees, as feathers were present in some hollows. No fauna was found to be currently occupying any of these hollows. Trees 74 and 75 had some small hollows present, none of which were deep enough to require extensive sectioning of limbs. Again, no fauna was found to be present in either of these trees.

Some logs and woody debris which was located either on the edge or within the development footprint was also identified as needing to be relocated. This debris would be moved just further outside of the development footprint but remain relatively close to their original location. NGH ecologists looked thoroughly within and around this debris and hollow logs for any signs of fauna or nesting sites. No fauna was considered to be present at the time of inspection.

The stick nest in tree 80 remained untouched whilst some limbs lower than the location of the nest were carefully trimmed.

CONCLUSION

During pre-clearing surveys, no threatened fauna species were observed. During clearing supervision, five hollow bearing trees and one stag were successfully removed, with no fauna requiring relocation. Evidence of previously used bird nests in hollows were found in two trees which were removed; however, no fauna species were currently occupying these hollows. None of the trees which contained wombat burrows beneath them were needed to be removed.