

Tony Pratt
Senior Development Manager
Masters
P 02 8885 1151 | M 0404 829843
E tpratt@masters.com.au

13SYDECO-0094

8 November 2013

Dear Tony,

Flora and Fauna Assessment, 144 Wicks Rd, North Ryde

Masters contracted Ecological Australia Pty Ltd (ELA) to undertake a Flora and Fauna Assessment at 144 Wicks Road North Ryde to address comments provided by the Ryde City Council (RCC) in relation to a proposed development at this site. Council is requesting a review of flora and fauna on the site.

The site is located in Macquarie Park and is bounded by Epping Road to the south west, extends to Wicks Road to the south east and Waterloo Road in the north. Macquarie Park Cemetery and Lane Cove National Park are located further to the east of the site. The location of the site and its boundaries are shown in Figure 1.

The site was previously occupied by a school, the buildings of which have been demolished leaving some foundations and retaining walls. Much of the natural soil profile has been modified with earthworks for levelling and landscaping (GHD 2008).

Flora and fauna investigations have been undertaken at this site previously in 1999 and 2008.

Methodology

Literature and data review involved consideration of the earlier 2008 flora and fauna investigation for 144 Wicks Road (GHD 2008) and updated database searches of the Atlas of NSW Wildlife and the EPBC Online Protected Matters Search Tool.

Aerial photography including historical aerial photography was reviewed to determine both the current and historical extent of vegetation across the site. Vegetation community mapping from both RCC and Sydney Metropolitan Catchment Management Authority (SMCMA) were also considered.

The development site was inspected on Friday, 18th October 2013 by Toni Frecker of ELA to identify significant ecological features, such as threatened species, threatened species habitat and feed resources, and significant vegetation communities. A random meander was undertaken across the development site to identify such features. This field survey was undertaken using a hand-held GPS unit, which was used to take GPS point locations of any significant features observed in the field. It is noted that these units can have errors in the accuracy of the locations taken of approximately 20 m (subject to availability of satellites on the day).

Incidental fauna observations were recorded during the field survey. Scat identification was also conducted to identify fauna present on the site.

This survey of the site was not designed to identify all fauna utilising the site or identify all flora species within the site but to update details reported in earlier flora and fauna assessments of the development site.

Results

Flora

Flora species identified across the site during the field survey are given in Table 1.

Review of historical aerial photography of the site indicated that the majority of the site had been cleared of all trees prior to building North Ryde High School in 1962. Vegetation mapping (**Figure 1**) indicates that vegetation on the site was not mapped as remnant vegetation.

The database searches within a five kilometre radius from the site revealed a total of 26 threatened flora species which may occur within the study area (**Figure 2**). Habitat for these species was assessed in GHD (2008) and although possible habitat for some species occurs on site only two non-endemic threatened species was identified, as discussed below. No endemic threatened species were identified during the site inspection.

The inspection of the site confirmed that the majority of the species on site had been planted as part of the landscaping of the school. A large number of different eucalypt species are present on the site, however, only a few of these are endemic species. It is difficult to determine if any of these trees are remnant trees. When considering earlier clearing of the site and current age of those trees present, it is likely that all trees, whether endemic or not, were planted at a similar time on site. Although some tree species consistent with the TSC Act listed threatened ecological community Sydney Turpentine Ironbark Forest are present on site, it is apparent that these are most likely planted and not naturally occurring. Species from other strata of this community were limited to one *Acacia* species.

Two species listed under the NSW *Threatened Species Conservation Act 1995* (TSC) or Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) were reported during the previous survey conducted by GHD (2008). *Eucalyptus scoparia* (Wallangara White Gum) is listed as endangered under the TSC Act and as vulnerable under the EPBC Act. The natural range of this species is in the Tenterfield area in northern NSW, and it is commonly planted as a landscape tree. *Eucalyptus nicholii* (Narrow-leaf Black Peppermint) occurs naturally in the New England Tablelands in NSW, and not within the Sydney basin. This species is planted frequently as a landscape tree.

Although both the above species have been identified on the development site during earlier surveys, these trees are not within their natural range and have been planted during landscape works. Therefore, we do not consider them as threatened species for the purpose of this impact assessment.

Noxious weeds are identified in Table 1. All the noxious weeds identified on site are classified as Class 4, which requires the property owner to 'manage the growth of the plant in a manner that reduces its numbers spread and incidence and continuously inhibits its reproduction'.

Fauna

Database searches within a five kilometre radius from the site revealed a total of 31 threatened fauna species which may occur within the study area. The mapping for these records is given in Figure 3. The habitat for these species was assessed in GHD (2008) and considered against conditions on site.

GHD (2008) conducted fauna surveys across the site and located one threatened species, *Pteropus poliocephalus* (Grey-headed Flying-fox), which was identified foraging within an exotic tree. This species was not observed roosting within the site. Lane Cove National Park is to the east of the study site, and provides significant foraging and roosting resources for Grey-headed Flying-fox. Therefore, the resources available on the study site are not considered to be significant for this species.

Fauna species identified across the site during the field survey undertaken by ELA are given in Table 2. No threatened species were observed during this survey.

Hollow-bearing trees, habitat and feed resources were searched for and recorded. As reported in GHD (2008), the site is likely to be used by a number of threatened microchiroptean bats for foraging during the warmer months with potential roosting sites in demolished building areas and the loose bark on many trees. A number of other threatened fauna species, namely migratory birds including *Anthochaera phrygia* (Regent Honeyeater) and *Lathamus discolor* (Swift Parrot), may use the site for foraging during the winter months. The site also provides potential foraging resources for predatory birds such as the *Ninox strenua* (Powerful Owl).

Hollow-bearing trees, those trees which may provide habitat for microchiroptean bats and trees with termite nests which may provide other habitat opportunities are mapped in Figure 4.

Conclusion

Although there are some species consistent with the TSC Act listed Sydney Turpentine Ironbark Forest on site, it is likely that there have been planted and are not remnant native vegetation, and do not meet the criteria for the EEC.

Two threatened plant species were present on site. However, both of these species have been planted and occur well beyond their natural range, therefore, are considered managed vegetation and not remnant native vegetation.

The site may provide some foraging value to a number of threatened fauna species, however, due to the proximity to Lane Cove National Park significant foraging habitat exists nearby.

A qualified fauna ecologist should be required on site during any clearing activity to ensure any resident fauna are removed and relocated appropriately. Techniques such as soft fall tree removal will minimise fauna mortality.

If you have any questions regarding this report or that you require further information, please do not hesitate to contact me on 02 8536 8659.

Yours sincerely,



Per Toni Frecker - Ecologist

Table 1. Flora species

Family	Botanical Name	Common Name
Anacardiaceae	<i>Schinus areira</i> *	Peppercorn Tree
Apocynaceae	<i>Araujia hortorum</i> *	Moth Vine
	<i>Nerium oleander</i> *	Oleander
Araucariaceae	<i>Araucaria cunninghamiana</i>	Hoop Pine
Asparagaceae	<i>Asparagus aethiopicus</i> *#	Asparagus Fern
Asteliaceae	<i>Cordyline stricta</i>	
Asteraceae	<i>Bidens pilosa</i> *	Cobblers Peg
	<i>Cirsium vulgare</i> *	Spear Thistle
	<i>Conyza sp</i> *	Fleabane
	<i>Hypochaeris radicata</i>	Cats Ear
	<i>Senecio madagascariensis</i> *	Fireweed
Bignoniaceae	<i>Jacaranda mimosfolia</i> *	Jacaranda
Brassicaceae	<i>Brassica rapa</i> *	Wild Mustard
Campanulaceae	<i>Wahlenbergia gracilis</i>	Native Bluebell
Caprifoliaceae	<i>Lonicera japonica</i> *	Japanese Honeysuckle
Casuarinaceae	<i>Allocasuarina littoralis</i>	Black She-oak
	<i>Casuarina glauca</i>	Swamp Oak
Commelinaceae	<i>Tradescantia fluminensis</i>	Tradescantia
Convolvulaceae	<i>Dichondra repens</i>	Kidney Weed
Cupressaceae	<i>Cupressus macrocarpa</i> *	Monterey Cypress
Cyatheaceae	<i>Cyathea australis</i>	Tree Fern
Euphorbiaceae	<i>Sapium sebiferum</i> *	Chinese Tallow Tree
Fabaceae	<i>Erythrina x sykesii</i> *	Coral Tree
	<i>Genista monspessulana</i> *	Montpelier Broom
	<i>Hardenbergia violacea</i>	False Sarsaparilla
	<i>Senna pendula</i> *	
	<i>Trifolium arvense</i> *	Hare's Foot Clover
	<i>Trifolium repens</i> *	White-flowering Clover
	<i>Vicia sativa</i> *	Vetch
	<i>Wisteria floribunda</i> *	Wisteria
Fagaceae	<i>Quercus robur</i> *	English Oak
Hamamelidaceae	<i>Liquidambar styraciflua</i> *	Liquidambar
Iridaceae	<i>Dietes grandiflora</i> *	Wild Iris
Lauraceae	<i>Cinnamomum camphora</i> *#	Camphor Laurel
Lomandraceae	<i>Lomandra longifolia</i>	Spiny-headed Matt-rush
Malvaceae	<i>Modiola caroliniana</i> *	Red-flowering Mallow
	<i>Sida rhombifolia</i> *	Paddy's Lucerne

Family	Botanical Name	Common Name
Mimosoideae	<i>Acacia binervia</i>	Coast Myall
	<i>Acacia fimbriata</i>	
	<i>Acacia parramattensis</i>	Parramatta Green Wattle
Moraceae	<i>Ficus rubiginosa</i>	Port Jackson Fig
Myrsinaceae	<i>Anagallis arvensis</i> *	Scarlet Pimpernel
Myrtaceae	<i>Angophora floribunda</i>	Rough-barked Apple
	<i>Callistemon citrinus</i>	
	<i>Callistemon salignus</i>	
	<i>Corymbia citriodora</i> *	Lemon-scented Gum
	<i>Corymbia maculata</i>	Spotted Gum
	<i>Eucalyptus acmenoides</i>	Red Stringybark
	<i>Eucalyptus camaldulensis</i> *	River Red Gum
	<i>Eucalyptus fibrosa</i>	Red Ironbark
	<i>Eucalyptus paniculata</i> subsp <i>paniculata</i>	Grey Ironbark
	<i>Eucalyptus pilularis</i>	Blackbutt
	<i>Eucalyptus saligna</i>	Sydney Blue Gum
	<i>Eucalyptus scoparia</i> *	Wallagarra White Gum
	<i>Eucalyptus</i> sp.	
	<i>Eucalyptus tereticornis</i>	Forest Red Gum
	<i>Eucalyptus punctata</i>	Grey Gum
	<i>Eucalyptus sideroxylon</i>	
	<i>Lophostemon confertus</i> *	Brushbox
	<i>Melaleuca armillaris</i>	
	<i>Melaleuca quinquenervia</i>	
	<i>Melaleuca styphelioides</i>	
	<i>Syncarpia glomulifera</i>	Turpentine
	<i>Syzygium</i> sp.	Lily Pily
Oleaceae	<i>Jasminum polyanthum</i> *	Jasmine
	<i>Ligustrum lucidum</i> *#	Large-leaf Privet
	<i>Ligustrum sinense</i> *#	Small-leaf Privet
	<i>Olea europaea</i> subsp <i>africanus</i> *#	African Olive
Pinaceae	<i>Pinus patula</i> *	Mexican Pine
	<i>Pinus radiata</i> *	Radiata Pine
Pittosporaceae	<i>Pittosporum undulatum</i>	Sweet Pittosporum
Plantaginaceae	<i>Plantago lanceolata</i> *	Plantain
Poaceae	<i>Avena fatua</i> *	Wild Oats
	<i>Cynodon dactylon</i> *	Couch Grass

Family	Botanical Name	Common Name
	<i>Microlaena stipoides</i>	Weeping Meadow Grass
	<i>Paspalum dilatatum</i> *	Paspalum
	<i>Pennisetum clandestinum</i> *	Kikuyu
Polygonaceae	<i>Acetosa sagittata</i> *	Turkey Rhubarb
	<i>Rumex crispus</i> *	Curled Dock
Proteaceae	<i>Banksia integrifolia</i> subsp <i>integrifolia</i>	Coast Banksia
	<i>Grevillea robusta</i> *	Silky Oak
Rosaceae	<i>Rubus fruticosus</i> *#	Blackberry
Salicaceae	<i>Populus deltoides</i> *	Cottonwood
	<i>Populus nigra</i> *	Lombardy Poplar
Solanaceae	<i>Solanum nigra</i> *	Blackberry Nightshade
Ulmaceae	<i>Ulmus parvifolia</i>	Chinese Weeping Elm
Verbenaceae	<i>Lantana camara</i> *#	Lantana
	<i>Verbena bonariensis</i> *	Purple-top

* indicates an introduced species, # indicates a noxious weed

Table 2. Fauna species

Family	Scientific Name	Common Name
Birds		
ARDEIDAE	<i>Egretta novaehollandiae</i>	White-faced Heron
ARTAMIDAE	<i>Cracticus torquatus</i>	Grey Butcherbird
	<i>Gymnorhina tibicen</i>	Australian Magpie
CACATUIDAE	<i>Cacatua galerita</i>	Sulphur-crested Cockatoo
CHARADRIIDAE	<i>Vanellus miles</i>	Masked Lapwing
HALCYONIDAE	<i>Dacelo novaeguineae</i>	Laughing Kookaburra
MELIPHAGIDAE	<i>Manorina melanocephala</i>	Noisy Miner
PARDALOTIDAE	<i>Pardalotus punctatus</i>	Spotted Pardalote
PSITTACIDAE	<i>Trichoglossus haematodus</i>	Rainbow Lorikeet
THRESKIORNITHIDAE	<i>Threskiornis molucca</i>	Australian White Ibis
Mammals		
LEPORIDAE	<i>Oryctolagus cuniculus</i>	Rabbit

References

GHD (2008). *Flora and Fauna Investigation*. Report for Stage 1 Development Application for 144 Wicks Road for Dexus Property Group.

NSW Department of Primary Industries. *Noxious Weed Declarations for Ryde Council*.

<http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/noxweed> accessed October 2013



Figure 1. Location and Vegetation - 144 Wicks Road North Ryde

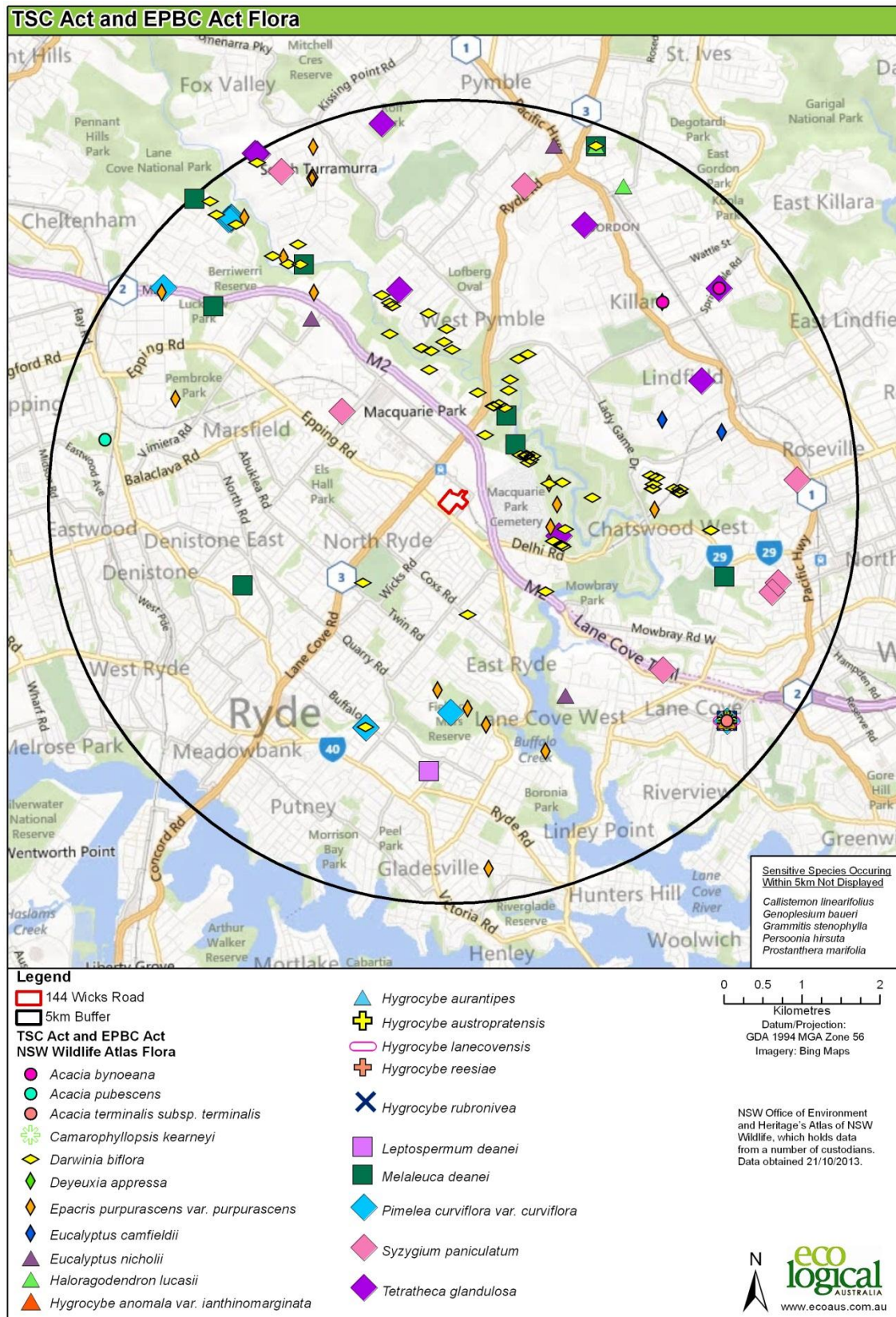


Figure 2. Threatened Flora Species

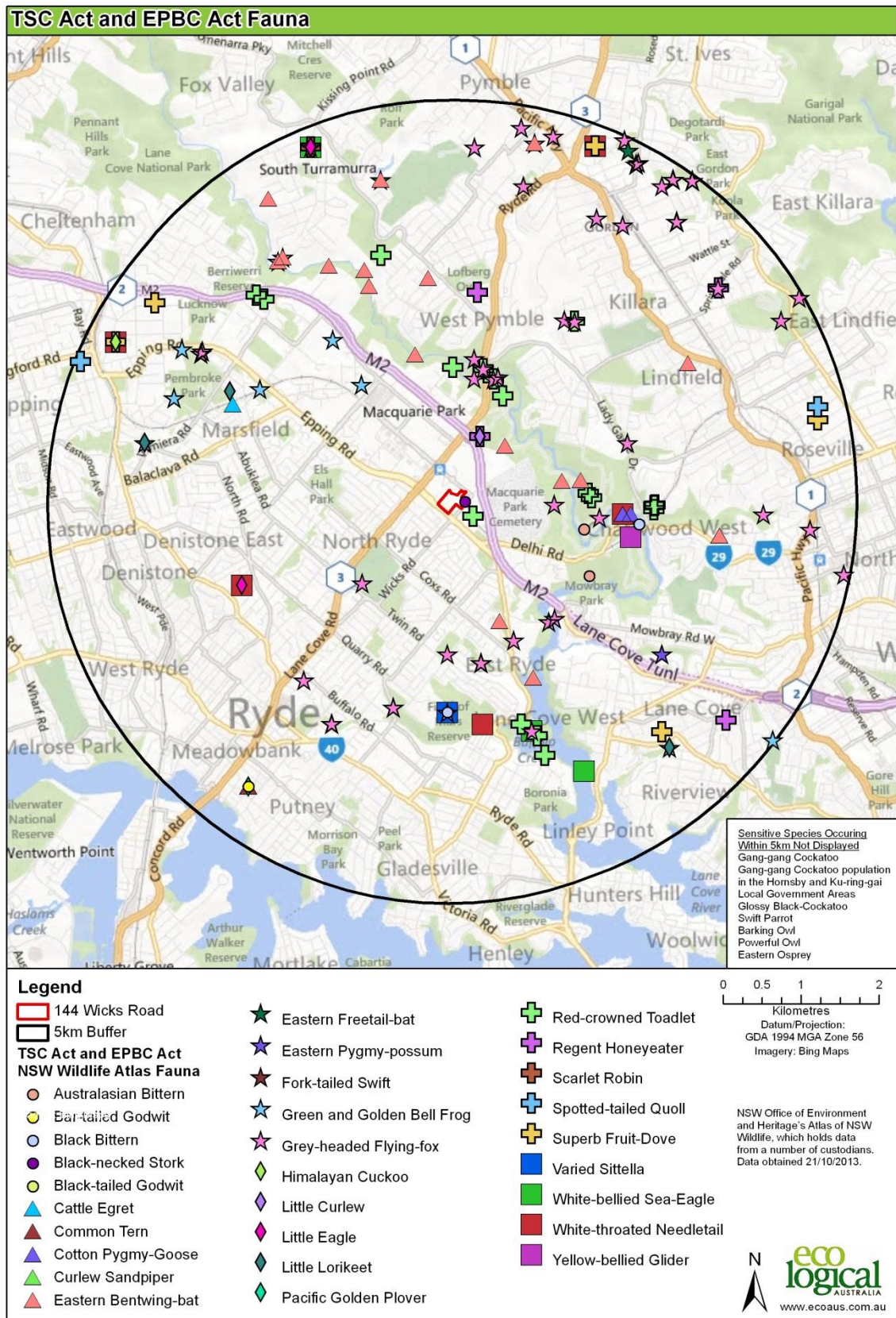


Figure 3. Threatened Fauna Species

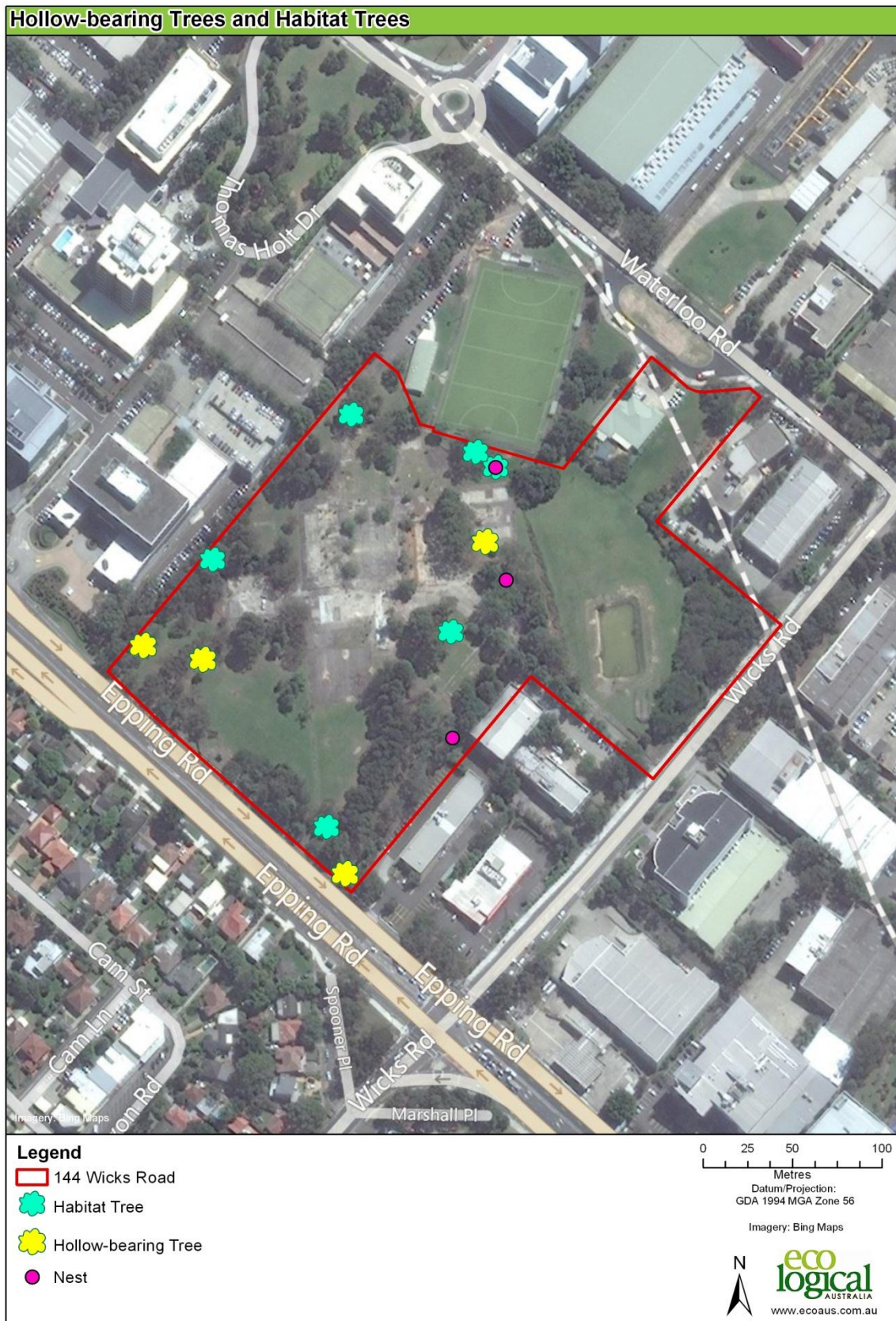


Figure 4. Hollow-bearing Trees and Habitat Trees