

JMD Ref: [12122B]
Date: 27th July 2018
ELA Ref: 18SUT-10984

Mr. Greg Kellner
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Dear Greg,

**Re: Picton East / Reeves Creek Rezoning
Lot Layout and Limit of Rezoning Review – Specialist Study report Biodiversity and Riparian Land**

As requested, Eco Logical Australia have now reviewed the updated zoning and lot size documentation prepared and issued by JMD as well as our previous report *Reeves Creek Rezoning – Remembrance Drive, Picton Creek – Biodiversity and Riparian Land 2015* (ELA 2015).

Based on the updated zoning as shown in Attachment 1 (ref: 12122B-E2 Issue B dated 23-05-2018), this letter provides an update to the following sections of the report (ELA 2015):

1.3 The Reeves Creek study area

The Reeves Creek study area comprises 29.54 ha. It is proposed to amend the WLEP and rezone the study area into the following zones: E2 Environmental Conservation, E4 Environmental Living and R2 Low Density Residential.

4.2 Vegetation mapping

Table 3: Relationship between vegetation and threatened ecological communities in the study area

Native Veg of Cumberland Plain (NPWS 2002)	Plant Community Types (PCTs) (OEH 2011)	Threatened Ecological Community (TSC Act)	Amount of Threatened Ecological community Validated in the Study Area (ha)	
			ELA 2015	Addendum 2018
Shale Hills Woodland (MU 9)	Grey Bow – Forest Red Gum grassy woodland on shale of the southern Cumberland Plain, Sydney Basin Bioregion	Cumberland Plain Woodland in the Sydney Basin Bioregion	3.35 ha	1.8 ha
Alluvial Woodland (MU 11)	Forest Red Gum – Rough Barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Region	River Flat Eucalypt Forests of the NSW North Coast, Sydney basin and South-East corner Bioregions	2.49 ha	2.38 ha

4.2.1 Shale Hills Woodland

Approximately 1.8 ha of SHW has been validated within the study area. This SHW is a sub-community of Cumberland Plain Woodland in the Sydney Basin Bioregion (CPW) and is listed as a CEEC under the TSC Act. Of this, 1.75 ha was SHW (Open Woodland) and 0.06 ha was SHW (DNS).

4.2.2 Alluvial Woodland

Alluvial Woodland (AW) vegetation is a sub-community of the River-flat Eucalypt Forest (RFEF) and is listed as an Endangered Ecological Community (EEC) under the TSC Act. Approximately 2.38 ha of the AW community occurs along Reeves Creek and its tributaries within the study area.

5.1.1 NoW requirements for riparian corridors

No changes, note that the 2015 report included the following;

“A total riparian corridor (RC) of 5.98 ha (rounded to 6.0 ha) would be required within the study area, as calculated from the required VRZ and channel widths of the validated streams. The required RC could not be achieved within the bounds of the study area, however NoW have given in-principle support for the headwaters of streams B, C and D outside of the study area to be used for offsetting of the required RC, given it will improve upstream areas and is proposed for rezoning at a later stage (pers comm. Jeremy Morice NoW, during site visit on 21 November 2014).”

5.2.1 Vegetation communities

Vegetation proposed to be included in residential areas (R2) have been calculated based on the proposed lot layout plan and zoning. Area of cleared and retained endangered ecological communities are shown in **Table 9**.

Balance areas are those which will be impacted by APZ and associated infrastructure.

Table 9: Vegetation communities and proposed zoning

Vegetation community	ELA 2015			Addendum 2018					
	Zoned E2 and E3 (ha) (retained)	Zoned R2 and R3 (ha) (cleared)	Total (ha)	Zoned E2		Zoned E4		Zoned R2 Impacted (ha)	Total (ha)
				Retained (ha)	Balance (ha)	Retained (ha)	Balance (ha)		
Shale Hills Woodland (Open Woodland)	0.76 (42%)	1.04 (58%)	1.80	-	-	0.73 (42%)	0.04 (3%)	0.98 (56%)	1.75
Shale Hills Woodland (DNS)	0	0.98 (100%)	0.98	-	-	-	-	0.06 (100%)	0.06
Shale Hills Woodland (DNG)	0	0.57 (100%)	0.57	-	-	-	-	-	-
Sub-Total (SHW)	0.76 (23%)	2.59 (77%)	3.35	-	-	0.73 (40%)	0.04 (2%)	1.04 (57%)	1.8
Alluvial Woodland	1.91 (77%)	0.58 (23%)	2.49	1.77 (74%)	0.4 (17)	-	-	0.22 (9%)	2.38
TOTAL EEC	2.67 (46%)	3.17 (54%)	5.84	1.77 (42%)	0.4 (10%)	0.73 (17%)	0.04 (1%)	1.26 (30%)	4.18

5.2.3 Threatened flora and fauna

Fauna

Habitat assessments for fauna identified a number of hollow bearing trees within the south western corner of the study area in a patch of SHW (Open Woodland). These four trees are proposed for E4 Environmental Living, and as such will be retained. Three of these trees are within the study area and the other is on the property boundary.

5.3.2 Zone E4 Environmental Living

The objectives of this zone are:

- To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values.
- To ensure that residential development does not have an adverse effect on those values.
- To provide for a limited range of rural land uses that do not have an adverse effect on surrounding land uses.

The SHW (Open Woodland) in the south western corner of the study area will assist in protecting 0.73 ha of the EEC, including three hollow bearing trees within the study area and one on the study area boundary. The area contains open woodland with important habitat features, and is located on the edge of the remnant vegetation that adjoins the study area. While the condition of the vegetation beyond the site is unknown, given that the vegetation within the study area is at its edge, the proposed E4 zoning is considered appropriate. In this regard, the proposed zone would provide for suitable low impact recreation opportunities for adjoining residential properties while also contributing to the maintenance of the study areas broader environmental values.

Conclusion

While the overall rezoning area, indicative lot layout plan, and zonings have evolved since our assessment and corresponding report was completed, we acknowledge that our assumptions made are still valid and our report may still be used for the current rezoning proposal.

If you have any questions or would like to discuss further please do not hesitate to contact me on 8536 8610.

Yours faithfully



Suzanne Eacott
Ecologist

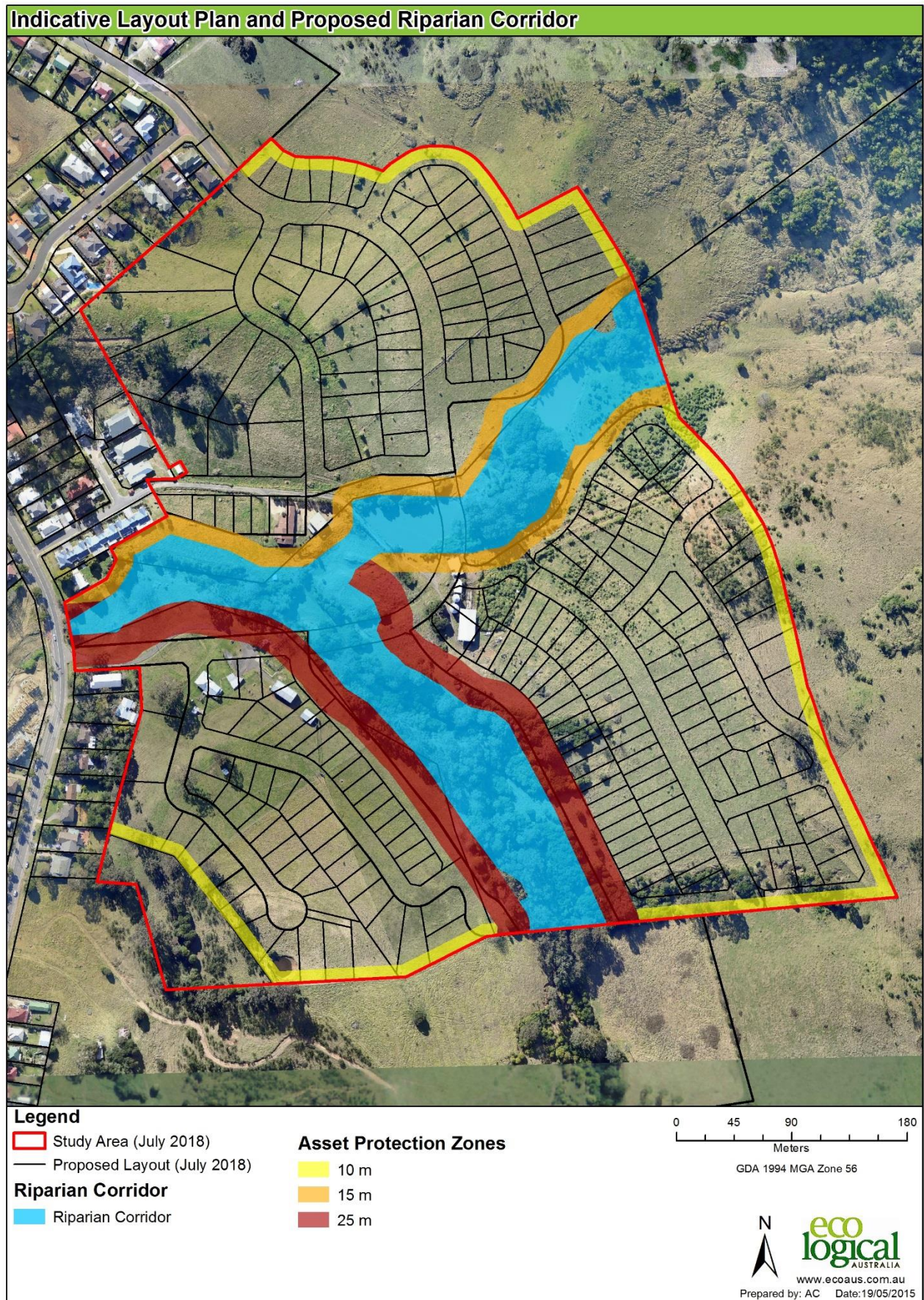


Figure 15: Averaged riparian corridor and associated APZs

Attachment 1

