

55 Coonara Avenue, West Pennant Hills – Threatened fauna species

Threatened fauna species considered for potential impact.

Fauna Group	Species	Habitat Requirements	BioNet Records within 10km	Suitability of Subject Lot	Potential for impact
Invertebrates	<i>Pommerhelix duralensis</i> Dural Woodland Snail	Specialist of shale-influenced woodland along the margins of the Cumberland Plain. Lives under rocks and in bark; does not burrow or climb.	Recorded on site.	Realised habitat on site and mapped by Dr Clark.	The proposal will result in direct impact to this species by the removal of some areas of realised habitat and potential habitat. The proposal will result in indirect impact to habitat for this species by the exposure of sheltered habitat to drying conditions.
Fish	<i>Macquaria australasica</i> Macquarie Perch	Endemic to the southern tributaries of the Murray-Darling River System, and also found in the Hawkesbury-Nepean and Shoalhaven River systems. It is possible that there is a “western” and “eastern’ species, and/or subspecies in one or both drainages.	None recorded within 10 km of the subject lot.	No suitable aquatic habitat on site.	No potential for direct or indirect impact to this species arising from the proposal.
Fish	<i>Prototroctes maraena</i> Australian Grayling	Occurs in coastal rivers and streams; migrates between fresh and marine waters. Historical northern limit was Hunter catchment, now occurs no further north than Shoalhaven River. Eggs laid in response to seasonal rain, sink and settle in complex substrate	None recorded within 10 km of the subject lot.	No suitable aquatic habitat on site.	No potential for direct or indirect impact to this species arising from the proposal.
Amphibian	<i>Litoria aurea</i> Green and Golden Bell Frog	Inhabits marshes, dams and stream-sides. Was once the most common frog in NSW, but populations crashed with the advent of Chytrid fungus. There are now only a handful of populations in the Sydney Basin, and the very large significant one at Sydney Olympic Park may be slowly expanding. It is a species likely to be adversely affected by climate	BioNet contains over 8,000 records of this species from within 10 km of the subject lot, dating from 1965 to 2021. The overwhelming majority of these are from the important population at and around Sydney Olympic Park. Only 15 records are from elsewhere and the majority of those are 25 to 50 years old. The nearest record is from Carlingford in 2010 in Blue	Marginal potential habitat occurs on site associated with the aquatic and riparian habitats, but particularly the dams.	The dams and riparian areas are to be retained and managed for conservation. However, potential direct impact to such habitat can arise from weed control works, particularly around the dams. The proposal may result in indirect impacts to potential riparian habitats by additional exposure from

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		change and is still vulnerable to Chytrid.	Gum Creek, an upper tributary of Darling Mills Creek. The unnamed creek line that runs through the subject lot is also an upper tributary of Darling Mills Creek. The two points at which these tributaries meet Darling Mills Creek are separated by a distance of some 2 km, and aerial photography indicates that this stretch is vegetated.		clearing and development of adjacent areas. This species has not been recorded on site or in the adjacent State Forest, despite targeted and incidental survey on site, and active research and incidental survey in the State Forest. The closest record of this species dates from 2010, but with no further evidence of it in that catchment in the intervening 13 years. Therefore, the species is considered highly unlikely to occur on site despite the presence of potential habitat.
Amphibian	<i>Heleioporus australiacus</i> Giant Burrowing Frog	Found in heath, woodland and open forest with sandy soils. Critical habitat includes fish-free pools, with sandy soils nearby. Emerges to feed and breed after rain; travels hundreds of metres to creeks to breed. Targeted surveys need to be undertaken after 5mm rainfall, with temperatures above 8°C.	BioNet contains 20 records of this species from within 10 km of the subject lot, dating from 1983 to 2012. The closest record is also the most recent, being an observation of adult frogs in Lane Cove NP. This record is in the upper reaches of the Lane Cover River on Hawkesbury sandstone, and is not connected to the catchment within which the subject lot occurs.	Although the subject lot is within the upper catchment of Darling Mills Creek (that flows west and south into the Parramatta River), it is underlain by clay soils. The subject lot does not provide suitable habitat nor is it connected to suitable potential or realised habitat.	No potential for direct or indirect impact to this species arising from the proposal.
Amphibian	<i>Mixophyes balbus</i> Stuttering Frog	Typically found in association with permanent streams through temperate and sub-tropical rainforest and wet sclerophyll forest, rarely in dry open tableland riparian vegetation, and also in moist gullies in dry forest. The ecological requirements of adults	There are no records of this species within BioNet from an area within 10 km of the subject lot. The closest record is from Blue Mountains NP near Blackheath, dating from 2002.	No suitable habitat for this species occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.

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		<p>and larvae are poorly known.</p> <p>Habitat modelling calculates that it shows a preference for the interiors of large forest tracts in areas with relatively cool mean annual temperatures. These sites are typically free from any disturbance with a thick canopy and relatively simple understorey. The species occurs along first order streams and is occasionally associated with springs. The species is not associated with ponds or ephemeral pools. Tadpoles do occur with several species of native fish.</p>			
Reptile	<i>Hoplocephalus bungaroides</i> Broad-headed Snake	Shelters in rock crevices and under flat sandstone rocks on exposed cliff edges during autumn, winter and spring, and may move to other shelters (such as in hollows in nearby large trees) in summer. Feeds primarily on geckos, supplemented by small skinks, frogs, and small mammals.	There are no records of this species within BioNet from an area within 10 km of the subject lot. The natural distribution of this species is closely related to the distribution of sandstone geology and it does not occur in the Cumberland Plain and its associated shale hills.	No suitable habitat for this species occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Bird	<i>Pycnoptilus floccosus</i> Pilotbird	Strictly terrestrial species that occurs in moist forest with a dense understorey. Has been associated with Lyrebirds, foraging in their wake.	There are no records of this species within BioNet from an area within 10 km of the subject lot. The distribution of records of this species shows it to be closely associated with the sandstone forested areas surrounding the Cumberland Plain.	No suitable habitat for this species occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Bird	<i>Botaurus poiciloptilus</i> Australasian Bittern	Favours permanent freshwater wetlands.	BioNet contains 7 records of this species from within 10 km of the subject lot, dating from 1964 to 2019, and all from suitable habitat near the Parramatta River.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.

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Bird	<i>Erythrotriorchis radiatus</i> Red Goshawk	Inhabits open forest and riparian woodland from the Kimberley in north-western Australia to the subtropical east coast, with large population of birds as prey, and permanent water. Verified historical records extend south to Sydney. Historically, it bred in the lower Richmond Valley and probably in the Clarence Valley. There are probably fewer than 10 birds currently in NSW and most of these may be vagrants from nearby Queensland population.	There are no records of this species within BioNet from an area within 10 km of the subject lot.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Bird	<i>Falco hypoleucos</i> Grey Falcon	Principally a bird of arid and semi-arid regions, found in shrub/grassland, wooded watercourses and wetlands; vagrants sometimes observed in open woodlands near the coast. Preys mostly on birds, especially parrots and pigeons. Uses old nests of other raptors and ravens, in a living tree near water.	BioNet contains 1 record of this species from within 10 km of the subject lot, dating from 1960. As a sensitive species, no locational information is provided.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Bird	<i>Rostratula benghalensis australis</i> Painted Snipe	Inhabits inland and coastal shallow freshwater wetlands, occurring in both ephemeral and permanent wetlands, particularly where there is grass. Individuals have been spotted in artificial dams, sewage ponds and waterlogged grasslands.	BioNet contains 3 records of this species from within 10 km of the subject lot, dating from 2011 and 2017, and all from suitable habitat in Sydney Olympic Park.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Bird	<i>Numenius madagascariensis</i> Eastern Curlew	Mainly coastal: sandspits, mudflats, waterways in saltmarsh, mangroves; occasionally fresh or brackish lakes, bare grassland near water.	BioNet contains 23 records of this species from within 10 km of the subject lot. These are all from the Sydney Olympic Park or in similar suitable habitat nearby along the Parramatta River.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Bird	<i>Collocephalon fimbriatum</i> Gang-gang Cockatoo	In summer, generally found in montane forests and woodlands; in winter, may occur at lower altitudes in drier more open	BioNet contains 131 records of this species from within 10 km of the subject lot, dating from 1975 to 2020. As a sensitive species,	Suitable foraging habitat occurs on site in all of the parts	There is the potential for direct impact to foraging habitat by the removal of

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		eucalypt forests and woodlands, and often found in urban areas. Breeds in large and old hollow-bearing trees in forest.	locations are withheld, but an individual was observed in 2019 in Cumberland SF.	vegetated with native species.	native trees in the development area. There is potential for indirect impacts arising from disturbances to adjacent areas of retained habitat – edge effects and noise.
Bird	<i>Calyptorhynchus lathamii</i> Glossy Black-Cockatoo	Breeds in large hollow-bearing trees in forest and forages exclusively on <i>Allocasuarina</i> species.	BioNet contains 45 records of this species from within 10 km of the subject lot, dating from 1989 to 2022. As a sensitive species, locations are withheld. There are no records of this species from Cumberland SF.	Suitable foraging habitat occurs on site where female <i>Allocasuarina</i> trees occur.	There is the potential for direct impact to foraging habitat by the removal of female <i>Allocasuarina</i> trees in the development area. There is potential for indirect impacts arising from disturbances to adjacent areas of retained habitat – edge effects and noise. Given the uncertainty of the locations of past records and the highly mobile nature of this species, it is concluded that it has a high likelihood of occurrence and further assessment is required.
Bird	<i>Lathamus discolor</i> Swift Parrot	Occurs on mainland between March and October where eucalypts are flowering profusely or where there are abundant lerp infestations.	BioNet contains 42 records of this species from within 10 km of the subject lot, dating from 1982 to 2021, the closest being a flock of 40 observed in Cumberland SF in 1982. The most recent records are of a small flock of 8 birds in Wahroonga.	Suitable foraging habitat occurs on site in all of the vegetated parts but it is not within an area identified by NSW DPE as important habitat.	There is the potential for direct impact to foraging habitat by the removal of recognised key foraging tree species trees in the development area. There is potential for indirect impacts to foraging habitat arising from disturbances to adjacent areas of retained habitat – edge effects and noise. However, this species has not been observed on site

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					<p>during the targeted and incidental surveys conducted on site from 2015 to 2022. Also, it has not been observed in the adjacent State Forest since 1982, despite the high degree of formal and informal birdwatching that is carried out in that forest. This absence of records has led to the vegetation not being identified as important habitat. Therefore, the species is considered highly unlikely to occur on site despite the presence of potential habitat.</p>
Bird	<p><i>Hirundapus caudacutus</i> White-throated Needletail</p>	<p>Non-breeding population migrates from Asia in spring and departs in autumn along either side of the Great Dividing Range. Most of its time is spent feeding on the wing, high along storm fronts. It roosts regularly in trees (Birdlife Australia, https://www.birdsinbackyards.net/species/Hirundapus-caudacutus), both among dense foliage in the canopy or in hollows (SPRAT, https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=682).</p>	<p>BioNet contains 65 records of this species from within 10 km of the subject lot, dating from 1981 to 2019, the closest being from Cumberland SF.</p>	<p>The treed habitats within the subject lot may provide suitable roosting habitat for this species. Given the proximity of records in time and space to the subject site, it is considered highly likely to occur.</p>	<p>There is the potential for direct impact to potential roosting habitat arising from the removal of trees within the development area. There is the potential for indirect impacts arising from disturbances to adjacent areas – edge effects and noise.</p>
Bird	<p><i>Dasyornis brachypterus</i> Eastern Bristlebird</p>	<p>Preferred habitat is characterised by dense, low vegetation including heath and open woodland with a heathy understorey. Time since fire is critical.</p>	<p>There are no records of this species within BioNet from an area within 10 km of the subject lot. The closest records date from the 1980s in Ku-ring-gai Chase</p>	<p>No suitable habitat occurs on or near the subject lot.</p>	<p>No potential for direct or indirect impact to this species arising from the proposal.</p>

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			NP, otherwise Sydney records are historical.		
Bird	<i>Anthochaera phrygia</i> Regent Honeyeater	Inhabits dry open forest and woodland, particularly Box-Ironbark woodland, and riparian forests of River Sheoak. Occasionally non-breeding flocks forage in Swamp Mahogany and Spotted Gum forests on central and north coast and rarely on the south coast.	BioNet contains 9 records of this species from within 10 km of the subject lot, dating from 1938 to 2017. The closest record dates from 1968 in Castle Hill; the most recent record is from Sydney Olympic Park. It has not been recorded from Cumberland SF.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Bird	<i>Grantiella picta</i> Painted Honeyeater	Found in dry open forests and woodlands, and is strongly associated with mistletoe. It may also be found along rivers, on plains with scattered trees and on farmland with remnant vegetation. It has been seen in urban parks and gardens where large eucalypts are available. Some north-south migratory movements have been reported, and is considered a non-breeding winter migrant in the north of its range, above 26° S, and a breeding spring to summer visitor in areas south of this latitude. Movements are also linked to the fruiting of mistletoe. Prefers mistletoes of the genus <i>Amyema</i> .	There are no recent records of this species within BioNet from an area within 10 km of the subject lot. However, an Australian Museum specimen was collected in 1938 from West Pennant Hills.	No suitable habitat occurs on or near the subject lot. No mistletoes have been recorded on site or in the adjacent Cumberland SF.	No potential for direct or indirect impact to this species arising from the proposal.
Mammal	<i>Dasyurus maculatus</i> Spotted-tailed Quoll	Occurs in a number of forest habitats but generally requires large areas of relatively intact forest. Although rare, sightings indicate that this species may move around urban areas using vegetation corridors along riparian habitats and railway lines.	BioNet contains 14 records of this species from within 10 km of the subject lot, dating from 1955 to 2019. The most recent record is the closest, with an individual observed in a backyard in Carlingford. It has also been recorded in Fred Caterson Reserve in 2001.	Suitable habitat occurs on and near the subject lot, with the most suitable habitat being within the large tract of southern bushland with its complex understorey and terrestrial and arboreal hollows.	There is the potential for direct and indirect impact to foraging habitat suitable for this species arising from the proposal. This species is infrequently observed, due to its rarity as well as its secretive behaviour. However, given the capacity for this species to range

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					over large distances in urban areas by using habitat corridors, the connectivity between the close sightings locations and the bushland of the subject lot, and the high value habitat available on site and in the adjacent State Forest, this species is considered likely to occur.
Mammal	<i>Isoodon obesulus obesulus</i> Southern Brown Bandicoot	Generally found in heath or open forest. Now very rare, even in stronghold population in Ku-ring-gai NP.	There are no recent records of this species within BioNet from an area within 10 km of the subject lot.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Mammal	<i>Phascolarctos cinereus</i> Koala	Occurs where suitable food trees present, generally on rich open valleys. Koala population densities have probably always been low in the Cumberland Plain and surrounding hills of which the subject lot is a part. Individuals are rarely sighted across the urbanised parts of western Sydney, and such records are usually associated with areas of relatively well connected habitat. Unfortunately, many of these records are of dead or injured animals due to road trauma or Dog attacks. There are larger populations persisting in north western Sydney / lower Blue Mountains near Kurrajong, and in south western Sydney near Campbelltown.	BioNet contains 16 records of this species from within 10 km of the subject lot, dating from 1968 to 2020. The closest record dates from 2012 from West Pennant Hills. This record is generated from the Wildlife Rehabilitation database provided by WIRES and such records sometimes reflect the location of carers and / or the location of a release site rather than the location of a sighting; there are no details for this particular record are absent. The latest record is of an individual observed in a lightly-treed open parkland in Bella Vista.	The vegetation of the subject lot is generally unsuitable for Koala, with few favoured forage species present, none in high numbers, and almost all within the natural bushland areas. Targeted survey did not find any evidence of the presence of this species.	Despite the presence of suitable habitat within the subject lot, further consideration of potential impact to this species is judged to be unnecessary, given that its presence is considered highly unlikely. This decision is supported by the results of comprehensive targeted survey for this species, where no evidence of their presence was found. The details of the survey and results are provided in the BDAR – see Table 13 (pp 71), Table 14 9pp 76), Figures 24A to 24F (pp 80-85), and Section 4.4 (pp 87).
Mammal	<i>Petauroides volans</i> Greater Glider	Occurs in tall eucalypt forest and woodlands with relatively old trees and abundant hollows.	BioNet contains 2 records of this species from within 10 km of the subject lot, dating from 2004 and located in a forested gully as part	Habitat on the subject lot is theoretically suitable for this species, especially in the areas of natural	There is potential for indirect impact to habitat suitable for this species arising from the proposal. However, due to its general

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			of the upper catchment of the Lane Cove River.	bushland. It has not been recorded on site or in the adjacent bushland despite a great deal of nocturnal survey undertaken in this habitat targeting arboreal fauna, but particularly the Powerful Owl.	rarity, dependence on large areas of well connected old forest, the absence of records in the site that has been well surveyed, and the absence of records in the adjacent State Forest that has similarly been well surveyed for nocturnal arboreal fauna, it is considered highly unlikely to occur on the subject site.
Mammal	<i>Petaurus australis australis</i> Yellow-bellied Glider	Favours tall mature eucalypt forest in areas with high rainfall and nutrient rich soils. A study undertaken by Council and Forestry Corporation (Irish and Kavanagh 2011) established that the distribution of this species in The Hills LGA is closely-related to the presence of Swamp Mahogany trees.	BioNet contains 4 records of this species from within 10 km of the subject lot, dating from 2013 and 2018, and all from the Kellyville area.	The vegetation of the subject lot supports natural bushland with many hollow-bearing trees, but the vegetation types do not contain Swamp Mahogany trees and no vegetation type known to be associated with Swamp Mahogany trees occurs on or near the site.	No potential for direct or indirect impact to this species arising from the proposal.
Mammal	<i>Notamacropus parma</i> Parma Wallaby	Preferred habitat is moist eucalypt forest with dense shrubby understorey with grassy open areas nearby.	BioNet has no records of this species from within 10 km of the subject lot. The only records from the Sydney area is from Duffys Forest in 2014, some 20 km distant.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.
Mammal	<i>Pteropus poliocephalus</i> Grey-Headed Flying-fox	Foraging habitat in flowering eucalypts, particularly winter-flowering species; camps in dense wet forest or rainforest gullies.	BioNet contains 1,240 records of this species from within 10 km of the subject lot, due to the presence of two large and permanent camps within foraging distance at Parramatta Park (8km to south west) and Gordon (11 km to east).	Recorded foraging on and near the subject lot.	There is the potential for direct and indirect impact to foraging habitat suitable for this species arising from the proposal.
Mammal	<i>Chalinolobus dwyeri</i> Large-eared Pied Bat	Roosts in caves and found mainly in areas with extensive cliffs and	BioNet contains 6 records of this species from within 10 km of the	The habitats within the subject lot are	No potential for direct or indirect impact to this

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		caves. Generally rare with a very patchy distribution in NSW. Found in well-timbered areas containing gullies.	subject lot. The most recent is from Ryde in 2021. The closest records date from 2019 from ultrasonic calls recorded along Darling Mills Creek to the south west of the subject lot. However, these were identified only to a “possible” level of certainty.	considered generally unsuitable due to the absence of appropriate roosting habitat on or near the site. The distribution of confirmed records are tightly associated with the dissected sandstone country that occurs around the Cumberland Plain.	species arising from the proposal.
Mammal	<i>Pseudomys novaehollandiae</i> New Holland Mouse	Known to inhabit open heathlands, woodlands, forests with a heathy understorey and vegetated sand dunes. It is patchy in time and space, with peaks in abundance in early to mid stages of regrowth, typically after fire.	BioNet has no records of this species from within 10 km of the subject lot. The only records from the Sydney area are from large reserves (such as Ku-ring-gai Chase NP) where appropriate fire management can be implemented.	No suitable habitat occurs on or near the subject lot.	No potential for direct or indirect impact to this species arising from the proposal.