Suite 204, Level 2
62 Moore Street
Austinmer NSW 2515
t: (02) 4201 2203

Date: 4 February 2021

Our ref: 21WOL-18243

AV Jennings Properties Limited
Level 6, 58 Norwest Boulevard
Norwest NSW 2153

Attention: Paulyn Chew

Dear Paulyn,

RE: Biodiversity Assessment at 2514 Illawarra Highway, Tullimbar NSW (Lot 7 DP259137).

Eco Logical Australia Pty Ltd (ELA) prepared a biodiversity assessment as part of the proposed rezoning of lands at 2514 Illawarra Highway, Lot 7 DP259137 Tullimbar (the study area) (Figure 1). The following assessment and recommendations are based on a desktop data and literature review aimed at identifying ecological constraints such as threatened ecological communities and riparian corridors within the study area. The following analysis makes recommendations for further targeted survey to identify the presence of threatened species considered likely to occur within the study area. Additional surveys would be required at the development application stage. ELA understands that the planning proposal would be submitted to Shellharbour City Council for a decision by the Department of Planning, Industry and Environment.

BACKGROUND

The *Environment Planning and Assessment Act 1979* (EP&A Act) is the principal planning legislation for NSW. It provides a framework for the overall environmental planning and assessment of development proposals. The proposed rezoning is to be assessed under Part 3 of the EP&A Act. This planning proposal seeks to rezone the study area. A planning proposal is a document that explains the intended effect of a proposed local environmental plan (LEP) and sets out the justification for making that plan. The preparation of a planning proposal is the first step in preparing a LEP.

The study area is located at Lot 7, DP 259137 and is zoned RU1 Primary Production under the Shellharbour LEP 2013. The adjacent land is zoned as SP 2 Infrastructure at the southern boundary. The SP2 zone provides a corridor for the Illawarra Highway. The study area is bordered to the east and west by land zoned E3 Environmental management and a small area of B4 Mixed Use land.

The study area contains a riparian corridor and associated tributaries, dams, cleared land and remnant patches of native vegetation. Macquarie Rivulet is a 5th order stream dividing the northern and southern sections of the site. There is a water reserve that divides the northern section of the site, and the

northern section from the southern section. This land is Crown Land owned by NSW Department of Industry – Lands and Water (DPIE 2019) (Figure 1).

From an aerial map observation, the study area shows signs of ongoing management and is currently grazed by cattle and sown for Christmas tree production.

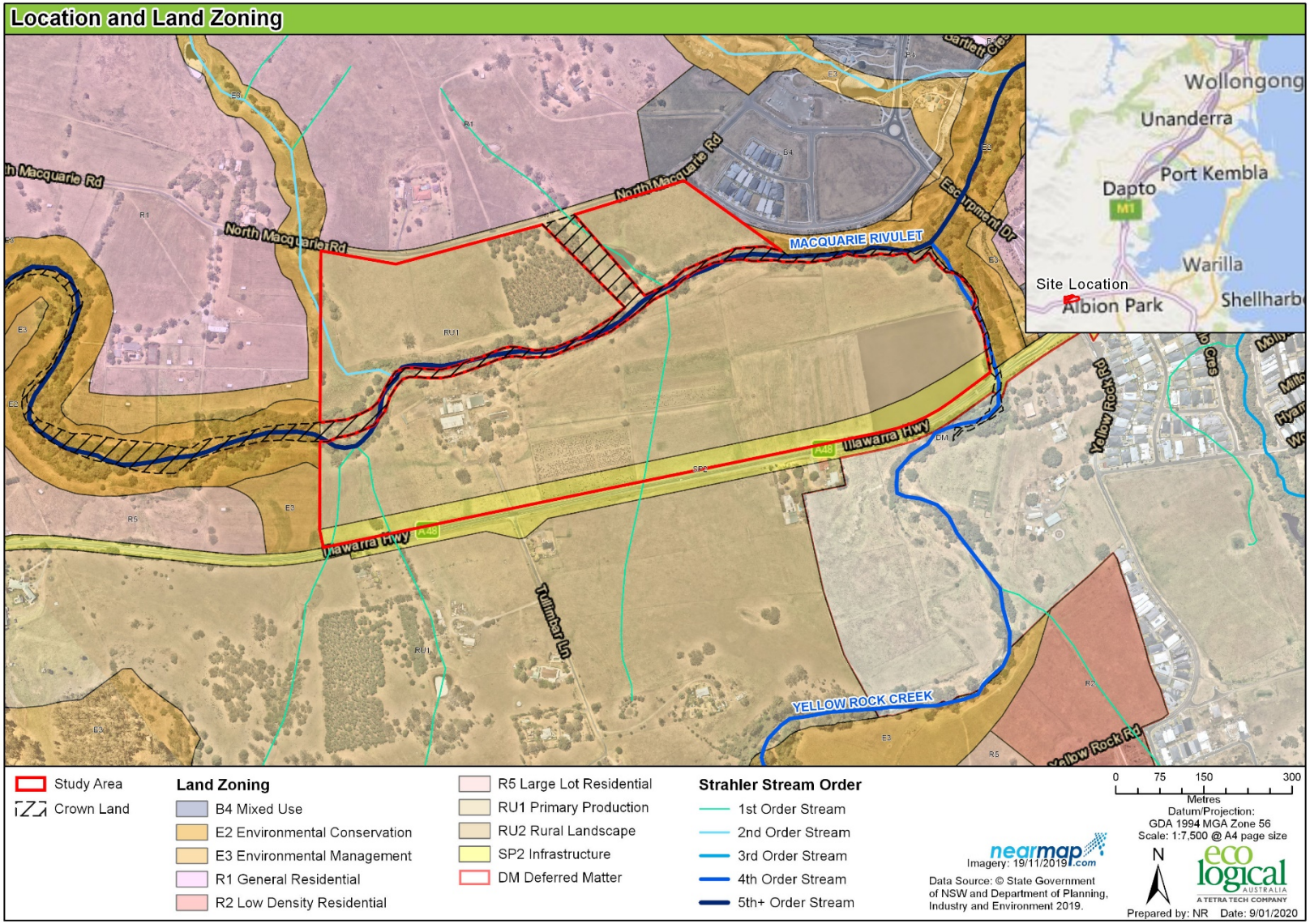

Figure 1: Study area location and land zoning

1.1 Methodology

1.1.1 Desktop assessment

ELA reviewed the following data sources to obtain a list of threatened species, populations and ecological communities and other ecological values known to occur or considered likely to occur within the study area:

- Bionet Atlas records 5 kilometres for matters listed under the *Biodiversity Conservation Act 2016* (3/2/2021)
- Protected Matters search 5 kilometres for entities listed under the *Environment Protection and Biodiversity Conservation Act 1999* (3/2/2021)
- Fisheries Spatial Portal for threatened species listed under the *Fisheries Management Act 1994*
- Vegetation mapping of the Illawarra (OEH 2016), SCIVI mapping (OEH 2003) and any other publicly available vegetation mapping data
- Bionet Vegetation Classification database (DPIE 2021)
- Shellharbour Local Environment Plan 2013
- NSW Hydroline dataset (2020)
- NSW Biodiversity Values Map for potential triggers to the NSW Biodiversity Offsets Scheme (3/2/2021)
- Key Fish Habitat mapping (2020)
- Coastal Management State Environmental Planning Policy (Coastal SEPP) mapping (3/2/2020)

1.2 Results and discussion

1.2.1 Vegetation Communities

Vegetation communities mapped (Figure 2; OEH 2016) within the study area include River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion, cleared land and exotic vegetation. No ground truthing has taken place to confirm the mapped vegetation.

1.2.1.1 River Oak open forest

River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion is an eastern riverine forest. It occurs on sand or gravel alluvium along swift-flowing streams with open or tall open forest with an open shrub layer and a dense or patchy groundcover of grasses and forbs. The upper stratum consists of *Casuarina cunninghamiana* (River Oak), the mid stratum typically includes species such as *Acacia floribunda* (White Sally), *Acacia meamsii* (Black Wattle), *Pandorea pandorana* (Wonga Wonga Vine), *Stephania japonica* (Snake Vine), *Urtica incisa* (Stinging Nettle) and *Hymenanthera dentata* (Tree Violet). Ground cover species include *Dichondra repens* (Kidney Weed), *Lomandra longifolia* (Spiney-head Mat-rush), *Microlaena stipoidies* var. *stipoides* (weeping Grass) and *Oplismenus aemulus*.

River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion likely to be associated with *River-flat Eucalypt Forest on the Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions* which is a threatened ecological community. This

vegetation is considered a high constraint. Further surveys are required to confirm the vegetation condition in the study area.

1.2.1.2 Cleared Land

Cleared land does not form part of any native vegetation community. This vegetation type dominated the study area. This is considered a low constraint.

1.2.1.3 Exotic

A small portion of the study area was comprised of weeds and exotic species. Weeds and exotic species do not form part of a native vegetation community. This vegetation is considered a low constraint.

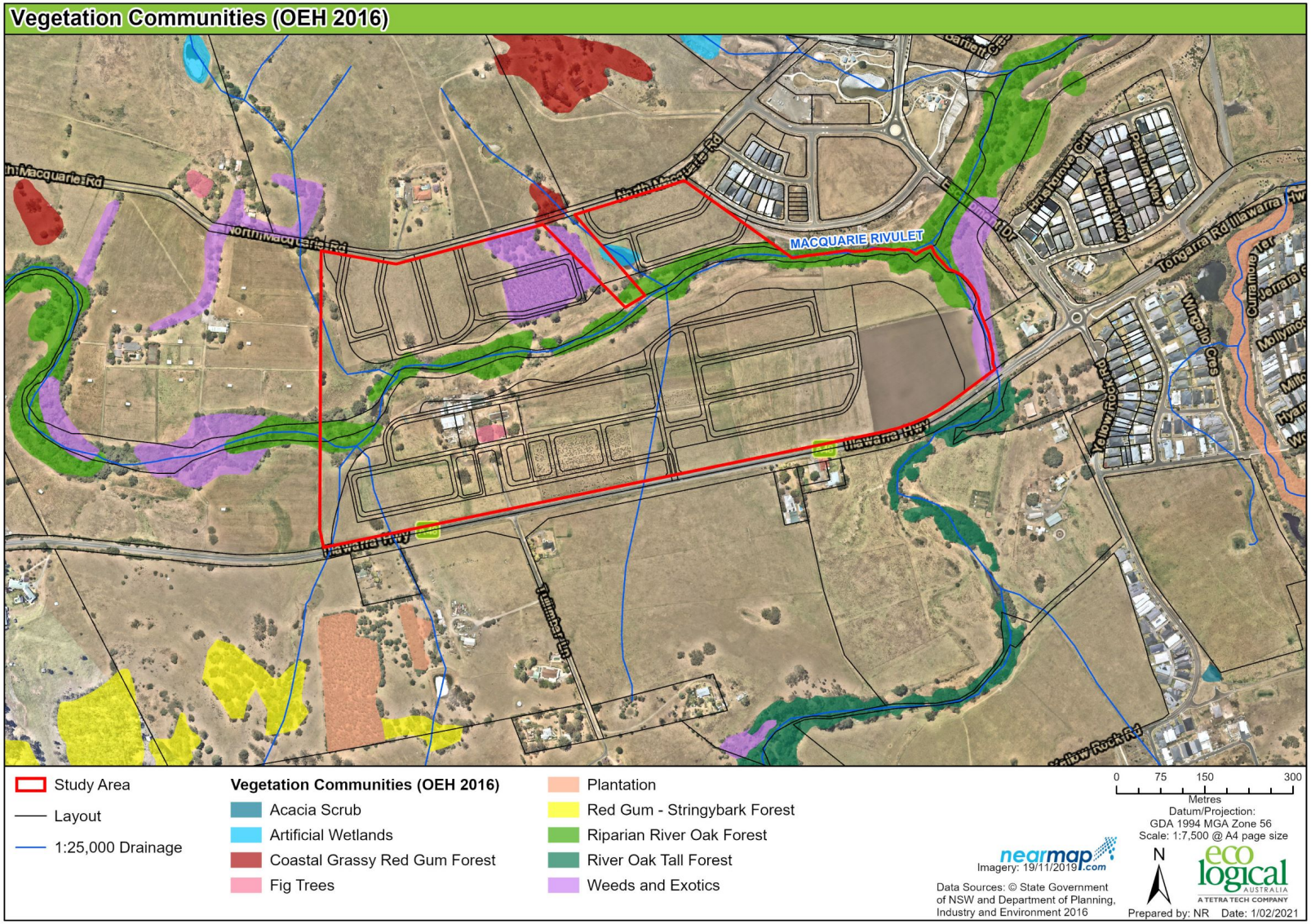

Figure 2: Vegetation communities mapped within and surrounding the study area

1.2.2 Threatened matters

The NSW BioNet Atlas and EPBC Act Protected Matters Search Tool identified seven threatened ecological communities, 53 threatened fauna and 21 threatened flora species considered likely or as having potential to occur within a 10 km radius of the study area (**Appendix A**).

1.2.2.1 Threatened Flora and Fauna

Key species identified as having a likelihood of occurring on site that require further investigation include:

- *Anthochaera phrygia* (Regent Honeyeater)
- *Chalinolobus dwyeri* (Large-eared Pied Bat)
- *Circus assimilis* (Spotted Harrier)
- *Miniopterus australis* (Little Bentwing-bat)
- *Miniopterus schreibersii oceanensis* (Eastern Bentwing-bat)
- *Myotis macropus* (Southern Myotis)
- *Ninox connivens* (Barking Owl)
- *Pteropus poliocephalus* (Grey-headed Flying-fox)
- *Saccolaimus flaviventris* (Yellow-bellied Sheathtail-bat)
- *Scoteanax rueppellii* (Greater Broad-nosed Bat)
- *Stictonetta naevosa* (Freckled Duck)
- *Chorizema parviflorum*
- *Haloragis exalata* subsp. *exalata* (Square Raspwort)
- *Pterostylis gibbosa* (Illawarra Greenhood)
- *Solanum celatum*.

The assessment and refinement of the list was based on vegetation, spatially explicit records and local knowledge (Figure 3 and Figure 4).

The proposed retention of vegetation aligns with the existing native vegetation in the site. The proposed riparian corridor (Figure 8) will retain the River Oak open forest. No other significant vegetation has been identified outside of this riparian corridor. The concept plan has maintained open public space to retain the fig trees identified in Figure 2Areas containing threatened matters are not sterilised from development. However there needs to be:

- quantification of the threatened matters consistent with any relevant survey guidelines
- assessment of potential impacts consistent with any relevant guidelines
- consideration that biodiversity offsets may be required (see section 1.2.2).

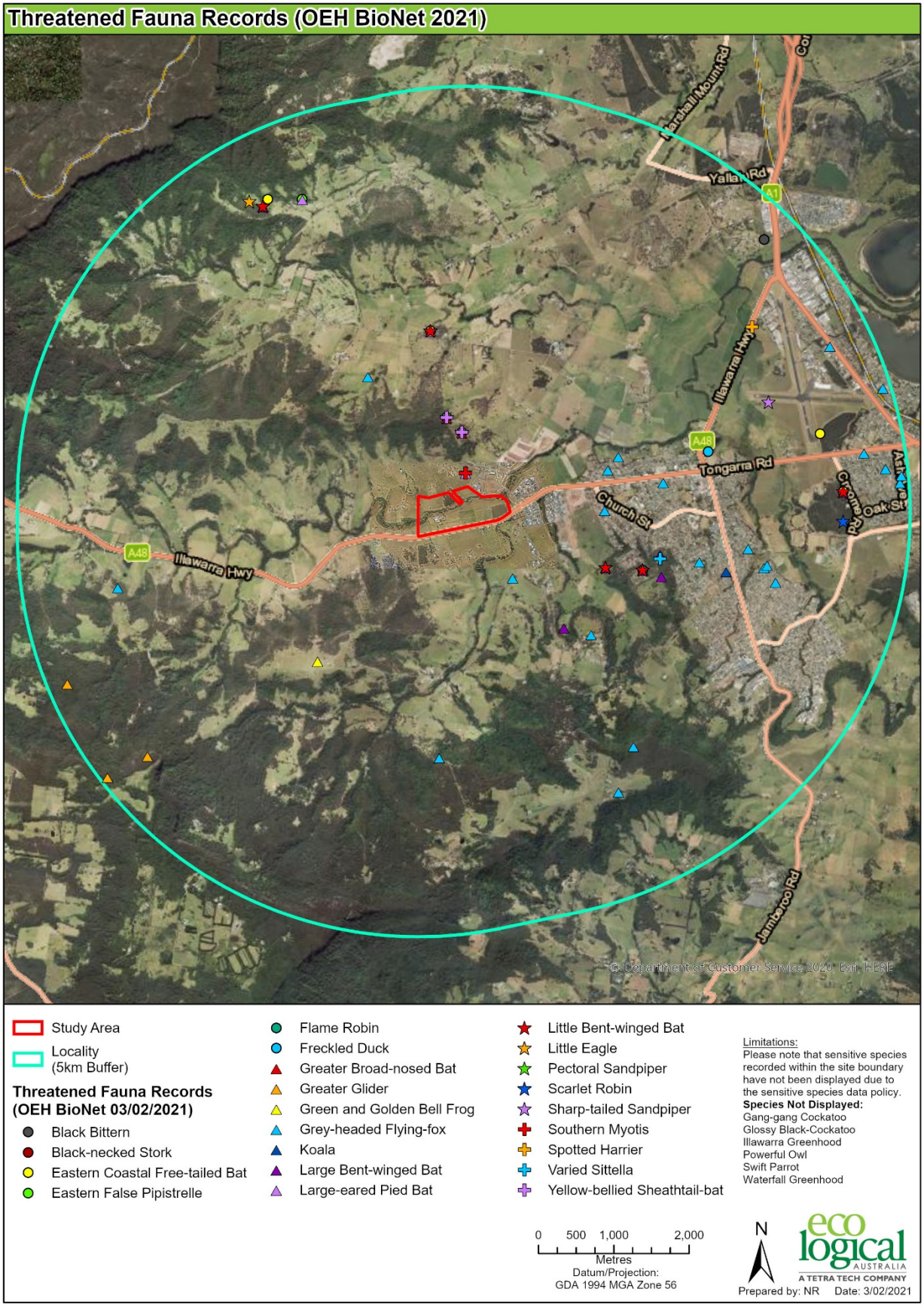

Figure 3: Threatened fauna records within a 5km radius

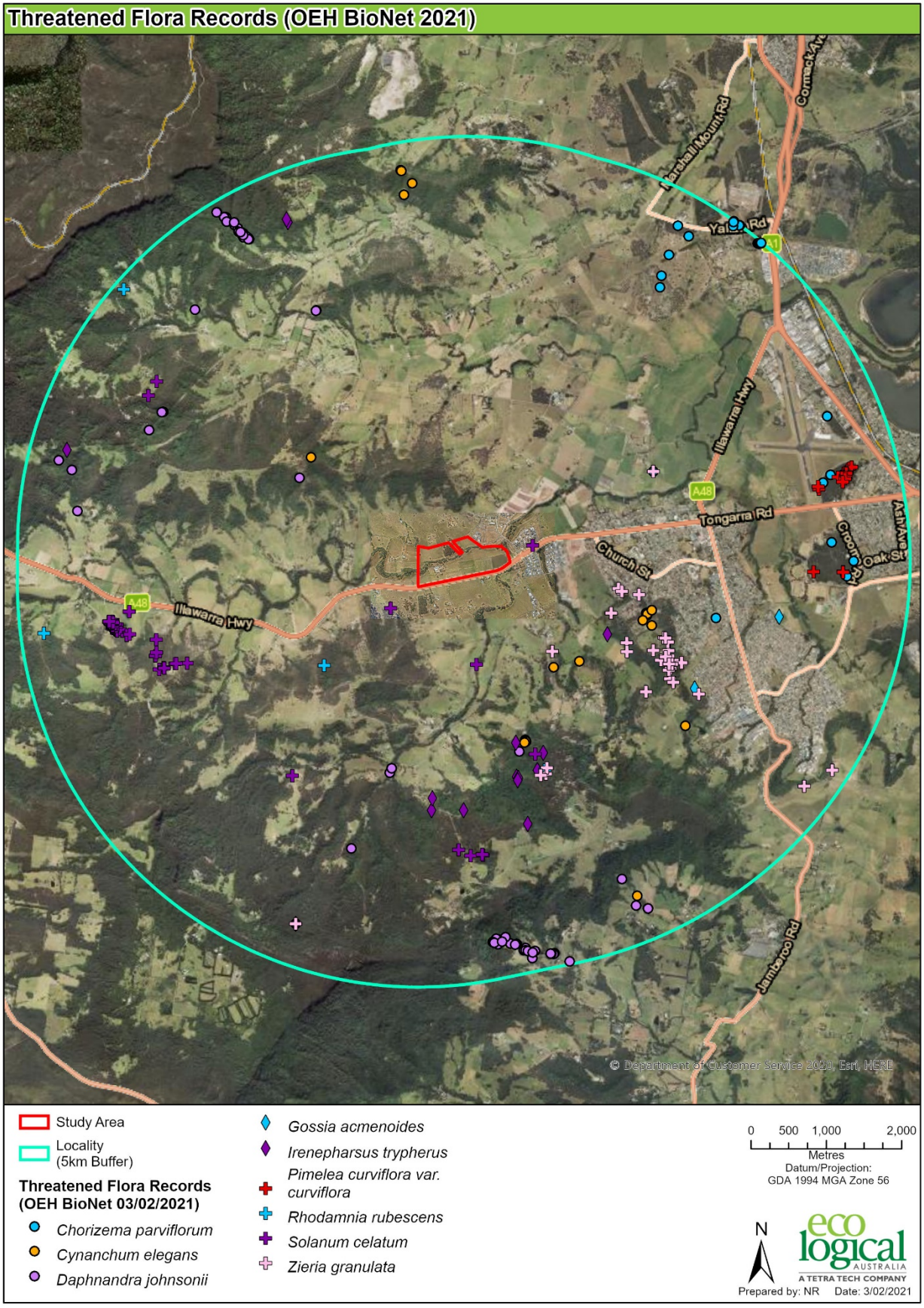

Figure 4: Threatened flora records in a 5km

1.2.2.2 River-flat Eucalypt Forest

River-flat Eucalypt Forest on the Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions as has a likely to be present and adjacent to the study area. This vegetation would be confined to the riparian zones. River-flat Eucalypt Forest is listed as an Endangered Ecological Community under the BC Act (2016) and listed as Critically Endangered under the EPBC Act.

River-flat Eucalypt Forest is an open forest woodland with an open shrub layer and continuous groundcover of grasses and forbs and is found on stream banks and alluvial flats draining soils derived from the Wianamatta Shale. River-flat Eucalypt Forest typically contains a canopy of *Eucalyptus tereticornis* (Forest Red Gum), *E. amplifolia* (Cabbage Gum), *Angophora floribunda* (Rough-barked Apple), *Angophora subvelutina* (Broad-leaved Apple) and *Casuarina glauca* (Swamp Oak). The midstorey contains *Acacia parramattensis* (Parramatta Wattle)*, Bursaria spinosa* (Blackthorn) and *Sigesbeckia orientalis.* Typical groundcover species include *Microlaena stipoides* var. *stipoides* (Weeping Grass)*, Oplismenus aemulus* (Basket Grass)*, Dichondra* sp.*, Entolasia marginata* (Bordered Panic)*, Solanum prinophyllum* (Forest Nightshade)*, Pratia purpurascens* (Whiteroot)*, Echinopogon ovatus* (Forest Hedgehog Grass)*, Desmodium gunnii* (Slender Tick Trefoil)*, Commelina cyanea* and *Veronica plebeia* (Creeping speedwell) (OEH 2019).

Land containing this vegetation type should be considered as a high constraint. Further assessment and ground truthing of the vegetation type and extent should occur prior to lodging any development application to Council.

1.2.2.3 Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion

Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion has been identified adjacent to the study area (Figure 5). Illawarra Lowlands Grassy Woodland is listed as an Endangered Ecological Community under the BC Act and Critically Endangered under the EPBC Act.

Characteristic tree species in the Illawarra Lowlands Grassy Woodland are *Eucalyptus tereticornis*, *Eucalyptus eugenioides*, *Eucalyptus longifolia*, *Eucalyptus bosistoana* and *Melaleuca decora*. Large areas of Illawarra Lowlands Grassy Woodland have been cleared. Most remnants are small and fragmented and their long-term viability is threatened. Some remnants consist of regrowth after clearing or other disturbances(OEH 2019).

Land containing this vegetation type should be considered as a very high constraint. Further assessment and ground truthing of the vegetation type and extent should occur prior to lodging any development application to Council.

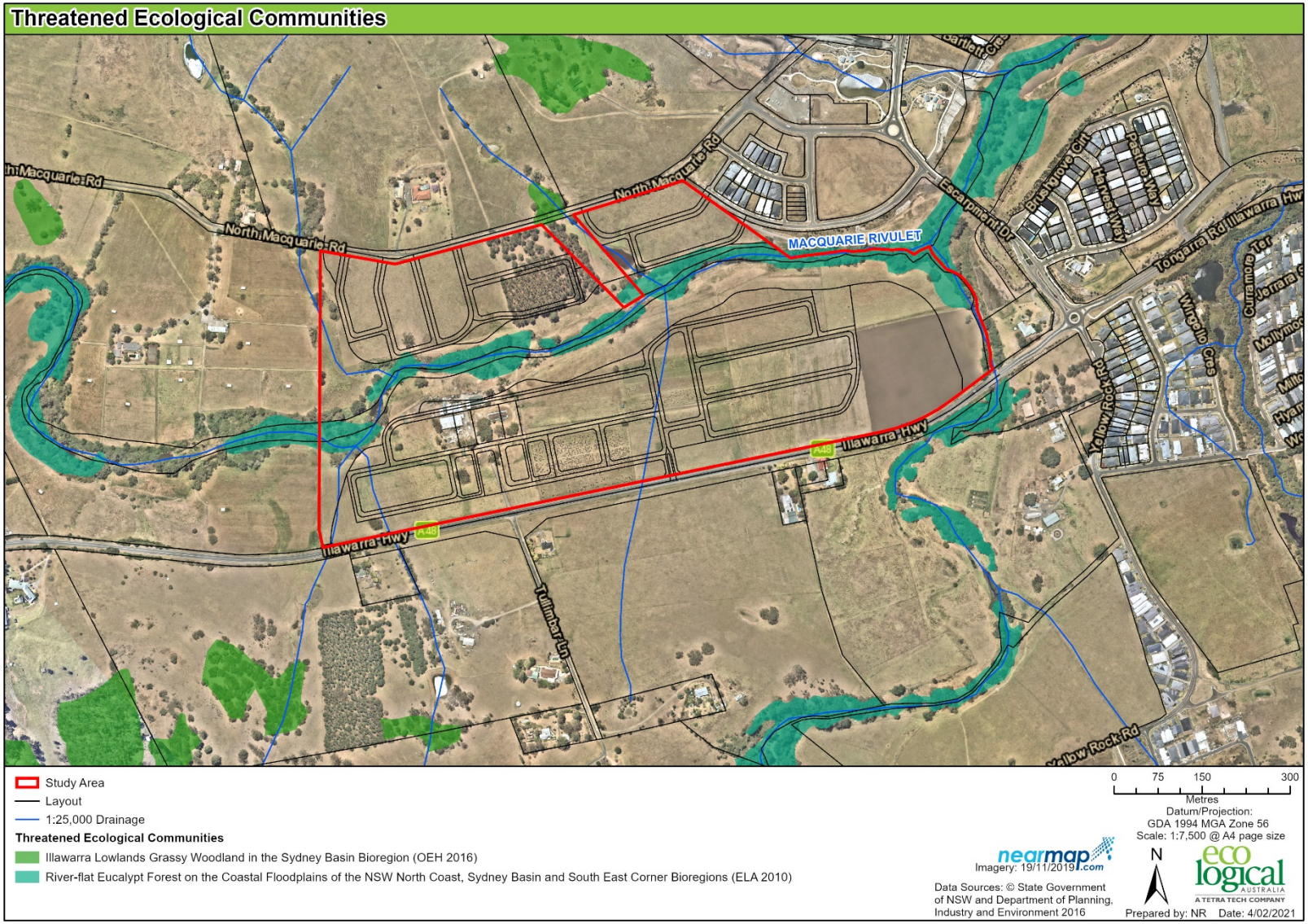

Figure 5: Threatened Ecological Communities mapped surrounding the study area

1.2.3 Biodiversity Values Map

The biodiversity values map identifies land with high biodiversity that is sensitive to impacts from development and clearing. The study area is identified on the Biodiversity Values Map and the values are confined to the riparian zone of Macquarie Rivulet (Figure 6).

For development carried out under Part 4 of the *Environmental Planning & Assessment Act 1979* it must be determined if the works will trigger the NSW Biodiversity Offsets Scheme (BOS). The triggers for BOS are based on the following:

- whether the amount of native vegetation being cleared exceeds an area threshold
- whether the impacts occur on an area mapped on the Biodiversity Values Map published by the Minister for the Environment
- whether the proposal is likely to significantly affect threatened species based on the test of significance in section 7.3 of the BC Act .

Any impacts on the areas mapped by the biodiversity values map or exceeding the other thresholds listed above would trigger the scheme. Biodiversity assessment and offsets consistent with the Biodiversity Assessment Method and BOS must be provided. The mapping does not necessarily restrict development; however, the mapping provides additional protections that must be considered. Therefore, land mapped by the biodiversity values map would be considered a high constraint and a trigger for the BOS.

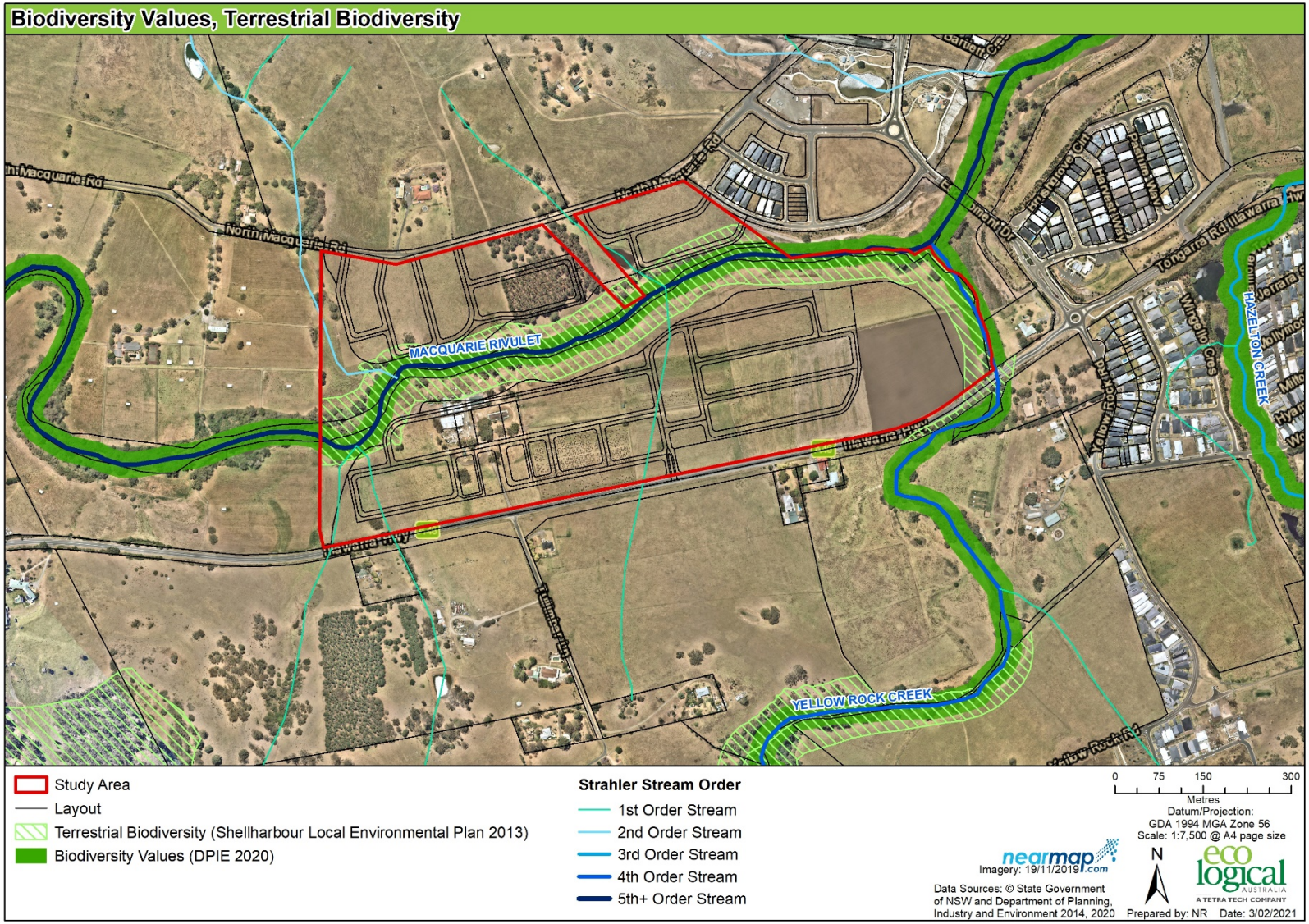

Figure 6: Biodiversity Values Mapping and Shellharbour LEP 2013 Terrestrial Biodiversity overlay mapping

1.2.4 Shellharbour Local Environment Plan 2013 Terrestrial Biodiversity overlay mapping

The study area is partially covered by the Terrestrial Biodiversity Overlay (Figure 6) and is subject to the Development Control Plan controls outlined in Part 6 Clause 6.5 of the Shellharbour LEP.

Council will need to consider if the proposal is likely to have:

- any adverse impact on the condition, ecological value and significance of the fauna and flora on the land, and
- any adverse impact on the importance of the vegetation on the land to the habitat and survival of native fauna, and
- any potential to fragment, disturb or diminish the biodiversity structure, function and composition of the land, and
- any adverse impact on the habitat elements providing connectivity on the land, and
- any appropriate measures proposed to avoid, minimise or mitigate the impacts of the development.

Impacts on land mapped as containing terrestrial biodiversity consistent with the LEP must be considered and documented. This mapping does not necessarily exclude development, however the mapping and LEP do provide additional protections that must be considered. Therefore, land mapped by the LEP Biodiversity Overlay would be considered a high constraint.

1.2.5 Key Fish habitat and Hydrolines

The portion of Macquarie Rivulet that traverses the site is mapped as Key Fish Habitat under the *Fisheries Management Act 1994* (FM Act) (Figure 7). Any works that directly or indirectly affect the habitat will require a FM Act permit. If no impacts are expected to occur, then no additional permits or notification are required with respect to Part 7 of the FM Act.

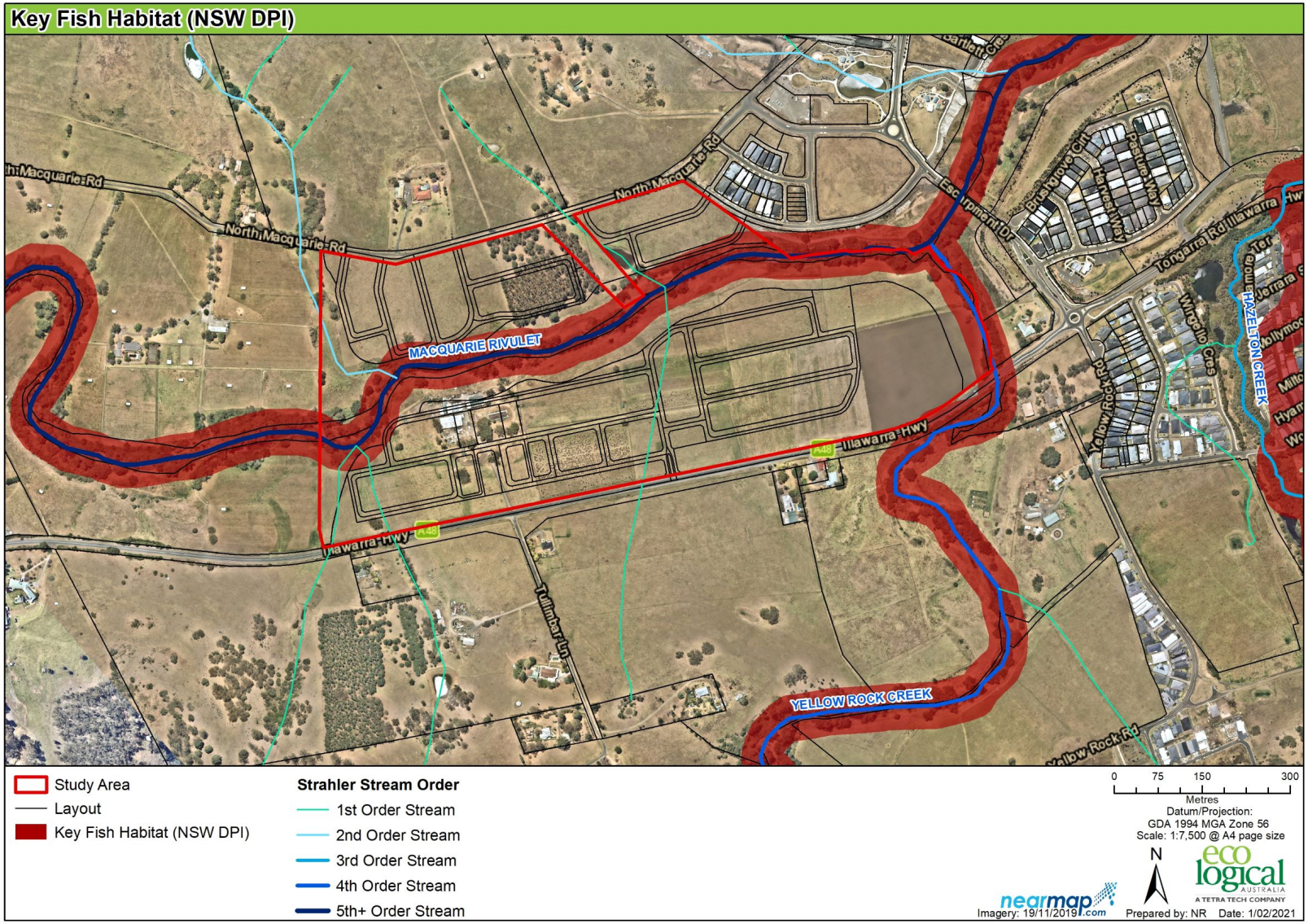

Figure 7: Key fish habitat mapping

There are four first order streams and one second order stream, all tributaries to Macquarie Rivulet, within the study area. There is one dam located within the study area connected to a first order stream. Under the *Water Management Act 2000* (WM Act), any land within 40 metres of the top of bank of any river or waterway is considered to be waterfront land (Figure 8). A Controlled Activity Approval (CAA) under s91 of the WM Act would be required before for works proposed within waterfront land. This would need to be assessed and considered at any DA stage.

In the case of first order hydrolines that have no formed banks or bed, an online tool (Waterfront land e-tool - Water in New South Wales (nsw.gov.au)) can be used and submitted with a DA to demonstrate that such hydrolines do not meet the definition of a river and not comprise waterfront land under the WM Act. For waterfront land, the Natural Resources Access Regulator (NRAR) would require certain distances from top of bank to be retained and restored consistent with the guidelines (Table 1). These guidelines would form part of a vegetation management plan (VMP) that would be required as part of the DA package and would need to demonstrate the vegetated riparian corridors meet the WM Act (2000) guidelines.

Table 1: Recommended riparian corridor (RC) widths as set out by NRAR

Watercourse type	Vegetated Riparian Zone (VRZ) width (each side of watercourse)	Total Riparian Corridor width
1st order	10 metres	20 metres + channel width
2nd order	20 metres	40 metres + channel width
3rd order	30 metres	60 metres + channel width
4th order and greater (includes estuaries, wetlands and parts of rivers influence by tidal waters)	40 metres	80 metres + channel width

Waterfront and riparian corridor land therefore have additional controls and protections that must be considered in any development application. Waterfront land should be considered a moderate constraint while riparian corridor land should be considered a high constraint, as it is typically expected to be excluded from development. However, as Macquarie Rivulet is a 5th order watercourse, the recommended required riparian corridor width (40 m each side of the watercourse from top of bank) will be the same area as the requirement for waterfront land. Confirmation of the presence and extent of the waterways is required to inform any subdivision or development application to Council.

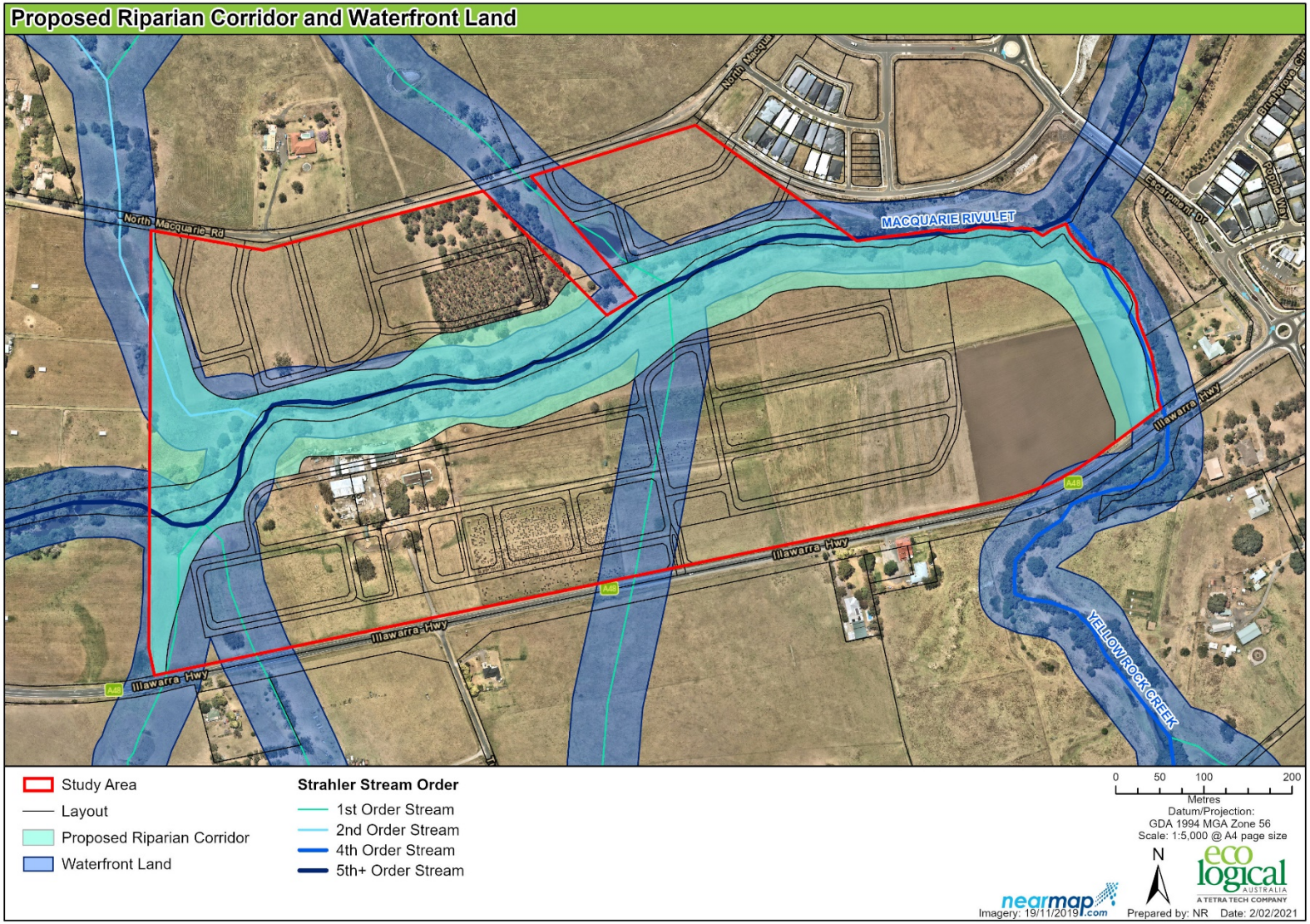

Figure 8: Waterfront land within study area

1.2.6 Coastal Management SEPP

The site is not mapped under the *Coastal Management SEPP* (Figure 9) and therefore the *Coastal Management Act 2016* does not apply.

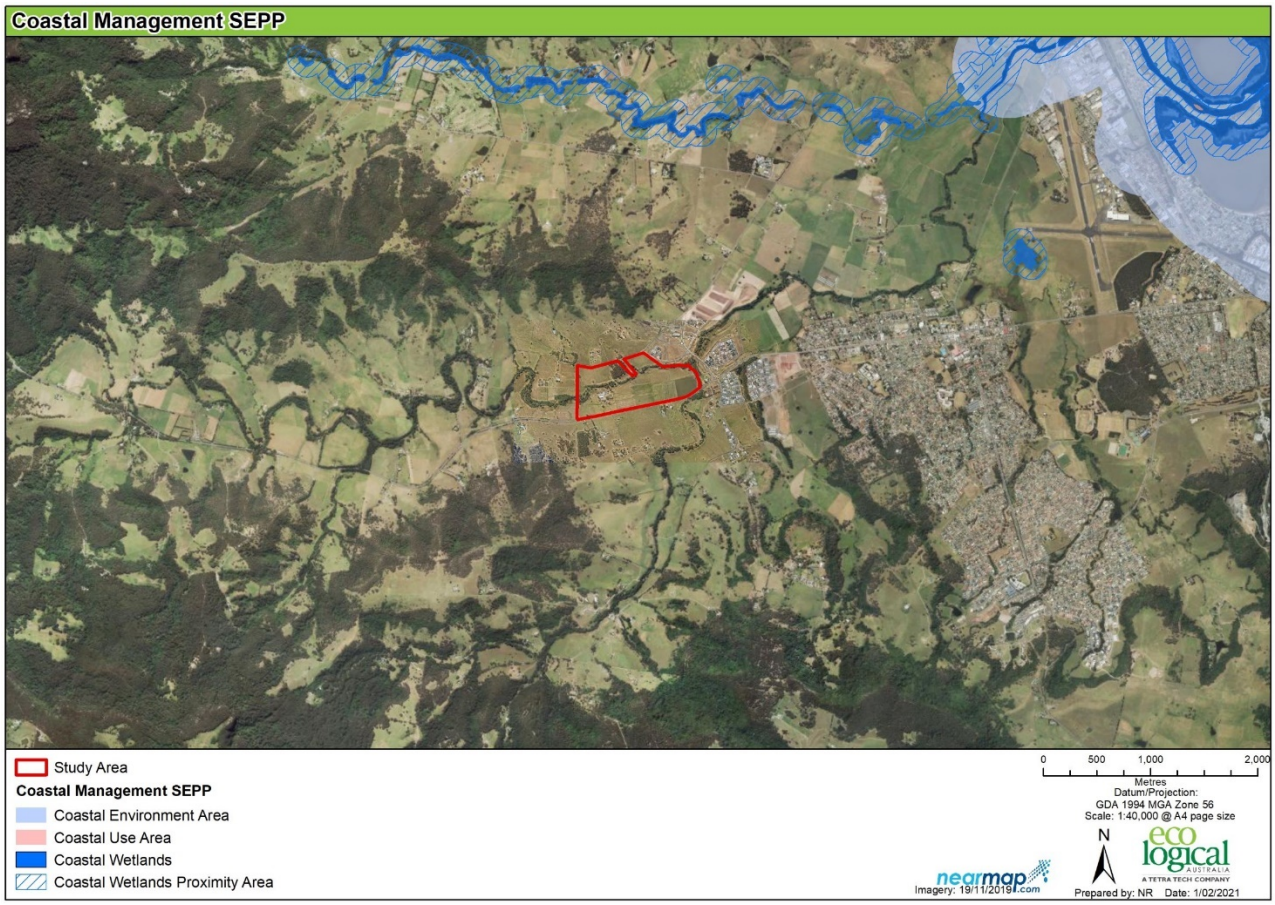

Figure 9: Coastal Management SEPP mapping

1.3 Conclusion

The study area contains several ecological and biodiversity values. In general, these are contained within the riparian corridor since this area contains the following:

- land containing mapped threatened entities (potential habitat for threatened species and threatened ecological communities)
- land mapped under the Biodiversity Values Map
- land mapped by the LEP as containing terrestrial biodiversity values
- land that comprises a riparian corridor as required by NRAR guidelines
- land that comprises Waterfront Land under the WM Act
- land that comprises Key Fish Habitat.

The study area contains patches of River Oak open forest of major streams, Sydney Basin Bioregion and South East Corner Bioregion this is likely to be associated with *River-flat Eucalypt Forest on the Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions* a threatened ecological community. This is a high constraint. Dams and riparian corridors are likely to provide foraging habitat for threatened microbats, forest owls and birds. If tree hollows are present, this may provide breeding habitat for threatened species. These areas are a moderate to high constraint if present in the study area.

The planted vegetation and exotic pasture outside of the riparian corridor are of low constraint and are unlikely to provide habitat for threatened flora and fauna species.

The study area contains land mapped on the Terrestrial Biodiversity Overlay for the Shellharbour LEP and the Biodiversity Values Map. These are considered a high constraint.

The study area contains a fifth order stream, four first order streams and one second order stream, therefore areas of the site are considered waterfront land. Waterfront land is a moderate constraint, while the riparian corridor is a high constraint. As assessment of whether the 1st order water courses meet the definition of a river under the WM Act is required and may reduce the extent of Waterfront land within the study area.

The updated concept plan proposes the retention of vegetation within the riparian corridor. Retaining the riparian corridors provide ecological and biodiversity values. The proposed riparian buffer designated in Figure 6 maintains the high biodiversity values including land mapped by the Biodiversity Values Map and the LEP, and mapped native vegetation on site. This riparian corridor would include the significant vegetation within the study area along the creek and riparian corridor land. The proposal would include zoning of this corridor to Open Space, Drainage and Road Corridor.

The proposed removal of the first order streams within the site will require an agreement from Natural Resources Activity Regulator (NRAR) if they meet the definition with defined banks, if a controlled activity is required a vegetation management plan would be needed. Anywhere proposed development encroaches on waterfront land or the riparian corridor could trigger a BOS and a controlled activity approval.

A flora and fauna assessment or BDAR (if the BOS is triggered) would be required to be submitted with any development application to Council. Further survey is required to inform future approval requirements. In particular, the mapping of 'top of bank' to accurately determine the extent of waterfront land, and validation of the vegetation communities, including their condition and extent, including any vegetation considered to meet the EPBC Act condition thresholds.

Regards,

Leura Kowald
Ecologist

Appendix A Likelihood of occurrence table

An assessment of likelihood of occurrence was made for threatened and migratory species identified from the database search. Five terms for the likelihood of occurrence of species are used in this report. This assessment was based on database or other records, presence or absence of suitable habitat, features of the proposal site and professional judgement. Some Migratory or Marine species identified from the Commonwealth database search have been excluded from the assessment, due to lack of habitat. The terms for likelihood of occurrence are defined below:

- "known" = the species was or has been observed on the site as shown by Bionet records
- "likely" = a medium to high probability that a species uses the site
- "potential" = suitable habitat for a species occurs on the site, but there is insufficient information to categorise the species as likely to occur, or unlikely to occur
- "unlikely" = a very low to low probability that a species uses the site
- "no" = habitat on site and in the vicinity is unsuitable for the species.

Information provided in the habitat associations' column has primarily been extracted (and modified) from the NSW Threatened Species Profiles.

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
ENDANGERED ECOLOGICAL COMMUNITIES						
Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion	-	E	-	Illawarra coastal plain and escarpment foothills. Recorded from the LGAs of Wollongong, Shellharbour and Kiama, and Shoalhaven. Occurs in near coastal areas below about 200 metres on gently undulating terrain. Occurs on Berry Siltstone, Budgong Sandstone and Quaternary Alluvium.	Likely – known from the locality but requires site inspection	Not mapped within study area
Illawarra Subtropical Rainforest in the Sydney Basin Bioregion	-	E	-	Illawarra coastal plain and escarpment foothills, rarely extending onto the upper escarpment slopes. Recorded from the local government areas of Wollongong, Shellharbour, Shoalhaven and Kiama. Mainly occurs between Albion Park and Gerringong, but outlying occurrences extend south to the Shoalhaven River and west into the Kangaroo Valley. Usually found on Permian volcanic rocks, but can occur on a range of rock types.	Unlikely	Not mapped within study area
River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	**-**	**E**	**-**	**Found on the river flats of the coastal floodplains. Known from parts of the Local Government Areas of Port Stephens, Maitland, Singleton, Cessnock, Lake Macquarie, Wyong, Gosford, Hawkesbury, Baulkham Hills, Blacktown, Parramatta, Penrith, Blue Mountains, Fairfield, Holroyd, Liverpool, Bankstown, Wollondilly, Camden, Campbelltown, Sutherland, Wollongong, Shellharbour, Kiama, Shoalhaven, Palerang, Eurobodalla and Bega Valley. Associated with silts, clay-loams and sandy loams, on periodically inundated alluvial flats, drainage lines and river terraces associated with coastal floodplains.**	**Known – mapped on site by OEH dataset**	**Recorded on site**
Robertson Rainforest in the Sydney Basin Bioregion	-	E	-	Restricted distribution in the eastern parts of the Southern Highlands of NSW. There are two main occurrences of the community within this distribution: on the Robertson Plateau around the town of Robertson and on the higher parts of the Cambewarra Range further to the south. Occurs almost exclusively on highly fertile soils derived from basalt and basanite. Appears to be restricted to the Robertson Basalt; no observations of the community have been recorded on the surrounding Wianamatta Shale. Found at altitudes of between 500 to 700 metres.	Unlikely	Not mapped within study area
Southern Highlands Shale Forest and Woodland in the Sydney Basin Bioregion	-	E	CE	Confined to a small area in the Southern Highlands, within an area bounded approximately by the Illawarra Escarpment in the east, Burrawang and Bundanoon in the south, Canyonleigh in the west and Berrima and Colo Vale in the north. Restricted to clay soils derived from Wianamatta Shale. Occurs at elevations of between 600 to 800 m. Generally found on gently rolling hills, though sometimes on steeper slopes.	Unlikely	Not mapped within study area

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
Subtropical and Temperate Coastal Saltmarsh	-	-	V	Within a relatively narrow margin of the Australian coastline, within the subtropical and temperate climatic zones south of the South-	Unlikely	Not mapped within study area
Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	-	E	-	Coastal floodplains of NSW. Known from parts of the Local Government Areas of Tweed, Byron, Lismore, Ballina, Richmond Valley, Clarence Valley, Coffs Harbour, Bellingen, Nambucca, Kempsey, Hastings, Greater Taree, Great Lakes, Port Stephens, Maitland, Newcastle, Cessnock, Lake Macquarie, Wyong, Gosford, Pittwater, Warringah, Hawkesbury, Baulkham Hills, Hornsby, Lane Cove, Blacktown, Auburn, Parramatta, Canada Bay, Rockdale, Kogarah, Sutherland, Penrith, Fairfield, Liverpool, Bankstown, Wollondilly, Camden, Campbelltown, Wollongong, Shellharbour, Kiama, Shoalhaven, Eurobodalla and Bega Valley. Associated with grey-black clay-loams and sandy loams, where the groundwater is saline or sub-saline, on waterlogged or periodically inundated flats, drainage lines, lake margins and estuarine fringes associated with coastal floodplains. Generally occurs below 20 m elevation.	Unlikely	Not mapped within study area
FAUNA						
Anthochaera phrygia	Regent Honeyeater	E4A	CE	Inland slopes of south-east Australia, and less frequently in coastal areas. In NSW, most records are from the North-West Plains, North-West and South-West Slopes, Northern Tablelands, Central Tablelands and Southern Tablelands regions; also recorded in the Central Coast and Hunter Valley regions. Eucalypt woodland and open forest, wooded farmland and urban areas with mature eucalypts, and riparian forests of *Casuarina cunninghamiana* (River Oak).	Potential	Foraging habitat only
Botaurus poiciloptilus	Australasian Bittern	E1	E	Found over most of NSW except for the far north-west. Permanent freshwater wetlands with tall, dense vegetation, particularly *Typha spp*. (bullrushes) and *Eleocharis spp*. (spikerushes).	Unlikely	No habitat
Calidris acuminata	Sharp-tailed Sandpiper	-	M	Summer migrant. Widespread in most regions of NSW, especially in coastal areas, but sparse in the south-central Western Plain and east Lower Western Regions. Shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation.	Unlikely	No habitat
Calidris canutus	Red Knot	-	E, M	Summer migrant to Australia. In NSW, widespread in suitable habitat along the coast. Occasionally recorded inland in all regions. Intertidal mudflats, sandflats sheltered sandy beaches, estuaries, bays, inlets, lagoons, harbours, sandy ocean beaches, rock platforms, coral reefs,	Unlikely	No habitat

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
				terrestrial saline wetlands near the coast, sewage ponds and saltworks. Rarely inland lakes or swamps.		
Calidris ferruginea	Curlew Sandpiper	E1	CE, M	Occurs along the entire coast of NSW, and sometimes in freshwater wetlands in the Murray-Darling Basin. Littoral and estuarine habitats, including intertidal mudflats, non-tidal swamps, lakes and lagoons on the coast and sometimes inland.	Unlikely	No habitat
Calidris melanotos	Pectoral Sandpiper	-	M	Summer migrant to Australia. Widespread but scattered in NSW. East of the Great Divide, recorded from Casino and Ballina, south to Ulladulla. West of the Great Divide, widespread in the Riverina and Lower Western regions. Shallow fresh to saline wetlands, including coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands.	Unlikely	No habitat
Callocephalon fimbriatum	Gang-gang Cockatoo	V	-	In NSW, distributed from the south-east coast to the Hunter region, and inland to the Central Tablelands and south-west slopes. Isolated records known from as far north as Coffs Harbour and as far west as Mudgee. Tall mountain forests and woodlands in summer; in winter, may occur at lower altitudes in open eucalypt forests and woodlands, and urban areas.	Unlikely	No habitat
Chalinolobus dwyeri	Large-eared Pied Bat	V	V	Recorded from Rockhampton in Qld south to Ulladulla in NSW. Largest concentrations of populations occur in the sandstone escarpments of the Sydney basin and the NSW north-west slopes. Wet and dry sclerophyll forests, Cyprus Pine dominated forest, woodland, sub-alpine woodland, edges of rainforests and sandstone outcrop country.	Potential	Foraging habitat only
Circus assimilis	Spotted Harrier	V	-	Found throughout the Australian mainland, except in densely forested or wooded habitats, and rarely in Tasmania. Grassy open woodland, inland riparian woodland, grassland, shrub steppe, agricultural land and edges of inland wetlands.	Potential	Limited habitat, no recorded sightings within site
Daphoenositta chrysoptera	Varied Sittella	V	-	Distribution in NSW is nearly continuous from the coast to the far west. Inhabits eucalypt forests and woodlands, mallee and Acacia woodland.	Unlikely	No habitat
Dasyornis brachypterus	Eastern Bristlebird	E1	E	There are three main populations: Northern - southern Qld/northern NSW, Central - Barren Ground NR, Budderoo NR, Woronora Plateau, Jervis Bay NP, Booderee NP and Beecroft Peninsula and Southern - Nadgee NR and Croajingalong NP in the vicinity of the NSW/Victorian border. Central and southern populations inhabit heath and open woodland with a heathy understorey. In northern NSW, habitat comprises open forest with dense tussocky grass understorey.	No	No habitat

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
Dasyurus maculatus	Spotted-tailed Quoll	V	E	Found on the east coast of NSW, Tasmania, eastern Victoria and north-eastern Qld. Rainforest, open forest, woodland, coastal heath and inland riparian forest, from the sub-alpine zone to the coastline.	Unlikely	Not ideal habitat
Dasyurus maculatus maculatus (SE mainland population)	Spotted-tailed Quoll	V	E	Found on the east coast of NSW, Tasmania, eastern Victoria and north-eastern Qld. Rainforest, open forest, woodland, coastal heath and inland riparian forest, from the sub-alpine zone to the coastline.	No	Wrong geographic distribution
Ephippiorhynchus asiaticus	Black-necked Stork	E1	-	Coastal and subcoastal northern and eastern Australia, south to central-eastern NSW and with vagrants recorded further south and inland. In NSW, floodplain wetlands of the major coastal rivers are key habitat. Also minor floodplains, coastal sandplain wetlands and estuaries.	Unlikely	Not ideal habitat
Falco hypoleucos	Grey Falcon	E1	-	Arid and semi-arid zones. In NSW, found chiefly throughout the Murray-Darling Basin, with the occasional vagrant east of the Great Dividing Range.	Unlikely	Not ideal habitat
Falsistrellus tasmaniensis	Eastern False Pipistrelle	V	-	South-east coast and ranges of Australia, from southern Qld to Victoria and Tasmania. In NSW, records extend to the western slopes of the Great Dividing Range. Tall (greater than 20m) moist habitats.	Unlikely	Not ideal habitat
Glossopsitta pusilla	Little Lorikeet	V	-	In NSW, found from the coast westward as far as Dubbo and Albury. Dry, open eucalypt forests and woodlands, including remnant woodland patches and roadside vegetation.	Unlikely	Not ideal habitat
Grantiella picta	Painted Honeyeater	V	V	Widely distributed in NSW, predominantly on the inland side of the Great Dividing Range but avoiding arid areas.	Unlikely	Not ideal habitat
Heleioporus australiacus	Giant Burrowing Frog	V	V	South eastern NSW and Victoria, in two distinct populations: a northern population in the sandstone geology of the Sydney Basin as far south as Ulladulla, and a southern population occurring from north of Narooma through to Walhalla, Victoria. Heath, woodland and open dry sclerophyll forest on a variety of soil types except those that are clay based.	No	No habitat
Hieraaetus morphnoides	Little Eagle	V	-	Throughout the Australian mainland, with the exception of the most densely-forested parts of the Dividing Range escarpment. Open eucalypt forest, woodland or open woodland, including sheoak or Acacia woodlands and riparian woodlands of interior NSW.	Unlikely	Not ideal habitat
Hirundapus caudacutus	White-throated Needletail	-	M	All coastal regions of NSW, inland to the western slopes and inland plains of the Great Divide. Occur most often over open forest and rainforest, as well as heathland, and remnant vegetation in farmland.	Unlikely	Not ideal habitat
Hoplocephalus bungaroides	Broad-headed Snake	E1	V	Largely confined to Triassic and Permian sandstones within the coast and ranges in an area within approximately 250 km of Sydney. Dry and	No	No habitat

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
				wet sclerophyll forests, riverine forests, coastal heath swamps, rocky outcrops, heaths, grassy woodlands.		
Isoodon obesulus obesulus	Southern Brown Bandicoot (eastern)	E1	E	Found in south-eastern NSW, east of the Great Dividing Range south from the Hawkesbury River. Heath or open forest with a heathy understorey on sandy or friable soils.	No	No habitat
Ixobrychus flavicollis	Black Bittern	V	-	In NSW, records are scattered along the east coast, with individuals rarely being recorded south of Sydney or inland. Terrestrial and estuarine wetlands. Also flooded grassland, forest, woodland, rainforest and mangroves where permanent water is present.	Unlikely	Not ideal habitat
Lathamus discolor	Swift Parrot	E1	CE	Migrates from Tasmania to mainland in Autumn-Winter. In NSW, the species mostly occurs on the coast and south west slopes. Box-ironbark forests and woodlands.	Unlikely	Not ideal habitat
Litoria aurea	Green and Golden Bell Frog	E1	V	Since 1990, recorded from ~50 scattered sites within its former range in NSW, from the north coast near Brunswick Heads, south along the coast to Victoria. Records exist west to Bathurst, Tumut and the ACT region. Marshes, dams and stream-sides, particularly those containing *Typha spp.* (bullrushes) or *Eleocharis spp*. (spikerushes). Some populations occur in highly disturbed areas.	Unlikely	Not ideal habitat
Litoria littlejohni	Littlejohn's Tree Frog	V	V	Plateaus and eastern slopes of the Great Dividing Range from Watagan State Forest south to Buchan in Victoria. The species has not been recorded in southern NSW within the last decade. Breeding habitat is the upper reaches of permanent streams and perched swamps. Non-breeding habitat is heath-based forests and woodlands	No	No habitat
Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	V	-	The Eastern Freetail-bat is found along the east coast from south Queensland to southern NSW.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. Usually solitary but also recorded roosting communally, probably insectivorous.	Potential	Foraging habitat over open riparian areas and dams
Miniopterus australis	Little Bentwing-bat	V	-	East coast and ranges south to Wollongong in NSW. Moist eucalypt forest, rainforest, vine thicket, wet and dry sclerophyll forest, Melaleuca swamps, dense coastal forests and banksia scrub.	Potential	Foraging habitat
Miniopterus orianae oceanensis	Large Bent-winged Bat	V	-	Eastern Bentwing-bats occur along the east and north-west coasts of Australia. Caves are the primary roosting habitat, but also use derelict mines, storm-water tunnels, buildings and other man-made structures. At other times of the year, populations disperse within about 300 km	Potential	Foraging habitat over open riparian areas and dams

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
				range of maternity caves. Hunt in forested areas, catching moths and other flying insects above the tree tops.		
Miniopterus schreibersii oceanensis	Eastern Bentwing-bat	V	-	In NSW it occurs on both sides of the Great Dividing Range, from the coast inland to Moree, Dubbo and Wagga Wagga. Rainforest, wet and dry sclerophyll forest, monsoon forest, open woodland, paperbark forests and open grassland.	Potential	Foraging habitat
Mixophyes balbus	Stuttering Frog	E1	V	Along the east coast of Australia from southern Qld to north-eastern Victoria. Rainforest and wet, tall open forest in the foothills and escarpment on the eastern side of the Great Dividing Range.	Unlikely	No habitat
Myotis macropus	Southern Myotis	V	-	In NSW, found in the coastal band. It is rarely found more than 100 km inland, except along major rivers. Foraging habitat is waterbodies (including streams, or lakes or reservoirs) and fringing areas of vegetation up to 20m.	Potential	Foraging habitat over open riparian areas and dams
Neophema chrysogaster	Orange-bellied Parrot	E4A	CE	Breeds in Tasmania and migrates in autumn to spend the winter on the mainland coast of south-eastern SA and southern Victoria. Occasional reports from NSW, most recently Shellharbour and Maroubra in May 2003. Winter habitat is mostly within 3 km of the coast in sheltered bays, lagoons, estuaries, coastal dunes and saltmarshes. Also small islands and peninsulas, saltworks, golf courses, low samphire herbland and taller coastal shrubland.	No	No habitat
Ninox connivens	Barking Owl	V	-	Wide but sparse distribution in NSW, avoiding the most central arid regions. Core populations exist on the western slopes and plains and in some northeast coastal and escarpment forests. Woodland and open forest, including fragmented remnants and partly cleared farmland, wetland and riverine forest.	Potential	Foraging habitat
Ninox strenua	Powerful Owl	V	-	In NSW, it is widely distributed throughout the eastern forests from the coast inland to tablelands, with scattered records on the western slopes and plains. Woodland, open sclerophyll forest, tall open wet forest and rainforest.	Potential	Foraging habitat
Numenius madagascariensis	Eastern Curlew	-	CE, M	Summer migrant to Australia. Primarily coastal distribution in NSW, with some scattered inland records. Estuaries, bays, harbours, inlets and coastal lagoons, intertidal mudflats or sandflats, ocean beaches, coral reefs, rock platforms, saltmarsh, mangroves, freshwater/brackish lakes, saltworks and sewage farms.	No	No habitat
Petauroides volans	Greater Glider population in the	E2	V	This population on the south coast of NSW is bounded by the Moruya River to the north, Coila Lake to the south and the Princes Highway and	No	Wrong geographic distribution

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
	Eurobodalla local government area			cleared land exceeding 700 m in width to the west. Eucalypt forests and woodlands.		
Petaurus norfolcensis	Squirrel Glider	V	-	Widely though sparsely distributed on both sides of the Great Dividing Range in eastern Australia, from northern Qld to western Victoria. 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.	Unlikely	Not ideal habitat
Petrogale penicillata	Brush-tailed Rock-wallaby	E1	V	In NSW they occur from the Qld border in the north to the Shoalhaven in the south, with the population in the Warrumbungle Ranges being the western limit. Rocky escarpments, outcrops and cliffs with a preference for complex structures with fissures, caves and ledges.	No	No habitat
Petroica boodang	Scarlet Robin	V	-	In NSW, it occurs from the coast to the inland slopes. Dry eucalypt forests and woodlands, and occasionally in mallee, wet forest, wetlands and tea-tree swamps.	Unlikely	Not ideal habitat
Petroica phoenicea	Flame Robin	V	-	In NSW, breeds in upland areas, and in winter many birds move to the inland slopes and plains, or occasionally to coastal areas. Likely that there are two separate populations in NSW, one in the Northern Tablelands, and another ranging from the Central to Southern Tablelands. Breeds in upland tall moist eucalypt forests and woodlands. In winter uses dry forests, open woodlands, heathlands, pastures and native grasslands. Occasionally occurs in temperate rainforest, herbfields, heathlands, shrublands and sedgelands at high altitudes.	Unlikely	Not ideal habitat
Petroica rodinogaster	Pink Robin	V	-	North to near Bombala in south-eastern NSW. Disperses north and west in winter, sometimes as far north as the central coast of NSW. Rainforest and tall, open eucalypt forest, particularly in densely vegetated gullies.	Unlikely	No habitat
Pezoporus wallicus wallicus	Eastern Ground Parrot	V	-	In NSW, found in small numbers on the north coast (Broadwater, Bundjalung, Yuraygir NPs) and Myall Lakes on the central coast. Larger populations found on south coast, particularly Barren Grounds NR, Budderoo NP, the Jervis Bay area and Nadgee NR. Small numbers are recorded at Morton and Ben Boyd NP and other areas on the south coast. Coastal or subcoastal low heathland and sedgeland.	No	No habitat
Phascolarctos cinereus	Koala	V	V	In NSW it mainly occurs on the central and north coasts with some populations in the west of the Great Dividing Range. There are sparse and possibly disjunct populations in the Bega District, and at several sites on the southern tablelands. Eucalypt woodlands and forests.	Unlikely	Not ideal habitat

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
Plegadis falcinellus	Glossy Ibis	-	M	Recorded over much of NSW. Spring/summer breeding migrant to southern Murray-Darling region and Macquarie Marshes. Edges of lakes and rivers, lagoons, flood-plains, wet meadows, swamps, reservoirs, sewage ponds, rice-fields and cultivated areas under irrigation. Occasionally estuaries, deltas, saltmarshes and coastal lagoons.	Unlikely	Not ideal habitat
Pluvialis squatarola	Grey Plover	-	M	Regular summer migrant to coastal Australia, including NSW. Rarely inland, on passage. Mudflats, saltmarsh, tidal reefs and estuaries.	Unlikely	Not ideal habitat
Potorous tridactylus tridactylus	Long-nosed Potoroo	V	V	In NSW it is generally restricted to coastal heaths and forests east of the Great Dividing Range, with an annual rainfall exceeding 760 mm. Coastal heaths and dry and wet sclerophyll forests.	Unlikely	No habitat
Prototroctes maraena	Australian Grayling	-	-	It is a migratory species that spawns in the lower freshwaters of coastal rivers and spends approximately 6 months in coastal seas as larvae/juveniles before migrating back into freshwater rivers and streams where they remain for the rest of their lives. Very little is known about the specific environmental requirements or habitats occupied during the estuarine or marine phase of the life-cycle as very few specimens have been collected.	Unlikely	Not ideal habitat
Pseudomys novaehollandiae	New Holland Mouse	-	V	Fragmented distribution across eastern NSW. Open heathlands, woodlands and forests with a heathland understorey, vegetated sand dunes.	Unlikely	No habitat
Pseudophryne australis	Red-crowned Toadlet	V	-	Confined to the Sydney Basin, from Pokolbin in the north, the Nowra area to the south, and west to Mt Victoria in the Blue Mountains. Open forests, mostly on Hawkesbury and Narrabeen Sandstones. Inhabits periodically wet drainage lines below sandstone ridges that often have shale lenses or cappings.	No	No habitat
Pteropus poliocephalus	Grey-headed Flying-fox	V	V	Along the eastern coast of Australia, from Bundaberg in Qld to Melbourne in Victoria. Subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops.	Likely	Foraging habitat
Rostratula australis	Australian Painted Snipe	E1	E	In NSW most records are from the Murray-Darling Basin. Other recent records include wetlands on the Hawkesbury River and the Clarence and lower Hunter Valleys. Swamps, dams and nearby marshy areas.	Unlikely	Not ideal habitat
Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	V	-	There are scattered records of this species across the New England Tablelands and North West Slopes. Rare visitor in late summer and autumn to south-western NSW. Almost all habitats, including wet and	Potential	Foraging habitat

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
				dry sclerophyll forest, open woodland, open country, mallee, rainforests, heathland and waterbodies.		
Scoteanax rueppellii	Greater Broad-nosed Bat	V	-	Both sides of the great divide, from the Atherton Tableland in Qld to north-eastern Victoria, mainly along river systems and gullies. In NSW it is widespread on the New England Tablelands. Woodland, moist and dry eucalypt forest and rainforest.	Potential	Foraging habitat
Sternula nereis nereis	Fairy tern	-	V	Within Australia, the Fairy Tern occurs along the coasts of Victoria, Tasmania, South Australia and Western Australia; occurring as far north as the Dampier Archipelago near Karratha. The subspecies has been known from New South Wales (NSW) in the past, but it is unknown if it persists there (Birdlife International 2010; Garnett & Crowley 2000).	Unlikely	Not ideal habitat
Stictonetta naevosa	Freckled Duck	V	-	Inland river systems, occurring as far as coastal NSW in times of drought. Freshwater swamps and creeks, lakes, reservoirs, farm dams and sewage ponds.	Potential	Foraging habitat
Thinornis cucullatus cucullatus	Hooded dotterel	-	V	It is a non-migratory inhabitant of coastal and subcoastal Western Australia, South Australia, New South Wales, Victoria and Tasmania, and is a vagrant in Queensland.	No	No habitat
Thinornis rubricollis rubricollis	Hooded Plover	E4A	V	Occurs in coastal NSW north to Sussex Inlet. Occasional records from the Shoalhaven River, Comerong Beach and Lake Illawarra. Sandy ocean beaches, tidal bays and estuaries, rock platforms, rocky or sand-covered reefs, and small beaches in lines of cliffs. Also use near-coastal saline and freshwater lakes and lagoons.	No	No habitat
Tringa stagnatilis	Marsh Sandpiper	-	M	Summer migrant to Australia. Recorded in all regions of NSW but especially the central and south coasts and (inland) on the western slopes of Great Divide and western plains. Swamps, lagoons, billabongs, saltpans, saltmarshes, estuaries, pools on inundated floodplains, intertidal mudflats, sewage farms and saltworks, reservoirs, waterholes, soaks, bore-drain swamps and flooded inland lakes.	No	No habitat
FLORA						
Acacia bynoeana	Bynoe's Wattle	E1	V	Found in central eastern NSW, from the Hunter District (Morisset) south to the Southern Highlands and west to the Blue Mountains. Heath or dry sclerophyll forest on sandy soils.	Unlikely	Not ideal habitat
Boronia deanei	Deane's Boronia	V	V	Scattered populations between the far south-east of NSW and the Blue Mountains (including the upper Kangaroo River near Carrington Falls, the Endrick River near Nerriga and Nalbaugh Plateau). Wet heath, often	Unlikely	Not ideal habitat

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
				at the margins of open forest adjoining swamps or along streams. Also found in drier open forest on poorly drained peat soils.		
Caladenia tessellata	Thick Lip Spider Orchid	E1	V	Currently known from two disjunct areas; one population near Braidwood on the Southern Tablelands and three populations in the Wyong area on the Central Coast. Grassy sclerophyll woodland on clay loam or sandy soils, or low woodland with stony soil.	Unlikely	Not ideal habitat
Chorizema parviflorum	Chorizema parviflorum Benth. in the Wollongong and Shellharbour Local Government Areas	E2	-	Between Austinmer and Albion Park in the local government areas of Wollongong and Shellharbour. Woodland or forest dominated by *Eucalyptus tereticornis* (Forest Red Gum) and/or *E. longifolia* (Woollybutt).At Austinmer, recorded from a coastal headland.	Potential	Limited habitat
Cryptostylis hunteriana	Leafless Tongue Orchid	V	V	In NSW, recorded mainly on coastal and near coastal ranges north from Victoria to near Forster, with two isolated occurrences inland north-west of Grafton. Coastal heathlands, margins of coastal swamps and sedgelands, coastal forest, dry woodland, and lowland forest.	Unlikely	Not ideal habitat
Cynanchum elegans	White-flowered Wax Plant	E1	E	Restricted to eastern NSW, from Brunswick Heads on the north coast to Gerroa in the Illawarra region, and as far west as Merriwa in the upper Hunter River valley. Dry rainforest; littoral rainforest*; Leptospermum laevigatum-Banksia integrifolia* subsp. *integrifolia* (Coastal Tea-tree–Coastal Banksia) coastal scrub; *Eucalyptus tereticornis* (Forest Red Gum) or *Corymbia maculata* (Spotted Gum) open forest and woodland; and *Melaleuca armillaris* (Bracelet Honeymyrtle) scrub.	Unlikely	Not ideal habitat
Daphnandra johnsonii	Illawarra Socketwood	E1	E	Restricted to the Illawarra region, in the Shoalhaven, Kiama, Shellharbour and Wollongong areas. Rainforest and moist eucalypt forest on rocky hillsides and gullies of the Illawarra lowlands, occasionally extending onto the upper escarpment slopes.	Unlikely	Not ideal habitat
Genoplesium baueri	Bauer's Midge Orchid	E1	E	Has been recorded from locations between Nowra and Pittwater and may occur as far north as Port Stephens. Dry sclerophyll forest and moss gardens over sandstone.	No	No habitat
Gossia acmenoides	Gossia acmenoides population in the Sydney Basin Bioregion south of the Georges River	E2	-	This disjunct population is located in the Illawarra region in the LGAs of Wollongong, Shellharbour and Kiama. May also occur in the adjoining LGAs of Shoalhaven and Wingecarribee, where there are areas of suitable habitat. Dry and subtropical rainforest.	Unlikely	Lack of habitat

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
Haloragis exalata subsp. *exalata*	Square Raspwort	V	V	Disjunct distribution in the Central Coast, South Coast and North Western Slopes botanical subdivisions of NSW. Protected and shaded damp situations in riparian habitats.	Potential	Suitable habitat, recorded on neighbouring properties
Irenepharsus trypherus	Illawarra Irene	E1	E	Recorded within the local government areas of Kiama, Shellharbour, Shoalhaven, Tallaganda, Wingecarribee, and Wollongong, including Minnamurra Falls, the Jamberoo area, and Morton and Macquarie Pass National Parks. Moist sclerophyll forest, *Backhousia myrtifolia* (Ironwood) thickets, and rainforest, on steep rocky slopes near cliff lines and ridge tops.	Unlikely	No habitat
Melaleuca biconvexa	Biconvex Paperbark	V	V	Only found in NSW, populations found in the Jervis Bay area in the south and the Gosford-Wyong area in the north. Damp places, often near streams or low-lying areas on alluvial soils.	Unlikely	Wrong geographic distribution
Persicaria elatior	Tall Knotweed	V	V	In south-eastern NSW recorded from Mt Dromedary, Moruya State Forest near Turlinjah, the Upper Avon River catchment north of Robertson, Bermagui, and Picton Lakes. In northern NSW known from Raymond Terrace (near Newcastle) and the Grafton area (Cherry Tree and Gibberagee State Forests). Beside streams and lakes, swamp forest or disturbed areas.	Unlikely	Wrong geographic distribution
Persoonia hirsuta	Hairy Geebung	E1	E	Scattered distribution around Sydney, from Singleton in the north, along the east coast to Bargo in the south and the Blue Mountains to the west. Sandy soils in dry sclerophyll open forest, woodland and heath on sandstone.	Unlikely	Wrong geographic distribution
Pimelea curviflora var. *curviflora*	-	V	V	Confined to the coastal area of the Sydney and Illawarra regions between northern Sydney and Maroota in the north-west and Croom Reserve near Albion Park in the south. Woodland, mostly on shaley/lateritic soils over sandstone and shale/sandstone transition soils on ridgetops and upper slopes.	Unlikely	Not ideal habitat
Pimelea spicata	Spiked Rice-flower	E1	E	Two disjunct areas; the Cumberland Plain (Marayong and Prospect Reservoir south to Narellan and Douglas Park) and the Illawarra (Landsdowne to Shellharbour to northern Kiama). Well-structured clay soils. Eucalyptus moluccana (Grey Box) communities and in areas of ironbark on the Cumberland Plain. Coast Banksia open woodland or coastal grassland in the Illawarra.	Unlikely	Not ideal habitat

Scientific Name	Common Name	BC Act Status	EPBC Act Status	Distribution / Habitat	Likelihood of occurrence	Comment
Prasophyllum affine	Jervis Bay Leek Orchid	E1	E	Known from three areas south-east of Nowra on South Coast: Kinghorne Point, Wowly Gully near the town of Callala Bay, and near the township of Vincentia.	Unlikely	Not ideal habitat
Pterostylis gibbosa	Illawarra Greenhood	E1	E	Known from a small number of populations in the Hunter region (Milbrodale), the Illawarra region (Albion Park and Yallah) and the Shoalhaven region (near Nowra). Open forest or woodland, on flat or gently sloping land with poor drainage.	Potential	Suitable habitat,
Pterostylis pulchella	Waterfall Greenhood	V	V	Found only at Fitzroy Falls, Belmore Falls, upper Bundanoon Creek (Meryla) and Minnamurra Falls. Cliff faces close to waterfalls and creek banks, and mossy rocks alongside running water.	Unlikely	Wrong geographic distribution
Rhizanthella slateri	Eastern Australian Underground Orchid	V	E	In NSW, currently known from fewer than 10 locations, including near Bulahdelah, the Watagan Mountains, the Blue Mountains, Wiseman's Ferry area, Agnes Banks and near Nowra.	Unlikely	Not ideal habitat
Rhodamnia rubescens	Scrub Turpentine	E4A	-	Occurs in coastal districts north from Batemans Bay in New South Wales, approximately 280 km south of Sydney, to areas inland of Bundaberg in Queensland. Populations of *R. rubescens* typically occur in coastal regions and occasionally extend inland onto escarpments up to 600 m a.s.l. in areas with rainfall of 1,000-1,600 mm.	Unlikely	Not ideal habitat
Solanum celatum	-	E1	-	Restricted to an area from Wollongong to just south of Nowra, and west to Bungonia. Rainforest clearings and wet sclerophyll forests.	Potential	Suitable habitat, recorded on neighbouring properties
Syzygium paniculatum	Magenta Lilly Pilly	E1	V	Only in NSW, in a narrow, linear coastal strip from Upper Lansdowne to Conjola State Forest. Subtropical and littoral rainforest on gravels, sands, silts and clays.	Unlikely	No habitat
Thesium australe	Austral Toadflax	V	V	In eastern NSW it is found in very small populations scattered along the coast, and from the Northern to Southern Tablelands. Grassland on coastal headlands or grassland and grassy woodland away from the coast.	Unlikely	Not ideal habitat
Zieria granulata	Illawarra Zieria	E1	E	Restricted to the Illawarra region, primarily on the coastal lowlands between Oak Flats and Toolijooa. Sclerophyll forest, scrub, woodland and rainforest margins. Typically, on rocky ridges and outcrops in shallow volcanic soils, also moist slopes of the Illawarra escarpment and low-lying areas on Quaternary sediments.	Unlikely	Not ideal habitat