Submission No 410

INQUIRY INTO IMPACT OF THE WESTERN HARBOUR TUNNEL AND BEACHES LINK

Organisation: Australasian Bat Society. Inc

Date Received: 17 June 2021

AUSTRALASIAN BAT SOCIETY INC.

ABN: 75 120 155 626
PO Box 185
MILSONS POINT
NSW 1565
http://ausbats.org.au
ABS President: A/Prof Justin A. Welbergen
Email: president@ausbats.org.au

17 June 2021

Submission - Impact of the Western Harbour Tunnel and Beaches Link

Dear NSW Legislative Council & Public Works Committee,

Thank you for the opportunity to comment on the Beaches Link and Gore Hill Freeway Connection proposal.

With this submission, the Australasian Bat Society (ABS) addresses Term of Reference items *(b) the adequacy of the consideration of alternative options,* and *(j) the impact on the environment, including marine ecosystems*.

The ABS would like to draw your attention to inadequacies in the impact assessment. Threats to significant local threatened bat species have been overlooked and consequently appropriate attention has not been paid to mitigation measures.

We recommend that the impact assessment be revised to correct these omissions and oversights, and that suitable measures to mitigate the threats to these bats be incorporated into the proposal.

Examples of omissions and inadequate consideration of the impact to threatened bat species include:

Large-footed myotis *Myotis macropus* (vulnerable NSW) is not mentioned in the Biodiversity summary and is only mentioned in brief as a 'possible species' for the area in Chapter 19. The large-footed myotis is a threatened species of bat that is highly specialised for foraging over waterways. It is known to forage over water within Middle Harbour and a highly significant maternity roost has also been identified near Berry Bay, North Sydney. Details of the ecology of this species have been published in the scientific literature[1], yet appear to have been ignored by the EIS.

Given that the species flies, and that it feeds on invertebrates and small fish from the surface of the water, it is likely to access areas of disturbed sediment that are proposed to be contained within the water column by silt curtains, tough surface water in such areas presumably remain exposed and could be accessed by the large-footed myotis. Additional research has identified that the species is vulnerable to the effects of water pollution.[2]

[1] Gonsalves, L. and Law, B. (2017) Distribution and key foraging habitat of the Large-footed Myotis Myotis macropus in the highly modified Port Jackson estuary, Sydney, Australia: An overlooked, but vulnerable bat. Australian Zoologist, 38, 629-642. doi: 10.7882/AZ.2017.012.

[2] Clarke-Wood, B., Jenkins, K.M., LAW, B.S., Blakey, R.V. (2016) The ecological response of insectivorous bats to coastal lagoon degradation. Biological Conservation 202, 10-19. http://dx.doi.org/10.1016/j.biocon.2016.08.014.

There are known roosts of the **Eastern Bent-winged Bat *Miniopterus oceanensis* (Vulnerable NSW)** in storm water drains near Primrose Park and again this was not identified in the impact assessment. Roosts of this species are sensitive to disturbance, and it is a major concern that the EIS has not identified this as a potential issue for the project. Details about some of these roosts have also been published[3], and their omission is again concerning regarding the adequacy of the EIS for biodiversity.

Both light pollution and traffic noise are major issues for insectivorous bats[4], yet these have not been considered for bats in the EIS, which is surprising given the **Large-eared pied bat *Chalinolobus dwyeri*** (**Vulnerable NSW & Cth)** and other species are known from the area.

A camp of **Grey-headed Flying-foxes *Pteropus poliocephalus* (Vulnerable NSW and Cth)** supporting up to a colony of 10,000 individuals was noted being 120 m from the proposed development, yet the impact assessment does not recognise any impacts to the species.

This is inadequate and incorrect; the Grey-headed Flying-fox colony will likely be impacted once the creek and water retention dam on the golf course are removed. Burnt Bridge Creek will effectively end as a naturally flowing creek. The creek and area around it will be dried out and incapable of supporting riparian bushland, which risks making the camp more susceptible to extreme heat events that have been responsible for tens of thousands of flying-fox deaths.[5]

The NSW Government and the species' National Recovery Plan[6] lists the key threats to the Grey-headed Flying-fox as loss, fragmentation and degradation of habitat, and widespread pervasive factors such as impacts of climate change and disease. The Beaches Link project will hasten the loss of the grey-headed flying fox colony through cumulative, long term construction disturbances, loss of access to water due to the de-watering of the creek and the removal of the water retention dam at Balgowlah Golf Course and loss of habitat.

On behalf of the ABS, I thank you for taking these comments into consideration.

Yours sincerely,

A/Prof Justin Welbergen

President, Australasian Bat Society, Inc

---

[3] Gonsalves L., Law B. (2017) Seasonal activity patterns of bats in North Sydney, New South Wales: implications for urban bat monitoring programs. Australian Mammalogy 40: 220-29.

[4] Haddock, J., Threlfall, C., Law, B., Hochuli, D.F. (2019) Light pollution at the urban forest edge negatively impacts insectivorous bats. Biological Conservation 236, 7-28.
Bhardwaj M, Soanes K, Lahoz-Monfort JJ, Lumsden LF, van der Ree R (2021) Insectivorous bats are less active near freeways. PLoS ONE 16(3): e0247400.
https://doi.org/10.1371/journal.pone.0247400

[5] Welbergen, J. A., Klose, S. M., Markus, N., & Eby, P. (2008). Climate change and the effects of temperature extremes on Australian flying-foxes. Proceedings of the Royal Society B: Biological Sciences, 275(1633), 419-425. https://doi.org/10.1098/rspb.2007.1385

[6] DAWE 2021, National Recovery Plan for the Grey-headed Flying-fox '*Pteropus poliocephalus*', Department of Agriculture, Water and the Environment, Canberra, March. CC BY 4.0. ISBN 978-1-76003-368-2. https://www.environment.gov.au/biodiversity/threatened/recovery-plans

About the Australasian Bat Society (ABS), Inc.

The Australasian Bat Society is the peak body promoting bat conservation in the Australasian region. The primary aim of the ABS is to promote the conservation of bats and their habitats through the advancement of quality science and the extensive experience of its members. We recognise the intrinsic value of all bat species as well as their place in this country's natural heritage and the key ecological roles they play in our natural environment.

The Australasian Bat Society is a not-for-profit organisation, registered under the NSW Associations Incorporation Act 1984 through the NSW Department of Fair Trading. ABS membership is wide-ranging and includes research scientists, natural resource managers, ecological consultants, educators, students, wildlife carers and members of the general public.

For further information please visit http://ausbats.org.au/