2.4	Discharge to Hawkesbury City Council (HCC) stormwater infrastructure	
2.41	If any zones are deemed suitable for classification as a DWE stream then any increased vegetation to suit the requirements for a riparian corridor would cease at the western boundary of the existing power transmission easement. Shown as PTE1 on Ref B1.	DWE decision
2.42	If any zones are deemed suitable for classification as a DWE stream then any increased vegetation to suit the requirements for a riparian corridor would not continue from the eastern boundary of the existing power transmission easement, shown as PTE2 on Ref B1, due to the proximity of HCC stormwater infrastructure and subsequent ceasing of any stream path.	DWE decision
2.43	It is possible that due to any development and/or stream works upstream, reengineering and vegetation removal in the transition to all three inlet points to HCC infrastructure will be required in consultation with HCC.	DWE advice
2.5	DWE Streams A,B,C and previously unclassified D (See Ref B)	
2.51	Following ground truthing of Streams A,B and C, these are to be <u>declassified</u> as DWE streams	DWE decision
2.52	Following ground truthing of unclassified D, this is to be <u>classified</u> as a DWE stream – Category 2, upstream of the existing power transmission easement only (see 2.4).	DWE decision
2.53	Proposed alignment of Stream D (DWE Cat 2) as per proposed DA is suitable, and the gradual reduction of a full VBZ (10m) down to a 0m (zero) wide VBZ, 60m from the current end of road seal at the southern end of Arthur Phillip Drive (attached Ref Cfor SLDA only and Ref E in relation to overall development) is also acceptable.	DWE decision
2.54	It is granted that due to the proximity of the existing residential development along the southern side of Arthur Phillip Drive and Grainger Place that any reengineering of the stream will occur southwards from the exisiting northern bank alignment. Standard revegation will occur on the south side of the stream only, with a transition zone as required to upstream of the SLDA (See Ref E).	DWE decision
2.55	For the crossing (Ref B) box culverts with a buried invert is an acceptable method of construction.	DWE decision
2.56	It is acknowledged that bio-engineering of Stream D (DWE Cat 2) may be required to convey the flows from the catchment upstream, to be consistent with DWE's desired vegetation outcomes and HCC flood safety requirements. In the first instance, Stream D needs to be designed taking into account current channel profile and roughness, along with desired channel capacity to convey stormwater flow to the three HCC inlet headwalls.	DWE agrees, JWP to undertake design
2.57	As part of the bio-engineering of Stream D (DWE Cat 2), the watercourse may need to be regraded to address the the adjacent dwellings to the north side of the end of Arthur Phillip Drive currently set below the current channel invert.	DWE agrees, JWP to undertake design
2.58	Delineation of top of bank for core riparian (CRZ) and vegetated buffer zone (VBZ) for Stream D (DWE Cat 2), is acceptable to commence from the 1 in 2 yr ARI flow level (similar to Ref D) within the proposed stream reconfiguration.	DWE agrees, JWP to undertake design
2.59	Location of proposed water quality infrastructure such as raingardens within the APZ and only inside the VBZ as noted in point 2.53 is acceptable (See Ref C). Location of on site detention basins offstream and outside of the VBZ to Stream D (DWE Cat 2) is also acceptable.	DWE agrees, JWP to undertake design

3.0	Overall Development	
3.1	The Overall Development comprises the remainder of part Lot 27, DP 1042890 above RL 40m AHD, as well as , Lot 82 DP 752041, and Lot 2 DP 120679)	Note
3.2	The intention to remove the majority of existing onsite dams with all being constructed with significant fill batters on their downstream batter is seen as an acceptable approach to the site in its current state. No objection from DWE.	Note
3.3	Redbank Creek, which runs along the northern boundary of the site is to be classified as DWE Category 1 stream, with the corresponding CRZ and VBZ to be applied with similar zone rationalisation as per Stream D along the northern boundary of the SLDA also suitable. Similar to Stream D, as Redbank Creek straddles the common property boundary to existing rural residences, vegetation of the CRZ and VBZ can only be applied to the south side of Redbank Creek.	DWE agrees
3.4	Existing power transmission easement (which has existing overhead transmission line – 3 pole type) and currently runs beside and across Redbank Creek, is proposed to be shifted to within the VBZ adjacent the Redbank Creek alignment.	To be addressed at time of VMP with relevant stage DA
3.5	DWE Streams E,F,G,H,I,J,K,L,M,N,O,P determined from orthophoto (See Ref B)	
3.51	Stream D from the SLDA is assumed to continue upstream to the proposed online OSD basin near the common boundary to Peel's land, running SE to NE from Grose Vale Rd (see Ref E).	DWE agrees
3.52	As per the DWE map (attached Ref B) there are twelve zones (E,F,G,H,I,J,K,L,M,N,O,P) marked as DWE Category 3 streams towards the south east of the site.	Note
3.53	Following ground truthing of Streams E, F, G, H, I, J, K, M, N, they are to be <u>declassified</u> as DWE streams	Note
3.54	Following ground truthing of L,O,P, these streams have been put forward as DWE Category 2 streams (Ref E), which is accepted by DWE.	DWE agrees
3.55	Online basins for OSD at the head of DWE categorised streams and offline for those flows entering the channel mid-stream are suitable as shown (Ref E) are suitable.	DWE agrees
4.0	General Guidelines	
4.1	To varying degrees the following general guidelines were discussed and have been added as reference to attain meeting attendees concurrence going forward -	
4.11	Keep existing profile if possible – creek centreline, existing bank location etc except where bank and channel instability need to be re-engineered.	Note
4.12	Hydraullic modelling required to determine additional treatment measures (for erosion protection etc) if required.	Note
4.13	Cycleways, services etc may be able to be located within the vegetated buffer zone, subject to DWE acceptance.	Note

4.14	Stormwater is to be treated for water quality prior to any discharge to a categorised stream.	Note
4.15	Vegetation management plan and stream restoration plan will eventually be required by DWE with the 3A Permit Application.	Note
4.16	Preferrable for the urban design to incorporate perimeter roads located on edge of buffer ie. DWE prefer lots fronting onto riparian corridor to avoid rubbish dumping impacts on riparian corridor and to provide increased passive surveillance from houses.	Note
4.17	Outlets from raingardens etc can be typical rock protected headwalls.	Note
5.0	Next Steps	
5.1	Following approval of minutes, two documents to be prepared:              one which addresses the referall currently on STOP THE CLOCK for the SLDA, covering specifically points 1.0 to 2.59 contained within the minutes, and forwarded to HCC via Urbis, with input from GHD (flora and fauna) and JWP (hydrology, hydraulics, civil design).	Urbis / GHD/ JWP Timing TBA
5.2	and the other which addresses the overall development site.  Onsite Meeting close 12:15pm	Note
6.0	Post Meeting	
6.1	In this instance, we propose this current set of minutes reviewed and agreed by all attendees would serve as the second correspondence listed in 5.1, that is the overall development site.	To be reviewed and agreed - ALL





Fax:

Email:

greg.brady@dnr.nsw.gov.au

Our ref: 10 ERM2008/1562

File No: 9050834 Your Ref: DA0852/08

15 December 2008

The General Manager Hawkesbury City Council PO Box 146 Windsor NSW 2756

Attention: Greg Hall

Dear Sir

Re: STOP THE CLOCK on proposed development – Aged Care Facility - Community Facility at 108 GROSE VALE ROAD NORTH RICHMOND

The Department has placed a 'Stop-the-Clock' on the above Integrated Development application received by this office on 28/11/2008. An initial review of the material provided indicates that additional information relating to General Terms of Approval is needed in order to complete the assessment. Under the Environment Planning and Assessment Regulation 2000, (as amended), (the Regulation), any request for further information made within 25 days of receipt is not considered in calculating the period prescribed by Clause 70 for notifying the General Terms of Approval.

The Department has no objections to the use of the land as an Aged Care Facility.

The detail of the documents supplied makes it impossible to determine if pre DA requirements in relation to the northern watercourse have been achieved. Therefore the following needs to be supplied to facilitate assessment:

- A plan showing the location of the northern watercourse, showing the top of banks, and boundary of the site.
- A plan showing the 20m riparian setback (emulating the original native vegetation community
  of the site, each side of the watercourse (depending upon current location of the
  watercourse).
- A plan showing the location of the detention basin and associated works (such as outlets, access points etc), relative to the riparian setback. Note the detention basin will be required to be outside the riparian setback.
- A concept plan showing the location of all works within 40m of the northern watercourse, including rain gardens, paths, roads, recreation areas etc. Note that these works are not to be within the riparian setbacks, except for agrees-upon crossings.

There appear to be three watercourses on the area of proposed development footprint. Only the northern watercourse was discussed in relation to setbacks off the watercourse. The applicant needs to demonstrate to the satisfaction of the Department, the status of these other watercourses, which are shown as blue lines on the Kurrajong 1:25,000 topographic map. One of these watercourses is identified as the eastern catchment. If the watercourses are rivers then the applicant needs to discuss with the Department the treatment of these watercourses. Also to prevent future delays for other projects on the whole of the land all the other watercourses on the

site should be identified. It is suggested that an inspection of the site with the Department to identify all watercourses occur.

The clock will stop as of the date of this letter and resume on the date when the requested information has been supplied.

Clause 67 of the Regulation allows the Department to specify a reasonable period within which the information requested must be provided. In this case, the Department considers **90 days** from the date of this letter as a reasonable period of time within which the requested information must be provided. The Regulation also provides that failure by the applicant, to provide the requested information within the specified period, is to be taken by the Department to mean the information will not be provided. This may result in the Department refusing to grant General Terms of Approval.

The applicant should notify the Department of their intent to provide the requested information or to arrange for a suitable period to supply this information.

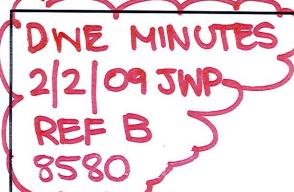
Please direct any questions or correspondence to Greg Brady, greg.brady@dnr.nsw.gov.au.

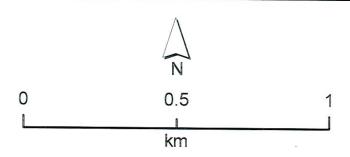
Yours sincerely

**Greg Brady** 

Water Management Division Licensing South









# **North Richmond**

#### STREAM CLASSIFICATION

#### CATEGORY 1:

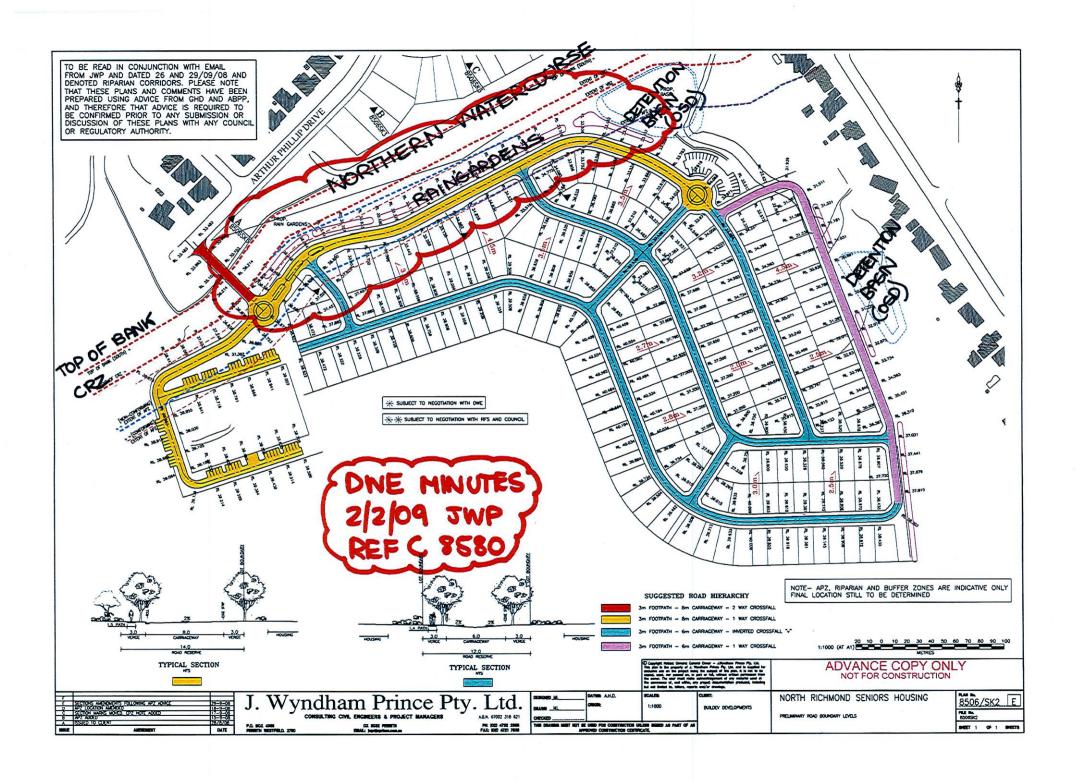
40 METRES WIDE CORE RIPARIAN ZONE (MEASURED FROM TOP OF BANK) + 10 METRE BUFFER EITHER SIDE OF THE WATERCOURSE

#### CATEGORY 2:

20 METRES WIDE CORE RIPARIAN ZONE (MEASURED FROM TOP OF BANK) + 10 METRE BUFFER EITHER SIDE OF THE WATERCOURSE

#### **CATEGORY 3:**





PROPOSED TOP OF BANK I'M 2xr ARI flow level 20m RIPARIAN SETBACK (CRZ) -X- SUBJECT TO NECOTIATION WITH DWE TO BE READ IN CONJUNCTION WITH EMAIL FROM JWP AND DATED 26 AND 29/09/08 AND DENOTED RIPARIAN CORRIDORS. PLEASE NOTE PROPOSED 36m (AS PER ABPP ADVICE 25 AND 27/9/08) \*\* SUBJECT TO NECOTIATION WITH RFS AND COUNCIL A-OPTION THAT THESE PLANS AND COMMENTS HAVE BEEN PREPARED USING ADVICE FROM GHD AND ABPP. APZ ZONE \*\* Dm (REDUCE VBZ) \* - SEG N-CONFORMIN VBZ REDUCED TO OM PROPOSED 36m (AS PER ABPP ADVICE 25 AND 27/9/08) AND THEREFORE THAT ADVICE IS REQUIRED TO BE CONFIRMED PRIOR TO ANY SUBMISSION OR DISCUSSION OF THESE PLANS WITH ANY COUNCIL [CONFORM APZ ZONE \*\* ORIGINAL 20m (ASSUMED) 20m RIPARIAN ZONE A [ORIGINAL] OR REGULATORY AUTHORITY. BUILDING R.L. 32,000 PROPOSED TOP OF BANK lin 2 xr ARI flow level 20m RIPARIAN SETBACK SECTION A ENCROACHMENT OF 1.6m ON ORIGINAL (GREEN) ALLOWANCES. PROPOSED 36m (AS PER ABPP NON-CONFORM SUBJECT TO NECOTIATION WITH DWE \* SUBJECT TO NECOTIATION WITH RFS AND COUNCIL PROPOSED 36m (AS PER ABPP ADVICE 25 AND 27/9/08) DWE MINUTES E RIPARIAN ZONE CORE RIPAR VBZ REDUCED PROP. RAINCARDEN TO 8M R.L. 28,400 .20m RIPARIAN SETBACK (CRZ) © ENCROACHMENT OF 0.4m ON ORIGINAL (GREEN) ALLOWANCES. IOM VEGETATED BUFFER (VBZ) SECTION B PROPOSED 34m (AS PER ABPP ADVICE 25 AND 27/9/08) APZ ZONE \*\* \* SUBJECT TO NEGOTIATION WITH DWE CONB PROPOSED 34m (AS PER ABPP ADVICE 25 AND 27/9/08) \* SUBJECT TO NECOTIATION WITH RFS AND COUNCIL APZ ZONE \* \* ORIGINAL 20m (ASSUMED) [ORIG VECETATED BUFFER ZONE CORE RIPARIAN ZONE \* PROP. RAINGARDEN TRI. - REFERS TO ORIGINAL RIPARIAN ZONE EDGE (BASED ON CHANGE OF BANK GRADE) 18.2 - REFERS TO POSSIBLE FUTURE NATURALIZED CHANNEL R.L. 27,500 LEGEND 29 249 PROPOSED TOP OF BANK, linz yr ARI SECTION C ADVANCE COPY ONLY flow level 1:200 (AT A1) NOT FOR CONSTRUCTION 8506/SK3 E NORTH RICHMOND SENIORS HOUSING Wyndham Prince Pty. Ltd. BUILDEV CONSULTING CIVIL ENGINEERS & PROJECT MANAGERS ABM. 67002 318 621 DX 8032 POWRTH P.O. BOX 4366 PENRITH WESTFIELD. 2750 PH: (02) 4732 3366 FAX: (02) 4721 7638 THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UMLESS SONED AS PART OF AN APPROVED CONSTRUCTION CONTROCATE. SHEET OF SHEETS



# APPENDIX B LIKELIHOOD OF OCCURRENCE





Likelihood	Criteria
High	It is highly likely that a species inhabits the study area and is dependant on identified suitable habitat (ie. for breeding or important life cycle periods such as winter flowering resources), has been recorded recently in the locality (10km) and is known or likely to maintain resident populations in the study area. Also includes species known or likely to visit the study area during regular seasonal movements or migration.
Moderate	Potential habitat is present in the study area. Species unlikely to maintain sedentary populations, however may seasonally use resources within the study area opportunistically or during migration. The species is unlikely to be dependent (ie. for breeding or important life cycle periods such as winter flowering resources) on habitat within the study area, or habitat is in a modified or degraded state. Includes cryptic flowering flora species that were not seasonally targeted by surveys and that have not been recorded.
Low	It is unlikely that the species inhabits the study area and has not been recorded recently in the locality (10km). It may be an occasional visitor, but habitat similar to the study area is widely distributed in the local area, meaning that the species is not dependent (ie. for breeding or important life cycle periods such as winter flowering resources) on available habitat. Specific habitat is not present in the study area or the species are a non-cryptic perennial flora species that were specifically targeted by surveys and not recorded.
None	Suitable habitat is absent from the study area.

Class	Family	Scientific Name	Common Name	NSW status	Comm. status	Records	Description	Likelihood of occurrence
Amphibia	Myobatrachidae	Pseudophryne australis	Red-crowned Toadlet	V,P		5	Occurs in open forests, mostly on Hawkesbury and Narrabeen Sandstones. Inhabits periodically wet drainage lines below sandstone ridges that often have shale lenses or cappings. Shelters under rocks and amongst masses of dense vegetation or thick piles of leaf litter. Breeding congregations occur in dense vegetation and debris beside ephemeral creeks and gutters. Red-crowned Toadlets have not been recorded breeding in waters that are even mildly polluted or with a pH outside the range 5.5 to 6.5.	None
Amphibia	Hylidae	Litoria aurea	Green and Golden Bell Frog	E1,P	V	1	Inhabits marshes, dams and stream-sides, particularly those containing bullrushes or spikerushes.  Optimum habitat includes water-bodies that are unshaded, free of predatory fish such as Plague Minnow, have a grassy area nearby and diurnal sheltering sites available.	None



							Some sites, particularly in the Greater Sydney region occur in highly disturbed areas.  The species is active by day and usually breeds in summer when conditions are warm and wet.	
Aves	Apodidae	Apus pacificus	Fork-tailed Swift	P	C,J,K	1	In NSW, the Fork-tailed Swift is recorded in all regions.  Many records occur east of the Great Divide, however, a few populations have been found west of the Great Divide.  These are widespread but scattered further west of the line joining Bourke and Dareton. Sightings have been recorded at Milparinka, the Bulloo River and Thurloo Downs	Low
Aves	Apodidae	Hirundapus caudacutus	White-throated Needletail	V,P	V,C,J,K	1	In Australia, the White-throated Needletail is almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground. Because they are aerial, it has been stated that conventional habitat descriptions are inapplicable, but there are, nevertheless, certain preferences exhibited by the species. Although they occur over most types of habitat, they are probably recorded most often above wooded areas, including open forest and rainforest, and may also fly between trees or in clearings, below the canopy. They also commonly occur over heathland, but less often over treeless areas, such as grassland or swamps.	Low
Aves	Accipitridae	Haliaeetus leucogaster	White-bellied Sea- Eagle	V,P		4	Habitats are characterised by the presence of large areas of open water including larger rivers, swamps, lakes, and the sea.  Occurs at sites near the sea or sea-shore, such as around bays and inlets, beaches, reefs, lagoons, estuaries and mangroves; and at, or in the vicinity of freshwater swamps, lakes, reservoirs, billabongs and saltmarsh.  Terrestrial habitats include coastal dunes, tidal flats, grassland, heathland, woodland, and forest (including rainforest).  Breeding habitat consists of mature tall open forest, open forest, tall woodland, and swamp sclerophyll forest close to foraging habitat. Nest trees are typically large emergent eucalypts and often have emergent dead branches or large dead trees nearby which are used as 'guard roosts'. Nests are large structures built from sticks and lined with leaves or grass.	Low
Aves	Accipitridae	Hieraaetus morphnoides	Little Eagle	V,P		1	Occupies open eucalypt forest, woodland or open woodland. Sheoak or Acacia woodlands and riparian woodlands of interior NSW are also used.  Nests in tall living trees within a remnant patch, where pairs build a large stick nest in winter.	Low



Aves	Accipitridae	^^Lophoictinia isura	Square-tailed Kite	V,P,3		7	Found in a variety of timbered habitats including dry woodlands and open forests. Shows a particular preference for timbered watercourses.  In arid north-western NSW, has been observed in stony country with a ground cover of chenopods and grasses, open acacia scrub and patches of low open eucalypt woodland. Appears to occupy large hunting ranges of more than 100 km².	Low
Aves	Falconidae	Falco subniger	Black Falcon	V,P		1	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.	Low
Aves	Scolopacidae	Actitis hypoleucos	Common Sandpiper	Р	C,J,K	2	Found along all coastlines of Australia and in many areas inland, the Common Sandpiper is widespread in small numbers. The population when in Australia is concentrated in northern and western Australia.	None
Aves	Scolopacidae	Gallinago hardwickii	Latham's Snipe	P	J,K	87	In Australia, Latham's Snipe occurs in permanent and ephemeral wetlands up to 2000 m above sea-level. They usually inhabit open, freshwater wetlands with low, dense vegetation (e.g. swamps, flooded grasslands or heathlands, around bogs and other water bodies). However, they can also occur in habitats with saline or brackish water, in modified or artificial habitats, and in habitats located close to humans or human activity.	None
Aves	Laridae	Onychoprion fuscata	Sooty Tern	V,P		1	Large flocks can be seen soaring, skimming and dipping but seldom plunging in off shore waters.  Breeds in large colonies in sand or coral scrapes on offshore islands and cays including Lord Howe and Norfolk Islands.	None
Aves	Cacatuidae	^^Callocephalon fimbriatum	Gang-gang Cockatoo	E1,P,3	E	5	In spring and summer, generally found in tall mountain forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests.  In autumn and winter, the species often moves to lower altitudes in drier more open eucalypt forests and woodlands,particularly box-gum and box-ironbark assemblages, or in dry forest in coastal areas and often found in urban areas.  May also occur in sub-alpine Snow Gum (Eucalyptus pauciflora) woodland and occasionally in temperate rainforests.  Favours old growth forest and woodland attributes for nesting and roosting. Nests are located in hollows that are 10 cm in diameter or larger and at least 9 m above the ground in eucalypts.	Low



Aves	Cacatuidae	^Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo	V,P,2	V	6	Inhabits open forest and woodlands of the coast and the Great Dividing Range where stands of sheoak occur. Black Sheoak and Forest Sheoak are important foods. Dependent on large hollow-bearing eucalypts for nest sites.	Low
Aves	Psittacidae	Glossopsitta pusilla	Little Lorikeet	V,P		4	Forages primarily in the canopy of open Eucalypt forest and woodland, yet also finds food in Angophora, Melaleuca and other tree species. Riparian habitats are particularly used, due to higher soil fertility and hence greater productivity. Isolated flowering trees in open country, e.g. paddocks, roadside remnants and urban trees also help sustain viable populations of the species.	Low
Aves	Psittacidae	Lathamus discolor	Swift Parrot	E1,P	R	œ	Migrates to the Australian south-east mainland between February and October.  On the mainland they occur in areas where eucalypts are flowering profusely or where there are abundant lerp (from sap-sucking bugs) infestations.  Favoured feed trees include winter flowering species such as Swamp Mahogany, Spotted Gum, Red Bloodwood, Forest Red Gum, Mugga Ironbark, and White Box.	Moderate
Aves	Strigidae	^^Ninox connivens	Barking Owl	V,P,3		2	Barking Owls are found in open woodlands and the edges of forests, often adjacent to farmland. They are less likely to use the interior of forested habitat.  They are usually found in habitats that are dominated by eucalytpus species, particularly red gum, and, in the tropics, paperbark species. They prefer woodlands and forests with a high density of large trees and particularly sites with hollows that are used by the owls as well as their prey. Roost sites are often located near waterways or wetlands.	Low
Aves	Strigidae	^^Ninox strenua	Powerful Owl	V,P,3		9	The Powerful Owl inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest.  The Powerful Owl requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well. The species breeds and hunts in open or closed sclerophyll forest or woodlands and occasionally hunts in open habitats.	Low
Aves	Tytonidae	^^Tyto novaehollandiae	Masked Owl	V,P,3		1	Lives in dry eucalypt forests and woodlands from sea level to 1100 m. A forest owl, but often hunts along the edges of forests, including roadsides.	Low
Aves	Climacteridae	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	V,P	V	2	Found in eucalypt woodlands (including Box-Gum Woodland) and dry open forest of the inland slopes and plains inland of the Great Dividing Range; mainly inhabits woodlands dominated by stringybarks or other rough-barked eucalypts, usually with an open grassy understorey,	Low



							sometimes with one or more shrub species; also found in mallee and River Red Gum (Eucalyptus camaldulensis) Forest bordering wetlands with an open understorey of acacias, saltbush, lignum, cumbungi and grasses; usually not found in woodlands with a dense shrub layer; fallen timber is an important habitat component for foraging; also recorded, though less commonly, in similar woodland habitats on the coastal ranges and plains. Sedentary, considered to be resident in many locations throughout its range; present in all seasons or year-round at many sites; territorial year-round, though some birds may disperse locally after breeding.	
Aves	Acanthizidae	Chthonicola sagittata	Speckled Warbler	V,P		2	The Speckled Warbler lives in a wide range of Eucalyptus dominated communities that have a grassy understorey, often on rocky ridges or in gullies.  Typical habitat would include scattered native tussock grasses, a sparse shrub layer, some eucalypt regrowth and an open canopy.  Large, relatively undisturbed remnants are required for the species to persist in an area.	Low
Aves	Meliphagidae	^Anthochaera phrygia	Regent Honeyeater	E4A,P,2	CE	3	The Regent Honeyeater is a flagship threatened woodland bird whose conservation will benefit a large suite of other threatened and declining woodland fauna. The species inhabits dry open forest and woodland, particularly Box-Ironbark woodland, and riparian forests of River Sheoak. Regent Honeyeaters inhabit woodlands that support a significantly high abundance and species richness of bird species. These woodlands have significantly large numbers of mature trees, high canopy cover and abundance of mistletoes.	Low
Aves	Meliphagidae	Epthianura albifrons	White-fronted Chat	V,P		2	Gregarious species, usually found foraging on bare or grassy ground in wetland areas, singly or in pairs. They are insectivorous, feeding mainly on flies and beetles caught from or close to the ground.  Have been observed breeding from late July through to early March, with 'open-cup' nests built in low vegetation.  Nests in the Sydney region have also been seen in low isolated mangroves. Nests are usually built about 23 cm above the ground (but have been found up to 2.5 m above the ground).	Low
Aves	Meliphagidae	Grantiella picta	Painted Honeyeater	V,P	V	1	Inhabits Boree/ Weeping Myall (Acacia pendula), Brigalow (A. harpophylla) and Box-Gum Woodlands and Box-Ironbark Forests.	Low



						A specialist feeder on the fruits of mistletoes growing on woodland eucalypts and acacias. Prefers mistletoes of the genus Amyema.  Insects and nectar from mistletoe or eucalypts are occasionally eaten.	
Aves	Meliphagidae	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	V,P	1	Occupies mostly upper levels of drier open forests or woodlands dominated by box and ironbark eucalypts, especially Mugga Ironbark (Eucalyptus sideroxylon), White Box (E. albens), Inland Grey Box (E. microcarpa), Yellow Box (E. melliodora), Blakely's Red Gum (E. blakelyi) and Forest Red Gum (E. tereticornis).  Also inhabits open forests of smooth-barked gums, stringybarks, ironbarks, river sheoaks (nesting habitat) and tea-trees.	Low
Aves	Neosittidae	Daphoenositta chrysoptera	Varied Sittella	V,P	6	Inhabits eucalypt forests and woodlands, especially those containing rough-barked species and mature smooth-barked gums with dead branches, mallee and Acacia woodland.	Low
Aves	Artamidae	Artamus cyanopterus cyanopterus	Dusky Woodswallow	V,P	7	Primarily inhabit dry, open eucalypt forests and woodlands, including mallee associations, with an open or sparse understorey of eucalypt saplings, acacias and other shrubs, and ground-cover of grasses or sedges and fallen woody debris. It has also been recorded in shrublands, heathlands and very occasionally in moist forest or rainforest.	Moderate
Aves	Petroicidae	Petroica boodang	Scarlet Robin	V,P	2	The Scarlet Robin lives in dry eucalypt forests and woodlands. The understorey is usually open and grassy with few scattered shrubs.  This species lives in both mature and regrowth vegetation. It occasionally occurs in mallee or wet forest communities, or in wetlands and tea-tree swamps. The Scarlet Robin is primarily a resident in forests and woodlands, but some adults and young birds disperse to more open habitats after breeding. In autumn and winter many Scarlet Robins live in open grassy woodlands, and grasslands or grazed paddocks with scattered trees.  The Scarlet Robin breeds on ridges, hills and foothills of the western slopes, the Great Dividing Range and eastern coastal regions; this species is occasionally found up to 1000 metres in altitude.	Low
Aves	Petroicidae	Petroica phoenicea	Flame Robin	V,P	20	Breeds in upland tall moist eucalypt forests and woodlands, often on ridges and slopes.  Prefers clearings or areas with open understoreys.  The groundlayer of the breeding habitat is dominated by native grasses and the shrub layer may be either sparse or dense.	Low



							Occasionally occurs in temperate rainforest, and also in herbfields, heathlands, shrublands and sedgelands at high altitudes.  In winter, birds migrate to drier more open habitats in the lowlands (i.e. valleys below the ranges, and to the western slopes and plains).  Often occurs in recently burnt areas; however, habitat becomes unsuitable as vegetation closes up following regeneration.  In winter lives in dry forests, open woodlands and in pastures and native grasslands, with or without scattered trees.  In winter, occasionally seen in heathland or other shrublands in coastal areas.	
Mammalia	Dasyuridae	Dasyurus maculatus	Spotted-tailed Quoll	V,P	E	11	Recorded across a range of habitat types, including rainforest, open forest, woodland, coastal heath and inland riparian forest, from the sub-alpine zone to the coastline. Individual animals use hollow-bearing trees, fallen logs, small caves, rock outcrops and rocky-cliff faces as den sites.	Low
Mammalia	Phascolarctidae	Phascolarctos cinereus	Koala	E1,P	Е	130	Inhabits eucalypt forests and woodlands. Favoured food trees are the Grey Gum, Scribbly Gum, Swamp Mahogany and Snappy Gum.	Low
Mammalia	Petauridae	Petaurus australis	Yellow-bellied Glider	V,P	V	3	Occur in tall mature eucalypt forest generally in areas with high rainfall and nutrient rich soils.  Forest type preferences vary with latitude and elevation; mixed coastal forests to dry escarpment forests in the north; moist coastal gullies and creek flats to tall montane forests in the south.	Low
Mammalia	Petauridae	Petaurus norfolcensis	Squirrel Glider	V,P		14	Inhabits mature or old growth Box, Box-Ironbark woodlands and River Red Gum forest west of the Great Dividing Range and Blackbutt-Bloodwood forest with heath understorey in coastal areas.  Prefers mixed species stands with a shrub or Acacia midstorey.	Low
Mammalia	Pteropodidae	Pteropus poliocephalus	Grey-headed Flying- fox	V,P	V	55	Occur in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops.  Roosting camps are generally located within 20 km of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy.	Low



Mammalia	Emballonuridae	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	V,P		5	Roosts singly or in groups of up to six, in tree hollows and buildings; in treeless areas they are known to utilise mammal burrows.  When foraging for insects, flies high and fast over the forest canopy, but lower in more open country.  Forages in most habitats across its very wide range, with and without trees; appears to defend an aerial territory.	Moderate
Mammalia	Molossidae	Micronomus norfolkensis	Eastern Coastal Free- tailed Bat	V,P		35	Occur in dry sclerophyll forest, woodland, swamp forests and mangrove forests east of the Great Dividing Range. Roost mainly in tree hollows but will also roost under bark or in man-made structures.	Moderate
Mammalia	Vespertilionidae	Chalinolobus dwyeri	Large-eared Pied Bat	V,P	E	6	Roosts in caves (near their entrances), crevices in cliffs, old mine workings and in the disused, bottle-shaped mud nests of the Fairy Martin, frequenting low to mid-elevation dry open forest and woodland close to these features. Females have been recorded raising young in maternity roosts (c. 20-40 females) from November through to January in roof domes in sandstone caves and overhangs. They remain loyal to the same cave over many years.  Found in well-timbered areas containing gullies.	Moderate
Mammalia	Vespertilionidae	Falsistrellus tasmaniensis	Eastern False Pipistrelle	V,P		9	Prefers moist habitats, with trees taller than 20 m. Generally roosts in eucalypt hollows, but has also been found under loose bark on trees or in buildings.	Moderate
Mammalia	Vespertilionidae	Myotis macropus	Southern Myotis	V,P		18	Generally roost in groups of 10 - 15 close to water in caves, mine shafts, hollow-bearing trees, storm water channels, buildings, under bridges and in dense foliage.	High
Mammalia	Vespertilionidae	Scoteanax rueppellii	Greater Broad-nosed Bat	V,P		12	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.  Although this species usually roosts in tree hollows, it has also been found in buildings.  Open woodland habitat and dry open forest suits the direct flight of this species as it searches for beetles and other large, slow-flying insects; this species has been known to eat other bat species.	Moderate
Mammalia	Miniopteridae	Miniopterus australis	Little Bent-winged Bat	V,P		7	Inhabits moist eucalypt forest, rainforest, vine thicket, wet and dry sclerophyll forest, Melaleuca swamps, dense coastal forests and banksia scrub. Generally found in well-timbered areas.  Little Bentwing-bats roost in caves, tunnels, tree hollows, abandoned mines, stormwater drains, culverts, bridges and sometimes buildings during the day, and at night forage for	Moderate



							small insects beneath the canopy of densely vegetated habitats.	
Mammalia	Miniopteridae	Miniopterus orianae oceanensis	Large Bent-winged Bat	V,P		30	Caves are the primary roosting habitat, but also use derelict mines, storm-water tunnels, buildings and other man-made structures.	Moderate
Gastropoda	Camaenidae	Meridolum corneovirens	Cumberland Plain Land Snail	E1		50	Primarily inhabits Cumberland Plain Woodland (a critically endangered ecological community). This community is a grassy, open woodland with occasional dense patches of shrubs. It is also known from Shale Gravel Transition Forests, Castlereagh Swamp Woodlands and the margins of River-flat Eucalypt Forest, which are also listed communities.	Moderate
Gastropoda	Camaenidae	Pommerhelix duralensis	Dural Land Snail	ΕÎ	E		The species has a strong affinity for communities in the interface region between shale-derived and sandstone-derived soils, with forested habitats that have good native cover and woody debris.  It favours sheltering under rocks or inside curled-up bark. It does not burrow nor climb. The species has also been observed resting in exposed areas, such as on exposed rock or leaf litter, however it will also shelter beneath leaves, rocks and light woody debris.	Low
Flora	Apocynaceae	Cynanchum elegans	White-flowered Wax Plant	E1	E	4	The White-flowered Wax Plant usually occurs on the edge of dry rainforest vegetation. Other associated vegetation types include littoral rainforest; Coastal Tea-tree Leptospermum laevigatum – Coastal Banksia Banksia integrifolia subsp. integrifolia coastal scrub; Forest Red Gum Eucalyptus tereticornis aligned open forest and woodland; Spotted Gum Corymbia maculata aligned open forest and woodland; and Bracelet Honeymyrtle Melaleuca armillaris scrub to open scrub.	None
Flora	Apocynaceae	Marsdenia viridiflora subsp. viridiflora	Marsdenia viridiflora R. Br. subsp. viridiflora population in the Bankstown, Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool and Penrith local government areas	E2		2	Recent records are from Prospect, Bankstown, Smithfield, Cabramatta Creek and St Marys. Previously known north from Razorback Range. Grows in vine thickets and open shale woodland.	Low
Flora	Casuarinaceae	Allocasuarina glareicola		E1	Е	14	Grows in Castlereagh woodland on lateritic soil. Found in open woodland with Eucalyptus parramattensis, Eucalyptus fibrosa, Angophora bakeri, Eucalyptus sclerophylla and	None



							Melaleuca decora. Common associated understorey species include Melaleuca nodosa, Hakea dactyloides, Hakea sericea, Dillwynia tenuifolia, Micromyrtus minutiflora, Acacia elongata, Acacia brownei, Themeda australis and Xanthorrhoea minor.	
Flora	Dilleniaceae	Hibbertia fumana		E4A		12	Species is known to occur in a long intergrade between Castlereagh Scribbly Gum Woodland and Castlereagh Ironbark Forest. Also recently found associated with aeolian sand deposits. Species has been found to occur in a variety of structural habitats including open areas, disturbed sites and also within thick ground cover dominated by a heavy cover of sedges, rushes and grasses.  Has the potential to occur in similar intergrade alluvial habitats rich in sands and laterite in other parts of western Sydney.	Low
Flora	Dilleniaceae	Hibbertia sp. Bankstown		E4A	CE	16	This species is endemic to New South Wales and is currently known to occur in only one population at Bankstown Airport in Sydney's southern suburbs, in the Bankstown local government area.	None
Flora	Elaeocarpaceae	Tetratheca glandulosa		V			Associated with shale-sandstone transition habitat where shale-cappings occur over sandstone, with associated soil landscapes such as Lucas Heights, Gymea, Lambert and Faulconbridge. Topographically, the plant occupies ridgetops, upper-slopes and to a lesser extent mid-slope sandstone benches. Soils are generally shallow, consisting of a yellow, clayey/sandy loam. Stony lateritic fragments are also common in the soil profile on many of these ridgetops.	Low
Flora	Ericaceae	Leucopogon exolasius	Woronora Beard- heath	V	٧	1	Woronora Beard-heath is found along the upper Georges River area and in Heathcote National Park.	Low
Flora	Ericaceae	Leucopogon fletcheri subsp. fletcheri		E1		1	Occurs in dry eucalypt woodland or in shrubland on clayey lateritic soils, generally on flat to gently sloping terrain along ridges and spurs.	Low
Flora	Fabaceae (Faboideae)	Dillwynia tenuifolia		V		198	In western Sydney, may be locally abundant particularly within scrubby/dry heath areas within Castlereagh Ironbark Forest and Shale Gravel Transition Forest on tertiary alluvium or laterised clays. May also be common in transitional areas where these communities adjoin Castlereagh Scribbly Gum Woodland.	Moderate
Flora	Fabaceae (Faboideae)	Pultenaea parviflora		E1	V	13	May be locally abundant, particularly within scrubby/dry heath areas within Castlereagh Ironbark Forest and Shale Gravel Transition Forest on tertiary alluvium or laterised clays.	Low



							May also be common in transitional areas where these communities adjoin Castlereagh Scribbly Gum Woodland. Eucalyptus fibrosa is usually the dominant canopy species. Eucalyptus globoidea, E. longifolia, E. parramattensis, E. sclerophylla and E. sideroxylon may also be present or codominant, with Melaleuca decora frequently forming a secondary canopy layer.	
Flora	Fabaceae (Mimosoideae)	Acacia bynoeana	Bynoe's Wattle	E1	V	6	Bynoe's wattle is found in central eastern NSW, from the Hunter District (Morisset) south to the Southern Highlands and west to the Blue Mountains. The species is currently known from about 30 locations, with the size of the populations at most locations being very small (1-5 plants). It has recently been found in the Colymea and Parma Creek areas west of Nowra.	None
Flora	Fabaceae (Mimosoideae)	Acacia flocktoniae	Flockton Wattle	V	V	1	The Flockton Wattle is found only in the Southern Blue Mountains (at Mt Victoria, Megalong Valley and Yerranderie).	None
Flora	Fabaceae (Mimosoideae)	Acacia pubescens	Downy Wattle	V	V	3	Occurs on alluviums, shales and at the intergrade between shales and sandstones. The soils are characteristically gravely soils, often with ironstone.  Occurs in open woodland and forest, in a variety of plant communities, including Cooks River/Castlereagh Ironbark Forest, Shale/Gravel Transition Forest and Cumberland Plain Woodland.	None
Flora	Myrtaceae	Eucalyptus benthamii	Camden White Gum	E4A	V	4	Requires a combination of deep alluvial sands and a flooding regime that permits seedling establishment. Recruitment of juveniles appears to be most successful on bare silt deposits in rivers and streams.  The recorded elevation range for the species is from 30m ASL at Bents Basin to 750m ASL in the Kedumba population. Most of the individuals are around 60 to 300m ASL.  Occurs in open forest. Associated species at the Bents Basin site include Eucalyptus elata, E. bauerina, E. amplifolia, E. deanei and Angophora subvelutina. Understorey species include Bursaria spinosa, Pteridium esculentum and a wide variety of agricultural weeds. The Kedumba Valley site lists E. crebra, E. deanei, E. punctata, Leptospermum flavescens, Acacia filicifolia and Pteridium esculentum among its associated species.	None
Flora	Myrtaceae	Micromyrtus minutiflora		E1	V	41	Grows in Castlereagh Scribbly Gum Woodland, Ironbark Forest, Shale/Gravel Transition Forest, open forest on tertiary alluvium and consolidated river sediments.	Low



Flora	Myrtaceae	Rhodamnia rubescens	Scrub Turpentine	E4A	CE	6	Found in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest usually on volcanic and sedimentary soils.	None
Flora	Myrtaceae	Syzygium paniculatum	Magenta Lilly Pilly	E1	V	2	On the south coast the Magenta Lilly Pilly occurs on grey soils over sandstone, restricted mainly to remnant stands of littoral (coastal) rainforest.  On the central coast Magenta Lilly Pilly occurs on gravels, sands, silts and clays in riverside gallery rainforests and remnant littoral rainforest communities.	None
Flora	Proteaceae	Grevillea juniperina subsp. juniperina	Juniper-leaved Grevillea	V		3	Grows on reddish clay to sandy soils derived from Wianamatta Shale and Tertiary alluvium (often with shale influence), typically containing lateritic gravels.  Recorded from Cumberland Plain Woodland, Castlereagh Ironbark Woodland, Castlereagh Scribbly Gum Woodland and Shale/Gravel Transition Forest.	Low
Flora	Proteaceae	Persoonia nutans	Nodding Geebung	E1,P	E	392	Northern populations are confined to aeolian and alluvial sediments and occur in a range of sclerophyll forest and woodland vegetation communities, with the majority of individuals occurring within Agnes Banks Woodland or Castlereagh Scribbly Gum Woodland and some in Cooks River / Castlereagh Ironbark Forests. Southern populations also occupy tertiary alluvium, but extend onto shale sandstone transition communities and into Cooks River / Castlereagh Ironbark Forest.	Moderate
Flora	Rutaceae	Zieria involucrata		E1	V	1	Occurs primarily on Hawkesbury sandstone. Also occurs on Narrabeen Group sandstone and on Quaternary alluvium. Found primarily in sheltered forests on mid- to lower slopes and valleys, e.g. in or adjacent to gullies which support sheltered forest, although some populations extend upslope into drier vegetation. Also known from at least two atypical ridgetop locations. The canopy typically includes Syncarpia glomulifera subsp. glomulifera (Turpentine), Angophora costata (Smooth-barked Apple), Eucalyptus agglomerata (Blue-leaved Stringybark) and Allocasuarina torulosa (Forest Oak).	Low
Flora	Thymelaeaceae	Pimelea curviflora var. curviflora		V	V	1	Occurs on shaley/lateritic soils over sandstone and shale/sandstone transition soils on ridgetops and upper slopes amongst woodlands. Also recorded in Illawarra Lowalnd Grassy Woodland habitat at Albion Park on the Illawaraa coastal plain.	Low
Flora	Thymelaeaceae	Pimelea spicata	Spiked Rice-flower	E1	E	2	In both the Cumberland Plain and Illawarra environments this species is found on well-structured clay soils.	Low

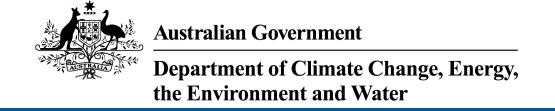


			On the Cumberland Plain sites it is associated with Grey Box communities (particularly Cumberland Plain Woodland variants and Moist Shale Woodland) and in areas of ironbark.  The co-occurring species in the Cumberland Plain sites are grey box (Eucalyptus moluccana), forest red gum (E. tereticornis) and narrow-leaved ironbark (E. crebra).  Blackthorn (Bursaria spinosa) is often present at sites (and may be important in protection from grazing) and kangaroo grass (Themeda australis) is usually present in the groundcover (also indicative of a less intense grazing history).
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# APPENDIX C - PROTECTED MATTERS SEARCH





# **EPBC Act Protected Matters Report**

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 14-May-2024

**Summary** 

**Details** 

Matters of NES
Other Matters Protected by the EPBC Act
Extra Information

Caveat

**Acknowledgements** 

## Summary

#### Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	7
Listed Threatened Species:	47
Listed Migratory Species:	14

## Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <a href="https://www.dcceew.gov.au/parks-heritage/heritage">https://www.dcceew.gov.au/parks-heritage/heritage</a>

A <u>permit</u> may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	21
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

## **Extra Information**

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	5
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

## **Details**

## Matters of National Environmental Significance

## Listed Threatened Ecological Communities

[Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion	Endangered	Community may occur within area
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area
Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion	Critically Endangered	Community may occur within area
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	Critically Endangered	Community likely to occur within area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area
Shale Sandstone Transition Forest of the Sydney Basin Bioregion	Critically Endangered	Community likely to occur within area
Western Sydney Dry Rainforest and Moist Woodland on Shale	Critically Endangered	Community may occur within area

## Listed Threatened Species

[ Resource Information ]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Species or species
		habitat known to
		occur within area

Scientific Name	Threatened Category	Presence Text
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat likely to occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
<u>Lathamus discolor</u> Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Melanodryas cucullata cucullata South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat likely to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat likely to occur within area
FISH		
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area
FROG		
Heleioporus australiacus Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat likely to occur within area
<u>Litoria aurea</u> Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat may occur within area
MAMMAL		

Scientific Name	Threatened Category	Presence Text
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (SE mair Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	nland population) Endangered	Species or species habitat likely to occur within area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area
Petrogale penicillata Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	ations of Qld, NSW and the Endangered	Species or species habitat known to occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
PLANT		
Acacia bynoeana Bynoe's Wattle, Tiny Wattle [8575]	Vulnerable	Species or species habitat may occur within area
Allocasuarina glareicola [21932]	Endangered	Species or species habitat likely to occur within area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat may occur within area
Melaleuca deanei Deane's Melaleuca [5818]	Vulnerable	Species or species habitat may occur within area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat may occur within area
Persoonia nutans Nodding Geebung [18119]	Endangered	Species or species habitat likely to occur within area
Pimelea spicata Spiked Rice-flower [20834]	Endangered	Species or species habitat likely to occur within area
Pomaderris brunnea Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat may occur within area
Pterostylis saxicola Sydney Plains Greenhood [64537]	Endangered	Species or species habitat may occur within area
Rhizanthella slateri Eastern Underground Orchid [11768]	Endangered	Species or species habitat may occur within area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area
Syzygium paniculatum  Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat may occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area
DEDTII E		

## REPTILE

Scientific Name	Threatened Category	Presence Text
Aprasia parapulchella		
Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat may occur within area
Hoplocephalus bungaroides Broad-headed Snake [1182]	Endangered	Species or species habitat may occur within area

		within area
Listed Migratory Species		[ Resource Information ]
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Cuculus optatus		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat likely to occur within area
Myiagra cyanoleuca		
Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons		
Rufous Fantail [592]		Species or species habitat likely to occur within area
Symposiachrus trivirgatus as Monarcha t	rivirgatus	
Charteeled Manarch [92046]	<u> </u>	Charles ar anasias

Species or species habitat may occur

within area

## Migratory Wetlands Species

Spectacled Monarch [83946]

Scientific Name	Threatened Category	Presence Text
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area
Pandion haliaetus		
Osprey [952]		Species or species habitat likely to occur within area

# Other Matters Protected by the EPBC Act

Listed Marine Species		[ Resource Information ]
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Bubulcus ibis as Ardea ibis		
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Chalcites osculans as Chrysococcyx osc Black-eared Cuckoo [83425]	<u>ulans</u>	Species or species habitat known to occur within area overfly marine area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area
Neophema chrysostoma Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area
Rostratula australis as Rostratula bengha Australian Painted Snipe [77037]	alensis (sensu lato) Endangered	Species or species habitat likely to occur within area overfly marine area
Symposiachrus trivirgatus as Monarcha t Spectacled Monarch [83946]	<u>rrivirgatus</u>	Species or species habitat may occur within area overfly marine area

# Extra Information

EPBC Act Referrals		[ Resource Information ]
Title of referral	Reference	Referral Outcome Assessment Status
Warragamba Dam Raising Project	2017/7940	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed
Subdivision of Lot 24 DP 751649 and Lot 111 DP 1039639, Old Bells Line of Road,	2003/1139	Not Controlled Action	Completed
Not controlled action (particular manne	er)		
Replacement of flows with recycled	2006/3050	Not Controlled	Post-Approval
<u>water</u>		Action (Particular Manner)	
water  Referral decision		,	

Bioregional Assessments			[ Resource Information ]
SubRegion	BioRegion	Website	
Sydney	Sydney Basin	BA website	

## Caveat

#### 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

#### 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

#### 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

#### 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

# Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- -Office of Environment and Heritage, New South Wales
- -Department of Environment and Primary Industries, Victoria
- -Department of Primary Industries, Parks, Water and Environment, Tasmania
- -Department of Environment, Water and Natural Resources, South Australia
- -Department of Land and Resource Management, Northern Territory
- -Department of Environmental and Heritage Protection, Queensland
- -Department of Parks and Wildlife, Western Australia
- -Environment and Planning Directorate, ACT
- -Birdlife Australia
- -Australian Bird and Bat Banding Scheme
- -Australian National Wildlife Collection
- -Natural history museums of Australia
- -Museum Victoria
- -Australian Museum
- -South Australian Museum
- -Queensland Museum
- -Online Zoological Collections of Australian Museums
- -Queensland Herbarium
- -National Herbarium of NSW
- -Royal Botanic Gardens and National Herbarium of Victoria
- -Tasmanian Herbarium
- -State Herbarium of South Australia
- -Northern Territory Herbarium
- -Western Australian Herbarium
- -Australian National Herbarium, Canberra
- -University of New England
- -Ocean Biogeographic Information System
- -Australian Government, Department of Defence
- Forestry Corporation, NSW
- -Geoscience Australia
- -CSIRO
- -Australian Tropical Herbarium, Cairns
- -eBird Australia
- -Australian Government Australian Antarctic Data Centre
- -Museum and Art Gallery of the Northern Territory
- -Australian Government National Environmental Science Program
- -Australian Institute of Marine Science
- -Reef Life Survey Australia
- -American Museum of Natural History
- -Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
- -Tasmanian Museum and Art Gallery, Hobart, Tasmania
- -Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

# Please feel free to provide feedback via the **Contact us** page.

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