

21 October 2024

Tara O'Brien
VGT
4/30 Glenwood Drive
Thornton NSW 2322

Re: Albury Quarry - Assessments of significance for Brown Treecreeper (south-eastern) and Corben's Long-eared Bat

Dear Tara,

This memo presents assessments of significance of impacts to Brown Treecreeper (south-eastern) (*Climacteris picumnus victoriae*) and Corben's Long-eared Bat (*Nyctophilus corbeni*) associated with the proposed extension to the Albury Quarry (the project). These species are both listed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) as vulnerable.

The Environmental Impact Statement (EIS) for the project (VGT 2018)¹ determined that suitable habitat for these species occurs within the project area. Habitat assessment for these species completed by EMM Consulting Pty Limited (EMM) on behalf of VGT in June 2024 concluded that only marginally suitable habitat occurs for Brown Treecreeper (south-eastern) and Corben's Long-eared Bat within the project area and they are unlikely to occur. Despite this assessment, EMM completed assessments of significance for both species under the assumption that they may occur in marginally suitable habitat within the project area.

The assessments of significance for Brown Treecreeper (south-eastern) and Corben's Long-eared Bat concluded that a significant impact to these species is unlikely to occur as a result of the project.

This memo is intended to be provided as supporting documentation for the EPBC referral for the project.

¹ VGT 2018, *Environmental Impact Statement for Andersons Clay Mine Extension*, prepared by VGT Environmental Compliance Solutions Pty Ltd in conjunction with PGH Bricks & Pavers Pty Ltd.

1.1 Brown Treecreeper (south-eastern) (*Climacteris picumnus victoriae*)

Criteria	Discussion
Would the action lead to a long-term decrease in the size of an important population of a species?	The activity will decrease potential habitat for Brown Treecreeper (south-eastern) by up to 0.9 ha. An 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are: • key source populations either for breeding or dispersal • populations that are necessary for maintaining genetic diversity • populations that are near the limit of the species range. An important population is not identified in the conservation advice for this species (DCCEEW 2023²). Potential foraging and breeding habitat is considered to be relatively abundant in the locality. Potential habitat within the project area is considered to be only marginally suitable and of low importance to the local occurrence of the species. Due to its very small total area, level of disturbance and lack of structural features important to the species such as substantial volumes of fallen timber, the habitat within the project area is not likely to support a key source population or a population necessary for maintaining genetic diversity of these species. The project area is not at or near the limit of the species range. Therefore, the proposed activity is unlikely to affect an important population of this species.
Would the action reduce the area of occupancy of an important population?	The proposed activity is unlikely to affect an important population of this species. It is unlikely to reduce the area of occupancy of an important population of the species.
Would the action fragment an existing important population into two or more populations?	Owing to the mobility of the species, the quality of the habitat and the location of the site within the species distribution area, the project is unlikely to affect an important population of the species. The area to be impacted is on an outer edge of potential habitat for the species within the locality, bordered to the east by the existing quarry. Removal of this vegetation will not split or fragment existing habitat areas. The project is unlikely to fragment an existing important population for this species into two or more populations.

² DCCEEW 2023, *Conservation Advice for Climacteris picumnus victoriae (Brown Treecreeper (south-eastern))*. Canberra: Department of Climate Change, Energy, the Environment and Water.

Criteria	Discussion
Would the action adversely affect habitat critical to the survival of a species?	Critical habitat for Brown Treecreeper (south-eastern) has been defined in the conservation advice for the species (DCCEEW 2023). Habitat critical to the survival of this species refers to areas that are necessary for: • activities such as foraging, breeding, roosting, or dispersal • the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators) • to maintain genetic diversity and long-term evolutionary development • the reintroduction of populations or recovery of the species or ecological community Habitat critical to the survival of the Brown Treecreeper includes areas that have: • relatively undisturbed grassy woodland with native understorey – Habitat structure should be quite open at ground level so that birds are able to feed on or near the ground and maintain vigilance against predators – The required degree of openness is mostly likely to be created by moderate levels of disturbance by fire and/or grazing • large living and dead trees which are essential for roosting and nesting sites and for foraging • fallen timber which provides essential foraging habitat and • hollows in standing dead or live trees and tree stumps are also essential for nesting. The relatively small area of potential habitat likely to be affected by the projects represents a small component of locally occurring resources that would be accessible to the species. Habitat within the project area is in a disturbed state and includes very limited fallen timber habitat. Therefore, the 0.9 ha of potential habitat to be removed is not considered critical to the survival of the species.
Would the action disrupt the breeding cycle of an important population?	The potential habitat present in the impact area is of marginal quality as potential breeding habitat. The proposed activity is unlikely to affect an important population of the species. The activity is not considered likely to disrupt the breeding cycle of an important population of the species.
Would the action modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline?	The works would reduce potential habitat by up to 0.9 ha. The works are not likely to cause this species to decline, due to the sub-optimal condition of habitat present, availability of higher quality habitat in the broader locality, the mobility of the species, and the small extent of potential habitat likely to be impacted (up to 0.9 ha).
Would the action result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat?	The existing landscape contains many invasive species that are directly or indirectly harmful to the species, either through predation, competition or alteration of habitat. Given the small area and nature of the proposed impact, it is unlikely that any further species invasions will be facilitated by the project. Therefore, the proposed impacts are considered unlikely to facilitate the spread of invasive species or their adverse impacts to the survival of the species (either directly or indirectly).

Criteria	Discussion
Would the action interfere substantially with the recovery of the species?	Conservation and recovery actions for Brown Treecreeper are presented in the conservation advice for the species (DCCEEW 2023). These actions are summarised below: Habitat loss and fragmentation caused by clearing for agriculture • Cease all land clearing of habitat critical of the survival of Brown Treecreeper (southeastern) • Undertake revegetation, using a diverse mix of locally appropriate native species, focussing on expanding and connecting areas of existing habitat or widening wildlife corridors wherever possible. Where appropriate: • Replace cohorts of trees where they have been removed from the landscape, particularly in areas adjacent to and connecting woodland remnants • Establish new habitat patches in areas where native vegetation cover is lacking • Ensure ground cover is patchy with open areas for ground foraging • Target the productive lower parts of the landscape, especially areas adjacent to streams, which may provide important drought refuges. To maximise these benefits, riparian plantings should be at least 50 m wide • Promote ecological management and connectivity of woodland remnants on public and private land • Ensure populations remain connected. Avoid gaps greater than 100 m between trees (either between scattered paddock trees or in linear corridors). Eliminate gaps through revegetation, either corridors or stepping stone plantings, focusing on important movement pathways • Promote appropriate management of flow regimes in floodplains including initiatives to deliver water to icon sites on the Murray River, some of which may benefit this subspecies Habitat degradation caused by domestic livestock grazing Conventional grazing practices Noisy miner territorial competition Altered fire regimes Increased likelihood of extreme events (i.e., wildfire, heatwave, and drought) The project may exacerbate existing impacts on these species, namely: • clearing of native vegetation Native vegetation to be cleared is not considered habitat critical to survival of the Brown Treecreeper. Given the sub-optimal condition of habitat present, availability of higher quality habitat in the broader locality, the mobility of the species, and the small extent of potential habitat likely to be impacted (up to 0.9 ha), it is unlikely that the project will interfere with the recovery of the species.
Conclusion	The project will involve the clearing of 0.9 ha of potential habitat for the Brown Treecreeper. This habitat is not considered critical to the survival of the species and is unlikely to support an important population of the species. The project will include an existing threat to the species, that is, clearing of native vegetation. This action is unlikely to interfere with the recovery of the species. Based on the above assessment, the activity is unlikely to cause a significant impact to Brown Treecreeper (south-eastern).

1.2 Corben's Long-eared Bat (*Nyctophilus corbeni*)

Criteria	Discussion
Would the action lead to a long-term decrease in the size of an important population of a species?	The activity will decrease potential habitat for Corben's Long-eared Bat by up to 0.9 ha. An 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are: • key source populations either for breeding or dispersal • populations that are necessary for maintaining genetic diversity • populations that are near the limit of the species range. An important population is not identified in the conservation advice for this species (DoE 2015³). Potential habitat for the species within the project area is considered to be of low suitability, lacking a complex, dense cluttered understorey layer important for foraging. More suitable foraging and breeding habitat occurs in the locality. Potential habitat within the project area is considered to be of only low importance to the species as it is of low suitability. The habitat within the project area is of low suitability and not likely to support a key source population or a population necessary for maintaining genetic diversity of this species. The project area is near the southern limit of the species predicted range, however, habitat within the project area is considered to be of low suitability for the species. The nearest record of the species is approximately 180 km to the west. Therefore, the proposed activity is unlikely to affect an important population of the species.
Would the action reduce the area of occupancy of an important population?	The proposed activity will not affect an important population of this species nor reduce the area of occupancy of an important population of the species.
Would the action fragment an existing important population into two or more populations?	The proposed activity will not affect an important population of this species. The area to be impacted is on an outer edge of potential habitat for the species within the locality, bordered to the east by the existing quarry. Removal of this vegetation will not split or fragment existing habitat areas. The project is unlikely to fragment an existing important population for this species into two or more populations.

³ DoE 2015, *Conservation Advice Nyctophilus corbeni south-eastern long-eared bat*. Canberra: Department of the Environment

Criteria	Discussion
Would the action adversely affect habitat critical to the survival of a species?	No critical habitat has been listed for Corben's Long-eared Bat in the conservation advice (DoE 2015). Habitat critical to the survival of this species may include areas not listed on the Register of Critical Habitat if they are necessary for: • activities such as foraging, breeding, roosting, or dispersal • the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators) • to maintain genetic diversity and long-term evolutionary development • the reintroduction of populations or recovery of the species or ecological community. The relatively small area of potential habitat likely to be affected by the projects represents a small, marginally suitable component of locally occurring resources that would be accessible to these species. Potential habitat within the project area is of low suitability for the species and unlikely to provide foraging, breeding, roosting, or dispersal habitat. The project area is at the limit of the species predicted range, with no records within 180 km. It is unlikely the species would utilise the marginally suitable habitat within the project area. Nor is it the project area likely to be significant to the long-term maintenance of the species, required for maintaining genetic diversity or useful for the reintroduction of populations or recovery of the species. Therefore, the 0.9 ha of potential habitat to be removed is not considered critical to the survival of the species.
Would the action disrupt the breeding cycle of an important population?	The potential habitat present in the impact area is of marginal suitability as potential breeding habitat. Potential roosting structure does occur within the project area, however, foraging resources and structure required to support breeding individuals does not. The proposed activity is unlikely to affect an important population of the species. The activity is not considered likely to disrupt the breeding cycle of an important population of the species.
Would the action modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline?	The project would reduce potential habitat by up to 0.9 ha. The project is not likely to cause this species to decline, due to the marginal suitability of habitat present, availability of higher quality habitat in the broader locality and the small extent of potential habitat likely to be impacted (up to 0.9 ha).
Would the action result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat?	The existing landscape contains many invasive species that are directly or indirectly harmful to the species, either through predation, competition or alteration of habitat. Given the small area and nature of the proposed impact, it is unlikely that any further species invasions will be facilitated by the project. Therefore, the proposed impacts are considered unlikely to facilitate the spread of invasive species or their adverse impacts to the survival of the threatened species (either directly or indirectly).
Would the action introduce disease that may cause the species to decline	The conservation advice for the species does not identify any diseases associated with the species.

Criteria	Discussion
Would the action interfere substantially with the recovery of the species?	Conservation and recovery actions for Corben's Long-eared Bat are presented in the conservation advice for the species (DoE 2015). These actions are summarised below: Habitat loss disturbance and modifications • Protect known and potential habitat of key populations, including within conservation reserves, from habitat loss and fragmentation. • Provide relevant state government land management agencies, CMA/NRM regional bodies and local shires with the location of key populations under their jurisdiction to incorporate these into planning mechanisms to assist in habitat protection. • Incorporate findings of research into the impact of forestry practices into forest management to protect key populations. Invasive species • Implement control programmes of feral species identified as having a known or potential impact on key populations. Impacts of domestic species Fire Stakeholder Engagement The project may exacerbate existing impacts on these species, namely: • habitat loss Habitat to be cleared is not considered habitat critical to survival of the species. Given the condition of habitat present, low suitability for the species, availability of higher quality habitat in the broader locality and the small extent of potential habitat likely to be impacted (up to 0.9 ha), it is unlikely that the project will interfere with the recovery of the species.
Conclusion	The project will involve the clearing of 0.9 ha of potential habitat for Corben's Long-eared Bat. This habitat is not considered critical to the survival of the species and is unlikely to support an important population of the species. The project will include an existing threat to the species, that is, habitat loss, however, this action is unlikely to interfere with the recovery of the species. Based on the above assessment, the activity is unlikely to cause a significant impact to Corben's Long-eared Bat.

Yours sincerely

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