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to:

Anne Clements
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Dear Anne

Following our telephone conversation on 15th November 2018, I wish to clarify some issues relating to microbats occurring on the proposed seniors living facility (PSLF) at the Bayview Golf Course, Bayview, New South Wales. In July 2017 I was requested by Anne Clements & Associates to undertake a summer microbat survey of the area proposed for a seniors living facility on Bayview Golf Course. The survey was to provide baseline data for a monitoring report and augment microbat surveys of the site undertaken during April and May of 2014 by Footprint Green (Footprint Green 2014). I did not undertake surveys or assessment pertinent to the Golf Course upgrade.

I undertook harp trapping at two sites within the PSLF and a third site located along a drainage line to the southwest. Three lactating Southern Myotis (*Myotis macropus*) were Captured at the site along the drainage line together with lactating females of two non-threatened microbat species, Gould's Long-eared Bat (*Nyctophilus gouldi*) and the Little Forest Bat (*Vespadelus vulturnus*). Two additional female Gould's Long-eared Bats were captured at harp trap sites within the site of the PSLF. Microbat echolocation call survey was undertaken at seven sites within the footprint of the PSLF as well as an additional site along the drainage line to the southwest.

While I was commissioned to undertake a microbat survey and not undertake an impact assessment of the proposal on microbat populations at the site, I did recommend some measures in my short report to minimise impacts on microbat populations. This included the reduction of artificial lighting associated with the proposal and its direction downward to minimise impacts on microbat prey populations in the vicinity. I also recommended the examination of any potential roost trees within the footprint of the PSLF for use by any threatened microbat species as well as clearing of necessary trees within the footprint at times of the year when the target species do not have dependent young or are likely to be in torpor. I am confident that if these measures are adopted, impacts on both threatened and protected microbat species utilising the vicinity of the PSLF should be minor.

With regard to the Southern Myotis, foraging by this species would occur predominantly over permanent water bodies along drainage lines surrounding the site. Some foraging may be undertaken over water traps and dams within the golf course but this would form a small part of the dietary intake of populations occurring in the vicinity. Permanent creek lines, lagoons and estuarine bays within ten kilometres of the site would be expected to provide the bulk of foraging habitat for populations in this area. This species will roost in manmade structures such as drains, culverts, bridges, tunnels and

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mines as well as natural caves and tree hollows. In my experience the bulk of roosts occur either over water or in very close proximity. This was also the case in a radiotracking study of this species undertaken in Victoria where all 17 tree roosts located were within one hundred metres of water (Campbell 2009). While some roosts occur well away from permanent water bodies, these are exceptions. In the unlikely event that a roost tree for this species exists within the footprint of the PSLF, inspection of potential roosts trees within this area and falling of any habitat trees outside the breeding season and when bats would be expected to be in torpor as recommended in my report should reduce the risk of impact to this species to acceptable levels. I therefore do not believe that Species Impact Statement for this species is warranted. My background with this species dates back to the mid 1980's, since that time I have captured in excess of one thousand individuals and undertaken banding studies and radiotracking surveys at several sites. During 1996 I was involved in the exclusion of a colony from a timber bridge in the Morisset area and its subsequent successful reestablishment in a new concrete bridge (Hoye & Hoye 1999). I was awarded the inaugural Bat Conservation International Award for the best conservation paper at the 1998 Australasian Bat Society Conference (ABS 1998).

With regard to the East Coast Freetail Bat (*Microsomus norfolkensis*), this species predominantly roosts within tree hollows (Hoye *et al* 2008). I did not undertake a survey of potential roosts within the footprint of the PSLF as this was outside my brief. Footprint Green (2014, p. 23) do note that only small hollows are present in less than 10 potential habitat trees within the footprint. They also note that most of the hollows are utilised by Rainbow Lorikeets for at least part of the year (p.70). I concur with their assessment that the East Coast Freetail Bat is unlikely to be significantly impacted by the proposed PSLF. If the additional measures of inspection of potential roosts trees within this area and falling of any habitat trees outside the breeding season and when bats would be expected to be in torpor as recommended in my report are adopted impacts on this species should be minimal. The PSLF proposal would remove only a very small area (<2 hectares) of potential foraging habitat for this species. My personal knowledge of this species was gained conducting population dynamics and roost box trials at a site in the Hunter Valley from 1995 until 2008. I have co-authored the species account for this species in the dominant text on Australian mammals from 1995 until the upcoming 4th Edition due for publication in the near future.

Best wishes



Glenn Hoye

References

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