

Appendix L

Biodiversity Database Searches & Likelihood of Species Occurrence

L

Weston Aluminium - Ecology

Likelihood of occurrence of threatened flora and fauna species known from within five kilometres of the Project Area

Scientific Name	Common Name	TSC Act Status	EPBC Act Status	Habitat Requirement	Number of records within 5km	Date of most recent record	Likelihood of Occurrence in Project Area
Flora							
<i>Acacia bynoeana</i>	Bynoe's Wattle	E	V	Grows in open woodland with a heath understorey or open woodland with a sparse shrub cover and a grass/sedge ground cover. It is found in open and sometimes slightly disturbed sites such as trail margins, edges of roadsides, grading spoil mounds and in recently burnt patches. Prefers flat topography.	169	2006	Low Marginal suitable habitat present. Not recorded during field assessment.
<i>Callistemon linearifolius</i>	Netted Bottle Brush	V	-	Grows in dry sclerophyll forest on the coast and adjacent ranges.	1017	2013	Negligible No suitable habitat present. Not recorded during field assessment.
<i>Eucalyptus glaucina</i>	Slaty Red Gum	V	V	Grows in a variety of habitats including shallow soils or stony hillsides, grassy woodlands on deep, moderately fertile and well-watered soil, and on gentle slopes near drainage lines in alluvial soils.	12	2009	Low Marginal suitable habitat present. Not recorded during field assessment.
<i>Eucalyptus parramattensis</i> <i>subsp. decadens</i>	Earp's Gum	V	V	Occurs in low-lying, often swampy areas, and in woodlands with associates such as <i>Eucalyptus racemosa</i> , <i>E. globoidea</i> and <i>Angophora bakeri</i> .	1263	2013	Low Marginal suitable habitat present. Not recorded during field assessment.
<i>Euphrasia arguta</i>	-	CE	CE	Recently rediscovered in the Nundle area of the NSW north western slopes and tablelands in 2008. Prior to this, it had not been collected for 100 years. Historically, the species has only been recorded from relatively few places from an area extending from Sydney to Bathurst and north to Walcha, in the central coast, western slopes and tableland regions.	0	n/a	Negligible Project Area outside known range of the species. Not recorded during field assessment. No historical records from within 5km.

Scientific Name	Common Name	TSC Act Status	EPBC Act Status	Habitat Requirement	Number of records within 5km	Date of most recent record	Likelihood of Occurrence in Project Area
<i>Grevillea parviflora</i> subsp. <i>parviflora</i>	Small-flower Grevillea	V	V	Occurs on sandy clay loam soils, often with lateritic ironstone gravels. Occurs in a range of vegetation types from heath and scrubby woodland to open forest, and can occur in exposed slightly disturbed sites. In the Hunter Valley can occur on ridge crests, upper slopes or flat plains in low-lying areas.	312	2013	Low Marginal suitable habitat present. Not recorded during field assessment.
<i>Pterostylis gibbosa</i>	Illawarra Greenhood	E	E	Known from only one population in the Hunter Valley located on private property in the Milbrodale area. The species in that population occurs in open woodland dominated by <i>Eucalyptus crebra</i> , <i>Eucalyptus moluccana</i> with a sub-dominant of <i>Callitris endlicheri</i> . The understorey is thick with <i>Dodonaea cuneata</i> with varying amounts of leaf litter.	0	n/a	Negligible Project Area outside known range of the species. Not recorded during field assessment. No historical records from within 5km.
<i>Rutidosia heterogama</i>	Heath Wrinklewort	V	V	Grows in heath on sandy soils and moist areas in open forest, and has been recorded along disturbed roadsides	883	2009	Negligible No suitable habitat present. Not recorded during field assessment.
<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	E	V	Found in littoral rainforest on sandy soils or stabilised sand dunes at low altitudes in coastal areas.	0	n/a	Negligible Project Area outside natural range of the species. Not recorded during field assessment. No historical records from within 5km.
<i>Tetradlea juncea</i>	Black-eyed Susan	V	V	Prefers well-drained sites and occurs on ridges, although it has also been found on upper slopes, mid-slopes and occasionally in gullies. Vegetation types associated with this species include sandy or swampy heath, and dry sclerophyll forests. Most populations occur in woodland on poor nutrient sandy soils with good drainage and low moisture levels. Typically found in dense understorey of grasses and canopy species including <i>Angophora</i>	0	n/a	Negligible No suitable habitat present. Not recorded during field assessment. No historical records from within 5km

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				<i>costata</i> , <i>Corymbia gummifera</i> , <i>Eucalyptus haemastoma</i> and <i>E. capitellata</i> .			
Fauna							
Amphibians							
<i>Litoria aurea</i>	Green and Golden Bell Frog	E	V	Inhabits a wide range of habitats except for fast flowing streams. Found in water bodies that are still, shallow, ephemeral, unpolluted, unshaded, with aquatic plants and free of Mosquito Fish and other predatory fish. Favours water bodies with greater diversity of bank vegetation.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km
<i>Litoria brevipalmata</i>	Green-thighed Frog	V	-	Occurs in a range of habitats from rainforest and moist eucalypt forest to dry eucalypt forest and heath, typically in areas where surface water gathers after rain.	2	2002	Negligible No suitable habitat present.
<i>Mixophyes balbus</i>	Southern Barred Frog	E	V	Found in rainforest and wet, tall open forest in the foothills and escarpment.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km
Birds							
<i>Anthochaera phrygia</i>	Regent Honeyeater	E	CE	The Regent Honeyeater is found in eucalypt forests and woodlands, particularly in blossoming trees and mistletoe. Most records are from box-ironbark eucalypt forest associations and wet lowland coastal forests.	9	2012	Negligible No suitable habitat present.
<i>Botaurus poiciloptilus</i>	Australasian Bittern	E	E	Frequents reed beds, and other vegetation in water such as cumbungi, lignum and sedges.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km.
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo	V	-	In summer, generally found in tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests with dense shrubby understoreys. In winter, may occur at lower altitudes in drier more open eucalypt forests	8	2008	Negligible No suitable habitat present.

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				and woodlands. They require tall trees for nest hollows.			
<i>Calyptrorhynchus lathamii</i>	Glossy Black-Cockatoo	V	-	Highly dependent on the distribution of <i>Allocasuarina</i> species and is found in woodland dominated by <i>Allocasuarina</i> and in open forests where it forms a substantial middle layer. Often confined to remnant <i>Allocasuarina</i> patches surrounded by cleared farmlands. Requires tree hollows for breeding	13	2009	Negligible No suitable habitat present.
<i>Chthonicola sagittata</i>	Speckled Warbler	V	-	Lives in dry sclerophyll forests and woodlands dominated by eucalypts and with a sparse shrub cover and grassy understorey, often on rocky ridges or in gullies. Requires large, relatively undisturbed remnants to persist in an area.	8	2006	Low Marginal foraging habitat may be present, but no suitable habitat present for species to persist (i.e. large undisturbed remnant vegetation).
<i>Climacteris picumnus victoriae</i>	Brown Treecreeper	V	-	Found in the dry open forests and eucalypt woodlands usually dominated by rough-barked eucalypts, with a sparse shrub cover and grassy understorey. Fallen timber is an important habitat component for foraging	26	2012	Negligible No suitable habitat present.
<i>Daphoenositta chrysoptera</i>	Varied Sittella	V	-	Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland.	10	2013	Negligible No suitable habitat present.
<i>Dasyornis brachypterus</i>	Eastern Bristlebird	E	E	Ground-dwelling bird species. The NSW population of the species lives in dense, low vegetation, particularly heath, but also in surrounding woodlands. Crucial to the species presence is time since fire disturbance, and usually requires 15 years post-fire event before recolonising an area in higher densities.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km.
<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	E	-	Found in association with wetlands, swamps, billabongs, estuaries and surrounding vegetation. Forages in shallow still water, for small vertebrates	3	1993	Negligible No suitable habitat present. Last known record >20 years old.

Scientific Name	Common Name	TSC Act Status	EPBC Act Status	Habitat Requirement	Number of records within 5km	Date of most recent record	Likelihood of Occurrence in Project Area
				and crustaceans. Nests in a tall live tree, including paddock trees and paperbarks.			
<i>Falco subniger</i>	Black Falcon	V	-	The Black Falcon is found along tree-lined watercourses and in isolated woodlands, mainly in arid and semi-arid areas. It roosts in trees at night and often on power poles by day.	1	1998	Negligible No suitable habitat present. Known from only one record in the locality (dated 1998)
<i>Glossopsitta pusilla</i>	Little Lorikeet	V	-	Inhabits forests and woodlands, where it forages for nectar and pollen within the canopy stratum. Requires living, hollow-bearing eucalypts for nesting habitat.	19	2012	Low Limited suitable habitat present. Species may occur sporadically as part of larger home range.
<i>Grantiella picta</i>	Painted Honeyeater	V	V	Found mainly in dry open woodlands and forests, such as Boree, Brigalow and Box-Gum Woodlands and Box-Ironbark Forests, where it is strongly associated with mistletoe on which it preferentially feeds.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km.
<i>Hamirostra melanosternon</i>	Black-breasted Buzzard	V	-	Lives in a range of inland habitats, especially along timbered watercourses which is the preferred breeding habitat. Also hunts over grasslands and sparsely timbered woodlands.	2	1999	Low Limited and marginal grassland foraging habitat present. Known from only two records in the locality.
<i>Hieraaetus morphnoides</i>	Little Eagle	V	-	Occupies open eucalypt forest, woodland or open woodland, as well as open country. Appears to avoid rainforest and dense forest. Nests in a large living tree in open woodland or tree-lined watercourses.	1	1996	Low Limited and marginal foraging habitat present. Last known record 20 years old.
<i>Irediparra gallinacea</i>	Comb-crested Jacana	V	-	Found in freshwater wetlands, including lagoons, billabongs, swamps, lakes, rivers, sewage ponds and dams, providing there is adequate floating vegetation.	1	2010	Negligible No suitable habitat present. Known from only two records in the locality.
<i>Ixobrychus flavicollis</i>	Black Bittern	V	-	Inhabits both terrestrial and estuarine wetlands, generally in areas of permanent water and dense vegetation.	1	2000	Negligible No suitable habitat present. Known from only one records in the locality.

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<i>Lathamus discolor</i>	Swift Parrot	E	E	Found in dry sclerophyll forests and woodlands, suburban parks and gardens and flowering fruit trees. Its presence is dependent on the availability of food resources particularly winter flowering eucalypt species.	18	2005	Low Limited availability of suitable eucalypt feed trees. Species may occur sporadically during seasonal migration.
<i>Lophoictinia isura</i>	Square-tailed Kite	V	-	Found in a variety of timbered habitats including dry woodlands and open forests. Shows a particular preference for timbered watercourses. Occasionally found in open areas and grasslands.	2	1998	Low Limited and marginal suitable habitat present. Known from only two records in the locality. Most recent record dated 1998.
<i>Melanodryas cucullata cucullata</i>	Hooded Robin	V	-	Typically inhabits structurally diverse open eucalypt woodland, acacia scrub and mallee, often in or near clearings or open areas where it hunts for insects. Nests in tree fork or crevice, 1-5 m above the ground.	1	1986	Low Marginal foraging habitat may be present, but no suitable habitat present for species to persist (i.e. structurally diverse vegetation). Known from only one records in the locality. Last known record 30 years old.
<i>Melithreptus gularis gularis</i>	Black-chinned Honeyeater	V	-	Found in the upper levels of open eucalypt forests and woodlands dominated by box and ironback eucalypts. It is often found along waterways, especially in arid and semi-arid areas	70	2012	Negligible No suitable habitat present.
<i>Neophema pulchella</i>	Turquoise Parrot	V	-	Occurs in open woodlands and eucalypt forests with a ground cover of grasses and understorey of low shrubs. Generally found in the foothills of the Great Divide, including steep rocky ridges and gullies. Nest in hollow-bearing trees, either dead or alive; also in hollows in tree stumps.	8	2006	Negligible No suitable habitat present.
<i>Ninox strenua</i>	Powerful Owl	V	-	Inhabits woodland, open forest, tall wet forest and rainforest, where it hunts for arboreal mammals, occasionally birds. Roosts in dense vegetation, requires old, large hollow-bearing eucalypts for nesting habitat.	10	2008	Negligible No suitable habitat present.
<i>Petroica boodang</i>	Scarlet Robin	V	-	Lives in dry eucalypt forests and woodlands. The	4	2005	Low

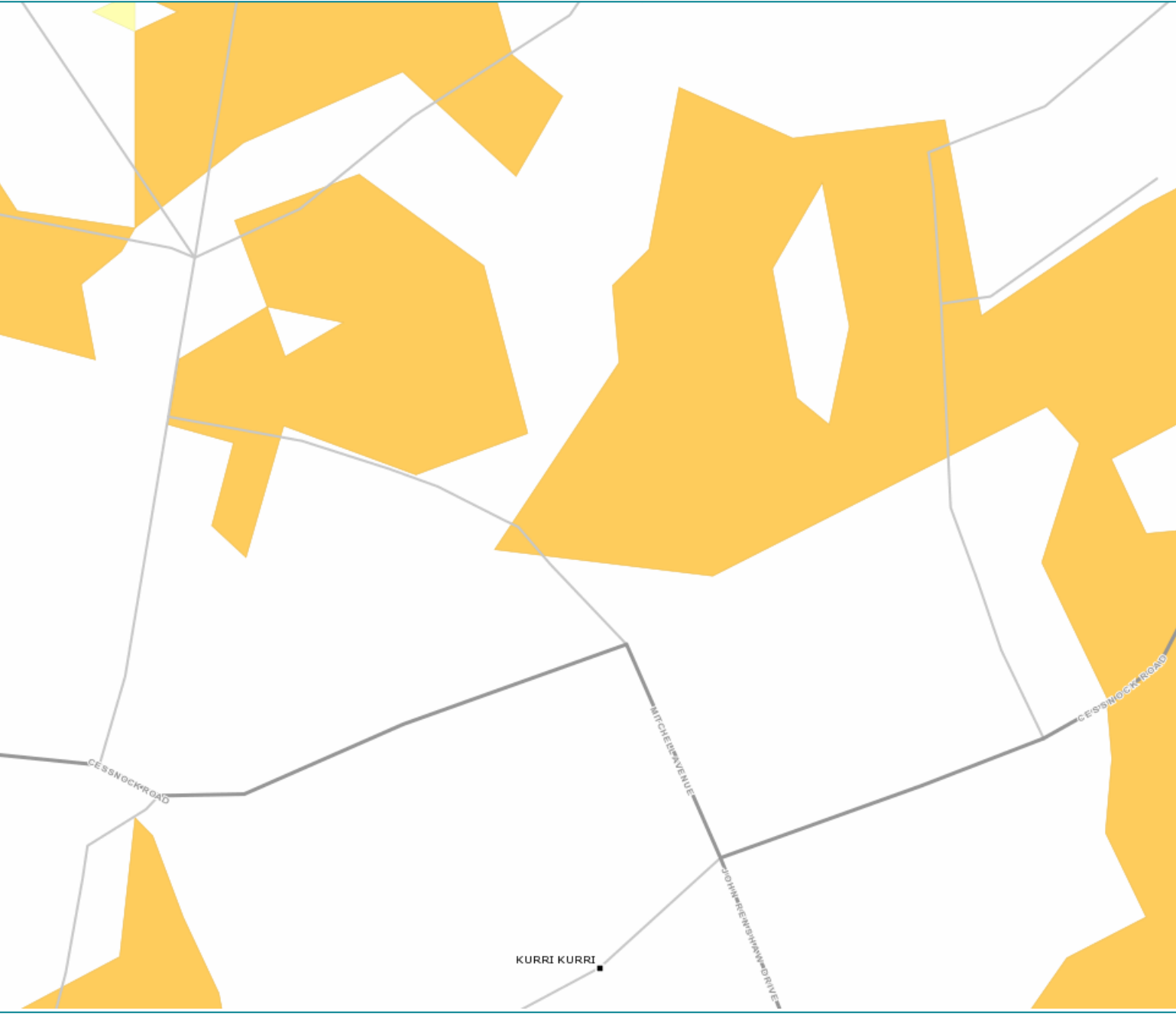
Scientific Name	Common Name	TSC Act Status	EPBC Act Status	Habitat Requirement	Number of records within 5km	Date of most recent record	Likelihood of Occurrence in Project Area
				understorey is usually open and grassy with few scattered shrubs. Important components of its habitat are abundant logs and fallen timber. Forages on small insects and other invertebrates which are taken from the ground.			Limited and marginal foraging habitat present, but no suitable habitat present for species to persist.
<i>Petroica phoenicea</i>	Flame Robin	V	-	Occurs in tall moist eucalypt forests and woodlands, often on ridges and slopes. However prefers clearings or areas with open understoreys and with logs and coarse woody debris where it forages for invertebrates and insects. Nests near the ground in shallow cavities in trees or stumps.	1	2007	Low Limited and marginal foraging habitat present. Known from only one records in the locality.
<i>Pomatostomus temporalis temporalis</i>	Grey-crowned Babbler	V	-	Inhabits open Box-Gum Woodlands on the slopes, and Box-Cypress-pine and open Box Woodlands on alluvial plains. Favours inland plains with an open shrub layer, little ground cover and plenty of fallen timber and leaf litter.	46	2013	Low Limited and marginal suitable habitat may be present. The species may sporadically utilise the area for foraging but is unlikely to reside in the area.
<i>Rostratula australis</i>	Australian Painted Snipe	E	E	Found in shallow inland wetlands including farm dams, lakes, rice crops, swamps and waterlogged grassland. Prefers freshwater wetlands, ephemeral or permanent.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km.
<i>Tyto novaehollandiae</i>	Masked Owl	V	-	Inhabits forests, woodlands, timbered waterways and open country on the fringe of these areas. The main requirements are tall trees with suitable hollows for nesting and roosting and adjacent areas for foraging.	3	1998	Negligible Limited and marginal suitable foraging habitat may be present, but no suitable habitat present for species to reside in the area. Known from only three records in the locality. Last known record 18 years old.
<i>Tyto tenebricosa</i>	Sooty Owl	V	-	Occurs in rainforest, including dry rainforest, subtropical and warm temperate rainforest, as well as moist eucalypt forests.	3	2000	Negligible No suitable habitat present.
Mammals							

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<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	V	V	Found mainly in areas with extensive cliffs and caves. Roosts in caves (near their entrances), crevices in cliffs, old mine workings and in the disused, bottle-shaped mud nests of the Fairy Martin (<i>Hirundo ariel</i>). Forages dry open forest and woodland and well-timbered areas containing gullies close to roosting habitat, for small, flying insects.	4	2013	Negligible No suitable roosting or foraging habitat present.
<i>Dasyurus maculatus</i>	Spotted-tail Quoll	V	E	Known from dry and moist eucalypt forests and rainforest. Species tends to move along drainage lines and make dens in fallen hollow logs or among large rocky outcrops. Usually nocturnal but are known to hunt and bask during the day. Hunts terrestrially and arboreally.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km.
<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	V	-	Inhabits tall moist forests. Roosts in hollows of eucalypts, occasionally under loose bark on trees or in buildings. Hunts for flying insects above or below the tree canopy.	3	1998	Low No suitable roosting habitat and only marginal foraging habitat present. Known from only three records in the locality. Last known record 18 years old.
<i>Miniopterus australis</i>	Little Bentwing-bat	V	-	Usually found in lowland rainforest, eucalypt forest and paperbark swamps. Roosts in caves and old mine tunnels. Feeds on flying insects.	10	2013	Low No suitable roosting habitat and only marginal foraging habitat present.
<i>Miniopterus schreibersii oceanensis</i>	Eastern Bentwing-bat	V	-	Occurs in forests and woodlands. Lives in colonies and roost in caves, old mines and occasionally buildings. The species forages for insects above the tree canopy.	12	2013	Low No suitable roosting habitat and only marginal foraging habitat present.
<i>Mormopterus norfolkensis</i>	Eastern Freetail-bat	V	-	Found in dry sclerophyll forest, woodland, swamp forest and mangrove forest. Roosts in trees hollows, occasionally under bark or in man-made structures. Forages for insects.	8	2013	Low No suitable roosting habitat and only marginal foraging habitat present.
<i>Myotis macropus</i>	Southern Myotis	V	-	Forages over streams and pools for insects and small fish. Roosts communally in mine shafts, tree	2	2006	Negligible No suitable roosting or foraging

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				hollows, under bridges and storm water channels.			habitat present.
<i>Petaurus australis</i>	Yellow-bellied Glider	V	-	Largely restricted to the narrow band of wet sclerophyll forest between rainforest and drier woodland ecosystems. This habitat provides the two key habitat resources, den trees (principally <i>Eucalyptus grandis</i>) and sap feed trees (<i>Eucalyptus resinifera</i>).	52	2008	Negligible No suitable habitat present.
<i>Petaurus norfolcensis</i>	Squirrel Glider	V	-	Requires hollow-bearing, floriferous eucalypt open forests and woodlands with a Banksia or Acacia shrub layer, that provide den sites in tree cavities and a good winter supply of nectar. Large trees with abundant hollows are critical habitat elements.	22	2013	Negligible No suitable habitat present.
<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	E	V	Inhabits rocky habitats, including loose boulder-piles, rocky outcrops, steep rocky slopes, cliffs, gorges and isolated rock stacks.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km.
<i>Phascolarctos cinereus</i>	Koala	V	V	Inhabit eucalypt woodlands and forests. Feed almost exclusively on eucalypt foliage, and their preferences vary regionally.	3	2000	Negligible No suitable habitat present. The <i>E. eugenoides</i> present in the Project Area is not a known feed tree.
<i>Potorous tridactylus tridactylus</i>	Long-nosed Potoroo	V	V	There is limited information about the species habitat in NSW, with no apparent consistent pattern in habitat requirements. It can be found in wet eucalypt forests to coastal heaths and scrubs. The main factors would appear to be access to some form of dense vegetation for shelter and the presence of an abundant supply of fungi for food.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km.
<i>Pseudomys novaehollandiae</i>	New Holland Mouse	-	V	Known to inhabit open heathlands, open woodlands with a heathland understorey, and vegetated sand dunes.	7	2004	Negligible No suitable habitat present.
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V	V	Canopy feeding frugivore and nectarivore of rainforests, open forests, woodlands, melaleuca	19	2013	Negligible No suitable roosting or foraging

Scientific Name	Common Name	TSC Act Status	EPBC Act Status	Habitat Requirement	Number of records within 5km	Date of most recent record	Likelihood of Occurrence in Project Area
				swamps and banksia woodlands. Roosts in large colonies (camps), commonly in dense riparian vegetation.			habitat present.
<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	V	-	Utilises a variety of habitats from woodland through to moist and dry eucalypt forest and rainforest, though it is most commonly found in tall wet forest. Usually roosts in tree hollows. Forages along creeks and river corridors.	5	2013	Negligible No suitable roosting or foraging habitat present.
<i>Vespadelus troughtoni</i>	Eastern Cave Bat	V	-	Occurs in rainforest margins, tropical and temperate forests, woodlands and semiarid environments. It roosts in small groups in rock overhangs, mine tunnels, and sometimes in buildings Although widely distributed, it is localised and could be limited by the availability of suitable roosting habitat.	3	2006	Negligible No suitable habitat present.
Reptiles							
<i>Hoplocephalus bungaroides</i>	Broad-headed Snake	-	V	Distribution restricted to sandstone habitats. Requires rock crevices and flat sandstone rocks on exposed cliff edges for sheltering in cooler months, shelters in tree hollows near sandstone escarpments in summer. Forages for small reptiles, occasionally frogs and small mammals.	0	n/a	Negligible No suitable habitat present. No historical records from within 5km.

Groundwater Dependent Ecosystem Map Report




Weston Aluminium Locality

GDE, Reliant on surface expression of groundwater (rivers, springs, wetlands)

- Identified in previous study: fieldwork
- Identified in previous study: desktop
- High potential for groundwater interaction
- Moderate potential for groundwater interaction
- Low potential for groundwater interaction

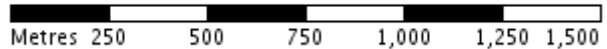
GDE, Reliant on subsurface groundwater (vegetation)

- Identified in previous study: fieldwork
- Identified in previous study: desktop
- High potential for groundwater interaction
- Moderate potential for groundwater interaction
- Low potential for groundwater interaction
- No Ecosystems analysed

GDE, Subterranean (Cave & Aquifers)

- Identified in previous study: fieldwork
- Identified in previous study: desktop
- No Ecosystems analysed

1:18,957



Metres 250 500 750 1,000 1,250 1,500

Data source - Data are assumed to be correct as supplied from Commonwealth, State and Territory data suppliers or referenced projects.

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