Hunter Ecology

137 Gosford Road
Newcastle, NSW, 2289
ABN **80 656 096 534**

Site Details	DA 18-1526 Chisholm Neighbourhood Shopping Centre – Lot 1 DP 1224700, 20 Heritage Drive, Chisholm.
Prepared for	Emily Han Senior Development Manager REVELOP Suite 506, Level 5, 55 Phillip St, Parramatta NSW 2150 P. 8203 0362 F. 9635 8288
Prepared by	Bart Schiebaan Hunter Ecology Mobile: 0417 963 825 Email: bart@hunterecology.com
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Re: Removal of hollow bearing tree and comments regarding Council requests for further information regarding the ecological assessment for a shopping center development proposal at 20 Heritage Drive, Chisholm.

Dear Emily,

Further to Council's comments, "*Under the current DA, as you know Council has requested further fauna surveys to be undertaken of the hollow bearing tree to determine if it is being used by fauna including any threatened species. Council requires the survey to be undertaken to then review any further actions or reports or the imposition of conditions. It is noted the observations in the report for the current consent dates from 2018 and with 4 years having transpired the circumstances of the hollow may have changed and hence the further survey being required".*

On 1st of August 2022, my colleague Lizzie Bowman and I, visited the site of the proposed shopping center at 20 Heritage Drive, Chisholm, to inspect the hollow bearing tree previously identified by EPS (7th June 2018 Supplementary Flora and Fauna Assessment – Proposed Chisholm Plaza at Waterford County, Chisholm) and further assessed the site based on its current ecological merits. The EPS Supplementary Flora and Fauna Assessment was found to be current in its review of the site's ecological constraints, as well as its application of relevant legislation and regulations. The site is primarily one of exotic grasslands, pertaining to its former days as a grazing property.

There are three trees remaining at the site, including one with a habitat feature more akin to vertical gash (or basal cavity) than a classic hollow (Plates 1 and 2 in Attachment A); this tree is discussed by EPS and forms the basis of Council's request for further information. The hollow is not suitable to fauna

such as owls, cockatoos, parrots, possums or gliders. At the very least it may be utilised by hollow-dependent microbats and small mammals such as antechinus.

The proposal does not trigger the NSW Biodiversity Offsets Scheme (BOS) Threshold (it is under the clearing threshold and does not occur within land mapped on the Biodiversity Values Map). The Threatened Species Test of Significance (s.7.3 of the *Biodiversity Conservation Act 2016*) was undertaken for several hollow-dependent threatened microbat species that are predicted to occur in the area (see Attachment B). This assessment concluded that the proposal would not have a significant impact on any threatened microbat species and therefore the proposal does not require entry into the BOS.

The following measures are recommended and it is suggested that they be conditioned as part of any project consent:

- Felling of the hollow bearing tree should be undertaken with a fauna ecologist present to ensure that any microbats or other fauna using the hollow may escape safely or be collected for care or later release. Hunter Ecology is available to assist in this process if required.
- The loss of the hollow should be addressed with the placement of nest boxes (ideally microbat roosting boxes) either at the site or in nearby bushland.

Please don't hesitate to contact Hunter Ecology if you require any further information.

Kind regards,

Bart Schiebaan

B.App.Sc.
BAAS18033 Accredited Assessor
Principal Ecologist / Director

ATTACHMENT A: Photos

Plate 1: Basal cavity in spotted gum

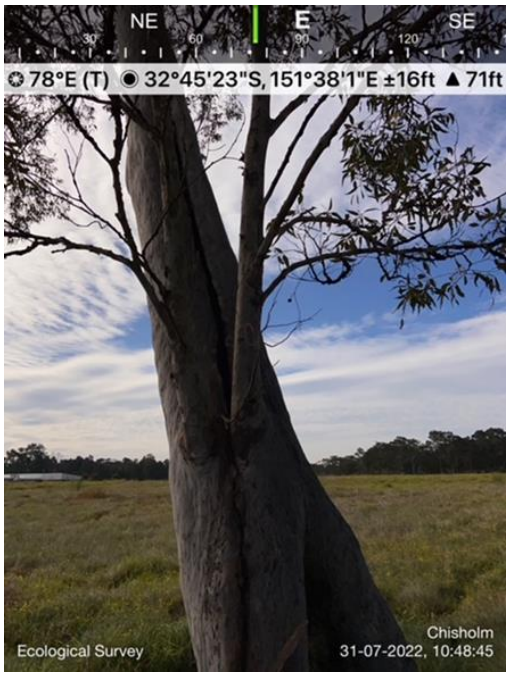

Plate 2: Basal cavity in spotted gum

Plate 3: Large spotted gum should be considered for retention

ATTACHMENT B: Threatened Species Test of Significance under s.7.3 of the *Biodiversity Conservation Act 2016*

The *Biodiversity Conservation Act 2016* (BC Act) sets out the Biodiversity Offsets Scheme (BOS) framework, which aims to avoid, minimise and offset impacts on biodiversity from development and clearing, and to ensure land that is used to offset impacts is secured in perpetuity. The BOS applies to local development (assessed under Part 4 of the *Environmental Planning and Assessment Act 1979*) that triggers the BOS Threshold or is likely to significantly affect threatened species based on the test of significance in section 7.3 of the BC Act. The proposal does not trigger the BOS Threshold (it is under the clearing threshold and does not occur within land mapped on the Biodiversity Values Map). This assessment determined that s.7.3 tests of significance would be required for the following threatened hollow-dependent microbat species:

- Yellow-bellied Sheathtail Bat (*Saccolaimus falviventris*)
- Eastern Freetail-bat (*Mormopterus norfolkensis)*
- Eastern False Pipistrelle (*Falsistrellus tasmaniensis*)
- Little Bentwing-bat (*Miniopterus australis*)
- Greater Broad-nosed Bat (*Scoteanax rueppellii*)

In accordance with the requirements of section 7.3 of the BC Act, the following assessment is made:

a) In the case of a threatened species, whether the proposed development or activity 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

These microbat species are highly mobile and known to travel large distances to forage. They generally forage in structurally open and associated edge habitat and roost in trees containing hollows. The site contains marginal foraging habitat and with one tree presenting a basal cavity that may be suitable roosting habitat. Based on the small scale of clearing (three trees), and the presence of large tracts of intact Hunter Spotted Gum Ironbark Forest in the locality, potential habitat loss for microbats is considered marginal and unlikely to have a significant impact on the behaviour of the described species.

Overall, it is considered that the proposed mitigation measures (offset planting of large locally endemic trees at the site at a ratio of at least 3:1 as proposed in the landscape plan, and microbat roosting boxes be installed either at the site or in nearby bushland) would serve to minimise any potential direct or indirect impacts from the proposal. These measures should be conditioned as part of any project consent. Overall, the action proposed is not likely to have an adverse effect on the life cycle of these species such that a viable local population of these species is likely to be placed at risk of extinction.

The proposal is unlikely to have an adverse effect on the life cycle of these species such that a viable local population of these species is likely to be placed at risk of extinction.

b) In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity

- ***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

c) 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

A total of three trees would be removed. One of these trees contains a basal cavity that may be utilised by microbats.

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

The site contains three trees scattered amongst exotic grassland and constitutes very marginal habitat. Based on the small scale of clearing (three trees), and the presence of large tracts of intact Hunter Spotted Gum Ironbark Forest in the locality, potential habitat loss for microbats is considered marginal and unlikely to have a significant impact on the behaviour of the described species.

An area of habitat is unlikely to become fragmented or isolated from other areas of habitat as a result of the proposed action

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.

As mentioned above, the site's habitat is very marginal and not likely to be important to the long-term survival of these species in the locality.

d) Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

No areas of outstanding biodiversity value occur within or near the site.

e) 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.

Habitat clearing and fragmentation of bushland as well as loss of hollow bearing trees are identified as a key threatening processes (KTPs) endangering the survival of a wide variety of native species. The clearing and fragmentation of bushland, particularly old-growth forests, leads to net habitat losses and ecological degradation. For hollow dependent species, the availability of hollow-bearing trees across the landscape is a key limiting factor to their ongoing survival.

Overall, it is considered that the recommended mitigation measures (offset planting of large locally endemic trees at the site at a ratio of at least 3:1 as proposed in the landscape plan, and installation of microbat roosting boxes either at the site or in nearby bushland) would serve to minimise any potential direct or indirect impacts from the proposal. These measures should be conditioned as part of any project consent.

It is therefore considered that the proposed development is unlikely to contribute to the key threatening process of habitat clearing.