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Att: Patsy Cox,
Planning Officer
Gwydir Shire Council

Five point test on proposed buildings and associated roadworks at Faraway Domes, 405 Munsies Rd Warialda by Alexander Dudley

I am writing this report in support of the proposal to build two geodesic domes and associated roadworks as part of the Faraway Domes enterprise proposed by Belinda Munsie. I am a local consultant ecologist with considerable experience undertaking fauna surveys on the North-west slopes of NSW since 2001.

The proposed buildings and associated driveways occur on the edge of a rocky outcrop which is part of an extensive basalt formation dominated by mature Box-gum woodland dominated by White Box *Eucalyptus albens* a shrub layer consisting of Native Olive *Notalaea microcarpa*, Wilga *Geijera parviflora* and Hopbush *Dodonea sp.*. Several large Fig Trees *Ficus rubiginosa* and Kurrajongs *Brachychiton populneus* are growing around the top of the escarpment, and the majority of the mature White Box and Ironbark trees contain hollows. Historically, the property and the area around has been extensively used for grazing by both sheep and/or cattle for over a century, and feral goats are still having an obvious impact. The impact of grazing by domestic stock has been somewhat ameliorated by the rough, stony country on which the proposed development is sited, but the presence of feral goats on top of native browsers has obviously had a major impact on the shrub layer.

Consequently, this is a historically degraded landscape, and unless the proponent gets value from conserving the native flora and fauna through this tourism venture, there will be little incentive to invest any money in controlling goats or excluding cattle on what is a reasonably extensive patch of open Box-gum woodland. In fact, the construction of two more domes is likely to have a net *positive* impact on any local threatened fauna and flora in the longer term through reducing grazing pressure and discouraging feral predators, and the ripple effect of recognising the value of eco-tourism through the local community. The proposed buildings and associated roadworks have been planned to avoid the destruction of any hollow-bearing trees and to minimise any damage to the environment, especially the large figs and Kurrajongs. Indeed, the proponent has made clear to me that looking after the habitat of threatened species is in their best interest as

they are likely to attract more clients if they can offer the opportunity to see rare wildlife as part of the visitor experience. Wildlife viewing is one of the attractions of the property.

A site survey was carried out on the 22nd of April 2019. This survey included active searching for reptiles, crevice-dwelling bats and threatened plants around the proposed building sites and an assessment of the condition of the habitat. No evidence of crevice-dwelling bats was found, but it is likely that a number of threatened bats species would use the area around the development. These could include any of the listed bat species for the north-west slopes of NSW and definitely includes Yellow-bellied Sheath-tail Bats as these were recorded during a spotlight survey of the site. However, given that the proposed development does not involve cutting down any of the large number of hollow-bearing trees on the property, the impact of the proposed constructions and roadworks on any of these bats would be negligible. In fact, if the proponent were to install bat artificial hollows for bats beneath the structures, the domes could benefit any species that were to take advantage of them while providing insect control. During the survey trees were scanned for raptor nests (none were found in the area) and the nests of Grey-crowned Babblers. Bird species were recorded, but the only threatened species of bird found were a pair of Diamond Firetails. During the evening the calls of Koalas, Squirrel Gliders, Barking Owls, Bush Stone-curlews and Masked owls were played through a speaker over the edge of the escarpment to induce a call-back response. There was no response to any of the calls, but an Australian Owlet-nightjar (a nocturnal, hollow-nesting bird) was later heard calling. The nocturnal search which began shortly after sunset and was conducted over two hours using a red LED specialist torch scanning for mammals, frogs and reptiles. This revealed five gecko species- including an immature specimen of the vulnerable Border Thick-tailed Gecko, *Uvidicolus sphyurus*. While the discovery of this animal represents the most north-westerly record of the species (according to Atlas of Living Australia and Bionet) the habitat in which the specimen was found is fairly typical, with patches of deep leaf-litter and large woody debris. This habitat is extensive outside of the proposed development area.

The area surrounding the proposed development is dominated by Box-gum woodland and many of the larger trees contain a large number of hollows. Many trees also carry mistletoe infestations. It is likely that at some stage, threatened species such as Squirrel Gliders, Varied Sittellas, Painted Honeyeaters and other birds will use this area to feed in, if not to nest in.

The following threatened species were recorded during the survey:

Diamond Firetail *Stagonopleura guttata*. While these birds were briefly seen near to one of the proposed domes, an examination of the area revealed no nests.

Border Thick-tailed Gecko *Uvidicolus sphyurus* found in an area away from the proposed footprint of the roads or buildings.

Yellow-bellied Sheathtail Bat *Saccolaimus flaviventris*. Heard during the spotlight search.

Lobed Bluegrass *Bothriochloa biloba* - a single specimen was tentatively identified in an area away from the proposed footprint of the roads or the buildings.

The following threatened species possibly occur in the area and were considered for this report.

Barking Owl *Ninox connivens*

Spotted Harrier *Circus assimilis*

Black-breasted Buzzard *Hamirostra melanosternon*

Square-tailed Kite *Lophoictinia isura*

Little Eagle *Hieraetus morphnoides*

Black-breasted Button Quail *Turnix melanogaster*

Bush-stone Curlew *Burhinus grallarius*

Grey-crowned Babbler *Pomatostomus temporalis temporalis*

Glossy Black-cockatoo *Calyptorhynchus lathami* (Unlikely as there is very little Buloke on the property)

Hooded Robin *Melanodryas cucullata cucullata*

Masked Owl *Tyto novaehollandiae*

Brown Treecreeper *Climacteris picumnus*

Dusky Woodswallow *Artamus cyanopterus*

Varied Sittella *Daphoenositta chrysoptera*

Painted Honeyeater *Grantiella picta*

Regent Honeyeater *Xanthomyza phrygia*

Black-chinned Honeyeater *Melithreptus gularis*

Speckled Warbler *Chthonicola sagittata*

Square-tailed Kite *Lophoicincta isura*

Turquoise Parrot *Neophema pulchella*

Black-striped Wallaby *Macropus dorsalis*

Koala *Phascolarctos cinereus*

Rufous Bettong *Aepyprymnus rufescens*

Squirrel Glider *Petaurus norfolcensis*

Stripe-faced Dunnart *Sminthopsis macroura*

Yellow-bellied Sheathtailed Bat *Saccolaimus flaviventris*

Border Thick-tailed Gecko *Uvidicolus sphyrurus*

Five-clawed Worm-skink *Anomalopus mackayi*

Pale-headed Snake *Hoplocephalus bitorquatus*

Dunmall's Snake *Glyphodon dunmalli*

Pale Imperial Hairstreak *Jalmenus eubulus*

A search for the following threatened plant species was made without success:

Yetman Wattle *Acacia jacunda*

Austral toadflax *Thesium australe*

Bluegrass *Dichanthium setosum*

Finger Panic Grass *Digataria porrecta*
Homopholis belsonii
Wild Orange *Capparis canescens*
Spiny Peppercross *Lepidium aschersonii*
Macbarron's Goodenia *Goodenia macbarronii*
Creeping Tick-trefoil *Desmodium campylocaulon*
Climbing Caustic *Euphorbia sarcostemmoides*
Pommaderris queenslandica

Addressing the Five-point test:

(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.

The footprint of the proposed development including the construction of the proposed domes and associated roadworks, represents less than 5% of the White Box/ Ironbark grassy woodland and the White Box shrubby woodland on the property. None of the scheduled species recorded or likely to occur are considered likely to be placed at risk of local extinction. In fact, as stated above, the development is likely to reduce the grazing pressure on the local environment and lead to a more positive conservation outcome than if the property owner's only income was from grazing.

(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,

The impact of the proposed development and associated roadworks on the Grassy Box/Ironbark woodland community is likely to be minimal. No mature trees will be felled, and by reducing grazing pressure in favour of eco-tourism this community will in fact be enhanced. This proposed development does not place the community in which it would occur at risk of extinction, and will not result in any adverse modification that could in any way lead to the local extinction of that community.

(c) in relation to the habitat of a threatened species or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality,

The proposed development involves gravelling a branching road through grassy Box/Ironbark woodland on basalt to the edge of a steep slope containing some elements of a dry vine thicket. Each section of the road is unlikely to be used more than a maximum of 12 times a day (including cleaning the domes) and as no mature trees will be destroyed in the making of the road, and grazing pressure will likely be reduced once the domes are constructed, the fragmentation of the habitat will be negligible. There is unlikely to be any vehicular traffic after dark so the chances of any RTE species being impacted by traffic is very small. The construction of the domes will doubtlessly involve noise and local disturbance but the patch of habitat is so extensive that there is enough to absorb any animals retreating from the disturbance.

(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),

The area of the proposed development does not lie within a declared area of outstanding biodiversity value.

(e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

This development is not part of a key threatening process and nor is it likely to increase the impact of a key threatening process.