

Appendix 1:Threatened Fauna and Flora Noted Within 10km

a)Threatened Plant Species

<i>Scientific Name</i>	<i>Common Name</i>	EPBC	TSC	Habitat preference & Likelihood Occurrence
<i>Acacia bynoeana</i>	<i>Bynoe's Wattle</i>	E	E	Sandstone ridgetop and Castlereagh Woodland on sandy clay soil, often with ironstone gravels. Habitat not present unlikely occurrence
<i>Acacia bauera ssp bauer</i>			V	Habitat is heath on skeletal sandstone soils. Habitat not present.unlikely occurrence
<i>Anthropteris palisotii</i>	<i>Lesser Creeping Fern</i>		E	Shiny green fern with fronds up to 30 cm. Habitat is rainforests mainly on trees. Habitat not present unlikely occurrence
<i>Callistemon linearifolius</i>	<i>Netted Bottle Brush</i>		V	Habitat is open forest in sheltered places. Habitat not present unlikely occurrence
<i>Callitris endicheri</i>	<i>Black Cypress Pine</i>		E popul ation	Population on Woronora Plateau. Habitat not present unlikely occurrence
<i>Chorizema parviflorum</i>			E popul ation	Population in the Wollongong & Shellharbour LGA grows in association with forest or woodland dominated by E.tereticornis and or E.longifolia or coastal heathland. Habitat not present unlikely occurrence
<i>Cynanchum elegans</i>	<i>White-flowered Wax Plant</i>	E	E	Habitat is dry rainforest and other rainforests. Habitat not present unlikely occurrence
<i>Daphnandra sp C Illawarra</i>	<i>Illawarra Socketwood</i>		E	Habitat preferred is dry rainforest on rocky slopes. Habitat is also present within the community of the Illawarra Subtropical Rainforest. Habitat not unlikely occurrence
<i>Darwinia biflora</i>		V	V	Spreading shrub to 1.5m. Habitat preference is ridges in woodland or forest laterite or shale sandstone transition zone. Habitat not present unlikely occurrence
<i>Eucalyptus langleyi</i>	<i>Albatross Mallee</i>	V	V	A mallee , habitat is poorly drained sandy soils on sandstone. Habitat not present unlikely occurrence.

<i>Genoplesium baueri</i>	<i>Bauer's Midge Orchid</i>		V	Prefers sandy dry eucalypt forest. Habitat not present unlikely occurrence
<i>Grevillea rivularis</i>	<i>Carrington Falls Grevillea</i>	E	E	Spreading shrub to 2m tall. Habitat is moist stream banks in the Carrington area. Habitat not present unlikely occurrence
<i>Hahoragis exalta ssp exalta</i>		V	V	Habitat is margins of rainforest and along damp creek beds. Habitat not present, unlikely occurrence
<i>Irenepharus typhurus</i>	<i>Illawarra Irene</i>	E	E	Hairless annual or short lived perennial to 250cm in height. Habitat is largely confined to upper slopes of ridge systems that extend south and east from the Illawarra Escarpment. Habitat not present unlikely occurrence
<i>Lastreopsis hispidula</i>	<i>Bristly Shield Fern</i>		E	Erect perennial fern. Habitat is wet forest and rainforest. Habitat not present unlikely occurrence
<i>Pomaderris adnata</i>	<i>Sublime Point Pomaderris</i>	V	V	Habitat is usually near the edge of the plateau behind the Illawarra escarpment. Grows in association with <i>E. seiberi</i> and <i>E. gumifera</i> .. Habitat not present unlikely occurrence
<i>Pultenaea aristata</i>	<i>Prickly Bush Pea</i>	V	V	Habitat is moist sites in dry sclerophyll woodland to heath on sandstone. Preference for wet heath on sandstone rock platforms. Habitat not present unlikely occurrence
<i>Senna acclinis</i>	<i>Rainforest Cassia</i>		V	Habitat is rainforest and rainforest margins. Habitat not present unlikely occurrence
<i>Solanum celatum</i>			E	Shrub to 2m tall. Habitat is woodland on hillsides. Habitat not present unlikely occurrence
<i>Syzygium paniculatum</i>	<i>Magenta Lilly Pilly</i>		V	Prefers deep sands of rainforest and sandy floodplains of creeks with gallery rainforest. Habitat not present unlikely occurrence
<i>Zieria granulata</i>	<i>Illawarra Zeira</i>	E	E	Habitat is rainforest margins . Habitat not present unlikely occurrence

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<i>Zieria murphyi</i>	Velvet Zieria	V	V	Soft hairy shrub to 1.5m tall. Habitat is open forest in sheltered sites. Habitat not present unlikely occurrence
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b)Threatened Fauna

Marine or Aquatic species not considered as habitat not present

Fauna :Amphibians

Scientific Name	Common Name	TSC Act	EPBC Act	Preferred Habitat/ likelihood of occurrence
<i>Heleioporus australiacus</i>	Giant Burrowing Frog	V	V	Habitat is areas of hanging swamps on Hawkesbury sandstone, on sandstone shelves beside perennial creeks and on sandstone ridges that support heath vegetation . When not breeding it spends its time buried under deep leaf litter or sandy loose soil within vegetative areasDEC2005 Habitat not present unlikely occurrence
<i>Pseudophryne australis</i>	Red Crowned Toadlet	V	V	Restricted to sandstone areas or shale sandstone interface, generally under rocks and amongst litter in moist sites. Habitat not present unlikely occurrence
<i>Litoria aurea</i>	Green & Gold Bell Frog	E	V	Generally an aquatic species found in or near the edge of permanent water bodies. Unlikely occurrence as habitat not present.
<i>Litoria littlejohni</i>	Littlejohn's Tree Frog	V	V	Generally an aquatic species found in or near the edge of permanent water bodies. Prefers fast flowing streams. Unlikely occurrence as habitat not present.

Birds

Scientific Name	Common Name	EPBC Act 1999	TSC Act 1995	Preferred Habitat & Likelihood of Occurrence
<i>Burhinus grallarius</i>	Bush Stone Curlew	E	E	Habitat is open woodland. Habitat is not present, unlikely occurrence
<i>Callocephalon fimbriatum</i>	Gang Gang Cockatoo		V	Utilises the canopy of eucalypts for blossoms and fruit, utilises

				grassland for seeds as well as parks and gardens. Habitat limited and degraded unlikely occurrence.
<i>Calyptrorhynchus lathamii</i>	Glossy Black Cockatoo		V	Feeds almost exclusively on Casuarinas Habitat not present unlikely occurrence
<i>Coracina lineata</i>	Barred Cuckoo-shrike		V	Open Woodland, forest. Habitat is not unlikely occurrence
<i>Daphoenositta chrysoptera</i>	Varied Sittella		V	Habitat is usually forest and woodlands searches for insects amongst ground litter or in rough barked trees. Habitat is not present, unlikely occurrence.
<i>Dasyornis brachyteris</i>	Eastern Bristlebird	E	E	Habitat is dense coastal vegetation, scrub, heath and reedbeds. Habitat is not present unlikely occurrence .
<i>Glossopsitta pusilla</i>	Little Lorikeet		V	Habitat range, forest woodland, fruit trees suburban gardens. Habitat is not present unlikely occurrence .
<i>Grantiella picta</i>	Painted Honeyeater		V	Habitat range forest woodland heath with flowering plants, particularly melaleuca mistletoe. Habitat is not present unlikely occurrence
<i>Hieraaetus morphnoides</i>	Little Eagle		V	Range of habitat for this predator. Habitat limited unlikely occurrence
<i>Lathamus discolor</i>	Swift Parrot	E	E	Habitat range, forest woodland, fruit trees suburban gardens. Habitat is limited and degraded,unlikely occurrence.
<i>Lophoictinia isura</i>	Square-tailed Kite		V	Range of habitat forest, woodland, grassland, urban areas. Habitat limited and degraded, unlikely occurrence

<i>Neophema pulchella</i>	Turquoise Parrot	V	V	Forest & woodlands, Habitat limited and degraded unlikely occurrence
<i>Petroica boodang</i>	Scarlet Robin		V	Habitat range of dry forest, woodland, mallee & scrub. , Habitat limited and degraded unlikely occurrence
<i>Petroica phoenicea</i>	Flame Robin		V	Habitat range of dry forest, woodland, mallee & scrub. , Habitat limited and degraded unlikely occurrence
<i>Petroica rodinogaster</i>	Pink Robin		V	Habitat range of dry forest, woodland, mallee & scrub. , Habitat limited and degraded unlikely occurrence
<i>Ptilinopus magnificus</i>	Wompoo Fruit Dove		V	Habitat range includes rainforest, eucalypt woodland & suburban fruit trees. Habitat limited and degraded unlikely occurrence.
<i>Ptilinopus regina</i>	Rose-crowned Fruit Dove		V	Habitat range includes rainforest, eucalypt woodland & suburban fruit trees. Habitat limited and degraded unlikely occurrence
<i>Ptilinopus superbus</i>	Superb Fruit Dove		V	Habitat range includes rainforest, eucalypt woodland & suburban fruit trees. Habitat limited and degraded unlikely occurrence
<i>Ninox connivens</i>	Barking Owl		V	Roosts in dense forest, often along streams Home range of 400-1000 ha . Habitat limited unlikely occurrence
<i>Ninox strenua</i>	Powerful Owl		V	Roosts in dense forest, often along streams Home range of 400-1000 ha . Habitat limited unlikely occurrence
<i>Staginopleura guttata</i>	Diamond Firetail		V	Grassy woodland preferred habitat. Known preference for nesting in mistletoe. Habitat is not present on degraded building envelope, unlikely occurrence
<i>Tyto novaehollandiae</i>	Masked Owl		V	Forest & woodlands Habitat present. Infrequent visitations as very large home range required, habitat limited unlikely occurrence
<i>Tyto tenebricosa</i>	Sooty Owl		V	Forest & woodlands Unlikely occurrence as very large home

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				range required Habitat limited unlikely occurrence
<i>Xanthomyza phrygia</i>	Regent Honeyeater	E	E	Habitat is open forest and woodland assemblage, prefers winter flowering gums but also areas where abundant insects are present. Known to prefer areas with an abundance of mistletoe Habitat is not present unlikely occurrence

Reptiles

Scientific Name	Common Name	TSC Act 1995	EPBC Act 1999	Preferred Habitat & Likelihood of Occurrence
<i>Hoplocephalus bungaroides</i>	Broad-headed Snake	E	V	Largely confined to Hawksbury Sandstone formations. It is restricted to rock on rock where thin sheets of exfoliated rock occur. Spends winter under rock on rock shelves or in crevices. Moves into trees in summer. Habitat not present unlikely occurrence on development site
<i>Varanus rosenbergi</i>	Rosenberges Goana	V		Wide range of habitat unlikely occurrence on small degraded site

Mammals

Scientific Name	Common Name	TSC Act 1995	EPBC Act 1999	Preferred Habitat & Likelihood of Occurrence
<i>Cercartetus nanus</i>	Eastern Pygmy Possum		V	Habitat is forest, woodland and heathland. Feeds primarily on nectar pollen and supplements its diet with fruit and insects. Habitat is not present, unlikely occurrence.
<i>Dasyurus maculatus</i>	Spotted Tailed Quoll]	E	V	Open forest, savannah & scrubland. Requires large un-fragmented ranges with little competition from foxes. Habitat is not present unlikely occurrence
<i>Falsistrellis tasmaniensis</i>	Eastern False Pipistrelle	V		Habitat includes dry sclerophyll forest and woodland. Roosts in trees. Habitat is not present, unlikely occurrence
<i>Miniopterus schreibersii</i>	Common Bent-wing Bat	V		Various roosts, but mainly caves, also under bridges, in old buildings, pipes and hollow trees.. Limited food resources are available, unlikely occurrence
<i>Mormopterus norfolkensis</i>	Eastern Mastiff or Free-tail Bat	V		Inhabits temperate to subtropical, wet & dry schlerophyll forest & woodland. Roosts in trees and man-modified habitats. Limited food resources on small site, unlikely occurrence
<i>Myotis adversus</i>	Large- footed Myotis	V		Roosts in caves & dense vegetation. It utilizes caves as maternity crèches. Forages over streams & water bodies Habitat not present unlikely occurrence
<i>Phascolarctus cineieus</i>	Koala	V	V	% of fodder trees establishes not potential koala habitat. Unlikely occurrence
<i>Pteropus polycephalus</i>	Grey – headed Flying Fox	V	V	Common in rainforest and wet schlerophyll forest. Also found in dry sclerophyll forest

				near orchards. Forages up to 50 km for fruits, eucalypt blossoms and insects Habitat limited unlikely occurrence
<i>Sacomblaimus flaviventris</i>	Yellow-bellied Sheathtail Bat	V		Habitat includes forest woodland and mallee. .Roosts in tree hollows and abandoned glider nests. Limited roosting and food resources are available, unlikely occurrence
<i>Scotenax rueppelli</i>	Greater Broad-nosed Bat	V		Habitat includes moist and dry schlerophyll forest and woodland and rainforest.Prefers gullies. Roosts in trees. Limited roosting and food resources are available, unlikely occurrence
<i>Sminthopsis leucopus</i>	White-footed Dunnart	V		Range of habitats, though prefers an open understorey. Habitat is not present unlikely occurrence .

References for habitat assessments NSW DEC, NSW Scientific Committee, Fairley and Moore.

Appendix 2 Flora Noted on Subject Site

A) Native Flora

Genus Name	Species Name	Common Name
<i>Chenopodiaceae</i>	<i>Einadia hastata</i>	<i>Saloop</i>
<i>Geraniaceae</i>	<i>Geranium solanderi</i> <i>var. solanderi</i>	<i>Cut-leaf Geranium</i>
<i>Juncaceae</i>	<i>Juncus ursitatus</i>	<i>Common Bog Rush</i>
<i>Lamiaceae</i>	<i>Westringia fruticosa</i>	<i>Coastal Westringia</i>
<i>Myrtaceae</i>	<i>Eucalyptus botryoides</i> <i>Callistemon sp</i> <i>Melaleuca armillaris</i> <i>Melaleuca stpheloides</i>	<i>Southern Mahogany</i> <i>Bottlebrush</i> <i>Prickly leaved Paperbark</i>
<i>Pittosporaceae</i>	<i>Hymenosporum flavum</i> <i>Pittosprum undulatum</i>	<i>Native Frangipani</i> <i>Sweet Pittospermum</i>
<i>Poaceae</i>	<i>Microleana stipoides</i>	<i>Weeping Grass</i>
<i>Podocarpaceae</i>	<i>Podocarpus elatus</i>	<i>Plum Pine</i>
<i>Proteaceae</i>	<i>Grevillea robusta</i>	<i>Silky Oak</i>
<i>Rubiaceae</i>	<i>Morinda jasminoides</i>	<i>Morinda</i>

Key

Sp = *species*

Ssp = *subspecies*

Var = *variety*

b) Exotic Flora Noted on the Subject Site

Genus Name	Species Name	Common Name
<i>Amaranthaceae</i>	<i>Amaranthus</i> sp	<i>Amaranthus</i>
<i>Asteraceae</i>	<i>Biddons pilosa</i> <i>Cirsium vulgare</i> <i>Conyza bonariensis</i> <i>Hypochaeris glabra</i> <i>Hypochaeris radicata</i> <i>Sonchus oleaceous</i> <i>Senecio madagascariensis</i> <i>Tagetes minuta</i> <i>Taraxacum officinale</i>	<i>Farmers Friends</i> <i>Scotch Thistle</i> <i>Fleabane</i> <i>Smooth Catsear</i> <i>Catsear</i> <i>Sow Thistle</i> <i>Fireweed</i> NW <i>Dandelion</i>
<i>Bignoniaceae</i>	<i>Jacaranda mimosaeifolia</i>	<i>Jacaranda</i>
<i>Caryophyllaceae</i>	<i>Stellaria media</i>	<i>Chickweed</i>
<i>Cupressaceae</i>	<i>Cupressus</i>	<i>Cypress</i>
<i>Cyperaceae</i>	<i>Cyperus eragrostis</i>	
<i>Euphorbiaceae</i>	<i>Euphorbia peplus</i>	<i>Petty Spurge</i>
<i>Fabaceae</i>	<i>Trifolium repens</i>	<i>Clover</i>
<i>Geraniaceae</i>	<i>Geranium</i> sp	<i>Geranium</i>
<i>Lauraceae</i>	<i>Cinnamomum camphora</i>	<i>Camphora Laurel</i> NW
<i>Leguminaceae</i>	<i>Erythrina</i> sp	<i>Coral Tree</i> NW
<i>Liliaceae</i>	<i>Agapanthus</i> sp	<i>African Lily</i>
<i>Malvaceae</i>	<i>Sida rhombifolia</i> <i>Modiola carolinana</i> <i>Verbena bonariensis</i>	<i>Paddys Lucerne</i> <i>Red Flowered Mallow</i> <i>Purpletops</i>
<i>Oxalidaceae</i>	<i>Oxalis corniculata</i> <i>Oxalis repens</i>	<i>Yellow Wood-sorrel</i> <i>Clover</i>
<i>Phytolacaceae</i>	<i>Phytolacca octandra</i>	<i>Inkweed</i>
<i>Plantaginaceae</i>	<i>Plantago lanceolata</i>	<i>Lambs Tongue</i>
<i>Poaceae</i>	<i>Agrostis capillaries</i> <i>Avena fatua</i> <i>Cynodon dactylon</i> <i>Digitaria sanguinalis</i> <i>Holcus lanatus</i> <i>Lolium perenne</i>	<i>Bent Grass</i> <i>Wild Oats</i> <i>Couch</i> <i>Crab Grass</i> <i>Yorkshire Fog</i> <i>Perenial Rye Grass</i>

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	<i>Paspalum dilatatum</i> <i>Pennisetum clandestinum</i> <i>Setaria gracilis</i> <i>Dactylis glomerata</i>	<i>Paspalum</i> <i>Kikuyu</i> <i>Slender Pigeon Grass</i> <i>Cocksfoot</i>
<i>Polygonaceae</i>	<i>Rumex acetosella</i>	<i>Sorrel</i>
<i>Rosaceae</i>	<i>Prunus</i> <i>Rubus fruticosus</i>	<i>Flowering Plums</i> <i>Blackberry NW WONS</i>
<i>Solanaceae</i>	<i>Solanum mauritanum</i> <i>Solanum nigrum</i>	<i>Wild Tobacco NW</i> <i>Deadly Nightshade</i>
<i>Verbenaceae</i>	<i>Lantana camara</i>	<i>Lantana NW WONS</i>

Key **NW** = Noxious Weed
 WONS=Weed of National Significance

Note: A full comprehensive list of exotic species within the landscaped gardens was not undertaken.

Appendix 3) Fauna & Avifauna Noted on, or Near the Survey Site

a) Fauna

Mammals

<i>Canine familiaris</i>	Dog*
<i>Bos Taurus</i>	Cattle *
<i>Vulpes vulpes</i>	Fox*
<i>Oryctolagus cuniculus</i>	Rabbit*

Amphibians & Reptiles

<i>Crinia signifera</i>	Eastern Froglet
<i>Litoria dentata</i>	Bleating Tree Frog and
<i>Lymnodynastes peronii</i>	Striped Marsh Frog
<i>Lampropholis guichenoti</i>	Common Garden Skink

Molluscs

<i>Helix aspersa</i>	Common Garden Snail*
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b) Avifauna Noted

COMMON NAME	SCIENTIFIC NAME
Australian King Parrot	<i>Alisterus scapularis</i>
Australian Magpie	<i>Gymnorhina tibicen</i>
Australian Raven	<i>Corvus coronoides</i>
Australian Wood Duck	<i>Chenonetta jubata</i>
Bronzwing Common	<i>Phaps chalcoptera</i>
Crested Pigeon	<i>Geophaps lophotes</i>
Crimson Rosella	<i>Platycerus elegans</i>
Eastern Rosella	<i>Platycerus eximius</i>
Feral Pigeon	<i>Columba livia</i> *
Gallah	<i>Eolophus roseicapilla</i>
Grey Butcherbird	<i>Cracticus torquatus</i>
Grey Fantail	<i>Rhipidura fuliginosa</i>
Laughing Kookaburra	<i>Dacelo novaeguineae</i>
Little Wattlebird	<i>Anthoecara chrysoptera</i>
Noisy Minor	<i>Manorina melanocephala</i>
Pied Currawong	<i>Strepera graculina</i>
Purple Swamphen	<i>Porphyrio porphyria</i>
Spinebill Eastern	<i>Acanthorhynchus tenuirostris</i>
Sulphur Crested Cockatoo	<i>Cacatua galerita</i>
Superb Fairy Wren	<i>Malurus cyaneus</i>
Willy Wagtail	<i>Rhipidura leucophrys</i>
Yellow-tailed Black Cockatoo	<i>Calyptorhynchus funereus</i>

***Introduced species**

Appendix 4 Flora Fauna Habitat Potential Classification

Flora

Classification	Conditions
1 Good	High number of indigenous species ie species richness.
	Vegetation structure representative of the original layers of the vegetation community ie canopy, shrub and ground layers intact.
	No weed present or occurrence restricted to perimeter or track margins.
2 Moderate	Moderate number of indigenous species.
	One or more layers of the community structure modified, but largely intact.
	Moderate level of weed invasion with weeds in patches or scattered throughout.
3 Poor	Low number of indigenous species.
	One or more layers of the community structure highly modified, or one or more original vegetation layers missing.
	High level of weed invasion with weeds occurring in dense patches or scattered throughout.

Fauna

1 Good	High species richness and structural diversity of floral community with ground, log and litter layer intact. Breeding, nesting, roosting and feeding resources abundant
	Few exotic fauna and flora, high number of native fauna.
2 Moderate	Moderate species richness and structural diversity of floral community with ground, log and litter layer moderately intact. Breeding, nesting, roosting and feeding resources moderate. Moderate diversity and abundance of native animals.
3 Poor	Low species richness and structural diversity of floral community with ground, log and litter layer degraded. Breeding, nesting, roosting and feeding resources low.
	Low diversity and abundance of native animals.

Appendix 5 References

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