Our Ref: 23067 DB20 Anambah URA DA1 Biodiversity Advice
Via: email

Date: 20 May 2025

Attn: Sandra Hutton
DB20 Pty Limited Pty Ltd
365 New South Head Road,
Double Bay NSW 2028

Dear Sandra,

RE: 381 ANAMBAH RD, ANAMBAH URBAN RELEASE AREA BIODIVERSITY ADVICE – DA1

MJD Environmental has been engaged by DB20 Pty Limited to prepare Biodiversity Advice for a development application across Part Lot A/-/DP431640, Part Lot 1 and Lot 2/-/DP1110433 381 Anambah Road, Anambah 2320 (the 'Site').

The proposal consists of an extension to the lead in road from the west with the creation (over four stages) of 173 standard residential lots and 2 super lots (for future subdivision), with a new public road and active movement network along with associated works including bulk earthworks, stormwater management, vegetation riparian zones, bushfire management, landscaping, pathways, utilities and other typical subdivision works. Two temporary secondary accesses are proposed (to River Road and to Anambah Road) and a temporary APZ is applied around the perimeter of the subdivision pending future progressive development as zoned.

The extent of works for the development application and site ecology are detailed in **Attachment 1**, and form part of the Anambah Urban Release Area (AURA). The development area contains R1 General Residential and C4 Environmental Living Zoned land with a minimum lot size from 450 m^2 (R1) to 1 hectare (C4). The overall footprint of the development is 34.28 hectares, noting that no subdivision or residential lots extends into the C4 zoned land.

AURA Landscape Context

The Anambah Urban Release Area (AURA) occurs wholly within the Hunter IBRA Subregion and is located approximately 10km west of the Maitland CBD. The Urban Release Area encompasses a total of eleven (11) allotments. These allotments occur in a largely cleared state, currently and historically used as agricultural land for livestock grazing.

Ecological Assessment Review

NSW State Vegetation Type Map shows a range of communities over the site in the watercourse, however these are generally mapped over exotic vegetation, not based on floristic plots, often list inappropriate formations or are placeholder communities that are not intended for assessment.

Aerial imagery shows that the site exists in a managed state consisting of grazed pasture with limited to no native vegetation with the exception of a single eucalypt tree (in such poor health as to be difficult to identify) which sits outside of the development footprint (for clarity – the tree does not require removal under the proposal). The tree is pictured in **Attachment 2**. Six (6) BAM full floristic plots were undertaken in November

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and December 2023 to determine the vegetation integrity of pasture (see **Attachment 3**) across the landholding. The results of this assessment determined the site consists predominantly of exotic grass species such as *Briza subaristata* and *Paspalum dilatatum* with a VI score classed as Low, which would not generate biodiversity credits under the Biodiversity Offsets Scheme (BOS).

The temporary APZ extends beyond development earthworks extents, and across the watercourse. It is noted that the site will not require native vegetation impact to achieve the requirements of an APZ, therefore no assessment is required.

A VMP has been developed to accompany the proposal, including a Riparian Assessment that determined extant stream order for rehabilitation of the watercourse associated with the development stage. Further site assessment for the VMP confirmed there is no extant plant community on the site. There is extremely limited native vegetation present in the watercourse. Species which persist are generally common and associated with riparian areas, and occur at low densities. Exotic and pasture improvement species dominate throughout the site. Native species opportunistically recorded regularly or notably in the riparian corridor included *Angophora floribunda* (Rough-barked Apple), *Casuarina glauca* (Swamp Oak), *Paspalum distichum* (Water Couch), and *Ranunculus inundatus* (River Buttercup). No native vegetation occurs within the development footprint.

A review of Biodiversity Values Mapping Threshold Tool determined the site does not contain any BVMT mapped areas. Due to the predominantly cleared nature of the Site the proposal will not impact any existing habitat corridors. Large patches of native vegetation to the west of the site function as a habitat corridor in a north to south plane across the greater locality.

The site is mapped as containing multiple watercourses with a large catchment, draining across the site in a west to east direction. The extent of works will encroach within 40 m of a mapped waterline; under the Water Management Act 2000 the proposal will require Controlled Activity Approval (CAA) for works on waterfront land. To satisfy the NRAR Water Management Act 2000 a detailed Riparian Vegetation Management Plan will accompany the proposal to recreate functional riparian corridors within the site.

Maitland City Council adopted an Environmental Sustainability Strategy on 24 October 2023, which includes a Green & Blue Grid Map (GBG) to guide sustainable development in the LGA. The watercourse associated with the development application is included as a component of the GBG, coarsely mapped from existing NSW Office of Water hydroline data. The development footprint overlaps the margins of the GBG polygon, however these encroachments are associated with banks that will be stabilised and revegetated with native species under the VMP. No subdivision or residential lots extends into the GBG, and associated works (VMP) will establish and maintain functional riparian habitat and future connectivity across the landscape.

NSW Fisheries Management Act 1994

The NSW Department of Primary Industries' (NSW DPI) purpose is to increase the capacity of primary industries and communities to drive economic growth across NSW. A key result area of NSW DPI's performance is the sustainable management of natural resources, including the conservation and management of 'fish' and their habitats in accordance with the objects of the Fisheries.

<u>Development Approvals under the Fisheries Management Act 1994</u>

The Fisheries Management Act 1994 came into effect 16 January 1995, with the objectives of:

- Conserving fish stocks and protecting key fish habitat
- Promoting viable commercial fishing and aquaculture industries
- Providing quality recreational fishing opportunities, and
- Promoting ecologically sustainable development

Under Part 4 of the EP&A Act, NSW DPI is a 'determining authority' for local development that requires one or more of the following permits under the Fisheries Management Act:

- Section 144 - aquaculture permit (i.e. cultivating fish or marine vegetation for sale/commercial purposes),
- Section 201 - permit to carry out works of dredging or reclamation (i.e. any excavation within, or filling or draining of, water land or the removal of woody debris, snags, rocks or freshwater native aquatic vegetation or the removal of any other material from water land that disturbs, moves or harms these in-stream habitats),
- Section 205 - permit to harm (cut, remove, injure, destroy, shade etc) marine vegetation (saltmarshes, mangroves, seagrass and seaweeds),
- Section 219 – permit to obstruct the free passage of fish.

Any development proposal that requires consent from a local council and one or more of the above approvals is deemed to be integrated development under s91, Part 4 of the EP&A Act. The integrated development process came into effect on 1 July 1998 and seeks to link development consent for local development matters under Part 4 of the EP&A Act with any associated approval, licence, consent, permission or permit required under other legislation.

A review of *Fisheries NSW Spatial DATA* 'Key Fish Habitat Mapping' shows the watercourse running adjacent to the site contains Key fish habitat mapping. This watercourse is ephemeral but has frequent low flows. It is unlikely to form key habitat for any threatened fish, or provide passage to or from key habitat to other habitats except in periods of heavy rainfall.

<u>The development application does not propose any activity that would require a permit under the FMA.</u>

A VMP is provided to accompany the development application that will improve riparian habitat by the removal of weeds and the revegetation of the channel with native macrophytes and secure the banks and vegetated riparian zone with native canopy and understorey vegetation.

BAM Plot Survey Results

To assess vegetation integrity of the identified pasture lands within the site the minimum number of BAM floristic plots were sampled as identified within BAM section 4.3.4. Vegetation survey plots were located to ensure they captured the relevant attributes of the pasture across the landholding. Plot based vegetation surveys were conducted within the Site on 27 of November and 19 of December 2023 by MJD Environmental ecologists. A total of six (6) BAM floristic plots were undertaken across the site during the surveys.

The following floristic data was captured to assess the overall vegetation integrity of the site:

- Identification of all flora species to genus where identification attributes were present
- Composition, Structure attributes within a 20x20 m plot
- Function attributes within a 20X50 m plot

The floristic data captured was then entered into the Biodiversity Assessment Method Calculator to calculate the vegetation integrity score of the pasture (**Table 1** – VI = 4.6). PCT 3446 *Hunter Lowland Redgum Forest in the Sydney Basin and New South Wales North Coast Bioregions* was utilised to capture a dry sclerophyll forest benchmark. A species list is **Attachment 4**.

Table 1 Vegetation Integrity Score

Vegetation zone ID	Composition condition score	Structure condition score	Function condition score	Vegetation integrity score	Hollow bearing trees present?
VZ1 - Pasture	6.1	16	0	**4.6**	No

Per BAM (2020) Section 9.2.1 The assessor must determine an offset for all impacts of proposals on PCTs that are associated with a vegetation zone that has a vegetation integrity score of:

- ≥15, where the PCT is representative of an EEC or a CEEC
- ≥17, where the PCT is associated with threatened species habitat (as represented by ecosystem credits) or represents a vulnerable ecological community
- ≥20, where the PCT does not represent a TEC and is not associated with threatened species habitat

On the basis of the extensive works to date, the authors confidently advise the site is without significant biodiversity constraints, and further assessment of the land subject to the development application under the BC Act (2016) is not required.

We trust this is sufficient for your purposes. However, should you require any further information or clarification, please do not hesitate to contact the writer.

Yours sincerely

Chris Spraggon
Senior Ecologist
MJD Environmental

Encl: Attachment 1 – Maps of Site Location and Ecology Features
Attachment 2 – Photos of The Tree
Attachment 3 – BAM Plot survey data
Attachment 4 – BAM floristic species list

Attachment 1 – Maps of Site Location and Ecology Features

381 ANAMBAH ROAD, ANAMBAH

ATTACHMENT 1: SITE LOCATION

Legend

- Development Site
- Cadastral Boundary
- Roads
- Temporary Asset Protection Zone

N
W E
S

0 200 400 600 800

Metres
1:10000

MJD Environmental

Aerial: Nearmap (2025) | Data: MJD Environmental, GCA, Roche, NSW Spatial Services (2025) | Datum/Projection: GDA2020 / MGA zone 56 | Date: 2025-06-03 | Version: 1 | Z:\23067 - AURA Anambah\QGZ\23067_DA1_Master_20250530_LP.qgz | This plan should not be relied upon for critical design dimensions.

381 ANAMBAH ROAD, ANAMBAH

ATTACHMENT 2: ECOLOGICAL FEATURES

Legend

- Development Site
- Cadastral Boundary
- Roads
- Watercourse
- BAM Plot

State Vegetation Type Map

- 3083 - Lower Hunter Tuckeroo Riparian Rainforest
- 3244 - Lower North Spotted Gum-Mahogany-Ironbark Sheltered Forest
- 3433 - Hunter Coast Foothills Spotted Gum-Ironbark Grassy Forest
- 3442 - Lower Hunter Lowland Ironbark-Paperbark Forest
- 3446 - Lower North Foothills Ironbark-Box-Gum Grassy Forest
- 3975 - Southern Lower Floodplain Freshwater Wetland
- 4023 - Coastal Valleys Swamp Oak Riparian Forest
- 4042 - Lower North Riverflat Eucalypt-Paperbark Forest

N W E S

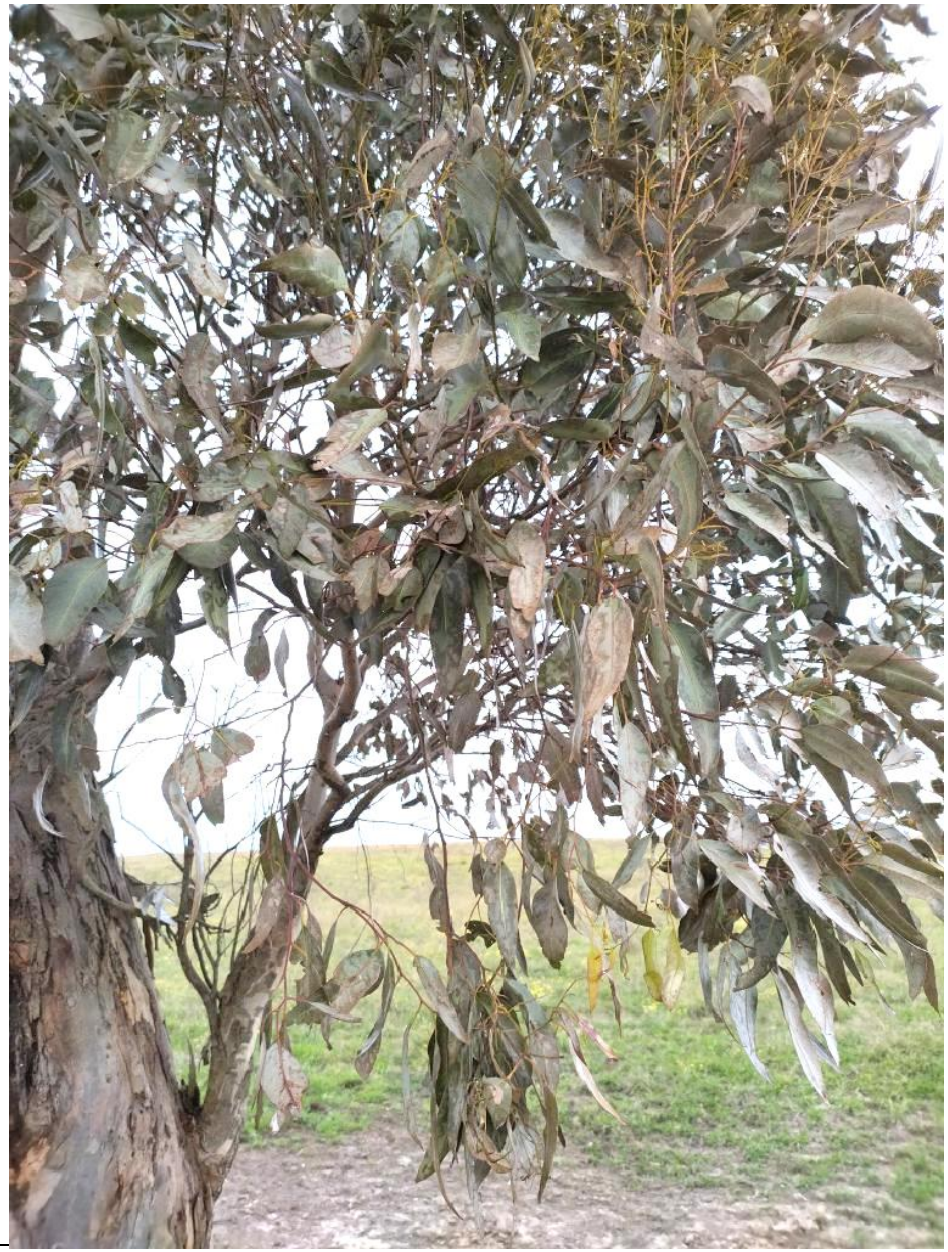
0 140 280 420 560

Metres
1:7000

MJD Environmental

Aerial: Nearmap (2025) | Data: MJD Environmental, GCA, Roche, NSW Spatial Services (2025), © State Government of NSW and NSW Department of Climate Change, Energy, the Environment and Water (2020) | Datum/Projection: GDA2020 / MGA zone 56 | Date: 2025-06-03 | Version: 1 | Z:\23067 - AURA Anambah\QGZ\23067_DA1_Master_20250530_LP.qgz | This plan should not be relied upon for critical design dimensions.

Attachment 2 – Photos of The Tree



Attachment 3 – BAM Plot survey data

Location								Composition						Structure						Function											
plot	pct	area	Patch size	Condition class	zone	Easting/Northing	bearing	Tree	Shrub	Grass	Forbs	Ferns	Other	Tree	Shrub	Grass	Forbs	Ferns	Other	Large Trees	Hollow trees	Litter Cover	Length Fallen Logs	Tree Strem 5 to 9	Tree Strem 10 to 19	Tree Strem 20 to 29	Tree Stem 30 to 49	Tree Stem 50 to 79	Tree Regen	High Threat Exotic Cover
B01	3446	200	>100	Grass	56	358719, 6382635	137	0	0	4	1	0	0	0	0	5.3	0.1	0	0	0	0	0	0	0	0	0	0	0	0	80.1
B02				Grass	56	358082, 6382763	119	0	0	3	0	0	1	0	0	36.0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	45.1
B03				Grass	56	358073, 6383108	75	0	0	2	0	0	0	0	0	25.0	0	0	0	0	0	0	0	0	0	0	0	0	0	50.1
B04				Grass	56	358705, 6382003	260	0	0	2	0	0	0	0	0	35.1	0	0	0	0	0	0	0	0	0	0	0	0	0	50.0
B05				Grass	56	357866, 6381854	118	0	0	6	2	0	0	0	0	20.4	0.2	0	0	0	0	0	0	0	0	0	0	0	0	50.1
B06				Grass	56	357892, 6382471	22	0	0	4	1	0	0	0	0	38.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	40.0

Attachment 4 – BAM floristic species list

Family	Species	Common Name	B01	B02	B03	B04	B05	B06
Apiaceae	*Cyclospermum leptophyllum**	Slender Celery		X				
Asteraceae	*Cirsium vulgare**	Spear Thistle	X	X	X			X
	*Hypochaeris albiflora**					X		
	*Hypochaeris glabra**	Smooth Catsear	X	X	X	X		
	*Hypochaeris radicata**	Catsear	X	X	X		X	
	*Senecio madagascariensis**	Fireweed				X		
Campanulaceae	*Wahlenbergia gracilis*	Sprawling Bluebell					X	
Cyperaceae	*Cyperus gracilis*	Slender Flat-sedge	X					
Fabaceae - Faboideae	*Desmodium rhytidophyllum*		X				X	X
	Desmodium varians	Slender Tick-trefoil		X				
	*Trifolium angustifolium**	Narrow-leaved Clover					X	
	*Trifolium repens**	White Clover		X	X			
Gentianaceae	*Centaurium erythraea**	Common Centaury		X	X	X		
Iridaceae	*Romulea rosea**		X	X	X			
Juncaceae	*Juncus bufonius**	Toad Rush		X				
	*Juncus cognatus**				X			
Malvaceae	*Sida rhombifolia**	Paddy's Lucerne	X				X	
Phyllanthaceae	*Phyllanthus virgatus*	Wiry Spurge					X	
Plantaginaceae	*Plantago lanceolata**	Lamb's Tongues	X	X	X	X	X	X
Poaceae	*Aristida ramosa*	Purple Wiregrass					X	X
	*A**	Narrow-leafed Carpet Grass					X	
	Bothriochloa decipiens var. decipiens	Pitted Bluegrass					X	
	Bothriochloa macra	Red Grass	X	X			X	X
	*Briza subaristata**		X	X	X	X	X	X
	Cymbopogon refractus	Barbed Wire Grass					X	
	Cynodon dactylon		X	X	X	X		X
	Dichelachne micrantha	Shorthair Plumegrass					X	
	*Paspalum dilatatum**	Paspalum	X	X		X	X	X
	Paspalum distichum	Water Couch			X			
	Sporobolus creber	Slender Rat's Tail Grass	X	X	X	X	X	X
Rubiaceae	*Galium murale**	Small Bedstraw	X	X	X		X	X
Verbenaceae	*Verbena bonariensis**	Purpletop	X	X	X	X	X	X
	*Verbena rigida**	Veined Verbena		X	X	X	X	X

*Introduced species (per NSW PlantNet Simple Search – Introduced Species only, accessed 23 May 2025).