Biodiversity Certification of Land: Jacaranda

Recommendation Report for the Secretary's Delegate of the Department of Planning, Industry and Environment

For conferring or refusing to confer biodiversity certification of land under Part 7AA of the *Threatened Species Conservation Act 1995*

Contents

1 BACKGROUND AND DOCUMENTS CONSIDERED

Name of recommending officer:	Janne Grose and Sarah Burke
Name of decision maker:	Trish Harrup, Director Greater Sydney, as delegate for the Secretary of the Department of Planning, Industry and Environment
CM9 container and record numbers:	SF16/7829
Name of Planning Authority (applicant):	Hawkesbury City Council
Date application received:	22 August 2019, and as subsequently amended by Council
Dates of public notification under Section 126N:	25 February 2021 – 28 March 2021

1.1 THE PROPOSAL

Hawkesbury City Council (Council) has applied for biodiversity certification under the NSW *Threatened Species Conservation Act, 1995* (TSC Act) of the development lands (biodiversity certification area) identified at Tab 1 in the *Jacaranda Biodiversity Certification Assessment Report and Strategy Final Application to Minister prepared for Celestino Pty Ltd* dated 3 August 2021.

Jacaranda Ponds is listed in the Proposed Applications for Biodiversity Certification Order 2017 gazetted 24 November 2017, which declares the proposed applications that may be made under Part 7AA of the TSC Act. The development is now known as 'Jacaranda'.

The land proposed for biodiversity certification is identified in red in Figure 1 totals 143.72 hectares (ha). The land proposed for onsite conservation measure is 28.13ha. The proposal also includes 13.19ha of land identified as maintaining its current land use and has been assessed as retained lands. The retained lands have been excluded from the assessment and are neither proposed to be biodiversity certified nor subject to conservation measures (Table 1 and Figures 1-2).

To meet the requirements of the biodiversity certification assessment methodology (BCAM), it is proposed to retire biodiversity credits from two biobank sites within the biodiversity certification assessment area (BCAA) as well as 143 species credits from outside the BCAA.

Biobank agreement applications for two on-site biobank sites (Glossodia East and Glossodia West) were submitted for registration in August 2020 by the current landowners EJC Glossodia Pty Ltd and Frank George Pace and Pace Land Holdings Pty Ltd respectively. The landowners will retire all credits generated from the sites not needed by the Developer and dedicate the land to Council in accordance with the draft biodiversity certification agreement (BCA).

Table 1 Land use

Land use	Area (ha)	Native vegetation extent (ha)
Land proposed for biodiversity certification	143.72	17.28
Land proposed for on-site conservation measures	28.13 *	15.54
Land proposed for off-site conservation measures	N/A	N/A
Retained lands	13.19	4.20
Total	**185.04 ***	**37.02**

* The land proposed for on-site conservation measures in the BCAA is 28.13ha in area as recorded in the biobanking agreement applications. The BCARS indicates the area is 28.12ha. The difference is due to rounding up when the land is treated as two separate sites. This Recommendation Report uses the figures in Table 1 which is different to the figures in the BCARS

1.2 LAND OWNERSHIP

At the time that the application for biodiversity certification was submitted to the Minister for Energy and Environment, the land at the Jacaranda site was owned as follows:

Lot / DP	Address	Owner
Lot 2 DP533402	103 Spinks Road, Glossodia	EJC Glossodia Pty Limited
Lot 52 DP1104504	103 Spinks Road, Glossodia	EJC Glossodia Pty Limited
Lot 20 DP 214753	213 Spinks Road, Glossodia	EJC Glossodia Pty Limited
Lot 75 DP 214752	361 Spinks Road, Glossodia	Feecha Pty Ltd, Himbia Pty Ltd, Rashka Pty Ltd, & Printsilk Pty Ltd
Lot 3 DP 230943	11 James Street, Glossodia	EJC Glossodia Pty Limited
Lot 44 DP 214755	3 Derby Place, Glossodia	Pace Landholdings Pty Limited
Lot 50 DP 751637	746A Kurmond Road, Freemans Reach	EJC Glossodia Pty Limited
Lots 1, 2 & 3 DP 784300	780A-780C Kurmond Road, North Richmond	Frank George Pace and Pace Land Holdings Pty Limited

Figure 1 Biodiversity Certification Assessment Area, land to be certified, land proposed for conservation, retained land and the Jacaranda Residential Estate development footprint.

Figure 2 Biodiversity Certification Assessment Area, land to be certified, land proposed for conservation, retained land and Lot and DPs

1.3 THE BIODIVERSITY CERTIFICATION APPLICATION

An application for biodiversity certification must follow the requirements of Part 7AA of the TSC Act and the BCAM. The TSC Act requires the applicant to have a biodiversity certification strategy for the implementation of conservation measures to ensure that the overall effect of the biodiversity certification is to improve or maintain biodiversity values. To meet this requirement a Biodiversity Certification Assessment Report and Strategy (BCARS) has been prepared and submitted with the biodiversity certification application (Tab 1).

Council made the application on 22 August 2019 and as subsequently amended by Council. The application was prepared and lodged by Council on behalf of the Developer and landowners. Eco Logical Australia Pty Ltd undertook the biodiversity assessment and prepared the BCARS which underpins the application for certification.

The application for biodiversity certification was placed on public exhibition by Council between 25 February 2021 – 28 March 2021. Council received no submissions from the community. One (1) submission was received from the Environment, Energy and Science group (EES). In accordance with section 126N of the TSC Act, Council prepared a Submissions Report (Tab 1).

The BCARS and Submissions Report has been reviewed by EES as documented in this Recommendation Report and the Recommendation Report for the Minister's Delegate (Tab 2b). For development lands to be biodiversity certified the Secretary's Delegate and the Minister's Delegate will need to be satisfied in relation to certain matters outlined in the BCAM and Part 7AA of the TSC Act. These matters have been assessed by EES and those relevant to the Secretary's Delegate are documented in this Recommendation Report.

1.4 HISTORY AND BACKGROUND

The Jacaranda site is in Glossodia within the Hawkesbury Local Government Area and is located 7km and 9km north of Richmond and Windsor respectively.

The 185.03ha site is irregular in shape and is bound by Spinks Road to the north and Currency Creek on the southern boundary (Figures 1 -2). The site has historically and is currently primarily used for agricultural purposes including cattle grazing, a poultry farm and free-range egg farm and private recreation. The free-range egg farm is operated by Pace Eggs in the north-western and south-western portions of the site. The chicken rearing farm is operated by Baiada within the central portion of the site. The farming operations include eight dwellings and several ancillary farm buildings.

The site contains cleared paddocks with scattered trees and remnant patches of native vegetation. The site has varying topography, gently sloping hills to flat plains. Key topographic features include a ridgeline which runs east-west across the northern part of the site; a general north to south slope towards Currency Creek on the southern boundary; slopes ranging from 2-12% in the southern portion of the site; and a downhill slope (4-6%) towards the existing dam within the north-eastern portion of the site.

Currency Creek flows from west to east along the southern boundary of the BCAA. Currency Creek is a fourth order stream. In addition, three unnamed tributaries of Howes Creek which are first order streams occur on the northern boundary of the site. Eight farm dams are located on the site. The current surrounding landscape is comprised of small-scale agricultural lands zoned as RU1 – Primary Production and pockets of low-density residential development zoned as R2 – Low Density Residential Development.

Council's Planning Proposal

Prior to 2012, the Jacaranda site was zoned RU1 Primary Production. In 2014, the Jacaranda site was rezoned a mixture of R2 Low Density Residential, R5 Large Lot Residential and RE1 Public Recreation with small areas zoned SP2 Infrastructure (Sewerage System) under Hawkesbury Local Environment Plan 2012 (LEP). Under the current zoning the Jacaranda site does not include conservation areas.

Following the 2014 rezoning, several detailed ecological studies were undertaken to inform the design of future development. The ecological studies identified that the current zoning and Concept Masterplan did not deliver the best ecological outcome for the site.

During the assessment of the current planning proposal, biodiversity certification of the site was considered by Council and the Developer. The former Office of Environment and Heritage (OEH) and EES have been in discussions with Council and the Developer since 2016 regarding the biodiversity certification of the Jacaranda site. On 27 March 2018, a revised planning proposal and concept masterplan for the site were lodged with Council. The planning proposal was subsequently refined and amended by Council and a Gateway determination was issued by the Department of Planning, Industry and Environment for the planning proposal on 9 June 2020.

A total of 28.13 ha of biobank areas (land proposed for conservation) have been included on the site (see Figure 2), including:

- two northern biobank areas (north-east and north-west) which form part of Glossodia East and Glossodia West biobank sites respectively
- a large western biobank area which forms part of Glossodia West biobank site
- an eastern biobank area providing a north to south vegetation corridor, which forms part of Glossodia East biobank site, and
- a southern biobank area along Currency Creek on the south-eastern part of the site which forms part of Glossodia East biobank site.

Biodiversity Certification Application – amendments following exhibition

Following public exhibition, amendments were made to the application and the application was submitted on 30 April 2021. The outcomes are summarised below:

- BCAA - no change
- land proposed for certification – no change
- vegetation impacts (within land proposed for certification) – no change
- amended the size of Conservation Area 1 in Section 4 as 12.01 ha
- amended Southern Myotis credit requirements in Section 6 and Section 9 in accordance with the BCARS (Version 9)
- replaced Cumberland Land Snail with Dural Land Snail in Section 9 in accordance with the BCARS (Version 9).

Section 126N of the TSC Act requires the applicant (Council) to prepare a response to any submissions received relating to the application. No submissions were received from the public. One submission was received from EES and a Response to Submissions is provided in Appendix E of the BCARS to address EES's submission. This is detailed in Section 2.1.2 (Public notification requirements) of the Recommendation Report for the Minister' Delegate (Tab 2b).

After 30 April 2021, further amendments were made to the BCARS including minor editorial amendments raised in EES's submission. Due to the nature of the amendments, the applicant provided a revised BCARS dated 3 August 2021, V12 (Tab 1).

The following is a summary of the amendments made to the BCARS:

- the areas (ha) in Table 1 corrected, deletion of Table 2 (proposed biodiversity certification land uses and lots in the BCAA), correction to the total area proposed for conservation in Section 4.1
- Figure 15 – title amended to refer to the Dural Land Snail instead of Cumberland Plain Land Snail
- Figures 4, 5 and 21 - updated to show Lot 44 as retained lands
- The Biocertification Strategy (Section 6) amended to include:
    - Council reserve signage is to prohibit cats, dogs and horses from the two on-site biobank sites
    - Vegetation zones 1, 2, 3 and 6 in Glossodia East Biobank site and vegetation zones 2, 3 and 6 in Glossodia West Biobank site (in which the Replanting or supplementary planting where natural regeneration is insufficient to bring back to benchmark condition)
    - Vegetation Zone 2, 3 and 6 of Glossodia East and West Biobank sites in which the addition of logs to supplement the current low level of logs)
- Revised Statement of Commitments to include The Plan of Management is to prohibit cats, dogs and horses.

Sections 126N (3) and (4) of the TSC Act allow for applicant to vary its application and that further public notification of the application is not required unless the Minister otherwise directs. EES has formed the view that further public exhibition of the application is not warranted as the proposed amendments do not significantly alter the proposal compared to that publicly exhibited.

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

As there are matters of national environmental significance (MNES) (listed communities and species on the schedules of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)) to be affected in the study area, the proposal was also referred to the Commonwealth Department of the Environment and Energy and was subsequently declared a 'controlled action' under the EPBC Act. A Preliminary Documentation Environmental Assessment Report was prepared and placed on public exhibition in February and May 2020. The Minister for the Environment approved the proposed action on 17 June 2020.

1.5 THE BIODIVERSITY CERTIFICATION ASSESSMENT AREA

The Jacaranda BCAA is shown on Figure 2.

1.5.1 Native vegetation impacts and credit requirements

The BCAA totals 185.03ha and currently comprises 147.26ha of cleared land and 37.02ha of native vegetation. The area proposed to be biodiversity certified (i.e. impacted) totals 143.72ha and is currently comprised of 17.28 ha of native vegetation. Conservation measures are proposed to protect 15.54ha of native vegetation within the BCAA. The remaining 4.20ha of native vegetation in the BCAA lies in retained lands that were excluded from the assessment.

Development of the area to be biodiversity certified will require a total of 278 ecosystem credits to be retired to offset the impacts to native vegetation and associated habitat for ecosystem credit species. Table 2 shows the credits required per impacted vegetation type and Figure 3 depicts the biometric vegetation types in the BCAA.

Table 2 Native vegetation types in the proposed biodiversity certification area

Biometric vegetation type name (BVT ID)	Equivalent under TSC Act/EPBC Act	Conservation status	Condition (Low or Mod-Good)	Area proposed for removal (ha)	Ecosystem credits required	Red flag?
HN528 - Grey Box – Forest Red Gum grassy woodlands on flats of the southern Cumberland Plain, Sydney Basin	TSC Act – Cumberland Plain Woodland EPBC Act – Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	Critically Endangered Ecological Community (CEEC) under the TSC Act Critically Endangered Ecological Community (CEEC) under the EPBC Act	Low	17.26	278	No
HN526 - Forest Red Gum – Rough Barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin	TSC Act – River-Flat Eucalypt Forest	Endangered Ecological Community (EEC) under the TSC Act	Low	0.02	0.00	No
Total				17.28	278	

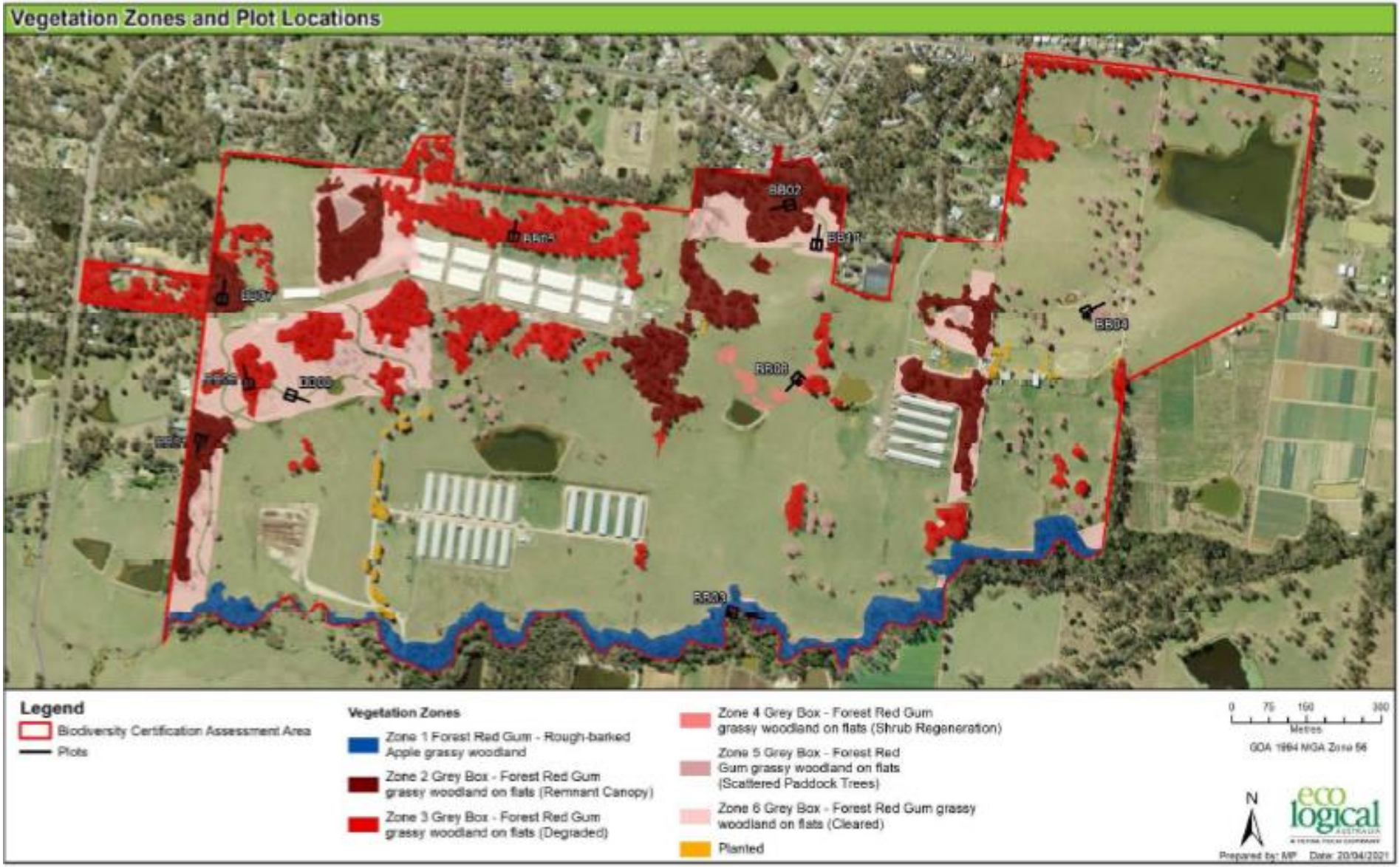

Figure 3 Indicative Biometric vegetation types in the BCAA

1.5.2 Species impacts and credit requirements

The area proposed to be biodiversity certified (i.e. impacted) contains habitat for the Dural Land Snail and the Southern Myotis species credit species. Development of the area will require a total of 206 species credits to be retired to offset the impacts (comprising 14 species credits to be retired for the Dural Land Snail and 192 species credits to be retired for the Southern Myotis).

Table 3 shows the credits required for Dural Land Snail and Southern Myotis species credit species, respectively. Figures 4 and 5 depicts assumed Dural Land Snail and Southern Myotis habitat and records within the BCAA. Figure 6 depicts Southern Myotis habitat to be conserved.

Table 3 Fauna species credit species in the proposed biodiversity certification area

Species name	**Conservation status**	**Habitat type**	**Area proposed for removal (ha)**	**Species credits required**	**Red flag?**
Dural Land Snail (*Pommer-helix duralensis*)	Endangered	Leaf litter at the base of trees, under logs and dumped rubbish and near grass clumps in degraded and remnant canopy patches of Cumberland Plain Woodland (CPW). Only one area within the BCAA is considered habitat for this species.	0.18	14	yes
Southern Myotis (*Myotis macropus*)	Vulnerable	Any native vegetation within 100 m of a hollow bearing tree that was within 200m of a permanent waterbody	8.68	192	Yes
Total			8.86	206	

Figure 4 - Habitat polygon and records for Dural Land Snail

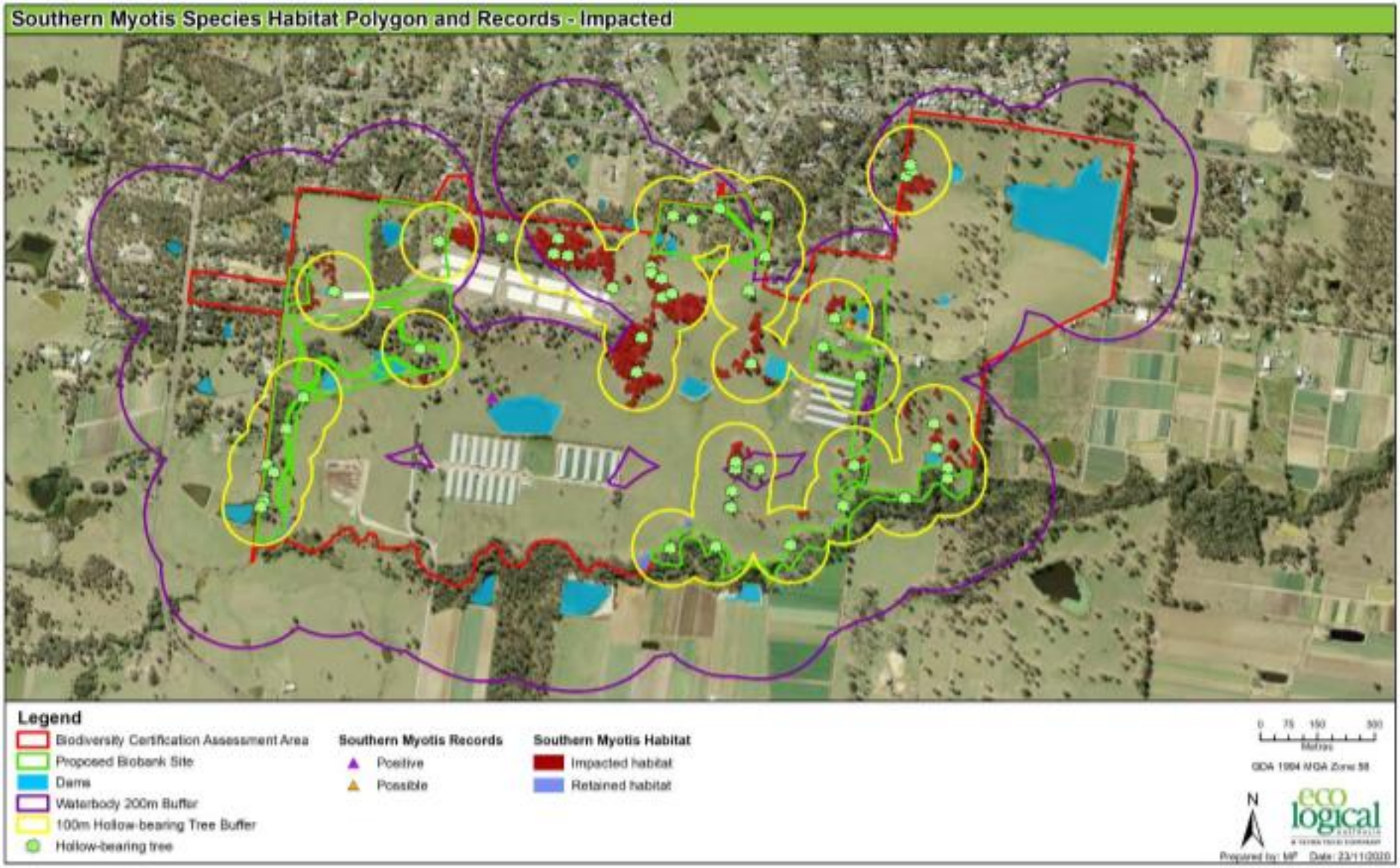

Figure 5 – Southern Myotis habitat polygon and records – to be impacted

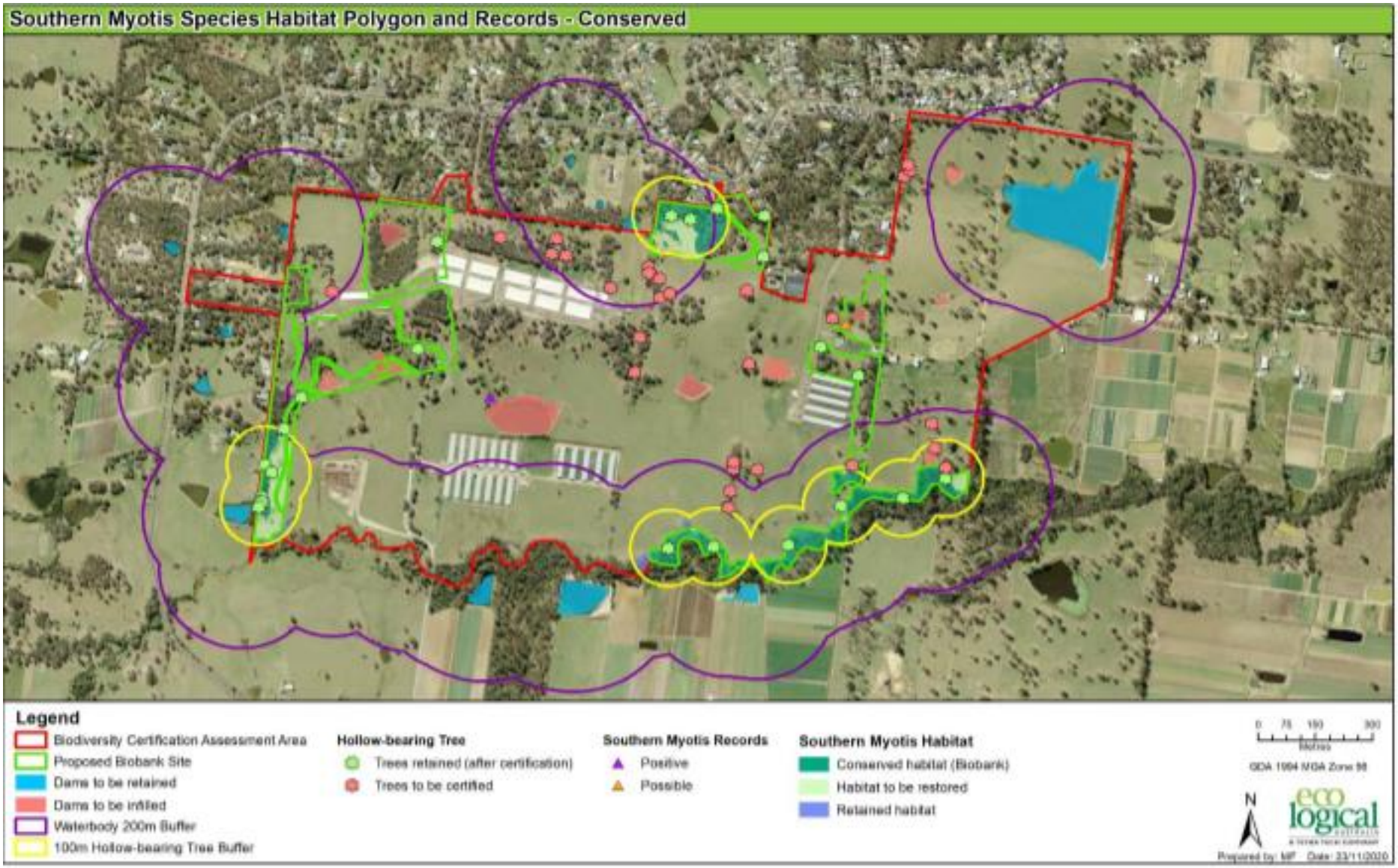

Figure 6 – Southern Myotis habitat polygon and records - to be conserved

1.5.3 Red flag impacts

Section 2.3 of the BCAM states that:

"A red flag area is an area regarded as having high biodiversity conservation values. An area of land is regarded as a red flag area if it contains one or more of the following:

(a) a vegetation type that is greater than 70% cleared as listed in the Vegetation Types Database (that is, has 30% or less remaining of its estimated distribution in the catchment management authority (CMA) area before the year 1750), and the vegetation is not in low condition as defined in Box 1 [of the BCAM]

(b) a critically endangered or endangered ecological community listed under the TSC Act or EPBC Act, and the vegetation is not in low condition as defined in Box 1 [of the BCAM]

(c) one or more threatened species identified in the Threatened Species Profile Database that cannot withstand further loss in the CMA area because of one or both of the following:

- *the species is naturally very rare, is critically endangered, has few populations or a restricted distribution*
- *the species or its habitat needs are poorly known*

(d) areas of vegetation recognised as having regional or state biodiversity conservation significance. These areas are:

- *land that is mapped or defined as a state or regional biodiversity link in accordance with section 3.7.2 of the methodology*
- *a riparian buffer 40 m either side of a major river on the coast and tablelands or 100 m either side of a major river on the western slopes and plains*
- *a riparian buffer 30 m either side of a minor river or major creek on the coast and tablelands or 60 m either side of a minor river or major creek on the western slopes and plains*
- *a riparian buffer 20 m either side of a minor creek on the coast and tablelands or 40 m either side of a minor creek on the western slopes and plains*
- *areas listed as a SEPP 14 wetland.*

Note: The definition of rivers and creeks is as defined in Appendix 1 [of the BCAM]."

Table to Table summarise the red flag area impacts relevant to the proposal (Figure 7). A red flag area may contain one or more of the above red flag types and therefore the sub-totals may not equate to the overall total of red flag area. The clearing of these red flag areas will require a red flag variation to be granted, which is evaluated in Section 2 of this Recommendation Report.

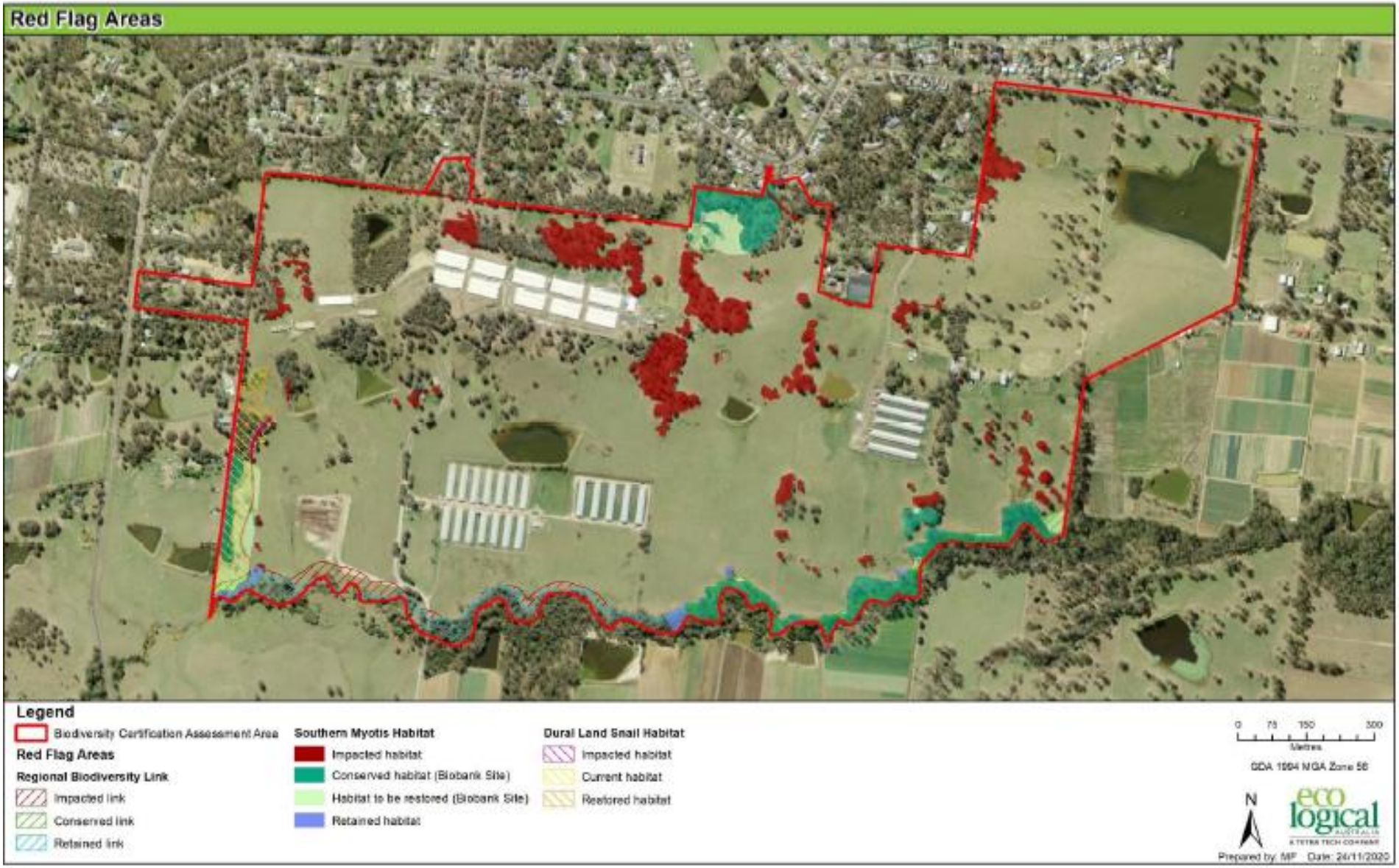

Figure 7 Impacted, conserved and retained red flag areas within the BCAA

Table 4 Critically endangered and/or endangered ecological communities not in low condition

Biometric vegetation type name (BVT ID)	Equivalent under TSC Act/EPBC Act	Conservation status	Area proposed for removal (ha)
N/A			
Total			N/A

There are no critically endangered and/or endangered ecological communities that are not in low condition on the site.

Table 5 Over cleared (>70%) vegetation types not in low condition

Biometric vegetation type name (BVT ID)	Percentage cleared in Catchment Management Area (CMA)	Area proposed for removal (ha)
N/A		
Total		N/A

Areas of CEECs are only considered as red flags if they are in moderate to good condition under the BCAM. All the zones of the BVT identified as a CEEC were in 'low' condition because of the low site value scores. Therefore, no vegetation zones were "red flagged" and so no areas require a red flag variation.

Table 6 Threatened species that cannot withstand further loss in the CMA

Species name	Conservation status	Number of individuals proposed for removal (flora)	Area (ha) proposed for removal (fauna)
Southern Myotis	Vulnerable	N/A	8.68
Dural Land Snail	Endangered	N/A	0.18
Total		N/A	8.86

Section 2.2.4 of the BCARS states "there is one threatened species identified in the Threatened Species Profile Database that cannot withstand further loss: *Myotis macropus* (Southern Myotis). Breeding habitat for this species is a red flag area.

The BCARS also states "Dural Land Snail is classified as a species that '*cannot withstand loss*' and is treated as a red flag species in this assessment.

Table 7 Vegetation with regional or state biodiversity conservation significance

Biometric vegetation type name (BVT ID)	Regional or State conservation significance type	Area proposed for removal (ha)
Forest Red Gum – Rough Barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin	Riparian buffer	0.002
Total		0.002

Areas of land with regional or state conservation significance will be affected i.e. vegetation within 30m riparian buffer of a minor river. Currency Creek on the southern boundary of the BCAA meets the definition of a minor creek. It is a tributary of the Hawkesbury River and it is a fourth order stream at this location.

The development will impact 0.002ha native vegetation within the riparian buffer. The native vegetation to be impacted comprises the overhanging canopy of a patch of vegetation to be certified.

1.6 THE CONSERVATION LAND OR OTHER MEASURES

There are several conservation measures which can be implemented to ensure that the overall effect of biodiversity certification is to improve or maintain biodiversity values (section 126L of the TSC Act).

1.6.1 On-site conservation measure(s)

The owners of land in the BCAA (EJC Glossodia Pty Ltd and Frank George Pace and Pace Land Holdings Pty Ltd) have agreed to enter into two biobanking agreements under the *Biodiversity Conservations (Savings and Transitional) Regulation 2017* and provide the necessary credits to the Developer. Any remining credits will be retired by the owners of the biobank sites. The transitional arrangements that allow biobanking agreements to be made under the repealed TSC Act expire on 24 August 2021.The total area of land proposed for the on-site conservation measures (two biobank agreements) is 28.13ha. The applications to register the two biobank sites (12.01ha (Glossodia East) and 16.12ha (Glossodia West) were submitted for registration in August 2020.

Within 30 days of conferral of biodiversity certification the current landowners will be responsible for the erection of a temporary fence to exclude stock and poultry and for the initial maintenance of the biobank sites. Until the biobank sites are transferred to Council, the current landowners will manage the two biobank sites in accordance with the biobanking agreements

Council will be responsible for in-perpetuity maintenance of these biobank sites from the date that the land is transferred to Council. Once transferred, Council will endeavour to prepare any documents necessary to enable the Council to consider whether the conservation area should be classified as 'Community Land – Natural Area Bushland' under the *Local Government Act 1993;* (LG Act). The biobank sites will be managed in accordance with the Biobank Agreements and a Plan of Management. Council will be responsible for the installation of reserve signage.

It should be noted that these requirements have also been incorporated into the draft BCA.

Table 8 details the on-site conservation measures, credits generated and cadastral description.

Table 8 On-site conservation measures, biodiversity credits generated and cadastral description

Conservation measure	**Area (ha)**	**Credits created**		**DP number**	**Lot**
		Ecosystem	**Species**		
Glossodia East – biobank site	12.01	98 HN528 42 HN526	38 (Southern Myotis)	 751637 1104504 230943	Parts of lot 50 52 3

				214753	20
Glossodia West – biobank site	16.12	184 HN528	15 (Dural Land Snail) 11 (Southern Myotis)	784300	Parts of Lots 1-2
Total		324	64		

1.6.2 Off-site conservation measure(s)

There is no land outside the biodiversity certification assessment area proposed for conservation measures. Southern Myotis species credits have been purchased by the Developer from two registered biobank sites (BA ID 331 and BA ID 383) to address the credit deficit of 143 credits required for this species.

1.6.3 Other conservation measure(s)

The Biodiversity Certification Application form indicates there is no financial contribution or special infrastructure contribution (SIC) proposed as conservation measures.

1.6.4 Biodiversity Certification Agreement(s)

Section 126L of the TSC Act states that entering into a BCA is a conservation measure. Under Section 8.1 of the BCAM, conservation measures that are proposed in the application but are not in place by the time of biodiversity certification is conferred should be secured via a BCA. A BCA is required by the Order to be signed by all parties within 28 days of the Order coming into effect.

Under the proposed BCA:

- Within 6 months of entering into:
  - a biobanking agreement over Glossodia East, the landowner (EJC Glossodia Pty Limited) must make an application to retire all Biodiversity Credits generated over Glossodia East that are not required by the Developer.
  - a biobanking agreement over Glossodia West, the landowner (Frank George Pace and Pace Land Holdings Pty Limited) must make an application to retire all Biodiversity Credits generated over Glossodia West that are not required by the Developer.
- The landowners of the proposed Biobank sites (EJC Glossodia Pty Limited and Frank George Pace and Pace Land Holdings Pty Limited) must make available to the Developer 278 HN528 ecosystem credits, 14 Dural Land Snail Credits and 192 Southern Myotis credits. This will occur via the following:
  - Glossodia East Biobank Site, which will generate 98 HN528 Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain and 38 Southern Myotis species credits
  - Glossodia West Biobank Site, which will generate 184 HN528 ecosystem credits, 14 Dural Land Snail species credits and 11 Southern Myotis species credits
- Credits from Glossodia East Biobank site will meet the offset obligations for Stages 1 and 2 of the development, and credits from Glossodia West will meet the offset obligations for Stages 3 and 4 of the development.

The Developer agrees to retire, or ensure the retirement of, the number and type of biodiversity credits in accordance with the staged development of the certified land before:

a) any clearing of vegetation is commenced in the relevant Stage Area of the biodiversity certification area or

b) a Construction Certificate is issued for Subdivision Work, or any work involving Clearing, in the relevant Stage Area

whichever is the earlier.

The developer/landowners of the biobank sites must provide the Minister with at least 1 months written notice before:

a) any Clearing is commenced in the Stage Area or
b) an application is made for Subdivision Works or Construction Certificate in the Stage Area.

The developer/landowners of the biobank sites must provide the Minister with proof of the retirement of the required quantum of biodiversity credits as soon as practicable after the retirement of the credits occurs. The BioBanking public register will be updated to reflect the change in status of the credits when they are retired.

The Developer is to provide to the Minister within 5 days of the Order being made a bank guarantee for $4,582,238. This amount is the Total Fund Deposit (TFD) required for the two on-site biobank sites. The TDF is the amount of money that needs to be invested in the present time for the management actions at the biobank site into the future. This guarantee would not cover the cost of purchasing and retiring all the credits generated by the biobank sites. This was calculated to be $10,500,00 using the EES Biodiversity Offset Payment Calculator. EES considers that there are other securities available, such has revoking or suspending biodiversity certification, commencing proceedings, and retaining the full amount of the guarantee for the life of the BCA, to accept a bank guarantee for $4,582,238. The bank guarantee will be being held by EES's Greater Sydney Branch.

The BCA will also be registered on the title of the land.

The on-site conservation measures generate a surplus of 46 ecosystem credits, comprising 4 HN528 ecosystem credits and 42 HN526 ecosystem credits and 1 species credit. These surplus credits will be retired in accordance with the conditions of biodiversity certification. Table 9 details the credits required to be retired from on-site and off-site biobank sites by the BCA.

The landowners of the biobank sites must transfer Glossodia East and Glossodia West to Council at no cost to Council

Table 9 Biodiversity Credit types required to be retired by the BCA

	Biodiversity Credit type			
	HN528 Biodiversity Credit (Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain)	**HN526 Biodiversity Credit (Forest Red Gum Rough-barked Apple grassy Woodland on alluvial flats of the Cumberland Plain)**	**Southern Myotis species credit**	**Dural Land Snail species credit**
Number of Biodiversity Credits to be retired	**278** ecosystem credits required as part of Stages 1-4 of the development and **4**	**42** additional ecosystem credits retired created from on-site conservation measure	**49** species credits to be retired from on-site conservation measures and **143** credits to be retired	**14** species credits required to be retired from on-site

	additional credits retired from onsite conservation measure		from offsite conservation measure as part of Stage 1 of the development	conservation measures as part of Stage 4 of the development: and **1** additional credit retired from onsite conservation measure
Total	282	42	192	15

1.7 THE RETAINED LAND

The biodiversity certification application includes 13.19 ha of retained land (Figures 1-2). Retained lands are neither certified lands nor conservation measures. Development proposals in these areas will continue to require biodiversity approvals as regulated under the *Biodiversity Conservation Act 2016* (BC Act) and the EP&A Act.

1.8 LIST OF DOCUMENTS BEFORE THE DECISION MAKER

1.8.1 Documents provided by the applicant

See Tab 1 for copies of all documents in this section

1. Hawkesbury City Council (2021) Biodiversity Certification Application signed by Laurie Mifsud, Acting General Manager, Hawkesbury City Council, as subsequently amended by Council
2. Eco Logical Australia (2021) Jacaranda Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Celestino Pty Ltd 26 April 2021 and as amended on 3 August 2021
3. Eco Logical Australia (2021) Jacaranda Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Celestino Pty Ltd 26 April 2021 and as amended on 3 August 2021 - Appendix D Submissions received during exhibition period
4. Eco Logical Australia (2021) Jacaranda Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Celestino Pty Ltd 26 April 2021 and as amended on 3 August 2021 - Appendix E Response to Submissions received during exhibition period.
5. Eco Logical Australia (2021) Jacaranda Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Celestino Pty Ltd 26 April 2021 and as amended 3 August 2021 - Appendix N Travers bushfire & ecology (2013) Flora and Fauna Constraints Assessment - Jacaranda Ponds off Spinks Road & Kurmond Road Glossodia – prepared October 2009 amended June 2013
6. Ethos Urban – Planning Proposal – Amendment to the Hawkesbury Local Environmental Plan 2012 - April 2021 (amended v8)

1.8.2 Other documents considered by the recommending officer

See Tab 5 for copies of all documents in this section.

1. Celestino – draft Jacaranda Development Control Plan - Spinks Road, Glossodia submitted to Hawkesbury City Council 28 January 2021
2. Department of Environment, Climate Change and Water (2011) Biodiversity Certification Assessment Methodology
3. Office of Environment and Heritage (2014) BioBanking Assessment Methodology 2014
4. Office of Environment and Heritage (2015) Biodiversity Certification Guide for Applicants
5. Office of Environment and Heritage (2015) Biodiversity Certification Operational Manual
6. Biobanking Agreement Application – Glossodia East – signed by George Tsekouras on 21 August 2020
7. Biobanking Agreement Application – Glossodia West – signed by Frank George Pace and Paul Pace on 19 August 2020
8. Environment Energy and Science (2019) to Hawkesbury City Council, EES comments on Jacaranda Ponds, Glossodia – Biodiversity certification assessment (31 July 2019)
9. Environment Energy and Science (2020) to Hawkesbury City Council, EES response - Adequacy review of Biodiversity Certification Application for Jacaranda Ponds, Glossodia (5 March 2020)
10. Environment Energy and Science (2020) to Hawkesbury City Council, EES response - Revised Biodiversity Certification Assessment Report and Strategy - Vegetation Zoning Map - Eco Logical Australia (ELA) response to the EES submission on the Adequacy review of Biodiversity Certification Application for Jacaranda Ponds, Glossodia (25 June 2020)
11. Environment Energy and Science (2021) to Hawkesbury City Council, EES response - Planning Proposal to amend Hawkesbury Local Environmental Plan 2012 for Jacaranda, Glossodia - consultation under S3.34(2) (d) of the Environmental Planning and Assessment Act 1979 (19 March 2021)
12. Wijayasinghe, K (2021) Re Jacaranda emails to J Grose and S Burke, 8 June 2021
13. Wijayasinghe, K (2021) Re Jacaranda email to J Grose and S Burke, 22 June 2021 (copy of the Response to Submissions provided to EES)
14. Wijayasinghe, K (2021) Re Jacaranda – Response to Submissions and Lot and DPs email to J Grose, 12 July 2021

2 EVALUATION AND RECOMMENDATIONS

Biodiversity certification may only be conferred on land where the Minister makes a determination that the conferral of the biodiversity certification will improve or maintain biodiversity values.

Section 126P(1) of the TSC Act, states that:

> *"Biodiversity certification improves or maintains biodiversity values only if the Minister determines on the basis of a biodiversity certification assessment that the overall effect of biodiversity certification is to improve or maintain biodiversity values."*

However, before the Minister makes their decision there are a number of matters for which the Secretary must be satisfied. These are evaluated in Section 2.1 below.

2.1 MATTERS FOR THE SECRETARY'S DELEGATE TO CONSIDER

This section evaluates the matters that are relevant for the Secretary's Delegate to consider in order to be satisfied prior to making a recommendation to the Minister's Delegate Table 10 lists the relevant matters and provides a link to the corresponding section of this Recommendation Report.

Table 2 Matters for the Secretary's Delegate to consider that are relevant to this proposal

BCAM Section	Secretary's Delegate Decisions	Report Section
2.2(b), (d), 2.4	Red flag variation requests	2.1.1
3.4	Local certified data – benchmarks	2.1.3
3.6.4	Additional increase in gain from management actions	2.1.4
6.0	Indirect impacts	2.1.6

Note that the BCAM refers to the Director General of the Department of Environment, Climate Change and Water as the decision maker for these issues. All references to the Director General in this report are taken to be references to the Secretary of the Department of Planning, Industry and Environment[1].

2.1.1 Red flag variations under the Biodiversity Certification Assessment Methodology

A red flag is triggered under the BCAM when there is an impact on any of the following:

1. a vegetation type >70% cleared in the Catchment Management Area (CMA) for which it is mapped (not in 'low condition')
2. a CEEC or EEC listed under the TSC Act or EPBC Act (not in 'low condition')
3. a threatened species that cannot withstand further loss
4. areas of vegetation recognised as having regional or state biodiversity conservation significance.

[1] Except where the reference is to the Director General of the Department of Planning (s9.4 of the BCAM); this reference is taken to be a reference to the Secretary of the Department of Planning, Industry and Environment.

Impacts on items 1 and 2 above are not applicable as the BCAA retains no vegetation type >70% cleared in the CMA for which it is mapped (not in 'low condition') and no CEEC or EEC listed under the TSC Act or EPBC Act (not in 'low condition').

With respect to Item 3 above, see section below titled 'Red flag areas - threatened species'

With respect to Item (4) above, areas of land with regional or state conservation significance will be affected i.e. vegetation within 30m riparian buffer of a minor river. Currency Creek meets the definition of a minor creek. The development will impact 0.002ha native within the riparian buffer, vegetation (which comprises the overhanging canopy of a patch of vegetation to be certified). As such, this is a red flag impact and requires a red flag variation.

Section 2.2 of the BCAM states that:

"Under the TSC Act, biodiversity certification may only be conferred on land where the Minister makes a determination, on the basis of a biodiversity certification assessment made in accordance with the methodology, that the conferral of biodiversity certification will improve or maintain biodiversity values. The methodology establishes the circumstances where biodiversity certification of the land is to be regarded as improving or maintaining biodiversity values.

Biodiversity values are to be regarded as being improved or maintained (as shown in the application for biodiversity certification) if:

(a) the conferral of biodiversity certification on land does not directly impact on biodiversity values in a red flag area that is on land where certification is conferred

OR

(b) the conferral of biodiversity certification on land does directly impact on biodiversity values in a red flag area but the Director General is satisfied, having considered the criteria in section 2.4, that impacts on the red flag area may be offset in accordance with the rules and requirements set out in section 10 of the methodology

AND

(c) the direct impacts on the biodiversity values of land to which biodiversity certification is conferred are offset in accordance with the rules and requirements set out in section 10 of the methodology

AND

(d) the Director General is satisfied that any indirect impacts on the biodiversity values of land to which biodiversity certification is conferred are appropriately minimised in accordance with section 6 of the methodology.

Evidence that the Director General is satisfied as to the matters set out under paragraphs (b) and (d) above will be submitted to the Minister with the application for biodiversity certification for a determination as to whether biodiversity certification improves or maintains biodiversity values."

As summarised in Section 1.5.3 of this report, the proposed biodiversity certification of land does directly impact on biodiversity values in a red flag area. The Secretary's Delegate must be satisfied, having considered the criteria in Section 2.4 of BCAM, that the impacts on the red flag areas may be offset in accordance with the rules and requirements set out in Section 10 of the methodology.

Red flag areas - vegetation

There is no vegetation in the BCAA that meets the trigger for a red flag under the BCAM as there is no vegetation to be impacted that is not in 'low condition'.

Section 2.4.1 of the BCAM states that:

> *"The Director General must be satisfied that the feasibility of options to avoid impacts on red flag areas has been considered in the application for biodiversity certification. An application for biodiversity certification can address this requirement by demonstrating that:*
>
> *(a) All reasonable measures have been taken to avoid adverse impacts on the red flag areas and to reduce impacts of development on vegetation remaining within the biodiversity certification area*
>
> *(b) Appropriate conservation management arrangements cannot be established over the red flag area given its current ownership, status under a regional plan and zoning and the likely costs of future management."*

Discussion:

There is no vegetation in the BCAA that meets the trigger for a red flag under the BCAM and as a result there is no requirement to avoid impacts on red flag areas.

Section 2.4.2.1 of the BCAM states:

"In making an assessment that the viability of biodiversity values in the red flag area is low or not viable, the Director General must be satisfied that one of the following factors applies:

(a) The current or future uses of land surrounding the red flag area where biodiversity certification is to be conferred reduce its viability or make it unviable. Relatively small areas of native vegetation surrounded or largely surrounded by intense land uses such as urban development, can be unviable or have low viability because of disturbances from urbanisation, including edge effects.

(b) The size and connectedness of the vegetation in the red flag area where biodiversity certification is to be conferred to other vegetation is insufficient to maintain its viability. Relatively small areas of isolated native vegetation can be unviable or have low viability.

(c) The condition of native vegetation in the red flag area where biodiversity certification is to be conferred is substantially degraded, resulting in loss of or reduced viability. Native vegetation in degraded condition can be unviable or have low viability. 'Degraded condition' means substantially outside of benchmark for many of the vegetation condition variables as listed in Table 1 of the methodology (s3.6.2), without the vegetation meeting the definition of low condition set out in section 2.3. Vegetation that is substantially outside of benchmark due to a recent disturbance such as fire, flood or prolonged drought is not considered degraded for the purposes of the methodology.

(d) The area of a vegetation type in a red flag area on land where biodiversity certification is conferred is minor relative to the area containing that vegetation type on land subject to proposed conservation measures."

Discussion:

There is no vegetation in the BCAA that meets the trigger for a red flag under the BCAM and as a result there is no requirement that the viability of the red flag area must be low or not viable.

Section 2.4.2.2 of the BCAM states:

"The application for biodiversity certification must demonstrate to the satisfaction of the Director General that the red flag area on land proposed for biodiversity certification makes a low contribution to regional biodiversity values. In making an assessment that the contribution of the red flag area to regional biodiversity values is low, the Director General must consider the following factors for each vegetation type or critically endangered or endangered ecological community regarded as a red flag area:

(a) Relative abundance: that the vegetation type or critically endangered or endangered ecological community comprising the red flag area is relatively abundant in the region

(b) Percent remaining is high: that the percent remaining of the vegetation type or critically endangered or endangered ecological community comprising the red flag area is relatively high in the region

(c) Percent native vegetation (by area) remaining is high: that the percent remaining of all native vegetation cover in the region is relatively high.

'Region' for the purposes of section 2.4.2.2 means the CMA subregion in which the red flag area is located and any adjoining CMA subregions."

Discussion:

There is no vegetation in the BCAA that meets the trigger for a red flag under the BCAM and as a result there is no requirement that the contribution of the red flag area to regional biodiversity values must be low.

Red flag areas - threatened species

The following sections and **Recommendations 1 to 4** relate to the criteria in Section 2.4 of BCAM and the extent to which they are satisfied for impacts on **threatened species/~~endangered population~~ in red flag areas**.

The status of the Southern Myotis has recently been changed to a species that '*can withstand loss*' (i.e. it is not a red flag species). However, the version of the BCAM credit calculator tool (Version 1.9) used for this assessment still classifies the Southern Myotis as a red flag species. Therefore, the Southern Myotis has been assessed as a red flag species on a precautionary basis.

For the Southern Myotis, all hollow bearing trees within 200m of a permanent water body have been assumed to be breeding habitat for this species and is thus a red flag area. 8.68ha of habitat would be affected within the BCAA and 8.2ha (post development) would be subject to conservation measures. A red flag variation request is required.

For the Dural Land Snail, 2.76ha of habitat has been identified within the BCAA, based on where the species has previously been recorded. About 0.18ha of habitat would be affected within the BCAA and 2.58ha would be subject to conservation measures. A red flag variation request is required.

Feasibility of options to avoid and minimise

Discussion:

During the assessment of the planning proposal, the biodiversity certification of the Jacaranda site was considered by Council and the Developer. In 2018, a revised rezoning proposal was submitted to Council to further improve conservation outcomes and provide additional controls on land containing native biodiversity value including zoning of two of the proposed biobank areas to E2.

EES provided advice to Council on the planning proposal and the biodiversity certification process including drafts of the BCARS. This advice has resulted in a proposal that avoids impacts to red flag areas in land subject to conservation measures.

For the Southern Myotis, 8.68ha of habitat would be affected within the BCAA and 8.2ha (post development) would be subject to conservation measures in perpetuity under two biobanking agreements (Glossodia East and West) at the Jacaranda site. An additional 0.45ha of habitat will be retained in lands zoned RE1 – Public Recreation. Several patches of red flag habitat to be affected are small, isolated patches surrounded by cleared land that is currently zoned for medium density housing. These small patches of red flag habitat range in size from 0.03ha to 0.06ha. These areas are isolated from larger areas of red flag habitat and are generally in poor condition. They are considered unlikely to provide viable habitat in the long-term.

For the Dural Land Snail, 2.76ha of habitat has been identified within the BCAA, based on where the species has been previously recorded. About 0.18ha of habitat would be affected within the BCAA and 2.58ha would be subject to conservation measures in perpetuity as part of the Glossodia West Biobanking Agreement. The area of habitat to be affected is small and located on the edge of an existing patch of higher quality habitat. The edges of the existing patch are adjacent to cleared land that has previously been used for grazing purposes, where there is a higher proportion of edge effects affecting the area of habitat. Impacts to this area of habitat would not fragment or isolate any areas of existing habitat into two or more.

It is considered appropriate conservation management arrangements cannot be established over these red flag habitat areas and that all reasonable measures to avoid these red flag areas have been considered.

Also, the BCARS indicates that the area proposed for biodiversity certification in the BCAA currently consist of R5 – Large Lot Residential, R2 – Low Density Residential and RE1 – Public Recreation and although the land is mostly zoned residential, the land has been used for agricultural purposes including cattle grazing and poultry farms which has significantly reduced the quantity and condition of suitable habitat for Southern Myotis and Dural Land Snail. The red flag area has historically and is currently used primarily for agricultural production and private recreation.

Under the current land zoning and land use for the Jacaranda site the land is not required to be managed for conservation. The proposed biobank sites are currently zoned as RE1 – Public Recreation and R5 – Large Lot Residential under the LEP. There are no existing covenants or conservation funding arrangements for the land proposed for conservation measures or any existing requirements to actively manage the site for biodiversity conservation.

Recommendation 1:

That the Secretary's Delegate be **satisfied** in accordance with Section 2.4.1 of the Biodiversity Certification Assessment Methodology that the application for biodiversity certification has

adequately considered the feasibility of options to avoid impacts on threatened species red flag areas because the application demonstrates that:

a. All reasonable measures have been taken to avoid adverse impacts on the red flag areas and to reduce impacts of development on vegetation remaining within the biodiversity certification area

b. Appropriate conservation management arrangements cannot be established over the red flag areas given their current ownership, status under a regional plan and zoning and the likely costs of future management.

Additional assessment criteria for threatened species and endangered populations that cannot withstand further loss

For a red flag area variation to be approved, viability of the red flag area must be low or not viable. Section 2.4.3.1 of the BCAM states that:

"In making an assessment that the viability of biodiversity values in the red flag area is low or not viable, the Director General must be satisfied that one of the following factors applies:

(a) The current or future uses of land surrounding the red flag area reduce its viability or make it unviable. Relatively small areas of threatened species habitat surrounded or largely surrounded by intense land uses, such as urban development, can be unviable or have low viability because of disturbances from urbanisation, including edge effects.

(b) The size and connectedness of vegetation in the red flag area to other native vegetation is insufficient to maintain its viability. Relatively small areas of isolated threatened species habitat can be unviable or have low viability.

(c) The condition of native vegetation in the red flag area is substantially degraded resulting in loss of or reduced viability. Native vegetation in degraded condition can be unviable or have low viability. 'Degraded condition' means substantially outside benchmark for many of the vegetation condition variables as listed in Table 1 of the methodology (s.3.6.2), without the vegetation meeting the definition of low condition set out in section 2.3. Vegetation that is substantially outside benchmark due to a recent disturbance such as a fire, flood or prolonged drought is not considered degraded for the purposes of the methodology.

(d) The area of a red flag area containing a threatened species on land where biodiversity certification is conferred is minor relative to the area containing that threatened species on land subject to proposed conservation measures."

Discussion:

The red flag criteria have been applied with respect to Southern Myotis and Dural Land Snail.

For Southern Myotis, the red flagged habitat in the BCAA to be affected totals 8.68ha or 50.08% of the red flagged habitat and 8.2ha or 49.02% of the red flag areas will be conserved and managed in perpetuity under two biobanking agreements (Glossodia East and Glossodia West). The patches to be conserved are in better condition than the areas to be removed and form part of large, contiguous patches and will have long-term viability established through the in-perpetuity management of the biobank sites.

An additional 0.45ha of habitat will be retained in lands zoned RE1 – Public Recreation.

For the Dural Land Snail, the red flagged habitat in the BCAA to be impacted totals 0.18ha or 6.52% of the red flagged habitat, and 2.58ha or 93.48% is to be conserved and managed in perpetuity as part of the Glossodia West Biobanking Agreement.

The red flag habitat to be affected is comprised of some small, isolated patches and some larger patches of habitat that are in poor condition and achieve a site value score of <34 (generally 16-29) and is substantially outside the benchmark condition. The areas to be affected are considered to have low long-term viability given the current and future zoning of the land, size, connectedness of some patches and condition of the habitat.

The patches of Southern Myotis habitat are isolated from larger areas of red flag habitat and are generally in poor condition. They are considered unlikely to provide viable habitat in the long-term.

The BCARS found that:

- The current land uses make the red flag areas unviable and satisfies criteria under Section 2.4.3.1(a) of the BCAM.
- The size and connectedness of vegetation make the Southern Myotis habitat red flag area unlikely to provide viable habitat in the long-term and satisfies criteria under Section 2.4.3.1(b) of the BCAM.
- The condition of the Southern Myotis and Dural Land Snail habitat in the red flag area to be affected achieved a site value score of <34 (generally 16-29) and it is not red flag vegetation (it is red flag habitat) and is substantially outside of benchmark condition and satisfies criteria under Section 2.4.3.1(c) of the BCAM.?
- The area of red flag habitat containing the Dural Land Snail on land where biodiversity certification is conferred is minor relative to the area containing this threatened species on land subject to proposed conservation measures and criteria under Section 2.4.3.1(d) of the BCAM is met with respect to the Dural Land Snail. The area of the red flag habitat to be affected for Southern Myotis is not minor relative to the area proposed for conservation measures and criteria under Section 2.4.3.1(d) of the BCAM is not met for the Southern Myotis .

It is considered the red flag areas meet one of the required criteria to be considered as having low viability or are not viable.

Recommendation 2:

That the Secretary's Delegate be **satisfied** in accordance with Section 2.4.3.1 of the Biodiversity Certification Assessment Methodology that the red flag area has low viability or is not viable because the application demonstrates that~~:~~

a. The current or future uses of land surrounding the red flag area where biodiversity certification is conferred reduce its viability or make it unviable. Relatively small areas of threatened species habitat surrounded or largely surrounded by intense land uses, such as urban development, can be unviable or have low viability because of disturbances from urbanisation, including edge effects.

b. The size and connectedness of vegetation in the red flag area where biodiversity certification is conferred to other native vegetation is insufficient to maintain its viability. Relatively small areas of isolated threatened species habitat can be unviable or have low viability.

c. The condition of native vegetation in the red flag area where biodiversity certification is conferred is substantially degraded resulting in loss of or reduced viability. Native vegetation in degraded condition can be unviable or have low viability.

d. The area of a red flag area containing a threatened species on land where biodiversity certification is conferred is minor relative to the area containing that threatened species on land subject to proposed conservation measures.

Contribution to regional biodiversity values is low

Additionally, for a red flag area variation to be approved, the contribution of the red flag area to regional biodiversity values must be low. Section 2.4.3.2 of the BCAM states that:

"In making an assessment that the contribution of the red flag area to regional biodiversity values for the species is low, the Director General must be satisfied that the relative abundance of the individual threatened species, threatened population or threatened species habitat on the land proposed for biodiversity certification is low relative to its abundance in the region.

'Region' for the purposes of section 2.4.3.2 means the CMA subregion in which the red flag area is located and any adjoining CMA subregions."

Discussion:

There are 607 records for the Southern Myotis and 157 records for Dural Land Snail within the Hawkesbury-Nepean CMA. For Southern Myotis, within the Hawkesbury-Nepean CMA, records are clustered along the Hawkesbury River and other major river systems within the region with records concentrated on the eastern side of the Blue Mountains. Recent aerial photography shows that the river systems within this CMA are mostly heavily vegetated, with remnant patches of native vegetation scattered throughout the landscape. This would suggest that the CMA contains sufficient foraging, roosting and breeding habitat to support the Southern Myotis. The relative abundance of this threatened species and threatened species habitat on the land proposed for biodiversity certification is low relative to it abundance in the region.

For Dural Land Snail, within the Hawkesbury-Nepean CMA, records are clustered north of Penrith in national parks, nature reserves and public land. Recent aerial photography shows that some areas where the species has been previously recorded remain vegetated and form a nature reserve or national park. This would suggest that the CMA may contain sufficient habitat to support the Dural Land Snail. The relative abundance of this threatened species and threatened species habitat on the land proposed for biodiversity certification is low relative to its abundance in the region.

Recommendation 3:

That the Secretary's Delegate be **satisfied** in accordance with Section 2.4.3.2 of the Biodiversity Certification Assessment Methodology that the threatened species habitat that constitutes a red flag area on land proposed for biodiversity certification makes a low contribution to regional biodiversity values because the application demonstrates that:

a. The relative abundance of the individual threatened species, threatened population or threatened species habitat on the land proposed for biodiversity certification is low relative to its abundance in the region.

Decision on whether impacts on threatened species/endangered population red flag areas may be offset
Discussion:

As noted above:

- The feasibility of options to avoid impacts on red flag habitat areas has been adequately considered,
- The viability of the red flag habitat is considered to be low or not viable, given the current and future zoning of the land, size, connectedness of some patches and condition of the habitat and,
- The contribution of the red flag habitat area to regional biodiversity values is low.

It is considered that impacts on the threatened species habitat that constitutes the red flag area may be offset in accordance with the rules and requirements set out in Section 10 of the methodology.

Recommendation 4:

That the Secretary's Delegate be **satisfied** in accordance with Section 2.2(b) of the Biodiversity Certification Assessment Methodology, having considered the criteria in Section 2.4, that the impacts on the threatened species habitat that constitutes the red flag area may be offset in accordance with the rules and requirements set out in Section 10 of the methodology.

<u>Red flag areas - regional or state biodiversity conservation significance</u>
The following sections and **Recommendations 5 to 7** relate to the criteria in Section 2.4 of BCAM and the extent to which they are satisfied for impacts on **regional or state biodiversity conservation significance red flag areas**.

There is 5.19ha of vegetation with the riparian corridor of minor creeks within the BCAA (including 0.37ha of cleared land to be revegetated). Of this 0.002ha (or 0.04%) of Forest Red Gum – Rough-barked Apple Grassy Woodland along the Currency Creek riparian corridor will be impacted at Stage 4 of the development.

Feasibility of options to avoid and minimise

Discussion:

Council and EES have been liaising since 2016 regarding the planning proposal for the site. This has resulted in a proposal that avoids and minimises impacts to the native vegetation of the Currency Creek riparian buffer.

The proposal will not substantially reduce the riparian buffer along the Currency Creek regional corridor, it will only be reduced in area by 0.002ha of Forest Red Gum – Rough-barked Apple Grassy Woodland. The amount of native vegetation to be affected constitutes 0.04% of the Currency Creek riparian buffer. This reduction is considered minor given the conservation or retention of 5.19ha of vegetation, or approximately 99.96% of the vegetation within the BCAA that is recognised as having regional or state

biodiversity conservation significance (including 0.37ha of cleared land to be revegetated) in the riparian buffer that form a regional biodiversity link.

The vegetation to be impacted is the overhanging canopy of a residual part of a highly degraded patch that will be certified outside of the riparian buffer.

Of the area to be retained, 2.26ha will be conserved and managed in-perpetuity as part of a biobank site along Currency Creek, comprising 1.89ha of existing vegetation and, 0.37ha of cleared land which will be revegetated to Forest Red Gum – Rough-barked Apple Grassy Woodland within the biobank site. The remaining 2.93ha of riparian vegetation is not located in the biobank site but will be retained and managed under a vegetation management plan (VMP).

The portion to be affected is located on the outer edge of the corridor and will not result in large scale fragmentation or severing of the existing biodiversity link. The reduction in the regional biodiversity link by 0.002ha is not considered substantial.

EES raised as an issue in its submission on the exhibition of the BCARS that it was not clear whether pedestrian/cycle path crossings of Currency Creek and WDUD/bio-basin outlets are likely to impact native vegetation within the riparian corridor of Currency Creek regional or state biodiversity conservation significance. In response the Submissions Report states "The preliminary design work to date indicates that there is a potential impact within this area for stormwater infrastructure. Detailed design has not yet occurred. Any impact to retained lands will be required to go through future development assessment in accordance with the legislation". EES accepts that future potential impacts on the riparian corridor within the retained lands is outside the biodiversity certification assessment, as the retained land is not land proposed for biodiversity certification or subject to proposed conservation measures. It is unclear to what extent native vegetation will be impacted by the path crossings of the creek and the basin outlets etc. The future development assessment should ensure impacts to the riparian corridor of Currency Creek regional or state biodiversity conservation link within the retained lands are avoided, and if impacts can't be avoided, they should be minimised.

It is considered that all reasonable measures to avoid and minimise impacts these red flag areas have been taken.

Also, land along Currency Creek under the current land use zoning is zoned RE1 – Public Recreation and it is still currently used for cattle grazing. Under its current use and zoning, the land is not required to be managed for conservation.

Feasibility of options to implement conservation management arrangements

It is considered that appropriate conservation management arrangements cannot be established over the red flag areas given their current ownership and zoning.

Recommendation 5:

That the Secretary's Delegate be **satisfied** in accordance with Section 2.4.1 of the Biodiversity Certification Assessment Methodology that the application for biodiversity certification has adequately considered the feasibility of options to avoid impacts on red flag areas because the application demonstrates that:

a. All reasonable measures have been taken to avoid adverse impacts on the red flag areas and to reduce impacts of development on vegetation remaining within the biodiversity certification area

b. Appropriate conservation management arrangements cannot be established over the red flag areas given their current ownership, status under a regional plan and zoning and the likely costs of future management.

Additional assessment criteria for areas with regional or state biodiversity conservation significance
Section 2.4.4 of the BCAM states that:

"Where the red flag area has regional or state biodiversity conservation significance as defined in section 2.3 of the methodology, the application for biodiversity certification must demonstrate that conferring biodiversity certification on the red flag area:

(a) Will not substantially reduce the width of a riparian buffer with regional or state biodiversity significance, or

(b) Will not substantially impact on the ecosystem functioning of a state or regional biodiversity link, this includes considering whether the impacts of conferring biodiversity certification will substantially reduce the migration, colonisation and interbreeding of plants and animals between two or more larger areas of habitat, and

(c) Will not significantly impact on the water quality of a major river, minor river, major creek, minor creek or a listed SEPP 14 wetland."

Discussion:

The width of a riparian buffer with regional or state biodiversity significance (i.e. the riparian buffers on major or minor creeks and rivers) must not be substantially reduced (Clause 2.4.4a).

The proposal will not substantially reduce the riparian buffer along the Currency Creek regional corridor, it will be reduced in area by only 0.002ha. This reduction is considered minor given the conservation or retention of 5.19ha of vegetation, including 0.37ha of cleared land to be revegetated in the riparian buffer that forms a regional biodiversity link. The vegetation to be impacted is the overhanging canopy of a residual part of a highly degraded patch that will be certified outside of the riparian buffer.

The amount of native vegetation to be affected constitutes 0.04% of the Currency Creek riparian buffer. Of the area to be retained, 2.26 ha will be conserved and managed in-perpetuity as part of a biobank site comprising 1.89ha is existing vegetation and 0.37ha of cleared land which will be revegetated to Forest Red Gum – Rough-barked Apple Grassy Woodland. The remaining 2.93ha of riparian vegetation is not located in the biobank site but will be retained and managed under a VMP.

The portion to be affected is located on the outer edge of the corridor and will not result in large scale fragmentation or severing of the existing biodiversity link. Therefore, the reduction in the regional biodiversity link by 0.002ha is not considered substantial.

Will not substantially impact on the ecosystem functioning of a state or regional biodiversity link (Criteria 2.4.4b)

The ecosystem functioning of a state biodiversity link or a regional biodiversity link must not be substantially impacted, considering migration, colonisation and interbreeding of plants and animals between two or more larger areas of habitat.

The proposal will impact 0.002ha of Forest Red Gum – Rough-barked Apple Grassy Woodland. This area represents a minor proportion of the corridor that runs through the BCAA. The area to be removed would not result in the fragmentation or isolation of the corridor or other areas of habitat. The remaining native vegetation within the corridor provides a link to the surrounding landscape. This would be retained and conserved through the application of a VMP and management as part of a biobank site. The removal of 0.002ha of native vegetation would not impact the functioning of this corridor as a regional biodiversity link.

Will not significantly impact on the water quality of a major river, minor river, major creek, minor creek or a listed SEPP 14 wetland (Criteria 2.4.4c)

Impacts to 0.002ha of the regional biodiversity link is unlikely to significantly impact the water quality of Currency Creek.

The Jacaranda site slopes towards Currency Creek and it is currently subject to grazing, poultry farming and associated run-off to the creek. Impacts on water quality post-development will be managed with stormwater detention basins, which is expected to improve water quality.

The BCARS states:

- Quality metrics for all water treated onsite have been established. All stormwater must meet *'The minimum requirement shall be that the average annual pollutant load discharged from the developed site shall be no greater than for existing conditions.'*
- Hawkesbury City Council Development Control Plan (DCP) does not have any stormwater quality metrics. The BCARS states "the metrics have been adopted for Jacaranda are consistent with the targets adopted for the Pitt Town Development within the Hawkesbury LGA, located approximately 10 km south-east of Jacaranda. These pollutant reduction targets are:
  - Total Suspended Solids (TSS) 80% reduction in the average annual load
  - Total Phosphorus (TP) 45% reduction in the average annual load
  - Total Nitrogen (TSS) 45% reduction in the average annual load
  - Gross Pollutants (GP) 90% reduction in the average annual load".

- The size and type of stormwater quality management measures will be determined based on their ability to satisfy both of the aforementioned objectives. Objectives will also be written into the site specific DCP:
  - Drainage from subdivision sites should be consistent in both water quality and quantity terms with the predevelopment stormwater patterns.
  - Drainage systems should be designed so as to ensure safety and minimise the likelihood of stormwater inundation of existing and future dwellings.

- Recycled water from the effluent treatment system will be reticulated to each lot for domestic use. Subject to negotiation with Council recycled water could be used for irrigation of ovals and open space. The recycled water system will not impact the biobank sites as it will be accommodated in the road reserve alongside the sewerage and potable water infrastructure. The water re-entering the environment would be of a high quality and very low nutrient load. As such, no indirect impacts are expected to occur due to changes in water quality entering the environment.

The BCARS also states "any indirect impacts likely to occur as a result of the trail running adjacent to the creek would be managed through the implementation of the BioBank Agreement and the Vegetation Management Plan".

Recommendation 6:

That the Secretary's Delegate be **satisfied** in accordance with Section 2.4.4 of the Biodiversity Certification Assessment Methodology that the application has demonstrated that conferring biodiversity certification will not:

a. Substantially reduce the width of riparian buffers with regional or state biodiversity significance

   or

b. Substantially impact on the ecosystem functioning of a state or regional biodiversity link or substantially reduce the migration, colonisation and interbreeding of plants and animals between two or more larger areas of habitat

   and

c. Significantly impact on the water quality of a major river, minor river, major creek minor creek or listed SEPP14 wetland.

Decision on whether impacts on regional or state biodiversity conservation significance red flag areas may be offset

Discussion:

As noted above:

- The feasibility of options to avoid impacts on those red flag areas has been adequately considered.
- The proposal will not substantially reduce the width of a riparian buffer, substantially impact on the ecosystem functioning of a regional or state biodiversity link or significantly impact on water quality.

As a result, it is considered that impacts on the red flag areas with state or regional biodiversity conservation significance may be offset in accordance with the rules and requirements set out in section 10 of the methodology.

Recommendation 7:

That the Secretary's Delegate be **satisfied** in accordance with Section 2.2(b) of the Biodiversity Certification Assessment Methodology, having considered the criteria in Section 2.4, that the impacts on red flag areas of regional or state biodiversity conservation significance may be offset in accordance with the rules and requirements set out in Section 10 of the methodology.

2.1.2 Equivalent undisturbed site

Section 3.3 of the BCAM states that:

"Vegetation that has been recently disturbed, or is regenerating after an event such as fire or flood, must be assessed on an equivalent site that is not disturbed in these ways. The equivalent, undisturbed site must be approved by the Director General."

Discussion:

The BCAA does not contain any vegetation that has been recently disturbed or is regenerating after an event such as a fire or a flood that would require assessment as an equivalent undisturbed site.

2.1.3 Certification of more appropriate local data

Section 3.4 of the BCAM states that:

> *"The Director General may certify that more appropriate local data can be used instead of the data in the Vegetation Types Database, Vegetation Benchmarks Database and the Threatened Species Profile Database. Local data may be used if the Director General is of the opinion that the data more accurately reflects local environmental conditions. In certifying the use of local data, the Director General must provide reasons for this opinion.*
>
> *Benchmark data that more accurately reflect the local environmental conditions for a vegetation type may be collected from local reference sites, or obtained from relevant published sources using the procedures set out in Appendix 2.*
>
> *The certified local data can then be used in applying the methodology in accordance with any procedures outlined in the Biodiversity Certification Operational Manual."*

Section 4.1 of the BCAM states:

> *"The Director General may certify, in accordance with section 3.4 of the methodology, that more appropriate local data can be used instead of data in the Threatened Species Profile Database if the local data more accurately reflects the local environmental conditions of the biodiversity certification assessment area."*

Discussion:

A range of quantitative measures that represent the benchmark conditions for vegetation types are contained within the Vegetation Benchmark Database. Generally, default data contained in the Vegetation Benchmark Database are used when undertaking an assessment of, and measuring, general biodiversity values. The BCAM specifies that the Director General may certify that '*more appropriate local data*' (MALD) can be used instead of the data in this database, '*where local data more accurately reflects local environmental conditions*' (section 3.4 of the BCAM). Benchmark data that more accurately reflect the local environmental conditions for a BVT may be collected from local reference sites or obtained from relevant published sources. Data other than benchmark data may also be obtained from relevant published sources. The Secretary's Delegate must provide justifications for certifying the use of local data. The certified local data can then be used in applying the methodology.

Eco Logical Australia Pty Ltd considered that some of the benchmark values for '*Grey-Box – Forest Red Gum grassy woodlands on flats of the Southern Cumberland Plain, Sydney Basin Bioregion*', as contained in the Vegetation Benchmark Database, were not accurate reflections of the benchmark condition of this BVT. This is because the database contained low benchmark values that were not consistent with the vegetation type i.e. zero values for hollow-bearing trees and length of fallen logs, which would be expected to have some hollows and logs when in benchmark condition.

EES agreed with Eco Logical Australia that this was an error in the database. Eco Logical Australia Pty Ltd had previously consulted with EES on this matter. It was agreed that 'local' benchmark data for the number

of trees with hollows and for the length of fallen logs could be added for this BVT, with one and 50m added for the number of trees with hollows and the length of fallen logs, respectively. This was to be consistent with other woodland/open forest vegetation types on the Cumberland Plain, and is consistent with the assessment undertaken by EES for other sites on the Cumberland Plain. As this is considered an error in the Biobanking Tool datasets, the applicant considered that a formal application for the use of local benchmark data is not required to be submitted to the EES for approval. Accordingly, the local benchmark values for the number of trees with hollows and the length of fallen logs in the BVT present were used in the Biodiversity Certification Assessment.

The BCAM specifies that the Secretary's Delegate may certify that more appropriate local data can be used instead of data in the Threatened Species Profile Database if the local data more accurately reflects the local environmental conditions of the BCAA. Habitat polygons for Dural Land Snail and Southern Myotis were mapped within the BCAA based on the confirmed presence of species and ELA's opinion of the habitat areas, combined with the BioMetric vegetation types recognised by the Threatened Species Profile Database (BioNet) as being habitat for the species.

Recommendation 8:

That the Secretary's Delegate **certify**, in accordance with Section 3.4 of the Biodiversity Certification Assessment Methodology, that:

a. The use of more appropriate local data (MALD) more accurately reflects local environmental conditions of the biodiversity certification assessment area

and

b. The MALD can be used in applying the BCAM in accordance with any procedures outlined in the Biodiversity Certification Operational Manual,

for the following reasons:

- the benchmark values for '*Grey-Box – Forest Red Gum grassy woodlands on flats of the Southern Cumberland Plain, Sydney Basin Bioregion'*, as contained in the Vegetation Benchmark Database, were not accurate reflections of the benchmark condition of this BVT
- the database contained low benchmark values that were not consistent with the vegetation type i.e. zero values for hollow-bearing trees and length of fallen logs, which would be expected to have some hollows and logs when in benchmark condition
- local benchmark data for the number of trees with hollows and for the length of fallen logs could be added for this BVT, with one and 50m added for the number of trees with hollows and the length of fallen logs, respectively to be consistent with other woodland/open forest vegetation types on the Cumberland Plain and consistent with the assessment undertaken for other assessments undertaken by the OEH/DPIE on the Cumberland Plain
- As this is considered an error in the Biobanking Tool datasets, it is not considered that a formal application for the use of local benchmark data is required to be submitted to the EES for approval.

2.1.4 Additional increase in gain resulting from conservation measure management actions

Section 3.6.4 of the BCAM states:

> *"The change in site value on land proposed for conservation measures is based on the improvement in the condition of biodiversity values on that land following implementation of the management actions listed in section 8.3 of the methodology.*
>
> *The change in site value is determined as the difference in the current site value score and the predicted future site value score. The future site value score is determined by increasing the current condition attribute scores by the extent of the predicted gain for the condition attribute, according to Table 2. Any increase to the extent of improvement set out in Table 2 is limited to the additional allowable increase in Appendix 4 and must be approved by the Director General."*

Discussion:

An additional increase in the value scores is proposed for Management Zones 1, 2, 3 and 6 in Glossodia East and Management Zones 2, 3 and 6 in Glossodia West.

The implementation of conservation management actions in the vegetation management zones within the biobank sites will improve the condition of biodiversity values and increase the site value scores from the current values. Management actions to be undertaken in the biobank sites to further increase site value scores and improve biodiversity values include:

- replanting or supplementary planting where natural regeneration is insufficient to bring back to benchmark condition within a reasonable timeframe
- the addition of fallen timber/logs which will be brought into the conservation areas from the adjoining development areas to supplement the current low level of logs. This will increase the length of fallen logs, which is currently under benchmark.

The following additional increases in condition attribute scores have been applied in the Biodiversity Certification Credit Calculator.

Table 11 Condition attribute scores for Glossodia East and Glossodia West biobank sites

Vegetation Management Zone	Management Action	Condition Attribute	Additional increase in Condition Attribute Score
Glossodia East			
2, 3, 6	Addition of logs to supplement the current low level of logs	Total length of fallen logs	0.5
1, 2, 3, 6	Replanting or supplementary planting where natural regeneration is insufficient to bring back to benchmark condition within a reasonable timeframe	Native overstorey species, native mid-storey species, native grasses, native species (count)	0.5
Glossodia West			

2, 3, 6	Addition of logs to supplement the current low level of logs	Total length of fallen logs	0.5
2, 3, 6	Replanting or supplementary planting where natural regeneration is insufficient to bring back to benchmark condition within a reasonable timeframe	Native overstorey species, native mid-storey species, native grasses, native species (count)	0.5

These additional gains are in accordance with Section 3.6.4 and Appendix 4 of the BCAM.

Recommendation 9:

That the Secretary's Delegate **approve** the use of the proposed additional and/or more tailored management actions and resulting additional gains in accordance with Section 3.6.4 and Appendix 4 of the Biodiversity Certification Assessment Methodology.

2.1.5 Assessment of expert and expert report

Section 4.5 of the BCAM states that:

"An expert report may be obtained instead of undertaking a threatened species survey. An expert report must only be prepared by an expert. An expert is a person who is accredited by the Director General under section 142B(1)(b) of the TSC Act, or if arrangements for accreditation under section 142B(1)(b) are not in place, a person who, in the opinion of the Director General, possesses specialised knowledge based on training, study or experience to provide expert opinion in relation to the biodiversity values to which an expert report relates."

"An expert report prepared for the purposes of this section must be prepared in accordance with any guidance provided in the Biodiversity Certification Operational Manual. The Director General may decide not to accept an expert report instead of a survey."

Discussion:

An expert report has not been prepared as part of the proposal.

2.1.6 Indirect impact decisions under the Biodiversity Certification Assessment Methodology

The Secretary's Delegate must be satisfied that any indirect impacts on biodiversity values resulting from the conferral of biodiversity certification are appropriately minimised in accordance with Section 6 of the BCAM.

Section 6 of the BCAM states that:

"The area that is assessed for indirect impacts should extend as far as is necessary outside the land proposed for biodiversity certification, to assess any likely adverse indirect impacts on biodiversity values as a result of conferring biodiversity certification.

Where the application for biodiversity certification is also subject to a strategic assessment under the EPBC Act, the assessment of indirect impacts must include determining whether there will be any significant indirect impacts on the biodiversity values of World Heritage properties, places of National Heritage, Ramsar wetlands of international importance, or migratory birds in accordance with section 5 of the methodology.

The application for biodiversity certification must address to the satisfaction of the Director General, how the proposed ownership, management, zoning and development controls of the land proposed for biodiversity certification is intended to mitigate any indirect impacts on biodiversity values.

Where a proposed conservation measure is used to protect land that is a red flag area as defined in section 2.3, the area of the proposed conservation measure must include a buffer area to mitigate any negative indirect impacts from development following the conferral of biodiversity certification. The buffer area may be secured via a conservation measure and used to offset the impacts of biodiversity certification, or it may be a retained area in the biodiversity certification assessment area. The Director General must be satisfied that the size of the buffer area is appropriate to mitigate any negative indirect impacts from development following the conferral of biodiversity certification."

Discussion:

This site is not subject to a strategic assessment under the EPBC Act.

The BCARS indicates indirect impacts from this proposal are managed by:

- Buffer areas between the development and adjacent conservation areas

  The application proposes to use asset protection zones (APZ's) and open space areas to provide a buffer between the development and adjacent conservation areas within the BCAA to minimise the impact that urban development has on adjacent conservation areas. Figures 3 and 8 show an APZ/open space area adjoins the biobank site along Currency Creek.

  The buffers provided by the APZs and open space areas are to be located on land proposed for biodiversity certification. No APZs are to be located in the '*conservation areas'*. 3.76ha of land proposed for biodiversity certification comprises an APZ. The APZs are located adjacent to the '*conservation areas*' based on the future condition of the '*conservation areas*' following restoration and supplementary planting with vegetation and the fire hazard that these areas will present. As a result, the application does not comply with the requirement that "*The buffer area may be secured via a conservation measure and used to offset the impacts of biodiversity certification, or it may be a retained area in the biodiversity certification assessment area*".

  APZs and open space areas typically have lower impacts on adjacent reserves than developed areas. By separating the developed and conserved areas with these areas, a buffer is provided to minimise indirect impacts such as increased weeds, runoff and changed noise and light conditions.

As shown in Figure 8 (also refer to Figure 1-2and 9), a 29m wide APZ is proposed to adjoin most of the northern boundary of the biobank site along Currency Creek while along the north eastern boundary of the biobank site, the width of the APZ is 36m. This APZ is to be located on public open space, RE1 zoned land and is upslope of this biobank site. APZs between 12 -20m in width are proposed to adjoin the other biobank sites on the site and consist of open space and perimeter roads. The perimeter roads will be fully kerbed and guttered with stormwater to be directed away from the proposed conservation areas.

In making this recommendation, it is important to note that the BCAM provides that the buffer area "may be secured via a conservation measure and used to offset the impacts of biodiversity certification, or … may be a retained area in the biodiversity certification assessment area". Guidance on applying the BCAM is provided in the Biodiversity Certification Operational Manual (Manual) (Tab 5). Regarding buffers, the Manual states "*buffers cannot be included in the developable footprint of the land proposed for biodiversity certification*".

As the APZ/buffer is to be within the proposed biodiversity certification area, it is recommended that the Minister's Delegate approve a minor variation to the BCAM in accordance with Section 126Q of the TSC Act. A recommendation to the Minister's Delegate for a minor variation to the BCAM has been made in Section 2.1.4 of the Recommendation Report for the Minister's Delegate (Tab 2b) to delete the requirement that "*The buffer area may be secured via a conservation measure and used to offset the impacts of biodiversity certification, or it may be a retained area in the biodiversity certification assessment area*", from Section 6 of BCAM.

EES considers that in this case strict adherence with the BCAM in terms of securing the buffer via a conservation measure or in a retained area is unreasonable and not necessary. In addition, the variation is minor and will still ensure an appropriate buffer area to mitigate any negative indirect impacts from development following the conferral of biodiversity certification and would result in a determination that the overall effect of biodiversity certification is to improve or maintain biodiversity values.

It is recommended that the Secretary's Delegate's support the recommendation to the Minister's Delegate for a variation to the BCAM to delete the requirement that "*The buffer area may be secured via a conservation measure and used to offset the impacts of biodiversity certification, or it may be a retained area in the biodiversity certification assessment area"* from Section 6 of the BCAM.

EES has also formed the view that the Secretary's Delegate can be satisfied that the size of the buffer area is appropriate to mitigate any negative indirect impacts from development following the conferral of biodiversity certification.

- Retention of movement corridors in the local landscape for biodiversity in retained areas and biobank sites

  The areas to be certified within the BCAA, while being primarily cleared grazing land with scattered trees, are still providing movement corridors for local fauna. As a result, there is potential for some indirect impacts resulting from the fragmentation of movement corridors.

  Movement corridors will remain in the local landscape and be enhanced along Currency Creek by the preparation and implementation of a vegetation management plan and through the retention and restoration of CPW within the biobank site along Currency Creek.

The provision of retained lands in the south west of the site and the biobank site in the south east of the site along the southern boundary of the BCAA will reduce the extent to which movement corridors are restricted.

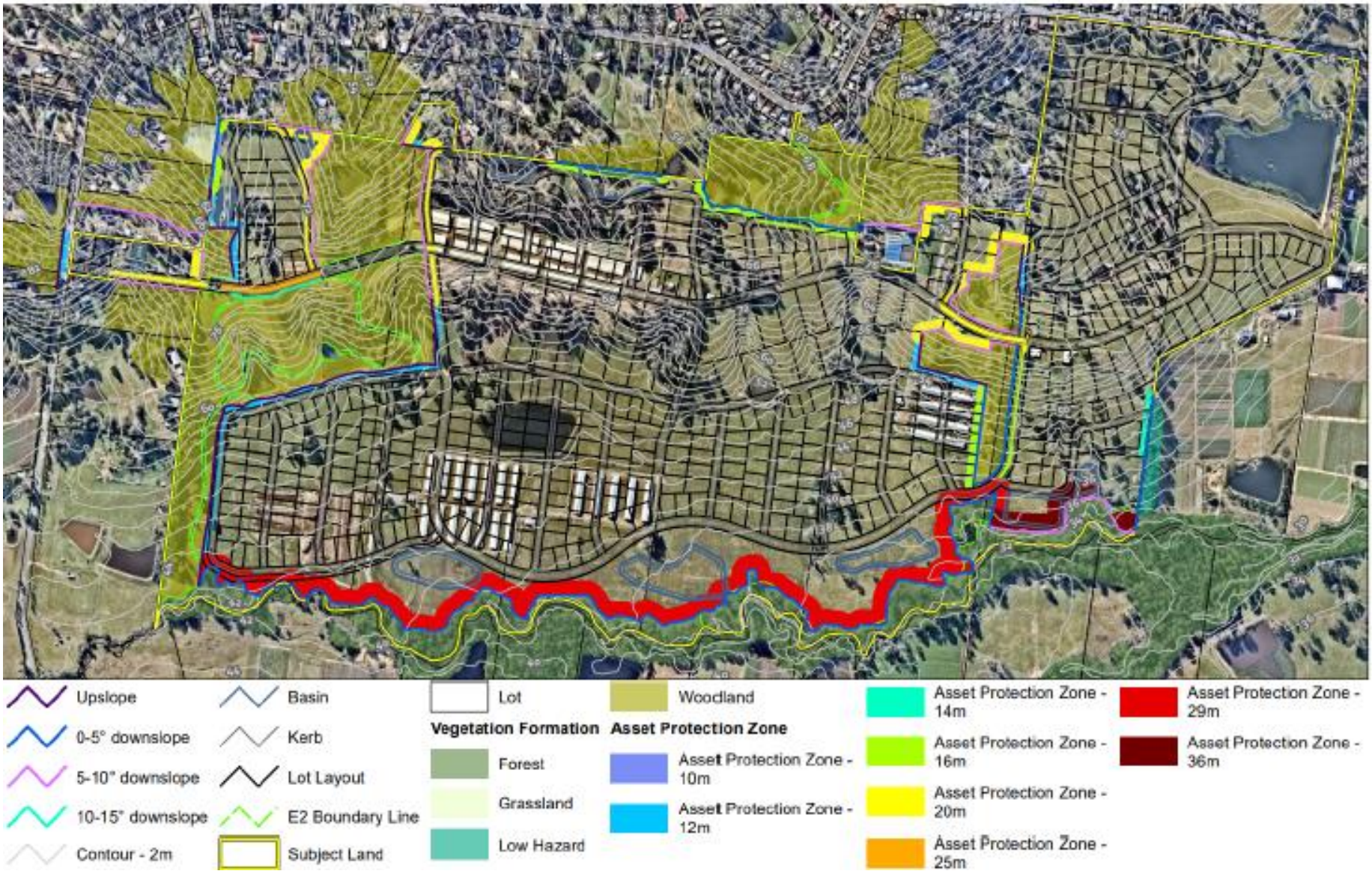

Figure 8 Asset Protection Zone Map

- Implementation of a construction environment management Plan (CEMP) within the BCAA.

  The Developer will prepare and implement a CEMP within the BCAA to guide the development and ensure that all direct and indirect impacts (e.g. APZs, utilities, access, stormwater run-off etc) are contained within the development footprint and appropriate mitigation measures are put in place to minimise indirect impacts to remnant native vegetation and threatened fauna including Dural Land Snail and Southern Myotis.

  The CEMP will address the management of the land proposed for a conservation measure and its buffer so that surrounding roads will be fully curbed and guttered with no stormwater being discharged into the conservation areas.

  As discussed in Section 2.1.2 of the Recommendation Report for the Minister's Delegate (Tab 2b), the application proposes to use the CEMP and/or DCP to also address impacts from potential changes to water quality and quantity entering the Biobank sites to ensure they are no greater than existing conditions.

  In addition, the CEMP will include, but not be limited to:

  - temporary protective fencing will be erected around all areas identified for conservation prior to clearing activities to minimise any inadvertent damage
  - a fauna pre-clearance protocol
  - retention of hollow bearing trees where possible and practical
  - where trees are removed in the development area, these will be salvaged for fauna habitat values in the onsite biobank sites (i.e. meeting the additional management requirement of importing logs into the conservation area) and
  - a de-watering plan which includes a native fauna relocation plan for any farm dams that are removed.

  The preparation and implementation of the CEMP has been included in the Statement of Commitments in the BCARS and the Developer's Obligations in the draft BCA.

- Zoning and development controls

  As discussed in Section 1.4 of this report, the site was rezoned in 2014 to permit residential and public recreation uses. Regarding development controls, a specific Jacaranda DCP is proposed to apply to the site. The draft DCP includes objectives and controls for the protection of riparian corridors and significant vegetation.

- Ownership and management

  The owners and developer of the land proposed for biodiversity certification will be required to comply with the LEP, DCP and CEMP requirements.

  The BCARS and planning proposal submitted with this application propose to zone all the biobank areas and the entire length of the Currency Creek regional corridor on the site as E2 - Environmental Conservation (Figure 9) so that the land use zoning reflects the biodiversity values of the biobank sites and the regional riparian corridor.

  Indirect impacts on biodiversity values because of conferring biodiversity certification are proposed to be managed by a range a of measures including the inclusion of provisions in the Jacaranda DCP.

It is recommended that the Secretary's Delegate be satisfied under Section 2.2(d) of the BCAM that any indirect impacts on biodiversity values of land proposed for biodiversity certification are appropriately minimised in accordance with Section 6 of BCAM, as proposed to be varied by the Minister's Delegate.

Recommendation 10:

That the Secretary's Delegate be **satisfied**, in accordance with Section 2.2(d) of the Biodiversity Certification Assessment Methodology, that any indirect impacts on the biodiversity values of land to which biodiversity certification is conferred are appropriately minimised in accordance with section 6 of the methodology because the application demonstrates:

a. That it is not subject to a Strategic Assessment under the *Environment Protection and Biodiversity Conservation Act 1999*

b. How the proposed ownership, management, zoning and development controls of the proposed biodiversity certification area are intended to mitigate any indirect impacts on biodiversity values. In accordance with Section 6 of the BCAM, the area that was assessed for indirect impacts extended as far as was necessary outside the land proposed for biodiversity certification, to account for any likely adverse indirect impacts on biodiversity values as a result of conferring biodiversity certification

c. That the on-site conservation measures that protect red flag areas have a buffer, and that the size of the buffer areas is appropriate to mitigate any negative indirect impacts from development following the conferral of biodiversity certification, ~~and that the buffers have either been included in conservation measures or identified as retained lands in the Biodiversity Certification Assessment Area~~. *Note: this is subject to Minister's Delegate being satisfied with the minor variation under s126Q of the TSC Act*

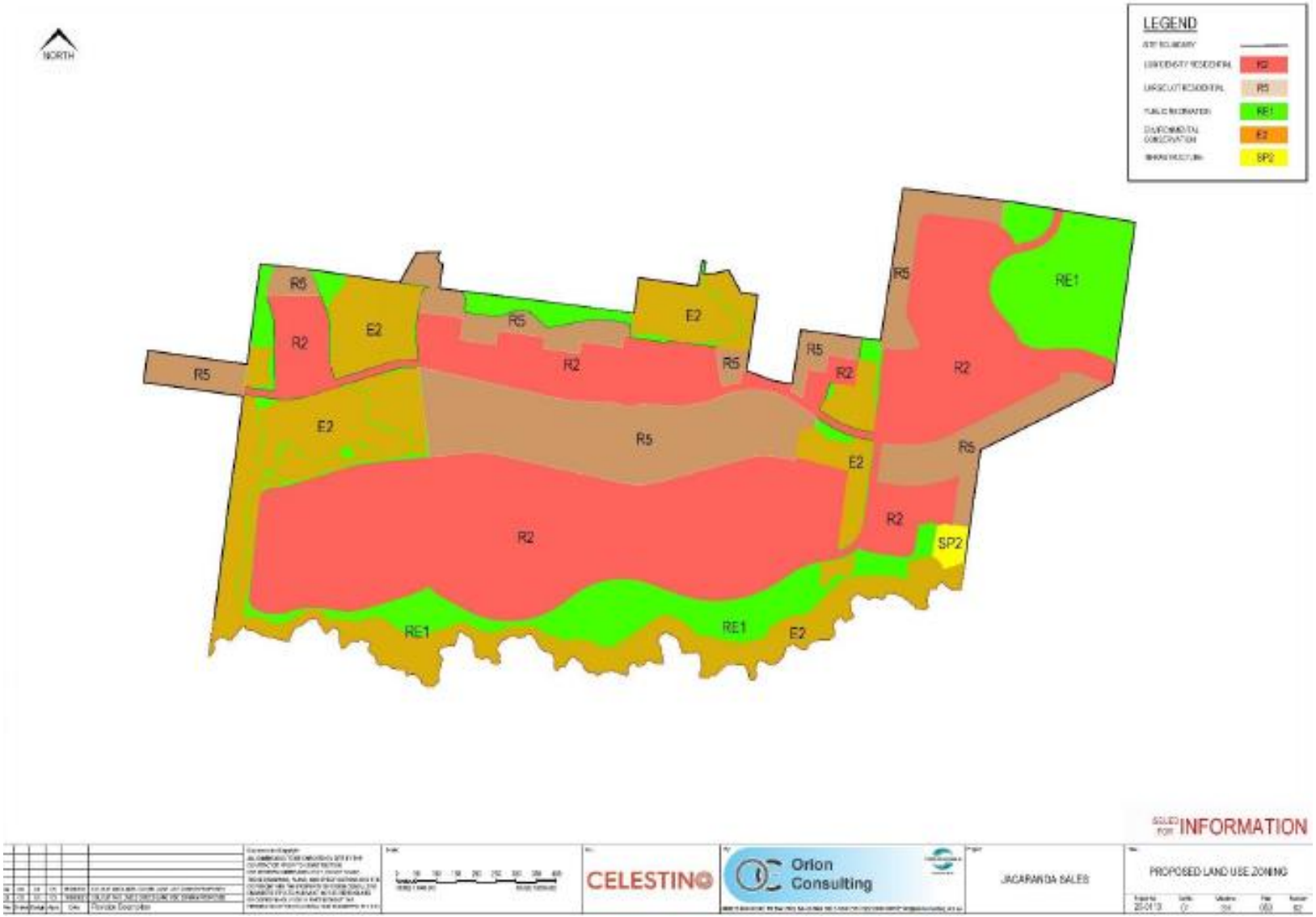

Figure 9 Proposed Land zoning map

2.1.7 Planning instrument conservation measures

Section 8.1.3 of the BCAM states that:

"Conservation measures applied through a planning instrument are known as planning instrument conservation measures. Planning instrument conservation measures can be used to create ecosystem credits and species credits to offset the impacts of the conferral of biodiversity certification on the land.

Planning instrument conservation measures are only available to be used to offset the impacts of the proposed biodiversity certification where:

(a) The land proposed as a planning instrument conservation measure adjoins or is proximate to the land proposed for biodiversity certification

OR

(b) The land proposed as a planning instrument conservation measure is within the biodiversity certification assessment area

AND

(c) The land proposed as a planning instrument conservation measure is identified in the application for biodiversity certification

AND

(d) The land proposed as a planning instrument conservation measure is not subject to any other proposed conservation measure in the application for biodiversity certification

AND

(e) The relevant planning instrument is in place at the time the application for biodiversity certification is made

OR

(f) The application for biodiversity certification includes written advice from the Minister for Planning, agreeing to support the proposed changes to the relevant planning instrument, within a reasonable timeframe from the date the application for biodiversity certification is made.

Note: Where the planning instrument conservation measure is not in place at the time biodiversity certification is conferred, the Minister may, in approving the conservation measure, specify a time within which the conservation measure must be implemented. If the conservation measure is not implemented within that timeframe, the Minister may suspend certification until the conservation measure is implemented."

In addition, the following new provisions must be contained in the planning instrument applying to the land that is proposed as a planning instrument conservation measure:

(g) The land must be zoned E2 or E3 (or, for State Forest, RU3) or another suitable zone provided that the uses permitted on the site are unlikely to compromise the biodiversity values of the land

AND

(h) A local provision setting out the development controls that will apply to protect the native vegetation and any other habitat for native species on the land to the satisfaction of the Director General.

The provisions in the planning instrument relating to g) and h) will be considered 'new' if:

- *They are a direct result of the preparation of the application for biodiversity certification, or*
- *The Director General is satisfied that significant upgrades have occurred or are planned to occur to existing environmental protection zoning and development controls in order to achieve improvement in existing biodiversity values as a direct result of the preparation of the application for biodiversity certification.*

In determining what constitutes a 'significant upgrading' to existing zoning and development control provisions the Director General may consider:

(a) The objectives of the proposed zone

(b) The permissible uses in the proposed zone

(c) The subdivision design, including configuration of lots, minimum lot sizes and/or options for lot averaging and lot clustering

(d) The development controls that will apply to future development within the zone

Discussion:

There are no planning instrument conservation measures proposed as part of the application for biodiversity certification

2.1.8 Offsite conservation measures – survey intensity

Section 9.2 of the BCAM states that:

"The conservation measures set out in sections 8.1.1 and 8.1.2 of the methodology may be used outside the biodiversity certification assessment area to obtain biodiversity certification credits that will contribute to a determination that the conferral of biodiversity certification on land improves or maintains biodiversity values.

The number of ecosystem credits and species credits for biodiversity certification generated in respect of a conservation measure outside the biodiversity certification assessment area must be calculated in accordance with the Biodiversity Banking Assessment Methodology established under Part 7A of the TSC Act as if the conservation measure was to be established under a BioBanking Agreement.

For conservation measures other than a Biodiversity Banking agreement under Part 7A of the TSC Act, the Director General may give approval to vary the intensity of survey that is required to determine the number and type of biodiversity certification credits using the Biodiversity Banking Assessment Methodology."

Discussion:

This section is not relevant as there are no offsite conservation measures proposed as part of the application for biodiversity certification

2.1.9 Variation to the offset rules – ecosystem credits

Section 10.2.1 of the BCAM states that:

"The Director General may approve a variation of the offset rules set out in section 10.2. Before varying the offset rules for using ecosystem credits, the Director General must be satisfied as to the matters set out in A and B below.

A. Firstly, before varying the offset rules for using ecosystem credits, the Director General must be satisfied that:

a) All reasonable steps have been taken to secure conservation measures that generate credits that match the credit profile specified for ecosystem credits required for biodiversity certification in section 10.1 of the methodology

OR

b) The cost of securing a conservation measure capable of generating credits to match the credit profile specified for ecosystem credits required for biodiversity certification in section 10.1 of the methodology is disproportionate to the overall cost of the conservation measures identified in the application for biodiversity certification

AND

c) The list of threatened species predicted to occur at the offset site is not significantly different to the list of threatened species that are assessed on land where biodiversity certification is proposed when assessed in accordance with section 4.2 of the methodology.

B. Secondly, in order to approve a variation of the offset rule in section 10.2, the Director General must also be satisfied that the alternate ecosystem credits are generated from conservation measures:

a) Located on land within the same IBRA region as the land proposed for biodiversity certification, regardless of the CMA subregions identified in attribute 1

AND

b) On land containing a vegetation type of the same vegetation class as the vegetation type specified in attribute 2 of the credit required for the land proposed for biodiversity certification as set out in section 10.1 of the methodology

OR

c) If paragraph (b) cannot be complied with, on land containing a vegetation type from the same vegetation formation as the vegetation type specified in attribute 3 of the credit required for the land proposed for biodiversity certification as set out in section 10.1 of the methodology.

Note: An application for a variation of the offset rules for using ecosystem credits for biodiversity

Discussion:

This section is not relevant as no variation to the offset rules is proposed.

2.1.10 Variation to the offset rules – species credits

Section 10.4.1 of the BCAM states that:

"The Director General may approve a variation of the offset rules for using species credits set out in section 10.4, when satisfied as to the matters set out in both A and B below.

A. The Director General may only approve a variation of the offset rules for using species credits for biodiversity certification, by allowing the species credits generated for a conservation measure for another species to be used to offset the impacts of the conferral of biodiversity certification on land when satisfied that:

a) All reasonable steps have been taken to secure the number and types of species credits

AND

b) The species to which the species credit relates is not listed as critically endangered on the TSC Act

AND

c) A conservation measure in the form of a financial contribution for the value of the species credits in line with sections 9.3 and 9.3.1 of the methodology is not an appropriate conservation measure for this species.

Note: Where a financial contribution has been made in this situation, the financial contribution must be used for activities related to the ongoing conservation of the species.

B. In addition, the variation must only be approved where the Director General is satisfied that the alternate species credits:

a) Relate to a species or population from the same kingdom as the species identified in the credit profile in accordance with section 10.3 of the methodology

AND

b) Are generated from conservation measures located on land within the same IBRA region as the land proposed for biodiversity certification

AND

c) Where the species credit required for land proposed for biodiversity certification relates to a species or population listed in Schedule 1 of the TSC Act, it relates to a species or population listed in either Schedule 1 or 1A of the TSC Act

OR

d) Where the species credit required for land proposed for biodiversity certification relates to a species or population listed in Schedule 2 of the TSC Act, it relates to a species or population listed in either Schedule 1, 1A or 2 of the TSC Act.

Note: An application for a variation of the offset rules for using species credits for biodiversity certification must be included in the application for biodiversity certification."

Discussion:

This section is not relevant as no variation to the offset rules is proposed.

Biodiversity Certification of Land: Jacaranda

Recommendation Report for the Minister's Delegate, Minister administering the *Threatened Species Conservation Act 1995*

For conferring or refusing to confer biodiversity certification of land under Part 7AA of the *Threatened Species Conservation Act 1995*

Contents

1 BACKGROUND AND DOCUMENTS CONSIDERED

Name of recommending officer:	Janne Grose and Sarah Burke
Name of decision maker:	Michelle Dumazel, Executive Director, Biodiversity and Conservation, as delegate for the Minister for Energy and Environment.
CM9 container and record numbers:	SF16/7829
Name of Planning Authority (applicant):	Hawkesbury City Council
Date application received:	Made 22 August 2019, and as subsequently amended by Council
Dates of public notification under Section 126N:	25 February 2021 – 28 March 2021

1.1 THE PROPOSAL

Hawkesbury City Council (Council) has applied for biodiversity certification under the NSW *Threatened Species Conservation Act, 1995* (TSC Act) of the development lands (biodiversity certification area) identified at Tab 1 in *the Jacaranda Biodiversity Certification Assessment Report and Strategy Final Application to Minister prepared for Celestino Pty Ltd* dated 3 August 2021.

Jacaranda Ponds is listed in the Proposed Applications for Biodiversity Certification Order 2017 gazetted 24 November 2017, which declares the proposed applications that may be made under Part 7AA of the TSC Act. The development is now known as 'Jacaranda'.

The land proposed for biodiversity certification is identified in red in Figure 1 totals 143.72 hectares (ha). The land proposed for onsite conservation measure is 28.13ha. The proposal also includes 13.19ha of land identified as maintaining its current land use and has been assessed as retained lands. The retained lands have been excluded from the assessment and are neither proposed to be biodiversity certified nor subject to conservation measures (Table 1 and Figures 1-2).

To meet the requirements of the biodiversity certification assessment methodology (BCAM), it is proposed to retire biodiversity credits from two biobank sites within the biodiversity certification assessment area (BCAA) as well as 143 species credits from outside the BCAA.

Biobank agreement applications for two on-site biobank sites (Glossodia East and Glossodia West) were submitted for registration in August 2020 by the current landowners EJC Glossodia Pty Ltd and Frank George Pace and Pace Land Holdings Pty Ltd respectively. The landowners will retire all credits generated from the sites not needed by the Developer and dedicate the land to Council in accordance with the BCA.

Table 1 Land use

Land use	Area (ha)	Native vegetation extent (ha)
Land proposed for biodiversity certification	143.72	17.28
Land proposed for on-site conservation measures	28.13 *	15.54
Land proposed for off-site conservation measures	N/A	N/A
Retained lands	13.19	4.20
Total	**185.04 ***	**37.02**

* The land proposed for on-site conservation measures in the BCAA is 28.13ha in area as recorded in the biobanking agreement applications. The BCARS indicates the area is 28.12ha. The difference is due to rounding up when the land is treated as two separate sites. This Recommendation Report uses the figures in Table 1 which is different the figures in the BCARS.

1.2 LAND OWNERSHIP

At the time that the application for biodiversity certification was submitted to the Minister for Energy and Environment, the land at the Jacaranda site was owned as follows. The location of Lot and DPs is shown in Figure 2.

Lot / DP	Address	Owner
Lot 2 DP533402	103 Spinks Road, Glossodia	EJC Glossodia Pty Limited
Lot 52 DP1104504	103 Spinks Road, Glossodia	EJC Glossodia Pty Limited
Lot 20 DP 214753	213 Spinks Road, Glossodia	EJC Glossodia Pty Limited
Lot 75 DP 214752	361 Spinks Road, Glossodia	Feecha Pty Ltd, Himbia Pty Ltd, Rashka Pty Ltd, & Printsilk Pty Ltd
Lot 3 DP 230943	11 James Street, Glossodia	EJC Glossodia Pty Limited
Lot 44 DP 214755	3 Derby Place, Glossodia	Pace Landholdings Pty Limited
Lot 50 DP 751637	746A Kurmond Road, Freemans Reach	EJC Glossodia Pty Limited
Lots 1, 2 & 3 DP 784300	780A-780C Kurmond Road, North Richmond	Frank George Pace and Pace Land Holdings Pty Limited

Figure 1 Biodiversity Certification Assessment Area at Jacaranda - land to be certified, land proposed for conservation, retained land and the Jacaranda Residential

Figure 2 Biodiversity Certification Assessment Area at the Jacaranda site - land to be certified, land proposed for conservation, retained land and Lot and DPs.

1.3 THE BIODIVERSITY CERTIFICATION APPLICATION

An application for biodiversity certification must follow the requirements of Part 7AA of the TSC Act and the BCAM. The TSC Act requires the applicant to have a biodiversity certification strategy for the implementation of conservation measures to ensure that the overall effect of the biodiversity certification is to improve or maintain biodiversity values. To meet this requirement a Biodiversity Certification Assessment Report and Strategy (BCARS) has been prepared and submitted with the biodiversity certification application (Tab 1).

The application was initially made by Council on 22 August 2019 and as subsequently amended by Council. The application was prepared and lodged by Council on behalf of the Developer and landowners. Eco Logical Australia Pty Ltd undertook the biodiversity assessment and prepared the BCARS which underpins the application for certification.

The application for biodiversity certification was placed on public exhibition by Council between 25 February 2021 – 28 March 2021. Council received no submissions from the community. One (1) submission was received from EES. In accordance with section 126N of the TSC Act, Council prepared a Submissions Report (Tab 1).

The BCARS and Submissions Report has been reviewed by EES as documented in this Recommendation Report. For development lands to be biodiversity certified the Secretary's Delegate, Department Planning Industry and Environment and the Minister's Delegate will need to be satisfied in relation to certain matters outlined in the BCAM and Part 7AA of the TSC Act. These matters have been assessed by EES and those relevant to the Minister are documented in this Recommendation Report.

1.4 THE BIODIVERSITY CERTIFICATION ASSESSMENT AREA

The BCAA at the Jacaranda site is shown on Figures 1 and 2.

The area proposed to be biodiversity certified 143.72ha and is currently comprised of 17.28ha of native vegetation. Conservation measures are proposed to protect 15.54ha of native vegetation and restore 12.58ha of cleared land within the BCAA. The remaining 4.20ha of native vegetation in the BCAA lies in retained lands that were excluded from the assessment.

Development of the area to be biodiversity certified will require a total of 278 ecosystem credits and 206 species credits to be retired to offset the impacts.

A red flag variation for the regional biodiversity link (0.002ha), the Southern Myotis (8.68ha) and Dural Land Snail (0.18ha) is required and has been assessed by the Director Greater Sydney as delegate for the Secretary (see the Recommendation Report for the Secretary's Delegate).

1.5 THE CONSERVATION LAND OR OTHER MEASURES

1.5.1 On-site conservation measures

There are several conservation measures which can be implemented to ensure that the overall effect of biodiversity certification is to improve or maintain biodiversity values (section 126L of the TSC Act).

The owners of land in the BCAA (Frank George Pace, Pace Land Holdings Pty Ltd and EJC Glossodia Pty Ltd) have agreed to enter into two biobanking agreements under the *Biodiversity Conservations (Savings and Transitional) Regulation 2017* and provide credits to the Developer. The transitional arrangements that allow biobanking agreements to be made under the repealed TSC Act expire on 24 August 2021. The total

area of land proposed for the on-site conservation measures (two biobank agreements) is 28.13ha. The applications to register the two biobank sites (12.01ha (Glossodia East) and 16.12ha (Glossodia West) were submitted for registration in August 2020.

Within 30 days of conferral of biodiversity certification the current landowners will be responsible for the erection of a temporary to exclude stock and poultry and for the initial maintenance of the biobank sites. Until the biobank sites are transferred to Council, the current landowners will manage the two biobank sites in accordance with the biobanking agreements.

Council will be responsible for the in-perpetuity maintenance of the biobank sites from the date that the land is transferred to Council. Once transferred, Council will endeavour to prepare any documents necessary to enable the Council to consider whether the Conservation Area should be classified as 'Community Land – Natural Area' under the *Local Government Act 1993;* (LG Act), and it will be managed in accordance with the Biobank Agreements and a Plan of Management. Council will be responsible for the installation of signage at the reserve.

It should be noted that these requirements have also been incorporated into the draft BCA.

1.5.2 Off-site conservation measures

There is no land outside the biodiversity certification assessment area proposed for conservation measures. Southern Myotis species credits have been purchased by the Developer from two registered biobank sites (BA ID 331 and 383) to address the credit deficit of 143 credits required for this species.

1.6 BIODIVERSITY CERTIFICATION AGREEMENT

Section 126L of the TSC Act states that entering into a BCA is a conservation measure. Under Section 8.1 of the BCAM, conservation measures that are proposed in the application but are not in place by the time of biodiversity certification is conferred should be secured via a BCA. A BCA is required by the Order to be signed by all parties within 28 days of the Order coming into effect.

Under the proposed BCA:

- Within 6 months of entering into:
  - a biobanking agreement over Glossodia East, the landowner (EJC Glossodia Pty Limited) must make an application to retire all biodiversity credits generated over Glossodia East that are not required by the Developer
  - a biobanking agreement over Glossodia West, the landowner (Frank George Pace and Pace Land Holdings Pty Limited) must make an application to retire all biodiversity credits generated over Glossodia West that are not required by the Developer.
- The landowners of the proposed biobank sites (EJC Glossodia Pty Limited and Frank George Pace and Pace Land Holdings Pty Limited) must make available to the Developer 278 HN528 ecosystem credits, 14 Dural Land Snail Credits and 192 Southern Myotis credits. This will occur via the following:
  - Glossodia East Biobank Site, which will generate 98 HN528 Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain and 38 Southern Myotis species credits
  - Glossodia West Biobank Site, which will generate 184 HN528 ecosystem credits, 14 Dural Land Snail species credits and 11 Southern Myotis species credits
- The Developer agrees to retire, or ensure the retirement of, the number and type of biodiversity credits in accordance with the staged development of the certified land before:

  a) any clearing of vegetation is commenced in the relevant Stage Area of the biodiversity certification area or

b) a Construction Certificate is issued for Subdivision Work, or any work involving clearing, in the relevant Stage Area

whichever is the earlier.

The developer/landowners of the biobank sites must provide the Minister with at least 1 months written notice before:

a) any clearing is commenced in the Stage Area or
b) an application is made for Subdivision Works or Construction Certificate in the Stage Area.

The developer/landowners of the biobank sites must provide the Minister with proof of the retirement of the required quantum of biodiversity credits as soon as practicable after the retirement of the credits occurs. The BioBanking public register will be updated to reflect the change in status of the credits when they are retired.

The Developer is to provide to the Minister within 5 days of the Order being made a bank guarantee for $4,582,238. This amount is the Total Fund Deposit (TFD) required for the two on-site biobank sites. The TDF is the amount of money that needs to be invested in the present time for the management actions at the biobank site into the future. This guarantee would not cover the cost of purchasing and retiring all the credits generated by the biobank sites. This was calculated to be $10,500,00 using the EES Biodiversity Offset Payment Calculator. EES considers that there are other securities available, such has revoking or suspending biodiversity certification, commencing proceedings, and retaining the full amount of the guarantee for the life of the BCA, to accept a bank guarantee for $4,582,238. The bank guarantee will be being held by EES's Greater Sydney Branch

The BCA will also be registered on the title of the land.

The on-site conservation measures generate a surplus of 46 ecosystem credits, comprising 4 HN528 ecosystem credits and 42 HN526 ecosystem credits and 1 species credit. These surplus credits will be retired in accordance with the conditions of biodiversity certification. Table 2 details the credits required to be retired from on-site and off-site biobank sites by the BCA.

The landowners of the biobank sites must transfer Glossodia East and Glossodia West to Council at no cost to Council.

Table 2 Biodiversity Credits types required to be retired by the BCA

	Biodiversity Credit type			
	HN528 Biodiversity Credit (Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain)	**HN526 Biodiversity Credit (Forest Red Gum Rough-barked Apple grassy Woodland on alluvial flats of the Cumberland Plain)**	**Southern Myotis species credit**	**Dural Land Snail species credit**
Number of Biodiversity Credits to be retired	**278** ecosystem credits required as part of Stages 1-4 of the development and **4** additional credits retired from on-site conservation measure.	**42** additional ecosystem credits created from on-site conservation measure.	**49** species credits to be retired from on-site conservation measures and **143** credits to be retired from off-site conservation measure as part of Stage 1 of the development	**14** species credit required to be retired from on-site conservation measures as part of Stage 4 of the development and **1** additional credit retired from onsite conservation measure.
Total	282	42	192	15

1.7 THE RETAINED LAND

The biodiversity certification application includes 13.19ha of retained land (Figures 1-2). Retained lands are neither certified lands nor subject to conservation measures. Development proposals in these areas will continue to require biodiversity approvals as regulated under the *Biodiversity Conservation Act 2016* and the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.8 LIST OF DOCUMENTS BEFORE THE DECISION MAKER

1.8.1 Documents provided by the applicant

See Tab 1 for copies of all documents in this section

1. Hawkesbury City Council (2021) Biodiversity Certification Application signed by Laurie Mifsud, Acting General Manager, Hawkesbury City Council, as subsequently amended by Council
2. Eco Logical Australia (2021) Jacaranda Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Celestino Pty Ltd 26 April 2021 and as amended 3 August 2021
3. Eco Logical Australia (2021) Jacaranda Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Celestino Pty Ltd 26 April 2021 and as amended 3 August 2021 - Appendix D Submissions received during exhibition period
4. Eco Logical Australia (2021) Jacaranda Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Celestino Pty Ltd 26 April 2021 and as amended 3 August 2021 - Appendix E Response to Submissions received during exhibition period
5. Eco Logical Australia (2021) Jacaranda Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Celestino Pty Ltd 26 April 2021 and as amended 3 August 2021 - Appendix N Travers bushfire & ecology (2013) Flora and Fauna

Constraints Assessment - Jacaranda Ponds off Spinks Road & Kurmond Road Glossodia – prepared October 2009 amended June 2013

6. Ethos Urban – Planning Proposal – Amendment to the Hawkesbury Local Environmental Plan 2012 - April 2021 (amended v8)

1.8.2 Other documents considered by the recommending officer

See Tab 5 for copies of all documents in this section

1. Celestino – draft Jacaranda Development Control Plan - Spinks Road, Glossodia submitted to Hawkesbury City Council 28 January 2021
2. Department of Environment, Climate Change and Water (2011) Biodiversity Certification Assessment Methodology
3. Office of Environment and Heritage (2014) BioBanking Assessment Methodology 2014
4. Office of Environment and Heritage (2015) Biodiversity Certification Guide for Applicants
5. Office of Environment and Heritage (2015) Biodiversity Certification Operational Manual
6. Biobanking Agreement Application – Glossodia East – signed by George Tsekouras on 21 August 2020
7. Biobanking Agreement Application – Glossodia West – signed by Frank George Pace and Paul Pace on 19 August 2020
8. Environment Energy and Science (2019) to Hawkesbury City Council, EES comments on Jacaranda Ponds, Glossodia – Biodiversity certification assessment (31 July 2019)
9. Environment Energy and Science (2020) to Hawkesbury City Council, EES response - Adequacy review of Biodiversity Certification Application for Jacaranda Ponds, Glossodia (5 March 2020)
10. Environment Energy and Science (2020) to Hawkesbury City Council, EES response - Revised Biodiversity Certification Assessment Report and Strategy - Vegetation Zoning Map - Eco Logical Australia (ELA) response to the EES submission on the Adequacy review of Biodiversity Certification Application for Jacaranda Ponds, Glossodia (25 June 2020)
11. Environment Energy and Science (2021) to Hawkesbury City Council, EES response - Planning Proposal to amend Hawkesbury Local Environmental Plan 2012 for Jacaranda, Glossodia - consultation under S3.34(2) (d) of the Environmental Planning and Assessment Act 1979 (19 March 2021)
12. Wijayasinghe, K (2021) Re Jacaranda emails to J Grose and S Burke, 8 June 2021
13. Wijayasinghe, K (2021) Re Jacaranda email to J Grose and S Burke, 22 June 2021 (copy of the Response to Submissions provided to EES)
14. Wijayasinghe, K (2021) Re Jacaranda – Response to Submissions and Lot and DPs email to J Grose, 12 July 2021

2 MATTERS FOR THE MINISTER'S DELEGATE TO CONSIDER

Biodiversity certification may only be conferred on land where the Minister's Delegate makes a determination that the conferral of the biodiversity certification will improve or maintain biodiversity values.

Section 126P(1) of the TSC Act, states that:

> *"Biodiversity certification improves or maintains biodiversity values only if the Minister determines on the basis of a biodiversity certification assessment that the overall effect of biodiversity certification is to improve or maintain biodiversity values."*

This section evaluates the matters that are relevant for the Minister's Delegate to consider in accordance with the BCAM and Part 7AA of the TSC Act. **Table** lists the relevant matters and provides a link to the corresponding section of this Recommendation Report.

Table 3 Matters for the Minister's Delegate to consider that are relevant to this proposal

BCAM Section	**Minister's Delegate Decisions**	**Report Section**
8.1.3	Planning instrument conservation measures – timeframe to implement	2.1.1
TSC Act Section	**Minister's Delegate Decisions**	**Report Section**
126N	Public notification requirements	2.1.2
126O, 126P	Biodiversity certification to be conferred only if biodiversity values are improved or maintained	2.1.3
126Q	Application for a minor variation to the assessment methodology	2.1.4
126H	Decision to confer certification on the proposed biodiversity certification assessment area	2.1.5

2.1.1 Planning instrument conservation measures – timeframe to implement

Section 8.1.3 of the BCAM states that:

> *"Where the planning instrument conservation measure is not in place at the time biodiversity certification is conferred, the Minister may, in approving the conservation measure, specify a time within which the conservation measure must be implemented. If the conservation measure is not implemented within that timeframe, the Minister may suspend certification until the conservation measure is implemented."*

Discussion:

No planning instrument conservation measures are proposed as part of the application for biodiversity certification.

2.1.2 Public notification requirements

Section 126N of the TSC Act states that:

> 1) *"Land cannot be biodiversity certified unless the applicant has complied with the public notification requirements in relation to the application for biodiversity certification.*
>
> 2) *The public notification requirements in relation to an application for biodiversity certification are as follows:*
>
> *(a) An applicant must publish notice of the application for biodiversity certification in a newspaper circulating generally throughout the State and on the applicant's website,*
>
> *(b) The notice must invite the public to make submissions relating to the application before a closing date for submissions specified in the notice (being a date that is not less than 30 days after the date the notice is first published in a newspaper under this section),*
>
> *(c) Until the closing date for submissions, an applicant is to cause copies of the application to be exhibited at its principal office in New South Wales and on its website,*
>
> *(d) An applicant must provide a report to the Minister that indicates the applicant's response to any submissions relating to the application that were received before the closing date.*
>
> 3) *A planning authority may vary its application for biodiversity certification (including its biodiversity certification strategy) as a consequence of any submission received following public notification of the application or for any other reason.*
>
> 4) *Further public notification of the application, as varied, is not required unless the Minister otherwise directs."*

Discussion:

The application for biodiversity certification was publicly exhibited by Council between 25 February 2021 and 28 March 2021 in accordance with section 126N of the TSC Act. A planning proposal and draft development control plan (DCP) for the site were exhibited at the same time in accordance with the EP&A Act.

Council received no submissions from the community with respect to the application. Council received one (1) submission from EES. The EES submission raised several issues regarding activities within proposed biobank sites, potential indirect impacts to biobank sites and Currency Creek from activities in adjoining open space areas. EES also commented on the planning proposal and the draft DCP.

In accordance with section 126N(2)(d) of the TSC Act, the Council prepared a Response to Submissions Report (Submissions Report) which is included in Appendix E of the BCARS (Tab 1). The Submissions Report provides a summary of the EES issues and Council's response to these issues. The Submissions Report satisfactorily addresses several items raised by EES, including indirect impacts, impacts on Red Flagged Areas and minor editorial amendments.

After public exhibition, amendments have been made to the BCARS to address issues raised by EES in relation to indirect impacts and minor editorial amendments.

EES considers the grouping of issues in the Submissions Report is appropriate and are used in the following summary of issues raised by EES in its submission at public exhibition, the applicant's response as provided in the Submissions Report and EES further comment.

Indirect Impacts

1. *EES issue*: The BCARS should assess whether active recreation spaces, detention basins, creek side trails, recycled water irrigation areas in close proximity to the biobank site along Currency Creek, (known as the Glossodia East biobank site), are likely to have any potential direct or indirect impacts on the conservation areas/biodiversity values.

   Applicant's Response: The Submissions Report states "direct impacts associated with the proposed development including the construction of ancillary infrastructure has been included and assessed as part of the footprint". Regarding stormwater, "The minimum requirement shall be that the average annual pollutant load discharged from the developed site shall be no greater than for existing conditions".

   EES further comment: In relation to indirect impacts from the irrigation of recycled water the Submissions Report did not address this.

   EES advised Council in an email of 2 July 2021, that it expects that the minimum requirement shall be that the average annual quantity of water runoff that enters the biobank sites from the developed site shall be no greater than existing conditions. Council confirmed in an email of 12 July 2021 that the average annual quantity of water runoff that enters the biobank sites from the developed site will be no greater than existing conditions and the BCARS has been amended to reflect this. In addition, the draft Jacaranda DCP includes a provision to ensure that there is no impact from irrigation water/runoff/seepage entering the biobank sites (Tab 5).

   The Developer will prepare and implement a construction environment management plan (CEMP) to guide development in the BCAA to ensure that all direct and indirect impacts (including stormwater run-off) are contained within the development footprint and appropriate mitigation measures are put in place to minimise indirect impacts to remnant native vegetation and threatened fauna including the Dural Land Snail and Southern Myotis.

   The CEMP will address the management of the land proposed for conservation measures and its buffer and surrounding roads will be fully curbed and guttered with no stormwater being discharged into the conservation areas. The CEMP and/or DCP will also address impacts from potential changes to water quality and quantity entering the biobank sites to ensure they are no greater than existing conditions.

2. *EES issue*: The proposed fauna preclearance survey protocol and dewatering plan in the CEMP should apply to all the Jacaranda site and to all protected fauna and not just threatened species.

   Applicant's Response: While the Submissions Report does not confirm if the proposed fauna preclearance survey protocol and dewatering plan will apply to all protected fauna Council confirmed by email on 12 July 2021 that:
   - the proposed fauna preclearance survey protocol and dewatering plan will apply to all protected fauna and not just threatened species
   - the Draft Jacaranda DCP includes a control (2.2.3 C.4) which does not limit the pre-clearance and clearance surveys of fauna and dam dewatering protocols to threatened species

- the provisions will be detailed in the CEMP which will apply to the whole of Jacaranda and be lodged with the Concept DA for assessment (Tab 5). EES accepts the Council's response to this issue.

3. *EES issue*: EES sought details on where it is proposed to irrigate with recycled water and whether it will be in proximity to the biobank sites, including the biobank site along Currency Creek which is located downslope of the Village Green. EES advised that in addition to not changing the quality of water that enters the biobank sites the application of recycled water for irrigation on adjoining ovals and open space should not impact the biobank sites by changing the quantity of water/runoff/seepage that enters the biobank sites.

   In addition, EES advised the BCARS should address the impact of the proposed walking trail and companion animals, including a potential dog off leash area, on the biodiversity values of the biobank site along Currency Creek.

   Applicant's Response and EES further comment: The Submissions Report states that "subject to negotiation with Council recycled water could be used for irrigation of ovals and open space. The Submissions Report at item (6) advises that the location of the irrigation sites is not yet known and will be determined with Council at the DA stage. EES accepts that this information is not yet available, but it should ensure at the DA stage that the irrigation areas do not lead to any direct or indirect impacts.

   The Submissions Report states "the recycled water system will not impact the biobank sites as it will be accommodated in the road reserve alongside the sewage and potable water infrastructure" and "the water re-entering the environment would be of a high quality and very low nutrient load. As such no indirect impacts are expected to occur". As noted for item 1 above, while the Submissions Report has not addressed potential indirect impacts caused by potential changes to quantity of water entering the biobank sites, Council did confirm that the average quantity of runoff that enters the biobank sites from the developed land will be no greater than existing conditions.

   In relation to potential impacts of the proposed walking trail and companion animals on biodiversity values, including a potential dog off leash area in proximity to the biobank site along Currency Creek, the Submissions report states "any indirect impacts likely to occur as a result of a trail running adjacent to the creek would be managed through the implementation of the Biobank Agreement and the Vegetation Management Plan". The biobank agreement does not address dog off leash areas in proximity to the biobank sites. Council however is required to manage any indirect impacts from adjacent areas and this issue will be addressed through the management of the biobank site.

4. *EES issue:* As the public open space areas/ovals are in close proximity to the biobank site along Currency Creek EES advised it was unclear if fertiliser will be applied to the open space areas/ovals as part of managing /maintaining these areas and whether nutrient runoff will impact the adjoining biobank site along Currency Creek.

   Applicants Response and EES further comment: the Submissions Report states "as we cannot commit to if and what type of fertiliser may be used in future, any response would be purely assumed".

   EES notes the applicant's response to item 1 that "indirect impacts are considered negligible given the quality metrics established for any stormwater. All stormwater must meet: 'The minimum requirement shall be that the average annual pollutant load discharged from the developed site shall be no greater than for existing condition'". Therefore, EES considers there will be no increase in nutrient load because of any use of fertiliser due to the applicant's response at item 1.

5. *EES issue*: The impact of detention basin outlets on native vegetation in the biobank site along Currency Creek

   Applicants Response and EES further comment: The Submissions Report does not confirm if detention basin outlets will require the clearing or disturbance of any native vegetation in the biobank site along Currency Creek. The Submissions Report states that "potential detrimental impacts to vegetation within the biobanking site will be managed via the implementation of a comprehensive CEMP" and that "post construction /operational phase impacts will be mitigated via the in perpetuity management of the Biobank sites". Any potential impact on the biobank sites should be avoided and where it is not possible to avoid impacts, they should be minimised and will need to be negotiated with the Biodiversity Conservation Trust (BCT).

6. *EES issue:* EES recommended the BCARS include details including a scaled plan on where the proposed irrigation areas, detention basin outlets etc are to be in relation to the biobank sites.

   Applicants Response: The Submissions Report indicates details of where the proposed irrigation areas, detention basins outlet are to be located is not yet known and will be determined with Council at the DA stage.

   EES further comment: EES expects that any potential impact on the biobank sites should be avoided and if not avoided minimised and will need to be negotiated with the BCT.

   Indirect impacts on biodiversity values as a result of conferring biodiversity certification are discussed in Section 2.1.6 of the Recommendation Report for the Secretary's Delegate (Tab 2a) and are proposed to be managed by a range a of measures including implementation of a CEMP and buffers to the biobank sites comprising APZs and public open space and the inclusion of provisions in the Jacaranda DCP.

   EES is satisfied that any indirect impacts on the biodiversity values of land to which biodiversity certification is conferred are appropriately minimised in accordance with Section 6 of the methodology.

<u>Impacts on Red Flagged Areas</u>

7. *EES issue*: It is not clear if the pedestrian/cycle path crossings of Currency Creek and WSUD/bio-basin outlets are likely to impact native vegetation within the riparian corridor as the planning proposal report (PPR) appears to show pedestrian/cycle path crossings located in the riparian corridor and WSUD/bio basins and active recreation spaces are in close proximity to the riparian buffer.

   Applicant's Response and EES further comment: The Submissions Report states "the preliminary design work to date indicates that there is a potential impact within this area for stormwater infrastructure. Detailed design has not yet occurred. Any impact to retained lands will be required to go through future development assessment in accordance with the legislation."

   EES notes the updated BCARS (dated 3 August 2021) states that "no works are proposed for Currency Creek or any lands that form part of the riparian buffer". EES must assess the application based on the information included in the BCARS but this statement is inconsistent with the response provided in the Submissions Report (Appendix E of BCARS). Potential future impacts on the riparian corridor within the retained land is outside this assessment. The future development assessment should ensure impacts to the riparian corridor of Currency Creek regional or state biodiversity conservation link are avoided and if not avoided minimised.

   EES previously advised Council in its submissions that infrastructure including detention basins, should not be sited in either the biobank site along Currency Creek or within the retained land which contains

the endangered River-Flat Eucalypt Forest and recommended the DCP include controls to ensure the detention basins are located to avoid any impacts on native vegetation that is to be retained or areas that are to be rehabilitated with native vegetation. The pedestrian and cyclist pathways (apart from crossings) should be located outside the riparian corridor to protect the endangered ecological community that occurs along the creek and limit people and companion animals disturbing native fauna including threatened species that use riparian habitat.

The applicant requested a red flag variation to impact the red flag areas of regional or state biodiversity conservation significance that cannot be avoided. The request for the red flag variation is assessed against the BCAM criteria by EES in the Recommendation Report for Secretary's Delegate (Tab 2a). In the Decisions of the Secretary's Delegate, the Secretary's Delegate has determined that they are satisfied with the red flag variations for areas of regional or State biodiversity conservation significance (Tab 2a).

As detailed in the Recommendation Report for the Secretary's Delegate, the Secretary's Delegate has determined that, having considered the criteria in Section 2.4, impacts on red flag areas may be offset in accordance with the rules and requirements set out in Section 10 of the BCAM. All other direct impacts on biodiversity values are offset in accordance with the rules and requirements set out in Section 10 of the BCAM. The Secretary's Delegate is also satisfied that any indirect impacts on the biodiversity values of land to which biodiversity certification is conferred are appropriately minimised in accordance with Section 6 of the BCAM and supports the application for a minor variation in section 2.1.4 of this Recommendation Report.

8. *EES issue*: Inconsistencies between the BCARS, PPR and DCP need to be addressed as to whether any works are proposed along the Currency Creek riparian buffer. The exhibited BCARS states "no works are proposed for Currency Creek or any lands that form part of the riparian buffer" but this does not appear to be consistent with the PPR which includes a key recommendation that detention basins, cycleways and footpaths are considered appropriate for vegetated riparian zones provided they are offset or the proposed DCP controls which were also exhibited.

   Applicants Response and EES further comment: The Submissions Report states "the preliminary design work to date indicates that there is a potential impact within the area for stormwater infrastructure. Detailed design has not yet occurred. As such we maintain these statements are appropriate. The updated BCARS received as part of this application (dated 3 August 2021) still states that "no works are proposed for Currency Creek or any lands that form part of the riparian buffer".

   Despite this inconsistency, EES is satisfied that should any works be required in the riparian buffer, then the impacts of these works will be adequately offset and/or subject to appropriate DCP controls.

<u>Minor editorial amendments to the Biodiversity Certification Assessment Report and Strategy</u>

9. *EES issue*: Some figures in the exhibited BCARS were not consistent with other sections of the report.

   Applicants Response and EES further comment: The Submissions Report confirms that ELA will review and update the figures accordingly. EES notes that following public exhibition, this amendment has been made to the BCARS.

<u>Sections 126N (3) and (4) of the TSC Act</u>

Overall, EES considers that the Submissions Report and Council's email of 12 July 2021 have adequately responded to the EES submission relating to the application. Minor amendments to the BCARS have been made in response to the EES submission.

As outlined in Section 1.4 of the Recommendation Report for the Secretary's Delegate, following the exhibition, other amendments were made by the applicant including:

- amended the size of Conservation Area 1 in Section 4 as 12.01 ha
- amended Southern Myotis credit requirements in Section 6 and Section 9 in accordance with the Biodiversity Certification Report and Strategy (Version 9)
- replaced Cumberland Land Snail with Dural Land Snail in Section 9 in accordance with the Biodiversity Certification Assessment Report and Strategy (Version 9).

Due to the nature of the amendments, the applicant provided a revised BCARS (dated 3 August 2021) (Tab 1):

Sections 126N (3) and (4) of the TSC Act allow for a planning authority to vary its application and that further public notification of the application is not required unless the Minister otherwise directs. EES has formed the view the amendments made to the application to address the EES submission and other amendments made by the applicant do not warrant further public exhibition as the amendments do not significantly alter the proposal compared to that publicly exhibited.

Recommendation 2:

That the Minister's Delegate be **satisfied** in accordance with Section 126N of the *Threatened Species Conservation Act 1995* that the public notification requirements for biodiversity certification have been met and that there is no requirement for further public notification.

2.1.3 Biodiversity certification to be conferred only if biodiversity values are improved or maintained

Section 126P of the TSC Act states that:

1) "For the purposes of this Part, biodiversity certification improves or maintains biodiversity values only if the Minister determines, on the basis of a biodiversity certification assessment, that the overall effect of biodiversity certification is to improve or maintain biodiversity values.

2) A biodiversity certification assessment is an assessment of the effect of biodiversity certification on biodiversity values.

3) A biodiversity certification assessment is to be made in accordance with the biodiversity certification assessment methodology, and not otherwise."

Improve or maintain biodiversity values

Section 2 of the BCAM defines the circumstances in which the conferral of biodiversity certification can be considered to improve or maintain biodiversity values:

"Biodiversity values are to be regarded as being improved or maintained (as shown in the application for biodiversity certification) if:

(a) The conferral of biodiversity certification on land does not directly impact on biodiversity values in a red flag area that is on land where certification is conferred

OR

(b) The conferral of biodiversity certification on land does directly impact on biodiversity values in a red flag area but the Director General is satisfied, having considered the criteria in section 2.4, that impacts on the red flag area may be offset in accordance with the rules and requirements set out in section 10 of the methodology

AND

(c) The direct impacts on the biodiversity values of land to which biodiversity certification is conferred are offset in accordance with the rules and requirements set out in section 10 of the methodology

AND

(d) The Director General is satisfied that any indirect impacts on the biodiversity values of land to which biodiversity certification is conferred are appropriately minimised in accordance with section 6 of the methodology."

Discussion:

The proposed biodiversity certification of land directly impacts on biodiversity values in a red flag area. The Secretary's Delegate is satisfied that, having considered the criteria in Section 2.4, impacts on the red flag area may be offset in accordance with the rules and requirements set out in Section 10 of BCAM.

All other direct impacts on biodiversity values are offset in accordance with the rules and requirements set out in Section 10 of the methodology. The impacts and available offsets are summarised in the following tables.

Table 4 Summary of impacts (ecosystem credits required) and offsets (ecosystem credits available) – direct match

Plant community type	Ecosystem credits required	Ecosystem credits available	Ecosystem credit status
Grey-Box – Forest Red Gum grassy woodlands on shale of the Southern Cumberland Plain, Sydney Basin Bioregion (HN528)	278	282 on site	+4

Table 5 Summary of impacts (species credits required) and offsets (species credits available) – direct match

Species name	Species credits required	Species credits available	Species credit status
Dural Land Snail	14	15 on site	+ 1
Southern Myotis	192	49 on site 143 off site	+0
Total	206	207	+1

A total of 49 species credits for the Southern Myotis are to be retired from the on-site conservation measures, and the obligation to obtain the remaining 143 species credits for the Southern Myotis have already been purchased from registered offsite biobank sites.

The Secretary's Delegate is satisfied that any indirect impacts on the biodiversity values of land to which biodiversity certification is conferred are appropriately minimised in accordance with Section 6 of the methodology.

Assessment made in accordance with the Biodiversity Certification Assessment Methodology
Discussion:

The BCARS assesses the impacts of biodiversity certification on biodiversity values. Approval for a minor variation to the BCAM is sought for this proposal (refer to Section 2.1.4). In all other respects, the assessment of the impacts of biodiversity certification on biodiversity values has been made in accordance with the BCAM.

Recommendation 3:

That the Minister's Delegate be **satisfied** in accordance with Sections 126O and 126P of the *Threatened Species Conservation Act 1995* that on the basis of a biodiversity certification assessment for the Jacaranda proposal, the overall effect of biodiversity certification of the proposed biodiversity certification area is to improve or maintain biodiversity values.

2.1.4 Application for a minor variation to the methodology

Section 126Q of the TSC Act states that:

1) *"The Minister may, for the purpose of a biodiversity certification assessment, permit a variation to be made to the biodiversity certification assessment methodology if the Minister is of the opinion that:*

   (a) The variation to the methodology is minor, and

   (b) The variation would result in a determination that the overall effect of biodiversity certification is to improve or maintain biodiversity values, and

   (c) Strict adherence to the methodology is in the particular case unreasonable and unnecessary.

2) *A variation to the biodiversity certification assessment methodology is not to be permitted if the Minister is of the opinion that the variation is inconsistent with the classification of a plant species as a threatened species or as a component of an endangered ecological community.*

3) *The Minister must cause his or her reasons for permitting a variation to be made to the biodiversity certification assessment methodology to be published on the website of the Office.*

4) *The regulations may make further provision for the circumstances in which the Minister may permit a variation to be made to the biodiversity certification assessment methodology under this section."*

Discussion:

Section 6 of the BCAM provides that:

"Where a proposed conservation measure is used to protect land that is a red flag area … the area of the proposed conservation measure must include a buffer area to mitigate any negative indirect impacts from development following the conferral of biodiversity certification. The buffer area may be secured via a conservation measure and used to offset the impacts of biodiversity certification, or it may be a retained area in the biodiversity certification assessment area. The Director General must be satisfied that the size of the buffer area is appropriate to mitigate any negative indirect impacts from development following the conferral of biodiversity certification."

As discussed in Section 2.1.6 of the Recommendation Report for the Secretary's Delegate (Tab 2a), the application proposes to use asset protection zones (APZs) and open space areas to provide a buffer between the development and adjacent conservation areas within the BCAA.

The buffers will consist of land proposed for biodiversity certification. As a result, the application does not comply with the requirement that "*The buffer area may be secured via a conservation measure and used to offset the impacts of biodiversity certification, or it may be a retained area in the biodiversity certification assessment area*".

APZs and open space areas typically have lower impacts on adjacent reserves than developed areas. By separating the developed and conserved areas with these areas, a buffer is provided to minimise indirect impacts such as increased weeds, runoff and changed noise and light conditions.

A 29m wide APZ is proposed to adjoin most of the northern boundary of the biobank site along Currency Creek and along the north eastern boundary of this biobank site along Currency Creek, a 36m wide APZ is proposed. This APZ is to be located on public open space/RE1 zoned land and is upslope of this biobank site.

APZs of varying widths between 12 -20m are proposed to adjoin the other biobank site on the site and consist of open space and perimeter roads. The perimeter roads will be fully kerbed and guttered with stormwater to be directed away from the proposed conservation areas. The 29-36m wide APZ to the north of the biobank site boundary along Currency Creek may assist with mitigating any impacts from the adjoining proposed development, including runoff entering the biobank site.

EES has assessed the buffers provided by the APZs and formed the view that in this specific circumstance that the size of the buffers are appropriate to mitigate any negative indirect impacts from development following conferral of biodiversity certification (see Figures 1, 2 and 3).

It is recommended that the Minister's Delegate approve a minor variation to the methodology. The following specific comments are provided in support of the recommendation:

- This minor variation is to allow the use of APZs and open space to form the buffer to the red flag areas that will be subject to conservation measures within the BCAA.
- The biodiversity certification assessment has been undertaken in accordance with the BCAM, as varied.
- The variation would still result in a determination that certification will improve or maintain biodiversity values.

In this case, EES has formed the view that strict adherence with the requirements of BCAM that the buffer area be secured via a conservation measure or in a retained area is unreasonable and unnecessary. In addition, the variation is minor and would result in a determination that the overall effect of biodiversity certification is to improve or maintain biodiversity values.

EES has also formed the view that the Minister's Delegate can be satisfied that the size of the buffer area is appropriate to mitigate any negative indirect impacts from development following the conferral of biodiversity certification.

Also, there is no request for a variation that relates to the classification of a plant species as a threatened species or as a component of an endangered ecological community.

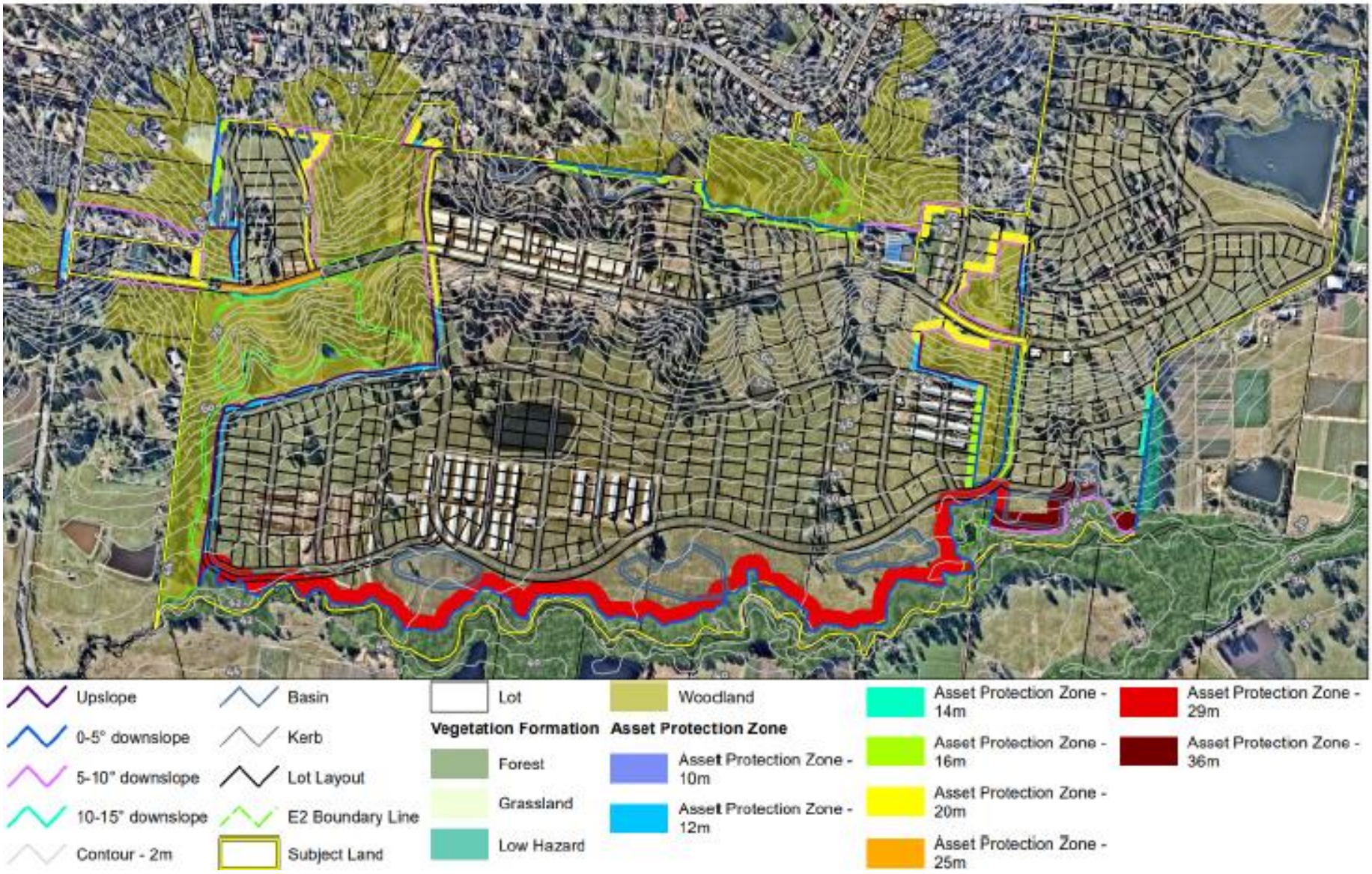

Figure 3 Asset Protection Zone Map

In summary, a minor variation to Section 6 Assessment of indirect impacts on biodiversity values of BCAM is sought to delete the requirement that:

- *"The buffer area may be secured via a conservation measure and used to offset the impacts of biodiversity certification, or it may be a retained area in the biodiversity certification assessment area."*

It should also be noted that EES has formed the view that the proposed minor variation does not warrant further notification of the application.

Recommendation 4:

That the Minister's Delegate be **satisfied** in accordance with Section 126Q of the *Threatened Species Conservation Act 1995* that:

I. The variation to the Biodiversity Certification Assessment Methodology (BCAM) is minor

and

II. The variation would result in a determination that the overall effect of biodiversity certification is to improve or maintain biodiversity values

and

III. Strict adherence to the BCAM is, in this particular case, unreasonable and unnecessary

and

IV. The variation is not inconsistent with the classification of a plant species as a threatened species or as a component of an endangered ecological community.

2.1.5 Decision to confer biodiversity certification on the proposed biodiversity certification area

Discussion:

The EES considers that the application for biodiversity certification has adequately addressed the requirements of the BCAM and that biodiversity certification will improve or maintain biodiversity values.

The conferral of biodiversity certification should be subject to the terms of the proposed Order attached to the accompanying briefing note.

Recommendation 5:

That the Minister's Delegate **confer** biodiversity certification on the proposed biodiversity certification area in accordance with Section 126H of Part 7AA of the *Threatened Species Conservation Act 1995* by signing and dating this Decision Report, and by signing and dating the order conferring biodiversity certification attached to the Briefing Note accompanying this report and approving its publication in the Government Gazette.

DECISIONS OF THE SECRETARY'S DELEGATE– BIODIVERSITY CERTIFICATION OF JACARANDA

*The Secretary's Delegate must strike through the relevant wording (**bold** text) to indicate his decision prior to signing this Section.*

I, Trish Harrup, Director Greater Sydney of the Environment Energy and Science Group, having considered the *Biodiversity Certification of Land: Jacaranda Recommendation Report for the Secretary's Delegate* and the attachments to that report:

~~***Red flag variations for vegetation red flag areas***~~

1. ~~am **satisfied/not satisfied** in accordance with Section 2.4.1 of the Biodiversity Certification Assessment Methodology (BCAM) that the application for biodiversity certification has adequately considered the feasibility of options to avoid impacts on red flag areas because the application **demonstrates/fails to demonstrate** that:~~

    a. ~~All reasonable measures have been taken to avoid adverse impacts on the red flag areas and to reduce impacts of development on vegetation remaining within the biodiversity certification area~~

    b. ~~Appropriate conservation management arrangements cannot be established over the red flag areas given their current ownership, status under a regional plan and zoning and the likely costs of future management.~~

2. ~~am **satisfied/not satisfied** in accordance with Section 2.4.2.1 of the BCAM that the red flag area has low viability or is not viable because the application **demonstrates/fails to demonstrate** that <strike-through non-applicable responses>:~~

    a. ~~The current or future uses of land surrounding the red flag area where biodiversity certification is to be conferred reduce its viability or make it unviable. Relatively small areas of native vegetation surrounded or largely surrounded by intense land uses, such as urban development, can be unviable or have low viability because of disturbances from urbanisation, including edge effects.~~

    b. ~~The size and connectedness of the vegetation in the red flag area where biodiversity certification is to be conferred to other native vegetation is insufficient to maintain its viability. Relatively small areas of isolated native vegetation can be unviable or have low viability.~~

    c. ~~The condition of native vegetation in the red flag area where biodiversity certification is to be conferred is substantially degraded, resulting in loss of or reduced viability. Native vegetation in degraded condition can be unviable or have low viability.~~

    d. ~~The area of a vegetation type in a red flag area on land where biodiversity certification is conferred is minor relative to the area containing that vegetation type on land subject to proposed conservation measures.~~

3. ~~am **satisfied/not satisfied** in accordance with Section 2.4.2.2 of the BCAM that the red flag area on land proposed for biodiversity certification makes a low contribution to regional biodiversity values having considered **that/that none of the following apply**:~~

    a. ~~Relative abundance: that the vegetation type or critically endangered or endangered ecological community comprising the red flag area is relatively abundant in the region.~~

    b. ~~Percent remaining is high: that the percent remaining of the vegetation type or critically endangered or endangered ecological community comprising the red flag area is relatively high in the region.~~

    c. ~~Percent native vegetation (by area) remaining is high: that the percent remaining of all native vegetation cover in the region is relatively high.~~

    ~~'Region' for the purposes of Section 2.4.2.2 means the CMA subregion in which the red flag area is located and any adjoining CMA subregions.~~

4. ~~am **satisfied/not satisfied** in accordance with Section 2.2(b) of the BCAM, having considered the criteria in Section 2.4, that the impacts on the red flag area may be offset in accordance with the rules and requirements set out in Section 10 of the BCAM.~~

Red flag variations for threatened species red flags

5. am **satisfied/~~not satisfied~~** in accordance with Section 2.4.1 of the BCAM that the application for biodiversity certification has adequately considered the feasibility of options to avoid impacts on threatened species red flag areas because the application **demonstrates/~~fails to demonstrate~~** that:

    a. All reasonable measures have been taken to avoid adverse impacts on the red flag areas and to reduce impacts of development on vegetation remaining within the biodiversity certification area.

    b. Appropriate conservation management arrangements cannot be established over the red flag areas given their current ownership, status under a regional plan and zoning and the likely costs of future management.

6. am **satisfied/~~not satisfied~~** in accordance with Section 2.4.3.1 of the BCAM that, for the Dural Land Snail, the red flag area has low viability or is not viable because the application **demonstrates/~~fails to demonstrate~~** that:

    a. The current or future uses of land surrounding the red flag area where biodiversity certification is to be conferred reduce its viability or make it unviable. Relatively small areas of threatened species habitat surrounded or largely surrounded by intense land uses, such as urban development, can be unviable or have low viability because of disturbances from urbanisation, including edge effects.

    b. ~~The size and connectedness of the vegetation in the red flag area where biodiversity certification is to be conferred to other native vegetation is insufficient to maintain its viability. Relatively small areas of isolated threatened species habitat can be unviable or have low viability~~.

    c. The condition of native vegetation in the red flag area where biodiversity certification is to be conferred is substantially degraded resulting in loss of or reduced viability. Native vegetation in degraded condition can be unviable or have

low viability. ~~Vegetation that is substantially outside benchmark due to a recent disturbance such as a fire, flood or prolonged drought is not considered degraded for the purposes of the BCAM~~.

d. The area of a red flag area containing a threatened species on land where biodiversity certification is conferred is minor relative to the area containing that threatened species on land subject to proposed conservation measures.

7. am **satisfied/~~not satisfied~~** in accordance with Section 2.4.3.1 of the BCAM that, for the Southern Myotis, the red flag area has low viability or is not viable because the application **demonstrates/~~fails to demonstrate~~** that:

    a. The current or future uses of land surrounding the red flag area where biodiversity certification is to be conferred reduce its viability or make it unviable. Relatively small areas of threatened species habitat surrounded or largely surrounded by intense land uses, such as urban development, can be unviable or have low viability because of disturbances from urbanisation, including edge effects.

    b. The size and connectedness of the vegetation in the red flag area where biodiversity certification is to be conferred to other native vegetation is insufficient to maintain its viability. Relatively small areas of isolated threatened species habitat can be unviable or have low viability.

    c. The condition of native vegetation in the red flag area where biodiversity certification is to be conferred is substantially degraded resulting in loss of or reduced viability. Native vegetation in degraded condition can be unviable or have low viability. ~~Vegetation that is substantially outside benchmark due to a recent disturbance such as a fire, flood or prolonged drought is not considered degraded for the purposes of the BCAM~~.

    d. ~~The area of a red flag area containing a threatened species on land where biodiversity certification is conferred is minor relative to the area containing that threatened species on land subject to proposed conservation measures~~.

8. am **satisfied/~~not satisfied~~** in accordance with Section 2.4.3.2 of the BCAM that the threatened species habitat that constitutes a red flag area on land proposed for biodiversity certification makes a low contribution to regional biodiversity values because the application **demonstrates/~~fails to demonstrate~~** that:

    a. The relative abundance of the individual threatened species, threatened population or threatened species habitat on the land proposed for biodiversity certification is low relative to its abundance in the region.

    'Region' for the purposes of Section 2.4.3.2 means the CMA subregion in which the red flag area is located and any adjoining CMA subregions.

9. am **satisfied/~~not satisfied~~** in accordance with Section 2.2(b) of the BCAM, having considered the criteria in Section 2.4, that the impacts on the threatened species habitat that constitutes the red flag area may be offset in accordance with the rules and requirements set out in Section 10 of the BCAM.

Red flag variations for areas of regional or State biodiversity conservation significance

10. am **satisfied/~~not satisfied~~** in accordance with Section 2.4.1 of the BCAM that the application for biodiversity certification has adequately considered the feasibility of options to avoid impacts on red flag areas because the application **demonstrates/~~fails to demonstrate~~** that:

    a. All reasonable measures have been taken to avoid adverse impacts on the red flag areas and to reduce impacts of development on vegetation remaining within the biodiversity certification area.

    b. Appropriate conservation management arrangements cannot be established over the red flag areas given their current ownership, status under a regional plan and zoning and the likely costs of future management.

11. am **satisfied/~~not satisfied~~** in accordance with Section 2.4.4 of the BCAM that conferring biodiversity certification will not:

    a. Substantially reduce the width of riparian buffers with regional or state biodiversity significance, or

    b. Substantially impact on the ecosystem functioning of a state or regional biodiversity link or substantially reduce the migration, colonisation and interbreeding of plants and animals between two or more larger areas of habitat, and

    c. Significantly impact on the water quality of a major river, minor river, major creek minor creek or listed SEPP14 wetland.

12. am **satisfied/~~not satisfied~~** in accordance with Section 2.2(b) of the BCAM, having considered the criteria in Section 2.4, that the impacts on red flag areas of regional or state biodiversity conservation significance may be offset in accordance with the rules and requirements set out in Section 10 of the BCAM.

~~*Approval of equivalent undisturbed site*~~

~~13. **approve/do not approve** use of the nominated equivalent undisturbed site in accordance with Section 3.3 of the BCAM.~~

Certification of More Appropriate Local Data (MALD)

14. **certify/~~do not certify~~** in accordance with Section 3.4 of the BCAM that:

    a. the use of MALD more accurately reflects local environmental conditions of the assessment area.

    b. the MALD can be used in applying the BCAM in accordance with any procedures outlined in the Biodiversity Certification Operational Manual.

    For the following reasons:

- the benchmark values for '*Grey-Box – Forest Red Gum grassy woodlands on flats of the Southern Cumberland Plain, Sydney Basin Bioregion'*, as contained in the Vegetation Benchmark Database, were not accurate reflections of the benchmark condition of this BVT
- the database contained low benchmark values that were not consistent with the vegetation type i.e. zero values for hollow-bearing trees and length of fallen logs, which would be expected to have some hollows and logs when in benchmark condition
- local benchmark data for the number of trees with hollows and for the length of fallen logs could be added for this BVT, with one and 50 m added for the number of trees with hollows

and the length of fallen logs, respectively to be consistent with other woodland/open forest vegetation types on the Cumberland Plain and consistent with the assessment undertaken for other assessments undertaken by the OEH/DPIE on the Cumberland Plain

Additional increase in gain (above the default gain) resulting from implementation of conservation management actions

15. **approve/~~do not approve~~** the use of the proposed additional and/or more tailored management actions and resulting additional gains in accordance with Section 3.6.4 and Appendix 4 of the BCAM.

~~*Expert Report*~~

~~16. am **satisfied/not satisfied** under Section 4.5 of the BCAM that:~~

~~a. <Identify expert> is appropriately qualified to be considered an expert in the <identify entity>.~~

~~b. The expert report and findings within can be accepted in place of targeted survey and applied in the BCAM.~~

~~c. The expert report has been prepared in accordance with the guidance provided in the Biodiversity Certification Operational Manual.~~

Indirect impacts

17. am **satisfied/~~not satisfied~~** that in accordance with Section 2.2(d) of the BCAM, that any indirect impacts on biodiversity values of land to which biodiversity certification is conferred are appropriately minimised in accordance with Section 6 of the methodology because the application **demonstrates/~~fails to demonstrate~~**:

    a. That it is not subject to a Strategic Assessment under the *Environment Protection and Biodiversity Conservation Act 1999/*~~That the assessment of indirect impacts has determined whether there will be any significant indirect impacts on the biodiversity values of World Heritage properties, places of National Heritage, Ramsar wetlands of international importance, or migratory birds in accordance with Section 5 of the BCAM for a Strategic Assessment under the *Environment Protection and Biodiversity Conservation Act 1999*~~.

    b. How the proposed ownership, management, zoning and development controls of the proposed biodiversity certification area are intended to mitigate any indirect impacts on biodiversity values. In accordance with Section 6 of the BCAM, the area that was assessed for indirect impacts extended as far as was necessary outside the land proposed for biodiversity certification, to account for any likely adverse indirect impacts on biodiversity values as a result of conferring biodiversity certification.

    ~~c.~~ That the on-site conservation measures that protect red flag areas have a buffer, and that the size of the buffer areas is appropriate to mitigate any negative indirect impacts from development following the conferral of biodiversity certification, ~~and that the buffers have either been included in conservation measures or identified as retained lands in the biodiversity certification assessment area.~~

~~*Planning instrument conservation measures*~~

~~18. am **satisfied/not satisfied** in accordance with Section 8.1.3 of the BCAM that <strike-through whichever is not applicable out of (a) and (b), (e) and (f), and (i) and (j)>:~~

a. The land proposed as a planning instrument conservation measure adjoins or is proximate to the land proposed for biodiversity certification, or

b. The land proposed as a planning instrument conservation measure is within the biodiversity certification assessment area, and

c. The land proposed as a planning instrument conservation measure is identified in the application for biodiversity certification, and

d. The land proposed as a planning instrument conservation measure is not subject to any other proposed conservation measure in the application for biodiversity certification, and

e. The relevant planning instrument conservation measure is in place, or

f. The Minister for Planning has provided written advice agreeing to support the planning instrument conservation measure which is to be implemented within <timeframe>, and

g. The land proposed as a planning instrument conservation measure will be zoned <identify proposed zoning>, and

h. The land to be re-zoned will be subject to a local provision setting out the development controls that will apply to protect the native vegetation and any other habitat for native species on the land, and

i. The planning instrument conservation measure has been proposed as a direct result of the biodiversity certification application, or

j. Significant upgrades to existing environmental protection zoning and development controls have been proposed as a direct result of the biodiversity certification application.

Offsite conservation measures – survey intensity

19. approve/do not approve in accordance with Section 9.2 of the BCAM that the survey intensity required to determine the number and type of biodiversity certification credits created by the offsite conservation measure of <type of measure> located at <location> may be reduced as outlined in the <name and date of relevant report>.

Variation to the offset rules – ecosystem credits

20 am **satisfied/not satisfied** in accordance with Section 10.2.1 of the BCAM that the matters set out in A and B are satisfied to allow a variation of the offset rules because the application **demonstrates/fails to demonstrate**:

A. Firstly, before varying the offset rules for using ecosystem credits <strike-through whichever is not applicable out of (a) and (b)>:

a. All reasonable steps have been taken to secure conservation measures that generate credits that match the credit profile specified for ecosystem credits required for biodiversity certification in Section 10.1 of the methodology

or

b. The cost of securing a conservation measure capable of generating credits to match the credit profile specified for ecosystem credits required for biodiversity

certification in Section 10.1 of the methodology is disproportionate to the overall cost of the conservation measures identified in the application for biodiversity certification

and

c. The list of threatened species predicted to occur at the offset site is not significantly different to the list of threatened species that are assessed on land where biodiversity certification is proposed when assessed in accordance with Section 4.2 of the methodology.

B. Secondly, the alternate ecosystem credits are generated from conservation measures <strike-through whichever is not applicable out of (b) and (c)>:

a. Located on land within the same IBRA region as the land proposed for biodiversity certification, regardless of the CMA subregions identified in attribute 1

and

b. On land containing a vegetation type of the same vegetation class as the vegetation type specified in attribute 2 of the credit required for the land proposed for biodiversity certification as set out in Section 10.1 of the methodology

or

c. If paragraph (b) cannot be complied with, on land containing a vegetation type from the same vegetation formation as the vegetation type specified in attribute 3 of the credit required for the land proposed for biodiversity certification as set out in Section 10.1 of the methodology.

21 Approve/do not approve a variation to the offset rules for ecosystem credits as set out in Section 10.2 of the BCAM.

Variation to the offset rules – species credits

22 am **satisfied/not satisfied** in accordance with Section 10.4.1 of the BCAM that the matters set out in A and B are satisfied to allow a variation of the offset rules because the application **demonstrates/fails to demonstrate**:

A. Firstly, before varying the offset rules for using species credits:

a. All reasonable steps have been taken to secure the number and type of species credits

and

b. The species to which the species credit relates is not listed as critically endangered on the *Threatened Species Conservation Act 1995* (TSC Act)

and

c. A conservation measure in the form of a financial contribution for the value of the species credits in line with Sections 9.3 and 9.3.1 of the methodology is not an appropriate conservation measure for this species.

B. Secondly, the alternate species credits :

a. ~~Relate to a species or population from the same kingdom as the species identified in the credit profile in accordance with Section 10.3 of the methodology~~

~~and~~

b. ~~Are generated from conservation measures located on land within the same IBRA region as the land proposed for biodiversity certification~~

~~and~~

c. ~~Where the species credit required for land proposed for biodiversity certification relates to a species or population listed in Schedule 1 of the TSC Act, it relates to a species or population listed in either Schedule 1 or 1A of the TSC Act~~

~~or~~

d. ~~Where the species credit required for land proposed for biodiversity certification relates to a species or population listed in Schedule 2 of the TSC Act, it relates to a species or population listed in either Schedule 1, 1A or 2 of the TSC Act.~~

~~**23 Approve/do not approve** a variation to the offset rules for species credits as set out in Section 10.4 of the BCAM.~~

Trish Harrup

TRISH HARRUP
Director Greater Sydney
Environment Energy and Science Group

Date 13/08/2021

DECISIONS OF THE MINISTER'S DELEGATE – BIODIVERSITY CERTIFICATION OF JACARANDA

*The Minister's Delegate must strike through the relevant wording (**bold** text) to indicate his decision prior to signing this Section.*

I, Michelle Dumazel, Executive Director, Environment, Energy and Science Group, having considered the *Biodiversity Certification of Land: Jacaranda Recommendation Report for the Minister's Delegate* and the attachments to that report:

1. ~~**require/do not require** in accordance with Section 8.1.3 of the Biodiversity Certification Assessment Methodology that the proposed <name of> planning instrument conservation measure, as agreed to in writing by the Minister for Planning, be implemented within <timeframe>.~~

2. am **satisfied/~~not satisfied~~** in accordance with Section 126N of the *Threatened Species Conservation Act 1995* that the public notification requirements for biodiversity certification have been met and that there is no requirement for further public notification.

3. am **satisfied/~~not satisfied~~** in accordance with Sections 126O and 126P of the *Threatened Species Conservation Act 1995* that on the basis of a biodiversity certification assessment for the Jacaranda proposal, the overall effect of biodiversity certification of the proposed biodiversity certification area is to improve or maintain biodiversity values.

4. am **satisfied/~~not satisfied~~** in accordance with Section 126Q of the *Threatened Species Conservation Act 1995* that:

    i. The variation to the Biodiversity Certification Assessment Methodology (BCAM) is minor and

    ii. The variation would result in a determination that the overall effect of biodiversity certification is to improve or maintain biodiversity values and

    iii. Strict adherence to the BCAM is, in this particular case, unreasonable and unnecessary and

    iv. The variation is not inconsistent with the classification of a plant species as a threatened species or as a component of an endangered ecological community.

5. **confer/~~refuse to confer~~** biodiversity certification on the proposed biodiversity certification area in accordance with Section 126H of Part 7AA of the *Threatened Species Conservation Act 1995* by signing and dating this decision report, and by signing and dating the order conferring biodiversity certification attached to the Briefing Note accompanying this decision report and approving its publication in the Government Gazette.

17 August 2021

Michelle Dumazel **Date**
Executive Director
Environment, Energy and Science Group