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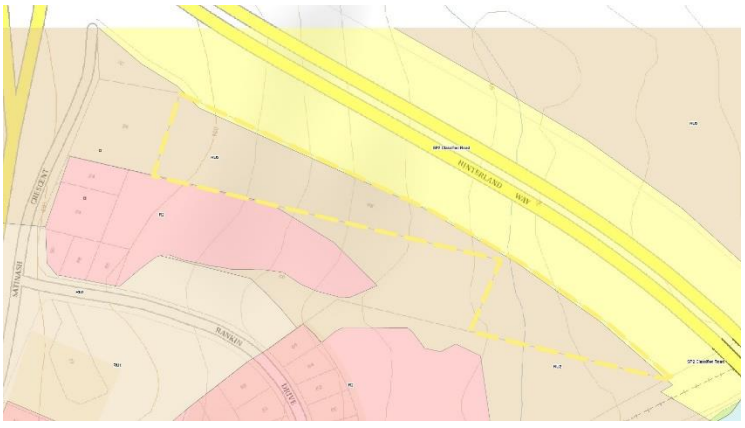
Attn: Max Campbell, Instant Steel
Via email

Rezoning Application, Rankin Drive, Bangalow

Peter Parker Environmental Consultants Pty Ltd has been engaged by Instant Steel to provide an environmental assessment of the rezoning of land at Rankin Drive Bangalow from rural to residential. The land is currently zoned R2 (low density residential, RU1 (Primary Production) and RU2 (Rural Landscape). The rezoning application seeks to zone the majority of the land to R2 and proposed Lots 12 and 21 to R3 (Medium Density Residential).



Land zoning, Byron Local LEP 2014

The attached report addresses the environmental aspects of the proposal pursuant to the provisions of the *Biodiversity Conservation Act 2016* and the Byron Shire Development Control Plan 2014 Chapter 1 (Biodiversity).

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Environmental Assessment: Rezoning Application, Rankin Drive Bangalow

1.0 Summary

This ecological assessment has been prepared by Peter Parker Environmental Consultants Pty Ltd (PPEC) for Instant Steel Pty Ltd with respect to a rezoning application for the following lots located at Rankin Drive, Bangalow.

- **Lot 261 DP 126316; and**
- **Lot 11 DP 807867.**

The total land area is approximately 4.1 ha, part of which is currently zoned R2 low density residential (Fig. 1). An indicative lot layout and site access is provided in Fig. 1.

The objective of this rezoning application or planning proposal is to amend the Byron LEP 2014 to extend the existing R2 (Low Density Residential Zone) and part R3 (Medium Density Zone, Lots 12 and 21, Fig. 1) to cover the total area of the site (see planning report).

2.0 Ecological assessment

The site is located on Kraznozem soils which are basaltic in origin and red to brown, acid, and strongly structured (50-70% clay). These range in depth from less than 1 m to over 7 m over their range. Their clay mineralogy is dominated by kaolin, iron and aluminium oxides. These soils are moderately fertile and once supported lowland subtropical rainforest.

3.0 Field surveys

The site was intensively surveyed on 22 December 2020 by walking in parallel transects spaced at approximately 10m. Native trees were plotted using a GPS and their diameter at breast height measured. A floristic list was compiled (Table 1) which included the majority of terrestrial vegetation.

The site is dominated by exotic species of little conservation value (Plates 1 and 2). It has been cleared of camphor laurel, *Cinnamomum camphora*, large-leaf privet, *Ligustrum lucidum*, and other exotic trees and shrubs (e.g., lantana, *Lantana camara*), and allowed to naturally regenerate with predominantly exotic grasses and shrubs. Thirty-three native trees were plotted (Fig. 1. Table 1).

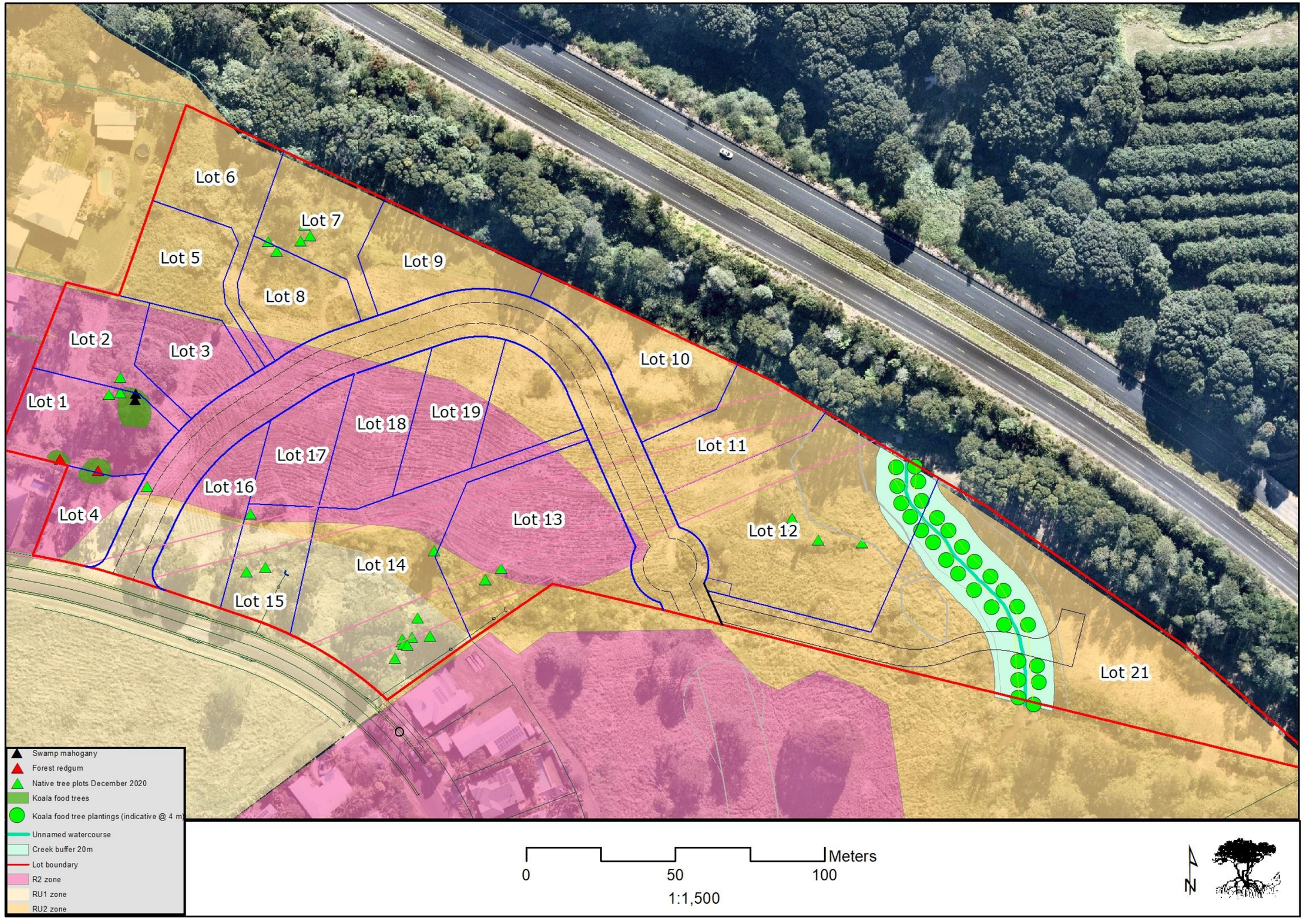

Fig. 1: The site, current zoning, indicative layout and tree plots

Plate 1: The site, looking east (2020). Regenerating exotic grasses and shrubs predominate

Plate 2: The site, looking west (2020)

Table 1: Plant species recorded at the site (2020)

Scientific name	Common name
** introduced or naturalised*	
ANGIOSPERMS (Flowering plants)	
Monocotyledons	
POACEAE	
**Paspalum mandiocanum*	broad-leaved paspalum (warrel grass)
**Setaria palmifolia*	palm grass
**Setaria sphacelata*	canary seed grass
**Sorghum bicolor*	sorghum
Dicotyledons	
ARALIACEAE	
Polyscias elegans	celery wood
ASTERACEAE	
**Ageratina adenophora*	crofton weed
**Ageratina riparia*	mist weed
**Ageratum houstonianum*	blue billygoat weed
**Ambrosia artemisiifolia*	annual ragweed
** Hypochoeris radicata*	flatweed
**Senecio lautus*	fireweed
CAESALPINIACEAE	
**Senna pendula* var. *glabrata*	Easter cassia
EUPHORBIACEAE	
Glochidion ferdinandii var. *ferdinandii*	cheese tree
Glochidion sumatranum	umbrella cheese tree
Macaranga tanarius	macaranga
Mallotus philippensis	red kamala
MALVACEAE	
**Sida rhombifolia*	Paddy's lucerne
MYRTACEAE	
Corymbia intermedia	pink bloodwood
Eucalyptus smithii	gully gum
Eucalyptus robusta	swamp mahogany
Eucalyptus tereticornis	forest red gum
OLEACEAE	
**Ligustrum sinense*	small-leaved privet
PASSIFLORACEAE	
**Passiflora subpeltata*	white passionflower
PHYTOLACCACEAE	
**Phytolacca octandra*	inkweed
PITTOSPORACEAE	
Pittosporum undulatum	sweet pittosporum
PLANTAGINACEAE	
**Plantago gaudichaudii*	narrow-leaf plantain

Scientific name	Common name
** introduced or naturalised*	
POLYGONACEAE	
**Periscaria decipiens*	slender knotweed
PROTEACEAE	
Grevillia robusta	silky oak
RUTACEAE	
Flindersia australis	teak
SAPINDACEAE	
Guioa semiglauca	guioa
SOLANACEAE	
**Solanum chrysotrichum*	giant devil's fig
**Solanum mauritianum*	wild tobacco
VERBENACEAE	
** Lantana camara*	lantana
**Verbena bonariensis*	purpletop

4.0 Threatened flora

No threatened plants were located on the site.

5.0 Council's ecological assessment guidelines

An ecological assessment is to be prepared by a suitably qualified ecologist with tertiary qualifications in environmental science (or equivalent) and a minimum of 2 years experience. Where an ecological assessment is required, assessment of the subject site and where appropriate, the adjoining land, must include the following information:

1. *Identification of any of the following:*

a. *High Environmental Value (HEV) vegetation and habitats on or adjoining the subject site.*

b. *Land zoned W1 or W2.*

c. *Areas identified under the Biodiversity Conservation Act 2016.*

d. *Areas identified under the Local Land Services Act 2013.*

e. *Areas identified under the Coastal Management SEPP 2018 (e.g. Coastal wetlands, Littoral rainforest and proximity areas).*

f. *Areas identified under the Koala Habitat Protection SEPP 2019.*

g. *Any adjoining National Parks or Nature Reserves.*

h. *Threatened Ecological Communities (TECs) on or adjoining the subject site.*

i. *Threatened species records within 1 km of the subject site.*

j. *Identified wildlife corridors*

k. *Threatened fauna habitat*

l. *Koala habitat*

m. *Koala use tree species including; Species name, height, location and DBH (Diameter at breast height).*

n. *Hollow bearing trees including; Species name, height, location, DBH, use and or potential use evaluation.*

o. Flying fox colony on or adjacent to the subject site.

p. Waterways (including stream order), wetlands and riparian vegetation.

2. A site plan based on a recent aerial photo at a scale of 1:200 (or better) that illustrates the following details:

a. The location of the ecological values identified on the site including those listed in point 1 (above), and

b. The extent and type of vegetation community present on site, and

c. The extent of the entire development envelope, red flagged areas and ecological setbacks (where applicable

3. Where the removal of any koala use tree species (Appendix 1) is proposed, an assessment of koala activity must be included. Such an assessment must be undertaken by a suitably qualified person utilising current best practice techniques e.g. detection dog, SAT etc.

4. A response to the five part test of significance set out under s7.3(1) of the BC Act.

5. Full and accurate references to all material relied upon in the assessment must be provided in the report

5.1 High Environmental Value (HEV) vegetation and habitats on or adjoining the subject site

The site and adjoining areas is dominated by exotic grasses (eg., pale pigeon grass) and trees (e.g., camphor laurel). There are no HEV vegetation habitats on or adjoining the site.

5.2 Areas identified under the Biodiversity Conservation Act 2016

There are no areas identified under the BCA Act.

5.3 Areas identified under the Local Land Services Act 2013 (LLS Act 2013)

Fig. 2: Transitional native vegetation regulatory map (Source: Transitional native vegetation regulatory map viewer (nsw.gov.au)

Clearing of vegetation on the rural-zoned portion of the site is managed under the *Local Land Services Act* 2013. The transitional native vegetation regulatory map is illustrated in Fig. 2. There are two categories that are not mapped on the transitional NVR map. These are:

1. *category 1-exempt land (as described in section 60H of the LLS Act), and*
2. *category 2-regulated land (as described in section 60I of the LLS Act).*

These categories will be included on the native vegetation regulatory map when it is published.

If land is not mapped on the transitional NVR map the appropriate category of land will be determined in accordance with section 60F of the LLS Act. Landholders are required to consider what a reasonable person would believe is the appropriate category of land. To do this, the landholder should consider the descriptions of category 1-exempt land and category 2-regulated land in the LLS Act. In this case the land is category 1 exempt land.

5.4 Areas identified under the Coastal Management SEPP 2018 (e.g. Coastal wetlands, Littoral rainforest and proximity areas

The Coastal Management SEPP has been replaced with the *State Environmental Planning (Resilience and Hazards)* 2021 Policy. No part of the proposed development is mapped under this Policy

5.5 Areas identified under the Koala Habitat Protection SEPP 2019

The land is greater than 1 ha in area. The residential component of the land is therefore identified under the Koala Habitat Protection SEPP. This assessment is typically undertaken upon the lodgement of a development appl;ication.

5.6 Any adjoining National Parks or Nature Reserves

The land does not adjoin any national park or nature reserve.

5.7 Threatened Ecological Communities (TECs) on or adjoining the subject site

The land does not support any TECs.

5.8 Threatened species records within 1 km of the subject site

These are illustrated in Fig. 3.

5.9 Identified wildlife corridors

There are no climate change or identified wildlife corridors which pass through the site.

5.10 Threatened fauna habitat

Fig. 1 illustrates two forest redgum and two swamp mahogany, *Eucalyptus robusta*, all of which are koala, *Phascolarctos cinereus*, food trees. These will be retained. Fig. 3 illustrates threatened fauna records within 1 km of the site, the most significant being the giant barred frog, *Mixophyes iteratus*, located during construction upgrade of the Pacific Highway. While the modified drainage on this site is not particularly suitable for this species, a 20 m planted creek buffer is proposed (Fig. 1).

5.11 Koala habitat

Fig. 3 illustrates a considerable number of koala records in the Bangalow environs. The koala has benefited by extensive plantings of koala food trees and has increased in number locally. The site supports four koala food trees as illustrated in Fig. 1.

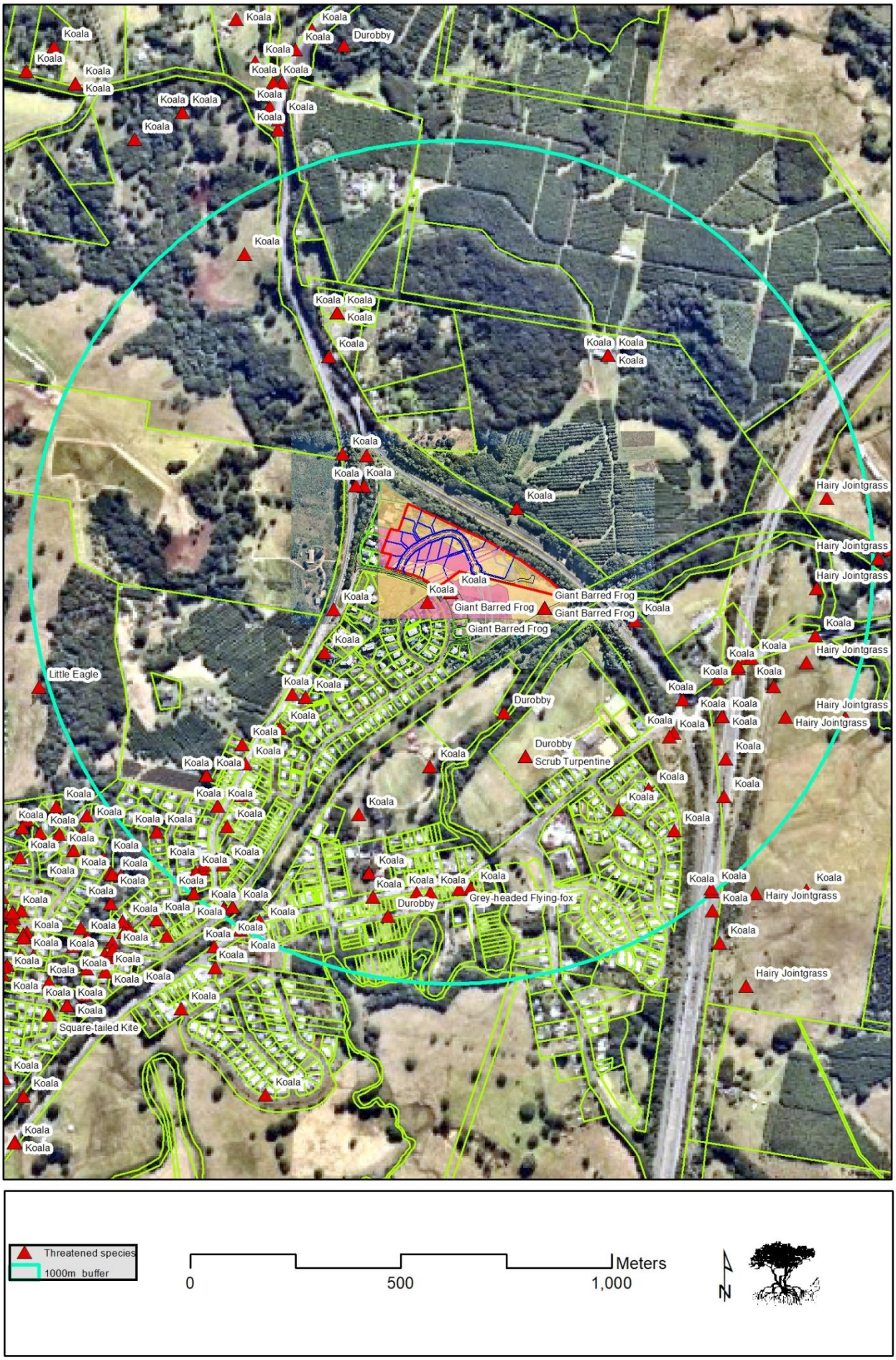

Fig. 3: Threatened species records (Source: BioNet Atlas under licence to PPE

Plate 3: Forest redgum adjoining boundary fence in residential zoned area (Fig. 1)

Plate 4: Swamp mahogany in residential zoned area (Fig. 1)

5.12 Koala use tree species including; Species name, height, location and DBH (Diameter at breast height).

Four koala use tree species occur in the residential component of the site. These are two forest redgum and two swamp mahogany (Fig. 1). They are all mature trees ranging from 10-15 m in height (Plates 3-4).

5.13 Hollow bearing trees including; Species name, height, location, DBH, use and or potential use evaluation

There are no hollow-bearing trees at the site.

5.14 Flying fox colony on or adjacent to the subject site

There are no flying fox colonies on or adjacent to the subject site.

5.15 Waterways (including stream order), wetlands and riparian vegetation

A modified drainage way is located in the lower part of the site (Fig. 1). This is fed by runoff water piped from the Pacific Highway (Plate 5).

Plate 5: Constructed drainage way (Fig. 1)

6.0 Statutory requirements

The *Biodiversity Conservation Act 2016* (BC Act) amended the *Environmental Planning and Assessment Act*, 1979 ("EPA Act") with regard to the protection of plants and animals.

The BC Act (s.7.4) introduced the Biodiversity Offsets Scheme. The Biodiversity Offsets Scheme creates a scientifically based approach to biodiversity assessment and offsetting for development that is likely to have a significant impact on biodiversity.

The Biodiversity Offsets Scheme applies to:

- *local development (assessed under Part 4 of the Environmental Planning and Assessment Act 1979) that triggers the Biodiversity Offsets Scheme threshold or is likely to significantly affect threatened species based on the test of significance in section 7.3 of the Biodiversity Conservation Act 2016*
- *state significant development and state significant infrastructure projects, unless the Secretary of the Department of Planning and Environment and the Chief Executive of OEH determine that the project is not likely to have a significant impact*
- *biodiversity certification proposals*
- *clearing of native vegetation in urban areas and areas zoned for environmental conservation that exceeds the Biodiversity Offsets Scheme threshold and does not require development consent*
- *clearing of native vegetation that requires approval by the Native Vegetation Panel under the Local Land Services Act 2013*
- *activities assessed and determined under Part 5 of the Environmental Planning and Assessment Act 1979 (generally, proposals by government entities), if proponents choose to 'opt in' to the Scheme.*

The Biodiversity Offsets Scheme Threshold is a test used to determine when it is necessary to engage an accredited assessor to apply the Biodiversity Assessment Method ("BAM").

The *Biodiversity Conservation Regulation 2017* identifies thresholds for the triggering of the Biodiversity Offsets Scheme.

This test has the following elements:

- *whether the amount of native vegetation being cleared exceeds a threshold area set out below*
- *whether the impacts occur on an area mapped on the Biodiversity Values map published by the Minister for the Environment.*

If clearing and other impacts exceeds either trigger, the Biodiversity Offset Scheme applies to the proposed development including biodiversity impacts prescribed by clause 6.1 of the *Biodiversity Conservation Regulation 2017*.

6.1 Area clearing threshold

The area threshold varies depending on the minimum lot size. These are shown in the Lot Size Maps made under the relevant Local Environmental Plan ("LEP"), or actual lot size where there is no minimum lot size provided for the subject land under a LEP.

Minimum lot size associated with the property	**Threshold for clearing, above which the BAM and offsets scheme apply**
Less than 1 ha	0.25 ha or more
1 ha to less than 40 ha	0.5 ha or more
40 ha to less than 1000 ha	1 ha or more
1000 ha or more	2 ha or more

The area threshold applies to all proposed clearing of native vegetation, regardless of whether clearing is across multiple lots. The site is dominated by exotic species with few native trees (Plate 6). The area clearing threshold of 0.25 ha would not apply.

Plate 6: The site viewed from west to east (Photo 2020)

6.2 Biodiversity values map

The Biodiversity Values Map identifies land with high biodiversity value, as defined by clause 7.3(3) of the *Biodiversity Conservation Regulation 2017*. The Biodiversity Offsets Scheme applies to all clearing of native vegetation and other biodiversity impacts prescribed by clause 6.1 of the *Biodiversity Conservation Regulation 2017* on land identified on the map.

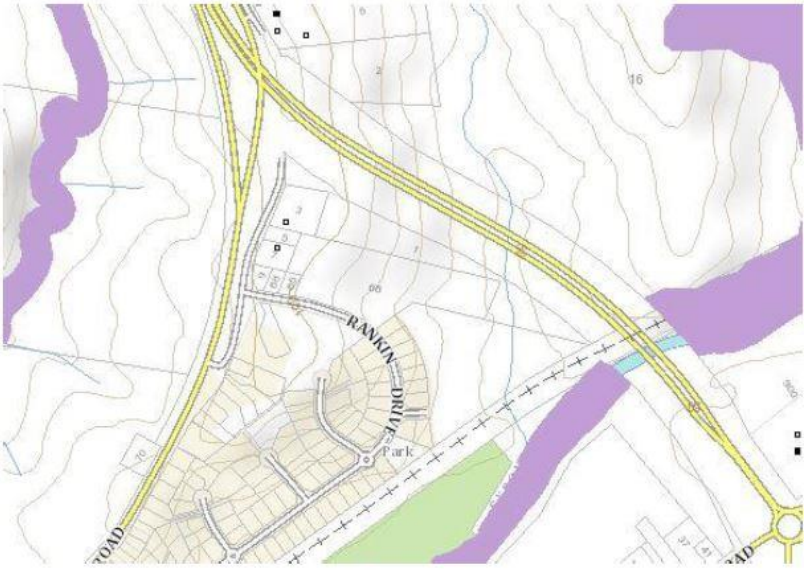

Fig. 4: Biodiversity values map (purple)

6.3 Threatened species 'test of significance'

A 'test of significance' for development proposals that do not exceed the Biodiversity Offset Scheme Threshold is the third element in a decision matrix that determines whether a development proposal enters the "offset scheme".

The test of significance determines whether the proposal is likely to significantly affect threatened species, ecological communities and their habitats.

6.4 Biodiversity Conservation Act 2016

Development must be accompanied by a biodiversity development assessment report ("BDAR") if:

(a) *it is likely to significantly affect threatened species or ecological communities, or their habitats, according to the test in section 7.3 of the BC Act, or*

(b) *the development exceeds the biodiversity offsets scheme threshold if the biodiversity offsets scheme applies to the impacts of the development on biodiversity values, or*

(c) *it is carried out in a declared area of outstanding biodiversity value.*

The test of significance is included below as the proposed development does not exceed the biodiversity offsets scheme clearing threshold and the Biodiversity Values mapping does not apply.

A BDAR is required if the test of significance finds a significant effect on threatened species or ecological communities or their habitat is likely.

For the purposes of the *BC Act*, the following must be taken into account in deciding whether there is likely to be a significant effect:

- *Each of the factors listed below under sections 7.3 BC Act; and*
- *Any assessment guidelines*[1].

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1 For the purpose of this assessment the *Threatened species test of significance guidelines* have been adopted. Publ. OEH 2018

The test of significance is based on the footprint and the design of the development. Measures that offset or otherwise compensate for the development or activity should not be considered in determining the degree of the effect on threatened species or ecological communities. In determining the nature and magnitude of an impact, it is important to consider matters such as:

- *pre-construction, construction and occupation/maintenance phases*
- *all on-site and off-site impacts, including location, installation, operation and maintenance of auxiliary infrastructure and fire management zones*
- *all direct and indirect impacts*
- *the frequency and duration of each known or likely impact/action*
- *the total impact which can be attributed to that action over the entire geographic area affected, and over time*
- *the sensitivity of the receiving environment*
- *the degree of confidence with which the impacts of the action are known and understood.*

6.5 S.7.3 (a)

a). in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

In assessing the likelihood that a *viable local population* of a species will be placed at risk of extinction from this proposal the following factors have been considered:

The local population of a threatened plant species comprises those individuals occurring in the study area or the cluster of individuals that extend into habitat adjoining and contiguous with the study area that could reasonably be expected to be cross-pollinating with those in the study area.

The local population of resident fauna species comprises those individuals known or likely to occur in the study area, as well as any individuals occurring in adjoining areas (contiguous or otherwise) that are known or likely to utilise habitats in the study area.

The local population of migratory or nomadic fauna species comprises those individuals that are likely to occur in the study area from time to time or return year to year.

The key assessment is risk of extinction of the local population. The risk of extinction will increase if any factor operates to reduce population size or reproductive success. The components of the life cycle of a species are dependent on its habitat and affected by threats to the species. The removal or modification of habitat or changes to the nature of important periodic disturbances such as fire or flood may affect the survival of that species.

6.5.1 Flora

No threatened flora species occur at the site. Thus, the proposal will not have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

6.5.2 Frogs

A small gully which is potential frog habitat runs through the site. However, the proposed development will not alter the hydrology of this site.

6.5.3 Birds

The little eagle has been recorded within 1 km of the site and a number of other threatened birds may occur in the vicinity of the site opportunistically. However, no threatened species habitat will be removed or modified.

6.5.4 Mammals

Koala records are illustrated in Fig. 3 in the residential component of the site. Four koala food trees occur. These are forest redgum and swamp mahogany. While these trees were planted, this does not diminish their value as koala food trees. Scratches attributed to the koala were recorded on forest redgum trunks and several koala scats were recorded on a previous site inspection in 2020. The proposal has been designed to retain all koala food trees and has identified a suitable area for additional plantings.

6.5.5 S7.3 (a) conclusion

The proposal is unlikely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

6.6 S.7.3 (b)

b) in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction,

The Guidelines provide the following assistance:

Local occurrence: the ecological community that occurs within the study area. However, the local occurrence may include adjacent areas if the ecological community on the study area forms part of a larger contiguous area of that ecological community and the movement of individuals and exchange of genetic material across the boundary of the study area can be clearly demonstrated.

Risk of extinction: similar to the meaning set out in factor (a), this is the likelihood that the local occurrence of the ecological community will become extinct either in the short term or in the long term as a result of direct or indirect impacts on the ecological community and includes changes to ecological function.

Composition: both the plant and animal species present, and the physical structure of the ecological community. Many ecological communities are identified primarily by their vascular plant composition, an ecological community consists of all plants and animals as defined under the BC Act that occur in that ecological community.

The guidelines state that: determining the risk of extinction of an ecological community is difficult. Critical thresholds of remnant size, and species and structural composition required to maintain ecological functioning will vary from ecological community to

ecological community. When evaluating the significance of the impact, consideration must be given to whether the life cycles of the species which make up the ecological community will be disrupted in a similar manner to the consideration of individual species described in factor (a). Disproportionate impacts may occur on certain components of the community that may cause those components to be placed at a greater risk of extinction without explicitly placing the entire ecological community at risk. Loss of individual species from a community may simplify faunal, floristic or vegetation structure and have flow-on effects to other plant and animal species. This may increase the ecological community's susceptibility to extreme events and decrease its resilience. An assessment of ecological functioning is critical to analysing the risk the development/activity poses to the persistence of the local occurrence of the ecological community.

The proposed development will not *have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction* nor will any proposed action *substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.*

6.7 S.7.3 (c)

c) in relation to the habitat of a threatened species, population or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality,

Habitat: the area occupied or used, including areas periodically or occasionally occupied or used, by any threatened species or ecological community and includes all the different

aspects (both biotic and abiotic) used by species during the different stages of their life cycles.

Extent: the physical area removed and/or the compositional components of the habitat and the degree to which each is affected. Importance: related to the stages of the species' life cycles and how reproductive success may be affected.

Locality: the same meaning as ascribed to local population of a species or local occurrence of an ecological community.

The guidelines note that consideration must be given to all short-term and long-term impacts (direct and indirect) on habitat which is likely to support threatened species and ecological communities regardless of whether the habitat occurs on the subject site. This applies to both occupied and unoccupied habitat because the recovery of threatened species and ecological communities relies on them having access to suitable habitat to move into as numbers increase. The extent to which habitat is likely to be removed or modified should be determined by estimating the total area of habitat to be directly and indirectly impacted by the proposed development, activity or action. This may be an estimation of the surface area of land to be affected, and/or in some cases the number of key habitat components to be affected. When deciding whether an area of habitat is likely to become fragmented or isolated from other areas of habitat, it is necessary to identify and assess the patterns and extent of habitat connectivity. The affected habitat may form part of a habitat corridor, cul-de-sac or an isolated area. The dispersal and genetic exchange mechanisms of individual species should be considered.

When assessing the importance of the habitat likely to be removed, modified, fragmented or isolated in the locality, a quantitative and qualitative approach should be adopted as follows:

- *an assessment of the area and quality of habitat of the threatened species or ecological community that occurs within the locality from recent Landsat imagery, vegetation mapping, topographic maps, air photos and in some cases data obtained from on ground investigations;*
- *an estimate of the area and quality that the habitat of the study area represents in relation to the area and quality of that habitat within the locality*

- *an assessment of the role of the habitat to be affected in sustaining habitat connectivity in the locality, and*
- *an assessment of the ecological integrity of the habitat to be affected in the study area, in relation to the ecological integrity, tenure and security of the habitat which will remain both in the study area and in the locality.*
- *With respect to s.5A (i), the flora and fauna survey identified and mapped areas of conservation significance. The proposed development will be wholly located on habitat of little conservation significance and high conservation value habitats will be preserved and managed.*

The extent to which habitat is likely to be removed or modified as a result of the action proposed is negligible.

Further, an area of habitat is unlikely to become fragmented or isolated from other areas of habitat as a result of the proposed action.

With respect to s.5A (iii), the proposal will not significantly affect the long-term survival of the species, population or ecological community in the locality.

6.8 S.7.3 (d)

(d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)

This applies to declared areas of outstanding biodiversity value ("AOBVs") under Part 3 of the *BC Act* and is aimed at assessing whether a development or activity is likely to affect any declared AOBV. When applying this factor, consideration must be given to all short-term and long-term impacts (direct and indirect) on the area of outstanding biodiversity. When assessing whether a development or activity is likely to have an adverse effect on an AOBV, reference should be made to the declaration. It requires consideration of whether the development or activity will modify or interfere with ecological processes, biological processes, habitat integrity or other features or qualities of the environment that are fundamental to the persistence of the value the area is protecting.

The site does not contain any area which has been identified and declared as an AOVB. Therefore, AOVBs will not be affected by the proposed development.

6.9 S.7.3 (e)

e) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process

This factor refers only to those key threatening processes listed in Schedule 4 to the *BC Act*. Consideration must be given to whether the proposal is likely to exacerbate a key threatening process. It is necessary to identify the extent to which these processes are already occurring in the locality and to consider the likely consequences of contributing to a key threatening process for the persistence of threatened species and ecological communities in the locality.

Species listed in the determination as being 'at risk' warrant particular consideration if these species are known or likely to occur within the study area of the development or activity.

Threatening processes gazetted pursuant to Schedule 4 of the *BC Act* are as follows:

- *Aggressive exclusion of birds from woodland and forest habitat by abundant noisy miners, Manorina melanocephala;*
- *Alteration of habitat following subsidence due to longwall mining;*
- *Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands (as described in the final determination of the Scientific Committee to list the threatening process);*
- *Anthropogenic climate change;*
- *Bushrock removal;*
- *Clearing of native vegetation. Clearing is defined as the destruction of a sufficient proportion of one or more strata (layers) within a stand or stands of native vegetation so as to result in the loss, or long-term modification, of the structure, composition and ecological function of a stand or stands;*
- *Competition and grazing by the feral European rabbit, Oryctolagus cuniculus;*
- *Competition and habitat degradation by feral goats, Capra hircus;*
- *Competition from feral honey bees, Apis mellifera;*
- *Death or injury to marine species following capture in shark control programs on ocean beaches;*

- *Entanglement in or ingestion of anthropogenic debris in marine and estuarine environments;*
- *Forest eucalypt dieback associated with over-abundant psyllids and bell miners;*
- *Habitat degradation and loss by Feral Horses (brumbies, wild horses), Equus caballus Linnaeus 1758*
- *Herbivory and environmental degradation caused by feral deer;*
- *High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition. High frequency fire is defined as two or more successive fires close enough together in time to interfere with or limit the ability of plants or animals to recruit new individuals into a population, or for plants to build up a seed-bank of sufficient size to maintain the population through the next fire;*
- *Importation of red imported fire ants, Solenopsis invicta;*
- *Infection by Psittacine Circoviral (beak and feather) disease affecting endangered psittacine species and populations;*
- *Infection of frogs by amphibian chytrid causing the disease, chytridiomycosis;*
- *Infection of native plants by the fungus, Phytophthora cinnamomi;*
- *Introduction and establishment of exotic rust fungi of the order Pucciniales pathogenic on plants of the family Myrtaceae;*
- *Introduction of the large earth bumblebee, Bombus terrestris;*
- *Invasion and establishment of exotic vines and scramblers;*
- *Loss or degradation (or both) of sites used for hill-topping by butterflies. Hill-topping in butterflies is a complex behaviour that often facilitates mating between sexes. Many butterfly species appear to congregate on hill-tops or ridges that are usually higher than the surrounding landscape. These sites may range in area from a few square metres to several hectares;*
- *Invasion and establishment of scotch broom, Cytisus scoparius;*
- *Invasion and establishment of the cane toad, Bufo marinus;*
- *Invasion, establishment and spread of Lantana;*
- *Invasion of native plant communities by African olive, Olea europaea L. subsp. cuspidate;*
- *Invasion of native plant communities by bitou bush, Chrysanthemoides monilifera. The ability of bitou bush to become the overwhelming dominant in invaded ecological communities threatens all plant communities within its' distribution;*
- *Invasion of native plant communities by exotic perennial grasses;*

- *Invasion of the yellow crazy ant, Anoplolepis gracilipes, into NSW;*
- *Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants;*
- *Loss of hollow-bearing trees;*
- *Predation by the mosquito fish, Gambusia holbrooki;*
- *Predation by the European red fox, Vulpes vulpes;*
- *Predation by the feral cat, Felix cattus. Predation by the feral cat has been implicated in the extinction and decline of many species of birds on islands around Australia and in the early extinction of up to seven species of small mammals on the Australian mainland;*
- *Predation by the ship rat, Rattus rattus, on Lord Howe Island; and*
- *Removal of dead wood and dead trees.*

The proposal will not lead to an increase in any of the above-listed threatening processes.

7.0 Conclusion

The proposal will not result in a significant impact on threatened species or endangered ecological communities and is therefore not subject to the Biodiversity Offsets Scheme.

Annexure 1:

Compliance with Council's Development Control Plan (Biodiversity)

Objective/Requirement	Response
B1.2.1 Development Envelope Controls	
1. When defining the development envelope red flags and ecological setbacks set out in Table 3 of Chapter B1 must be retained on site (including any native vegetation therein).	**The proposed development will be sited in an existing cleared area which includes slashed exotic grassland**
2. Unless adequate pre-existing biodiversity offset arrangements have been made under a Council-endorsed strategic planning process (e.g. a master plan) or a State or Federal government approval, clearing of native vegetation or other habitat not red flagged in Table 3 will generally not be supported unless all of the following apply: a. the area to be cleared is less than 5000 m²; b. the clearing does not result in a significant decrease in habitat connectivity; c. there are no other suitable locations on the site; d. an ecological setback of 20m is maintained; and e. adequate provision is made to compensate for any clearing ensuring no net loss to biodiversity.	**The proposed development will have no net loss to biodiversity. There will be negligible clearing of native vegetation**
3. Where pre-existing offset arrangements or other biodiversity management measures secured under a Council-endorsed	**NA**

strategic planning process (e.g. a master plan) or a State or Federal government approval exists, such arrangements shall be: a. implemented to the extent to which they are relevant to the development application under consideration; and b. only varied because of specific impacts of the development, changed circumstances, or new information not previously considered.	
4. In the case of HEV vegetation on the coastal floodplain (as per Council's current flooding information) consideration shall be given to increasing the ecological setbacks required under Table 3 to allow for future landward migration of native vegetation affected by climate change induced increases in tidal inundation and rises in the water table.	**NA**
5. Despite DCP 2014 Chapter D6 Subdivision, development involving the subdivision of land where HEV vegetation exists, or is adjacent to that land, must; a. formally define development envelopes on each proposed lot to ensure future development of the subdivided lots avoid any relevant red flagged areas associated with ecological setbacks; and b. with the exception of individual very large trees, stags or hollow-bearing trees, any	**Development envelopes have been defined**

proposed lot(s) with an area less than 1 hectare shall not include red flagged areas.	
B1.2.1 Development Envelope Controls	
6. Minor variations to the red flagged areas identified in Table 3 may be considered to achieve practical outcomes	**Not required**
7. Any minor variation referred to above must not: a. trigger a subsequent red flag in another area defined within Table 3, or b. conflict with any statutory consideration that requires the retention of that area	**NA**
8. A development application seeking a minor variation must: a. clearly demonstrate the variation sought; b. demonstrate that alternative layouts have been considered and that the impacts cannot be reasonably be avoided; c. show how the variation impact is consistent with the relevant planning principles and objectives of this DCP Chapter.	**NA**
9. Where a proposed development adjoins waterways or riparian areas Council may, where considered appropriate require bank	**NA**

stabilisation works, adequate arrangements for public access, measures to minimise pollution and sedimentation and or measures to reduce impacts of biting insects.	
10.Development setbacks required to manage potential bushfire risk shall not overlap with red flagged areas referred to in Table 3 or other retained native vegetation.	**Consistent**
11.A development setback required to manage potential bushfire risk may overlap with an ecological setback and be managed as an environmental management buffer.	**NA**
12.Any clearing entitlement under the NSW Rural Fire Service 10/50 Vegetation Clearing Code of Practice for NSW (or similar subsequent provision) shall be regarded as a development setback.	**NA**
13.Other [bushfire] acceptable solutions may be appropriate, however the application must demonstrate that: a. there is no net loss to biodiversity; and b. a clearly equivalent or superior long-term outcome can be assured; and c. the variation is	**NA**

consistent with all the relevant planning principles and objectives of this DCP Chapter.	
B1.2.1 Development Envelope Controls	
14.It is strongly advised that any proposal that involves variations to the measures within this DCP Chapter, or any proposed offsetting are discussed through Council's pre-lodgement consultation process prior to lodgement.	**Complies**
15.If the development application is required to enter the Biodiversity Offset Scheme (BOS) under the Biodiversity Conservation Act 2016, the accompanying Biodiversity Development Assessment Report (BDAR) is to include assessment of all entities for serious and irreversible impacts on biodiversity values as defined under the Biodiversity Assessment Method (BAM).	**NA**
16.If the development application is not required to enter the Biodiversity Offset Scheme (BOS) under the Biodiversity Conservation Act 2016, any native vegetation, threatened or other significant fauna habitat cleared, damaged, or degraded as	**NA, no offsetting required**

a result of development shall be offset or otherwise compensated for in accordance with contemporary best practice or adopted Council policy. Such areas are to be secured in perpetuity as protected habitat and managed under a vegetation or biodiversity conservation management plan.	
17.Council may waive the requirement for offsetting where the proponent can demonstrate that they have voluntarily created equivalent habitat on the land (or adjoining land in the same ownership) which is subject to the development application.	**NA**
B1.2.2 Development Infrastructure and Other Controls	
1. Roads and associated infrastructure are considered part of the development envelope and their location should be consistent with the provisions outlined (above) in Table 3.	**Roads are located in mowed grassed areas**
2. Wherever Council considers that on-going impacts to wildlife are likely to arise from new or upgraded roads, the proponent may be requested to carry out additional fauna surveys to determine the likely impacts on biodiversity values and explore fauna friendly road design such as; speed limits, traffic calming,	**NA, vehicle speeds will be minimal (e.g., 20 km/hr) due to the nature of road design**

signage, exclusion fencing and fauna crossing structures (under passes, overpasses etc.).	
3. Where on-going impacts to wildlife are likely, the road design is to incorporate best practice fauna sensitive design features to facilitate unimpeded wildlife movement as well as minimising any other ongoing impacts on biodiversity values, paying particular attention to the requirements of any threatened fauna or other significant fauna. Such design features are to be monitored and maintained to minimise impacts on wildlife.	**NA**
B1.2.1 Development Envelope Controls	
4. During road construction and upgrading, appropriate environmental safeguards are to be employed to minimise any biodiversity impacts	**The site is not open to the public and onsite management is provided.**
5. Fauna friendly road design structures shall be maintained by the proponent for a minimum period of five years after road dedication unless otherwise agreed by Council.	**This is incorporated in the DA**

6. Where a vegetation or biodiversity conservation management plan is required, any measures or related conditions of consent to mitigate road impacts on biodiversity shall be incorporated into the management plan and implemented accordingly.	**This will be undertaken, if required by Council, prior to the release of a construction certificate**
7. Where wildlife are likely to move between areas of suitable habitat (e.g. rural residential development), fencing must be designed to permit the free movement of native fauna (unless designed to specifically exclude movement such as along roads).	**NA**
8. Development design shall consider the potential impacts on biodiversity, paying particular attention to threatened fauna to ensure that fencing or other structures do not inadvertently direct native animals into danger	**The road design reflects this consideration**
9. Fauna exclusion fencing (or other measures) shall be used where there is a significant fauna mortality risk as a result of crossing from one area of suitable habitat to another (e.g. busy roads) or entering built up areas (e.g. urban development with dogs)	**NA**

10. Any fauna exclusion fencing or other measures (including temporary structures to perform the same task) shall be constructed and operational prior to the physical commencement of works (including clearing vegetation, the use of heavy equipment for the purpose of breaking ground for bulk earthworks, or infrastructure for the proposed development).	**NA**
11. Fencing design shall include suitable clearances to maintain functionality and allow for access for replacement and routine maintenance.	**NA**
12. All exclusion fencing, fauna friendly fencing or other structures designed to protect fauna shall be monitored and maintained to minimise impacts on wildlife.	**NA**
13. Where appropriate, fencing, barriers or other measures shall be used to limit or control human access (e.g. motor vehicles) to environmentally sensitive areas.	**NA**
14. Where a vegetation or biodiversity conservation management plan is required, any wildlife fencing measures or related	**NA**

conditions of consent shall be incorporated into the management plan and implemented accordingly.	
15. Where Council considers that wildlife impacts are likely to arise from noise, the proponent may be requested to carry out additional fauna surveys to determine the likely impacts on biodiversity, paying particular attention to threatened fauna or other significant fauna and explore appropriate mitigation measures including, but not limited to, suitable buffers to environmentally sensitive areas, traffic speed restrictions, timing of noisy activities and/or installing appropriate noise barriers.	**NA**
B1.2.1 Development Envelope Controls	
16. Council will not support development where the impacts of noise on biodiversity values cannot be adequately mitigated.	**NA**
17. Where the development envelope contains or adjoins known bush stone curlew habitat or microbat colonies, street lighting must be of a type that does not attract insects.	**NA**

18. Sports field lighting (or similar high intensity outdoor lighting) shall be designed to avoid light spill into natural areas.	**NA**
19. Development adjacent to beaches must prevent light arising from development spilling onto beaches to avoid potential impacts on shorebird and turtle behaviour (e.g. nesting).	**NA**
20. Where a vegetation or biodiversity conservation management plan is required, any measures or related conditions of consent to mitigate noise and lighting shall be incorporated into the management plan and implemented accordingly.	**NA**
21. Council may prohibit the keeping of domestic animals where there is an unacceptable residual risk (i.e. a risk that cannot be adequately mitigated by other measures such as exclusion fencing) arising from the development to threatened or other significant species.	**This can be managed through conditions of development consent**
22. The application of the above measure (21) does not apply to "assistance animals" as defined under the Disability Discrimination Act 1992.	**Noted**

23. Where permitted, all domestic animals are to be contained within the landholder's property and prevented from roaming in natural areas.	**Complies**
24. In larger scale developments involving subdivision, where domestic dogs are permitted, adequate provision should be made for exercising them off leash.	**NA, subdivision too small and land too steep**
25. Where a vegetation or biodiversity conservation management plan is required, any measures or related conditions of consent to manage domestic animals shall be incorporated into the management plan and implemented accordingly.	**Noted**
26. Developments must be designed to minimise the likelihood of pest animal establishment/proliferation and where relevant, include measures to control pest animals.	**NA**
27. Standing water bodies and constructed wetlands shall be designed to minimise their suitability for cane toads and other aquatic pest species (e.g. Mosquitofish (Gambusia spp.)).	**Will be addressed in development application**

28. Where a vegetation or biodiversity conservation management plan is required, any measures or related conditions of consent to manage pest animals shall be incorporated into the management plan and implemented accordingly.	**NA**
B1.2.1 Development Envelope Controls	
29. For developments involving subdivision a restrictive covenant under Part 6 (Division 4) of the Conveyancing Act 1919 shall be applied to prohibit the keeping of declared pest animals (foxes, rabbits etc.) and/or other pest animals considered to pose a significant risk to biodiversity relevant to the site.	**Noted**
30. Developments must be designed to minimise the establishment/proliferation of pest plant species (weeds) declared under the Biosecurity Act 2015, and where present, include measures to control them.	**Noted**
31. All landscaping and landscape design shall be consistent with DCP 2014 Chapter B9 Landscaping.	**NA**

32. Where a vegetation or biodiversity conservation management plan is required, any measures or related conditions of consent to manage pest plants shall be incorporated into the management plan and implemented accordingly.	**NA**
B1.2.3 Koala Habitat	
1. For development in areas identified in the Byron Coast Comprehensive Koala Plan of Management (CKPoM), the provisions of Part 2 within the CKPoM apply.	**Noted**
2. For development in areas outside of the identified areas within the CKPoM that have Koala use trees (Appendix 1 of Chapter B2) and or Koala habitat on or adjacent to their Lot, irrespective of the size of the Lot, the requirements of this DCP Chapter apply.	**Noted**
3. The following mitigation measures are required to be addressed within any development application that has the potential to impact koalas and or koala habitat irrespective of Lot size.	**NA**

a. i. The entire development envelope must illustrate the required ecological setback as outlined in Table 3 to koala use trees (Appendix 1) and koala habitat.	**Noted**
b. i. Establishment of tree protection zones around retained koala use tree species as per the Australian Standards (AS 4970-2009 Protection of trees on development sites) before any construction or clearing commences and preclusion of any development activities within the tree protection zones until after all construction is completed.	**Noted**
b. ii. Any clearing of land not to commence until the proposed clearing area has been inspected for koala presence and written approval has been obtained from a suitably qualified person.	**NA**
b. iii. Clearing of native vegetation and or earthworks as part of any development must be temporarily suspended within a range of 25m from any tree that is occupied by a koala and must not resume until the koala has moved from the tree of its own volition.	**NA**

b. iv. Clearing in accordance with (ii) may only proceed for the day on which the inspection has been undertaken and where the suitably qualified person remains on site.	**NA**
b. v. Where (i)-(iv) do not apply, sites where Koalas are within a 2.5km range of Koala habitat are to be protected from disturbance through appropriate exclusion fencing from urban areas and roads.	**NA**
objective/Requirement Response c. Dog attack (i - v)	**NA**
d. Vehicle Strike (i - iv)	**NA**
e. Swimming Pools (i - iii)	**NA**
f. Bushfire (i and ii)	**NA**
g. Impediments to movement (i - iii)	**NA**
B1.2.3 Koala Habitat	**Response**
4. All Koala use tree species (Appendix 1) planted or otherwise, are to be retained.	**Complies**

5. All Koala use tree species (Appendix 1) that have been planted with public monies are to be retained and protected in perpetuity regardless of land tenure	**NA**
6. All Koala habitat and individual Koala use trees (Appendix 1) are to be illustrated on all site plans by stadia metric survey and include: location, area size (where applicable), plant community type (where applicable), species name, height and DBH.	**Complies**
7. All plantings of Koala use trees (Appendix 1) as a result of consent conditions under the Environmental Planning and Assessment Act 1979 are to be protected in perpetuity by an effective legal restriction on the title of land.	**NA**
8. All restoration of koala habitat as a result of consent conditions under the Environmental Planning and Assessment Act 1979 shall be protected in perpetuity by an effective legal restriction on the title of land.	**NA at rezoning**

B1.2.4 Ecological Assessment	
1. For development where the proposed development envelope does not overlap with red flagged areas or associated ecological setbacks in Table 3 and a vegetation or biodiversity conservation management plan is not required - various prescriptions apply.	**Noted**
2. For development where the proposed development envelope does overlap with red flagged areas or associated ecological setbacks in Table 3, or a vegetation or biodiversity conservation management plan is required:	**NA**
. A signed statement from a qualified ecologist stating that the Biodiversity Offset Scheme (BOS) does not apply to the development including: **. A response to the five part test of significance set out under s7.3(1) of the BC Act.**	**Assessment in this report**
B1.2.5 Vegetation Management Plans and Biodiversity Conservation Management Plans	
1. A Vegetation Management Plan (VMP) is required for any proposal: a. that will impact High Environmental Value (HEV) vegetation and/or a red flagged area, or requires management of an environmental management buffer within an ecological	**NA**

setback (Table 3); and or b. that has such a requirement under any other DCP Chapter (e.g. DCP Chapters D2, D3 and D6).	
2. A Biodiversity Conservation Management Plan (BCMP) is required for any development that triggers the requirement of a VMP and also either: a. impacts a threatened fauna species known to occur on site (e.g. koala habitat); and or b. includes the subdivision of land (determined on a case by case basis).	**NA**
3. The requirement of a BCMP overrides the necessity of a VMP as both contain similar information and management actions. However, a BCMP generally has increased management actions over a longer period of time and requires more detailed information.	**Noted**

Ecological Setbacks Required for Red-flagged Areas (Table 3 Chapter B1, Byron DCP)

Red Flag	**Ecological Setback (m)**	**Compliance**
High Ecological Value (HEV) Vegetation Threatened Ecological Communities (includes Critically Endangered, Endangered or Vulnerable listed under State or Commonwealth legislation)	**30**	**NA**
Over-cleared vegetation types (a vegetation type of which more than 70% has been cleared in the Catchment Management Area)	**20**	**NA**
Over-cleared landscapes (A Mitchell landscape in which more than 70% native vegetation cover has been cleared)	**20**	**NA**
Old-growth forests	**30**	**NA**

Important wetlands (wetlands protected under NSW State or Commonwealth legislation or policy. Includes wetlands mapped under the NSW State Environmental Planning Policy (SEPP) Coastal Management 2018)	**50**	**NA**
Other wetlands (any other wetland other than an Important wetland)	**20**	**NA**
Other bushland on a slope >18 degrees	**20**	**NA**
Pre-existing protected habitat (areas of existing habitat or other land provided with formal long-term protection designed to limit further development)	**20 m or as above, whichever is larger**	**NA**
Wildlife Corridors		
Land within a defined wildlife corridor	**20**	**NA**

Threatened and Significant Species		
Areas with a species polygon for threatened fauna or other significant fauna that are known or predicted to occur at the site.	**20**	**NA**
Areas with a species polygon for threatened flora or other significant flora that are known or predicted to occur at the site.	**10**	**NA**
Koala Habitat		
Koala habitat outside of areas defined within a Comprehensive Koala Plan of Management.	**20**	**NA**
Isolated or scattered Koala use trees with evidence of Koala activity.	**20**	**Complies**

Any other areas where Koalas are present and/or koala habitat is planted with public monies.	**20**	**NA**
Waterways and Riparian Areas (from top of the bank)		
First order stream	**10**	**Complies**
Second order stream	**20**	**NA**
Third order stream	**30**	**NA**
Fourth order stream	**40**	**NA**
Estuarine area	**50**	**NA**

Flying-fox Camps		
Year round or intermittent	**100**	**NA**
Other Habitat Features		
Very large native trees (local native trees that have a trunk diameter of greater than or equal to 0.8 metres at 1.4 metres above the natural ground level)	**10**	**NA**
Stags and hollow-bearing trees (a larger development setback may need to be considered to prevent damage to built structures in the event of a tree or stag fall)	**10**	**NA**
Raptor nests	**10**	**NA**