

DEPARTMENT OF PLANNING & ENVIRONMENT

Biodiversity certification of land (non-strategic applications)

Recommendation Report for the delegate of Minister for Environment and Heritage, for conferring or refusing to confer biodiversity certification of land under Part 8 of the *Biodiversity Conservation Act 2016*

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Executive Summary

The Estate of the Late W.A. Cartwright (the Proponent) is undertaking the necessary approvals for the proposed Woodbury Ridge Estate subdivision, near Sutton NSW, approximately 15 kilometres north of Canberra. On 2 November 2022, the Biodiversity and Conservation Division (BCD) South East Planning team received an application for biodiversity certification to address the biodiversity impacts of the proposed development.

Standard biodiversity certification has been selected by the Proponent as the assessment pathway to address impacts to biodiversity and assessment under the *Biodiversity Conservation Act 2016* (BC Act). Biodiversity certification has been selected as it provides better opportunities to achieve biodiversity and development outcomes by ensuring biodiversity outcomes are a primary focus, while removing the need for numerous, site by site development applications. Biodiversity certification is also required as the proposal is impacting two serious and irreversible impact entities which may result in an automatic instant refusal when assessing development applications under the typical 'Part 4 pathway' under Part of 4 the *Environmental Planning and Assessment Act 1979* (EP&A Act). The Biodiversity Certification Assessment Report (BCAR) finds that the development will have a technical serious and irreversible impact on Golden Sun Moth; however, the impacts are considered acceptable as outlined in this Recommendation Report.

The proposed subdivision would provide for 62 lots of varying sizes from 0.5 to 1.5 hectares, and an additional four (4) lots within proposed biodiversity stewardship sites (for an overall total of 66 residential lots) inclusive of all impacts for related infrastructure. A total of 54.49 hectares of land would be certified for development, representing approximately 29% of the assessment area. Approximately 130 hectares (approximately 70%) of the remaining land will be considered Avoided Land except for approximately 1.7 hectares of land that will be retained in the Guise Street road corridor. The overall balance of Certified Land compared to Avoided Land is consistent with the avoid and minimise hierarchy, with residual impacts to be offset, as outlined in the BC Act and the Biodiversity Assessment Method (BAM).

BCD has recommended that the proposal is suitable for biodiversity certification under section 8.2 of the *Biodiversity Conservation Act 2016*.

1. Purpose of document

This Recommendation Report provides a recommendation to the decision-maker, as delegate to the Minister for the Environment and Heritage, on whether to confer biodiversity certification under section 8.2 of the BC Act. It documents the Department's review of the application against the requirements of the BC Act and the BAM.

The Minister's power to confer or refuse to confer biodiversity certification for non-strategic applications under Part 8 of the BC Act has been delegated to band 2 and 3 Senior Executives of the Department.

Name of recommending officer:	Nat O'Rourke, Senior Conservation Planning Officer, Biodiversity and Conservation Division, South East Planning, Department of Planning and Environment
Name of decision-maker	Dean Knudson, Deputy Secretary Biodiversity Conservation and Science, Department of Planning and Environment, as delegate to the Minister for Environment and Heritage
CM9 container and record numbers:	Container: SF22/33526
	This recommendation report: DOC22/49800-4
Name of applicant/s:	Robyn Janette Holden; Peter Wayne Cartwright; William Paul Cartwright; As joint executors of the Estate of the late W.A. Cartwright
Date application received:	2 November 2021
Dates of public notification under section 8.6(3):	14 June 2021 to 26 July 2021

2. Documents before the decision-maker

2.1 Documents attached to this report

Tab	Document
1	Completed application form
2	Biodiversity Certification Assessment Report

3. Overview of application

3.1 Background

The Woodbury Ridge Biodiversity Certification Assessment Area covers approximately 187 hectares of land adjacent to the village of Sutton, approximately 15 kilometres north-east of the Canberra CBD. The site is bounded by the village of Sutton to its north, the Federal Highway to the south, the Yass River to the east and Sutton Road along its western edge. The site is a roughly rectangular piece of land that has been owned by the Cartwright family for 150 years. The site has undergone various forms of agriculture over the years and this is reflected in the vegetation that remains on the site. The family have managed the property sustainably and this management has retained large areas of high-quality woodland and open grassland which support a variety of threatened species.

The Proponent seeks to develop the site in a way that maintains the biodiversity values onsite while still allowing development in the areas with lower quality vegetation. The development proposed has been designed to limit the development footprint whilst providing a variety of lot sizes, however the overall aim is for the development to protect and enhance the high conservation value ecosystems that occur on the site.

History of proposal

Since 2017, the BCD have been engaged in discussions for the proposed development when representatives from the Woodbury Ridge project team, Yass Valley Council and BCD met on-site for a discussion around desired outcomes, biodiversity values, design measures, approval paths and other issues. The Woodbury Ridge team including the Cartwright family expressed the desire to develop the site to maintain the biodiversity values on-site and the rural character whilst still providing a level of development on the site.

This early consultation influenced project design, lot yields and assessment requirements. The various designs for development were altered and adjusted to increase the level of protection of the area while still providing a lot yield that would be viable for the Proponent.

Following on from early consultation, in November 2018 a Gateway Determination was issued by the Department of Planning Industry and Environment (DPIE) (now the Department of Planning and Environment; DPE). Between 2018 and 2020, a Planning Proposal for the rezoning of land was prepared and revised. In May 2020, rezoning was approved by the NSW Minister for Planning in preparation for the future subdivision.

Early in the development design phase, biodiversity certification under Part 8 of the BC Act was determined to be the appropriate approval pathway given the nature of the impacts and the proposed biodiversity considerations. In February 2020, a draft biodiversity certification assessment report (BCAR) (version 2) was submitted to BCD and Yass Valley Council for comment. In August 2020, the accredited assessors (Capital Ecology Pty Ltd) who were engaged to prepare the BCAR, met with BCD to discuss the results of the BAM Stage 1 assessment including initial Biodiversity Offset Scheme (BOS) credit estimates.

In March 2021, an updated (version 3) draft BCAR was submitted to BCD and Yass Valley Council. Initial comments prior to the submission of the version 3 of the draft BCAR reiterated the importance of protection mechanisms for avoided vegetation and clarity around the actual impact footprint. BCD provided feedback to the Proponent on the draft BCAR which are summarised below:

- Ensuring all impacts were considered in the BCAR, including road upgrades, access points and driveways along Guise Street.
- Micro siting development further away from three of the five identified Superb Parrot (*Polytelis swainsonii* listed as vulnerable under the BC Act) nest trees to increase the likelihood of ongoing utilisation and including provisions for ongoing monitoring of these trees; and

 Confirming the avoid, minimise and offset strategy to identify where proposed biodiversity certification agreement or a biodiversity management plan (BMP) would apply.

On 22 September 2021, a new draft BCAR (version 4) was submitted to BCD. Feedback was sought on the roles and responsibilities for future landowners regarding how native vegetation, and particularly overstorey vegetation, within the Avoided Land would be protected and managed to demonstrate the ongoing avoidance of impacts. These details were added in a final version of the BCAR.

On 2 November 2021, the BCAR was finalised and submitted to DPE along with the completed formal application form. This BCAR was prepared under the BAM 2017 and was finalised and submitted prior to the cut-off date for BAM 2020. The finalised BCAR included updated information regarding protection mechanisms for land avoided for biodiversity reasons.

Summary of proposal

The application for Biodiversity Certification was made by Capital Ecology (the Accredited Assessors) on behalf of the Proponent. The biodiversity certification assessment area covers approximately 187.04 hectares and proposes the following:

- Certification of 54.49 hectares of land for development as identified in the proposed subdivision layout that is considered the maximum direct impact.
- Within the proposed 54.49 hectares of Certified Land, the subdivision of land to provide 19 lots zoned RU5 Village with minimum lot sizes of 5000 m² and 43 lots zoned R5 Large Lot Residential with average lot sizes of 1.5 hectares, communal parkland space with recreational facilities (including a barbeque area, seating and shading), and open space along Yass River.
- In perpetuity protection of approximately 97.23 hectares of Avoided Land through the establishment of four (4) biodiversity stewardship agreement sites.
- Retention of vegetation and biodiversity values within large lot areas covering an area of approximately 33.58 hectares to be protected under a Biodiversity Certification Agreement and managed in accordance with a BMP prepared to the satisfaction of BCD; and
- Retention of 1.73 hectares of land in the Guise Street road corridor. This land is not proposed for certification or ongoing management as it will remain a road reserve under Council management.

Two Plant Community Types (PCTs) and multiple threatened entities were identified during the BCAR assessment. The PCTs, threatened entities and their totals impacts are:

- 2.57 hectares of PCT 1093 Red Stringybark Brittle Gum Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion (PCT 1093 Red Stringybark – Brittle Gum – Inland Scribbly Gum forest) across two mapped vegetation zones generating **37** ecosystem credits.
- 50.85 hectares of PCT 1330 Yellow Box Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion (PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland) across seven mapped vegetation zones generating **98** ecosystem credits.
 - Six of the seven mapped vegetation zones of PCT 1330 Yellow Box Blakely's Red Gum grassy woodland were determined to meet the criteria for the BC Act listed critically endangered ecological community (CEEC) and Serious and Irreversible Impact entity White Box – Yellow Box – Blakely's Red Gum Woodland (Box-gum Woodland) accounting for a total impact of 20.01 hectares of Box-gum Woodland.

- 6.53 hectares of Superb Parrot breeding habitat generating **87** species credits.
- 37.45 hectares of Golden Sun Moth (*Synemon plana* listed as endangered under the BC Act) habitat generating **419** species credits.
- 0.86 hectares of Silky Swainson-pea (Swainsona sericea listed as vulnerable under the BC Act) habitat generating 12 species credits: and
- Habitat for three confirmed threatened woodland bird species: Dusky Woodswallow (*Artamus cyanopterus cyanopterus*), Varied Sittella (*Dapoenositta chrysoptera*) and White-fronted Chat (*Epthianura albifrons*) all listed as vulnerable under the BC Act and foraging habitat for the Large Bent-winged Bat (*Miniopterus orianae oceanensis* – listed as vulnerable under the BC Act) accounted for in the ecosystem credits allocated to the above mentioned PCTs.

Reasons for certification application

Woodbury Ridge Estate is to be developed as a Community Scheme pursuant to the *Community Land Development Act 1989*. This mode of tenure provides opportunities to apply specific by-laws to the subdivided land, which in this development are designed to offer in-perpetuity protections to biodiversity values proposed to be retained on-site. Examples of limitations on the development to protect biodiversity values include the provision of strict building and effluent management zone footprints, and requirements to manage land in accordance with a BMP to be prepared as part of the biodiversity certification agreement. To ensure the future viability of the community scheme, Biodiversity for the future of the development within the Certified Land while also securing acceptable biodiversity outcomes across the assessment area.

The assessment of the proposed subdivision must also consider impacts to two serious and irreversible impact entities, the Box-gum Woodland and the Golden Sun Moth. An application for Biodiversity Certification provides greater scope for additional considerations compared to a typical "Part 4" assessment, which must refuse a proposal that would have a serious and irreversible impact. When deciding to confer (or not confer) biodiversity certification under the BC Act, section 8.8(2)(a) provides that the Minister "is required to take those impacts into consideration when determining the application for biodiversity certification". This additional consideration can look at a much broader proposal including the nature and scale of the impact, avoidance measures and overall offsetting strategy. Impacts to the two serious and irreversible impact entities are discussed in detail in this Report.

Current land use

The assessment area is wholly owned by the Proponent. The assessment area is modified from its pre-European state by its current and past land use, which has included cropping, pasture improvement and grazing. Since the rezoning in 2020, the assessment area is a combination of RU5 Village, R5 Large Lot Residential and E3 Environmental Management.

Proposed land use

The proposed land use is for the subdivision of land for residential purposes, including the provision of recreational facilities, community areas, roads, electrical and telecommunication infrastructure, and areas managed for their biodiversity values. Each individual lot will have a designated development footprint, and designated effluent management zone that will define the maximum permitted extent of clearing within each block.

A large portion of the assessment area is identified on the Yass Valley Local Environmental *Plan 2013* Natural Resources Biodiversity Map. These areas are reflected in the biodiversity mapping undertaken.

Sutton is identified in the *South East and Tablelands Regional Plan 2036*. The Plan notes that Sutton is expected to accommodate some of the growth expected in the Yass Valley LGA over the next 20 years, however it is expected to largely maintain its village character.

Given the nature and scale of the proposed development, the proposed development is consistent with the *South East and Tablelands Regional Plan 2036*.

3.2 The biodiversity certification assessment area

The biodiversity certification assessment area is shown on Figure 1 of this Recommendation Report. A summary of the future land use is included in Table 1.

Table 1:	Proposed	land	use	

Land use	Area (ha)	Native vegetation extent (ha)
Land proposed for biodiversity certification (Certified Land)	54.49	23.11
Land within certification assessment area that is avoided for biodiversity reasons (Avoided Land)	130.82	123.12
Land within the BCAA that is not proposed for certification or being retained specifically for biodiversity reasons (Retained Land)	1.73	1.12
Total Biodiversity Certification Assessment Area (BCAA)	187.04	147.35

3.2.1 Maps

A series of maps have been included in the section below to provide a visual reference to the distribution of biodiversity values across the assessment area. Each impacted threatened entity is included in a map. These maps have been presented as a standalone section to provide an initial visual reference for the rest of the report. All maps in this Recommendation Report have been created using data supplied by the authors of the BCAR. Aerial imagery used in all maps was captured in 2013.

Figure 1 shows the proposed land uses based on the proposed Woodbury Ridge Estate development.

Figure 3 is an aerial image from 2013 with the impact area (Certified Land) overlaid. The intent of this map is to illustrate the scattered nature of the overstorey.

Figure 3 shows the distribution of PCTs and vegetation zones within the assessment area.

Figure 4 shows the distribution of Golden Sun Moth records across the assessment area and the area determined to be Golden Sun Moth habitat.

Figure shows the location of Superb Parrot nest trees and the areas used to calculate impacts for the purpose of offsetting.

Figure shows the location of Silky Swainson-pea habitat and threatened woodland bird records .



Figure 1: Woodbury Ridge biodiversity certification proposed land uses



Figure 2: Aerial imagery showing the spread of native trees



Figure 3: Distribution of PCTs and vegetation condition zones in the assessment area



Figure 4: Distribution of Golden Sun Moth records and habitat in the assessment area



Figure 5: Superb Parrot nest trees and breeding habitat for offset calculation purposes



Figure 6: Silky Swainson-pea habitat and threatened woodland bird records

3.3 Land ownership

The landowner is the Estate of the late W.A. Cartwright. The holding comprises entirely of Lot 1 DP1272209 located wholly within the Yass Valley Council local government area (LGA) between the village of Sutton and the Federal Highway, approximately 15 kilometres north of the Canberra CBD.

3.4 Parties to the application

The following person/s or body/s are proposed parties to the application for biodiversity certification:

Party Name (ABN/ACN if relevant)	Contact
Robyn Janette Holden;	Primary: Peter Cartwright (current landowner)
Peter Wayne Cartwright;	0409 049 500
William Paul Cartwright;	
As joint executors of the Estate of the late W.A.	Alternate: Tony Carey (Toney Carey
Cartwright	Consulting – Town Planner)
	0455 231 057

3.5 Biodiversity certification agreement

Section 8.16, BC Act - Biodiversity certification agreements

(1) The Minister may enter into an agreement (a biodiversity certification agreement) with a person in connection with biodiversity certification (including a proposal to confer, modify or extend biodiversity certification).

The following biodiversity certification agreement is proposed in connection with the biodiversity certification application.

Party	Land (where relevant)	Purpose
Robyn Janette Holden; Peter Wayne Cartwright; William Paul Cartwright;	The area shown in Figure 1 within Lot 1 DP1272209.	A single Biodiversity Certification Agreement will apply to all Avoided Land and land where there are groundstorey impacts only, as indicated in Figure 1. The purpose of the Biodiversity Certification Agreement is to ensure that areas of high biodiversity values within the Avoided Land (inclusive of areas identified for
As joint executors of the Estate of the late W.A. Cartwright		groundstorey impacts only) have a level of protection and management requirements.

4. Description of proposal

4.1 Measures to avoid or minimise impacts

Introduction

In order to address impacts to biodiversity, a key intent of the design of the proposed subdivision has been:

- a. for direct impacts to occur in areas with lower quality vegetation zones, and
- b. For higher quality vegetation zones to be secured as Avoided Land that will be protected under a variety of in-perpetuity protection mechanisms.

In considering the overall balance between impacts and avoidance, it is apparent that the balance is weighted towards the retention of biodiversity values. This balance is discussed in more detail throughout this Recommendation Report.

Overview of biodiversity values to be retained

A numeric summary of the PCTs and threatened species habitat impacted in the Certified Land and retained in the Avoided Land is shown in Table 2.

Biodiversity value / PCT		Biodiversity certification assessment area	Certified Land	Avoided Land	Retained land	BC Act Box-gum Woodland	SAII entity
	Vegetat	ion (hectares)					
PCT 1093 Red	Zone 1	2.9	0.25	2.65	0	-	No
Stringybark – Brittle Gum – Inland Scribbly Gum	Zone 2	8.74	2.32	6.42	0	-	No
PCT 1330 Yellow Box	Zone 1	19.58	0.28	19.02	0.28	Yes	Yes
– Blakely's Red Gum grassy	lakely's I Gum Zone 2 2 ssy	25.93	0.96	24.97	0	Yes	Yes
woodland	Zone 3	14.28	4.76	9.52	0	Yes	Yes
	Zone 4 20.95	20.95	7.05	13.17	0.73	Yes	Yes
	Zone 5	11.88	0.58	11.3	0	Yes	Yes
	Zone 6	41.87	6.38	35.49	0	Yes	Yes
	Zone 7	39.19	30.84	7.76	0.59	No	No

 Table 2: Summary of biodiversity values impacted and retained

Hollows							
Hollow-bearing trees (count)	168	22	143	3	-		
Threate	Threatened species habitat (hectares)						
Superb Parrot	13.05	6.53	6.52	0	-	No	
Silky-Swainson pea	1.24	0.86	1.22	0	-	No	
Golden Sun Moth	168.99	37.45	129.94	1.6	-	Yes	

Notes:

- 1. The total for all vegetation zones does not equal the total value for the biodiversity certification assessment area as farm dams and bare dirt access tracks were not included in the PCT mapped areas.
- 2. Superb Parrot Breeding habitat is calculated by placing a 100-meter buffer around mapped nest trees (five mapped trees in total across the entire biodiversity certification assessment area see Figure) and, in the case of the two trees on the western edge of the proposed development, taking this entire area to constitute the impact for credit obligation generation offsetting purposes given the nest trees are considered a loss despite no proposal to physically remove them. In the case of the three nest trees located within the Avoided Land, only the areas within the 100 meter buffer that are being cleared were used to calculate the offset. This was a negotiated impact calculation between the BCD and the Proponent following the relocation of impacts to attempt to locate development further from the trees during the draft BCAR review process. No Superb Parrot Nest trees will be physically removed, though breeding habitat is considered to be impacted as the trees are likely to become less attractive to Superb Parrots as nesting options.
- 3. Land proposed for certification (impact) includes all areas within the Certified Land noting that there are areas where only impacts to the groundstorey will be permitted and overstorey trees must be retained as reported in the BCAR. For the purposes of discussing clearing impacts, these areas are simply referred to as impacted despite the retention of overstorey vegetation.

Land that is avoided for biodiversity reasons - all Avoided Land

The proposed development has been designed to avoid direct impacts to 130.82 hectares of the 187.04-hectare assessment area. Of this 130.82 hectares of Avoided Land, a total of 123.12 hectares is considered native vegetation as reported in the BCAR. For the purposes of discussing Avoided Land, the land that will be retained in the Guise Street road corridor is not being counted as Avoided Land or land protected for biodiversity reasons as it is not being avoided for biodiversity reasons and will be retained as a council managed road corridor.

The Avoided Land area can be further divided into land to be retained within large lots and protected under a proposed Community Management Statement, and a Section 88E instrument managed in accordance with a BMP, and land that the Proponent proposes to place into one of four biodiversity stewardship sites via agreements with the BCT (on behalf of the Minister for Environment and Heritage) (see Figure for all Avoided Land and how the Proponent proposes to divide this land).



Figure 7: Woodbury Ridge all Avoided Land including showing the split between Avoided Land within large lots and Avoided Land where biodiversity stewardship sites are proposed

The land where the Proponent is proposing to establish biodiversity stewardship sites is designated as Avoided Land. Avoided Land is land in which impacts are avoided for biodiversity reasons, specifically to demonstrate the avoidance and minimisation of impacts per the framework established under the BC Act and the BAM. Avoided Land is not considered an offset as it is not being managed for biodiversity gain, nor does it generate credits (as a mechanism for offset in NSW). This is an important distinction as biodiversity stewardship sites cannot be established on land already under a legal obligation to carry out biodiversity conservation measures such as being set aside for biodiversity offset purposes (under s 5.1(1) of the *Biodiversity Conservation Regulation 2017* (BC Regulation)

The Avoided Land where the Proponent proposes to establish biodiversity stewardship sites, is not subject to any existing legal biodiversity offset obligations (as confirmed in the Biodiversity Certification Agreement), until such time as a biodiversity stewardship agreement is established and credits are formally generated. Any management of this land prior to the establishment of a biodiversity stewardship agreement (by way of the biodiversity certification agreement and BMP) is for the purposes of maintaining the land while biodiversity stewardship agreement applications are submitted and assessed parallel to the biodiversity certification assessment process.

Avoided Land – proposed biodiversity stewardship sites

The BCAR states, that as part of their overall development intentions, the Proponent will make applications for four individual biodiversity stewardship sites totalling 97.24 hectares. BCD has no role in the biodiversity stewardship site application or assessment process, with this process being undertaken between the Proponent and the BCT. Following their assessment, the BCT makes a recommendation to the Minister for Environment and Heritage to enter (or not enter) into the Biodiversity Stewardship Agreements.

The proposed biodiversity stewardship sites will seek to retain the following mapped biodiversity values:

- 88.20 hectares of Box-gum Woodland.
- 96.36 hectares of Golden Sun Moth habitat.
- 3 Superb Parrot nest trees,
- 6.08 hectares of moderate to high condition PCT 1093 Red Stringybark Brittle Gum – Inland Scribbly Gum forest.
- All reported Silky Swainson-pea records and nearly all mapped habitat; and
- Habitat for a variety of threatened woodland birds as identified during surveys for the BCAR.

Should the Minister for Environment and Heritage agree to enter into Biodiversity Stewardship Agreements over the four parcels of land, the land would be covered by formal and legally binding in-perpetuity biodiversity stewardship agreements which would prevail to the extent of any inconsistency with the Biodiversity Certification Agreement until such time as the Biodiversity Certification Agreement is updated to remove references to this land.

The BMP will be expected to address the short-term management of the Avoided Land including areas where the Proponent proposes to establish biodiversity stewardship sites.

Avoided Land in large lots to be managed under a biodiversity management plan

A total of 33.58 hectares of land will be retained and protected within large lots under a variety of mechanisms discussed below (see Figure excluding areas covered by the proposed biodiversity stewardship agreements). Of this 33.58 hectares of land, 28.26 hectares is considered native vegetation. The retained vegetation will include the following biodiversity values:

- Approximately 25.3 hectares of Box-gum Woodland.
- 33.58 hectares of Golden Sun Moth habitat.
- 2.98 hectares of moderate to high condition PCT 1093 Red Stringybark Brittle Gum – Inland Scribbly Gum forest; and
- Habitat for a variety of threatened woodland birds as identified during surveys for the BCAR.

Two Superb Parrot nest trees will be retained in this land, relatively close to proposed building envelopes. Due to their proximity to the development footprint, they are considered impacted for the purpose of assessing impacts to biodiversity values as they are likely to become less attractive to Superb Parrots as nest tree options. They are located outside of the Certified Land and as such will not be permitted to be removed. These trees are located within land that will be managed in accordance with the proposed BMP.

The Avoided Land within large lots will be protected though multiple mechanisms including a positive covenant on individual lots via a mechanism under Section 88E of the *Conveyancing Act 1919* (Conveyancing Act) and by-laws that will be written as part of the proposed Woodbury Ridge Community Management Statement. A Woodbury Ridge Community Association will also be formed. The intent is that Avoided Land within large lots will be managed in accordance with a BMP that will provide the overarching strategy that will guide owners and the management of Avoided Land within large lots and that the Woodbury Ridge Community Association will have role in communicating and facilitating the delivery of parts of the BMP. The requirement for the Section 88E mechanism and Community Management Statement have been included in the Order for Biodiversity Certification as "other approved conservation measures" due to the protection they will provide to serious and irreversible impact entities.

As stated in the Biodiversity Certification Agreement, the BMP will be prepared to the satisfaction of BCD. The requirement for, and implementation of, the BMP will be a key feature of the biodiversity certification agreement. The main principals required to be addressed by the BMP are included in the biodiversity certification agreement, with the finer details to be negotiated during the BMP preparation and review phase. The BMP will be prepared by the Accredited Assessors (who prepared the BCAR) to the satisfaction of BCD. The implementation of the BMP will then be the responsibility of individual lot owners, though the Proponent will have a site management role during construction, that will include compliance with the BMP. The Woodbury Ridge Community Association will provide ongoing education regarding the implementation of the BMP though ultimately the delivery of the BMP will be the responsibility of individual lot owners and strategies will be documented in further detail in the BMP and are expected to include as a minimum:

- Mandatory measures regarding targeted weed control, feral animal control, grazing control, biomass control and protection of existing native vegetation and threatened species habitat.
- mandatory restrictions on the types and locations or plants that can be planted, and animals kept; and
- optional measures and guidance regarding rehabilitation and enhancement of native vegetation.

Under section 8.18 of the BC Act, the Minister may order a party to rectify contravention of a biodiversity certification agreement. As such, BCD will have a compliance role on all Avoided Land (noting this role would cease on any areas subject to a future biodiversity stewardship agreement). Of particular focus will be the retention of mature native trees and general groundstorey condition. A loss of biodiversity values due to a failure to comply with the BMP would be considered a breach of the biodiversity certification agreement, with the Minister able to order a party to carry out specific actions to rectify contravention of the Agreement and if that order is not complied with, may enter the land to carry out the work and seek costs for doing so.

Mitigation measures

The BMP is proposed as a mitigation measure to limit the biodiversity impacts on Avoided Land. As outlined in the biodiversity certification agreement, the BMP will be prepared by suitably qualified ecologists and will need approval from BCD prior to its implementation. Provisions regarding the timing of delivery for a draft BMP and approval timeframes for BCD are included in the proposed biodiversity certification agreement. The document will provide the overarching strategy to maintain biodiversity values across the Avoided Land, and areas designated as groundstorey impacts only.

At the time of preparing this recommendation report, the BMP has not been drafted. A highlevel list of mandatory measures that would need to be included in a BMP is outlined in the BCAR. BCD is confident that the proposed mandatory measures will provide a sufficient framework for the preparation of a suitable BMP.

The BMP is not expected to place an onerous management burden on future lot owners. It is expected that, based on the mandatory measures included in the BCAR, the majority of management requirements will mostly concern prohibited activities. For example, this would include restrictions on the types of animals permitted in the lots, restrictions on the removal of vegetation and other non-permitted land uses. Some biomass control will be required, likely to be in the form of mowing. The BMP will also include a section on non-mandatory measures that would guide landholders if they wanted to improve biodiversity values consistent with the habitat and PCTs already present on site.

The BMP will also include a section listing stakeholders and their roles and responsibilities. This will include ensuring BCD is included as a stakeholder with compliance responsibilities (under section 8.18 of the BC Act) to ensure transparency.

Land retained not incorporated into Avoided Land for biodiversity reasons

A small patch of land, approximately 1.73 hectares will be retained along the Guise Street corridor. Impacts will occur in this land to establish driveway access points, communication infrastructure and internal access roads to the greater subdivision. These impacts have been considered in the BCAR and the calculation for credit obligations. Retained vegetation within this area is not considered Avoided Land as the road corridor will continue to be managed as council land. As this land is not certified, the BC Act would still apply in relation to future impacts.

Entities at risk of a serious and irreversible impact

Box-gum Woodland

The biodiversity certification assessment area supports approximately 173.6 hectares of PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland. Within this PCT, seven vegetation condition zones were identified.

In the BCAR, the vegetation zones are reported in descending order of condition. Zones 1 through to zone 6 PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland are considered to meet the criteria for the BC Act listed Critically Endangered Ecological Community (CEEC) *White box, Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast New England Tableland, Nandewar, Brigalow Belt South, South Eastern Highlands, South West Slopes and South Eastern Corner and Riverina Bioregions* (referred to as Box-gum Woodland in this recommendation report) which is listed as a serious and irreversible impact entity. Only Zone 7 from PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland was not considered to meet the determination criteria for Box-gum Woodland as it does not have the requisite canopy and is dominated by a non-native understorey.

The total area Box-gum Woodland in the assessment area is 134.49 hectares. The distribution of Box-gum Woodland across the assessment area, with the impact are overlaid, is shown in Figure .



Figure 8: Distribution of Box-gum Woodland in the assessment area

Of the 134.49 hectares of Box-gum Woodland in the assessment area, the total impact to Box-gum Woodland is 20.01 hectares across six vegetation zones. Impacts to Box-gum Woodland per each vegetation zone it occurs in are shown in Figure 99.



Figure 9: Impacts to Box-gum Woodland per vegetation zone

Zones 1 and 2 of PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland are considered the best condition zones with mature canopies, canopy regeneration (zone 1) and dominant native understoreys with higher native forb diversity compared to other zones.

Zone 3 is described as having a mature canopy, native dominant understorey and low native forb diversity. Zone 4 is characterised by a mature canopy, an exotic dominant understorey and low native forb diversity. Zones 5 and 6 lack the canopy cover of the better conditions zones but have some native understorey and forb diversity. A maximum of 45 remnant trees could be cleared, though it is expected that fewer than 45 will be removed as the development proceeds. This maximum clearing limit has been incorporated into credit obligation calculations. The retained Box-gum Woodland across the Avoided Land would be managed in accordance with the BMP and have additional protection measures implemented as discussed in this report and stated in the biodiversity certification agreement.

Golden Sun Moth

A total of approximately 168.9 hectares of Golden Sun Moth habitat was identified within the assessment area. During surveys, a total of 247 Golden Sun Moth were recorded in low densities across four surveys. Of this, 37.45 hectares will be impacted. The remaining 131.45 hectares will be avoided. This includes 96.35 hectares protected in the proposed biodiversity stewardship sites and 33.58 hectares in the retained vegetation to be managed in accordance with the BMP. The distribution of Golden Sun Moth habitat within the assessment area is shown in Figure 4. Figure 11 is a summary of the impacts to Golden Sun Moth habitat per each vegetation zone it occurs in.



Figure 4: Distribution of Golden Sun Moth habitat within the assessment area (note: this is the same figure as used in Figure 4)

Using PCT condition zones as a proxy for Golden Sun Moth habitat quality, the better-quality vegetation zones, particularly those with intact understories, are better represented in the Avoided Land. A comparison of clearing compared to retained habitat by PCT and vegetation condition zone is shown in Figure 5.





Groundstorey impacts only

Impacts in approximately 8.1 hectares of land will be restricted to the groundstorey only (see Figure 6). The restriction of impacts to the groundstorey is to be achieved by limiting land uses in these areas, mostly for effluent management zones, community open areas and fence lines. Removal of overstorey native trees will not be permitted in these areas. The requirement to restrict impacts to groundstorey in the specified areas is included as a measure in the biodiversity certification agreement. For the purposes of discussing impacts in this recommendation report, the areas of groundstorey impacts are referred to as total clearing impacts.



Figure 6: Impacts to groundstorey only (i.e. native trees located within blue areas cannot be removed but the groundstorey is expected to be impacted/cleared)

Avoiding and minimising indirect impacts

Indirect impacts can be divided into impacts that could occur as a result of construction activities, in the relative short term, or possible ongoing non-construction related indirect impacts. Construction related indirect impacts could include weed invasion, erosion and sedimentation and pollution impacts. The BCAR lists the following indirect impacts that could happen as a result of the proposed development:

- Increased sedimentation of receiving waterways;
- increased noise, vibration and dust during construction;
- weed introduction and/or spread during construction and occupation;
- incidental damage or removal of retained native vegetation and habitat during construction and occupation;
- increase in pest animal populations as a result of increased human activity during occupation; and
- edge effects due to increased human activity during occupation.

The proposed development reduces the likelihood of indirect impacts by enacting the following principles to avoid and minimise impacts to native vegetation and habitat.

- Locating the project in areas where the native vegetation or threatened species habitat is in the poorest condition as much as possible to reduce the risk of impacting areas in better condition;
- reducing the overall clearing footprint; and
- making provisions for the demarcation, ecological restoration, rehabilitation, and/or ongoing maintenance of retained native vegetation and habitat as outlined in the biodiversity certification agreement and refined in the BMP and biodiversity stewardship site management regimes.

Additional measures to reduce the likelihood of indirect impacts during construction are proposed to be included in a Construction Environmental Management Plan (CEMP) The CEMP will need to be prepared prior to the commencement of construction activities.

- Control potential sedimentation of receiving waterways during construction;
- control noise, vibration and dust spill during construction;
- control weed introduction and / or spread during construction;
- implement measures to reduce the chance of incidental damage of retained vegetation and habitat;
- control pest animal populations as a result of increased human activity; and
- control edge effects.

The delivery of the BMP is designed to reduce the likelihood of ongoing indirect impacts post-construction. Mandatory measures including weed control, feral animal control and biomass control, as well as restriction on the types of animals that can be kept will address some indirect impacts. Given our approval role before the BMP can be implemented, and the high-level measures outlined in the BCAR, BCD is confident a suitable BMP will be prepared.

Avoiding and minimising prescribed impacts

Prescribed impacts are discussed in section 3.2.3 of the BCAR. The BCAR identified two types of 'prescribed biodiversity impacts' that could occur as a result of the proposed development:

- Impacts of development on the habitat of threatened species or ecological communities associated with non-native vegetation; and
- impacts of development on the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range and impacts of development on movement of threatened species that maintains their lifecycle.

The BCAR states that the direct impact to threatened species habitat has been accounted for, which includes impacts to Golden Sun Moth habitat in areas of poorer quality (i.e. non-native) vegetation and retention of higher quality vegetation zones in avoided areas. The layout of the proposed development, including the location of Avoided Land, is not expected to disrupt connectivity of existing threatened entities. Ongoing prescribed impacts are not anticipated, and all direct impacts are accounted for and offset where required.

Impacts that are uncertain

BCD and Capital Ecology have been in negotiation regarding the nature and extent of indirect impacts to Superb Parrots via development near potential nest trees. While no trees were surveyed for actual nests, trees with suitable sized hollows where Superb Parrot activity was observed in and around hollows were, for the purposes of this assessment, considered nest trees. Recent literature (Stojanovic *et al* 2021¹)suggests that this species is highly selective of nest trees, adding importance to retaining possible nest trees, and certainly trees containing hollows where Superb Parrot activity was observed. During these negotiations BCD requested ongoing monitoring of nest trees. This information is valuable

¹ Stojanovic D, Rayner L, Cobden M, Davey C, Harries S, Heinsohn R, Owes G and Manning AD, 2021. *Suitable nesting sites for specialized cavity dependent wildlife are rare in woodlands*. Forest Ecology and Management: **483**, **1-7**.

as it provides some insight into the use of suitable trees in near proximity to urban development. This measure has been included in the BCAR and forms part of the biodiversity certification agreement.

Koala SEPP

The assessment area is located within the Yass Valley Council LGA. The *State Environmental Planning Policy (Koala habitat Protection)* 2021 (Koala SEPP) applies to this LGA, however there is no approved Koala Plan of Management. Surveys of the study area identified a number of trees listed in Schedule 2 of the Koala SEPP. Despite this, the BCAR concluded that with a lack of recent records and the generally cleared farmland in the vicinity that the site is unlikely to support a koala population. BCD agrees with this conclusion.

Justification for impacts that are not avoided

Of the approximately 188 hectares within the certification assessment area, the development footprint has been restricted to approximately 54.5 hectares, or approximately 30% of the assessment area. When reviewing impacts to PCTs and vegetation zones, most of the impacts are restricted to the lower quality vegetation zones. This is shown in Figure 7 where PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zone 7 (poorest quality) is the most impacted vegetation zone in terms of hectares of impact, with relatively small impacts in zones 1 and 2 (i.e. the highest condition patches). In addition, large portions of PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zones 1 and 2 are avoided and would be managed in-perpetuity. These impacts / retained calculations have also been shown in Figure 8 which show the same impacts/avoidance areas but measured as a percentage of their overall occurrence. Both figures demonstrate that impacts are being focused in areas of lower biodiversity value and are a good demonstration of the avoid and minimise impacts hierarchy required in the BC Act and the BAM.



Figure 7: Impacts to PCTs and vegetation zones



Figure 8: Impacts to PCTs and vegetation zones as a percentage of their total occurrence in the assessment area

4.2 Biodiversity impacts and credit requirements

4.2.1 Impacts on native vegetation and habitat

Ecosystem credit requirements

Ecosystem credits are used to offset the impacts on threatened ecological communities, threatened species habitat for species that can be reliably predicted to occur on the subject land and other plant community types (PCTs). Credits are generated in the BAM Calculator (BAM-C) by entering vegetation composition, structure and function scores to calculate an overall vegetation integrity score for a vegetation zone. A decrease in vegetation integrity through clearing or other impact generates a credit obligation. To offset the residual impacts of the proposed development the Proponent will need to retire:

- 37 Ecosystem Credits for to impacts to PCT 1093 Red Stringybark Brittle Gum – Inland Scribbly Gum dry open forest and associated ecosystem credit species: and
- **98** Ecosystem Credits for to impacts to PCT 1330 Yellow Box Blakely's Red Gum grassy woodland and associated ecosystem credit species.

The BC Regulation provides that where a class of biodiversity credits is changed, a requirement to retire those credits may be satisfied by the retirement of credits that would, on advice of the Environment Agency Head, have been described as a credit of the former class prior to the change (see cl 6.11, BC Regulation). The current PCT names are expected to change in this process. Processes will be implemented to ensure PCTs identified under the old classification are transferred to the appropriate new classification without altering credit calculations.

Species credit requirements

Species credits are used to offset the residual impacts on threatened species that cannot be reliably predicted to occur on the land for certification. Presence is determined by important

habitat maps, survey, or an expert report. Where an expert report is used, the Department requires evidence of Departmental approval of expert status.

The following species credits are generated as a result of the proposed development:

- 87 credits for impacts to Superb Parrot breeding habitat.
- 12 credits for impacts to Silky Swainson-pea habitat; and
- 419 credits for impacts to Golden Sun Moth habitat.

4.2.2 Serious and irreversible impacts

The BCAR has undertaken an assessment of potential serious and irreversible impacts for two entities: Box-gum Woodland and Golden Sun Moth. This assessment has been undertaken with the *Guidance to assist a decision-maker to determine a serious and irreversible impact* guidelines. BCD has reviewed the serious and irreversible impact assessments for Box-gum Woodland and Golden Sun Moth provided in the BCAR. Key points of this assessment are summarised below.

Box-gum Woodland

Key points from the serious and irreversible impact assessment for each of the required items as per the guidelines is included below. BCD's review is included below.

a. The action and measures taken to avoid the direct and indirect impact on the potential entity

The area to be certified has been designed to avoid the land within the assessment area that has the highest biodiversity values, while allowing for increased impacts in the areas with the lowest biodiversity values. This design would allow a maximum direct impact 20.01 hectares of Box-gum Woodland within the Certified Land. Approximately 114.4 hectares would be retained within the Avoided Land where in-perpetuity protection measures would apply.

b. The area (hectares) and condition of the threatened ecological community (TEC) to be impact directly and indirectly by the proposed development. The condition of the TEC is to be represented by the vegetation integrity score for each vegetation zone.

The BCAR has been prepared consistent with the BAM, which includes mapping of vegetation into PCTs and vegetation zones with representative vegetation integrity scores. The proposed development minimises impacts to Box-gum Woodland by avoiding 96% (55.29 hectares) of the high condition zones and 64% (22.69 hectares) of the moderate condition zones. In contrast, over 60% of the impact to PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland occurs in areas that have been disturbed to the extent that they no longer meet the listing criteria for Box-gum Woodland (i.e. the impact of 30.84 hectares to PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zone 7).

c. A description of the extent to which the impact exceeds the threshold for the potential entity

There is currently no impact threshold for Box-gum Woodland.

d. The extent and overall condition of the potential TEC within an area of 1000 hectares, and then 10,000 hectares, surrounding the proposed development footprint.

The BCAR includes the following estimations:

- There is approximately 272.49 ha of BC Act Box-gum Woodland within 1,000 ha, 134.49 ha of which is in moderate to good condition.
- There is approximately 1,966 hectares of Box-gum Woodland within 10,000 hectares, with approximately 845 hectares in moderate to good condition.
- e. An estimate of the extant area and overall condition of the potential TEC remaining in the IBRA subregion before and after the impact of the proposed development has been taken into consideration.

The BCAR estimates that the South Eastern Highlands support somewhere between approximately 106,000 to 230,000 hectares of Box-gum Woodland and approximately between 8,000 to 17,300 hectares in the Murrumbateman IBRA subregion. Based on these estimates, the BCAR states that the proposed development would clear an estimated 0.12 - 0.26% of the remaining Box-gum Woodland in the Murrumbateman IBRA subregion. Using these estimates for the remaining Box-gum Woodland in the Murrumbateman IBRA subregion. Using these estimates for the remaining Box-gum Woodland in the Murrumbateman IBRA subregion. Using these estimates for the remaining Box-gum Woodland in the Murrumbateman IBRA subregion. Using these estimates for the remaining Box-gum Woodland in the Murrumbateman IBRA subregion.

f. An estimate of the area of the candidate TEC that is in the reserve system within the IBRA region and the IBRA subregion.

The BCAR states that approximately 310 hectares of Box-gum Woodland is in the NSW reserve system in the Murrumbateman IBRA subregion.

- g. The development, clearing or biodiversity certifications proposals impact on:
- *i.* Abiotic factors critical to the long-term survival of the potential TEC.
- *ii.* Characteristic and functionally important species though impacts such as, but not limited to, inappropriate fire/flooding regimes, removal of understorey species or harvesting of plants.
- iii. The quality and integrity of occurrence of the potential TEC through threats and indirect impacts including, but not limited to, assisting invasive flora and fauna species to become established or causing regular mobilisation of fertilisers, herbicides or other chemical or pollutants which may harm or inhibit growth of species in the potential TEC.

The BCAR states that the proposed development is unlikely to modify or destroy abiotic factors that would impact the long-term survival of the TEC in the assessment area or impact the characteristic and functionality of important species within the assessment area. It makes this claim on the basis that portions of Box-gum Woodland will be retained, protected and managed for its biodiversity values as a result of the proposed action. This includes the retention of 784 of the 829 native trees (approximately 95%) identified within the assessment area including the retention of Superb Parrot nest trees and additional protection of retained vegetation through a variety of mechanisms (including initial construction related controls).

h. Direct or indirect fragmentation and isolation of an important areas of the potential TEC.

The BCAR states that the proposed development is unlikely to lead to fragmentation or isolation of an important area of this TEC as most of the TEC within the assessment area will be retained, protected and managed for its biodiversity values.

i. The measures proposed to contribute to the recovery of the potential TEC in the IBRA subregion.

The BCAR states that the proposed activity will contribute to the recovery of Box-gum Woodland. This would be achieved through the retention of approximately 114 hectares of Box-gum Woodland within Avoided Land. This Avoided Land will be managed and protected using private land conservation measures including the Certification Agreement and supporting BMP

Golden Sun Moth

Key points from the serious and irreversible impact assessment for each of the required items as per the guidelines is included below. BCD's review is included below.

a. The action and measures taken to avoid the direct and indirect impact on the potential entity for a SAII

A total of 168.99 hectares of Golden Sun Moth habitat was identified in the assessment area. Of this, 37.45 hectares, or approximately 22% of Golden Sun Moth habitat will be removed by clearing the Certified Land. To reduce the likelihood of a serious and irreversible impact, the proposed development will deliver on the following principles:

- Locating development, including ancillary facilities, as much as possible into poorer condition native vegetation or threatened species habitat;
- implementing measures to ensure that connectivity between adjacent or nearby habitat (including habitat within the assessment area) is maintained to allow for the movement of the species and genetic material to continue;
- protecting and minimising impacts on Avoided Land; and
- reducing the overall development footprint to limit clearing impacts.

In considering these principles, the proposed development will avoid impacts to approximately 77% (129.94 hectares) of the Golden Sun Moth habitat identified in the assessment area. Impacts will primarily occur in areas with a vegetation integrity score below 14 (PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zones 4, 6 and 7) highlighting that impacts have been designed to occur more in lower quality vegetation.

b. The size of the local population directly and indirectly impacts by the development, clearing or biodiversity certification.

The BCAR notes that estimating populations of Golden Sun Moth is often difficult and that measures of abundance combined with an assessment of habitat size and conditions may be a more appropriate way to determine the viability of a population. The Accredited Assessors state that the average density of moths was 1.5 moths per hectare, which is low in comparison to other nearby sites.

c. The extent to which the impact exceeds any threshold for the potential entity that is specified in the Guidance to assist a decision-maker to determine a serious and irreversible impact

At the time of preparing the BCAR, the Threatened Biodiversity Profile Data Collection (TBDC) included a serious and irreversible impact clearing threshold where clearing >10% of identified habitat on site would be considered a serious and irreversible impact. The BCAR notes that this threshold would be exceeded as approximately 22% of mapped Golden Sun Moth habitat on the site would be cleared. Since submitting the BCAR and the implementation of BAM 2020, this threshold has been removed from the TBDC.

Irrespective of the removal of this threshold, BCD has included an analysis regarding whether the extent to which the impact exceeds this threshold and whether that would, if thresholds were applicable, constitute a serious and irreversible impact:

In reviewing the nature of the impacts to Golden Sun Moth habitat, the design of the proposed development has taken avoidance and minimisation into consideration. Figure 9 shows the comparison of retained Golden Sun Moth habitat compared to impacted habitat, broken down by PCTs. The bulk of impacts to Golden Sun Moth habitat are occurring in PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zones 3, 4, 6 and 7. Key defining factors of these zones are that they have low diversity of native species in the ground layer and in the case of zones 4 and 7, are dominated by non-native ground layer species which are considered the poorer quality habitat zones for this species. Zones 6 has a native understorey with low diversity. It lacks a native canopy structure which, combined with the low diversity ground layer, is why it is ranked lower in the list of zones.





In comparison, large areas of PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zones 1 and 2 are to be retained and maintained as Golden Sun Moth habitat. In addition, proportionally more land in PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zones 3, 4 and 5 will be retained than impacted. Overall, approximately 129.9 hectares of Golden Sun Moth habitat will be avoided compared to a total impact of approximately 37.4 hectares.

Approximately 96.3 hectares of Golden Sun Moth habitat would be retained within the Avoided Land and protected using conservation measures. Within these sites, habitat will be managed to enhance biodiversity values. The TBDC states that Golden Sun Moth have a moderate sensitivity to potential gain. This moderate sensitivity suggests that there is a reasonable chance that conservation measures implemented across the Avoided Land would improve habitat for Golden Sun Moth.

Given the impacts are generally occurring more in the lower quality, with the most impacted vegetation zone being of PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zone 7, Golden Sun Moth habitat and that areas to be retained are generally within higher quality vegetation zones that will be maintained and improved in some areas, BCD is comfortable that the overall balance of avoidance versus impact is acceptable.

- d. The likely impact (including direct and indirect impacts) that the development, clearing or biodiversity certification will have on the habitat of the local population, including but not limited to:
- *i)* An estimate of the change in habitat available to the local population as a result of the proposed development

- *ii)* The proposed loss, modification, destruction or isolation of the available habitat used by the local population
- *iii)* Modification of habitat required for the maintenance of processes important to the species lifecycle, genetic diversity and long-term evolutionary development

The proposed development would directly impact 37.45 hectares of the 168.9 hectares of Golden Sun Moth habitat identified in the assessment area. The BCAR states that this impact is unlikely to increase habitat fragmentation in the subject land or immediate vicinity and that it is unlikely to result in the modification of habitat that could impact the species lifecycles, genetic diversity or long-term evolutionary development. Within the surrounding 10 kilometres of the assessment area, the Accredited Assessors estimate (based on BioNet records, ACT Government data and their own local knowledge) that there is likely to be over 1,100 hectares of Golden Sun Moth habitat. More broadly, the accredited assessors estimate that there is over 9,900 hectares of Golden Sun Moth habitat in the Murrumbateman IBRA region and almost 15,000 hectares of Golden Sun Moth habitat in NSW.

While there will be some loss of habitat, it is presented in the BCAR as a small impact in the broader scale that would not create barriers to movement or increase habitat fragmentation. The impacts will generally focus more on lower quality and marginal habitat that is at risk of further decline regardless of the proposed action. Mitigating this loss is the retention of approximately 129.8 hectares of Golden Sun Moth habitat that is expected to remain suitable for this species.

e. The likely impact on the ecology of the local population. At a minimum, address: breeding, foraging, roosting and dispersal or movement pathways.

The BCAR states that the proposed development is unlikely to have a significant impact on the local population breeding, foraging movement pathways or long-term viability due to the limited clearing and the provision of on-site avoidance which includes large areas of higher quality habitat compared to the impact area.

f. A description of the extent to which the local population will become fragmented or isolated as a result of the proposed development.

All of the habitat within the assessment areas is considered functionally connected. However, the BCAR states that due to the surrounding infrastructure, urban development, the Yass River forming a natural barrier and surrounding agricultural land, it is likely that the population is not functionally connected to other nearby populations. The BCAR states that the proposed development is unlikely to increase any fragmentation or lead to isolation of a population.

No fragmentation or isolation of a population is expected to occur within the development. The species was identified across most of the site and in low densities. Only the lowest quality areas of non-native vegetation did not contain Golden Sun Moth; with these areas earmarked for the most intense development with the smallest lot sizes. Mitigation measures such as fencing restrictions will be documented in the BMP and BCD is confident that the species will continue to occupy the available habitat within the site.

g. The relationship of the local populations to other populations of the same species.

The BCAR states that the local population is unlikely to have any great importance to other populations in the surrounding region due to its generally isolated nature.

h. The extent to which the proposed development will lead to an increase in threats and indirect impacts, including impacts from invasive flora and fauna, that may in-turn lead to a decrease in the viability of the local population.

In summary, the BCAR states that the proposed development is likely to decrease the number of threats to this species within the assessment area. It bases this claim on the fact that current land uses pose a threat to the population and that the new management regimes in Avoided Land that would be implemented as a result of the proposed development are likely to remove some of these threats.

i. An estimate of the area, or number of populations and size of populations that is in the reserve system in NSW, the IBRA region and the IBRA subregion.

The BCAR provides a list of reserves in the Murrumbateman IBRA subregion that are known to support this species. The estimated total land in the reserve system based on this assessment is 4,562 hectares.

j. The measures proposed to contribute to the recovery of the species in the IBRA subregion.

The proposed development would secure approximately 130 hectares across the assessment area.

Summary

In general, most of the comments against the guideline criteria suggest a serious and irreversible impact is not likely'. In considering the overall assessment, BCD is of the opinion that the balance of impacts compared to Avoided Land will avoid a serious and irreversible impact for this entity. Crucial to this balance is the securing of and appropriate management of Avoided Land into the future. The securing of approximately 97 hectares of known habitat within the proposed biodiversity stewardship sites would be an excellent outcome if the assessment process with the BCT is successful. The appropriate management of the other approximately 35 hectares of Avoided Land, that could otherwise continue to potentially degrade with current land uses is a positive outcome in the opinion of BCD and an outcome that reduces the likelihood of a serious and irreversible impact.

4.1 Proposed conservation measures

Section 8.3(2) of the BC Act identifies the measures that can be specified in the order conferring biodiversity certification as approved conservation measures to offset the impacts on biodiversity values of the clearing of native vegetation and the loss of habitat on biodiversity Certified Land. Non-strategic applications must offset the impacts of the certification of land by retiring biodiversity credits.

Division 6 of Part 6 of the BC Act enables a person who is required to retire biodiversity credits to make a payment instead to the Biodiversity Conservation Fund (BCF) of the value of the credits in accordance with the offsets payment calculator.

Retirement of biodiversity credits

Name of credit	BBAM or BAM credit ²	Number of credits	In accordance with like-for-like, or variation rules?	Timing of purchase/ retirement of credits
Ecosystem credits				
PCT 1093 Red Stringybark – Brittle Gum – Inland Scribbly Gum forest	BAM	37	Like-for-like	Prior to the issuing of subdivision certificates
PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland	BAM	98	Like-for-like	Prior to the issuing of subdivision certificates
Species credits				
Superb Parrot	BAM	87	Like-for-like	Prior to the issuing of subdivision certificates
Golden Sun Moth	BAM	419	Like-for-like	Prior to the issuing of subdivision certificates
Silky swainson-pea	BAM	12	Like-for-like	Prior to the issuing of subdivision certificates

The conservation measures available to the Minister in granting certification for a standard biodiversity certification application is limited to:

- a. the retirement of credits; and
- b. measures to avoid and minimise the impact on biodiversity values.

As such, BCD cannot recommend specific biodiversity stewardship agreements are entered in to on certain land or under certain conditions. In addition, the recommendation for any approval of biodiversity stewardship site is at the discretion of the Minister. However, given the wholistic proposal put forward by the Proponent in the case of this application for biodiversity certification, BCD is recommending that the biodiversity certification agreement between the Minister and the Proponent require the Proponent to apply for the proposed biodiversity stewardship agreements as committed to in the BCAR.

At the time of preparing this recommendation report, the Proponent had entered preliminary discussions with the BCT about undertaking the necessary assessments of the proposed stewardship sites. An estimation of the likely credits generated from the proposed biodiversity stewardships sites was included in the BCAR but has been omitted from this report as ultimately it is a recommendation from the BCT and a decision for the Minister separate to this certification process.

² Where credits are proposed to be retired from a biobanking agreement under the former *Threatened Species Conservation Act 1995* (i.e. biodiversity banking assessment methodology (BBAM) credits), a statement of reasonable equivalence from the Environment Agency Head is required to determine the equivalent number of BAM credits under the BC Act.

Based on the estimates provided in the BCAR, the proposed biodiversity stewardship sites are not likely provide all the credits required to offset the impact of the development; though it is highly likely that the majority of the credit obligation will be met from retiring credits generated by these sites. The Proponent is aware of the options available to retire biodiversity credits, as stated in the BCAR and the BC Act. Given that the majority of the credit obligation would be met by the proposed biodiversity stewardship sites based on the reported estimates, and that a large excess of PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland credits are likely to be generated, BCD is confident that the Proponent will be able to meet the balance required.

In the accompanying Order, the Proponent is required to retire their entire credit obligation upon the:

- Issue of the first Subdivision Certificate; and
- The establishment of the four Biodiversity Stewardship Agreements

If after 2 years from the date of conferral all the Biodiversity Credits have not been retired, the Proponent must retire all outstanding Biodiversity Credits within 14 business days of execution.

This timing has been selected for two main reasons:

- 1. At this point in the development process the Proponent is in a vulnerable position, that is one where they will be highly motivated to retire credits, as they will have invested significant time and finances into commencing the project establishing roads and other infrastructure, with no ability to sell individual lots without subdivision certificates; and
- 2. The issuing of subdivision certificates would not be expected for approximately 12 months, or longer, from the conferral of certification, allowing the Proponent and the BCT sufficient time to apply for, assess and make recommendations regarding the establishment of biodiversity stewardship sites to generate credits that Proponent has stated in the BCAR would be put towards their offset obligations.

The credit retirement timeframe has been discussed with the Proponent and their consultants. All parties agree that it is a workable and fair arrangement. BCD is comfortable with this arrangement.

BCD have discussed this timeframe with both Yass Valley Council and DAWE as it differs from the typical requirement to offset prior to the commencement of impacts. Both parties are aware and supportive of BCDs recommendations on this matter.

At the time of preparing this recommendation report, the Accredited Assessors engaged to prepare the applications for the biodiversity stewardship sites were engaged in presubmission discussions with the BCT with applications expected to be formally made in February-March 2022, demonstrating the intent to deliver the project as proposed in the BCAR.

In preparing this recommendation package, BCD consulted with the BCT to discuss the proposed conservation measures. The BCT confirmed that were in discussion with the Proponents and their consultants regarding application for the proposed biodiversity stewardship sites as discussed in the BCAR. The BCT recommended that BCD address clause 5.1(1)I of the BC Regulation in any recommendation package to ensure there is no risk that the proposed biodiversity stewardship site land would not be eligible to be designated as a biodiversity stewardship site.

5. Matters for the decision-maker to consider

For lands to be biodiversity certified, the decision-maker must be satisfied in relation to certain matters outlined in Part 8 of the BC Act. These matters have been assessed by DPE-EES and documented in this recommendation report.

BC Act section	Matters to be considered by the decision-maker	Report Section
8.6(1)	Consultation with local council	5.1.1
8.6(2)	Consultation with Minister for Planning	5.1.2
8.6(3)	Public notification requirements	5.1.3
6.5 8.8	Impacts likely to have serious and irreversible impacts on biodiversity values	5.3
8.7	Biodiversity certification to be conferred only if, having regard to the BCAR, the approved conservation measures adequately address the likely impacts on biodiversity values of the biodiversity certification of the land.	5.4

5.1 Consultation and public notification

5.1.1 Consultation with local council

Consultation and public exhibition

Consultation between the Woodbury Ridge project team, the Yass Valley Council and BCD has been ongoing throughout the assessment process. Consultation is summarised and discussed in section 1.3 of the BCAR with correspondence included in Appendix I.

Discussion

The BCAR draft version 3 was made available to members of the public between 14 June 2021 – 26 July 2021. The public were invited to make comment on the BCAR. No public comments were received during this time. BCD believe this is due to the long history of the project, which has included a Planning Proposal. As such, the project would have had substantial notification to the local community.

Recommendation

That the decision-maker be **satisfied** that the requirements for consultation with the local council of the area set out in section 8.6(1) of the *Biodiversity Conservation Act 2016* and clause 8.4 of the *Biodiversity Conservation Regulation 2017* have been met.

5.1.2 Consultation with Minister for Planning

Section 8.6 of the BC Act provides that:

(2) The Minister is to consult the Minister for Planning before determining an application for biodiversity certification.

Discussion

Consultation with the Minister of Planning regarding this application was undertaken on two occasions. A presentation was provided to the Director Southern Directorate Local and Regional Planning and the package was provided to the Minister for his review. The delegate for the Minister for Planning provided a response regarding this proposal on the 8 November 2021, the response was generally supportive of the proposal.

Recommendation

That the decision-maker be satisfied that consultation with the Minister for Planning has occurred.

5.1.3 Public notification

Section 8.6 of the BC Act sets out the requirements for public notification of the application.

- (3) The Minister is not to confer biodiversity certification unless-
- (a) the applicant for biodiversity certification publishes notice of the application in a newspaper circulating generally throughout the State and on a website approved by the Minister (and specifies in the notice where the application will be exhibited), and
- (b) the notice invites 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), and
- (c) the applicant causes copies of the application to be exhibited on its website and such other places that the Minister requires (until the closing date for submissions), and
- (d) the applicant provides a report to the Minister that indicates the applicant's response to any submissions relating to the application that were received by the applicant before the closing date.

(4) An applicant may vary its application for biodiversity certification as a consequence of any submission received following public notification of the application or for any other reason.

(5) Further public notification of the application, as varied, is not required unless the Minister otherwise directs

Discussion

Details of consultation	Comments
Was consultation under s 8.6 of the BC Act followed?	Yes
Time period application was on exhibition	42 days –14 June 2021 to 26 July 2021
Number of submissions received	0
Is application varied as a result of submissions?	No

Recommendation

That the decision-maker be **satisfied** that the public notification requirements in section 8.6(3) of the *Biodiversity Conservation Act 2016* have been met and that further public notification is not required.

5.2 Additional consultation with Commonwealth Department of Agriculture, Water and the Environment

The Commonwealth Department of Agriculture, Water and the Environment (DAWE) Southern NSW and ACT Assessments team was approached for consultation in October 2021. On 14 October 2021, a teleconference was held to discuss the broad details of the proposal given multiple entities listed under both NSW and Commonwealth jurisdiction will be subject to impacts. The purpose of the meeting was to have a broad discussion about the nature of the proposed action and scale and extend of impacts under our respective jurisdictions.

BCD and DAWE have remained in contact during the assessment process to ensure neither party recommends conditions that would be inconsistent. This has been an important step and the EPBC Act assessment will endorse the offset requirements recommended by BCD. Correspondence on this issue has continued into February 2022. The EPBC Act decision is expected to be made in June 2022.

5.3 Serious and irreversible impacts

Section 8.8 of the BC Act states that:

(2) If the Minister is of the opinion that the clearing of native vegetation and loss of habitat on land proposed for biodiversity certification is likely to have serious and irreversible impacts on biodiversity values, the Minister—

(a) is required to take those impacts into consideration in determining the application for biodiversity certification, and

(b) is required to determine whether there are any additional and appropriate measures that will minimise those impacts.

Discussion

The proposed development will result in the removal of a total of 20.01 hectares of BC Act listed Box-gum Woodland and 37.45 hectares of Golden Sun Moth habitat. Both these entities are considered serious and irreversible impact entities.

Box-gum Woodland

Regarding impacts to Box-gum Woodland, the areas being cleared are generally restricted to the more degraded and relatively low value (lower VI score) vegetation zones identified in the assessment area. This is highlighted when considering PCT 1330 Yellow Box – Blakely's Red Gum grassy woodland zone 7, which historically would have met the criteria for Box-gum Woodland but no longer does, is the most impacted vegetation zone. This is a design focus of the project; to avoid larger areas of higher quality vegetation.

In comparison approximately 144 hectares of Box-gum Woodland in moderate to high condition will be avoided. The Avoided Land will be protected under the Biodiversity Conservation Agreement and supporting BMP. This includes 88.2 hectares of Box-gum Woodland which is proposed to be protected in biodiversity stewardship sites. An additional 25.2 hectares of Box-gum Woodland will be protected in Avoided Land and managed consistent with a BCD approved BMP. No overstorey vegetation or groundcover will be permitted to be removed outside the certified areas. This will maintain and enhance the areas of Box gum woodland. The balance of Avoided Land compared to areas impacted is in favour of improved biodiversity outcomes, there is sufficient structure in place to ensure a level of protection and management is applied to the Avoided Land.

Based on this assessment, BCD is confident a serious and irreversible impact to Box-gum Woodland can be avoided.

Golden Sun Moth

Golden Sun Moth habitat is available more broadly across the assessment area compared to Box-gum Woodland, with only the lowest quality vegetation zones not considered habitat. The project is still able to demonstrate a development consistent with avoiding a serious and irreversible impact as the more intense development has been restricted to the lowest quality vegetation zones in the north-east and north-west corners of the assessment area where habitat for Golden Sun Moth is not present. Even within the mapped habitat and impact areas, the actual habitat conditions for the species is considered generally lower quality.

A significant portion of land to be secured will retain and enhance Golden Sun Moth habitat. Approximately 130 hectares of Golden Sun Moth habitat will be avoided, with mitigation measures to be established to ensure the species can continue to occupy the same range within the development. A total of 96.36 hectares of Golden Sun Moth habitat would potentially be secured and managed for its biodiversity values using private land conservation measures. An additional 33.58 hectares will be protected in the Avoided Land, with enforceable management measures outlined in a BMP to be imposed on landowners. Management measures will include restrictions on certain types of fencing, restrictions on planting and biomass control that are anticipated to allow Golden Sun Moth to persist and move throughout the site.

Given the balance of land between impacted areas compared to Avoided Land and land to be managed for biodiversity reasons, BCD is confident an actual serious and irreversible impact to Golden Sun Moth can be avoided.

BCD's position is that the that the proposed action is not likely to cause serious and irreversible impacts on Box-gum Woodland or to the Golden Sun Moth and that the other approved conservation measures will ensure an acceptable biodiversity outcome is achieved.

Recommendation

- That the decision-maker determine, in accordance with section 6.5 of the *Biodiversity Conservation Act 2016,* that the clearing of native vegetation and loss of habitat on land proposed for biodiversity certification **is not** likely to have serious and irreversible impacts on biodiversity values.
- That the decision-maker having taken those serious and irreversible impacts into consideration, in accordance with section 8.8 of the Biodiversity Conservation Act 2016, determine that there **are not** additional and appropriate measures that will minimise those impacts.

5.3.1 Biodiversity certification assessment report prepared in accordance with the BAM

Section 6.13 of the BC Act provides that:

For the purposes of the biodiversity offsets scheme, a biodiversity certification assessment report is a report prepared by an accredited person in relation to the proposed biodiversity certification of land under Part 8 that—

(a) assesses in accordance with the biodiversity assessment method the biodiversity values of the land proposed for biodiversity certification, and

(b) assesses in accordance with that method the impacts on biodiversity values of the actions to which the biodiversity offsets scheme applies on the land proposed for biodiversity certification, and specifies the number and class of biodiversity credits to be retired to offset those impacts as determined in accordance with that method, and

(c) that specifies other proposed conservation measures on or in respect of other land to offset those impacts on biodiversity values and their value (in terms of biodiversity credits) determined in accordance with that method.

Discussion

The Woodbury Ridge Estate Biodiversity Certification Assessment Report was prepared by a team of qualified ecologists from Capital Ecology Pty Ltd, Sam Reid (BAAS20006), Shannan Thompson, Catherine Ross and Robert Speirs (BAAS17089). Sam Reid and Robert Speirs are accredited persons in accordance with section 6.10 of the BC Act. BCD is satisfied that the BCAR was prepared in accordance with the BAM

BCD have reviewed the BCAR and it is consistent with the BAM, noting the BCAR, and application for biodiversity certification, was prepared using the BAM 2017.

5.4 Biodiversity certification to be conferred only if approved conservation measures adequately address the likely impacts

An application for biodiversity certification must be accompanied by a BCAR and including a biodiversity certification strategy prepared in accordance with the BAM.

The BCAR and strategy have been reviewed by the Department of Planning and Environment (Environment, Energy and Science, DPIE-EES) BCD South East Planning team as documented in this Recommendation Report.

(1) The Minister may confer biodiversity certification only if the Minister is satisfied that (having regard to the biodiversity certification assessment report) the approved conservation measures under the biodiversity certification adequately address the likely impacts on biodiversity values of the biodiversity certification of the land.

(2) For the purposes of determining the approved conservation measures (including the number of credits that may be required to be retired), the Minister is to have regard to the biodiversity certification assessment report but is not bound by that report.

(3) This section applies to the extension or modification of biodiversity certification under this Part in the same way as it applies to the conferral of biodiversity certification.

Discussion:

In preparing this recommendation package, BCD has reviewed the BCAR and all measures to reduce the impacts of biodiversity values within the assessment area.

BCD's opinion is that the overall proposal demonstrates the hierarchy of avoid, minimise and offset. The approved conservation measures recommended in the biodiversity certification order are from the provisions of an offset through the retirement of credits as reported in the BCAR and other approved conservation measures to avoid and minimise impacts to biodiversity values. The order will direct the type, volume and timing regarding the retirement of the credit obligation.

Recommendation:

That the decision-maker be **satisfied** in accordance with section 8.7(1) of the *Biodiversity Conservation Act 2016* that, having regard to the biodiversity certification assessment report, the approved conservation measures under the biodiversity certification adequately address the likely impacts on biodiversity values of the biodiversity certification of the land.

6. Decision to confer biodiversity certification

Section 8.2 of the BC Act states that:

8.2 Biodiversity certification

The Minister may, by order published in the Gazette, confer biodiversity certification on specified land in accordance with this Part.

Section 8.5 of the BC Act sets out the grounds on which the Minister may decline to deal with an application for biodiversity certification or confer biodiversity.

8.5 Application for biodiversity certification

(5) The Minister may decline to deal with an application for biodiversity certification or to confer biodiversity certification—

(a) if the application for certification has not been duly made, or

(b) if the Minister considers that insufficient information has been provided to enable the conferral of biodiversity certification, or

(c) for any other reason the Minister considers sufficient.

Discussion:

BCD considers that the application for biodiversity certification **has** adequately addressed the requirements of the BAM and that the proposed conservation measures under the biodiversity certification adequately address the likely impacts on biodiversity values of the biodiversity certification of the land (section 5.2 above).

The conferral of biodiversity certification should be subject to the terms of the proposed Biodiversity Certification Order and Biodiversity Certification Agreement attached to the accompanying Briefing Note.

Recommendation

That the decision-maker **confer** biodiversity certification on land specified in the order in accordance with section 8.2 of the *Biodiversity Conservation Act 2016* 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.

Appendices

Appendix 1 - Native vegetation impacts and credit requirements (ecosystem credits)

Table 1	Ecosystem credit	s required to	offset the	proposed bio	odiversity	certification	of land
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Impacted plant community type/ TEC	Area impacted (hectares)	Number of ecosyste m credits	IBRA sub-region	Plant community types(s) that can be used under like for like offset rules
PCT 1093 – Red Stringybark – Brittle Gum – Inland Scribbly Gum dry open forest of the tablelands, South Eastern Highlands Bioregion (Not a TEC)	2.57	37	Murrumbateman	Southern Tableland Dry Sclerophyll Forests This includes PCT's: 299, 349, 351, 352, 653, 701, 727, 728, 730, 888, 957, 1093, 1177
PCT 1330 – Yellow Box – Blakely's Red Gum grassy woodland on the tablelands, South Eastern Highlands Bioregion	20.01 (for zones 1-6 which is TEC) + 30.84 (zone 7 not a TEC) Total: 50.85	98	Murrumbateman	White Box - Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highland This includes PCT's: 74, 75, 83, 250, 266, 267, 268, 270, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 286, 298, 302, 312, 341, 342, 347, 350, 352, 356, 367, 381, 382, 395, 401, 403, 421, 433, 434, 435, 436, 437, 451, 483, 484, 488, 492, 496, 508, 509, 510, 511, 528, 538, 544, 563, 567, 571, 589, 590, 597, 599, 618, 619, 622, 633, 654, 702, 703, 704, 705, 710, 711, 796, 797, 799, 840, 847, 851, 921, 1099, 1103, 1303, 1304, 1307, 1324, 1329, 1330, 1331, 1332, 1333, 1334, 1383, 1401, 1512, 1606, 1608, 1611, 1691, 1693, 1695, 1698

[title] Appendix 2 - Species impact and credit requirements (species credits)

Table 2 Species credits required to offset the proposed biodiversity certification of land

Impacted species	Area of habitat (hectares)	Number of species credits	IBRA sub-region
Golden Sun Moth (<i>Synemon plana</i>)	37.45	419	Murrumbateman
Superb Parrot (<i>Polytelis</i> <i>swainsonii</i>)	6.53	87	Murrumbateman
Silky Swainson-pea (<i>Swainsona sericea</i>)	0.86	12	Murrumbateman

[title]

Appendix 3 - Credit summary

Credit requirement			Proposed offset measures			Surplus or deficit	
Ecosystem or species credit	Name of credit	Credit class	Number of credits required for land proposed for certification (A)	Retirement of credits or payment into the BCF	Name of credit to be retired or obligation to be met by payment into the BCF	Number of credits to be retired (B) or obligation to be met by payment into the BCF	Number of credits in surplus or deficit (B-A)
Ecosystem credit	PCT 1093	Southern Tableland Dry Sclerophyll Forests This includes PCT's: 299, 349, 351, 352, 653, 701, 727, 728, 730, 888, 957, 1093, 1177	37	твс			Likely deficit of 15 credits
	PCT 1330	White Box - Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highla This includes PCT's: 74, 75, 83, 250, 266, 267, 268, 270, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 286, 298, 302, 312, 341, 342, 347, 350, 352, 356, 367, 381, 382, 395, 401, 403, 421, 433, 434, 435, 436, 437, 451, 483, 484, 488, 492, 496, 508,	98	TBC			Lkely surplus of 246 credits

[title]								
Credit requirement				Proposed offset measures			Surplus or deficit	
Ecosystem or species credit	Name of credit	Credit class	Number of credits required for land proposed for certification (A)	Retirement of credits or payment into the BCF	Name of credit to be retired or obligation to be met by payment into the BCF	Number of credits to be retired (B) or obligation to be met by payment into the BCF	Number of credits in surplus or deficit (B-A)	
		509, 510, 511, 528, 538, 544, 563, 567, 571, 589, 590, 597, 599, 618, 619, 622, 633, 654, 702, 703, 704, 705, 710, 711, 796, 797, 799, 840, 847, 851, 921, 1099, 1103, 1303, 1304, 1307, 1324, 1329, 1330, 1331, 1332, 1333, 1334, 1383, 1401, 1512, 1606, 1608, 1611, 1691, 1693, 1695, 1698						
Species credit	Superb Parrot		74	твс			Likely deficit of 57 credits	
	Silky swainson-pea		12	твс			Likely deficit of 7 credits	
	Golden Sun Moth		419	твс			Likely deficit of 54 credits	