

17 December 2025

Angus Witherby  
Acting Executive Manager Land and Property Development  
Darkinjung Local Aboriginal Land Council  
PO Box 401  
Wyong, NSW 2259

**Re: Reeves Street, Somersby Planning Proposal – Relationship of updated conceptual design to upland swamps**

Dear Angus,

We understand that Conservation Programs, Heritage & Regulation Group (CPHR) of the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) has raised concerns and/or items to be addressed in a letter dated 19 September 2025.

Key issues raised (amongst other items) are regarding potential impacts to the Coastal Upland Swamps arising from the future development of land at Lot 481 DP 1184693, Reeves St, Somersby NSW (the site), and the associated Biodiversity Certification Assessment Report (BCAR).

Specifically, these concerns relate to potential indirect impacts to Coastal Upland Swamps both within the residual part of the land proposed to be rezoned to C4 – Environmental Living, outside of the building envelopes, as well as upland swamps outside of the C4 zoned land which will be rezoned to C2 – Environmental Conservation from changes in water quality and quantity. This includes seeking that the BCAR acknowledge that the coastal upland swamps are a groundwater dependent ecosystem (GDE) and an assessment of surface and groundwater impacts associated with the proposed rezoning, including avoidance and minimisation measures. This letter provides responses to potential impacts on the Coastal Upland Swamps, followed by a table which responds to other concerns raised, and a revised conceptual subdivision plan.

### Assumptions of the biodiversity assessment

It is important to note that the BCAR has assumed complete clearing of all vegetation within the C4 zoned land, including areas of Coastal Upland Swamp endangered ecological community (EEC). This is a conservative assumption which overestimates the overall impacts of the rezoning. The revised conceptual subdivision plan clearly demonstrates that the degree of impact on Coastal Upland Swamp can be reduced, and Darkinjung Local Aboriginal Land Council are willing to discuss reasonable conditions of consent that could be incorporated into a BCAR proposal to give effect to the intent shown in the revised conceptual subdivision plan.

It is not, however, proposed to update the BCAR, as this would impose additional time delay and costs on Darkinjung Local Aboriginal Land Council, which are not warranted given the highly conservative assumption of complete loss of biodiversity values within the land proposed for certification.

### Coastal upland swamps and groundwater dependent ecosystem

CPHR states that the BCAR does not acknowledge the potential for Coastal Upland Swamp is a groundwater dependent ecosystem, referring to Cowley et al. 2019, Mason et al. 2016, and Mason et al. 2023 as evidence for this. Cowley et al. 2019 discusses groundwater dependence and identifies that four out of five swamps sampled in the Blue Mountains received greater than 30% of water from groundwater sources, whereas swamps in the Southern Highlands received less than 15% of water. Therefore, we acknowledge that there is potential for Coastal Upland Swamp to have partial dependence on groundwater.

The anticipated impact of the proposal on groundwater to the Coastal Upland Swamp is anticipated to be low due to:

- the relatively low area of the planning proposal site compared to the total groundwater catchment for Coastal Upland Swamp
- the relatively low dependence of Coastal Upland Swamp on groundwater
- low degree of change to the areas proposed become hard stand, which would be most likely to affect both groundwater recharge and surface water run-off
- the nature of the potential impacts at the site will not involve any excavations that would breach an impermeable sandstone layer that may be facilitating local groundwater retention

Furthermore, the conceptual subdivision design has been further refined as discussed below.

### Coastal Upland Swamps and surface water impacts

The mitigation measures detailed in the BCAR are expected to minimise impacts to surface water flows to areas of Coastal Upland Swamp, especially outside of the C4 area, preventing significant impacts to retained Coastal Upland Swamp in the C2 zoned area. Hard stand areas will be kept to a minimum, and measures such as on-site water catchment will be put in place to reduce run off from hard stand areas.

The potential impacts to Coastal Upland Swamp from changes to surface water will be further reduced by the strategic placement of developable areas detailed in the revised conceptual subdivision design (discussed below). Dwelling footprints and wastewater treatment structures will be placed outside of a 40m buffer from retained areas of Coastal Upland Swamp in the C2 area.

Additionally, impacts to Coastal Upland Swamp within the C4 area can be reduced and/or minimised through the placement of dwelling footprints, developable areas and firetrails. The revised layout demonstrates an approach that can avoid most direct impacts to mapped areas of Coastal Upland Swamp even within the C4 zone, as well as the prevention of indirect impacts through the maintenance of buffer areas (where possible) between development and Coastal Upland Swamp where possible.

### Revised subdivision design

In response to comments received Darkinjung Local Aboriginal Land Council have updated their conceptual subdivision design, seeking to minimise both direct and indirect impacts to areas of Coastal Upland Swamp, whilst seeking to also retain the intended number of development lots (14). The updated conceptual design includes:

- (a) locating conceptual housing envelopes outside of areas of Coastal Upland Swamp, and where possible, also outside of buffers to areas of Coastal Upland Swamp
- (b) predominantly locating bushfire perimeter trails outside of areas of Coastal Upland Swamp
- (c) predominantly locating bushfire asset protection zones outside of areas of Coastal Upland Swamp

it is noted that full detailed design has not occurred. The intent with the conceptual design is to demonstrate that there is potential to substantially avoid and minimise impacts to Coastal Upland Swamp within the lands proposed to be biodiversity certified for development.

There is also potential for future detailed design to seek to incorporate further design measures to further avoid or minimise impacts. This includes, but is not necessarily limited to:

- (a) covenant on title that directs where building envelopes can occur, and identifies the management and retention of Coastal Upland Swamp areas within the lots
- (b) consideration of options for management of sewerage, which may include either sensitively located areas for disposal of wastewater, or potentially a small sewage treatment plant for management of sewerage from the lots
- (c) further design details for asset protection zones and appropriate management measures

## Summary

The BCAR takes a conservative approach, assuming complete loss of all biodiversity value within the proposed C4 zoned land. Whilst it is noted that there is potential for Coastal Upland Swamp to be partially groundwater dependent, as noted above it has demonstrated through the updated conceptual subdivision design, development of the land is unlikely to result in complete clearing. Therefore, the BCAR is highly conservative in nature, greatly overestimating the actual biodiversity impacts anticipated. Thus, even should the Coastal Upland Swamp receive impacts due to changes to groundwater or surface water flows, the assumed impact is highly likely to be far greater than the actual impact that occurs.

Due to the significant timeframe and cost for development of the BCAR, it is proposed that the BCAR proceed to exhibition without being updated. Granting of biodiversity certification will allow Darkinjung Local Aboriginal Land Council clarity to develop detailed design plans, which will further flesh out the updated conceptual design.

In short, it is not considered necessary to update the BCAR, due to the highly conservative nature of the assessment which assumes complete loss of biodiversity values within the proposed C4 lands, whilst the updated conceptual design clearly shows that there is potential to further avoid and reduce impacts to Coastal Upland Swamp.

It is understood that Darkinjung Local Aboriginal Land Council would be willing to commit to appropriate controls for location of housing envelopes, location and management of bushfire perimeter trails, location of bushfire asset protection zones, and controls on stormwater and sewerage management.

## References

Cowley, K.L., Fryirs, K.A., Chisari, R. and Hose, G.C., 2019. Water sources of upland swamps in Eastern Australia: Implications for system integrity with aquifer interference and a changing climate. *Water*, 11(1), p.102.

DPE 2022. *Koala (Phascolarctos cinereus) Biodiversity Assessment Method Survey Guide*. Department of Planning and Environment.

Mason, T.J. and Keith, D.A., 2016. Vegetation change and conservation status of Coastal Upland Swamps. *Ecological Management & Restoration*, 17(3), pp.254-256.

Mason, T.J., Popovic, G.C., McGillicuddy, M. and Keith, D.A., 2023. Effects of hydrological change in fire-prone wetland vegetation: An empirical simulation. *Journal of Ecology*, 111(5), pp.1050-1062.

Yours sincerely

A light blue rectangular box containing the handwritten signature "Steven Ward" in a cursive script.

**Dr Steven Ward**

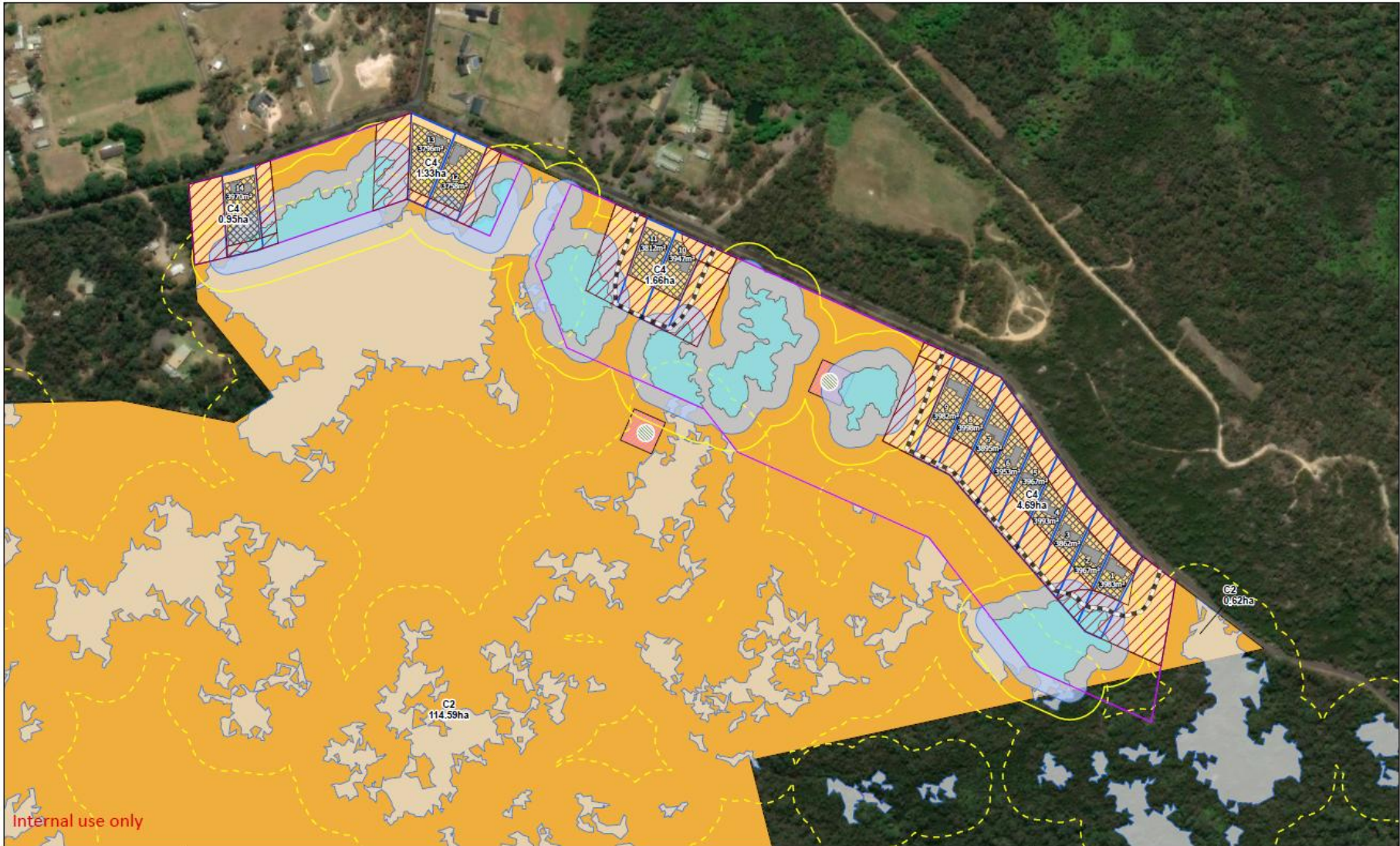
Associate Director/Associate Ecologist

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**Table 1 Responses to comments in CPHR letter (the table does not provide commentary on item 3 Next steps as this sets out processes)**

No.	Recommended action	Details (CPHR)	Response
1a	The BCAR should acknowledge that the Coastal Upland Swamp EEC is a GDE.	The BCAR notes that there are potential impacts to surface and groundwater flows, which have the potential to impact on areas of Coastal Upland Swamp EEC downstream from the subject land. The BCAR does not acknowledge that this EEC is a groundwater-dependent ecosystem (GDE) (e.g. Cowley et al. 2019, Mason et al. 2016, Mason et al. 2023).	Addressed in letter above.
1b	An assessment of surface and groundwater impacts associated with the proposed rezoning on Coastal Upland Swamp EEC (a prescribed impact under the BAM 2020) must be included in the BCAR. The groundwater assessment must outline the avoidance measures to prevent hydrological impacts to the EEC outside of the subject land, as well as measures to reduce impacts to the EEC within the subject land.	Furthermore, the BCAR does not provide a formal assessment of the surface and groundwater impacts associated with the proposed rezoning. Instead, the BCAR proposes to assess these impacts at the development application stage. BCARs must assess all ecological impacts associated with the proposed rezoning upfront prior to the development application stage. Changes in groundwater flow and discharge can adversely affect the Coastal Upland Swamp EEC causing changes in population dynamics, triggering local species extinction and loss of ecosystem function.	Addressed in letter above. Impacts to groundwater are considered unlikely due to the limited area of impact, avoidance measures already in place, as well as additional avoidance measures achieved through the conceptual subdivision design. Impacts to surface water flows are also expected to be minimal due to relatively low hardstand areas, control measures already in place as specified in the BCAR, as well as additional avoidance measures achieved through the conceptual subdivision design. The BCAR has also been highly conservative in nature assuming full loss of biodiversity values within the proposed certification area. The revised conceptual subdivision design shows that there is potential to reduce impacts on Coastal Upland Swamp EEC at the detailed design stage.
1c	The number, size and location of HBTs must be provided to accurately assess habitat suitability (e.g., the presence of suitable breeding habitat for hollow nesting species) and forms part of the credit profile for ecosystem credits.	The BCAR and spatial data state hollow-size classes as being S – L, however it does not describe the range (cm) in which hollows are categorised. Therefore, the number of hollows potentially suitable for the species cannot accurately be determined.	The size categories of the HBT data provided correspond to the following categories: <ul style="list-style-type: none"> <li>• Small: &lt;5 cm</li> <li>• Medium: 5 – 20 cm</li> <li>• Large: 21 – 40 cm</li> <li>• Very large: &gt;40 cm</li> </ul>

No.	Recommended action	Details (CPHR)	Response
1d	Meteorological conditions are to be reported as per the Department's threatened species guidelines for each type of survey (e.g., Section 2.11.1 of the NSW Survey Guide for Threatened Frogs).	As per the Department's threatened species guidelines and the TBDC, meteorological conditions on the subject land must be recorded. This is particularly important as significant/insignificant rainfall events, extreme temperatures and/or high wind can produce false negatives. For some species (e.g., amphibians), surveys must only be undertaken in certain meteorological conditions.	<p>EMM has included in the BCAR (Appendix B.1) all the weather data that we have available. Some weather data for earlier surveys completed by Umwelt is not available.</p> <p>EMM ecologists did not conduct surveys when conditions were not suitable for target species and weather data is provided for the more recent survey efforts.</p> <p>In relation to amphibians, all target species were recorded on site, i.e. there is no potential for false negatives.</p>
1e	SAT tracks to be included in the spatial data package and Figure 5.2.	Tracks for the Spot Assessment Technique (SAT) for Koala surveys have not been included in the spatial data package or figures in the BDAR. Therefore, their consistency with survey guidelines cannot be determined.	<p>GPS tracks were not recorded during SAT surveys and are not listed as a data requirement in Appendix F of the survey guidelines (DPE 2022). SAT surveys are performed at a GPS point with the 30 closest trees being sampled.</p> <p>EMM ecologists did not conduct surveys when conditions were not suitable for target species and weather data is provided for the more recent survey efforts.</p> <p>In relation to amphibians, all target species were recorded on site, i.e. there is no potential for false negatives.</p>
2a	Referral to the federal DCCEEW for Large-eared Pied Bat, Giant Burrowing Frog and Coastal Upland Swamp in the Sydney Basin Bioregion.	It was previously recommended by CPHR, to engage with the federal Department of Climate Change, Energy, the Environment and Water for species listed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) (DOC23/658691). Section 2.2 of the BCAR notes that referral is not required at the Planning Proposal Stage. It remains CPHR's view that it is best practice for the referral to be made early in the planning process.	<p>EMM notes that an EPBC referral will occur at some point for the project, given there is potential for significant impact to EPBC listed species, but is not aware of any legislative requirement for submission of an EPBC Act referral to granting of, or exhibition of, approval documentation under New South Wales legislation.</p> <p>Importantly, the Commonwealth does not usually consider a rezoning (which is the current approval) to consist of an 'action' that requires assessment under the EPBC Act. This is why the Biodiversity Certification Assessment Report (BCAR) states that a future development application would require referral to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW).</p>
2b	The Strategy (Umwelt 2020), is to be appended to the BCAR.	The BCAR states that Darkinjung has committed to the design and implementation of a strategy to further mitigate the unavoidable impacts of the future development of the proposed rezoning (Umwelt 2020). This Strategy document should be appended to the BCAR.	<p>CPHR have referred to an earlier version of the BCAR, Umwelt 2020. Instead of a strategy, the conceptual subdivision design has been revised to show potential to avoid and minimise impacts further at the detailed design stage. Therefore, there is no strategy document to be appended.</p> <p>Darkinjung is willing to discuss reasonable conditions of consent that could be incorporated into a BCAR approval.</p>



Internal use only

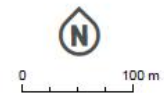
Plan prepared for:  
Darkinjung LALC



### Conceptual Subdivision

- |   |                                 |  |                               |
|---|---------------------------------|--|-------------------------------|
| Aboriginal Heritage Site 20m buffer zone to be provided | Upland Swamp 20m buffer         | Upland Swamp outside study area 40m buffer | Indicative APZ                |
| Indicative firetrail                                    | Upland Swamp 40m buffer         | Indicative Lot Boundary                    | Land Zoning                   |
| Aboriginal Heritage Items                               | Upland Swamp within study area  | Developable Area                           | C2 Environmental Conservation |
| Upland Swamp Study Area                                 | Upland Swamp outside study area | Indicative dwelling footprint (~270m²)     | C4 Environmental Living       |

Date: 4/12/2025 v2 Project: 1045 Coordinate System: GDA2020 MGA Zone 56



Scale: 1:4,000 @ A3

Plan drawn by:



www.thespatiallab.com.au