

3 September 2019

Damion Stirling
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Dear Damion

Re: 19-541 Picton flying-fox camp assessment

Fieldwork for the assessment of the Picton flying-fox camp occurred on 13th August 2019. This assessment was carried out to inform Council whether works are able to be conducted during Aug-Oct 2019 in accordance with conditions of Wollondilly Shire Council's Threatened Species Licence C0004845, specifically Condition 6. Works are planned to clear a buffer between residential properties and the flying-fox camp.

The assessment included the following:

- Population assessment, including numbers of each species present
- Male to female ratio
- Ratio of females in third trimester of pregnancy
- Age of any pups (if present) and whether they are likely to be crèched
- Visual health assessment and mortalities
- Area camp is occupying within the vegetation

The outcome of the assessment is that works should not be conducted due to the presence of pregnant females in their final trimester. The best time of year to conduct works in or adjacent to a flying-fox camp is June to July when no dependent young are present, and females may only be in early stages of pregnancy.

Please find attached details of the full report. If you have any questions, please feel free to contact me.

Yours sincerely,

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Background

NGH was engaged by Wollondilly Shire Council to conduct an assessment of the Picton Flying-fox Camp. The assessment was carried out to determine if works to clear a buffer between residential properties and the flying-fox can be conducted between August and October 2019. Works need to be conducted in accordance with conditions of Wollondilly Shire Council's Threatened Species Licence C0004845, specifically Condition 6, which states that works must not occur in August, September or October if there are females in the camp in their final trimester or if birthing is occurring within the camp.

Assessment

A Senior Ecologist experienced in flying-fox assessments attended the Picton Flying-fox Camp on Tuesday 13 August 2019. The assessment included the following:

- Population assessment, including numbers of each species present
- Male to female ratio
- Ratio of females in third trimester of pregnancy
- Age of any pups (if present) and whether they are likely to be crèched
- Visual health assessment and mortalities
- Area camp is occupying within the vegetation

Field Work

The Picton Flying-fox Camp is located adjacent to Stonequarry Creek which flows under Prince St between Lumsdaine St and Campbell St. See Figure 1-1 below for location.

The camp is best viewed from Prince St Bridge and the extent of the camp runs from Prince St Bridge, north along almost the entire length of the eastern side of the Lumsdaine St houses. A small part of the camp is situated on the eastern side of Stonequarry Creek, but the majority is on the western side. Figure 1-1 also shows the camp location and extent.

The camp was viewed using binoculars and found to be best visible from the bridge looking north (see Figure 1-2). The assessment was conducted from the Prince St Bridge, however this is likely to have biased the assessment, as sex and hierarchy within the camp will dictate roosting location. It was clear there was a high number of females at the Prince St Bridge end of the camp, because when the camp was assessed for male female ratio using the trees closest to the bridge (as they had better visibility for sexing animals) the majority of trees reviewed had approximately 2 males present for every 10 females.



Figure 1-1 Picton Camp Location and extent of occupation.



Figure 1-2 Photo of Picton Camp along Stonequarry Creek taken from Prince St Bridge looking north.

Results

The following is the results of the assessment:

Assessment component	Assessment results
Population assessment	The number of flying-foxes in the camp was estimated to be 8,000 to 9,500. Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>) was the only species observed in the camp.
Male to female ratio	It was difficult to estimate the male to female ratio across the entire camp as the females were observed situated close to the bridge in the areas that gained the most solar access. However, at the bridge end there were approximately eight females for every male. It is unlikely that this is the case across the whole camp however areas further away from the bridge were not able to detect male female ratios due to poor visibility at that distance.
Ratio of females in third trimester of pregnancy	A brief reproductive survey (from the bridge) was conducted which estimated a ratio of females that were not pregnant to females that were pregnant which showed that approximately 80% of females were pregnant and the majority of those appeared as though they were in their final trimester.
Age of any pups (if present) and whether they are likely to be crèched	No young were observed in the camp therefore it is unlikely that any females are leaving dependent young in the camp. Some juveniles from last year were observed, with many situated on the eastern side of Stonequarry Creek.
Visual health assessment and mortalities.	The majority of animals observed appeared healthy with no dead or injured flying-foxes observed in the camp.
Area camp is occupying within the vegetation	See Figure 1-1 above for camp extent.

Conclusion and Recommendation

Due to the presence of females in their final trimester, works in the camp should not be conducted at this time. Unless the camp becomes empty, it is recommended that Wollondilly Shire Council wait until May 2019 for another assessment to be undertaken. May is the time of year when Grey-headed Flying-foxes mate and dependent young should be independent of their mother. June to July are the most appropriate time of year for works to be undertaken in a Grey-headed Flying-fox camp.