



## Ku-ring-gai Bat Conservation Society Inc.

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### **KBCS Submission re: The Beaches Link and Gore Hill Freeway Connection project**

Ku-ring-gai Bat Conservation Society Inc. objects to this project on the following grounds:

1. Impacts on the grey-headed flying-fox camp at Burnt Bridge
2. Removal of more foraging habitat of the grey-headed flying-fox
3. Biodiversity Offsets
4. Climate change impacts
5. Benefits vs costs

#### **Impacts on the grey-headed flying-fox camp at Burnt Bridge Creek**

The Conservation status of the Grey-headed flying-fox *Pteropus poliocephalus* was assessed as Vulnerable in NSW under the Biodiversity Conservation Act 2016 and also Vulnerable under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. The main causes of decline in their population are habitat destruction and mass deaths from heat events. Disturbance at camps, electrocution on powerlines, entanglement in netting and on barbed-wire are other impacts the species suffers.

Grey-headed flying-foxes roost in the vegetated area between Balgowlah Road and Burnt Bridge Creek Deviation. Black flying-foxes also roost in this camp in some years. National monitoring records indicate that this camp is occupied by up to 10,000 flying-foxes. Over the last 20 years the number of flying-fox camps in the Sydney Basin has increased but monitoring has shown that the number of grey-headed flying-foxes across the area has not increased. Scientists have concluded that this shift to more smaller camps is a response to food stress. The animals are needing to fly shorter distances to food to reduce the energy requirements to sustain them. This pattern has been observed across the species range and is a response to food shortages. Food shortages have been driven by removal of food sources (land clearing) and droughts causing reduced flowering and fruiting of diet plants, along with the devastating bushfires in 2019/20.

The Balgowlah camp will be about 120 metres from the proposed construction footprint of the tunnel. Noise, lights and dust from construction activities are likely to disturb the flying-fox camp. Over a construction period of 7 years, these impacts could well cause the flying-foxes to abandon this site. The EIS claims that as flying-foxes feed elsewhere at night they will not be affected by the noise. What has not been considered is that juvenile flying-foxes remain in the camp overnight from a month or so after birth until they are able to fly well enough to feed with the adults.

“Adaptive management measures to minimise impacts on Greyheaded Flying-foxes will be developed prior to construction. Where feasible and reasonable, noise intensive works with the potential of impacting the Grey-headed Flying-fox camp (ie demolition involving rock hammering or resurfacing works) should be programmed to avoid September to February. A person experienced in flying-fox behaviour will monitor disturbance levels within the Grey-headed Flying-fox camp at Balgowlah during construction activities.” [page 28, Chapter 28 Synthesis of the environmental impact statement]

KBCS considers that it would not be possible to avoid impacts on the camp from such a huge tunnelling and road building project. It would also not be possible for a 'person experienced in flying-fox behaviour' be able to monitor during all construction activities. KBCS acknowledges that avoiding rock hammering and resurfacing works between September and February is a basic necessity. Will this actually happen over the length of such a huge project?

#### Water and Water quality

Flying-foxes drink from the dam on Balgowlah Golf Course. This water source may well be a major reason why the flying-foxes occupy this site.

According to the EIS, [page 83 App 0 Surface water quality and hydrology], the stormwater harvesting dam will be initially retained and used as construction water and irrigation of Balgowlah Oval by Northern Beaches Council. At the end of the construction phase, the dam will be removed and most of the golf course area will be used for operation buildings for the motorway, a widened road and playing fields.

The Burnt Bridge valley is recognised by local people and in the EIS as a vital ecological corridor. The EIS states [Section 6.5 Impacts on environmental water availability and flows, page 94] that baseflow impacts at Burnt Bridge Creek during the operational phase of the project would have the potential to be considerable, as much as a 96% reduction after about 100 years.

Although the EIS says "Groundwater inflows to the tunnels would be collected, treated and discharged to local waterways (Burnt Bridge Creek), this is expected to offset baseflow reduction...."

KBCS objects to the Beaches Link tunnel project because of the very likely impacts on the Burnt Bridge wildlife corridor from water loss and on the loss of a drinking water source for the flying-fox camp.

#### **Removal of more foraging habitat of the grey-headed flying-fox**

The proposed project entails the clearing of 15.44 hectares of native vegetation, much of which is threatened species habitat, adjoining Manly Warringah War Memorial Park that protects the waters of Manly Dam. This includes about 2,000 mature trees.

Grey-headed flying-foxes feed on the **pollen and nectar** of the following tree species listed in the EIS to be removed:

Smooth-barked Apple	<i>Angophora costata</i>
Blackbutt	<i>Eucalyptus pilularis</i>
Sydney peppermint	<i>Eucalyptus piperita</i>
Turpentine	<i>Syncarpia glomulifera</i>
Red Bloodwood	<i>Corymbia gummifera</i>
Old-man Banksia	<i>Banksia serrata</i>

Other mammals such as eastern pygmy possum and birds also feed on the flowers of these species.

Grey-headed flying-foxes have been observed feeding on the **fruit** of the magenta lilly pilly (*Syzygium paniculatum*) a threatened flora species. The rusty fig *Ficus rubiginosa*, and creek sandpaper fig *Ficus coronata* are also important diet species for these flying-foxes.

KBCS strongly objects to further cumulative losses of foraging habitat for grey-headed flying-foxes.

#### **Biodiversity Offsets**

Biodiversity offsets are claimed to work by protecting and managing biodiversity values in one area in exchange for impacts on biodiversity values in another.

KBCS strongly disagrees with the principle of Biodiversity Offset because loss of habitat for flying-foxes, as an example, cannot be replaced by protecting habitat in another place. It is the total available habitat available now which supports this species. Every additional portion of their foraging habitat which is removed represents a reduction in food resources.

Flying-foxes move across the landscape to find food each night. As the seasons change and their diet species flower or fruit they may move hundreds of kilometres to reach mass flowering of a particular diet species. Not every part of their habitat is used every year but will be accessed periodically depending on variables in the climate. However, loss of any part of their habitat could be critical to their survival at some time.

Therefore, the loss of 15 hectares of bushland containing flying-fox diet species cannot be replaced by an offset elsewhere which does the same thing. This loss is not effectively addressed under cumulative impacts in the EIS.

### **Climate change impacts**

Flying-foxes are increasingly impacted by climate change. Increases in greenhouse gases have led to an increase in the frequency and severity of 'heat event' which are days with temperatures over 42° C which have killed thousands of flying-foxes.

This project will encourage an increase in car traffic rather than the use of alternative forms of transport such as heavy rail, light rail, trams and buses. At the ends of this transport link there will be traffic bottlenecks which will increase emissions from vehicles.

KBCS rejects the conclusion in the EIS that this project is the best solution for transport between the Northern Beaches and destinations to the south and west. The EIS does not assess alternative transport options.

### **Benefits vs costs**

KBCS considers that \$14bn of tax-payers money could be better spent providing a more efficient network of public transport rather than this massive project. The EIS has not been able to consider changes in behaviour caused by Covid which has enabled more people to work from home and enjoy their families and neighbourhoods more, as well as potentially reducing the need for the tunnel due to less traffic, especially in peak hour.

The environmental costs include:

- loss of 15 hectares of bushland and diet species of the grey-headed flying-fox a vulnerable species,
- extended impacts from a much wider road between Garigal National Park and Manly Dam Reserve,
- threats to the marine environment,
- loss of water flow along Burnt Bridge Creek and
- in the long term there will be further losses of bushland due to road widening along feeder roads as a result of increased traffic on the Beaches Link.

The impacts accumulate.

The EIS only considers the impacts of construction. It does not consider the long-term costs of maintaining this infrastructure which tax-payers would have to fund.

Finally, there is a desperate need in NSW for funds for conservation of threatened species, management of weeds and feral animals and ecological restoration following last summer's bushfires. A portion of the \$14bn could be better shared across the State.

**References:**

The National Flying-fox Monitoring Program – occupancy data for flying-fox camps in the Sydney Basin including Balgowlah camp

P Eby and B Law (2008) Ranking the feeding habitats of Grey-headed flying foxes for conservation management - Report for The Department of Environment and Climate Change (NSW) & The Department of Environment, Water, Heritage and the Arts October

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