



Supplementary Ecological Assessment Proposed rezoning

Lot 100 DP 1201719

Hills Road, Rileys Hill

A Report to Cardy and Company Pty Ltd

May 2022

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TABLE OF CONTENTS

1	Introduction	4
1.1	Background.....	4
1.2	The Subject site.....	4
1.3	Additional ecological assessment	4
2	Additional flora survey.....	5
2.1	Introduction.....	5
2.2	Methodology.....	5
2.3	Results	5
3	Wallum froglet habitat survey.....	6
3.1	Introduction.....	6
3.2	Methodology.....	6
3.2.1	Results	6
4	References.....	7

1 INTRODUCTION

1.1 Background

Blackwood Ecological Services have been engaged to complete a Supplementary Ecological Assessment for a proposed rezoning of land at Hills Road, Rileys Hill. The land is proposed to be rezoned to allow for residential subdivision.

An Ecological assessment of the site was completed by Blackwood Ecology in 2020. The Biodiversity and Conservation Division (BCD) of DPIE completed a review of the planning proposal in December 2021. BCD have made a number of recommendations related to additional ecological assessment for the site.

1.2 The Subject site

The Subject site refers to the area proposed for rezoning. The Subject site for this study consists of land within Lot 100 DP 1201719. The Subject site is approximately 8.27 hectares.

The Subject site is located to the immediate south of the existing residential area of Rileys Hill. The site is accessed via Hills Road which forms the eastern boundary of the site. The western section of Broadwater National Park is located on the other side of Hills Road. Broadwater National Park is an area of 4290 hectares of wet and dry heathland, eucalypt forest, swampland and woodland. The park extends from near the village of Evans Head in the south, northwards towards the village of Broadwater and includes 9 kilometres of coastline.

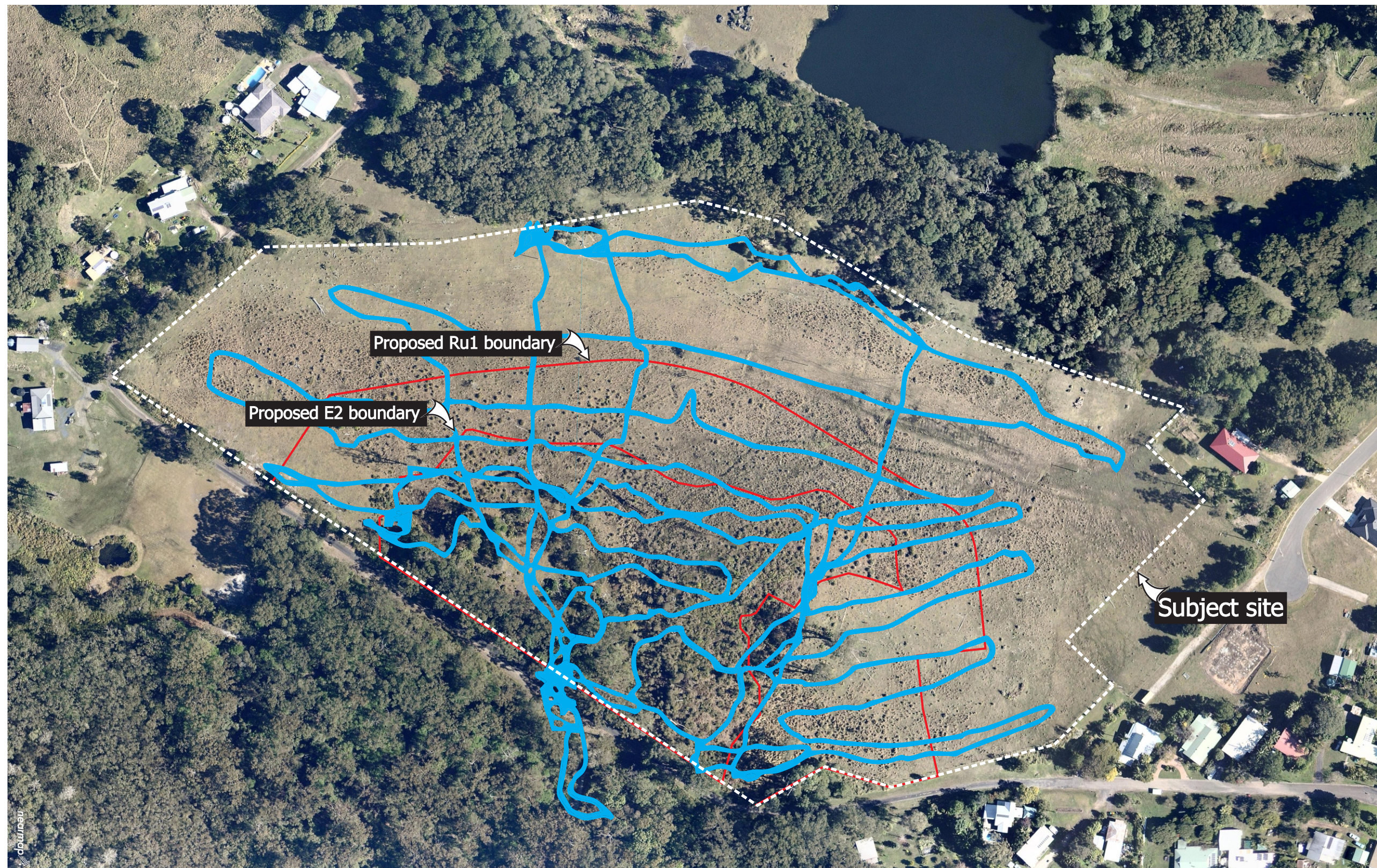
The site is currently used for grazing and consists predominantly of grassland with forested vegetation in lower lying areas along the eastern boundary.

1.3 Additional ecological assessment

BCD have requested that additional work be completed on the site including:

- A detailed Hairy joint grass survey across the site during a suitable time of year (considered to be November-April).
- Mapping of all potential Wallum froglet habitat on the site.
- Location of all specimens of Scrub turpentine across the site.

This supplementary assessment addresses these additional information requirements. The BCD response is included in full as **APPENDIX A**.



— Survey tracks March 2022 (mapped by handheld GPS Garmin Map 78)



0 Scale (metres) 100

2 ADDITIONAL FLORA SURVEY

2.1 Introduction

BCD have requested additional survey be completed by a suitably qualified and experienced person to:

- target any occurrence of Hairy joint grass (*Arthraxon hispidus*) on the site. Surveys are to be undertaken in accordance with the Department's *Surveying threatened plants and their habitats* (2020) and are to be completed within the months from November to April.
- target any occurrence of Scrub turpentine (*Rhodamnia rubescens*) on the site. Surveys are to be undertaken in accordance with the Department's *Surveying threatened plants and their habitats* (2020).

2.2 Methodology

Blackwood Ecology completed a Hairy joint grass and Scrub turpentine survey of the site on the 18th of March 2022 with additional survey completed on the 19th May 2022. All areas of the site were surveyed in accordance with the Department's *Surveying threatened plants and their habitats* (2020).

FIGURE 1 shows handheld GPS records (Garmin MAP 78) of survey tracks on the site from the 18th of March. This survey allowed for thorough coverage of the site.

2.3 Results

No occurrences of Hairy joint grass were recorded on the site in March or May 2022.

It should be noted that surveys in 2018 also did not record this species. The 2018 surveys were completed on the 2nd May. Blackwood Ecology have previously found Hairy joint grass to be readily detectable on sites on the North Coast in the month of May and it is considered that the results of the 2018 survey further support the conclusion that Hairy joint grass is not present on the Subject site.

No occurrences of Scrub turpentine were recorded on the site. A single occurrence of this species was observed within a forested area on the neighbouring property to the west of the Subject site.

3 WALLUM FROGLET HABITAT SURVEY

3.1 Introduction

BCD have requested additional survey be completed by a suitably qualified and experienced person to determine the full extent of Wallum froglet (*Crinia tinnula*) habitat within the planning area.

3.2 Methodology

Blackwood Ecology completed a Wallum froglet habitat survey of the site on the 18th of March 2022 with additional survey completed on the 19th May 2022. All areas of the site were surveyed.

FIGURE 1 shows handheld GPS records of survey tracks on the site from the 18th of March. This survey allowed for thorough coverage of the site.

3.2.1 Results

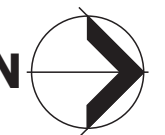
Core Wallum froglet is centred around the lower lying forested area along the eastern boundary of the site. This area includes ponds and shallow channels of wallum-influenced low pH waters fringed by Broad-leaved paperbark and supporting native ferns (such as Gristle fern, Swamp water fern and Batwing fern) and sedges (including Tall saw sedge, *Baloskion tetraphyllum* and *Cyperus* species) together with native and exotic grasses.

As the topography rises to the south, west and north the level of inundation decreases and exotic pasture grassland dominates, with little native vegetation cover and no areas of standing water. **FIGURE 2** shows the extent of Wallum froglet habitat with the interface between wallum influenced wetland/swamp sclerophyll woodland and pasture grassland mapped with the aid of handheld GPS. This area closely corresponds with the proposed E2 zone with a small area located within the proposed RU1 zone.

Wallum froglets were heard calling from several locations during site surveys in March and May 2022. All of these locations are located within the area of mapped habitat as shown in **FIGURE 2**.



----- Wallum froglet habitat (mapped by handheld GPS Garmin Map 78)



0 Scale (metres) 100

4 REFERENCES

Ardill Payne & Partners (2017) **Planning Proposal/LEP Amendment Request. Lot 100 DP 1201719, Hills Road, Rileys Hill.** Submission to Richmond Valley Council.

Department of Environment & Conservation (2005) **Threatened species assessment guidelines. The assessment of significance.**

Department of Environment & Conservation (2011). **Threatened species, populations and ecological communities.** www.threatenedspecies.environment.nsw.gov.au

Department of Planning, Industry and Environment (2020) **Surveying threatened plants and their habitats.**

Office of Environment and Heritage (2012) **Broadwater National Park Plan of Management.**



APPENDIX A

BCD REVIEW OF PLANNING PROPOSAL



Our Ref: DOC21/956833
Your Ref: PP2016-0006

General Manager
Richmond Valley Council
Locked Bag 10
Casino NSW 2470

Attention: Mr Craig Rideout

Dear Mr McDonald

RE: Rileys Hill Planning Proposal – Lot 100 DP 1201719

Thank you for your referral via the NSW Planning Portal dated 29 October 2021 seeking comments from the Biodiversity and Conservation Division (BCD) of the Biodiversity, Conservation and Science Directorate in the Environment, Energy and Science Group of the Department of Planning, Industry and Environment on the Planning Proposal at Lot 100 DP 1201719, Rileys Hills. I appreciate the opportunity to provide input.

The BCD forms part of a Group that has responsibilities relating to biodiversity (including threatened species and ecological communities, or their habitats), National Parks and Wildlife Service estate, climate change, sustainability, flooding, coastal and estuary matters.

As outlined in the Planning Proposal (PP), prepared by Ardill Payne & Partners (dated August 2021), the following is proposed at Lot 100 DP 1201719, Hills Road, Rileys Hill:

- a. rezoning part of the land to part RU5 – Village Zone and part E2 – Environmental Conservation and retaining a portion of the land as RU1; and
- b. changing the proposed minimum lot size for the proposed RU5 zoned portion of land from 40ha to 800m² to enable the RU5 zoned land to be subdivided and developed for residential purposes (NB: the original proposal was for the RU5 zoned land to have a 600m² minimum lot size); and
- c. applying a 4ha minimum Lot size over the balance of the subject lot to remain RU1 and the land to be zoned E2; and
- d. providing a single dwelling opportunity designation to the entire RU1 zoned land remnant Lot.

Following our review of the above documents, we can advise that several issues are apparent with the assessments for biodiversity, acid sulfate soils and flooding. These issues are discussed in detail in **Attachment 1** to this letter.

In summary, the BCD recommends that:

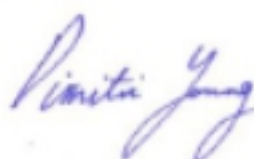
1. To determine whether hairy joint grass is present or absent on site, a suitably qualified and experienced person should conduct a targeted survey at a suitable time wherever suitable

habitat exists within the planning area. Surveys should be undertaken in accordance with the Department's *Surveying threatened plants and their habitats*, dated April 2020.

2. Efforts should be taken to determine the full extent of wallum froglet habitat within the planning area and wherever habitat for this species is identified, this should be included with the area mapped as E2 – Environmental Conservation to ensure impacts on threatened species habitat are avoided.
3. The locations of all occurrences of scrub turpentine (*Rhodamnia rubescens*) be confirmed through targeted surveys undertaken in accordance with the Department's *Surveying threatened plants and their habitats*, dated April 2020 and any occurrences of this species should be included within the area of E2 – Environmental Conservation.
4. Upon finalisation of revised threatened species surveys and habitat mapping, the E2 zone boundary should be adjusted, as required, to ensure all areas of High Environmental Value (HEV) are appropriately zoned, to prevent inappropriate development impacts in these areas.
5. Rather than retaining the RU1 zoning over the band of land between the proposed E2 – Environmental Conservation zone and the proposed RU5 – Village zone, the council should consider applying:
 - a. The E3 – Environmental Management zone to create a buffer between residential settlement and the environmental conservation area, or
 - b. The RE1 - Public Recreation zone or RE2 – Private Recreation zone, depending on proposed ownership, so this land could be used as open space, while at the same time, allow for the protection and enhancement of the natural environment for recreational purposes.
6. The E2 and RU1 zoned lands should form a single residue, attached to either Lot 1 or Lot 2 of the proposed subdivision, as illustrated on the *Proposed Lot Changes* plan on page 19 of the Planning Proposal/LEP Amendment Request so the subdivision would thereby comprise of 35 lots, not 36.
7. The PP should include the preparation of a Biodiversity Management Plan (BMP) to protect the HEV land known to exist within the planning area, and in particular, the area proposed for rezoning to E2 – Environmental Conservation.
8. Acid sulfate soils are not a constraint to the proposed rezoning and a management plan is not required.
9. All future Planning Certificates prepared in accordance with Section 10.7 of the *Environmental Planning and Assessment Act 1979*, relating to any of the properties created within the planning area should include a note to indicate the lot is flood affected, and likely to become isolated during flood events.

If you have any questions about this advice, please do not hesitate to contact Ms Nicky Owner, Senior Conservation Planning Officer, at nicky.owner@environment.nsw.gov.au or 0050 8254.

Yours sincerely



1 December 2021

DIMITRI YOUNG
Senior Team Leader Planning, North East Branch
Biodiversity and Conservation

Attachment 1: Detailed BCD Comments – Rileys Hill Planning Proposal

The Biodiversity and Conservation Division (BCD) of the Department of Planning, Industry and Environment has reviewed the Planning Proposal (PP) for Lot 100 DP 1201719, Rileys Hills, prepared by Ardill Payne & Partners (dated August 2021), and we provide the following comments.

A. Background

As outlined in the PP, the following is proposed at Lot 100 DP 1201719, Hills Road, Rileys Hill:

- a. rezoning part of the land to part RU5 – Village Zone and part E2 – Environmental Conservation and retaining a portion of the land as RU1; and
- b. changing the proposed minimum lot size for the proposed RU5 zoned portion of land from 40ha to 800m² to enable the RU5 zoned land to be subdivided and developed for residential purposes (NB: the original proposal was for the RU5 zoned land to have a 600m² minimum Lot size); and
- c. applying a 4ha minimum Lot size over the balance of the subject lot to remain RU1 and the land to be zoned E2; and
- d. providing a single dwelling opportunity designation to the entire RU1 zoned land remnant Lot.

B. Biodiversity

Identification of High Environmental Value lands.

We commend and support the applicant's proposal to rezone those parts of the site with significant biodiversity assets to an E2 – Environmental Conservation zone.

However, as set out in the North Coast Regional Plan (NCRP), to achieve the biodiversity goals, directions, and actions outlined in the NCRP, the PP should identify all areas of High Environmental Value (HEV) at the property scale. HEV criteria are set out on page 18 of the NCRP.

Despite the requirements of the NCRP, our review of the ecological assessment indicates that not all HEV land has been considered in relation to the planning area. For example, while the ecological consultant identified potential habitat for the threatened hairy jointgrass (*Arthraxon hispidus*), this species is assumed to be absent from the site. However, this determination was based on surveys undertaken at an unsuitable time of year.

According to the Department's Threatened Species Data Collection (TBDC), hairy jointgrass is detectable from November to April. We note surveys to detect the species in the planning area were undertaken in May. This is considered unsuitable given the species dies back in the cooler months, thereby making it undetectable.

Therefore, as expected, no hairy jointgrass was observed growing on site.

In addition, while the threatened wallum froglet (*Crinia tinnula*) was identified on site, the full extent of habitat has not been mapped.

BCD Recommendations:

1. To determine whether hairy joint grass is present or absent on site, a suitably qualified and experienced person should conduct a targeted survey at a suitable time wherever suitable habitat exists within the planning area. Surveys should be undertaken in accordance with the Department's *Surveying threatened plants and their habitats*, dated April 2020.

2. Efforts should be taken to determine the full extent of wallum froglet habitat within the planning area and wherever habitat for this species is identified, this should be included with the area mapped as E2 – Environmental Conservation to ensure impacts on threatened species habitat are avoided.

Furthermore, in examining the list of species recorded within the planning area, as contained within an appendix to the ecological assessment, we note the critically endangered plant scrub turpentine (*Rhodamnia rubescens*) has been recorded. This species was gazetted as critically endangered on the schedules of the *Biodiversity Conservation Act 2016* (BC Act) on 1 February 2019, well prior to the ecological assessment being prepared.

We encourage the Richmond Valley Council to note scrub turpentine is a potential Serious and Irreversible Impact (SII) species. Should any individuals of the species be impacted at the subdivision (local) development application (DA) stage, and if the council determines the proposal is likely to have a SII on this species, the BC Act requires the DA to be refused.

BCD Recommendation:

3. The locations of all occurrences of scrub turpentine should be confirmed through targeted surveys undertaken in accordance with the Department's *Surveying threatened plants and their habitats*, dated April 2020 and any occurrences of this species should be included within the area of E2 – Environmental Conservation.
4. Upon finalisation of revised threatened species surveys and habitat mapping, the E2 zone boundary should be adjusted, as required, to ensure all areas of HEV are appropriately zoned, to prevent inappropriate future development impacts in these areas.

Land Use Conflict

We note that a band of land between the proposed E2 – Environmental Conservation zone and the proposed RU5 – Village zone is proposed to retain its RU1 – Primary Production zoning. Given its proximity to proposed residential settlement and HEV land, this has the potential to create land use conflict. Hence, the council should consider rezoning the area to a more appropriate zone to reduce land use conflict. The area would be better zoned to a land use that complements the proposed adjoining land use such as E3 or RE1 or RE2. It is the BCDs view that a suitable recreation zoning would result in this area complementing the existing village atmosphere, be available for the enjoyment by village residents, and at the same time, be managed to provide a suitable buffer between the proposed E2 and RU5 zones.

BCD Recommendation:

5. Rather than retaining the RU1 zoning over the band of land between the proposed E2 – Environmental Conservation zone and the proposed RU5 – Village zone, the council should consider applying:
 - a. The E3 – Environmental Management zone to create a buffer between residential settlement and the environmental conservation area, or
 - b. The RE1 - Public Recreation zone or RE2 – Private Recreation zone, depending on proposed ownership, so this land could be used as open space, while at the same time, allow for the protection and enhancement of the natural environment for recreational purposes.

Minimum Lot Size Provisions

We note the PP specifies a minimum lot size of 4 hectares over the proposed E2 and RU1 zoned land. This is appropriate, given the size of these areas and will remove any future potential for subdivision of these lots.

Dwelling Entitlements

In addition to the creation of 35 lots with a minimum lot size of 800m², the PP also proposes to allow for the creation of an additional dwelling entitlement for the RU1 zoned land. The BCD does not support this proposal due primarily to the bushfire threat imposed by retained vegetation, and the likely requirement for additional clearing to provide the necessary bushfire asset protection zones to any future dwelling and ancillary development on the RU1 zoned land. As a result, we are of the view that no further dwelling entitlement should be created within the area to retain an RU1 zoning.

BCD Recommendation:

6. The E2 and RU1 zoned lands should form a single residue, attached to either Lot 1 or Lot 2 of the proposed subdivision, as illustrated on the *Proposed Lot Changes* plan on page 19 of the Planning Proposal/LEP Amendment Request so the subdivision would thereby comprise of 35 lots, not 36.

Ongoing Management of High Environmental Values

BCD Recommendation:

7. The PP should include the preparation of a Biodiversity Management Plan (BMP) to protect the HEV land known to exist within the planning area, and in particular, the area proposed for rezoning to E2 – Environmental Conservation.

C. Acid Sulfate Soils

We have reviewed the *Acid Sulfate Soil Assessment & Management Plan, Proposed Rezoning for Future Residential Subdivision and Development, Lot 100 DP 1201719 Hills Road, Rileys Hill*, prepared for Monal Pty Ltd by Ardill Payne, and dated October 2020.

The assessment concludes that “actual acid sulfate soil was detected, a management plan was prepared and development consent is required”. While not specified in the report, we presume this is due to the requirements of clause 6.1 of the Richmond Valley Local Environmental Plan 2012 (LEP 2012).

Based on our examination of the acid sulfate soil laboratory testing results, no samples had any potential sulfidic acidity beyond the limits of detection. As such, acid sulfate soils are not a constraint to the proposed rezoning. Furthermore, a management plan is not required. It therefore follows that development consent is not required under Clause 6.1 of LEP 2012.

BCD Recommendation:

8. Acid sulfate soils are not a constraint to the proposed rezoning and a management plan is not required.

D. Flooding

According to the Riley's Hill Development, Flood Study Report, Investigation and Emergency Management, dated September 2021, the site is identified as a rare Low Hazard - Extreme Flood Fringe.

The site is mostly above the defined 5m AHD design flood and the flooding of the small remaining part of the site could be managed by localised fill/earthworks. The site elevations vary mainly between 4.5m AHD and 14m AHD. Approximately 82% of the site is located above 5m AHD with more than 50% being located above 5.5m AHD. Areas of the site within the future development footprint will be filled to a minimum level of 5m AHD to achieve a flood free site.

From the Richmond River Flood Mapping estimates of flood levels at Riley's Hill are:

- 20 year ARI - 3.2m AHD;
- 50 year ARI - 3.9m AHD;
- 100 year ARI - 4.4m AHD;
- 500 year ARI - 5.6m AHD;
- PMF flood level 8.9m AHD.
- Climate change scenario 900mm sea level rise and 20% rainfall intensity increase -5.1m AHD.

Filling within the future development footprint to over 5.0m AHD ensures the development is above the estimated 100-year flood level and has allowance for future climate change impacts. Minimal impacts on flood behaviour are anticipated from filling.

The future development site will become isolated during a flood event. Access to the site will start to be affected from approximately the 20 year ARI flood event. Flooding in the Riley's Hill area of the Richmond River catchment has relatively slow rising flood waters providing sufficient warning time for evacuation, if required, or stocking up on supplies. Road access to the site could be cut for several days. Flood water velocities in the area would be relatively low and access by boat would be possible.

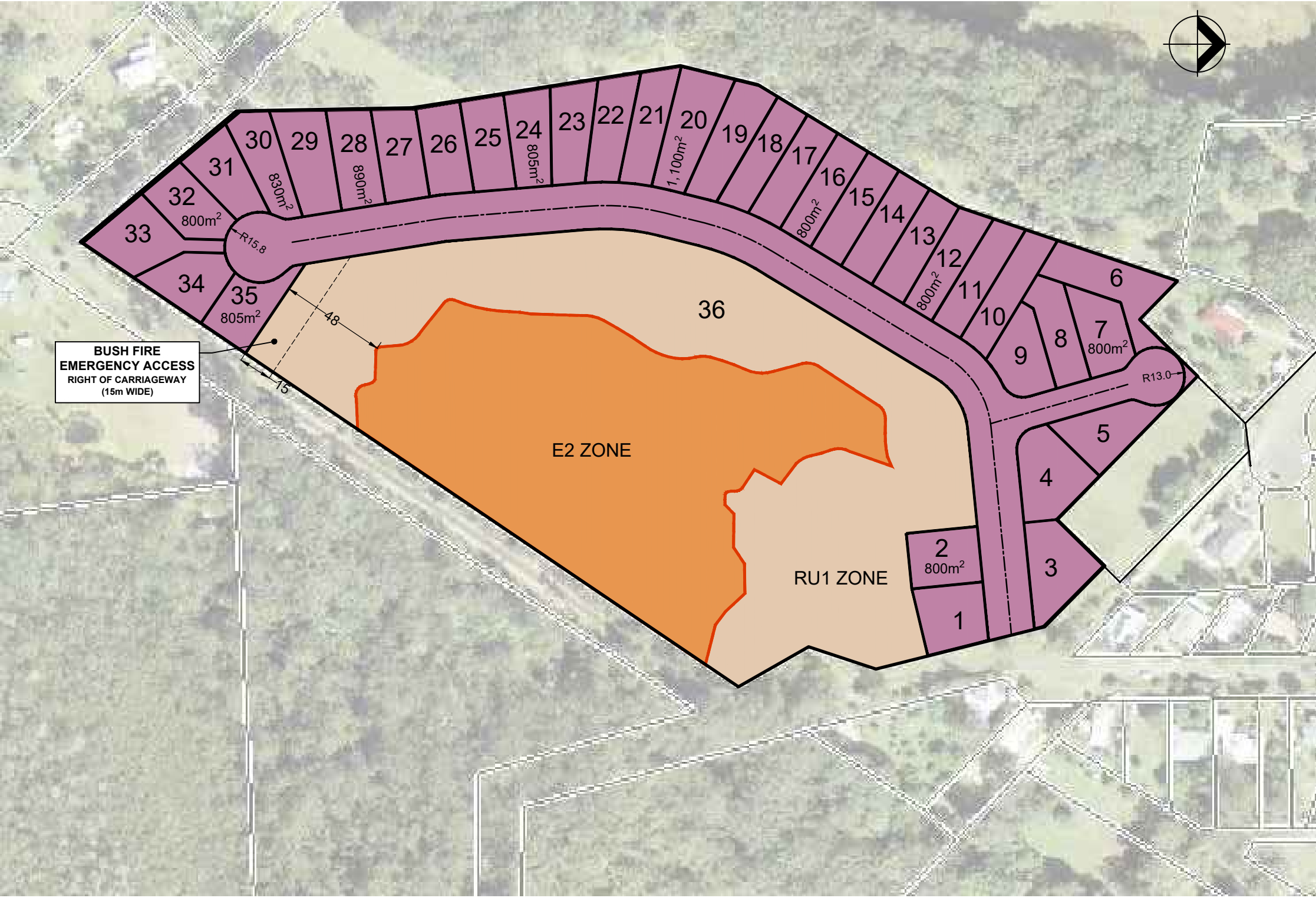
BCD Recommendation:

9. All future Planning Certificates prepared in accordance with Section 10.7 of the *Environmental Planning and Assessment Act 1979*, relating to any of the properties created within the planning area should include a note to indicate the lot is flood affected, and likely to become isolated during flood events.



APPENDIX B

PROPOSED ZONING LAYOUT



- TOTAL LOTS = 36
- 41,736 m² RU5 ZONE Village
 - 21,041 m² RU1 ZONE Primary Production
 - 19,456 m² E2 ZONE Environmental Conservation

BUSH FIRE
EMERGENCY ACCESS
RIGHT OF CARRIAGEWAY
(15m WIDE)

This plan is NOT to be used for construction purposes unless it carries the approval stamp of the local authority.

Issue	Date	Description	App'd

Client:	
Alan Cardy	

Project:	
Proposed Rezoning	
Lots 100 DP1201719	
Hills Road, Rileys Hill	

Title:	
Concept Subdivision	
Layout Plan	
(Proposed Zoning Map)	
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Designed	JK	Scale	1:1000 @ A1, 1:2000 @ A3
Drawn	LH		0 10 20 30 40 50
Checked	JK	File Name	8174 Proposed Zoning Map.dwg
Approved		Date	APRIL 2019
		Datum	AHD
Job No.	8174	Dwg No.	SP1
		Issue	P1