



Ecology Review – Development Application 8/2024/236

Completed by: Lauren Perkins, Ecologist – Development Services
Cessnock City Council

Date: 06/05/2026

Updated avoidance advice

Prepared by: MJD Environmental
Date: 31/03/2026

At the request of the Regional Planning Panel (RPP), a plan must be provided for assessment that identifies areas avoided by the proposed development in accordance with the avoid, minimise, and offset hierarchy under the *Biodiversity Conservation Act 2016* (BC Act).

MJD Environmental has submitted a letter of advice outlining the avoided areas. The accompanying plan indicates that adequate steps have been taken to avoid the highest quality vegetation on the site. The vegetation proposed for retention is identified as Plant Community Type (PCT) 3315 - Central Hunter Ironbark Spotted Gum Forest, which is listed as an Endangered Ecological Community (EEC) under the BC Act.

The retained vegetation is located within the eastern and northern portions of the site and maintains a continuous ecological link with larger vegetation patches to the north, south, and east. Additional avoidance within the impact area has been considered with the selective retention of high value individual trees, shown in the priority avoidance area. No reduction in offset credit liability has been sought for this retention.

The vegetation proposed for removal comprises a mix of native vegetation in poor to low condition (10.26 ha of PCT 3315) and approximately 2.6 ha of exotic vegetation. The impact area is characterised predominantly by scattered paddock trees and grassed pasture.

The lands to the east zoned RE1 – Public Recreation are unlikely to be subject to comparable development pressure due to zoning constraints. As such, they provide limited relevance in demonstrating avoidance under the Biodiversity Assessment Method (BAM). Notwithstanding this point, the proponent has shown sufficient efforts to avoid better quality native vegetation in areas zoned R1 (mapped in yellow on the plan), with the development constrained to predominately cleared pasture lands.

I agree with the advice that avoided land is not required under any legislative instrument to be managed in perpetuity as part of the Biodiversity Offset Scheme (BOS). However, Council may, at its discretion, impose conditions on a development consent requiring the preparation and implementation of a Vegetation Management Plan and/or the establishment of a positive covenant to secure the land's protection in perpetuity.

In this instance, the land is zoned RE1 – Public Recreation and will be under the care and control of Singleton Council. The land will be managed in accordance with Singleton Council's Asset Management Plan – Open Space and Reserves, additional mechanisms to secure the land in

t: 02 4993 4100 f: 02 4993 2500

p: PO Box 152 Cessnock NSW 2325

e: council@cessnock.nsw.gov.au w: www.cessnock.nsw.gov.au

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perpetuity (such as a positive covenant) are not considered necessary in this instance. Consideration of mechanisms to secure the retained R1-zoned land in perpetuity may, however, be applied at the discretion of Council or the Regional Planning Panel.

I have provided conditions below for the preparation and implementation of a Vegetation Management Plan for consideration.

Ecology referral provided by Singleton Council Ecologist.

The conclusion provided in the original Ecology Referral is still applicable and consistent with the information provided in the Letter of Advice submitted by MJD Environmental.

The Ecologist has concluded that mitigation measures for any removal or modifications to the dam on site are to be included; but no consent conditions to this nature have been included in their referral. I have included some below for consideration.

Standard Conditions

Prior to Subdivision works certificate

Ecosystem credit retirement conditions

a) Prior to issue of CC the class and number of ecosystem credits in Table [X] must be retired to offset the residual biodiversity impacts of the development.

b) The requirement to retire credits in (a) may be satisfied by payment to the Biodiversity Conservation Fund of an amount equivalent to the class and number of ecosystem credits, as calculated by the Biodiversity Offsets Payment Calculator¹.

c) Evidence of the retirement of credits or payment to the Biodiversity Conservation Fund in satisfaction of (a) must be provided to the consent authority prior to CC.

Table [X] Ecosystem credits required to be retired – like for like

Impacted plant community type	Number of ecosystem credits	IBRA sub-region	Plant community type(s) that can be used to offset the impacts from development
3315 Central Hunter Ironbark-Spotted Gum – Forest	16	Hunter, Ellerston, Karuah Manning, Kerabee, Liverpool Range, Peel, Tomalla, Upper Hunter, Wyong and Yengo. Or From a location within 100km of the impact site.	Central Hunter Ironbark-Spotted Gum – Grey Box Forest in the NSW North Coast and Sydney Basin Bioregions. This includes PCTs: 1604, 3315
3315 Central Hunter Ironbark-	144	Hunter, Ellerston, Karuah	Central Hunter Ironbark-Spotted Gum – Grey Box

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	<table><tr><td>Spotted Gum – Forest</td><td></td><td>Manning, Kerabee, Liverpool Range, Peel, Tomalla, Upper Hunter, Wyong and Yengo. OR Any IBRA subregion that is within 100 kilometres of the outer edge of the impacted site.</td><td>Forest in the NSW North Coast and Sydney Basin Bioregions. This includes PCTs: 1604, 3315</td></tr></table>	Spotted Gum – Forest		Manning, Kerabee, Liverpool Range, Peel, Tomalla, Upper Hunter, Wyong and Yengo. OR Any IBRA subregion that is within 100 kilometres of the outer edge of the impacted site.	Forest in the NSW North Coast and Sydney Basin Bioregions. This includes PCTs: 1604, 3315							
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	¹ Note that prices of credits in the Biodiversity Offsets Payment Calculator are subject to change. The amount payable to discharge an offset obligation will be determined at the time of payment.											
Species credit retirement conditions	a) Prior to issue of CC the class and number of species credits in Table [X] must be retired to offset the residual biodiversity impacts of the development. b) The requirement to retire credits in (a) may be satisfied by payment to the Biodiversity Conservation Fund of an amount equivalent to the class and number of species credits, as calculated by the Biodiversity Offsets Payment Calculator¹. c) Evidence of the retirement of credits or payment to the Biodiversity Conservation Fund in satisfaction of Table [X] requirements must be provided to the consent authority prior to CC. Table [X] Species credits required to be retired – like for like <table><tr><th>Impacted species credit species</th><th>Number of species credits</th><th>IBRA sub-region</th></tr><tr><td>Squirrel Glider <i>Petaurus norfolcensis</i></td><td>16</td><td>Anywhere in NSW</td></tr><tr><td>Brush-tailed Phascogale <i>Phascogale tapoatafa</i></td><td>16</td><td>Anywhere in NSW</td></tr></table> ¹ Note that prices of credits in the Biodiversity Offsets Payment Calculator are subject to change. The amount payable to discharge an offset obligation will be determined at the time of payment.			Impacted species credit species	Number of species credits	IBRA sub-region	Squirrel Glider <i>Petaurus norfolcensis</i>	16	Anywhere in NSW	Brush-tailed Phascogale <i>Phascogale tapoatafa</i>	16	Anywhere in NSW
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Installation of Artificial Hollows	A suitably qualified ecologist must install or supervise installation of artificial hollows within areas of retained vegetation. Artificial hollows are to be installed at a ratio of 1:1 for every hollow bearing tree to be removed (not tree hollow) to adjust for the credit obligation requirements around hollow bearing trees. Installation is to occur within retained RE1 Public Recreation lands to the east and must occur at least one month prior to on ground clearing works with artificial hollows installation to be consistent with the Biodiversity Conservation Trust Guideline for Artificial Hollows, August 2020 (BCT Guideline for Artificial Hollows). Each artificial hollow / nest box must also have a unique identifying number that can be read from the ground. A plan must be provided to the council officer showing: • locations of artificial hollows / nest box installed. • identifying numbers. • Detail on target species for each artificial hollow / nest box.											

	Council will review the plan and provide written advice to the project manager confirming whether the condition requirements have been met. Removal of designated hollow bearing trees can occur once written confirmation regarding artificial hollow installation has been provided to the council project officer.														
Dam Dewatering Plan	Prior to the issue of a SWC, the applicant must prepare, submit to Council and obtain approval for a Dam Dewatering Plan for the existing farm dam that will be removed as a result of the proposal. The Dam Dewatering Plan must address the dewatering process for the removal and filling of dams. Details of the dewatering process are to include, but are not limited to; the proposed method of water disposal, schedule of works relating to the draining and filling of dams, proposed method for capturing and rescuing fauna, proposed relocation sites for fauna, protocol for injured fauna and environmental protection measures (i.e. sediment and erosion control and weed control)														
Vegetation Management Plan	Prior to the issue of any SWC, the applicant must prepare, submit to Council and obtain approval for a Vegetation Management Plan (VMP) for the area to be revegetated with native shrubs and small trees. The VMP must be prepared by a suitably qualified and experienced Ecologist. The VMP must be for a minimum of (five) years. The primary objective of the plan must be weed management, regeneration of native vegetation and if necessary replanting. Implementation of the VMP must commence immediately following issue of the SWC. In preparing and implementing the VMP the following criteria must be addressed: a. A suitably qualified and experienced professional bush regeneration contractor must be engaged to carry out any revegetation planting, restoration and maintenance weed control specified in the VMP. The minimum qualifications and experience required for the bush regeneration contractor are a TAFE Certificate IV in Conservation and Land Management (or equivalent) and three years demonstrated experience (for site supervisor) and a TAFE Certificate 2 in Conservation and Land Management and one year demonstrated experience (for other personnel). b. A site plan must be prepared at an appropriate scale, clearly showing the area to which the VMP applies, existing vegetation and extent of dominant weed infestations. c. A description of existing native vegetation, assessment of ability to regenerate and rehabilitation methods must be provided. d. A schedule of works must be prepared detailing the sequence and duration of works necessary for the regeneration, any revegetation and maintenance works. All primary weed control must be undertaken in the first year following commencement of the VMP, with secondary weed control undertaken in the second year following commencement of the VMP. Maintenance weed control must continue for the duration of the VMP. If natural regeneration has not occurred within one (1) year of implementation of the VMP then replanting must occur. Replanting density is to be 1 tree per 10 m², 1 shrub or small tree per 3 m² and 3 ground cover plants per 1m². A minimum of 90% survival rate of plantings is required, with replacement planting to occur if required to achieve this. e. Targets for primary, secondary and maintenance phases of the VMP for exotic cover, native canopy cover, native midstorey cover and native ground cover must be at least: <table><tr><td>Maintenance Phase</td><td>Exotic cover</td><td>Native canopy cover</td><td>Native midstorey cover</td><td>Native ground cover</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>					Maintenance Phase	Exotic cover	Native canopy cover	Native midstorey cover	Native ground cover					
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	Primary	Less than 25%	At least 10% or replanting is required	At least 10% or replanting is required	At least 40%
	Secondary	Less than 10%	At least 15% or replanting is required	At least 15% or replanting is required	At least 50% cover
	Maintenance	Less than 5%	At least 20% or replanting is required	At least 20% or replanting is required	At least 50% cover
If targets are not met by the end of the maintenance phase, additional works are required so that targets are achieved before works can progress to the next maintenance phase. f. The location and type of fencing or other suitable method of restricting access of livestock into the area to which the VMP applies must be identified if livestock are to be kept on the lot. g. Photo monitoring points, details of plan survival, occurrence of natural regeneration and weed density must be used as part of the monitoring of the area and included in each monitoring report.					

Prior to commencement of works

Protection of Trees to be Retained <i>Where trees have been identified for retention</i>	The area beneath the canopies of the trees to be retained must be fenced prior to the commencement of works. The fencing must encompass the maximum possible area covered by the drip line of the canopy, and must remain in place until the completion of building works. The fencing should be a minimum of 1.8 metres high chain-link or welded mesh fencing. The fencing is to be maintained for the duration of the building works. Services should be located to avoid disturbing tree roots. Trenches required for the installation of services should be located outside of the fenced area. All areas within the perimeter of the safety fencing are to be covered with woodchip mulch to a depth of 100mm. All steep gradients unable to be effectively covered with mulch are to be protected with hessian cloth to be kept at a moisture level sufficient to ensure the preservation of tree root systems. Tree protection signage is required to be attached to each tree protection zone, displayed in a prominent position.
Soft-felling of Hollow Bearing / Habitat Trees	A hollow bearing/habitat tree survey must be undertaken by a fauna ecologist in the week prior to the felling of any trees. During the survey, the ecologist is to tap the tree, by banging the base of each tree with a mallet or using a similar method, to encourage any fauna to vacate. An observation period of at least 5 minutes per tree is required to observe the emergence of any fauna, and observations must be noted. All hollow bearing/habitat trees must be marked as part of the survey. All surrounding trees that are not hollow bearing or habitat trees must be cleared at least one day prior to felling of any hollow bearing/habitat trees. Equipment used to fell hollow bearing or habitat trees must be capable of slowly lowering the trees to the ground. A qualified fauna ecologist must be present during the felling of the trees. The fauna ecologist must have the appropriate skills and equipment to perform euthanasia if necessary. Immediately prior to felling, each hollow bearing/habitat tree should be tapped or gently shaken with the equipment followed by an observation period of at least one minute to watch for the emergence of any fauna. The tree should be tapped again, followed by a second observation period of at least one minute. If fauna appear during the observation period, the ecologist should encourage the fauna to

	relocate. If no fauna appear, the tree is to be lowered to the ground slowly and gently. The hollows of the felled tree should be inspected for fauna by the ecologist after it has settled. Written confirmation of hollow bearing tree removal must be provided to council confirming fauna species detected during tree removal activities and any relocation actions and injuries that occurred.
Care of Native Fauna found in Felled Trees	Any uninjured fauna should be relocated to nearby bushland. Any nocturnal fauna should be kept in a suitable cage in a shaded location until dusk, and then released into nearby bushland. If juvenile fauna are discovered in hollows after a tree is felled, they are to be taken into the care of an organisation such as the Native Animal Trust Fund. Injured fauna should be assessed by the ecologist, and euthanised if their injuries are such that the ecologist considers that they are unlikely to survive. If injured fauna are likely to survive, they should be taken to a vet for treatment. After treatment, fauna should be taken to an organisation such as the Native Animal Trust Fund for care until they can be released.

During works

Protective Fencing	All tree protection fencing and signage as required by Condition [REDACTED] must remain in place until completion of construction works.
Tree Protection	Stockpiling or storage or mixing of materials (including soil), vehicle parking, disposal of liquids, machinery repairs, refuelling and the siting of any new offices or sheds must not occur within the drip line of retained trees/the land mapped as 'avoidance area' and the zoned RE1 – Public Recreation during any stage of the development.
Nest Boxes	Nest boxes must be installed if hollow bearing trees are removed, at a ratio of at least 2 boxes per hollow. Nest boxes must be installed in mature retained trees on the lot/the RE1 zone. Evidence that this has occurred must be provided to Council's Ecologist for approval prior issue of the SC.

Prior to issue of SC

Dam de-watering	Before the issue of a Subdivision Certificate, the applicant must submit to Council a report demonstrating that the dewatering of the dam has been undertaken in accordance with the approved Dam Dewatering Plan. - confirmation that dewatering was completed in accordance with the approved methodology; - details of timing and duration of dewatering; - measures implemented to manage water quality and sediment; and - photographic evidence of completed works.
Vegetation Management Plan	A monitoring report on the progress of the Vegetation Management Plan's implementation shall be prepared and submitted to Council upon completion of the primary planting, and prior to the issue of an SC.

On-going

Vegetation Management Plan	A monitoring report on the progress of the Vegetation Management Plan's implementation shall be prepared and submitted to Council at six monthly intervals until the end of the 5 year's maintenance period. A final report shall also be submitted upon completion of the maintenance period.
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