Biodiversity Certification of Land: Mt Gilead Stage 1

Recommendation Report for the Chief Executive of the Office of Environment and Heritage

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 officers:	Marnie Stewart and Ray Giddins
Name of decision maker:	Anthony Lean, Chief Executive, Office of Environment and Heritage
CM9 containers and record numbers:	SF15/7262 & SF18/102710
Name of Planning Authority (applicant):	Campbelltown City Council
Date application received:	Made on 19 July 2018, as subsequently amended by Council
Dates of public notification under Section 126N:	12 December 2017 – 31 January 2018

1.1 THE PROPOSAL

Campbelltown 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 Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister prepared for Mt Gilead Pty Ltd and Mr and Mrs Dzwonnik* dated 2 July 2018 as amended by *Addendum to Biocertification Assessment Report and revised statement of commitments for Mt Gilead Biodiversity Certification Assessment* dated 30 April 2019 (Biocertification Assessment and Strategy).

Council has made the application on behalf of Lendlease Communities (Mount Gilead) Pty Ltd (Developer), Lendlease Communities (Mount Gilead No.3) Pty Ltd (Owner A) and Mt Gilead Pty Ltd (Owner B).

The land proposed for biodiversity certification which is identified as "land to be certified" in pink in Figure 1 totals 165.55 hectares (ha), while the land proposed for a conservation measure is 3.61 ha (2.67 ha on-site conservation area plus 0.94 ha retained buffer). The proposal also includes 40.67 ha of land identified as maintaining its current land use and has therefore been assessed as retained lands (Table 1 and Figures 1-3).

To meet the requirements of the Biodiversity Certification Assessment Methodology (BCAM), it is proposed to retire biodiversity credits from two existing biobank sites within the retained lands in the biodiversity certification assessment area (BCAA) as well as koala credits from outside of the BCAA. In addition, owner A will submit for registration a future biobank agreement over the conservation lands and buffer within 12 months of the date of conferral (if granted), retire all credits generated and dedicate the land to Council by 2024.

Table 1 Land use

Land use	**Area (ha)**	**Native vegetation extent (ha)**
Land proposed for biodiversity certification	165.55	10.79
Land proposed for on-site conservation	2.67*	2.67*
Land proposed for off-site conservation measures	NA**	NA**
Retained lands	40.67**	16.19*
Total	**208.89**	**29.64**

* The land proposed for on-site conservation in the BCAA totals 2.67 ha, however, the area of land proposed to be subject to a biobank agreement and dedicated to Council is 3.61 ha, as it will include the 0.94 buffer area in the retained land. It should be noted that the buffer area will not generate credits.

** The BCAA contains two approved biobank sites. These are located within the retained lands and will be the source of biodiversity credits required to meet the improve or maintain outcome under the BCAM.

Figure 1 Biodiversity Certification Assessment Area, land to be certified, land proposed for conservation and retained land.

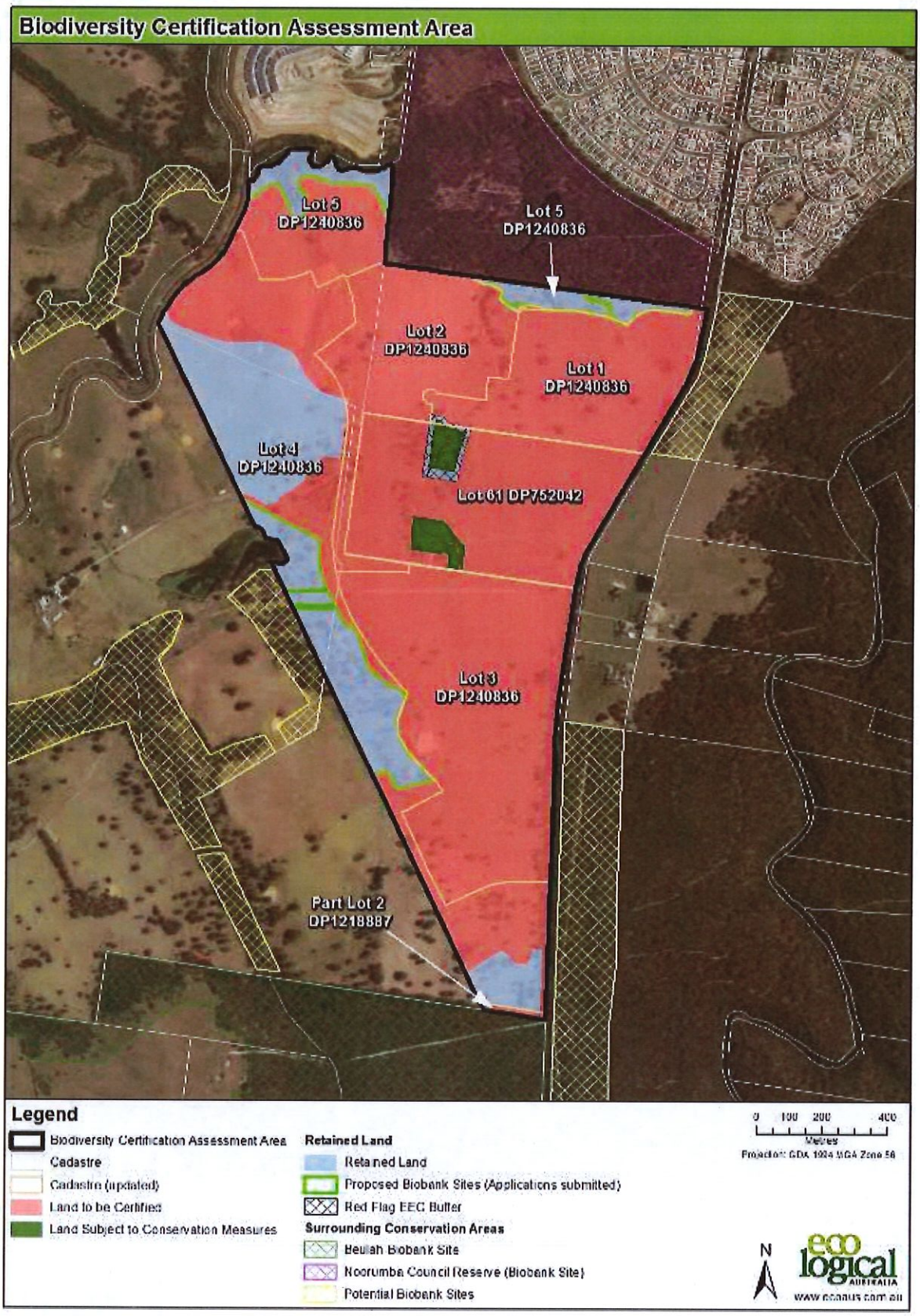

Figure 2 Biodiversity Certification Assessment Area, land to be certified, land proposed for conservation measure, retained land, buffer, Lot and DPs and surrounding conservation areas

Figure 3 Map included in the Biodiversity Certification Agreement and Ministerial Order

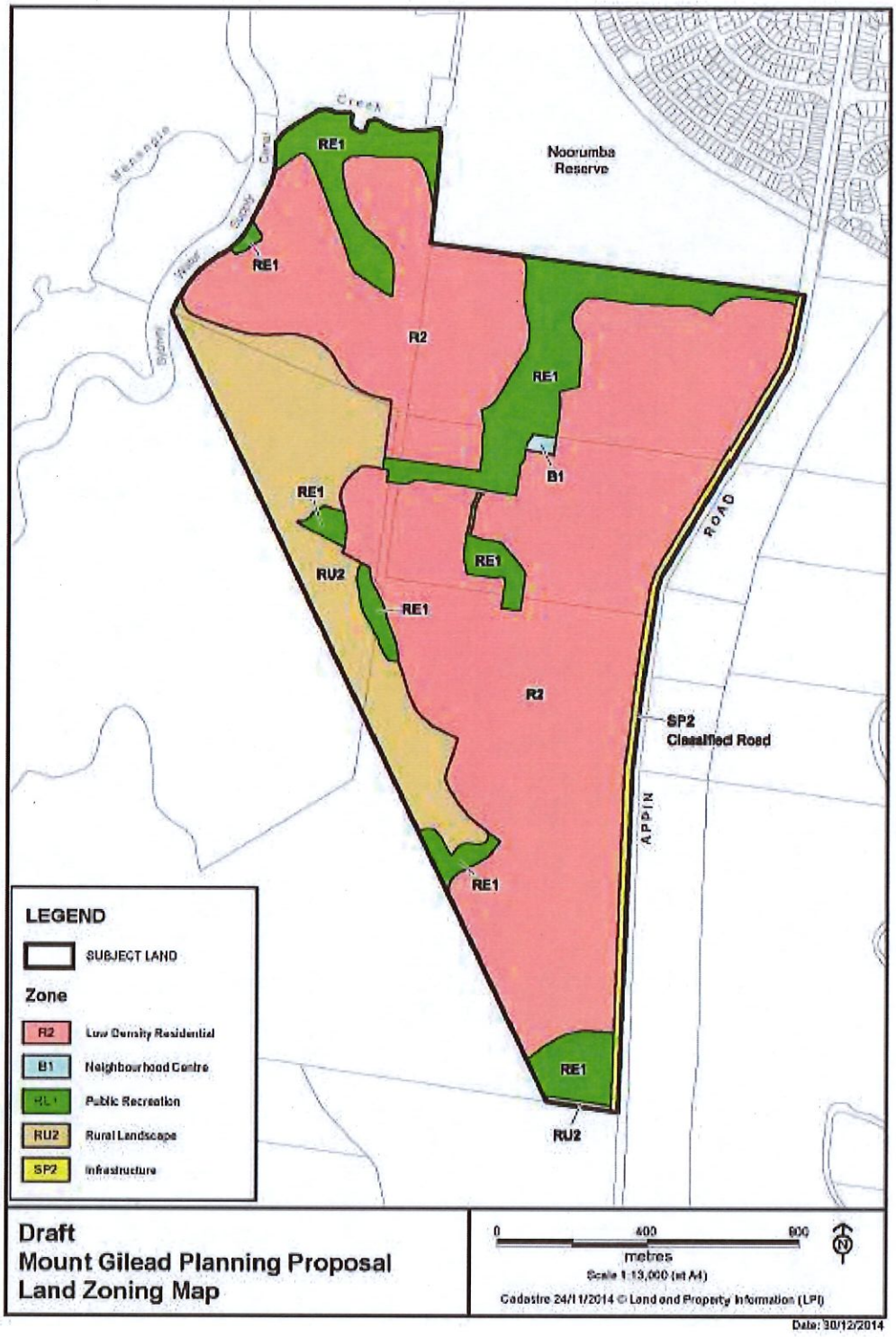

Figure 4 Land zoning map

1.2 LAND OWNERSHIP

At the time that the application for biodiversity certification was submitted to the Minister for Environment, the land was owned by two parties:

- Mt Gilead Pty Ltd – Lots 1-3 and Part Lot 4 and 5, DP 1240836 and Part Lot 2 DP 1218887, and
- S and A Dzwonnik - Lot 61 DP 752042 (Figure 2).

On 10 October 2018, the Developer became the registered proprietor of Lot 61 DP 752042. As a result, the Dzwonniks are no longer parties to the application.

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. In this respect, a Biocertification Assessment and Strategy has been prepared and submitted with the biodiversity certification application (Tab 1).

The application was made by Council on 19 July 2018 (as subsequently amended by Council). The application was prepared and lodged by Council on behalf of the Developer and Owners A and B. Eco Logical Australia Pty Ltd undertook the biodiversity assessment and prepared the Biocertification Assessment and Strategy which underpins the application for certification.

The proposal was placed on public exhibition by Council between 12 December 2017 – 31 January 2018. Nineteen (19) submissions were received as a result. In accordance with section 126N of the TSC Act, Council has prepared a Submissions Report (Tab 1).

The Biocertification Assessment Report and Strategy and Submissions Report has been reviewed by OEH as documented in this Recommendation Report. For development lands to be biodiversity certified, the OEH Chief Executive and Minister for Environment will need to be satisfied in relation to certain matters outlined in BCAM and Part 7AA of the TSC Act. These matters have been assessed by OEH and those relevant to the Chief Executive are documented in this Recommendation Report.

It should be noted that since the application was publicly exhibited, amendments to the application have been made which are detailed in Section 1.4 below.

1.4 HISTORY AND BACKGROUND

The Mt Gilead Stage 1 site is located on Lot 61 DP 752042, Lots 1-3 and Part Lot 4 and 5, DP 1240836 and Part Lot 2 DP 1218887 on Appin Road within the Campbelltown Local Government Area (Figures 1- 2).

It is an irregularly shaped parcel bounded by Appin Road to the east, Council's Noorumba Reserve (and biobank site) to the north, Beulah biobank site to the south, Sydney Water Corporation Upper Canal to the north west and the potential future Mt Gilead Stage 2 site to the west. The site has historically been used for agricultural purposes and contains cleared paddocks with improved pastures, and remnant native vegetation. Topographically, the majority of the site is generally undulating and consists of gentle rises, rounded crests and ridges with slopes generally less than 5 degrees. There are several surface water features on the site consisting of small farm dams and drainage channels.

Council's Planning Proposal

In July 2012, Council endorsed a planning proposal for the site to rezone the land from No 1 (Non-Urban) to predominately residential use. The proposal was forwarded to then Director-General of the then Department of Planning and Infrastructure for a Gateway Determination which was issued on 7 September 2012.

In September 2017, the amendment to Campbelltown Local Environmental Plan (LEP) 2015 (Figure 4) was approved by the Minister for Planning. The LEP amendment rezoned the land to R2 Low Density Residential, RE1 Public Recreation, B1 Neighbourhood Centre, SP2 Infrastructure and RU2 Rural Landscape which will provide for approximately 1700 residential lots.

During the assessment of the planning proposal, the biodiversity certification of Mt Gilead Stage 1 was considered by Council and the Developer. Since 2013, OEH has provided advice to Council on the planning proposal and biodiversity certification process including draft versions of the Biocertification Assessment and Strategy. OEH has also attended site inspections with Council and representatives of the owners.

Greater Macarthur Growth Area

On 19 November 2018, the Department of Planning and Environment (DPE) released the *Greater Macarthur 2040 A interim plan for the Greater Macarthur Growth Area* November 2018 (Tab 7) for public exhibition until 8 February 2019. The Greater Macarthur GA Structure Plan depicts 12 urban precincts containing residential development, town centres and associated infrastructure including a new north-south transport corridor (Figure 5). As a result, the future land use in the Greater Macarthur GA will be subject to large scale change. The proposed change from rural to urban development will have significant implications for the biodiversity of the region, including the significant koala population. The Mt Gilead Stage 1 site is located within the Greater Macarthur Growth Area (Greater Macarthur GA).

The Greater Macarthur GA is also located within the boundary of DPE's proposed Cumberland Plain Conservation Plan (CPCP) under its proposed application for strategic biodiversity certification of growth areas in western Sydney. As the Mount Gilead Stage 1 site is included the *Proposed Applications for Biodiversity Certification Order 2017,* which identifies the biodiversity certification proposals which can be considered under the TSC Act, the applicant has elected to continue with its application under the TSC Act and not seek to be a party under the CPCP. If biodiversity certification is conferred, the Mt Gilead Stage 1 site will be excluded from the CPCP.

Figure 2: Greater Macarthur Structure Plan (land release areas)

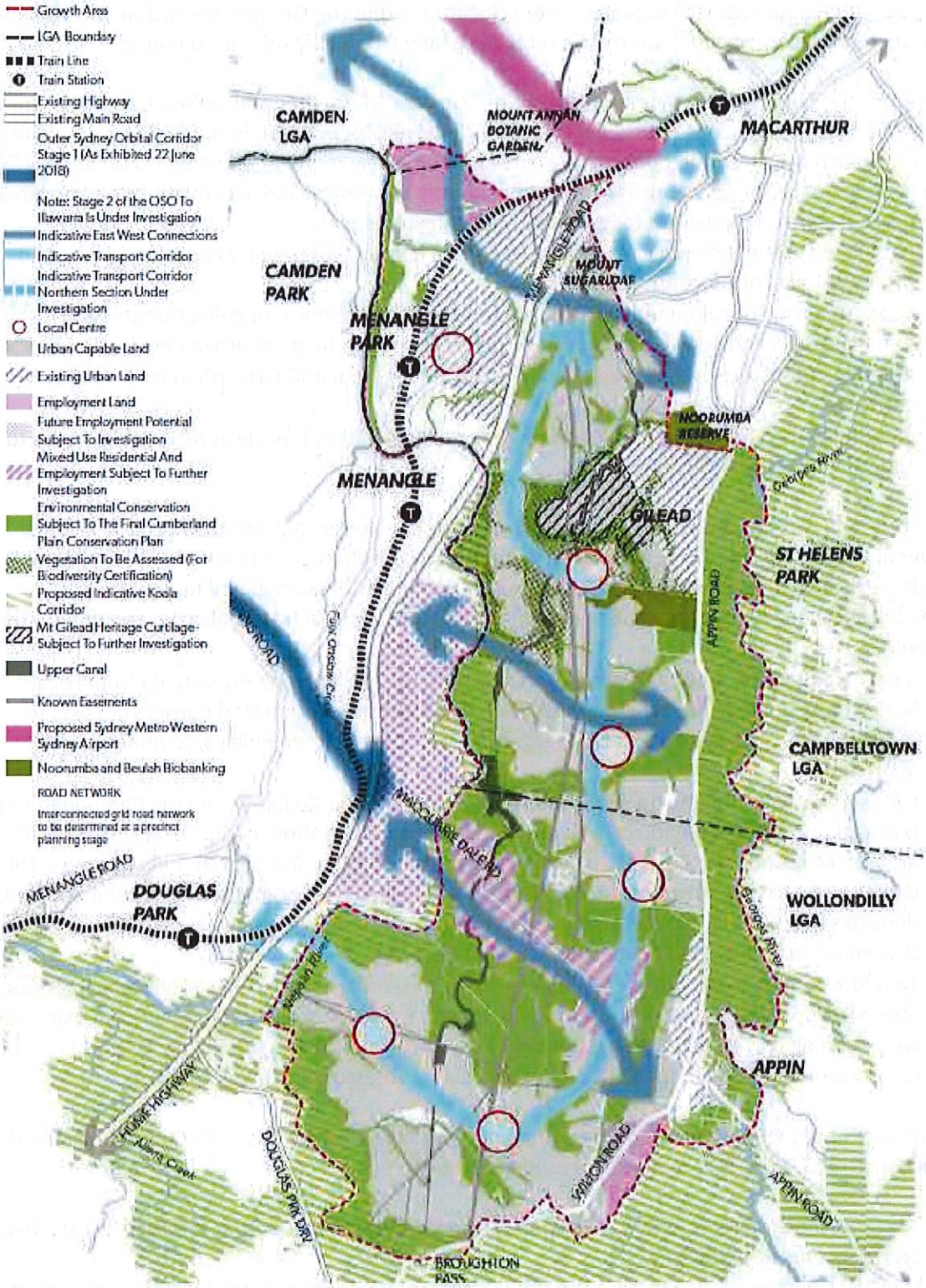

Figure 5 Exhibited Greater Macarthur Structure Plan November 2018

Koala conservation in Wollondilly and Campbelltown local government areas

As stated above, the Mt Gilead Stage 1 site is located within the Greater Macarthur GA, which will be subject to large scale land use from a rural landscape to a highly urbanised region.

To inform the land use planning decisions in the Greater Macarthur and Wilton GAs to ensure the long-term viability and conservation of the significant Koala population in the region, OEH's Greater Sydney Branch prepared the *Conserving Koalas in Wollondilly and Campbelltown LGA January 2018* (Conserving Koalas) report (Tab 7). This report identifies primary and secondary koala corridors in the region (Figures 6-7) and the following key planning principles:

1. Avoid new urban development within core koala habitat and primary corridors (and retain primary koala corridors and core habitat)
2. Separate urban development and koala populations to minimise ongoing threats from domestic dogs and vehicles (and protect koalas from the effects of urban development)
3. Identify and restore critical revegetation zones to augment and strengthen core habitat and corridors
4. Identify koala road kill hotspots requiring road kill mitigation fencing and/or underpasses to allow safe passage of koalas.

The Conserving Koalas report has been peer reviewed by two recognised koala experts, Sydney University Associate Professor, Mathew Crowther, and consultant, Dr Steven Phillips of Biolink, which are attached to the report. Furthermore, OEH also commissioned and undertook the following additional work which has assisted in forming its approach to Koala conservation in the region:

- a new connectivity study using the General Approach to Planning Connectivity from Local Scales to Regional (GAPCLoSR) in May 2018. This analysis incorporated barriers or costs to movement in the landscape. OEH engaged the consultant, Steve Phillips, to undertake the analysis.
- OEH separately completed a systematic spotlight survey for Koalas across the Campbelltown LGA and portions of the adjacent Liverpool, Sutherland, and Wollongong local government areas in May and June 2018, with some supplementary koala scat searches in key areas. This work sought to further validate OEH's koala habitat and corridor mapping and estimate koala densities and numbers in the survey area. Prior to OEH's spotlight survey, no formal, systematic estimates had been completed for the area.
- To address stakeholder concerns raised in the Greater Macarthur Koala Roundtable meeting about the possible short and long-term impacts to koalas of preventing koalas from using east-west running corridors in south Campbelltown via the installation of fencing, OEH commissioned advice in June 2018 from Associate Professor, Mathew Crowther.

A summary of key OEH findings and recommendations having regard to OEH's Conserving Koalas report and the Greater Macarthur GA is outlined below.

1. ***Avoiding development within core habitat and primary corridors (and retain primary koala corridors and core habitat)***

The direct loss of core koala habitat and habitat fragmentation would have the biggest impact on koalas in the area. Koala populations operate at the landscape level and require habitat connectivity for animal movement, particularly in the spring breeding season, and for the dispersal of young animals or animals recolonising areas where a metapopulation has gone extinct. Therefore, all development within core koala habitat and primary corridors should be avoided.

Primary corridors, particularly to the east of Appin Road adjacent to the Greater Macarthur GA, are currently mapped adjacent to cleared areas. These cleared areas have been excised from the

primary corridors as they do not currently support core koala habitat and koala records; they have been historically cleared of core koala habitat. Nevertheless, koalas will traverse cleared areas, and in this context, cleared areas adjacent to primary koala corridors could be informally considered part of primary corridors.

Given this, development in currently cleared areas adjacent to primary corridors should also be avoided. Key areas of cleared land adjacent to primary corridors to be avoided include those to the east of Appin Road along the entire eastern length of the Greater Macarthur GA.

2. ***Separating koala habitat areas and movement corridors from areas of urban development (and protect Koalas from the effects of urban development)***

Urban development poses a suite of direct and indirect threats to koalas. Facilitating koala access into residential and commercial areas exposes them to greater threats such as domestic dogs, cars and swimming pools than they would be exposed if they could not access these areas. The ever-present threats of domestic dogs, cars and swimming pools mean that koalas cannot survive in urban settlement in the long term. 'Koala friendly urban design' which has been trialled in other locations is not recommended.

Keeping koalas out of future urban areas in the GA will minimise the direct and indirect threats associated with residential and other development. Koalas should be excluded in two ways. Firstly, residential subdivision should be designed to limit the interface between core habitat and corridors. The integrity of corridors is increased by increasing width, so avoiding housing infill within primary corridors to provide maximum movement potential and minimal disturbance is critical.

Secondly, where development proceeds next to core koala habitat and movement corridors, fencing and other barrier solutions should be installed to separate koalas from houses and associated development and their occupants. Creating access points for residents to enjoy the bush is important to link communities with their landscape but identifying a smaller number of well-considered places will limit the likelihood that koalas will wander into danger in the suburbs. Figure 6 provides indicative areas where development and core koala habitat/corridors can be separated in the GA.

3. ***Restore critical revegetation zones to augment and strengthen core Koala habitat and corridors***

Wider corridors and larger areas of habitat are better than narrow corridors and smaller areas of habitat, partly since the former have lower perimeter to area ratios than the latter (less edge effects). Some habitat linkages are compromised or incomplete in some areas due to historical clearing. As such, where areas of core habitat can be augmented and strengthened to widen corridors and increase the area of core habitat, restoration and revegetation is effective in filling gaps.

When considered along with the principle of separation of urban development and koala habitat and corridors, clear priorities for habitat restoration in the Greater Macarthur GA emerge. The most obvious areas are along the length of the eastern side of the GA, to the east of Appin Road, directly adjacent to the Georges River corridor (Figure 6). Other areas include areas to the east of the Ousedale-Mallaty corridor to complete a corridor connection (on both ends) for a secondary corridor currently connected to a primary corridor at one end.

If cleared land was developed rather than restored, this would introduce significant threats and compromise the adjacent corridor values. The conservation of the regional koala population would be greatly enhanced by returning the identified cleared areas to high quality habitat, an outcome that would consolidate and double the width of the existing Georges primary corridor and result in

a far more sensitive urban design outcome. While there would be a time lag for trees to grow, koalas are known to use saplings. Indeed, younger trees often have higher nutrient levels in their leaves than older trees.

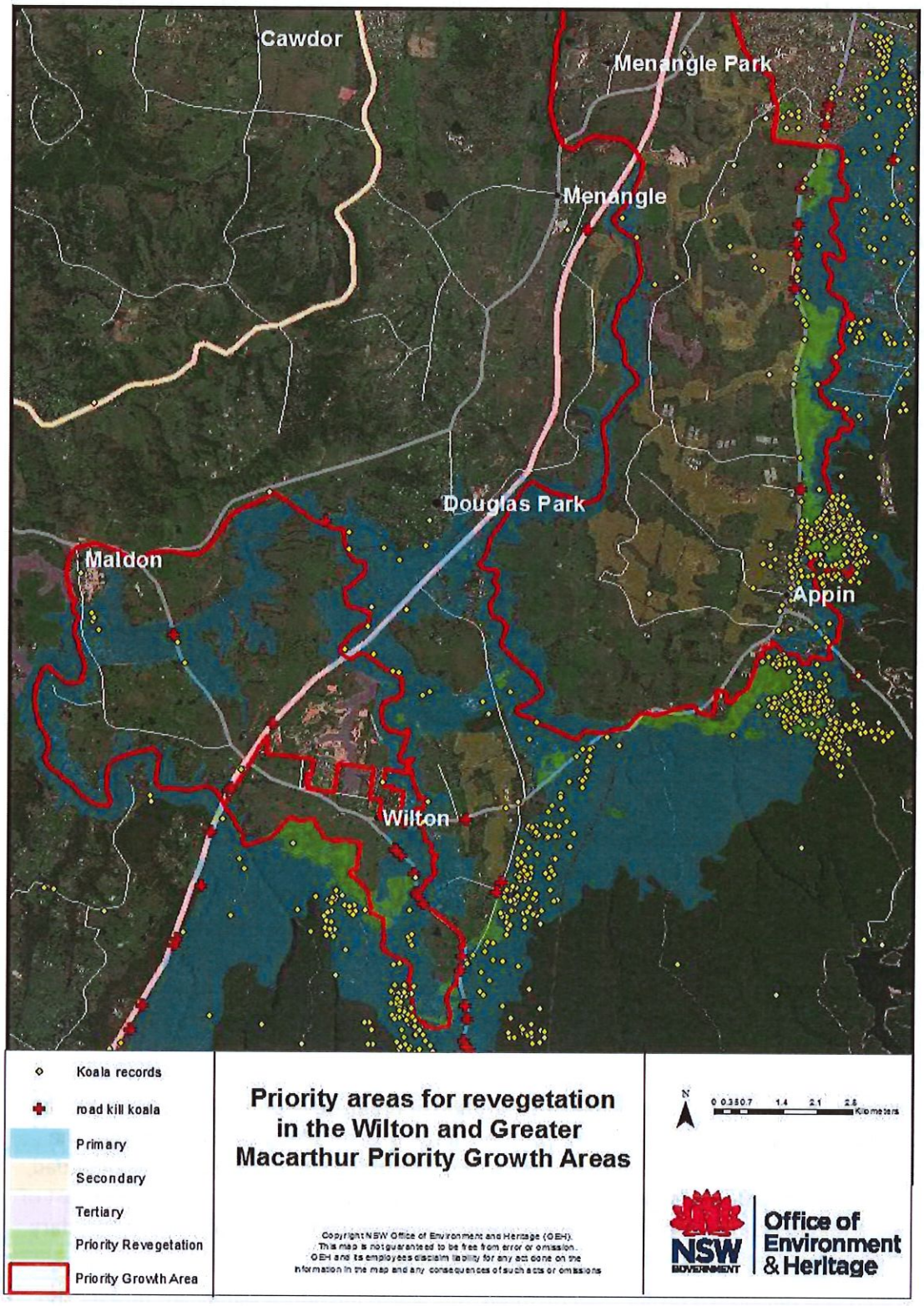

Figure 6 Priority areas for revegetation on the Macarthur and Wilton GAs.

4. *Preventing koala road kill*

Koala roadkill is a highly visible and increasing threat to koalas in the Campbelltown and Wollondilly LGAs. Much of the remaining core koala habitat is intersected by major roads, with the Hume Motorway, Picton Road, Wilton Road, MacArthur Drive and Appin Road all traversing areas of core habitat and primary corridors. Traffic on Picton and Appin Roads has rapidly increased over the last five years and with this there has been an increase in the number of koala roadkill incidents. With land use change and further increases in traffic, unless there is significant investment in roadkill mitigation, the number of koalas being hit, injured and killed will continue to rapidly increase, potentially affecting the viability of the population. This has been demonstrated in koala populations elsewhere (Polak et al. 2014). Widening and upgrades of major arterial roads provides an opportunity to implement roadkill mitigation measures, which will slow the decline of koalas in the area (Polak et al. 2014).

Road kill hotspots have been identified based on collation of records in the NSW Wildlife Atlas Hotspots have been identified as stretches of road with greater than four roadkill koala incidents within a two kilometre stretch. Hotspots are along Picton Road between Cordeaux Dam and Wilton, MacArthur Drive, the eastern end of Wilton Road, and Appin Road between Appin and Campbelltown.

In relation to the Greater Macarthur GA, OEH's recommendation to reduce koala mortality on Appin Road is to install koala-proof fencing on the eastern side of Appin Road from St Helens Park/Rosemeadow to Appin township to prevent the bulk of the koala population's access to Appin Road. Fencing is considered the most effective roadkill mitigation measure on major roads. OEH does not consider signage as an effective roadkill mitigation measure on major roads.

Outcome if OEH's key planning principles and recommendations are implemented

Should OEH's key planning principles and recommendations outlined above be implemented, the extent of core koala habitat would increase and koala movement corridors would be consolidated. Koalas would be separated from future urban areas in the GAs and existing roadkill hotspot locations, reducing the threats associated with residential areas and major roads.

Figures 6 and 7 illustrate consolidated koala movement corridors post-revegetation and all recommended mitigation measures to minimise threats associated with residential areas and major roads. Exclusion fencing progressively built along Appin Road would prevent east-west koala movements across the Greater Macarthur GA. Underpass structures would need to be built to provide east-west access to koalas. However, OEH does not consider the east-west corridors to be essential for the long-term survival of the regional koala population. Koalas could continue to move through the landscape via primary movement corridors, rather than via the east-west secondary corridors. The distance from the top of the Georges corridor to the Cataract corridor is approximately 15 km and is within the distance that koalas can disperse. Allowing koalas access to the secondary corridors would expose koalas to threats associated with residential areas without fencing around corridors, and be inconsistent with Principle 2 (to separate koalas from urban areas).

It should be noted that OEH has advised DPE that should an east west koala corridor be considered specifically for koala movements in the Greater Macarthur GA, OEH recommends the Ousedale-Mallaty koala corridor as the most appropriate corridor to protect and fence from urban areas. In order for this corridor to be suitable for koala use, the corridor will need to be consolidated, revegetated, widened, and buffered, and paired with appropriate koala crossing structures constructed at Appin Road for safe road crossing by koalas between this corridor and the primary koala corridor east of Appin Road and vice versa.

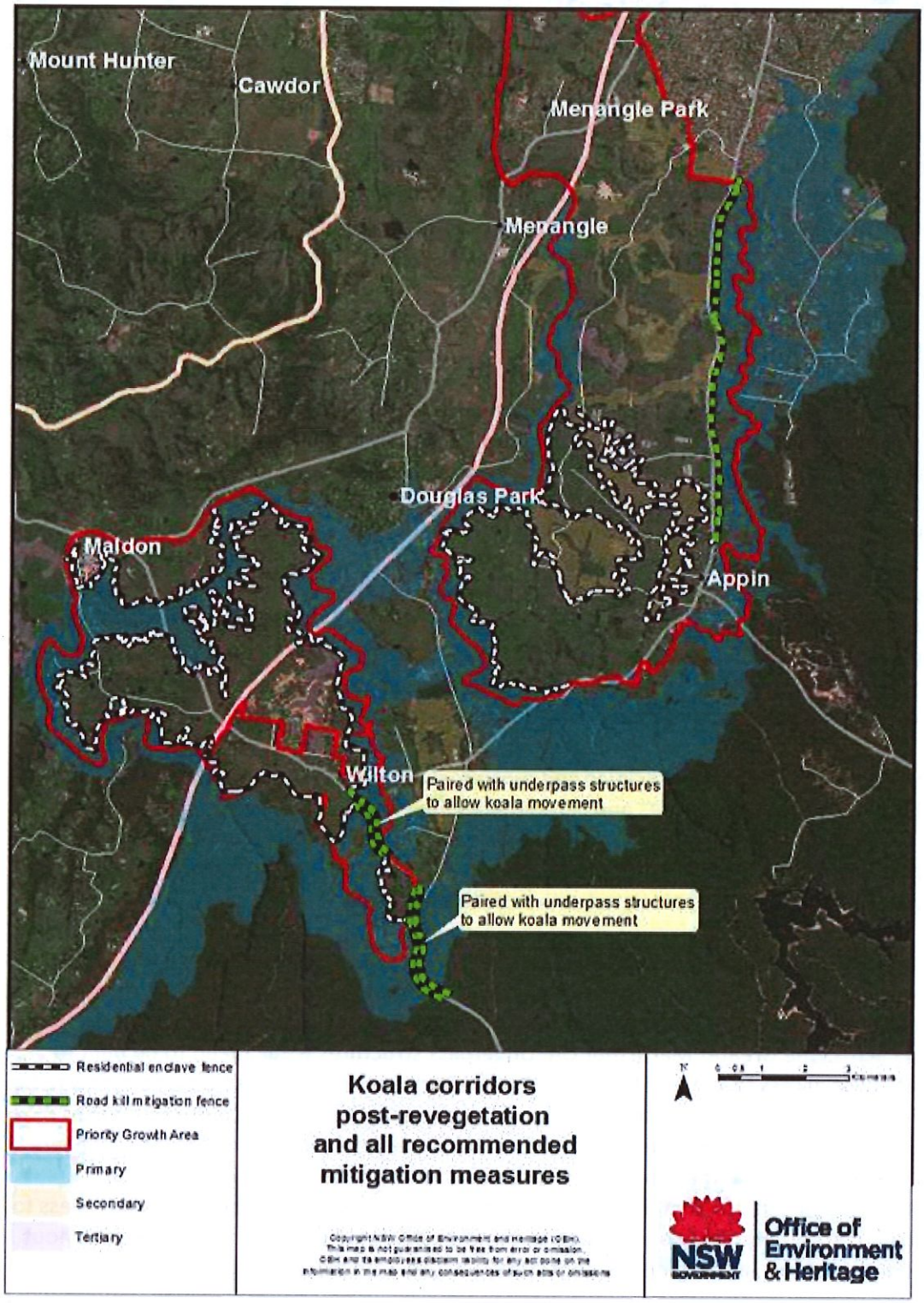

Figure 7 Koala movement corridors post-revegetation and all recommended mitigation measures in the Wilton and Greater Macarthur Growth Areas. Note that koala records are sightings and do not indicate koala densities.

Roads and Maritime Appin Road upgrade

As a result of the rezoning of Mt Gilead Stage 1, Roads and Maritime Service (RMS) plans to improve safety and increase road capacity on Appin Road with two proposed projects:

- Appin Road Upgrade between Rosemeadow and Mt Gilead (5.4 km).
- Appin Road Safety Improvement works between Mt Gilead and Brian Road, Appin.

The two Review of Environmental Factors (REFs) were exhibited by RMS between 19 November-14 December 2018. In April 2019, RMS determined to proceed with both projects. In regard to biodiversity, the *Appin Road Upgrade, Mount Gilead to Ambarvale Submission Report* and *Appin Road Safety Improvements from Brian Road to Gilead Submission Report* outline specific approaches and requirements for biodiversity, including Koalas.

In particular, RMS propose to construct fauna exclusion fencing to reduce the current levels of road kill on this section of Appin Road as *"this should protect koalas from vehicle strike and direct koala movement to the south and south west and within primary habitat corridors mapped OEH"*. The Submission Reports also outline that a preliminary feasibility study of underpass design identified that fauna underpasses in the vicinity of Noorumba Reserve are significantly limited by topography, underground services, and the likely clearing required within Noorumba Reserve Biobank. Similarly, a fauna land bridge and/or overpasses are also limited by topography and the need to clear vegetation within Noorumba Reserve. In the reports RMS acknowledge that wildlife crossing structures are fundamental to best practice corridor design. However, considering the engineering limitations combined existing disturbed condition and tenuous linkages of the proposed Noorumba Reserve corridor beyond the reserve, and the information contained in OEH's Conserving Koalas Report, the provision of an underpass and/or overpass at Noorumba Reserve is not currently supported.

In summary, the Submission Reports conclude that the provision of connectivity structures in the short term is not currently supported, noting that a long-term strategy for movements of koala across Appin Road will be developed as part of a whole of government approach to ensure that the need for connectivity is fully investigated for possible provision as part of future upgrades to Appin Road and properly located to meet long term conservation koala management outcomes.

Biodiversity Certification Application – amendments following exhibition

As detailed above, the application was advertised between 12 December 2017 – 31 January 2018. Following the exhibition, amendments were made to the application submitted on 19 July 2018 which are summarised below.

- BCAA Area - no change
- Land proposed for certification – reduced from 165.70 ha to 165.55 ha
- vegetation impacts (within land proposed for certification) - reduced from 11.08 ha to 10.79 ha
- 3.46 ha Council Reserve generating 16 HN566 credits (90% conservation measure) to 3.61 ha Council Reserve Biobank agreement generating 20 HN566 credits (100% conservation measure)
- credits required – amended from 30 HN528, 109 HN556, 292 Koala to 28 HN528, 104 HN556, 284 Koala
- Ecosystem credits provided by – amended from 30 HN528 from Noorumba-Mt Gilead biobank agreement ID 209, 16 HN556 from proposed Council Reserve (90% conservation measure) and 93 HN566 from Macarthur-Onslow biobank agreement ID 208 to 28 HN528 from Noorumba-Mt Gilead biobanking agreement ID 209, 20 HN556 from proposed future Council Reserve biobank agreement (Hillsborough) and 84 HN556 from Macarthur-Onslow biobank agreement ID 208
- Koala credits provided by – amended from 48 from Noorumba-Mt Gilead biobank agreement ID 209, 85 from Macarthur-Onslow biobank agreement ID 208 and 159 to be purchased form a

registered biobank agreement to 48 from Noorumba-Mt Gilead biobank agreement ID 209, 85 from Macarthur-Onslow biobank agreement ID 208 and 151 purchased from Council's Noorumba Reserve biobank agreement ID 239.

It should also be noted that Biodiversity Certification Submissions Report sets out that amendments made to address public submissions include new figures for threatened species, incorporation of findings of the South Campbelltown Koala Habitat Connectivity Study, update to credits required and figures due to boundary changes to the biobank sites, and an update to reflect the proposed new biobank agreement over the conservation area lands.

Reasons for differences post exhibition to 19 July 2018:

1. Owner A and Council decided to register a third biobank agreement (100% conservation measures) known as the proposed Hillsborough Council Reserve biobanking agreement over the conservation area. The Biocertification Assessment and Strategy dated 2 July 2018 states that Council is the responsible party for registering the biobank agreement.
2. Area of Council Reserve increased from 3.46 to 3.61 ha (as a result of modification to adjacent roads and 30m buffer) and as a 100% conservation measure instead of a 90% measure, generating 20 instead of 16 HN566 credits.
3. Minor amendments to boundaries of the two biobank sites within the BCAA (and subsequent number of credits generated) in regard to detention basins with updates to Lot and DP numbers.
4. Re-classification of small area of degraded CPW in open space (VZ3 to VZ4) to be consistent with EPBC Act vegetation map.
5. As a result of the above, impacts to native vegetation and koala habitat is now 10.79 ha requiring 132 ecosystem credits (down from 11.08 ha requiring 139 ecosystem credits) and 284 koala credits (down from 292 credits).
6. To address public submissions.

Following the application being made on 19 July 2018, a number of additional amendments were made by the applicant. Due to the extent and nature of the amendments, the applicant provided the following documents (Tab 1):

- Amendments by Council to the application form made on 19 July 2018,
- Addendum to Biocertification Assessment Report, including revised Statement of commitments for Mt Gilead Biodiversity Certification Assessment and revised maps dated 30 April 2019 and
- Statement of Developers Commitments for Mt Gilead Biodiversity Certification Assessment dated 21 March 2019.

The key change is to retire all required ecosystem credits (104 HN556 and 28 HN528) from the two existing biobank sites within the retained lands prior to commencement of clearing rather than in two stages, in addition to retiring all credits generated from the proposed third biobank agreement (Hillsborough) over the conservation area. These changes do not affect the land to be certified, the net impact of the development or the number of biodiversity credits required to be retired (these remain as per the application form and the final credit assessment report). The following is a summary of the amendments:

- Land ownership - the land described as Lot 61 DP 752042 was purchased by Lendlease Communities (Mt Gilead No 3) Pty Limited from Mr & Mrs Dzwonnik.
- Parties subject to the biodiversity certification agreement– addition of Lendlease Communities (Mt Gilead No 3) Pty Limited. Under the biodiversity certification agreement,
    - Owner A is Lendlease Communities (Mount Gilead No 3) Pty Limited

    - Owner B is Mt Gilead Pty Ltd
    - Developer is Lendlease Communities (Mount Gilead) Pty Limited
- Land Management Outcomes – The responsibility for registering the proposed Hillsborough biobank agreement over the conservations lands was amended to Owner A within 12 months of any conferral of biodiversity certification. All credits generated will be retired by Owner A prior to the transfer of land to Council prior to 31 December 2024.
- Biodiversity Credit Sources – due to the developer's timeframes, all of the HN 528 (28), HN 556 (104) and koala credits (284) will be retired from the Noorumba-Mt Gilead biobank agreement (ID 209), Macarthur Onslow biobank agreement (ID 208) and Council's Noorumba biobank agreement (ID 239). The credits generated from the on-site conservation area (future Hillsborough biobank agreement) will also be retired and are in addition to the credits required.
- Biodiversity Credit Timing – all required credits will be retired prior to any vegetation clearing or issue of a subdivision works certificate (i.e. no staging of retirement of credits as originally proposed).
- Revised statement of commitments -
    - Owner A will submit a biobank agreement (Hillsborough) over the conservation land within 12 months of any conferral of certification.
    - After the conferral of any biodiversity certification, and at the written request of the Developer, Owner B will transfer the following biodiversity credits to the Developer
        i. 28 HN528 credits from Noorumba-Mt Gilead biobank agreement ID 209
        ii. 104 HN556 credits from Macarthur-Onslow biobank agreement ID 208
        iii. 48 Koala credits from Noorumba-Mt Gilead biobank agreement ID 209
        iv. 85 Koala credits from Macarthur-Onslow biobank agreement ID 208
    - The developer will retire 104 HN556, 28 HN528 and 284 Koala species credits prior to any clearing or the issue of a Subdivision Works Certificate.

It should also be noted that corrections were also made to errors in the red flag variation section of the Biocertification Assessment and Strategy on 11 September 2018 and a new lot and DP map was provided by Council (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. OEH has formed the view that further public exhibition of the application is not warranted as the proposed amendments, while numerous, do not significantly alter the proposal compared to that publicly exhibited.

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The proposal was referred to the Commonwealth Department of the Environment and Energy by the applicant and was subsequently declared a 'controlled action' under the EPBC Act. A Preliminary Documentation Environmental Assessment Report was prepared and placed on public exhibition between 20 December 2017 to 2 February 2018. Approval was issued by the Department of Environment and Energy on 21 December 2018.

1.5 THE BIODIVERSITY CERTIFICATION ASSESSMENT AREA

The BCAA is shown on Figures 1-3 and is described as Lots 1-3 and Part Lot 4 and 5, DP 1240836, Lot 2 DP 1218887 and Lot 61 DP 752042.

1.5.1 Native vegetation impacts and credit requirements

The BCAA totals 208.89 ha and currently comprises 29.64 ha of native vegetation. The area proposed to be biodiversity certified (i.e. impacted) totals 165.55 ha and is currently comprised of

10.79 ha of native vegetation. A conservation measure is proposed to protect 2.67 ha of native vegetation within the BCAA. The remaining 16.19 ha of native vegetation in the BCAA lies in retained lands that were excluded from the assessment and hence are neither proposed to be biodiversity certified nor subject to conservation measures.

Development of the area to be biodiversity certified will require a total of 132 ecosystem credits to be retired in order 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 8 depicts the biometric vegetation types.

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 Bioregion	TSC Act- Cumberland Plain Woodland EPBC Act – Part Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	CEEC under the TSC and EPBC Act	Low	2.43	28	Yes 0.12 ha in riparian buffer – regional or state biodiversity significance
HN556 - Narrow-leaved Ironbark – Broad-leaved Ironbark – Grey Gum open forest of the edges of the Cumberland Plain, Sydney Basin Bioregion	TSC Act- Shale Sandstone Transition Forest EPBC Act – Part Shale Sandstone Transition Forest	CEEC under the TSC Act and EPBC Act	Mod-good (1.37 ha) & Low	8.36	104	Yes
Total				10.79	132	

Figure 8 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 Koala species credit species. Development of the area will require a total of 284 species credits to be retired to offset the impacts. Table 3 shows the credits required for Koala species credit species and Figure 9 depicts assumed Koala habitat and records within the BCAA.

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?
Koala	Vulnerable	All native vegetation on site	10.79	284	No
Total				284	

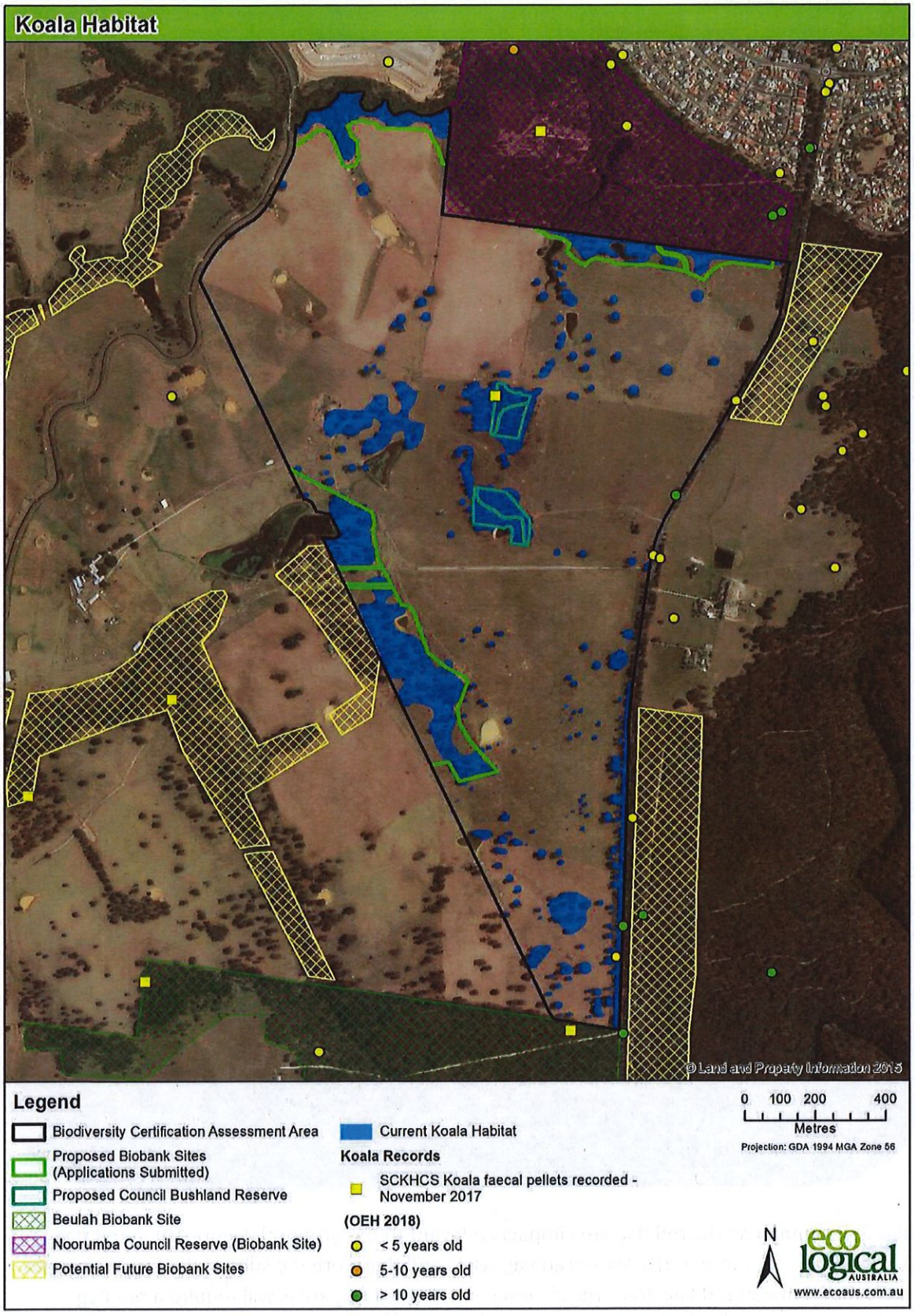

Figure 9 Assumed Koala habitat and records within the BCAA.

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]."

Tables 2- 7 summarise the red flag area impacts relevant to the proposal (Figure 10). 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.

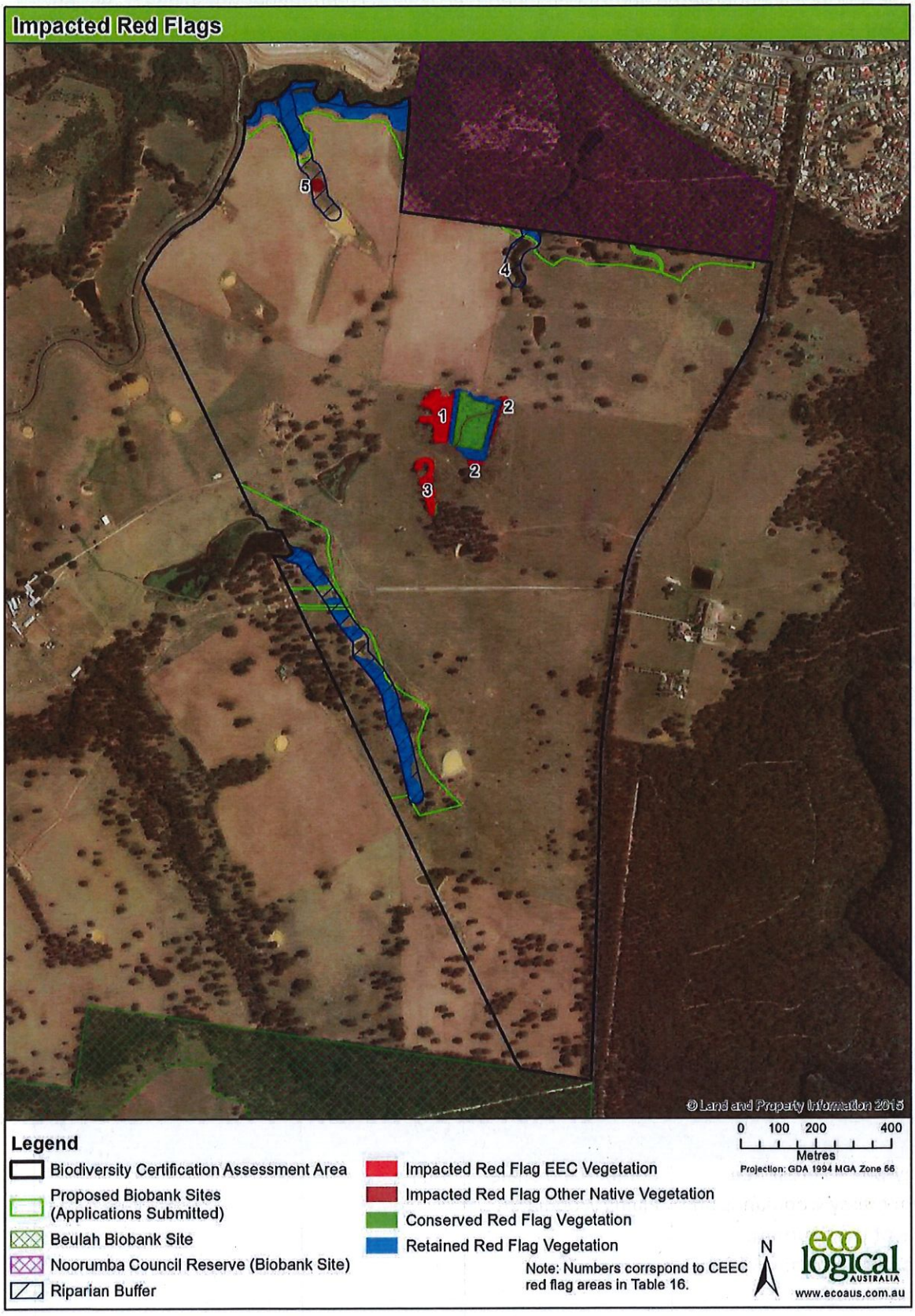

Figure 10 Impacted, conserved and retained red flag vegetation within the BCAA

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	Sub-component type	Conservation status	Area proposed for removal (ha)
Grey-Box – Forest Red Gum grassy woodlands on flats of the Southern Cumberland Plain, Sydney Basin Bioregion	TSC Act- Cumberland Plain Woodland EPBC Act – Part Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	Cumberland Shale Plains Woodland	CEEC	0
Narrow-leaved Ironbark – Broad-leaved Ironbark – Grey Gum open forest of the edges of the Cumberland Plain, Sydney Basin Bioregion	TSC Act- Shale Sandstone Transition Forest EPBC Act – Part Shale Sandstone Transition Forest	N/A	CEEC	1.37
Total				1.37

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

Biometric vegetation type name (BVT ID)	Sub-component type	Percentage cleared in CMA	Area proposed for removal (ha)
Grey-Box – Forest Red Gum grassy woodlands on flats of the Southern Cumberland Plain, Sydney Basin Bioregion	Cumberland Shale Plains Woodland	95%	0
Narrow-leaved Ironbark – Broad-leaved Ironbark – Grey Gum open forest of	N/A	80%	1.37

the edges of the Cumberland Plain, Sydney Basin Bioregion			
Total			1.37

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)
N/A			
Total		N/A	N/A

Table 7 Vegetation with regional or state biodiversity conservation significance

Biometric vegetation type name (BVT ID)	Sub-component type	Regional or State conservation significance type	Area proposed for removal (ha)
Grey-Box – Forest Red Gum grassy woodlands on flats of the Southern Cumberland Plain, Sydney Basin Bioregion (low condition)	Cumberland Shale Plains Woodland	riparian buffer	0.12
Total			0.12

1.6 THE CONSERVATION LAND OR OTHER MEASURES

There are a number of 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 applicant proposes the retirement of biodiversity credits from two established biobank sites within the BCAA retained lands, retirement of additional Koala species credits from a biobank site outside of the BCAA and an on-site conservation measure.

1.6.1 Other conservation measures

The Developer proposes the retirement of all required 132 ecosystem credits (28 HN528 and 104 HN556) and 133 Koala species credits from the two existing biobank sites within the retained lands (Noorumba-Mt Gilead biobank agreement ID 209 and Macarthur-Onslow biobank agreement ID 208). In addition, the developer will retire a further 151 Koala species credits that it has purchased from Council's Noorumba Reserve biobank agreement ID 239.

All credits will be retired prior to the commencement of any clearing in the BCAA or issue of a Subdivision Works Certificate.

1.6.2 On-site conservation measure

In addition to the above, Owner A has also agreed to enter into a biobanking agreement over the conservation area (and buffer in retained land) within 12 months of conferral of any certification and retire all credits generated within 6 months of registration of the agreement. The total area of the proposed biobank agreement is 3.61 ha, however the buffer area will not generate any credits.

The Addendum to the Biocertification Assessment and Strategy dated 30 April 2019 (Tab 1) outlines that within 30 days of the conferral of Biodiversity Conservation, Owner A will erect temporary fencing around the Conservation Area to prevent access by stock. In addition, subject to all required consents, approvals, licences, permits or authorisations being procured, Owner A will undertake the following actions on the Conservation Area until 31 December 2024 or the Conservation Area is transferred to Council, whichever is earlier:

i. establishment of the management trail/walking path;
ii. weed control;
iii. feral animal control;
iv. revegetation/supplementary planting; and
v. bringing in of fallen timber from the adjacent development area.

The boundaries of the Conservation Area will be demarcated by appropriate post and cable fencing or other markers prior to the transfer of the Conservation Area to Council. The Conservation Area will be transferred to Council by 31 December 2024 free of cost. Once transferred, Council will use its best endeavours to prepare any documents necessary to enable Council to consider whether the Conservation Area should be classified as 'Community Land Natural Area' under the *Local Government Act 1993.*

It should be noted that these requirements have also been incorporated into the biodiversity certification agreement.

1.6.3 Off-site conservation measure(s)

There are no off-site conservation measures proposed.

1.6.4 Biodiversity Certification Agreement

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 biodiversity certification agreement. Consequently, a biodiversity certification agreement has been prepared and has been signed by the relevant parties (Tab 5).

Under the biodiversity certification agreement, the Developer agrees to retire, or ensure the retirement of, the number and type of Biodiversity Credits set out in Table 8 below before:

- any Clearing is commenced in the Biodiversity Certification Area; or
- a Subdivision Works Certificate is issued for Subdivision Work, or any work involving Clearing, in the Biodiversity Certification Area,

whichever is the earlier.

In addition, within 6 months of entering into a biobanking agreement over the Conservation Area, Owner A is to make an application to retire all credits generated.

Lendlease Communities have also provided a bank guarantee to the Minister for the Environment of $2,230,078.37 (which has been calculated under the OEH Biodiversity Offset Payment Calculator based on 104 HN556, 28 HN528 and 284 Koala credits) as part of the security provisions under the

agreement. The bank guarantee is being held by OEH's Greater Sydney Communities and Greater Sydney Division. The biodiversity certification agreement will also be registered on the title of the land.

Table 8 Biodiversity Credits to be retired

	Biodiversity Credit type		
	HN528 Biodiversity Credit (Grey Box - Forest Red Gum grassy woodland on flats)	**HN556 Biodiversity Credit (Narrow-leaved Ironbark - Broad-leaved Ironbark - Grey Gum)**	**Koala species credit**
Number of Biodiversity Credits to be retired	28 from Noorumba-Mt Gilead Biodiversity Stewardship site referred to in Biobanking Agreement Noorumba-Mt Gilead ID 209.	104 from Macarthur-Onslow Biodiversity Stewardship Site (ID BA208) as referred to in Biobanking Agreement Macarthur-Onslow ID 208.	48 from Noorumba-Mt Gilead Biodiversity Stewardship site referred to in Biobanking Agreement Noorumba-Mt Gilead ID 209 85 from Macarthur-Onslow Biodiversity Stewardship Site (ID BA208) as referred to in Biobanking Agreement Macarthur-Onslow ID 208 151 as referred to in Biobanking Agreement ID 239
Total	28	104	284

1.7 THE RETAINED LAND

The biodiversity certification application includes 40.67 ha of retained land (Figures 1-3). 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. Campbelltown City Council (2018) Biodiversity Certification Application signed by Lindy Deitz, General Manager, Campbelltown City Council, as subsequently amended by Council
2. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018, Addendum to Biocertification Assessment Report and revised statement of commitments for Mt Gilead Biodiversity Certification Assessment dated 30 April 2019, Statement of Developers Commitments for Mt Gilead Biodiversity Certification

Assessment dated 21 March, Biodiversity Certification Assessment Area map (with Lot and DPs received by OEH via email on 2 May 2019) and Biodiversity Certification Assessment Area map (with subdivision layout received by OEH via email 2 May 2019).

3. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018 Appendix B Mt Gilead Planning Proposal January 2015 Campbelltown City Council
4. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018 Appendix C Response to Submissions
5. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018 Appendix E Dr Rodney Armistead (October 2016) Supplementary Myotis macropus and Green and Golden Bell Frog survey
6. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018 Appendix G Flora species recorded in biometric plots
7. Campbelltown City Council (2017) Ordinary Council Meeting 8.4 Proposed Natural Assets Corridor 28 November 2018 and Campbelltown City Council (2018) Ordinary Council Meeting 8.1 South Campbelltown Koala Habitat Connectivity Study 13 March 2018
8. Taylor, A (2018) Lots and DP maps from Campbelltown Council email to M Stewart on 11 October 2018
9. Humphries, R (2018) Mt Gilead RFV email to R Giddins and M Stewart, 11 September 2018

1.8.2 Other documents considered by the recommending officers (see Tab 7 for copies of all documents in this section)

1. Campbelltown City Council Campbelltown (Sustainable City) Development Control Plan Volume 2 Site Specific Development Control Plans Part 7: Mt Gilead).
2. Department of Planning and Environment (2018) Greater Macarthur 2040 An interim plan for the Greater Macarthur Growth Area November 2018
3. Environment, Climate Change and Water (2011) Biodiversity Certification Assessment Methodology
4. McAlpine, C., Lunney, D., Melzer, A., Menkhorst, P., Phillips, S., Phalen, D., Ellis, W., Foley, W., Baxter, G., de Villiers, D., Kavanagh, R., Adams-Hosking, C., Todd, C., Whisson, D., Molsher, R., Walter, M., Lawler, I., and Close, R. (2015) Conserving koalas: A review of the contrasting regional trends, outlooks and policy challenges, Biological Conservation 192, 226-236.
5. Office of Environment and Heritage (2018) Advice to Koala Roundtable
6. Office of Environment and Heritage (2014) BioBanking Assessment Methodology 2014
7. Office of Environment and Heritage (2015) Biodiversity Certification Guide for Applicants
8. Office of Environment and Heritage (2015) Biodiversity Certification Operational Manual
9. Office of Environment and Heritage (2018) Conserving koalas in Wollondilly and Campbelltown LGAs January 2018

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 Chief Executive of the OEH must be satisfied. These are evaluated in Section 2.1 below.

2.1 MATTERS FOR THE CHIEF EXECUTIVE TO CONSIDER

This section evaluates the matters that are relevant for the Chief Executive to consider in order to be satisfied prior to making a recommendation to the Minister. Table 9 lists the relevant matters and provides a link to the corresponding section of this Recommendation Report.

Table 9 Matters for the Chief Executive to consider that are relevant to this proposal

BCAM Section	Chief Executive's Decisions	Report Section
2.2(b), (d), 2.4	Red flag variation requests	2.1.1
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 Chief Executive of the OEH[1].

2.1.1 Red flag variations under the Biodiversity Certification Assessment Methodology

The BCAA contains a total of 8.57 hectares of red flag vegetation. Of this, 1.49 ha will be impacted by the proposal – 0.12 ha of low condition Cumberland Plain Woodland within the riparian buffers of minor creeks and 1.37 ha of the Shale Sandstone Transition Forest.

[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 and Environment.

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, the proposed biodiversity certification of land directly impacts on biodiversity values in red flag areas. The CE OEH must be satisfied, having considered the criteria in Section 2.4 of the 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

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

Feasibility of options to avoid and minimise

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:

During the assessment of the planning proposal, the biodiversity certification of Mt Gilead Stage 1 site was considered by Council and the Developer. Since 2013, OEH has been providing advice to Council on the planning proposal and the biodiversity certification process including drafts of the Biocertification Assessment and Strategy. That discussion has resulted in a proposal that avoids impacts to red flag areas both in land subject to a conservation measure and in the retained lands containing the existing biobanking agreements. While the existing biobank sites are located within retained lands for purpose of this assessment, they are part of the Mt Gilead Pty Ltd landholdings that were avoided during the planning proposal stage.

Therefore, of the total 8.57 ha of red flag vegetation on the site, 7.08 ha or 82.6% will be avoided. It is considered that all reasonable measures to avoid these red flag areas have been taken.

As noted in the assessment report:

"The majority of the site is zoned R2 Low Density Residential and RE1 Public Recreation. The land was previously zoned RU2 under the default zoning of Campbelltown LEP 2002 and is currently used primarily for agricultural production – cattle grazing. Under its current use and recent rezoned status, the land is not required to be managed for conservation "

It is considered that appropriate conservation management arrangements cannot be established over these red flag areas.

Recommendation 1:

That the CE OEH 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 vegetation types

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

Figure 20 of the Biocertification Assessment and Strategy separates the red flag areas into 5 'Patches' for separate assessment. Three of these (Patches 1-3) are red flag areas due to the presence of a total of 1.37 ha of Shale Sandstone Transition Forest.

Note that Table 16 of the Biocertification Assessment and Strategy and the first paragraph under heading 'c)' on page 61 are in error. They state that Patch 2 meets the criterion under 2.4.2.1(c) but this is not the case. Instead, Patch 1 meets this criterion. As each patch needs to only have met one of the criteria, the outcome of the assessment remains the same. Table 16 should also refer to Section 2.4.2.1 of the BCAR, not 2.3.2.2.

The errors are believed to be due to the editing of the Biocertification Assessment and Strategy and the assessor has confirmed that the following details are correct.

The Biocertification Assessment and Strategy found that:

- Patch 1 satisfies the variation criteria under Section 2.4.2.1(a) and 2.4.2.1(c) of the BCAM.
- Patch 2 satisfies the variation criterion under Section 2.4.2.1(a) of the BCAM.

- Patch 3 satisfies the variation criteria under Section 2.4.2.1(a) and 2.4.2.1 (c) of the BCAM.

Regarding criterion 2.4.2.1(a) - Lands surrounding all the red flag areas are open, exotic grassed areas currently used for grazing. This would be likely to result in ongoing long-term impacts to the edges of the areas due to nutrient enrichment and weed invasion. As the areas are small and irregularly -shaped, they have large edge to area ratios, so future development on adjacent land will also negatively impact these areas. The Biocertification Assessment and Strategy notes that Patches 1 and 3 already have 18 and 40% exotic plant cover, respectively.

Regarding Criterion 2.4.2.1(c) – Patches 1 and 3 have site value scores of 36.28 and 36.46, respectively. These are only two points higher than the score of 34, below which vegetation would be considered to be in low condition and would not trigger a red flag. Additionally, the majority of the vegetation condition variables were outside benchmark for these patches.

It is considered that each of these three red flag areas meets one of the required criteria to be considered low or not viable.

Recommendation 2:

That the CE OEH be **satisfied** in accordance with Section 2.4.2.1 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 vegetation in Patches 1 & 3 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 vegetation in Patches 1, 2 & 3 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.~~

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 2.4.2.2 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:

The Biocertification Assessment and Strategy assessed the contribution of the red flag areas to regional biodiversity using regional datasets. While OEH notes the limitations to this method, they are the only data available and can still accurately allow this assessment in this case.

Approximately 9,900 to 22,700 hectares of Shale Sandstone Transition Forest have been mapped within the region. The 1.37 ha of red-flagged Shale Sandstone Transition Forest to be cleared by this proposal is 0.006 % of that area. Shale Sandstone Transition Forest is, therefore, considered to be very abundant relative to the area being cleared.

The OEH VIS database indicates that this vegetation type has 20% remaining. This is based on the extent of mapped Shale Sandstone Transition Forest with a canopy cover greater than 10%. The Biocertification Assessment and Strategy has included mapped vegetation with a canopy cover less than 10% to find that the vegetation type has 44% remaining in the region. It is considered that the correct figure of percent remaining is somewhere between these two estimates.

The Biocertification Assessment and Strategy has found that 76% of the native vegetation in the region remains. This is considered to be high.

On the basis of these criteria, in particular the first and third criteria, it is considered that the red flag area to be cleared makes a low contribution to regional biodiversity values.

Recommendation 3:

That the CE OEH be **satisfied** in accordance with Section 2.4.2.2 of the Biodiversity Certification Assessment Methodology that the red flag area on land proposed for biodiversity certification makes a low contribution to regional biodiversity values having considered that:

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.

Decision on whether impacts on vegetation red flags may be offset

Discussion:

As noted above:

- The feasibility of options to avoid impacts on those red flag areas has been adequately considered,
- The viability of the red flag vegetation is considered to be low or not viable, and,
- The contribution of the red flag vegetation to regional biodiversity values is low.

As a result, it is considered that that impacts on the red flag vegetation areas may be offset in accordance with the rules and requirements set out in section 10 of the method.

Recommendation 4:

That the CE OEH 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 red flag area may be offset in accordance with the rules and requirements set out in Section 10 of the methodology.

Red flag areas - threatened species

There are no species credit threatened species that cannot withstand further loss that will be impacted by this proposal. As a result, no red flag variation needs to be assessed for threatened species.

Red flag areas - regional or state biodiversity conservation significance

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

There is 3.01 ha of vegetation within the riparian buffers of minor creeks within the BCAA. Of this, 0.12 ha (or less than 4%) will be impacted.

Feasibility of options to avoid and minimise

Discussion:

Council and OEH have been liaising since 2013 regarding the planning proposal for site. That discussion has resulted in a proposal that avoids impacts to 2.89 ha, or approximately 96% of the vegetation within the BCAA that is recognised as having regional or state biodiversity conservation

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

As noted in the assessment report:

"The majority of the site is zoned R2 Low Density Residential and RE1 Public Recreation. The land was previously zoned RU2 under the default zoning of Campbelltown LEP 2002 and is currently used primarily for agricultural production – cattle grazing. Under its current use and recent rezoned status, the land is not required to be managed for conservation "

It is considered that appropriate conservation management arrangements cannot be established over these red flag areas.

Recommendation 5:

That the CE OEH 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 0.12 ha of vegetation within riparian corridors consists of three isolated remnants. All are in areas zoned RE1 Public Recreation which will be transferred to Council as 'community land'.

Management as community land is expected to increase the area of vegetation within these riparian areas.

There are no State or Regional biodiversity links as defined by Section 3.7.2 of BCAM on the site.

The 0.12 ha of vegetation within the riparian buffers of minor creeks is very small in comparison to the 3.01 ha of vegetation within those buffers and is an even smaller proportion of the total area of those buffers. Even if vegetation were to be lost, the impact of this on water quality is likely to be low. Additionally, the site is currently subject to grazing, cropping and associated run-off. Impacts on water quality post-development will be managed with stormwater detention basins, which is expected to improve water quality.

Recommendation 6:

That the CE OEH 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 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 method.

Recommendation 7:

That the CE OEH 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 areas 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:

The proposal does not include the use of any more appropriate local data.

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:

The applicant is seeking an additional increase in site value scores for Zones 5 and 8. Supplementary planting of mid-storey species is proposed for Zone 8 and bringing in of fallen logs is proposed for Zones 5 and 8.

Supplementary planting of mid-storey species will simultaneously increase native mid-storey cover (which is currently below benchmark) and decrease native grass cover (which is currently over benchmark) as native grasses will be thinned through shading. It is not expected that this will increase the native mid-storey to higher than benchmark.

Bringing in of fallen logs 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 10 Condition attribute scores

Management Zone	Management Action	Condition Attribute	Additional Increase in Condition Attribute Score
5	Addition of fallen logs	Total length of fallen logs	0.5
8	Addition of fallen Logs	Total length of fallen logs	0.5
8	Supplementary planting of mid-storey	Mid-storey cover	0.5
8	Supplementary planting of mid-storey	Native ground cover (grasses)	0.5

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

Recommendation 8:

That the CE OEH **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:

The proposal does not include any expert advice or an expert report.

2.1.6 Indirect impact decisions under the Biodiversity Certification Assessment Methodology

The CE OEH 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.

Indirect impacts from this proposal are managed by:

- The placement of asset protection zones and open space areas between the development and adjacent conservation areas. These are to minimise the impact that urban development has on adjacent conservation areas.

  Asset protection zones 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 weeds, runoff and changed noise and light conditions.

- 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, would still be providing movement corridors for local fauna. As a result, there is potential for some indirect impacts resulting from the fragmentation of movement corridors.

  In this regard, the portion of the Noorumba east west corridor in the north of the site, retained lands and Noorumba Reserve will provide for movement for biodiversity. This corridor is also identified in Campbelltown City Council's Wildlife Corridor Map (November 2017). The retained lands (including biobank sites) in the south and along the western boundary of the BCAA will also reduce the extent to which movement corridors are restricted.

  As discussed in Section 1.4 of this Recommendation Report, OEH does not consider it necessary to facilitate koala movement within or across the site.

- Implementation of a Construction Environment Management Plan (CEMP) for vegetation clearing within the BCAA.

  The Developer will prepare and implement a CEMP for vegetation clearing within the BCAA to guide the development and ensure that all direct and indirect impacts (e.g. asset protection zones, 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 threatened fauna. Specifically, this will address the management of the land proposed for a conservation measure and its buffer such that surrounding roads will be fully curbed and guttered with no stormwater being discharged into the conservation areas (treated water from the detention basins within the development footprint will flow into existing riparian areas).

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

  - temporary and permanent 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,
  - where trees are removed in the development area, these will be salvaged for fauna habitat values in the proposed Council Reserve Biobank site and Noorumba-Mt Gilead and Macarthur Onslow Biobank sites, and
  - a de-watering plan for any farm dams that are removed from the biodiversity certification assessment area.

The preparation and implementation of the CEMP has been included in the Developer's Obligations in Clause 4.3 of the biodiversity certification agreement.

- Zoning and development controls

  As discussed in Section 1.4 of this report, the site was rezoned by the Minister for Planning in 2017 to permit residential, public recreation, commercial and Infrastructure uses. In regard to development controls, the Campbelltown (Sustainable City) Development Control Plan Volume 2 Site Specific Development Control Plans Part: 7 Mt Gilead (DCP Mt Gilead) applies to the site. Sections 2 Vision and Development Objectives and 3.3 Public Open Space and Landscaping include objectives and controls requiring 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.

- Koala and its habitat

  As outlined in Section 1.4 of this Recommendation Report, OEH has prepared koala corridor mapping and planning principles to guide land use planning decisions in the Greater Macarthur GA to ensure the long-term viability and conservation of koalas and their habitat. The Mt Gilead Stage 1 proposal is not inconsistent with OEH's recommendations and planning principles.

- Conservation measure buffer area

  As depicted in Figure 11, a 30 m buffer is proposed around the conserved red flag area. This buffer consists of retained land, perimeter roads and open space. As outlined above, the perimeter roads will be fully kerbed and guttered with stormwater to be directed away from the proposed conservation area. The vegetation within the buffer in the retained lands will be managed in the same manner as the conserved red flag area.

In considering the above, OEH has assessed that the size of the buffer area is sufficient and appropriate to mitigate any negative indirect impacts from development following the conferral of biodiversity certification.

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 7). In regard to buffers, the Manual states *"buffers cannot be included in the developable footprint of the land proposed for biodiversity certification"*.

As part of the buffer is proposed to be within retained land and part within the proposed biodiversity certification area, it is recommended that the Minister approve a minor variation to the BCAM in accordance with Section 126Q of the TSC Act. Consequently, a recommendation to the Minister for a minor variation to the BCAM has been made in Section 2.1.4 of the Recommendation Report for the Minister for the Environment (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.

OEH considers that in this particular case strict adherence with the BCAM in terms of securing the entire buffer via a conservation measure or in a retained area is unnecessary and unreasonable. 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 Chief Executive OEH support the recommendation to the Minister 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.

It is also recommended that the Chief Executive OEH 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.

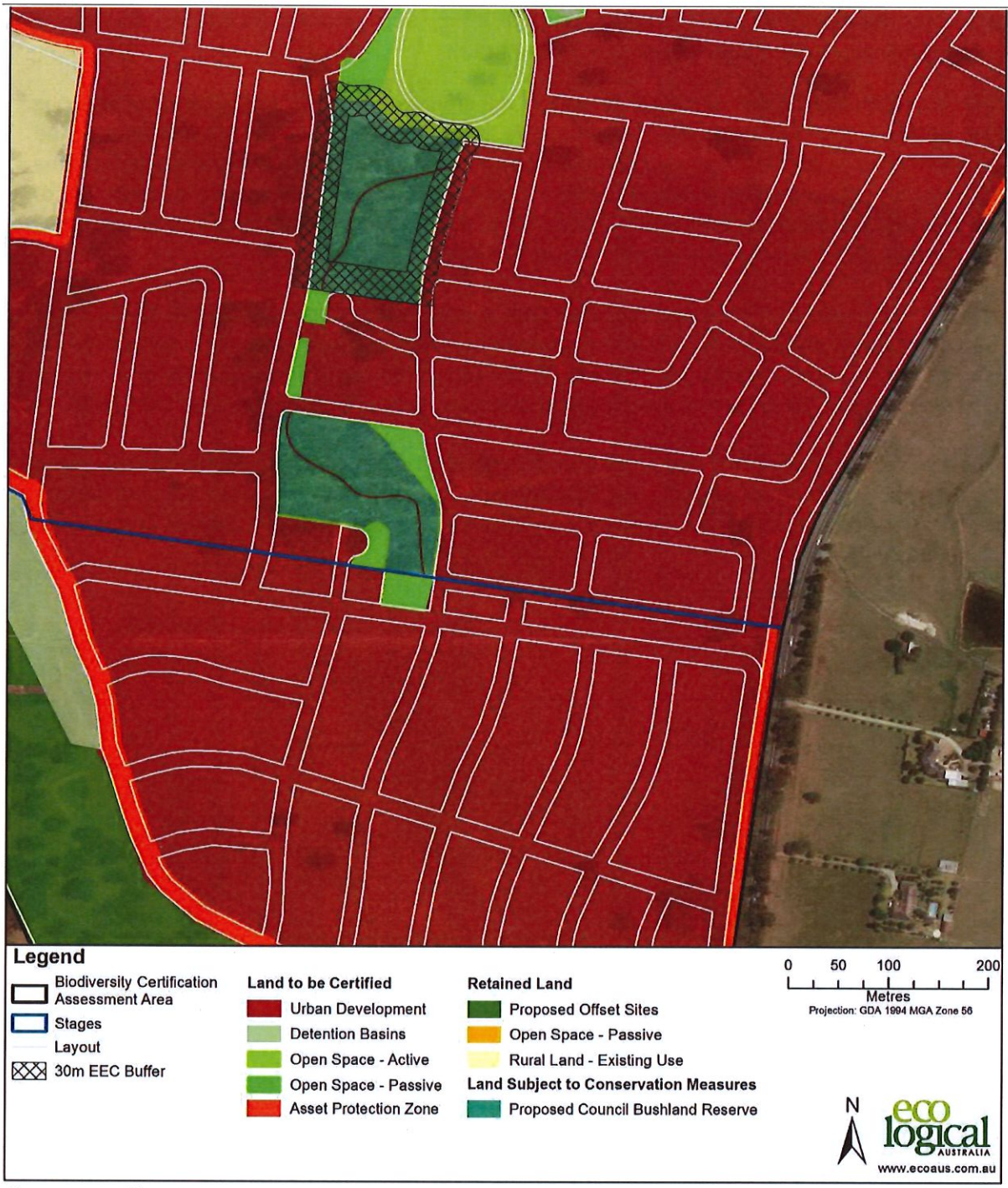

Figure 11 Buffers area to proposed on site conservation area.

Recommendation 9:

That the CE OEH 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 for Environment being satisfied with the minor variation under s126Q of the TSC Act.*

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:

No planning instrument conservation measures are 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:

No off-site conservation measures are 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 certification must be included in the application for biodiversity certification."

Discussion:

No variation to the offset rules are proposed as part of the application for biodiversity certification.

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:

No variation to the offset rules is proposed as part of the application for biodiversity certification.

DECISIONS OF THE OEH CHIEF EXECUTIVE – BIODIVERSITY CERTIFICATION OF MOUNT GILEAD STAGE 1

*The OEH Chief Executive must strike through the relevant wording (**bold** text) to indicate his decision prior to signing this Section.*

Kate Wilson as delegate of the
I, ~~Anthony Lean~~, Chief Executive of the Office of Environment and Heritage, having considered the *Biodiversity Certification of Land: Mount Gilead Stage 1 Recommendation Report for the Chief Executive of the Office of Environment and Heritage* 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:

    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 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 2.4.3.2 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.~~

~~8. 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

9. 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.

10. 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.

11. 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*~~

~~12. **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)*~~

~~13. **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: <insert appropriate reasons>~~

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

14. **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*~~

~~15. 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

16. 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*.

    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 for Environment being satisfied with the minor variation under s126Q of the TSC Act

~~*Planning instrument conservation measures*~~

~~17. 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*~~

~~18. **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*~~

~~19. 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.

20. **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

21. 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 <strike-through whichever is not applicable out of (c) and (d)>:~~

~~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.~~

~~22. **Approve/do not approve** a variation to the offset rules for species credits as set out in Section 10.4 of the BCAM.~~

~~**Anthony Lean**~~ Kate Wilson
~~**Chief Executive**~~ Executive Director
Office of Environment and Heritage

Date 28.6.19

Biodiversity Certification of Land:
Mt Gilead Stage 1

Recommendation Report for the Minister for the Environment, 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 officers:	Marnie Stewart and Ray Giddins
Name of decision maker:	Anthony Lean, Chief Executive, Office of Environment and Heritage, as delegate of the Minister for the Environment
CM9 container and record numbers:	SF15/7262 & SF18/102710
Name of Planning Authority (applicant):	Campbelltown City Council
Date application received:	Made on 19 July 2018, as subsequently amended by Council
Dates of public notification under Section 126N:	12 December 2017 – 31 January 2018

1.1 THE PROPOSAL

Campbelltown 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 Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister prepared for Mt Gilead Pty Ltd and Mr and Mrs Dzwonnik* dated 2 July 2018 as amended by *Addendum to Biocertification Assessment Report and revised statement of commitments for Mt Gilead Biodiversity Certification Assessment* dated 30 April 2019 (Biocertification Assessment and Strategy).

Council has made the application on behalf of Lendlease Communities (Mount Gilead) Pty Ltd (Developer), Lendlease Communities (Mount Gilead No.3) Pty Ltd (Owner A) and Mt Gilead Pty Ltd (Owner B).

The land proposed for biodiversity certification which is identified as "land to be certified" in pink in Figure 1 totals 165.55 hectares (ha), while the land proposed for a conservation measure is 3.61 ha (2.67 ha on-site conservation area plus 0.94 ha retained buffer). The proposal also includes 40.67 ha of land identified as maintaining its current land use and has therefore been assessed as retained lands (Table 1 and Figures 1-3).

To meet the requirements of the Biodiversity Certification Assessment Methodology (BCAM), it is proposed to retire biodiversity credits from two existing biobank sites within the retained lands in the biodiversity certification assessment area (BCAA) as well as koala credits from outside of the BCAA. In addition, Owner A will submit for registration a future biobank agreement over the conservation lands and buffer within 12 months of the date of conferral (if granted), retire all credits generated and dedicate the land to Council by the end of 2024.

Table 1 Land use

Land use	**Area (ha)**	**Native vegetation extent (ha)**
Land proposed for biodiversity certification	165.55	10.79
Land proposed for on-site conservation	2.67*	2.67*
Land proposed for off-site conservation measures	NA**	NA**
Retained lands	40.67**	16.19*
Total	**208.89**	**29.64**

* The land proposed for on-site conservation in the BCAA totals 2.67 ha, however, the area of land proposed to be subject to a biobank agreement and dedicated to Council is 3.61 ha as it will include the 0.94 buffer area in the retained land. It should be noted that the buffer area will not generate credits.

** The BCAA contains two approved biobank sites. These are located within the retained lands and will be the source of biodiversity credits required to meet the improve of maintain outcome under the BCAM.

Figure 1 Biodiversity certification assessment area, land to be certified, land proposed for conservation and retained land.

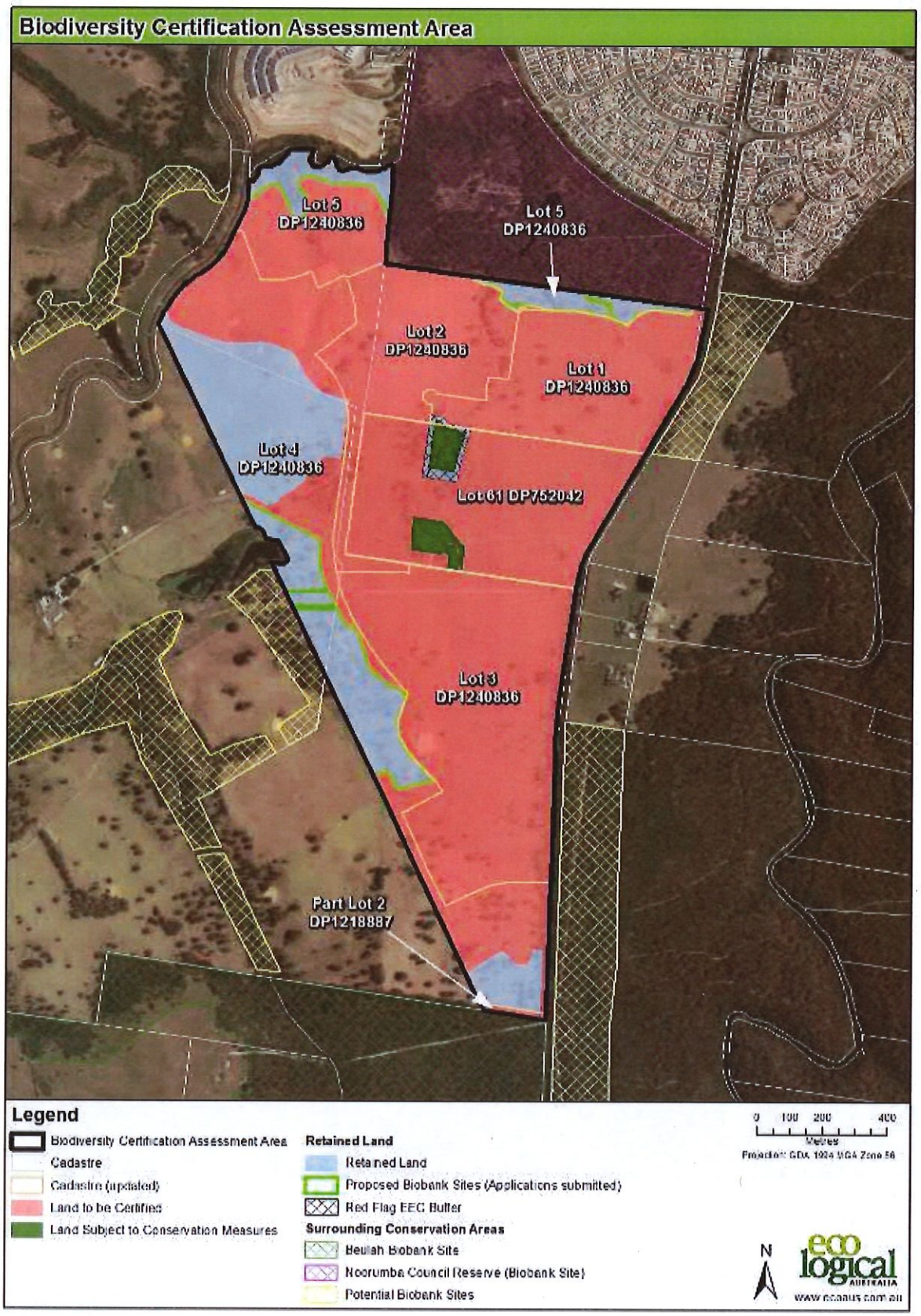

Figure 2 Biodiversity Certification Assessment Area, land to be certified, land proposed for conservation measure, retained land, buffer, Lot and DPs and surrounding conservation areas

Figure 3 Map included in the Biodiversity Certification Agreement and Ministerial Order

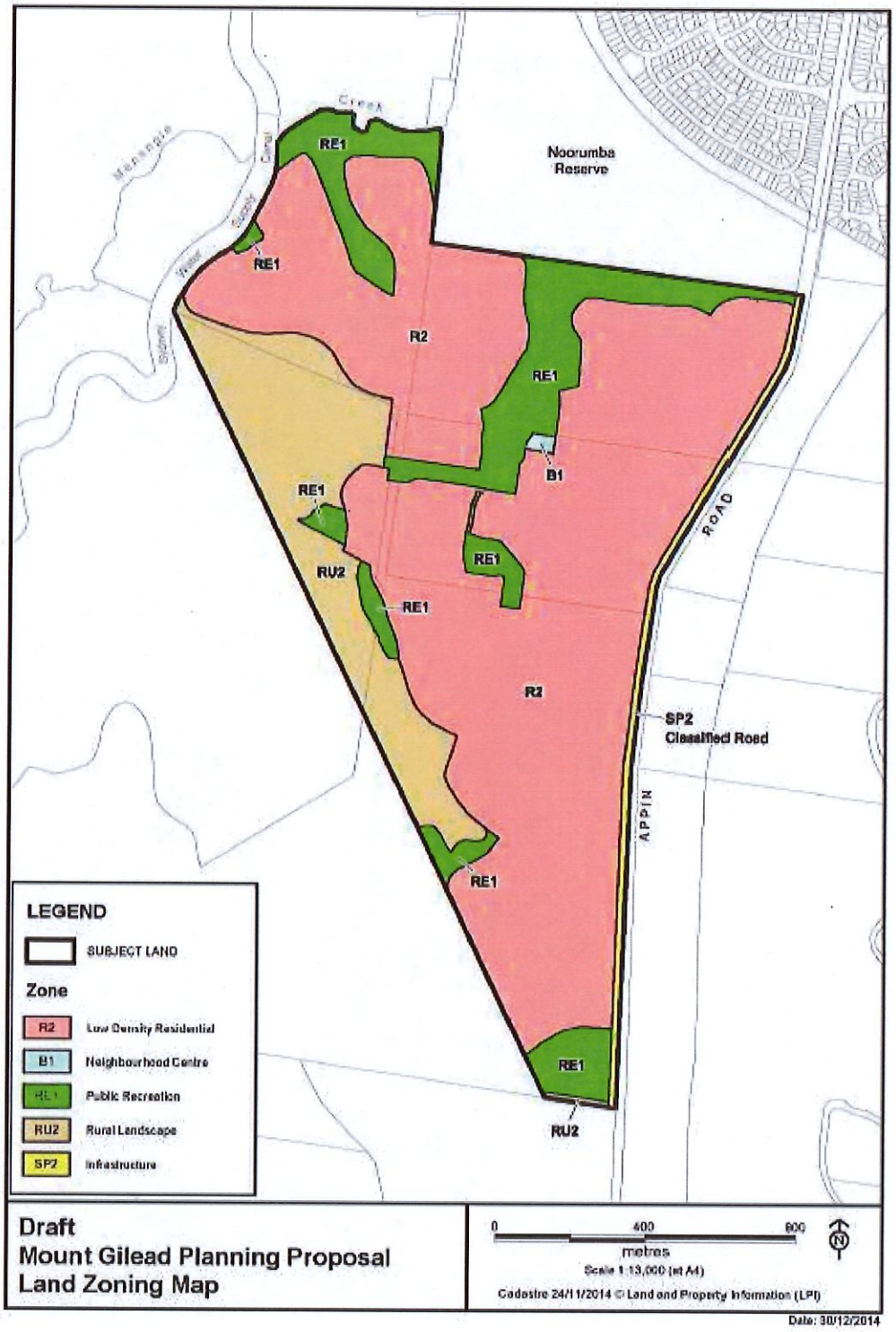

Figure 4 Land zoning maps

1.2 LAND OWNERSHIP

At the time that the application for biodiversity certification was submitted to the Minister for Environment, the land was owned by two parties:

- Mt Gilead Pty Ltd – Lots 1-3 and Part Lot 4 and 5, DP 1240836 and Part Lot 2 DP 1218887, and
- S and A Dzwonnik - Lot 61 DP 752042 (Figure 2).

On 10 October 2018, the Developer became the registered proprietor of Lot 61 DP 752042. As a result, the Dzwonniks are no longer parties to the application.

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. In this respect, a Biocertification Assessment and Strategy has been prepared and submitted with the biodiversity certification application (Tab 1).

The application was made by Council on 19 July 2018 (as subsequently amended by Council). The application was prepared and lodged by Council on behalf of the Developer and Owners A and B. Eco Logical Australia Pty Ltd undertook the biodiversity assessment and prepared the Biocertification Assessment and Strategy which underpins the application for certification.

The proposal was placed on public exhibition by Council between 12 December 2017 – 31 January 2018. Nineteen submissions were received as a result. In accordance with section 126N of the TSC Act, Council has prepared a Submissions Report (Tab 1).

The Biocertification Assessment Report and Strategy and Submissions Report has been reviewed by OEH as documented in this Recommendation Report. For development lands to be biodiversity certified, the OEH Chief Executive and Minister for Environment will need to be satisfied in relation to certain matters outlined in BCAM and Part 7AA of the TSC Act. These matters have been assessed by OEH and those relevant to the Minister are documented in this Recommendation Report.

It should be noted that since the application was publicly exhibited, amendments to the application have been made which are detailed in Section 1.4 in Recommendation Report for the Chief Executive of the Office of Environment and Heritage (Tab 2a).

1.4 THE BIODIVERSITY CERTIFICATION ASSESSMENT AREA

The BCAA is shown on Figures 1-3 and is described as Lots 1-3 and Part Lot 4 and 5, DP 1240836, Lot 2 DP 1218887 and Lot 61 DP 752042. The BCAA totals 208.89 ha and currently comprises 29.64 ha of native vegetation.

The area proposed to be biodiversity certified (i.e. impacted) totals 165.55 ha and is currently comprised of 10.79 ha of native vegetation. A conservation measure is proposed to protect 2.67 ha of native vegetation within the BCAA. The remaining 16.19 ha of native vegetation in the BCAA lies in retained lands that were excluded from the assessment and hence are neither proposed to be biodiversity certified nor subject to conservation measures.

Development of the area to be biodiversity certified will require a total of 132 ecosystem credits to be retired in order to offset the impacts to native vegetation and associated habitat for ecosystem credit species.

The area proposed to be biodiversity certified also contains habitat for koala species credit species. Development of the area will require a total of 284 species credits to be retired to offset the impacts on koala.

The BCAA contains a total of 8.56 hectares of red flag vegetation. Of this, 1.49 ha will be impacted by the proposal – 0.12 ha within the riparian buffers and 1.37 ha of the Shale Sandstone Transition Forest. A red flag area variation for Shales Sandstone Transition Forest and riparian buffer vegetation (regional or state biodiversity conservation significance – riparian buffers) is required and has been assessed by the OEH Chief Executive (see the Recommendation Report for the OEH Chief Executive).

1.5 THE CONSERVATION LAND OR OTHER MEASURES

There are a number of 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 applicant proposes the retirement of biodiversity credits from two established biobank sites within the BCAA retained lands, retirement of additional koala species credits from a biobank site outside of the BCAA and an on-site conservation measure.

1.5.1 Other conservation measures

The developer proposes the retirement of all required 132 ecosystem credits (28 HN528 and 104 HN556) and 133 koala species credits from the two existing biobank sites within the retained lands (Noorumba-Mt Gilead biobank agreement ID 209 and Macarthur-Onslow biobank agreement ID 208). In addition, the Developer will retire a further 151 koala species credits that it has purchased from Council's Noorumba Reserve biobank agreement ID 239.

All credits will be retired prior to the commencement of any clearing in the BCAA or issue of a Subdivision Works Certificate.

1.5.2 On-site conservation measure

In addition to the above, Owner A has also agreed to enter into a biobanking agreement over the conservation area (and buffer in retained land) within 12 months of conferral of any certification and retire all credits generated within 6 months of registration of the agreement. The total area of the biobank agreement is 3.61 ha, however the buffer area will not generate any credits.

The Addendum to the Biocertifcation Assessment and Strategy dated 30 April 2019 (Tab 1) outlines that within 30 days of the conferral of Biodiversity Conservation, Owner A will erect temporary fencing around the conservation Area to prevent access by stock. In addition, subject to all required consents, approvals, licences, permits or authorisations being procured, Owner A will undertake the following actions on the Conservation Area until 31 December 2024 or the Conservation Area is transferred to Council, whichever is earlier:

i. establishment of the management trail/walking path;
ii. weed control;
iii. feral animal control;
iv. revegetation/supplementary planting; and
v. bringing in of fallen timber from the adjacent development area.

The boundaries of the Conservation Area will be demarcated by appropriate post and cable fencing or other markers prior to the transfer of the Conservation Area to Council. The Conservation Area will be transferred to Council by 31 December 2024 free of cost. Once transferred, Council will

use its best endeavours to prepare any documents necessary to enable Council to consider whether the Conservation Area should be classified as 'Community Land Natural Area' under the Local Government Act 1993.

It should be noted that these requirements have also been incorporated into the Biodiversity Certification Agreement.

1.5.3 Off-site conservation measure(s)

There are no off-site conservation measures proposed.

1.6 Biodiversity Certification Agreement

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 biodiversity certification agreement. Consequently, a biodiversity certification agreement has been prepared and has been signed by the relevant parties (Tab 5).

Under the biodiversity certification agreement, the Developer agrees to retire, or ensure the retirement of, the number and type of Biodiversity Credits set out in Table 2 below before:

- any Clearing is commenced in the Biodiversity Certification Area; or
- a Subdivision Works Certificate is issued for Subdivision Work, or any work involving Clearing, in the Biodiversity Certification Area,

whichever is the earlier. In addition, within 6 months of entering into a biobanking agreement over the Conservation Area, Owner A is to make an application to retire all credits generated.

The Developer has also provided a bank guarantee to the Minister for the Environment of $2,230,078.37 (which has been calculated under the OEH Biodiversity Offset Payment Calculator based on 104 HN556, 28 HN528 and 284 Koala credits) as part of the security provisions under the agreement. The bank guarantee is being held by OEH's Greater Sydney Communities and Greater Sydney Division. The biodiversity certification agreement will also be registered on the title of the land.

Table 2 Biodiversity Credits to be retired

	Biodiversity Credit type		
	HN528 Biodiversity Credit (Grey Box - Forest Red Gum grassy woodland on flats)	**HN556 Biodiversity Credit (Narrow-leaved Ironbark - Broad-leaved Ironbark - Grey Gum)**	**Koala species credit**
Number of Biodiversity Credits to be retired	28 from Noorumba-Mt Gilead Biodiversity Stewardship site referred to in Biobanking Agreement Noorumba-Mt Gilead ID 209.	104 from Macarthur-Onslow Biodiversity Stewardship Site (ID BA208) as referred to in Biobanking Agreement Macarthur-Onslow ID 208.	48 from Noorumba-Mt Gilead Biodiversity Stewardship site referred to in Biobanking Agreement Noorumba-Mt Gilead ID 209 85 from Macarthur-Onslow Biodiversity Stewardship Site (ID BA208) as referred to in Biobanking Agreement Macarthur-Onslow ID 208 151 as referred to in Biobanking Agreement ID 239
Total	28	104	284

1.7 THE RETAINED LAND

The biodiversity certification application includes 40.67 ha of retained land (Figures 1-3). Retained lands are neither certified lands nor conservation measures. Development proposals in these areas will continue to be 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. Campbelltown City Council (2018) Biodiversity Certification Application signed by Lindy Deitz, General Manager, Campbelltown City Council, as subsequently amended by Council
2. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018, as amended by Addendum to Biocertification Assessment Report and revised statement of commitments for Mt Gilead Biodiversity Certification Assessment dated 30 April 2019, Statement of Developers Commitments for Mt Gilead Biodiversity Certification Assessment dated 21 March 2019, Biodiversity Certification Assessment Area

map (with Lot and DPs received by OEH via email on 2 May 2019) and Biodiversity Certification Assessment Area map (with subdivision layout received by OEH via email 2 May 2019).

3. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018 Appendix B Mt Gilead Planning Proposal January 2015 Campbelltown City Council
4. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018 Appendix C Response to Submissions
5. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018 Appendix E Dr Rodney Armistead (October 2016) Supplementary Myotis macropus and Green and Golden Bell Frog survey
6. Eco Logical Australia (2018) Mt Gilead Biodiversity Certification Assessment Report and Biocertification Strategy Final Report to Minister Prepared for Mt Gilead Pty Ltd and Mr & Mrs Dzwonnik 2 July 2018 Appendix G Flora species recorded in biometric plots
7. Campbelltown City Council (2017) Ordinary Council Meeting 8.4 Proposed Natural Assets Corridor 28 November 2018 and Campbelltown City Council (2018) Ordinary Council Meeting 8.1 South Campbelltown Koala Habitat Connectivity Study 13 March 2018
8. Taylor, A (2018) Lots and DP maps from Campbelltown Council email to M Stewart on 11 October 2018
9. Humphries, R (2018) Mt Gilead RFV email to R Giddins and M Stewart, 11 September 2018

1.8.2 Other documents considered by the recommending officers (see Tab 7 for copies of all documents in this section)

1. Campbelltown City Council Campbelltown (Sustainable City) Development Control Plan Volume 2 Site Specific Development Control Plans Part 7: Mt Gilead).
2. Department of Planning and Environment (2018) Greater Macarthur 2040 An interim plan for the Greater Macarthur Growth Area November 2018
3. Environment, Climate Change and Water (2011) Biodiversity Certification Assessment Methodology
4. McAlpine, C., Lunney, D., Melzer, A., Menkhorst, P., Phillips, S., Phalen, D., Ellis, W., Foley, W., Baxter, G., de Villiers, D., Kavanagh, R., Adams-Hosking, C., Todd, C., Whisson, D., Molsher, R., Walter, M., Lawler, I., and Close, R. (2015) Conserving koalas: A review of the contrasting regional trends, outlooks and policy challenges, Biological Conservation 192, 226-236.
5. Office of Environment and Heritage (2018) Advice to Koala Roundtable
6. Office of Environment and Heritage (2014) BioBanking Assessment Methodology 2014
7. Office of Environment and Heritage (2015) Biodiversity Certification Guide for Applicants
8. Office of Environment and Heritage (2015) Biodiversity Certification Operational Manual
9. Office of Environment and Heritage (2018) Conserving koalas in Wollondilly and Campbelltown LGAs

2 MATTERS FOR THE MINISTER TO CONSIDER

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."*

This section evaluates the matters that are relevant for the Minister for the Environment to consider in accordance with the BCAM and Part 7AA of the TSC Act. Table 3 lists the relevant matters and provides a link to the corresponding section of this Recommendation Report.

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

BCAM Section	**Minister's Decisions**	**Report Section**
8.1.3	Planning instrument conservation measures – timeframe to implement	2.1.1
TSC Act Section	**Minister's 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 12 December 2017 and 31 January 2018 in accordance with s126N of the TSC Act. Nineteen (19) submissions were received. In accordance with section 126N(2)(d) of the TSC Act, the Mt Gilead Biodiversity Certification Application Response to Public Submissions report (Submissions Report) dated 28 May 2018 has been prepared and includes a compendium of submissions (Tab 1).

The Submissions Report has grouped comments into eight broad issues and notes that five are relevant to the biodiversity certification assessment and application (timing of exhibition, report content, biodiversity certification process and method, assessment of critically endangered ecological communities, assessment of threatened species), whilst the remaining three ('planning issues', 'other site values' and 'other issues' are not part of the BCAM and have been addressed through other process (i.e. the rezoning of the land and the Greater Macarthur GA). The Submissions Report provides a summary of the submissions, along with a response to the issues raised and whether any changes or additions to the original documentation have been made as a result of these submissions.

OEH has reviewed the Submissions Report and the individual public submissions. OEH considers the grouping of issues in the Submissions Report is appropriate and reasoned and therefore provides comments below generally in those groupings.

Timing of exhibition

Summary of concerns and comments in submissions:

- Timing of exhibition over Christmas/New Year.
- Time extension not granted by Council.
- All reports including that of consultants by Council to undertake surveys on Mt Gilead also consider cumulative effects and once all this information is collected it should be placed on public display and adequate time be allowed and not during a holiday period.

OEH comment

OEH has determined that the application for biodiversity certification was advertised by Council in accordance with s126N of the TSC Act. Therefore, the issues raised in regard to the timing of the exhibition period do not warrant any amendment to the application or re-exhibition of the application.

Report content

Summary of concerns and comments in submissions:

- Reports inadequate as biodiversity and heritage values downplayed
- Land should not be considered in isolation
- Data not included from Council's study South Campbelltown Koala Habitat Connectivity Study (SCKHCS)
- The SCKHCS should be exhibited with along with Biocertification Assessment and Strategy
- Koalas, Squirrel Gliders and Cumberland Land Snail living or passing through Mt Gilead
- Development should be put on hold whilst further studies undertaken on wildlife corridors
- Council's ecologist had found evidence of Koala scats in Mt Gilead site
- Biocertification Assessment and Strategy assumptions that there are no Koalas present is incorrect

OEH comment

In response to public submissions regarding the adequacy of the report including concerns that the site has been considered in isolation, the applicant has incorporated new figures showing the location of threatened species in the broader area into the Biocertification Assessment and Strategy. OEH considers that biodiversity values including Squirrel Gilders, Koalas and Cumberland Plain Land Snail have been adequately assessed in accordance with the BCAM.

In to regard to koalas and their habitat, the South Campbelltown Koala Habitat Connectivity Study (SCKHCS) was not publicly available at the time that the exhibited biodiversity certification application was prepared. However, the final Biocertification Assessment and Strategy submitted to the Minister for Environment (following public exhibition) was updated to incorporate the findings of the SCKHCS. A copy of the SCKHCS was also provided by Council with the final application (Tab 1). It should also be noted that the Biocertification Assessment and Strategy has assumed presence for the koala in the BCAA and acknowledged that koalas have been recorded to the east and west of Appin Road, Noorumba Reserve and Beulah biobank site. Under the BCAM, 10.79 ha of koala habitat will be impacted requiring 284 koala species credits which are to be retired by the Developer to meet the improve of maintain outcome under the BCAM.

It is also important to note that Council is the applicant, and as such has submitted the application for biodiversity certification. As the applicant, Council decided to not re-exhibit the application prior to the application being made on 19 July 2018.

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the BCAM and the TSC Act and as detailed below, further public exhibition of the application is not recommended.

Biodiversity certification process and method

Summary of concerns and comments in submissions:

- Complex assessment criteria for the public and the papers on Council's website are lengthy and complex
- It is difficult for a lay person to understand koala habitat credits
- More work needs to be done to consider the long-term benefits.
- How credits are calculated is not clear and relies on the integrity of assessors
- Biocertification pre-supposes that approval will be given and the outcome may not be best for the conservation of threatened species
- OEH has been provided photographic evidence of the amazing number of native species using the Mt Gilead site. This shows the site's importance as a wildlife corridor between the Georges and Nepean Rivers
- This application does not result in an overall 'improvement or maintenance' in biodiversity values as required, and biocertification therefore should not be granted.
- If a community or species is endangered or critically endangered, it needs more than being 'maintained' – it should be preserved and enhanced and not off-set elsewhere.
- There will be plots of native vegetation linked in some cases by street trees that are not natives, and this will create a patchwork of green spaces. This is less suitable than the existing wildlife corridor through the assessment site that is being provided by native scattered paddock trees. On this basis the bio-certification should not be granted because the existing biodiversity on the land will be diminished and wildlife movement made more difficult.
- OEH and Eco Logical were in consultation over the development since March 2015.
- The koala is assumed to be present and expert reports conveniently claim Koalas are likely to utilise the two proposed biobank sites.
- Council staff have tried to make good on a bad development and has given wildlife corridors serious consideration, but it is disappointing that advice given by Government Departments appears to have been ignored in regard to the zoning of areas RE1 Public Recreation and RU2 Rural Landscape which should be E2 Environmental Protection.
- Patch sizes on Lot 61 should be increased and zoned E2 Environmental Protection and continuous corridors made to facilitate ease of movement.
- The proposed areas of vegetation retention create a mosaic of native vegetation and open space across the Mt Gilead Stage 1 area but would fail to retain suitable koala corridors between the Georges and Nepean River. The Total Environment Centre recommend creating two koala corridors and all retained vegetation be zoned E2. While this will result in the reduction in the number of housing lots, it would demonstrate that our planning system can give balanced recognition to the importance of wildlife corridors and habitat expansion
- If public open spaces could be zoned to create a wildlife corridor/bushland protection zone between Noorumba and the farm, then wildlife including Koalas could safely traverse the site once the site is developed into a housing estate. The lack of safety in crossing this development site could fragment our koala colony unless it can be adjusted to create a continuous wildlife corridor between the biobanking sites.

- Destruction of habitat and the building of houses will block movement of koalas and other native species between the Georges and Nepean River systems, and Noorumba Reserve and Beulah.

OEH comment

OEH has assessed the application in accordance with the TSC Act and BCAM and has determined that the application has addressed the requirements of the BCAM and that biodiversity certification will improve or maintain biodiversity values. OEH has also determined that the relevant clauses of the TSC Act have been addressed.

As detailed in the Recommendation Report for the Chief Executive OEH, (Tab 2a), the Chief Executive 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 Chief Executive 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.

Submissions also advocated for the patches of vegetation within the site to be zoned E2 Environmental Conservation. In regard to the land use zoning of the site, the Mt Gilead Stage 1 land was rezoned by the Minister for Planning in 2017. Under the application for biodiversity certification, the Minister for Environment has no statutory ability to rezone the site as the responsibility for land use zoning rests with the Minister for Planning under the *Environmental Planning and Assessment Act, 1979.*

In regard to wildlife corridors, the portion of the Noorumba east west corridor in the site, retained lands and Noorumba Reserve will provide for biodiversity movement. This corridor is also identified in Campbelltown City Council's Wildlife Corridor Map (November 2017). The retained lands (including biobank sites) in the south and along western boundary of the BCAA will also reduce the extent to which movement corridors are restricted.

As discussed further below under the section on koalas in this Recommendation Report, OEH does not support east-west corridors to facilitate koala movement across the site and does not support the urban development outcomes that facilitates and encourages koala movement into the new urban development area. OEH has formed the form the koalas should be separated and fenced out of the new urban area west of Appin Road.

It should also be noted that prior to the exhibition of the application, OEH reviewed draft versions of the Biocertification Assessment and Strategy. This pre-exhibition consultation with the applicant was undertaken to ensure that the application for biodiversity certification was adequate for public exhibition only.

On a specific matter, one of the submissions indicates that biodiversity certification will be granted by the Minister for Environment if requested. In response, it is important to note that applications for biodiversity certification are thoroughly assessed by OEH in accordance with the BCAM and the TSC Act. If an application fails to adequately comply with the BCAM and/or the TSC Act then biodiversity certification cannot be conferred by the Minister for Environment, or the delegate.

Assessment of critically endangered ecological communities

Summary of concerns and comments in submissions:

- Loss of critically endangered ecological communities and koala habitat within the site
- Cumulative impacts of clearing critically endangered woodland should be considered
- Trees between Noorumba and Beulah must be retained so that koalas have a safe haven away from dogs and vehicles
- Appin Road upgrade and Spring Farm Link Road will result in further losses of the critically endangered ecological communities
- Questions why red flag areas need to be removed and the proposed RE1 areas have been shrunk by the application of a complex formula which "allows" somewhere else on the site, or in some other location to compensate for the removal of the red flag area
- Areas of koala habitat should be another red flag
- If a Red Flag has been raised, it means "stop!" It doesn't mean: "How do we get around this problem? Oh, let's apply to the Minister for a variation. And also, we are going to have a deficit credit situation with koalas, so we better go buy some credits too." It doesn't pass the sniff test of common sense, that as soon a Red Flag is raised, the reaction is "How do we get around it?" That is what is happening here, and the Minister should not give bio-certification
- Red flag areas need to be preserved, not subjected to a "variation" from the Minister
- If a community is endangered or critically endangered it should be preserved and enhanced where it stands and not offset elsewhere, either off-site or on-site
- It is not possible to offset nesting trees.

OEH comment

The application for biodiversity certification will impact on 10.79 ha of native vegetation. Red flag vegetation proposed to be impacted within the BCAA totals 1.49 ha (1.37 ha Shale Sandstone Transition Forest and 0.12 ha Cumberland Plain Woodland riparian buffer). The proposed on-site conservation measure will protect 2.67 ha of Shale Sandstone Transition Forest.

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

In regard to the zoning of the patches of vegetation, the Minister for Environment is unable to re-zone land under this application as land use planning and zoning is a responsibility of the Minister for Planning under the *Environmental Planning and Assessment Act, 1979.*

In terms of the Spring Farm Link Road, this project is the subject of a separate assessment process. However, in relation to the Appin Road upgrade, the zoning of the Mt Gilead Stage 1 area provides for a corridor to facilitate the upgrade to Appin Rd and as such 4.75 ha of impacts to 4.75 ha of low condition SSTF have been included in the biodiversity certification application the subject of this report.

OEH 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.

Assessment of threatened species

Koalas

Summary of concerns and comments in submissions:

- Koalas have been sighted and recorded in the Mt Gilead site, Noorumba and Beulah
- The number of sightings of koala in the locale is significantly and drastically reduced in most areas except Mt Gilead in the 3 periods up to the most recent time and that development north of Mt Gilead over the past 10 years has drastically and irretrievably reduced the koala population and by extension.
- The existing koala/wildlife corridors within the site needs to be protected. Koalas move and traverse between the Georges and Nepean Rivers.
- Greater conservation and protection of koala habitat, koala corridors and connectivity across the site is required.
- The importance of the population includes that it is chlamydia-free.
- Prof Close has said that to maintain the health of our local disease-free koala population, genetic diversity must be maintained through koalas being free to visit neighbouring koala colonies. Therefore, healthy corridors connecting koala habitat should be mapped prior to any application being considered.
- This development will destroy core koala habitation.
- Council staff have worked hard trying to have wildlife corridors included in the development, but it is unclear whether governments or the proponent will agree to these corridors which must allow the safe passage of koalas and other species to cross between the two rivers without getting killed by dogs or vehicles.
- Council has stated that corridors should be 350 m wide to avoid erosion on both sides which can be achieved by altering the development layout.
- The two conservation areas should be linked and included in a wildlife corridor.
- Installation of fencing and crossings (underpasses and overpasses).
- Development will result in increased dog attack and vehicle strike (particularly Appin Road) for koalas as well as impacts on native fauna and fauna movement in general.
- Submissions included maps showing the location of submitters recommended koala corridors within and surrounding the site, and amended urban development footprints.
- Total Environment Centre recommend the construction of a wildlife underpass across Appin Rd near Noorumba reserve and Macarthur-Onslow Mt Gilead sites, as well as floppy top fences to prevent koala access to Appin Rd along the Mt Gilead housing development.
- Koala fencing and suitable animal crossings should be installed along the entire length of Appin/Campbelltown Road.
- The widening of Appin Road up to six lanes, the building of the Spring Farm Link Road and subdivision along the Appin Road will increase the high number of koalas and other native species already being killed along the Appin Road between Campbelltown and Appin.
- Hydrological change from the development will impact koala habitat.
- There needs to be a detailed map of wildlife corridors along the Appin Road corridor prior to any development going ahead along Appin Road so that wildlife overpasses and/or wildlife underpasses and floppy top fencing can be properly planned prior to Appin Road being widened.
- Koala credit deficit should be addressed by creating corridors within the BCA area.

OEH comments

Under the BCAM, the area proposed for biodiversity certification in Mt Gilead Stage 1 will impact 10.79 ha of koala habitat and will require a total of 284 koala species credits to be retired in order to offset the impacts. The applicant proposes to retire the required 284 koala credits from the two existing approved biobank sites within the retained lands in addition to Council's Noorumba Reserve biobank site.

As detailed in Section 1.4 of the Recommendation Report for the Chief Executive, the future land use in the Greater Macarthur GA will be subject to large scale land use change from a rural landscape to a highly urban region. To inform the land use planning decisions in the proposed Greater Macarthur GA to ensure the long-term viability and conservation of the significant koala population in the region, OEH Greater Sydney Branch prepared *Conserving Koalas in Wollondilly and Campbelltown LGA January 2018* (Conserving Koalas) report (Tab 7). This report identifies primary and secondary koala corridors in the region (Figures 6-7) and the following key planning principles:

1. Avoid new urban development within core koala habitat and primary corridors (and retain primary koala corridors and core habitat)
2. Separate urban development and koala populations to minimise ongoing threats from domestic dogs and vehicles (and protect koalas from the effects of urban development)
3. Identify and restore critical revegetation zones to augment and strengthen core habitat and corridors
4. Identify koala road kill hotspots requiring road kill mitigation fencing and/or underpasses to allow safe passage of koalas.

OEH's koala mapping and planning principles are relevant to the biodiversity certification application and for addressing the public submissions as the Mount Gilead Stage 1 land is located within the Greater Macarthur GA.

As stated above, the planning principles and corridor mapping contained in the Conserving Koalas report has underpinned OEH's recommendations to DPE in regard to land use outcomes for koalas in the Greater Macarthur GA. It is important to acknowledge OEH's findings and recommendation for koala conservation in the region differ to the outcomes articulated and advocated for in the public submissions. In particular, submissions clearly state that koala corridors should be provided in the subject site to facilitate koala movement east-west between the Nepean and Georges Rivers and the north-south (west of Appin Road) between Noorumba and Beulah biobank sites.

The OEH position differs in that OEH's key principles under the future development of the Greater Macarthur GA are: to retain primary koala corridors and avoid urban development within the primary corridors, and to separate koalas from urban development via fencing to minimise known threats from dogs, vehicles and pools. In accordance with OEH's koala mapping, there are no primary koala corridors located within the Mt Gilead Stage 1 lands. The nearest primary corridors are the north-south Georges Corridor east of Appin Road and Nepean Corridor further to the west of the site (Figures 6-7). OEH is of the view that these primary corridors should be the priority for retention, protection and augmentation, and that Appin Road should be fenced (on the eastern side) to restrict koalas from crossing Appin Road and entering the proposed new urban area within Mount Gilead Stage 1.

While the secondary corridors (Figures 5-7) contain high quality koala habitat they lack the width and connectivity to be classed as a primary corridor. In their current state these corridors are not suitable for koala habitation under the proposed Greater Macarthur GA Structure Plan. As outlined in OEH's Conserving Koalas report, OEH does not consider the secondary koala corridors to be essential for the long-term survival of the region's koala population, provided primary corridors are retained. Koalas could continue to move through the landscape via primary movement corridors, rather than via the east-west secondary corridors.

In regard to the Mt Gilead Stage 1 lands, a portion of the Noorumba secondary koala corridor (Figure 5) is located in the north of the site which has been identified as retained land and the Woodhouse-Menangle corridor adjoins the site to the south and west (Figure 5). The Greater Macarthur GA

Structure Plan includes urban development to the edges of each of the secondary koala corridors and a proposed bus route running through these in a north-south direction, resulting in disturbance and fragmentation. Therefore, under the GA full structure plan the east-west running secondary corridors will be crossing a highly urbanised environment.

Where development has occurred in other parts of NSW and Queensland in landscapes occupied by koalas, koala populations have declined as a direct result of development (McAlpine et al. 2015) (Tab 7). Any sort of development controls that could be imposed such as the prohibition of domestic dogs could not be easily enforced. 'Koala sensitive urban design' or 'koala friendly development', where koalas live alongside new residents in towns may sound appealing, however the ever-present threats of domestic dogs, cars and swimming pools mean these areas are often a 'sink' for nearby koala populations living in intact bushland. While koala sensitive urban design has been trialled in other locations it has been found to be ineffective.

Due to evidence of koala harm in urban environments, OEH therefore advocates for excluding koalas from the future urban development precincts, by keeping koalas on the edge and outside of the Greater Macarthur GA, rather than in the east west corridors. OEH's position is therefore contrary to public submissions advocating for east-west koala corridors and connectivity through the site and Koala crossings on Appin Road (underpasses/overpasses) at the Noorumba and Beluah biobank sites.

It is important to note that OEH has advised DPE that should an east-west corridor be considered in the land use planning specifically for koala movements in the Greater Macarthur GA, the Ousedale-Mallaty koala corridor (Figure 5) is the most appropriate corridor to protect and fence from urban areas. In order for this corridor to be suitable for koala use, the corridor will need to be consolidated, revegetated, widened, and buffered, and paired with appropriate koala crossing structures constructed at Appin Road for safe road crossing by koalas between this corridor and the primary koala corridor east of Appin Road and vice versa. Given that OEH's position is that any east-west corridor for koalas in the Greater Macarthur GA should be along the Ousedale-Mallaty corridor, not the Noorumba corridor as advocated for in public submissions, there again are very differing views between OEH and the public submissions.

In regard to vehicle strike, Appin Road is a koala road kill hotspot. In relation to the Greater Macarthur GA, OEH recommends that to reduce koala mortality on Appin Road koala-proof fencing should be installed on the eastern side of Appin Road from St Helens Park/Rosemeadow to Appin township to prevent the bulk of the koala population's access to Appin Road (Figures 6-7). Fencing is considered the most effective road-kill mitigation measure on major roads. Similarly, this position is contrary to public submissions that advocate for koala corridors through the site and underpasses/overpasses on Appin Road to facilitate movement into and across the site.

The issue of the protection and conservation of this highly significant koala population is of great concern to the community who have provided very detailed submissions advocating for protection and conservation of the koala and its habitat within and across the site. Community submissions contend that corridors within the site should facilitate east-west movement of koalas between the Georges and Nepean Rivers and the biobank sites to the north and south of the site. This approach is at odds with OEH's position as set out on the Conserving Koalas report in which OEH does not support the facilitation of future access of koalas into the Mt Gilead Stage 1 lands under the proposed Greater Macarthur Structure Plan.

In considering this issue, the primary difference between OEH's Conserving Koalas report and the public submissions is on how to achieve protection and conservation of koalas. OEH has taken a

regional approach and is of the view that adoption of the recommendations, key principles and implementation of the mitigation measures set out in Conserving Koalas provides the best opportunity to facilitate the long-term retention and viability of koalas. The Mt Gilead biocertification application is not inconsistent with OEHs key principles and mapping in the Conserving Koalas report.

It is important to note that the secondary corridors contain high biodiversity values including critically endangered ecological communities and threatened fauna and flora and should be retained for these values. In addition, the portion of the Noorumba east west corridor in the site, retained lands and Noorumba Reserve will provide for biodiversity movement (except for koalas). This corridor is also identified in Campbelltown City Council's Wildlife Corridor Map (November 2017). The retained lands (including biobank sites) in the south and along the western boundary of the BCAA will also reduce the extent to which movement corridors are restricted.

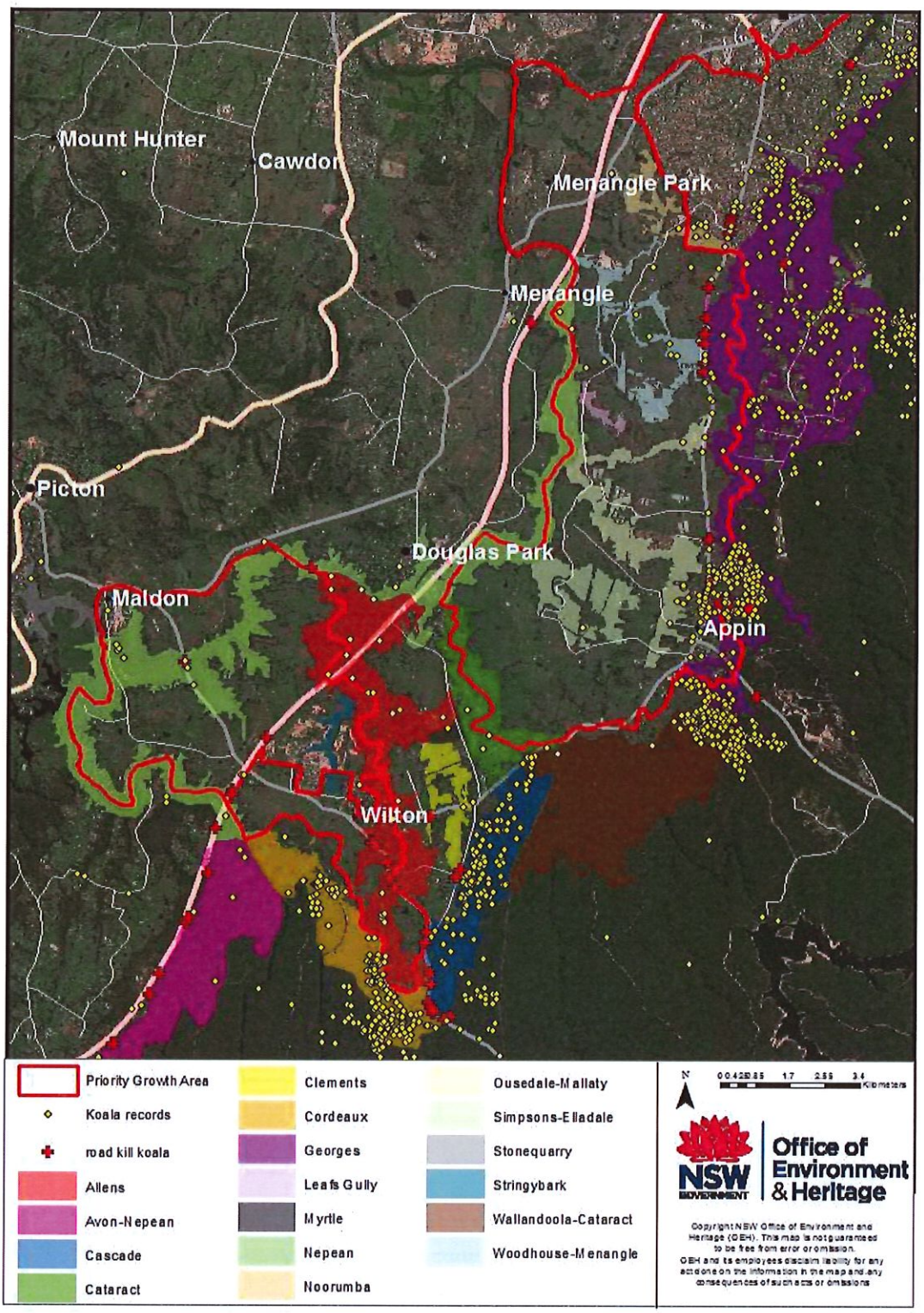

Figure 5 OEH koala corridors (Note that koala records are sightings and do not indicate koala densities)

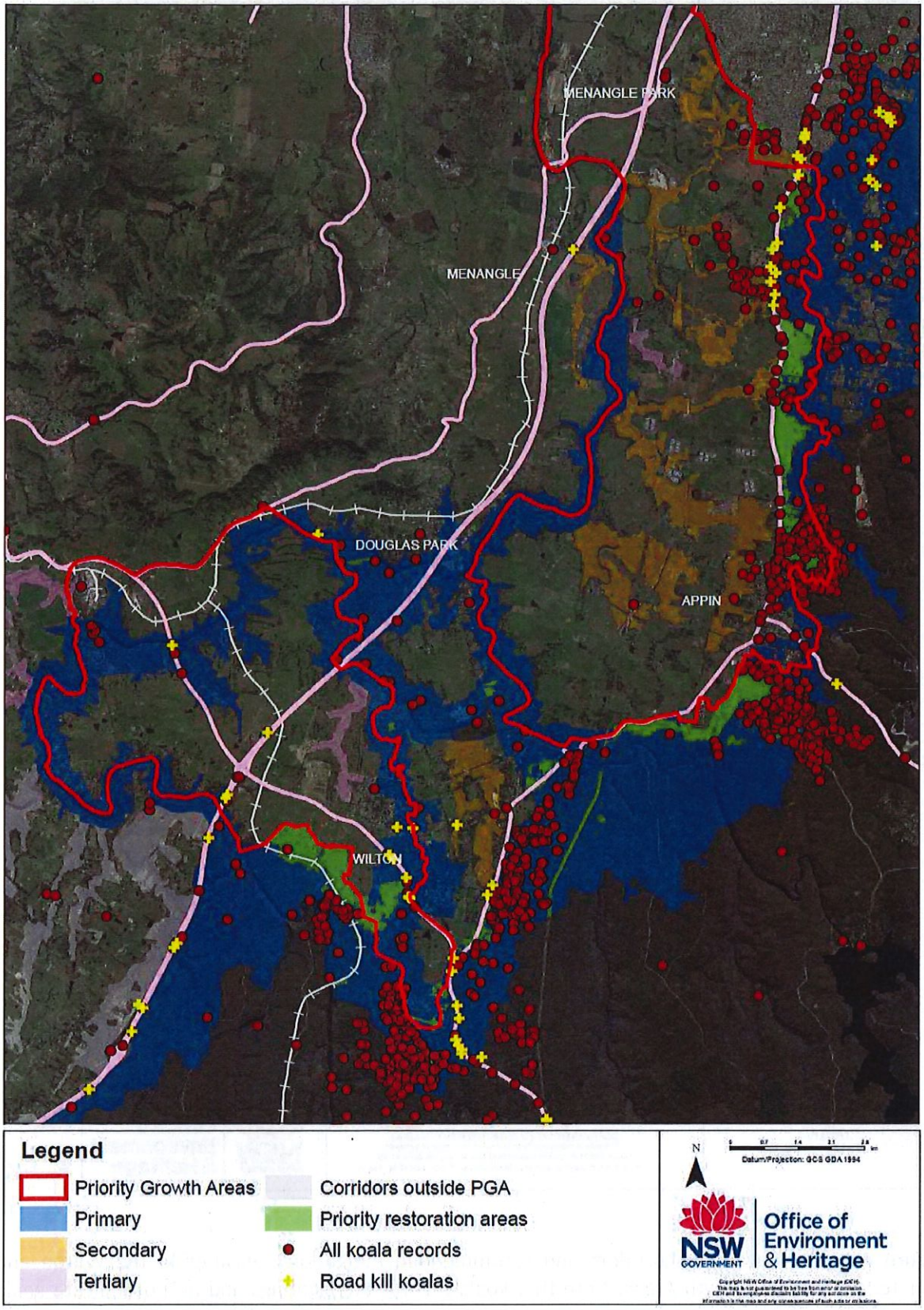

Figure 6 Priority restoration area in Greater Macarthur and Wilton

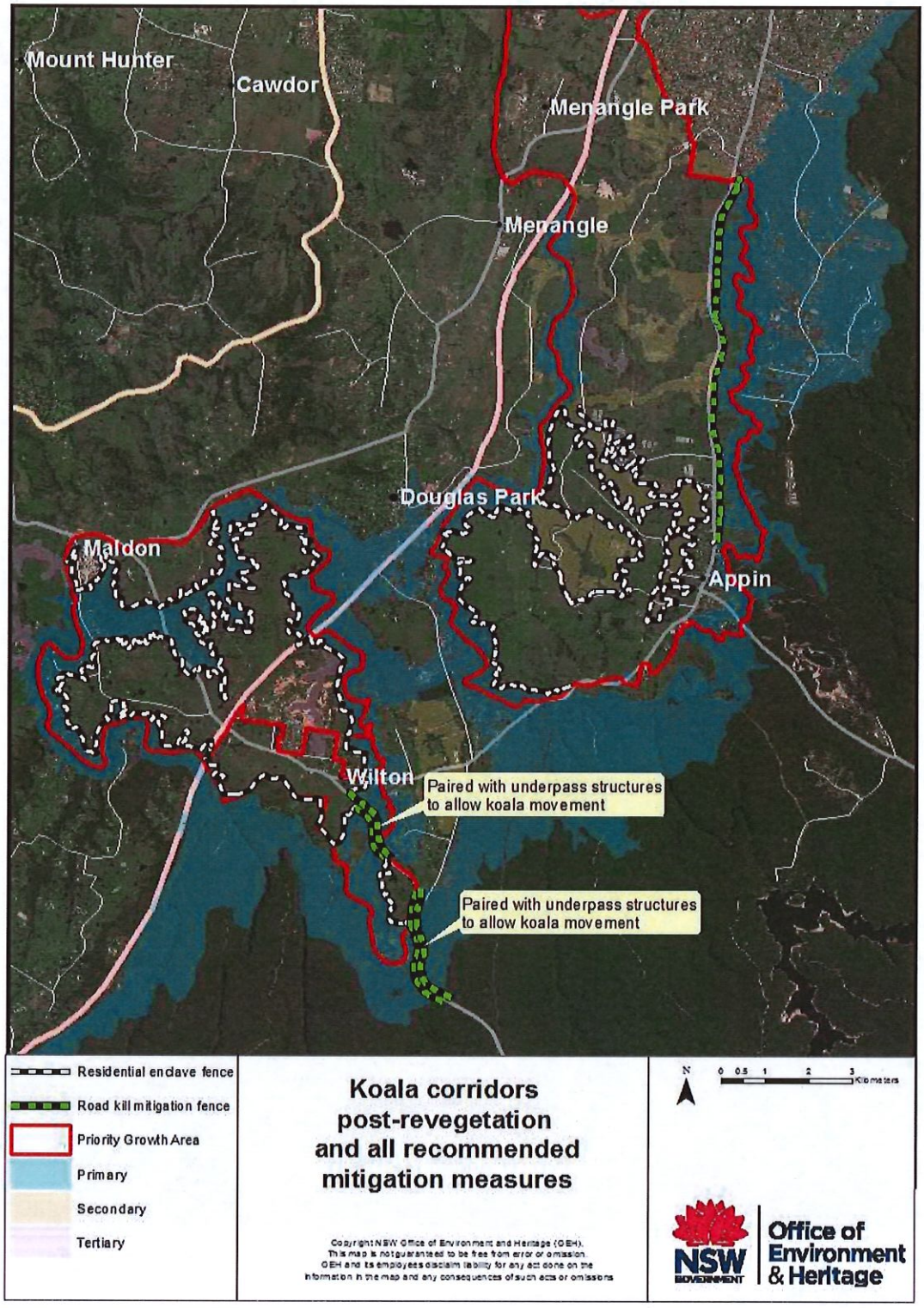

Figure 7 Koala movement corridors and recommended mitigation measures in the Wilton and Greater Macarthur Growth Areas. Note that koala records are sightings and do not indicate koala densities.

Grey-headed Flying-Fox

Summary of concerns and comments in submissions:

- Impacts on Grey-headed Flying-Fox including loss of habitat from the development.
- Clearing of bushland for fire protection, subdivision, human produced noise and light is of considerable danger to the future of this species and possible new roosting sites such as along the Appin Road should be maintained.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the BCAM relating to the Grey-headed Flying-Fox.

Large-eared Pied Bat

Summary of concerns and comments in submissions:

- Impacts on Large-eared Pied Bat including the loss of habitat (including hollow bearing and dead trees) in particular, along Appin Road.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the BCAM relating to Large-eared Pied Bat. In regard to hollow bearing trees, as detailed in the CEMP (Section 2.1.6 of the Recommendation Report for the Chief Executive), hollow bearing trees will be retained within the biodiversity certification area where possible, and where trees are removed in the development area, will be salvaged for fauna habitat values in the proposed Council Reserve Biobank site and existing Noorumba-Mt Gilead and Macarthur Onslow Biobank sites.

Swift Parrot

Summary of concerns and comments in submissions:

- Impacts on Swift Parrot as it uses the Mt Gilead site and has been observed in Beulah.
- Wrong time of year to survey.
- It should be assumed that Swift Parrots are present on the property rather than dismiss their existence, and therefore, suitable tree hollows and foraging should be retained.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the BCAM in relation to Swift Parrot.

Cumberland Land Snail

Summary of concerns and comments in submissions:

- Need to protect the site as Cumberland Land Snail has been sighted in Mt Gilead.
- Loss of habitat.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the BCAM in relation to the Cumberland Land Snail.

Greater Glider and Squirrel Glider

Summary of concerns and comments in submissions:

- Need to protect the site as the Greater Glider and Squirrel Glider has been sighted in Mt Gilead.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the BCAM in regard to the Greater Glider and Squirrel Glider.

Other Threatened Species and habitats impacted and hollow bearing trees

Summary of concerns and comments in submissions:

- EPBC and TSC Act threatened species that use Mt Gilead and surrounding areas including Gang Gang Parrots who come to Campbelltown every summer to breed. Glossy and Yellow Tail Cockatoos, Swift Parrots, various owls including the Powerful Owl, Grey Headed Flying Foxes, Koalas, Pigmy Possums, Squirrel Gliders, Giant Burrowing Frogs and several other frog species. The list is endless without even touching on the endangered flora of the area including ground orchids.
- Loss of hollow bearing trees.
- Can not offset hollow bearing trees.
- Hollow bearing tress can take between 100 and 200 years to form with larger hollows taking longer.
- Other species will be affected if the development is allowed to go ahead.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the BCAM in regard to fauna and flora and their habitat as well as hollow bearing trees. In regard to hollow bearing trees, as detailed in the CEMP (Section 2.1.6 of the Recommendation Report for the Chief Executive), hollow bearing trees will be retained within the biodiversity certification area where possible, and where trees are removed in the development area, will be salvaged for fauna habitat values in the proposed Council Reserve Biobank site and existing Noorumba-Mt Gilead and Macarthur Onslow Biobank sites.

Wildlife corridors

Summary of concerns and comments in submissions:

- The development should maintain wildlife corridors for biodiversity.

OEH comment

The areas to be certified within the BCAA, while being primarily cleared grazing land with scattered trees, would still be providing movement corridors for local fauna.

The portion of the Noorumba east-west corridor in the north of the site (Figure 5), retained lands and Noorumba Reserve will provide for movement for biodiversity (except for koalas). The retained areas (including biobank sites) to the south and along western boundaries of the BCAA will also reduce the extent to which movement corridors are restricted. As discussed above, OEH does not support the facilitation of koala movement within or across the site.

Planning issues

Summary of concerns and comments in submissions:

- Rezoning of Mount Gilead Stage 1 for urban development and its impacts on biodiversity, heritage, traffic, transport and infrastructure.
- Impacts from the Greater Macarthur GA on biodiversity and the landscape including cumulative impacts.
- Loss of amenity from development.
- Lack of infrastructure and jobs.
- Previous DA refused by Council.
- Questions the need for development.
- Development needs to be sympathetic to the environment and sustainable.

- The Macarthur Priority Growth Plan will be on a major alteration of landscape and destruction of bushland scale, probably never seen in our region before.
- Cumulative impacts from GA development need to be considered along with Wilton.
- Lack of infrastructure to support development.
- Increased traffic on Appin Road.

OEH comments

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the TSC Act and BCAM in regard to biodiversity values for the Mt Gilead Stage 1 proposal. Impacts of development upon heritage, amenity, traffic and transport infrastructure, lack of infrastructure are not relevant matters for consideration under the BCAM and TSC Act.

In regard to concerns relating to the rezoning of the site, the Mt Gilead Stage 1 land was rezoned by the Minister for Planning in 2017. Public submission also recommended that koala/wildlife corridors and native vegetation within the site be zoned E2 Environmental Conservation. It is important to note that land use zoning is a matter for Council and the Minister for Planning under the *Environment Planning and Assessment Act, 1979.* As such, the Minister for Environment is unable to accede to requests to rezone land as part of this application for biodiversity certification.

In regard to concerns relating to impacts from the broader Greater Macarthur GA, including cumulative impacts, the land use planning for the GA is the responsibility of the DPE and Minister for Planning. As discussed above, to inform and guide land use planning decisions for the Greater Macarthur GA and to ensure that that significant koala population is protected in perpetuity, OEH has prepared koala mapping and development planning principles.

Submissions highlighted problems relating to lack of infrastructure, traffic, Appin Road, loss of amenity, social and health issues, "extreme overbuilding", lack of a local school and refusal of a previous DA. In addition, submissions raised the need for urban development that is environmentally sensitive and sustainable and considers long term benefits to community. It is important to note that these issues are not relevant matters for consideration under the BCAM and TSC Act for the Mt Gilead Stage 1 application. These issues will however be considered by DPE, the Greater Sydney Commission and Council through the current Greater Macarthur GA land use planning process and the Western City District Plan.

In regard to the widening of Appin Road, RMS plans to improve safety and increase road capacity on Appin Road with two proposed projects:

- Appin Road Upgrade between Rosemeadow and Mt Gilead (5.4 km).
- Appin Road Safety Improvement works between Mt Gilead and Brian Road, Appin.

These works were the subject of separate assessment process by RMS. In this regard, RMS exhibited two Review of Environmental Factors (REFs) between 19 November-14 December 2018. In April 2019, RMS determined to proceed with both projects.

Heritage values and listings

Summary of concerns and comments in submission:

- Historical significance should be protected.
- Heritage values of Mt Gilead, The Cobb and Co Road, Beulah, Humewood, The Upper Water Canal the Hume Monument, and Meadowvale will be compromised.
- The heritage values of Mount Gilead, Beulah, Meadowvale have been downplayed within reports and their value will be lost once development goes ahead. This group of buildings and their land should have been listed on the State Heritage list and protected.

- Questions why this group of heritage buildings has not been given the protection of either State or National Heritage Protection.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the TSC Act and BCAM in regard to biodiversity values for the Mt Gilead Stage 1 proposal. Impacts of development upon heritage values and listings are not relevant matters for consideration under the BCAM and TSC Act.

Agricultural values

Summary of concerns and comments in submission:

- This beautiful farm should be protected.
- This land is currently a productive farm and as such should be preserved for the future. Should not be turning farmland over to housing development.
- The Scenic Protection Zoning should not have been removed and the agricultural benefits should be retained.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the TSC Act and BCAM in regard to biodiversity values for the Mt Gilead Stage 1 proposal. Impacts of development upon agricultural values and the sites use as a farm is not a relevant matter for consideration under the BCAM and TSC Act. As stated above, the land was rezoned for urban use by the Minister for Planning in 2017.

Water pollution

Summary of concerns and comments in submissions:

- Impacts of drainage flowing towards Noorumba and the Sydney water canal, which could result in pollutants washing from the proposed development into the reserve and then into the Sydney water supply. Plus, water drainage changes can adversely impact the health of bushland, thereby affecting wildlife within that bushland, detracting from the health of the Noorumba biobanking site and therefore its wildlife. I consider these impacts would hinder biodiversity.

OEH comments

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 Chief Executive of OEH (Tab 2a) and are proposed to be managed by a range a of measures including implementation of a CEMP and buffers.

Air pollution

Summary of concerns and comments in submissions:

- Impacts of the development on air pollution including cumulative impacts.

OEH comments

OEH considers that the application for biodiversity certification has adequately addressed the requirements of the TSC Act and BCAM in regard to biodiversity values for the Mt Gilead Stage 1 proposal. Impacts of development upon air pollution is not a relevant matter for consideration under the BCAM and TSC Act.

Ownership of Mount Gilead Pty Ltd lands

Summary of concerns and comments in submissions:

- Ownership of Mt Gilead Pty Ltd lands.

OEH comment

Mount Gilead Pty Ltd has agreed to be a party to the application and has signed the application form (Tab 1) and Biodiversity Certification Agreement (Tab 5).

Political issues (and government)

Summary of concerns and comments in submissions:

- Minister for Environment should not approve the red flag variation.
- Minister for Environment and Council should show strong leadership to ensure that biodiversity is improved.
- The developer should not be allowed to hire the same company as the State Government.
- The developer should not be permitted to develop the land.
- The Biodiversity Conservation Act is a 'sham' and will result in carte blanche for the developers with species lost and unsuitable land used as an offset.
- The "DEE" is a charade.

OEH comment

OEH considers that the application for biodiversity certification has adequately addressed the requirements of BCAM and TSC Act. The decision on whether to approve the red flag variation is a decision of the Chief Executive, OEH and the decision on whether to confer certification rest with the Minister or their delegate.

OEH has not contracted Eco Logical Australia Pty Ltd to undertake any part of the biodiversity certification assessment for the Mount Gilead Stage 1 lands.

In regard to the BC Act comments, this application is being assessed under the TSC Act as a transitional application.

In regard to land use and rezoning of the land, the Minister for Planning approved the rezoning of the land for urban development in 2017. OEH is unable to amend the zoning regime as part of the biocertification application.

It should also be noted that a separate application was submitted to Department of Environment and Energy under the EPBC Act. This application was the subject of a separate assessment and approval on 21 December 2018.

Sections 126N (3) and (4) of the TSC Act

Overall, OEH considers that the Submissions Report has adequately responded to the submissions relating to the application that were received before the closing date. Amendments to the Biocertification Assessment and Strategy made by the applicant in response to public submissions include new figures for threatened species and incorporation of findings of the SCKHSC Study.

As outlined in Section 1.4 of the Recommendation Report for the Chief Executive of the OEH, following the exhibition, a number of other amendments were made by the applicant including a minor reduction in land proposed for certification, updated credit calculations, source of credits, timing of credit retirements, establishment of a biobank site over the conservation area and parties to the agreement.

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. OEH has formed the view the amendments made to the application to address the public submissions and the other amendments made by the applicant do not warrant further public exhibition as while numerous the amendments do not significantly alter the proposal compared to that publicly exhibited.

Recommendation 2:

That the Minister 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 OEH Chief Executive 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
Forest Red Gum – Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion	0	n/a	0
Grey-Box – Forest Red Gum grassy woodlands on flats of the Southern Cumberland Plain, Sydney Basin Bioregion (HN528)	28	0 on site 28 off site[1]	0
Narrow-leaved Ironbark – Broad-leaved Ironbark – Grey Gum open forest of the edges of the Cumberland Plain, Sydney Basin Bioregion (HN556)	104	20 on site[2] 104 off site[3]	0
Total	132	132	0

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
Koala	284	0 on site 284 off site	0
Total	284	284	0

The OEH Chief Executive 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:

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[1] Credits for HN528, HN556 and koalas will be retired from the two existing BioBanking sites in the retained land within the BCAA (Noorumba-Mt Gilead and Macarthur-Onslow Mt Gilead sites) and the adjacent Council owned Noorumba Reserve BioBank Site.

[2] The HN556 credits generated and retired from the future Council biobank site are in addition to the required 104 HN566 credits that will by retired by developer to meet the offset obligations.

[3] Credits for HN528, HN556 and koalas will be retired from the two existing BioBanking sites in the retained land within the BCAA (Noorumba-Mt Gilead and Macarthur-Onslow biobank sites) and the adjacent Council owned Noorumba Reserve BioBank Site.

The Biocertification Assessment and Strategy assesses the impacts of biodiversity certification on biodiversity values. Approval for a minor variation to the Biodiversity Certification Assessment Methodology 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 Sections 3 and 4 the BCAM.

Section 5 of the Methodology is not relevant as no strategic assessment is being undertaken under the EPBC Act.

Recommendation 3:

That the Minister 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 Mount Gilead Stage 1 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 Chief Executive (Tab 2a), the application proposes a 30m buffer around red flag vegetation to be conserved within the BCAA. However, it is proposed that the buffer will consist of retained land and 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"*.

OEH has assessed the buffer area and formed the view that in this specific circumstance that the size of the buffer area is appropriate to mitigate any negative indirect impacts from development following conferral of biodiversity certification.

Given this situation, it is recommended that the Minister 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 perimeter roads and open space to form part of the 30m buffer to the red flag area 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.
- The construction of perimeter roads with full curb and guttering that directs stormwater away from the red flag vegetation and the open space will provide a suitable part of the buffer to that vegetation.

In this particular case, OEH 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. OEH has also formed the view that the Chief Executive 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.

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 OEH has formed the view that the proposed minor variation does not warrant further notification of the application.

Recommendation 4:

That the Minister 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:

OEH 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 Ministerial order attached to the accompanying Briefing Note.

Recommendation 5:

That the Minister **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 MINISTER FOR THE ENVIRONMENT– BIODIVERSITY CERTIFICATION OF MOUNT GILEAD STAGE 1

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

I, Anthony Lean, Chief Executive of the Office of Environment and Heritage, as delegate of the Minister for the Environment, having considered the *Biodiversity Certification of Land: Mount Gilead Stage 1 Recommendation Report for the Minister for the Environment* 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~~ i**n accordance with Sections 126O and 126P of the *Threatened Species Conservation Act 1995* that on the basis of a biodiversity certification assessment for the Mount Gilead Stage 1 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.

28.6.2019

ANTHONY LEAN **Date**
Chief Executive, Office of Environment and Heritage
As delegate of the Minister for the Environment