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133-139 Dulguigan Road, Dulguigan

Ecological Assessment to Support the Planning Proposal

Prepared for B&P Surveys

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Cover photo: Drone aerial photo taken on the site, with Wollumbin in the background.

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Executive Summary

On behalf of the landowners, B&P Surveys seeks to amend the Tweed *Local Environmental Plan 2014* (TLEP) at 133-139 Dulguigan Road, Dulguigan 2484 in NSW. The proposed TLEP amendments include provisions to amend Map - LSZ_004 (Minimum Lot Size Map) to reduce the minimum lot size from 40 ha to 1.5 ha via a Planning Proposal under the *Environmental Planning and Assessment Act 1979*. The TLEP amendments will affect Lot 1 DP328107, Lot 1 DP364474, Lot 1 DP376131, Lot 1 DP410859, Lot 8 DP755685, and Lot A DP174886.

If the Planning Proposal is approved, the proposed TLEP minimum lot size amendments will facilitate future Development Application/s (DA/s) to be made for a proposed subdivision, with all lots benefitting from dwelling entitlements in accordance with Clause 4.2B of the TLEP. Subject to the Planning Proposal, the proposed subdivision will result in six new reconfigured lots from the existing lots. The potential dwellings and connecting driveways are proposed to be located in the existing Lot 1 DP328107 and Lot 8 DP755685.

The creation of six new lots would result in 25 m wide boundary clearing permissions under the Rural Fire Service (RFS) Rural Boundary Clearing Code, excluding the pre-existing clearing permissions on pre-existing lot boundaries, and land excluded from the RFS Rural Boundary Clearing Code (i.e. land containing mapped Biodiversity Values). We note that clearing is not actually proposed along the new lot boundaries, though the proposed lot amendment would result in the landowners having the 'right to clear'. The 'proposed development footprint' for this report, therefore, includes the new boundary clearing permission areas in addition to the potential dwelling and driveway footprints (6.54 ha in total).

This report provides the results of an ecological assessment prepared to support the assessment of the Planning Proposal as well as the future DA/s. The report is based on both desktop assessment and site survey.

The desktop assessment found that the majority (6.18 ha) of the proposed development footprint is mapped as 'Category 1-exempt land' per the Local Land Services (LLS) Draft Native Vegetation Regulatory Map (NVRM). The vegetation on site was observed to largely align with the Draft NVRM. The remaining 0.36 ha of the proposed development footprint (within the proposed new boundary clearing permission area only) is mapped as Category 2 land on the Draft NVRM (including 0.23 ha of Category 2-regulated land and 0.13 ha of Category 2-vulnerable regulated land).

Field surveys showed that the proposed development footprint (including both Category 1 and Category 2 land) contains 0.68 ha of native vegetation across three PCTs: 0.13 ha of PCT 3148, 0.15 ha of PCT 3232 and 0.39 ha of PCT 3990. To avoid ecological impacts, a majority (5.86 ha) of the proposed development footprint (including all proposed dwellings and driveways, and the majority of the new lot boundaries) intentionally overlays existing paddock areas, which are dominated by exotic grasses and forbs and have been subject to grazing.

No threatened flora or fauna species or threatened ecological communities listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) or the federal *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) were directly observed across the proposed site during on field surveys, and the proposed development footprint provides very limited habitat value for threatened species. Nonetheless, koala scat was identified within PCT 3232 immediately adjacent to the proposed development footprint, and several BioNet database records of Koala exist on the subject lots or within the immediate vicinity. It is not expected that a significant impact to threatened species will

result if the site is developed, however this would need to be confirmed in the future DA/s if any changes to the development footprint are proposed and a Koala plan of management plan may still be required.

If the Planning Proposal is approved, the Biodiversity Offsets Scheme (BOS) vegetation clearing threshold would be determined by the new minimum lot size of 1.5 ha (i.e. ≥0.5 ha threshold). As per Section 6.8 of the BC Act, the biodiversity assessment method is to exclude the assessment of the impacts of any clearing of native vegetation and loss of habitat on category 1-exempt land (within the meaning of Part 5A of the *Local Land Services Act 2013*). Therefore, 6.18 ha of the proposed development footprint (including the majority of the new lot boundary clearing permission, all proposed dwelling footprints and most of the driveways) would not qualify for entry into the NSW Biodiversity Offsets Scheme (BOS) as part of future DAs because Category 1-exempt land is excluded from further assessment.

Of the remaining 0.36 ha of the proposed development footprint mapped as Category 2-regulated land, only 0.19 ha was found to contain native vegetation (0.13 ha of PCT 3148 and 0.06 ha of PCT 3232), while 0.17 ha was found to be previously cleared land dominated by exotic vegetation. Therefore, neither the proposed lot reconfiguration (which involves establishing the 'right to clear' 0.19 ha of native vegetation within Category 2 land) or the proposed development (dwellings and connecting driveways, which would not involve clearing any mapped PCTs) would exceed the 0.5 ha vegetation clearing threshold or trigger the BOS.

However, Council (as the consent authority for any future DA) may still advise that areas of Category 1-exempt land that contain mapped PCTs do require further assessment. This may result in proposed lot reconfiguration exceeding the vegetation clearing threshold, triggering the BOS and requiring a BDAR to be prepared, as 0.68 ha of native vegetation was mapped across the proposed development footprint. The assessment approach would need to be confirmed as part of future DAs.

Despite the above, and noting that no *actual* clearing is proposed within the 25m boundary buffer area, the proposed development (potential dwellings and connecting driveways only) do not contain native vegetation and would not trigger the BOS (or requirement for a BDAR).

If a BDAR is considered required for the proposed lot reconfiguration, it may be possible for Council to add a condition to the DA approval to state that no vegetation clearing is allowed to occur along the new lot boundaries (as none is proposed anyway). As all impacts of the proposed lot reconfiguration would therefore be avoided, the consent authority may decide to reduce the number of biodiversity credits required to be retired (as per Division 4, Part 7.13 (4) of the BC Act).

The controls outlined in the Tweed Shire Council Development Control Plan 2008 (DCP) were also reviewed and details are provided in this report. Assuming the Planning Proposal is approved, the future DAs for the proposed lot reconfiguration and development of dwellings and driveways would comply with the DCP objectives and controls apart from some minor encroachments into the ecological setback areas. These minor variations and all relevant controls would be dealt with during future DAs.

If future development is enabled via approval of the Planning Proposal, the resultant ecological impacts are likely to be minor overall (based on the current proposal), whilst there is also opportunity for further impact reduction via future DA design and environmental management. In conclusion, the approval of the Planning Proposal will not result in unreasonable or significant impacts to ecological matters. Further, approval of the Planning Proposal will not enable development that is exempt from further ecological assessment and impact mitigation.

1 Introduction

B&P Surveys seeks to amend the Tweed *Local Environment Plan 2014* (TLEP) minimum lot size of 133-139 Dulguigan Road, Dulguigan 2484 (Figure 1). The proposed TLEP amendments include provisions to amend Map - LSZ_004 (Minimum Lot Size Map) to reduce the minimum lot size from 40 ha to 1.5 ha via a Planning Proposal under the *Environmental Planning and Assessment Act 1979*. The existing lots subject to the proposed TLEP amendment (i.e. 'the Site') are outlined in Figure 1 and include:

- Lot 1 DP 364474,
- Lot 1 DP 376131,
- Lot 1 DP 410859,
- Lot 1 DP 660569,
- Lot 8 DP 755685, and
- Lot A DP 174886.

If the Planning Proposal is approved, the proposed TLEP amendments would facilitate future Development Application/s (DA/s), including a lot reconfiguration to create six new lots and (due to all lots benefitting from dwelling entitlements in accordance with TLEP Clause 4.2B) the construction of dwellings and associated driveways. The future DA footprint (i.e. the proposed development footprint) will include the following, as shown on Figure 2 and Figure 3:

- proposed new lot boundaries
- Five proposed dwellings and connecting driveways, proposed to be located in the existing Lot 1 DP328107 and Lot 8 DP755685.
- A 25 m clearing buffer around those new boundaries (where applicable) under the Rural Fire Service (RFS) Rural Boundary Clearing Code (see Section 1.4 below).

This report provides an ecological assessment to support the Planning Proposal and potential future DA/s.

1.1. Background

B&P Surveys has requested an ecological assessment to support the Planning Proposal to enable subdivision of existing lots and consequent development of the subject lots. Prior to submitting a DA, a Planning Proposal must be submitted to request the TLEP amendments. Upon approval of the Planning Proposal, the landowner intends to subdivide the property into smaller lots, with new dwellings also proposed.

1.2. Site Description

The site is located west of the Pacific Motorway, approximately 3.7 km north of Murwillumbah. The area under consideration is 104.7 ha spilt into 3 land parcels. The largest of these parcels is 83.72 ha, situated north of Dulguigan Road. The two smaller land parcels are located to the south of Dulguigan Road (Figure 1).

The land is currently zoned RU1 - Primary production and RU2 - Rural Landscape (Figure 4). The property comprises rolling hills and farmland to the east with a collection of houses scattered throughout the south and western parts. The northern part of the property experiences small streams after rainfall and includes a small pond in the central north. There is also a constructed

drainage line running north to south through the farmland to the east (Figure 5). The eastern part of the property has been identified as a flood hazard area due to the watercourse and low-lying areas.

1.3. Proposed TLEP Amendments

The Planning Proposal seeks to attain consent for an amendment to the TLEP that includes provisions to reduce the minimum lot size from 40 ha to 1.5 ha, which would facilitate the creation of six lots with the opportunity for dwellings.

This proposal seeks to enable the facilitation of a six lot subdivision with the opportunity to accommodate appropriately positioned dwelling sites to afford a more logical and appropriate use of the property that remains compatible with the existing zone objectives and land uses (subject to future development approval).

Accordingly, the objectives of this Planning Proposal are:

- to amend the TLEP to reduce the minimum lot size that applies over the subject lots from 40 ha to 1.5 ha;
- to establish a mechanism that allows for the creation of six lots on the subject lots, each with the potential for residential dwellings;
- to enable a more logical and appropriate use of the subject lots that remains compatible with the planning objectives and land uses; and
- to afford the landowner greater opportunity to provide housing while continuing to achieve the objectives of the zone and promote suitable land uses.

To achieve these objectives and support the consideration of a future development application for the abovementioned subdivision, the following amendments to the TLEP framework are considered essential:

- Inclusion of an 'Additional Local Provisions' within Part 7 of the TLEP to employ a 1.5 ha minimum lot size provision over the subject lots; and
- Inclusion of an 'Additional Local Provisions' within Part 7 of the TLEP to ensure that the proposed development can be executed over the subject lots.

The goal of this proposal is to attain consent for an amendment to the TLEP. The amendment incorporates provisions for the subject lots that align with the objectives of this proposal. All other planning controls applying to the site (including the geographical extent of land zones) will remain unchanged.

1.4. Proposed Development

Subject to Planning Proposal approval, the proposed development will include a lot reconfiguration (Figure 2) and five dwellings/house pads and connecting driveways (Figure 3). The creation of new lot boundaries would result in 25 m wide boundary clearing permissions under the Rural Fire Service (RFS) *Rural Boundary Clearing Code,* applicable to all areas along proposed new lot boundaries excepting areas with pre-existing clearing permissions (along pre-existing lot boundaries), and land excluded from the RFS Rural Boundary Clearing Code (i.e. land containing mapped Biodiversity Values). We note that actual vegetation clearing is not proposed along the new lot boundaries, though the proposed lot amendment would result in the landowners having the 'right to clear'. This report assumes that no clearing would occur in the 25m buffer area, however the areas are shown and discussed, nonetheless.

Together, these works are called the 'proposed development footprint' and contain all areas of vegetation proposed to be cleared. The proposed development footprint can be seen in Figure 3.

The site contains both exempt and regulated lands, as mapped by the NSW Local Land Services (LLS) Draft Native Vegetation Regulatory Map (NVRM) (Section 3.2 of this report; Figure 6). The majority of the site is mapped as Category 1-exempt land and would therefore not qualify for entry into the Biodiversity Offsets Scheme (BOS) because it is excluded from further assessment under the NSW *Biodiversity Conservation Act 2016* (BC Act). All areas of the proposed development footprint mapped as Category 2-regulated land require assessment, however, and they have been considered in this report.

Figure 1: Regional Location

Figure 2: Future Proposed Lot Reconfiguration

Figure 3: Future Proposed Development Footprint

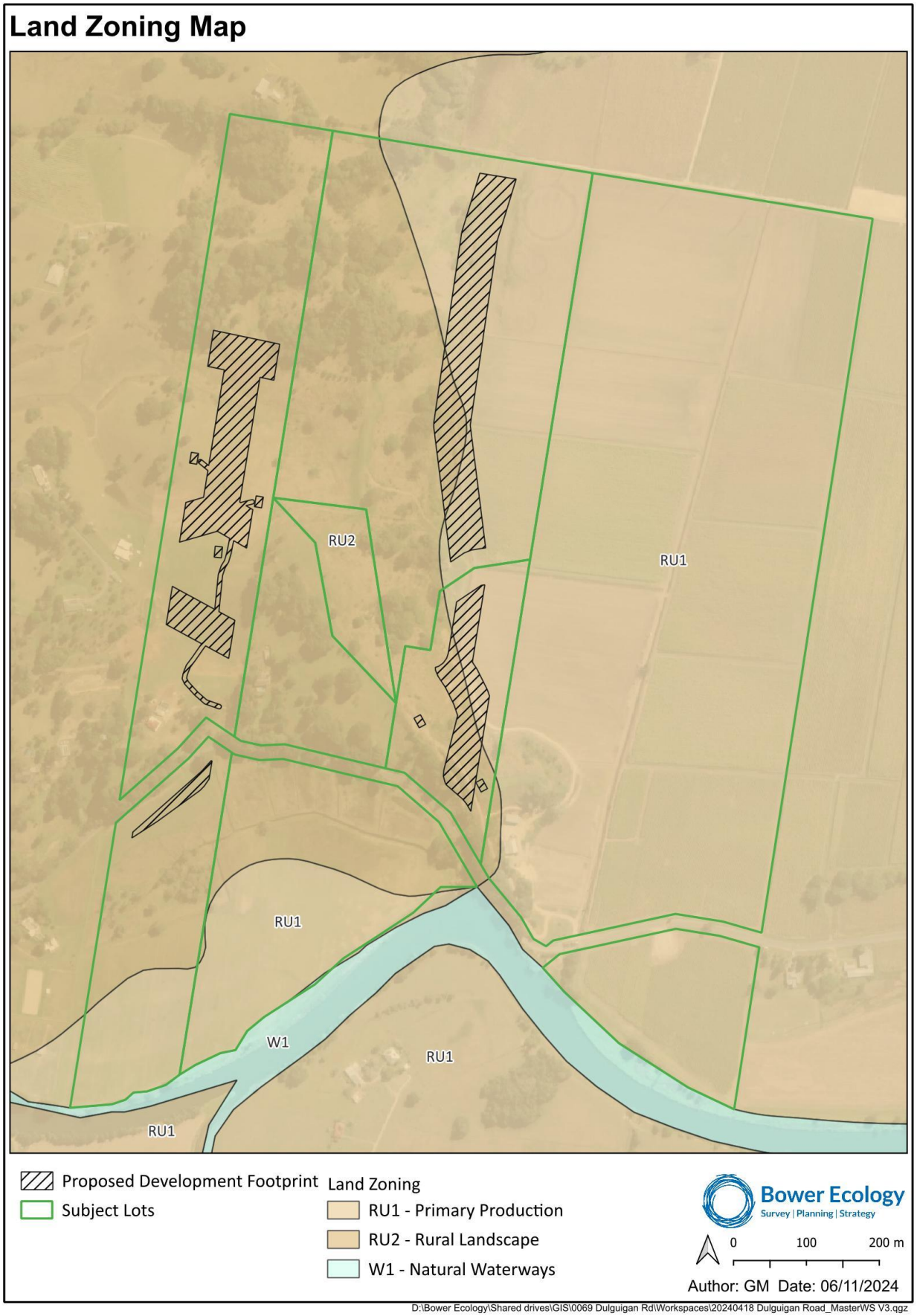

Figure 4: Current Land Zoning Map

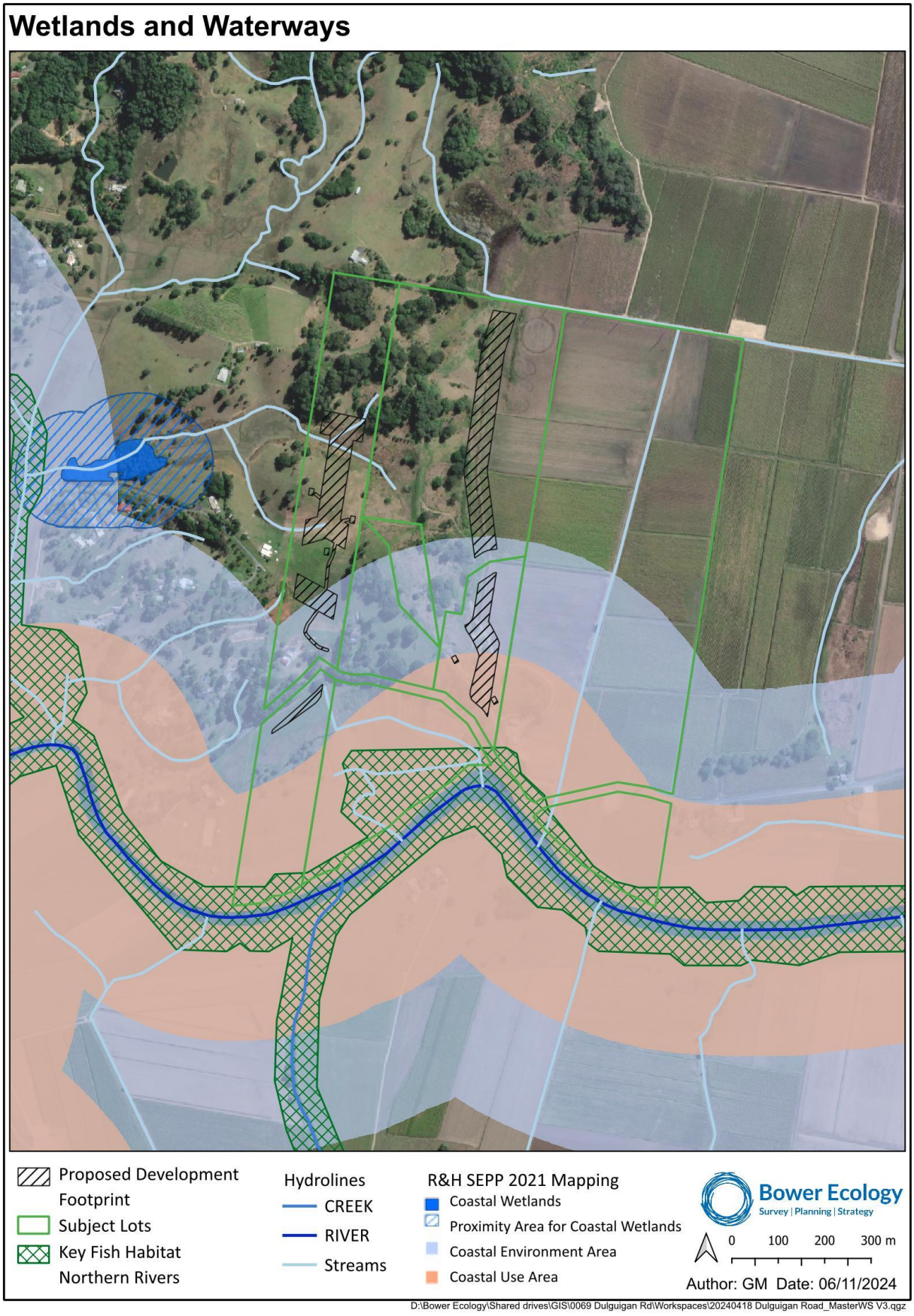

Figure 5: Wetlands and Waterways

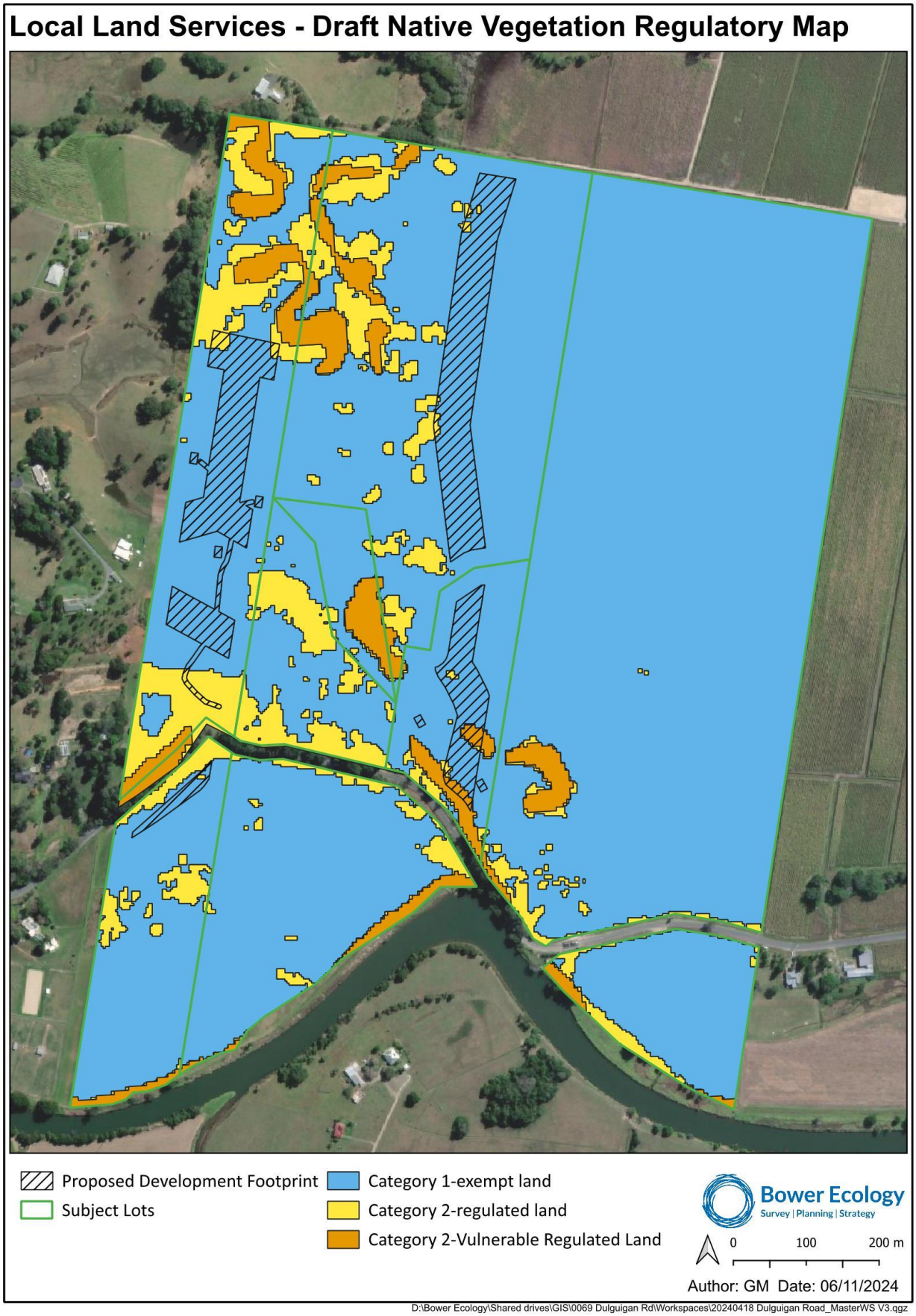

Figure 6: Local Land Services Draft Native Vegetation Regulatory Map

2 Ecological Assessment Methodology

A desktop assessment and field survey were undertaken to support this ecological assessment. Each is described below.

2.1. Desktop Assessment Methodology

The following data sources were reviewed to understand the ecological values within the study area:

- Commonwealth Matters of National Environmental Significance (MNES) protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on and around the site using the Protected Matters Search Tool (PMST) 5 km surrounding the study area.
- NSW *Biodiversity Conservation Act 2016 (*BC Act) searches including BioNet threatened species records within approximately 5 km of the site and NSW Biodiversity Values Mapping.
- NSW Department of Planning and Environment State Environmental Planning Policy (Resilience and Hazards) 2021 mapping.
- Tweed Shire Comprehensive Koala Plan of Management and Tweed Shire Council Vegetation Mapping.
- NSW Wetland mapping (NSW Government, 2024)
- NSW Fisheries Habitat mapping under the *Fisheries Management Act 1994* (DPI, n.d.)
- NSW Plant Community Type (PCT) mapping (NSW Government, 2024)

In addition to this, the geographical extent of State Government PCT mapping has been refined based on a combination of desktop assessment, site observations and aerial photo interpretation. Although the PCT numbers mapped by the State Government have not been altered.

2.2. Field Assessments

Bower Ecology undertook a site inspection to validate data collected during the desktop assessment. The following methods were employed over two days (16th and 17th April 2024):

- Survey of the proposed dwelling sites, proposed driveways and proposed new boundaries to confirm PCTs in these areas. I.e. Inspection of the entire proposed development footprint only. PCTs across all subject lots were not ground-truthed as these will not be impacted, and this can occur in the DA phase, if required.
- Aerial drone survey to assess the condition of the vegetation onsite and capture detailed aerial imagery of the site including vegetation in areas along the proposed property boundaries.
- Survey to confirm fauna habitat values across the site, with particular attention paid to potential Koala habitat surveys. This included a search for Koala scats, or scratches on Koala habitat trees.
- Targeted survey for Hairy-Joint Grass (HJG) along proposed house pads and new driveways (Figure 7).
- A meander of the property, to record incidental sightings of threatened flora or fauna observed during the survey.

Other targeted fauna survey methods (e.g., trapping, motion sensor cameras, bioacoustics records, etc) have not been undertaken as part of this ecological assessment. However, an assessment of habitat resources was undertaken to inform the likelihood assessment.

Figure 7: Field Survey Locations

2.3. Terminology

Exotic species are marked with an asterisk * throughout this report.

The term 'study area' refers to the site as well as adjacent areas that may be indirectly impacted by potential future development (e.g., due to edge effects). The study area also includes a 5 km buffer around the site for review of local BioNet threatened species records.

The 'property' refers to 133-139 Dulguigan Road, Dulguigan.

The 'proposed development footprint' includes five house pads, proposed driveways and 25 m buffer around the proposed new lot boundaries.

The term 'subject lots' includes the existing lots on the property (Lot 1 DP 364474, Lot 1 DP 376131, Lot 1 DP 410859, Lot 1 DP 660569, Lot 8 DP 755685, and Lot A DP 174886).

3 Baseline Ecological Information

Baseline ecological information collected during the field assessment and desktop review is summarised in the following subsections. Appendix A provides detailed notes and photographs from the field assessment, with locations displayed in Figure 7.

3.1. Plant Community Types

The majority of the subject lots is covered in open paddocks (Figure 8 and Figure 9) which were identified as non-native vegetation that did not align with any PCTs. NSW PCTs are described below (Table 1 and Figure 10). The PCTs overlapping the proposed development footprint are mapped in Figure 10. All PCTs within the proposed development footprint have been ground-truthed through ecological surveys, however NSW State Vegetation Type Mapping has been relied upon in other areas throughout the subject lots with some small adjustments due to detailed review of aerial imagery.

As described in Table 1, the proposed development footprint (total 6.54 ha) contains 0.68 ha of native vegetation across three PCTs: 0.13 ha of PCT 3148 in woodland form, 0.15 ha of PCT 3232 in woodland form and 0.39 ha of PCT 3990 in derived native grassland form. The remaining 5.86 ha is previously cleared land that lacks canopy and is dominated by exotic species.

Table 1: Plant Community Types in the 133-139 Dulguigan Road subject lots

Description	Area on Subject lots	Area within proposed development footprint	Photos
1) Far North Coastal Hills Blackbutt-Ironbark Forest (PCT 3232) This PCT is scattered throughout the subject lots in fragmented patches. The proposed development footprint will have limited impact on this PCT as no clearing is proposed along the new lot boundaries where this PCT is present. This PCT is a very tall to extremely tall, sclerophyll open forest with variable sub-canopy layers of mixed small trees, shrubs, and grasses, which occurs on low coastal hills on metasediments of the North Coast. The tree canopy very frequently includes one or all of the species *Eucalyptus pilularis*, which often has the highest cover, *Eucalyptus siderophloia* and *Corymbia intermedia*. *Lophostemon confertus* is also common, usually with a low foliage cover. The ground layer very frequently includes the grasses *Imperata cylindrica* and *Ottochloa gracillima*, almost always with the vine *Smilax australis*. This PCT occurs mainly in very warm, very wet locations receiving 1560-1880 mm mean annual rainfall, at low elevations of up to 140 metres, rarely to 170 metres asl. This PCT is often disturbed, with a high component of exotic species.	5.94 ha	0.16 ha	
2) Far North Brush Box-Walnut Wet Forest (PCT 3148) This PCT is located along the north of Dulguigan Road and northwestern parts of the subject lots. The proposed development footprint will have limited impact on this PCT as no clearing is proposed along the new lot boundaries where this PCT is present. This PCT is very tall to extremely tall, mid-dense to dense sclerophyll forest, with a mid-dense to dense mixed mesic sub-canopy or mid-stratum, which occurs in the coastal valleys and low ranges of the North Coast. The canopy very frequently includes a high cover of *Lophostemon confertus*, rarely with eucalypts, the most frequent of which are *Corymbia intermedia*, *Eucalyptus microcorys* and *Eucalyptus grandis*. The sub-canopy or mid-stratum includes small trees, almost always *Guioa semiglauca*, very frequently with *Wilkiea huegeliana* and *Synoum glandulosum*. This PCT typically occurs on metasediments or quartzite lithology, rarely on basalt, mainly in very warm, very wet locations receiving 1600-2040 mm mean annual rainfall, at low elevations of 20-190 metres asl.	5.46 ha	0.13 ha	

Description	Area on Subject lots	Area within proposed development footprint	Photos
3) Far North Lowland Black Bean Riverine (PCT 3007) This PCT is located along the Rous River to the south of the subject lots. All areas are disturbed remnants on alluvial substrates on the floodplain which has been otherwise previously cleared. The proposed development footprint does not overlap with this PCT; however**,** and any indirect impacts will be managed appropriately. This PCT can be described as a tall to very tall, dense to closed rainforest. Dominant tree canopy species always include *Castanospermum australe*, *Aphananthe philippinensis* and *Streblus brunonianus*, with at least one of these with the highest foliage cover. Other very frequent tree species are *Cryptocarya obovata*, *Mallotus philippinensis* and *Ficus coronata*, with vines very frequently including *Smilax australis* and commonly *Cissus antarctica*.	0.83 ha	0 ha	
4) Far North Paperbark Gahnia Swamp Forest (PCT 3990) This PCT is located on the low-lying southern areas of the subject lots as small woodland fragments, and was determined to be present by field assessment in the low-lying area northwest of the proposed development footprint as **Derived Native Grassland in poor condition**. The proposed development footprint will have limited impact on this PCT as no clearing is proposed along the new lot boundaries where this PCT is present. When the PCT has all stratum, it is characterised by tall to very tall, sparse forest, which occurs on poorly drained, seasonally swampy coastal lowlands of Northern NSW. *Melaleuca quinquenervia* is almost always present and very often forms a major component of the canopy or sub-canopy, commonly with taller ***Eucalyptus robusta***. This PCT occurs on marine or estuarine deposits or occasionally, alluvium. It occurs in very warm, wet locations receiving 1520-1810 mm mean annual rainfall, at very low elevations of less than 20 metres asl, mostly within 10 km of the coast, rarely up to 20 km. It occurs in a mosaic with a wide range of other coastal lowlands PCTs, which vary with salinity, drainage, and soil properties.	1.98 ha	0.39 ha	

Description	Area on Subject lots	Area within proposed development footprint	Photos
5) Far North Lowland Subtropical Rainforest (PCT 3011) This PCT is mapped in the northwest corner of the subject lots. The proposed development footprint does not overlap with this PCT, though any indirect impacts will be managed accordingly. Characterised by very tall to extremely tall dense rainforest, or rarely eucalypt open forest with a dense rainforest sub-canopy, which occurs in Northern NSW. Species richness is very high to extremely high, and the canopy composition is very variable at both local and broader scales. The palm *Archontophoenix cunninghamiana*, which is very frequent and often common, in the sub-canopy or sometimes the canopy, is the only upper stratum species that is consistently present with a high cover. This PCT occurs in very warm, very wet locations receiving 1370-2350 mm mean annual rainfall, at low to moderate elevations of 20-600 metres asl. It usually occurs on metasediments, sometimes at the fringes of basalt or rhyolite, rarely on other volcanic substrates or on sediments.	1.03 ha	0 ha	No photo available.
Total	**15.27 ha**	**0.68 ha**	

Figure 8: Paddocks in the subject lots looking north

Figure 9: Paddocks and existing property on the subject lots looking south

Figure 10: Vegetation Mapping (based on State-supplied data)

3.2. Threatened Ecological Communities

The PCTs within the proposed development footprint were also assessed to identify if any vegetation is part of a Threatened Ecological Community (TEC) listed under either the BC Act or EPBC Act.

PCT 3232 is not assigned to any TEC.

PCT 3148 is assigned as the EPBC Act listed Lowland Rainforest of Subtropical Australia Critically Endangered Ecological Community (CEEC). However, the occurrence of PCT 3148 within the proposed development footprint is unlikely to meet the listing criteria for this CEEC because it does not contain 30 of more native woody species from Appendix A of the listing advice, and it is unlikely that 50% or more of the total vegetation cover is native due to a dense understory of Camphor Laurel* in all patches.

PCT 3990 is assigned to the BC Act listed Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions Endangered Ecological Community (EEC) and the EPBC Act Listed Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland EEC. The occurrence of PCT 3990 within the proposed development footprint is:

- Highly unlikely to form part of the BC Act listed EEC due to not occurring on the floodplain, and the lack of an open to dense tree layer of eucalypts and paperbarks, as it only occurs within the proposed development footprint as derived native grassland.
- Similarly, the EPBC Act listed EEC is defined by a minimum crown cover of 10%. Thus, the derived native grassland form of PCT 3990 does not meet the key diagnostic criteria.

Therefore, no TECs were recorded within the proposed development footprint. The occurrence of TECs within the proposed development footprint would need to be confirmed and reassessed during future DA/s in accordance with the BAM (DPIE 2020).

3.3. Local Land Services Act Categories

The subject lots are zoned as RU1 – Primary Production and RU2 – Rural Landscape and therefore the *Local Land Services Act 2013* (LLS Act) applies. The Draft Native Vegetation Regulatory Mapping (NVRM) identifies various categories of land that regulate what types of activities can be undertaken with or without further authorisation. Land categories are defined in Part 5A Division 2 of the LLS Act.

Because the transitional land categorisation period is in effect at the time of writing, both Transitional and Draft NVRM are available online. The Draft NVRM includes the transitional categories in addition to the draft categories. The Draft NVRM on site is shown on Figure 6. The vegetation on site was observed to largely align with the Draft NVRM.

The subject lots include the following areas:

- Category 1-exempt land (88.44 ha),
- Category 2-regulated land (10.29 ha), and
- Category 2-vulnerable regulated land (4.82 ha).
- There were no areas excluded from the LLS Act within the subject lots.

The proposed development footprint includes the following areas:

- Category 1-exempt land (6.18 ha),
- Category 2-regulated land (0.23 ha), and

- Category 2-vulnerable regulated land (0.13 ha).

As such, 6.18 ha of the proposed development footprint (including the majority of the new lot boundary clearing permission, all proposed dwelling footprints and most of the driveways) would not qualify for entry into the BOS as part of future DAs because Category 1-exempt land is excluded from further assessment under the NSW *Biodiversity Conservation Act 2016* (BC Act). Further explanation is provided in Section 5.1.

3.4. Wetlands and Waterways

There are no classified wetlands recorded on the subject lots (NSW Government, 2024).

The Rous River runs west to east within the southern part of the subject lots (Figure 12). NSW DPI mapping shows an area of Key Fish Habitat along the length of Rous River at the southern boundary of the subject lots (DPI, n.d.) (Figure 5).

The proposed development footprint does not contain Key Fish Habitat. Other relevant water features on the subject lots are shown on Figure 11, and include:

Point on Figure 11	Description
1, 3, 5 and 7	Four small farm dams, as shown in Figure 13 and Figure 16.
2	A wetland in the very north-west of the proposed development footprint. This area is associated with the PCT 3990 (although, as mentioned above, has been subject to historical clearing), and consists of semi-permanent saturated soil. It is likely fed by overland flows and groundwater interflows from the surrounding catchment. Wetland flora observed included species commonly associated with 'boggy' pasture areas, such as *Cyperus* spp., *Persicaria* spp., *Elaeocharis sp.,* and the exotics *Paspalum urvillei**, *Myriophyllum aquaticum**, *Cuphea carthagenensis** and *Tradescantia fluminensis**. See Figure 15.
4 and 6	A second and third (Figure 16) 'boggy' pasture area with similar species composition to that mentioned above (Point 2). These two areas feed directly into farm dams, and are likely fed by overland flow and groundwater interflows from the surrounding catchment.
8	A constructed drainage line running north to south through the eastern part of the subject lots, which feeds into the Rous River (Figure 13, Figure 18). This is mapped by the NSW Government as a 'hydroline' however it is noted that there is an array of other constructed drainage lines across the subject lots, as visible in aerial photography.

None of these water features are proposed to be directly impacted by the development. Specifically, for those features that are within the 25m clearing buffer, there is no vegetation that will require clearing. This is because the areas are devoid of shrub and tree strata and therefore would not present a bushfire hazard requiring management. Hence, the 25m clearing buffer would not need to be enacted.

The site is mapped as containing Coastal Environment Area mapping under the Resilience and Hazards SEPP. The southern parts of the proposed development footprint are within the mapped Coastal Environment Area (within 500 m of the Rous River) and the Coastal Use Area (within 250 m of the Rous River). These areas are shown on Figure 5. Requirements of the Resilience and Hazards SEPP are further discussed in Section 5.1.

Figure 11: Water Features

Figure 12: Rous River running west to east through the subject lots (looking south-west)

Figure 13: A farm dam located in the northern area of the proposed development footprint (Point 1 on Figure 11) – looking north

Figure 14: Farm Dams – looking southwest

Figure 15: Saturated area of pasture forming an open wetland (Point 2 on Figure 11) – looking west

Figure 16: In the right of the frame, a farm dam in the south-east of the site and the small 'boggy' area (Point 5 on Figure 11) – looking south

Figure 17: Saturated area of pasture (Point 4 on Figure 11) – looking west

Figure 18: left of frame – the drainage line mapped as a hydroline

3.5. Threatened Flora

No threatened species were observed in the subject lots during the site survey. NSW BioNet records indicate the potential presence of 17 NSW *Biodiversity Conservation Act* (2016) and 12 *EPBC Act* (1999) threatened species in the database search area (5 km buffer of the subject lots), though none were recorded within the subject lots or proposed development footprint.

These species are listed in Table 2 with a comment on their likelihood of occurrence in the subject lots. All species listed in Table 2 are considered readily identifiable in the field. As no trees or shrubs are proposed to be cleared, the proposed development is highly unlikely to impact any of the species listed in Table 2.

In addition to NSW Bionet search results shown in Table 2, a targeted survey for *Arthraxon hispidus* (Hairy-Joint Grass, HJG) was conducted on the subject lots. These survey efforts were focused on predicted habitat of HJG and proposed dwelling sites. Survey tracks can be seen in Figure 7. The species was not observed on site during targeted surveys.

Table 2: Predicted presence of threatened flora based on BioNet records within a 5 km buffer

Species Name	Common Name	Status	Habitat	Likelihood of occurrence based on distribution, habitat, recorded sightings
Caesalpinia bonduc	Grey Nicker, Fever Nut	Endangered (NSW BC Act)	This species grows on sandy, coral-derived soil close to the shoreline, in coastal scrub vegetation, in full sun or light shade.	Not likely to occur on the site due to the species' preference for coastal environs.
Cassia marksiana	Brush Cassia or Marks Cassia	Endangered (NSW BC Act)	Found in littoral and riverine rainforest, and in regrowth vegetation on farmland and along roadsides. It prefers more fertile soil-types and is often found in low and flat sites.	Not recorded during on-site surveys.
Davidsonia jerseyana	Davidson's Plum	Endangered (NSW BC Act, EPBC Act)	Lowland subtropical rainforest and wet eucalypt forest at low altitudes (below 300 m). Many trees are isolated in paddocks and on roadsides in former rainforest habitats.	Not recorded during on-site surveys but possibly occurring on the property due to suitable habitat.
Davidsonia johnsonii	Smooth Davidson's Plum	Endangered (NSW BC Act, EPBC Act)	Lowland subtropical rainforest and wet eucalypt forest at low altitudes (below 300 m). Many trees are isolated in paddocks and on roadsides in cleared land.	Not recorded during on-site surveys but possibly occurring on the property due to suitable habitat.
Dendrocnide moroides	Stinging Tree or Gympie-gympie	Endangered (NSW BC Act)	Occurs in lowland rainforest, especially in gaps or other disturbed sites.	Not recorded during on-site surveys but possibly occurring on the property due to suitable habitat and distribution.
Diospyros mabacea	Red-fruited Ebony	Endangered (NSW BC Act, EPBC Act)	Usually grows as an understorey tree in lowland subtropical rainforest, often close to rivers. Soils are generally basalt-derived or alluvial.	Not recorded during on-site surveys but possibly occurring on the property due to suitable habitat.

Species Name	Common Name	Status	Habitat	Likelihood of occurrence based on distribution, habitat, recorded sightings
Diploglottis campbellii	Small-leaved Tamarind	Endangered (NSW BC Act, EPBC Act)	Confined to the warm subtropical rainforests of the NSW-Queensland border lowlands and adjacent low ranges. The forest types in which the species occurs vary from lowland subtropical rainforest to drier subtropical rainforest with a Brush Box open overstorey. Occurs on basalt-derived soils and also on poorer soils such as those derived from quartz monzonite.	Not recorded during on-site surveys due to unsuitable habitat.
Drynaria rigidula	Basket Fern	Endangered (NSW BC Act)	Grows on plants, rocks or on the ground. This species occurs in a wide variety of forest types including rainforest, coastal beach scrubs, mesic vine forest, wet-sclerophyll forest and exposed cliffs and torrs.	Not recorded during on-site surveys, but potential to exist in the wider area.
Endiandra floydii	Floyd's Walnut, Crystal Creek Walnut	Endangered (NSW BC Act, EPBC Act)	Warm temperate, subtropical rainforest or wet sclerophyll forest with Brush Box overstorey, and in and Camphor Laurel Forest. The species can occur in disturbed and regrowth sites. The species generally prefers sheltered locations however it has been recorded on ridgelines, slopes, gullies and creek flats. It occurs from sea level up to 430 m above sea level.	Not recorded during on-site surveys but possibly occurring on the property due to suitable habitat.
Endiandra muelleri subsp. *bracteata*	Green-leaved Rose Walnut	Endangered (NSW BC Act)	Occurs in subtropical and warm temperate rainforests and Brush Box forests, including regrowth and highly modified forms of these habitats. Records are usually from poorer soils derived from sedimentary, metamorphic or acid volcanic rocks. The species is generally recorded at lower altitudes.	Not recorded during on-site surveys but possibly present based on suitable habitat.
Gossia fragrantissima	Sweet Myrtle, Small-leaved Myrtle	Endangered (NSW BC Act, EPBC Act)	Dry subtropical and riverine rainforest. As it can coppice from roots left in the ground when rainforest is cleared, it is found at several sites as isolated plants in paddocks or regrowth.	Not recorded during on-site surveys but likely to occur due to suitable habitat.
Ochrosia moorei	Southern Ochrosia	Endangered (NSW BC Act, EPBC Act)	Southern Ochrosia is found in riverine and lowland subtropical rainforest.	Not recorded during on-site surveys but possibly occurring on the property due to suitable habitat.
Randia moorei	Spiny Gardenia	Endangered	Spiny Gardenis occurs in subtropical, riverine, littoral and	Not recorded during on-site surveys but possibly occurring on

Species Name	Common Name	Status	Habitat	Likelihood of occurrence based on distribution, habitat, recorded sightings
		(NSW BC Act, EPBC Act)	dry rainforest. In NSW, Hoop Pine and Brush Box are common canopy species. It is found along moist scrubby water courses at altitudes up to 360 m asl, with most records below 100 m above sea level.	the property due to suitable habitat.
Rhodamnia maideniana	Smooth Scrub Turpentine	Critically Endangered (NSW BC Act, EPBC Act)	Found in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest usually on volcanic and sedimentary soils.	Not recorded during on-site surveys but likely to occur based on suitable habitat.
Rhodamnia rubescens	Scrub Turpentine	Critically Endangered (NSW BC Act, EPBC Act)	Found in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest usually on volcanic and sedimentary soils.	Not recorded during on-site surveys but likely to occur based on suitable habitat.
Rhodomyrtus psidioides	Native Guava	Critically Endangered (NSW BC Act, EPBC Act)	Pioneer species found in littoral, warm temperate and subtropical rainforest and wet sclerophyll forest often near creeks and drainage lines.	Not recorded during on-site surveys but likely to occur based on suitable habitat.
Senna acclinis	Rainforest Cassia, Brush Senna	Endangered (NSW BC Act)	Grows on the margins of subtropical, littoral and dry rainforests. Often found as a gap phase shrub.	Not recorded during on-site surveys but possibly occurring on the property due to suitable habitat.

Figure 19: Biodiversity values Map

3.6. Threatened Fauna

No threatened species were observed in the subject lots during on-ground ecological surveys. NSW BioNet records indicate the potential presence of 35 NSW *Biodiversity Conservation Act* (2016) and the EPBC Act threatened species in the database search area (5 km buffer).

Although some threatened species may occur within the patches of native forest across the subject lots, the direct and indirect impact to these species will be negligible.

Table 3: Predicted presence of threatened fauna based on BioNet records within a 5 km buffer

Species Name	Common Name	Status	Habitat	Predicted Presence within Proposed Development Footprint
Amaurornis moluccana	Pale-vented Bush-hen	Vulnerable (NSW BC Act)	The Pale-vented Bush-hen inhabits tall dense understorey or ground-layer vegetation on the margins of freshwater streams and natural or artificial wetlands, usually within or bordering rainforest, rainforest remnants or forests. They also occur in secondary forest growth, rank grass or reeds, thickets of weeds, such as Lantana and pastures, crops or other farmland, such as crops of sugar cane, and grassy or weedy fields, or urban gardens where they border forest and streams or wetlands, such as farm dams, as well as in and around mangroves, though rarely do so, if at all, in NSW. Key elements of their habitat are dense undergrowth 2 to 4 m tall and within 300 m of water.	Not recorded during on-site surveys but potential habitat exists (farm dams and wetlands) within the subject lots. Unlikely to be present within proposed development footprint.
Argynnis hyperbius	Indian Fritillary	Endangered (NSW BC Act) Critically Endangered (EPBC Act)	The Australian Fritillary is found in open swampy coastal habitat.	Not recorded during on-site surveys due to unsuitable habitat. Unlikely to be present within proposed development footprint.
Assa darlingtoni	Pouched Frog	Vulnerable (NSW BC Act, EPBC Act)	Pouched frogs live in cool, moist rainforest, including Antarctic Beech, or moist eucalypt forest in mountainous areas, mostly above 800 m but have been found as low as 300 m. They spend most of the time in damp leaf litter, or under rocks and rotten logs.	The northern part of the property (PCT 3011) is potentially suitable habitat for the species but due unsuitable habitat (<300 m above sea level) no evidence of the Pouched Frog was observed while surveying the area. Unlikely to be present within proposed development footprint.
Burhinus grallarius	Bush Stone Curlew	Endangered (NSW BC Act)	Inhabits open forests and woodlands with a sparse grassy ground layer and fallen timber.	The northern part of the property (PCT 3011, 3148 and 3232) is potentially suitable habitat for the species. No evidence of the Bush Stone Curlew was observed in the subject lots, however the closest BioNet record is within 2 km south west of the subject lots. Unlikely to be present within proposed development footprint.
Calyptorhynchus lathami lathami	Glossy Black Cockatoo	Vulnerable (NSW BC Act, EPBC Act)	Inhabits open forest and woodlands of the coast and the Great Dividing Range where stands of sheoak occur. Black Sheoak (*Allocasuarina littoralis*) and	The northern part of the property is suitable habitat and foraging grounds for the species. No evidence of the species was

Species Name	Common Name	Status	Habitat	Predicted Presence within Proposed Development Footprint
			Forest Sheoak (*A. torulosa*) are important foods. Inland populations feed on a wide range of sheoaks, including Drooping Sheoak, *Allocasuaraina diminuta*, and *A. gymnathera*. Belah is also utilised and may be a critical food source for some populations. In the Riverina, birds are associated with hills and rocky rises supporting Drooping Sheoak, but also recorded in open woodlands dominated by Belah (*Casuarina cristat*a).	observed in the subject lots. Unlikely to be present within proposed development footprint.
Carterornis leucotis	White-eared Monarch	Vulnerable (NSW BC Act)	In NSW, White-eared Monarchs occurs in rainforest, especially drier types, such as littoral rainforest, as well as wet and dry sclerophyll forests, swamp forest and regrowth forest. They appear to prefer the ecotone between rainforest and other open vegetation types or the edges of rainforest, such as along roads	The northern part of the property (PCT 3011) is potentially suitable habitat and foraging grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Circus assimilis	Spotted Harrier	Vulnerable (NSW BC Act)	Occurs in grassy open woodland including *Acacia* and mallee remnants, inland riparian woodland, grassland and shrub steppe. It is found most commonly in native grassland, but also occurs in agricultural land, foraging over open habitats including edges of inland wetlands	The eastern part of the property (farming land) is potentially suitable foraging and hunting grounds. No evidence of the species was observed in the subject lots, however a BioNet record is located 1 km south of the subject lots. Unlikely to be present within proposed development footprint.
Cyclopsitta diophthalma coxeni	Coxen's Fig-parrot	Critically Endangered (NSW BC Act, EPBC Act)	Usually recorded from drier rainforests and adjacent wetter eucalypt forest but rarely seen due to its small size and cryptic habits. Also found in the wetter lowland rainforests that are now largely cleared in NSW.	The northern part of the property (PCT 3011) is potentially suitable habitat for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Dasyurus maculatus	Tiger Quoll	Vulnerable (NSW BC Act) Endangered (EPBC Act)	Recorded across a range of habitat types, including rainforest, open forest, woodland, coastal heath and inland riparian forest, from the sub-alpine zone to the coastline. Quolls use hollow-bearing trees, fallen logs, other animal burrows, small caves and rock outcrops as den sites.	Not recorded during on-site surveys. No suitable den habitat is present. The closest BioNet record is within 2.5 km west of the subject lots. Unlikely to be present within proposed development footprint.
Ephippiorhynchus asiaticus	Black-necked Stork	Endangered (NSW BC Act)	Floodplain wetlands (swamps, billabongs, watercourses and dams) of the major coastal rivers are the key habitat in NSW for the Black-necked Stork. Secondary habitat includes minor floodplains, coastal sandplain wetlands and estuaries	The Rous River banks (PCT 3007) and farm dams within the subject lots is suitable foraging ground for the species. No evidence of the black-necked stork was observed in the subject lots. The closest BioNet record is within 2 km south of the subject lots. Unlikely to be present within proposed development footprint.
Glossopsitta pusilla	Little Lorikeet	Vulnerable (NSW BC Act)	Forages primarily in the canopy of open *Eucalyptus* forest and woodland, yet also finds food in *Angophora*, *Melaleuca* and other tree species.	The northwest part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat and foraging grounds for

Species Name	Common Name	Status	Habitat	Predicted Presence within Proposed Development Footprint
			Riparian habitats are particularly used, due to higher soil fertility and hence greater productivity Isolated flowering trees in open country, e.g. paddocks, roadside remnants and urban trees also help sustain viable populations of the species.	the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Haliaeetus leucogaster	White-bellied Sea Eagle		The species is highly selective in nesting locations. Breeding habitat is live large old trees within 1 km of a rivers, lakes, large dams or creeks, wetlands and coastlines AND the presence of a large stick nest within tree canopy; or an adult with nest material; or adults observed duetting within breeding period.	One large stick nest was found field surveys (outside the proposed development footprint), suggesting that White-bellied Sea Eagle may use the subject lots due to the proximity to the Rous River. The closest BioNet records are within 1 km west of the subject lots. Unlikely to be present within proposed development footprint.
Ixobrychus flavicollis	Black Bittern	Vulnerable (NSW BC Act)	Inhabits both terrestrial and estuarine wetlands, generally in areas of permanent water and dense vegetation. Where permanent water is present, the species may occur in flooded grassland, forest, woodland, rainforest and mangroves.	Not recorded during on-site surveys but potential habitat exists (farm dams and wetlands) within the subject lots. Unlikely to be present within proposed development footprint.
Lichenostomus fasciogularis	Mangrove Honeyeater	Vulnerable (NSW BC Act)	The primary habitat of the species is mangrove woodlands and shrublands, but Mangrove Honeyeaters also range into adjacent forests, woodlands and shrublands, including casuarina and paperbark swamp forests and associations dominated by eucalypts or banksias.	The northwest part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat and foraging grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Menura alberti	Albert's Lyrebird	Vulnerable (NSW BC Act)	Mainly occur in the wettest rainforests or wet sclerophyll forests with a wet understorey, often of rainforest plants. Higher densities of Albert's Lyrebirds occur in association with a canopy of eucalypts compared with rainforest lacking eucalypts (for equivalent climate), and in wet sclerophyll forest with greater weights of litter and logs and slower rates of litter decomposition.	The northwest part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat and foraging grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable (NSW BC Act)	Occur in dry sclerophyll forest, woodland, swamp forests and mangrove forests east of the Great Dividing Range. Roost mainly in tree hollows but will also roost under bark or in man-made structures.	The northwest part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat and foraging grounds for the species. No evidence of the species was observed in the subject lots. The closest BioNet record is within 2.5 km south of the subject lots. Unlikely to be present within proposed development footprint.
Miniopterus australis	Little Bent-winged Bat	Vulnerable (NSW BC Act)	Moist eucalypt forest, rainforest, vine thicket, wet and dry sclerophyll forest, Melaleuca swamps, dense coastal forests and banksia scrub. Generally found in well-timbered areas.	The northwest part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat and foraging grounds for the species. No roosting habitat

Species Name	Common Name	Status	Habitat	Predicted Presence within Proposed Development Footprint
			Little Bentwing-bats roost in caves, tunnels, tree hollows, abandoned mines, stormwater drains, culverts, bridges and sometimes buildings.	was observed within the subject lots. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable (NSW BC Act)	Caves are the primary roosting habitat, but also use derelict mines, storm-water tunnels, buildings and other man-made structures.	Not recorded during on-site surveys. No suitable habitat within the subject lots. The closest BioNet record is within 2.5 km south of the subject lots. Unlikely to be present within proposed development footprint.
Numenius madagascariensis	Far Eastern Curlew	Critically Endangered (EPBC Act)	It generally occupies coastal lakes, inlets, bays and estuarine habitats, and in New South Wales is mainly found in intertidal mudflats and sometimes saltmarsh of sheltered coasts. Occasionally, the species occurs on ocean beaches (often near estuaries), and coral reefs, rock platforms, or rocky islets.	The Rous River banks (PCT 3007) and farm dams within the subject lots is suitable foraging ground for the species. No evidence of the black-necked stork was observed in the subject lots. Unlikely to be present within proposed development footprint.
Nyctimene robinsoni	Eastern Tube-nosed Bat	Vulnerable (NSW BC Act)	Favour streamside habitats within coastal subtropical rainforest and moist eucalypt forests with a well-developed rainforest understorey.	The northwest part of the property (PCT 3148 and 3011) is potentially suitable habitat and foraging grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Ozimops lumsdenae	Northern Free-tailed Bat	Vulnerable (NSW BC Act)	A range of vegetation types in northern Australia, from rainforests to open forests and woodlands, and are often recorded along watercourses. They can also occur in towns and cities. Roost mainly in tree hollows but relatively large colonies have been found under house roofs in urban areas in Queensland.	The northwest part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat and foraging grounds for the species. No evidence of the species was observed in the subject lots. The closest BioNet record is within 2 km west of the subject lots. Unlikely to be present within proposed development footprint.
Pandion cristatus	Eastern Osprey	Vulnerable (NSW BC Act)	Favour coastal areas, especially the mouths of large rivers, lagoons and lakes. Nests are made high up in dead trees or in dead crowns of live trees, usually within one kilometre of the sea.	The Rous River banks (PCT 3007) and farm dams within the subject lots is suitable foraging ground for the species. No evidence of the species was observed in the subject lots. The closest BioNet records are around 3 km south east of the subject lots. Unlikely to be present within proposed development footprint.
Petaurus norfolcensis	Squirrel Glider	Vulnerable (NSW BC Act)	Inhabits mature or old growth Box, Box-Ironbark woodlands and River Red Gum forest west of the Great Dividing Range and Blackbutt-Bloodwood forest with heath understorey in coastal areas. Prefers mixed species stands with a shrub or Acacia midstorey. Require abundant tree hollows for refuge and nest sites.	The northern part of the property (PCT 3148, 3011 and 323) is potentially suitable habitat grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.

Species Name	Common Name	Status	Habitat	Predicted Presence within Proposed Development Footprint
Petroica phoenicea	Flame Robin	Vulnerable (NSW BC Act)	Breeds in upland tall moist eucalypt forests and woodlands, often on ridges and slopes. Prefers clearings or areas with open understoreys. The ground layer of the breeding habitat is dominated by native grasses and the shrub layer may be either sparse or dense. Occasionally occurs in temperate rainforest, and in herb fields, heathlands, shrublands and sedgelands at high altitudes. In winter, birds migrate to drier more open habitats in the lowlands (i.e. valleys below the ranges, and to the western slopes and plains). In winter lives in dry forests, open woodlands and in pastures and native grasslands, with or without scattered trees. Often occurs in recently burnt areas; however, habitat becomes unsuitable as vegetation closes up following regeneration.	The northern part of the property (PCT 3148 and 3232) is potentially suitable habitat grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Phascolarctos cinereus	Koala	Endangered (NSW BC Act, EPBC Act)	Inhabit eucalypt woodlands and forests. Feed on the foliage of more than 70 eucalypt species and 30 non-eucalypt species, but in any one area will select preferred browse species.	Various types of *Eucalyptus* were observed on the property, suitable habitat and feeding grounds for the species. Evidence of scat was found on the property in PCT 3232 (Figure 23). Several BioNet records of Koala occur within the subject lots and within fragmented vegetation immediately adjacent to the subject lots, so this species is likely to be present but unlikely to rely on habitat within the proposed development footprint.
Phyllodes imperialis (southern subspecies)	Southern Pink Underwing Moth	Endangered (NSW BC Act, EPBC Act)	The Southern Pink Underwing Moth is found in subtropical rainforest below about 600 m elevation. Potential breeding habitat is restricted to areas where the caterpillar's food plant, a native rainforest vine, *Carronia multisepalea*, occurs in subtropical rainforest.	Potential to occur on subject lots, particularly in the northern parts. Unlikely to be present within proposed development footprint.
Planigale maculata	Common Planigale	Vulnerable (NSW BC Act)	Common Planigales inhabit rainforest, eucalypt forest, heathland, marshland, grassland and rocky areas where there is surface cover, and usually close to water with grass, eucalypt leaves or shredded bark.	The northern part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Podargus ocellatus	Marbled Frogmouth	Vulnerable (NSW BC Act)	Prefers subtropical rainforest, particularly in deep, wet, sheltered gullies along creek lines and often containing stands of Bangalow Palms or ferns. In NSW, it is most often found in moist, lowland, mesophyll vine forest.	The northern part of the property (PCT 3148 and 3011) is potentially suitable habitat grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.

Species Name	Common Name	Status	Habitat	Predicted Presence within Proposed Development Footprint
			Less often, they are found in the ecotone between rainforest and wet Eucalyptus forests, or occasionally in cool rainforest and higher elevation temperate rainforests.	
Pteropus poliocephalus	Grey-headed Flying Fox	Vulnerable (NSW BC Act, EPBC Act)	Occur in subtropical and temperate rainforests, tall sclerophyll forests and woodlands, heaths and swamps as well as urban gardens and cultivated fruit crops. Roosting camps are generally located within 20 km of a regular food source and are commonly found in gullies, close to water, in vegetation with a dense canopy.	The northern part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat for the species, although no breeding camp is located within the subject lots. No evidence of the species was observed in the subject lots during field surveys. However, there are several BioNet records within fragmented vegetation immediately adjacent (west of the subject lots) and the species is likely to use the site for foraging but is unlikely to rely on habitat within the proposed development footprint.
Ptilinopus magnificus	Woompoo Fruit-dove	Vulnerable (NSW BC Act)	Occurs in, or near rainforest, low elevation moist eucalypt forest and brush box forests.	The northern part of the property (PCT 3148 and 3232) is potentially suitable habitat grounds for the species. Not recorded during on-site surveys due to unsuitable habitat. Unlikely to be present within proposed development footprint.
Ptilinopus regina	Rose-crowned Fruit-dove	Vulnerable (NSW BC Act)	Rose-crowned Fruit-doves occur mainly in sub-tropical and dry rainforest and occasionally in moist eucalypt forest and swamp forest, where fruit is plentiful.	Potential to occur on site. Not recorded during on-site surveys. Closest BioNet records are in dense vegetation around 2 km north of the subject lots. Unlikely to be present within proposed development footprint.
Ptilinopus superbus	Superb Fruit-dove	Vulnerable (NSW BC Act)	Inhabits rainforest and similar closed forests where it forages high in the canopy, eating the fruits of many tree species such as figs and palms. It may also forage in eucalypt or acacia woodland where there are fruit-bearing trees.	The northern part of the property (PCT 3011) is potentially suitable habitat grounds for the species. Not recorded during on-site surveys due to unsuitable habitat. Unlikely to be present within proposed development footprint.
Scoteanax rueppellii	Rüppell's Broad-nosed Bat	Vulnerable (NSW BC Act)	Utilises a variety of habitats from woodland through to moist and dry eucalypt forest and rainforest, though it is most found in tall wet forest. Although this species usually roosts in tree hollows, it has also been found in buildings.	The northern part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat grounds for the species. Not recorded during on-site surveys due to unsuitable habitat. Unlikely to be present within proposed development footprint although the closest BioNet record is within 2.5 km south of the subject lots.
Thersites mitchellae	Mitchell's Rainforest Snail	Endangered (NSW BC Act) Critically Endangered (EPBC Act)	Remnant areas of lowland subtropical rainforest and swamp forest on alluvial soils. Slightly higher ground around the edges of wetlands with palms and fig trees are particularly favoured habitat.	The northern part of the property (PCT 3011) is potentially suitable habitat grounds for the species. Not recorded during on-site surveys due to unsuitable habitat. Unlikely to be present within proposed development footprint.

Species Name	Common Name	Status	Habitat	Predicted Presence within Proposed Development Footprint
Tyto novaehollandiae	Australian Masked Owl	Vulnerable (NSW BC Act)	Lives in dry eucalypt forests and woodlands from sea level to 1100 m. A forest owl, but often hunts along the edges of forests, including roadsides	The northern part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat and foraging grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.
Tyto tenebricosa	Greater Sooty Owl	Vulnerable (NSW BC Act)	Occurs in rainforest, including dry rainforest, subtropical and warm temperate rainforest, as well as moist eucalypt forests. Roosts by day in the hollow of a tall forest tree or in heavy vegetation.	The northern part of the property (PCT 3148, 3011 and 3232) is potentially suitable habitat and foraging grounds for the species. No evidence of the species was observed in the subject lots. Unlikely to be present within proposed development footprint.

3.7. Koala Habitat

No Koalas were directly sighted while completing the survey. However, one Koala scat was found within PCT 3232 indicating the presence of the species within the subject lots (Figure 20). The location of this scat is shown on Figure 22.

Figure 22 and Figure 23 display BioNet Koala records within a 5 km radius of the subject lots, and the date associated with each record within the subject lots. Records span the last 20 years, with the latest available nearby records from 2023. The status of the local population in this area is not known, however it is likely a number of Koalas persist in the local area given recent sightings and the identifcation of one Koala scat within the subject lots.

The site is not located in an area subject to the Tweed Shire Council Koala Plan of Management (TSCKPoM, 2020), hence the provisions of Chapter 3 of the *State Environmental Planning Policy (Biodiversity and Conservation) 2021* apply.

As outlined within Chapter 3 of the SEPP, 'core Koala habitat' is defined as '*area of land with a resident population of Koalas, evidenced by attributes such as breeding females, being females with young, and recent sightings of and historical records of a population*'. Due to the presence of local Koala records and the identification of a Koala scat within the subject lots, vegetation (that is, PCTs 3232, 3148 and 3990) within the subject lots and surrounding landscape is considered to be generally representative of koala habitat.

Small areas of PCTs associated with core Koala habitat occur within the proposed development footprint - within the proposed new boundary clearing permission area only. In these areas clearing or disturbance to vegetation is not proposed despite the 'right to clear' that would be granted under the RFS Rural Boundary Clearing Code. The proposed dwelling and driveway footprint does not contain core Koala habitat and therefore core Koala habitat will not be impacted as a result of the proposed development.

Figure 20: Koala Scat

Figure 21: Threatened Flora Records in the vicinity of the subject lots

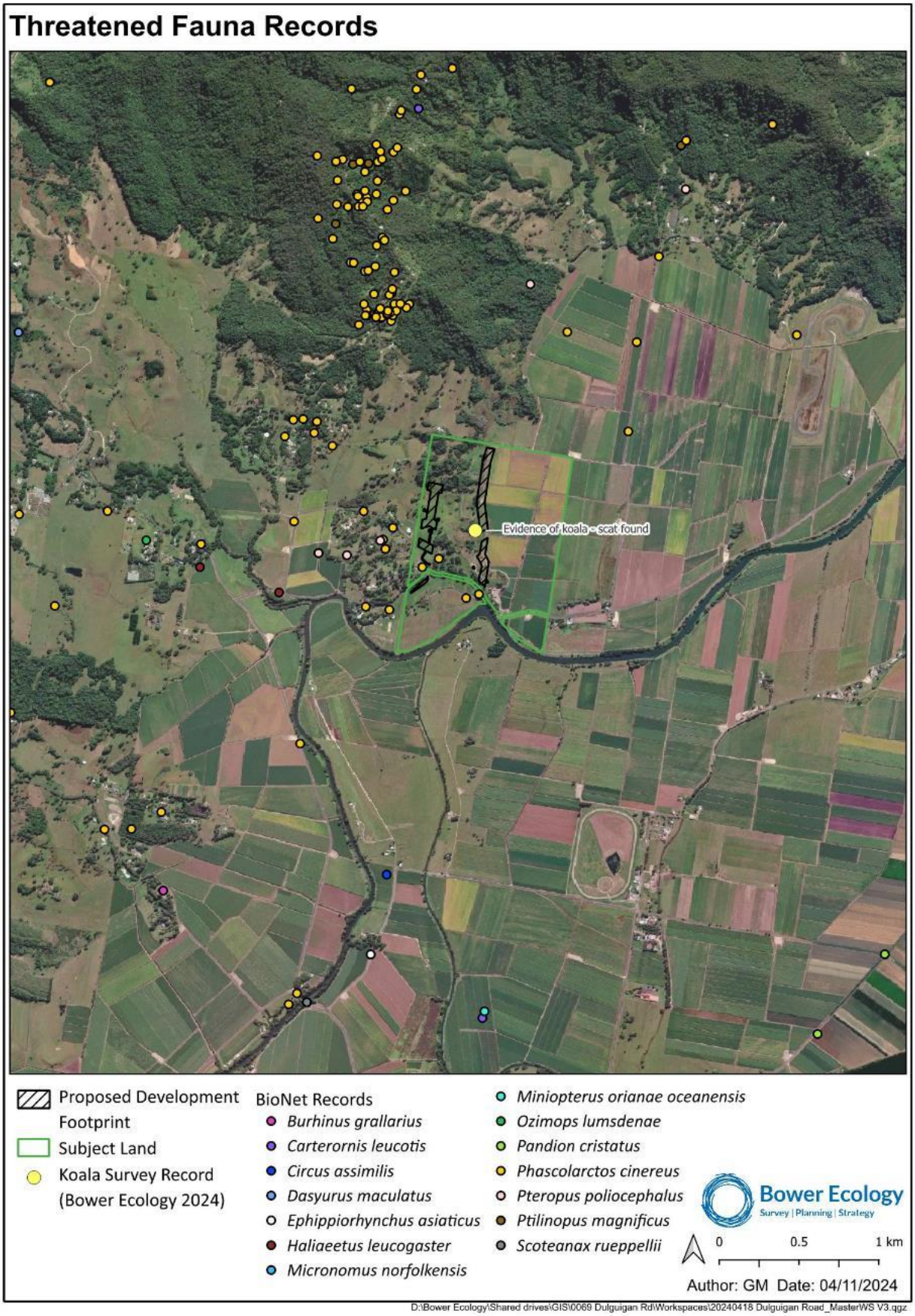

Figure 22: Threatened Fauna Records in the vicinity of the subject lots

Figure 23: Koala (Phascolarctos cinereus) Records in the subject lots – detail

4 Impacts of TLEP Amendments and the Proposed Development

The proposed TLEP amendments will help to enable future DA/s on the site. Potential impacts from the proposed development are discussed below, under the assumption that the Planning Proposal for the TLEP amendments is approved.

The avoidance and minimisation of impacts inherent in the design is discussed first as this provides a significant reduction in potential impacts.

4.1. Avoidance and Minimisation Through Design

As described in Section 3.1, the proposed development footprint contains 0.68 ha of native vegetation (0.13 ha of PCT 3148, 0.15 ha of PCT 3232 and 0.39 ha of PCT 3990). To avoid ecological impacts, a majority (5.86 ha) of the proposed development footprint (including all proposed dwellings and driveways, and the majority of the new lot boundaries) has purposefully been sited in existing paddock areas, which are dominated by exotic grasses and forbs and have been subject to grazing. Therefore, most patches of mapped native vegetation and significant habitat areas are avoided.

As described in Section 3.3, a total 6.18 ha of the proposed development footprint is also mapped as Category 1-exempt land and will not require further assessment under the BC Act.

It is also noted that clearing is not proposed within the 25 m buffer along the proposed new lot boundaries, despite the 'right to clear' that would granted under the RFS Rural Boundary Clearing Code.

4.2. Potential Residual Construction Impacts

Construction on the site will be limited to the five proposed dwellings and connecting driveways. This is likely to involve removal of ground layer vegetation (exotic grasses), transport and laydown of materials, provision of vehicle access via proposed driveways and building works during the construction of the proposed dwellings.

Potential impacts from the construction phase are likely to include disturbance of topsoil, erosion and sedimentation due to removal of ground layer vegetation, as well as noise and light during construction. No native PCTs will be directly affected, as the proposed dwellings and driveways are situated on existing cleared paddock areas. It is likely that some native ground layer species may be present within the paddock areas (as a minor component), however, no threatened flora were recorded during field surveys.

Erosion and sedimentation have the potential to impact the minor drainage lines across the subject lots; however, appropriate erosion control measures can be used to significantly reduce any potential impacts.

Construction noise impacts are likely to be temporary and minimal in the context of the wider landscape. Such impacts already occur in the context of Dulguigan Road, which functions as an arterial road. Light impacts to wildlife during construction are likely to be negligible as hours are expected to be limited to standard working days.

Overall, it is likely that any future development on the site will result in negligible impacts to ecological values during construction, and that potential impacts can be managed via the implementation of an Environmental Management Plan for Construction.

4.3. Potential Residual Post-Construction Impacts

Post-construction impacts are likely to include a standard raft of environmental impacts normally associated with residential use. Specifically, visual disturbance to wildlife, noise and light impacts, introduction of weeds, and water quality and quantity issues due to the introduction of impermeable surfaces. Most of these impacts can be mitigated or reduced to acceptable levels via the design process (during any future DA phase/s).

5 Legislative Background

5.1. State and Federal Requirements

Although the Planning Proposal itself does not provide consent for development to occur on the site[1], it is prudent to consider (at a high level) the potential environmental impacts of future development which the proposed changes may enable.

Table 4 provides further details of other State and Federal legislation pertaining to the management of ecological matters.

[1] With the exception of development that does not require consent under the TLEP/DCP.

Table 4: Commonwealth and State Legislative Requirements

Statute	Trigger / Background	Relevance
Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Actions (projects) that are likely to significantly impact matters of national environmental significance are required to be referred to the Department of Agriculture, Water and the Environment.	As the proposal is unlikely to result in significant impacts to matters of national environmental significance, referral of the project is not considered necessary. This assessment does not consider EPBC Act requirements any further. Once the ultimate development plans are known for the site, the project will be required to re-confirm the application of the EPBC Act, especially with consideration given to Koala.
NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) **Local Planning Directive 3.1 - Conservation Areas (Issued to commence 1 March 2022)**	Directions are issued by the Minister for Planning to relevant planning authorities under section 9.1(2) of the *Environmental Planning and Assessment Act 1979*. These directions apply to Planning Proposals lodged with the Department of Planning and Environment on or after the date the particular direction was issued and commenced. Local Planning Direction 3.1 (Conservation Zones) applies to all relevant planning authorities when preparing a Planning Proposal. The objective of this direction is to protect and conserve environmentally sensitive areas. A Planning Proposal must include provisions that facilitate the protection and conservation of environmentally sensitive areas. Environmentally sensitive areas are defined in Part 1 of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* as: (a) the coastal waters of the State, (b) a coastal lake identified in *State Environmental Planning Policy (Resilience and Hazards) 2021*, Schedule 1, (c) land identified as "coastal wetlands" or "littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map, within the meaning of *State Environmental Planning Policy (Resilience and Hazards) 2021*, Chapter 2, (d) land reserved as an aquatic reserve under the *Fisheries Management Act 1994* or as a marine park under the *Marine Parks Act 1997*, (e) land within a wetland of international significance declared under the Ramsar Convention on Wetlands or within a World heritage area declared under the World Heritage Convention, (f) land within 100 m of land to which paragraph (c), (d) or (e) applies, (g) land identified in this or any other environmental planning instrument as being of high Aboriginal cultural significance or high biodiversity significance, (h) land reserved under the *National Parks and Wildlife Act 1974* or land to which Part 11 of that Act applies,	The site does not include any environmentally sensitive areas and is not land that is within a conservation zone. The site has not been identified for environment conservation/protection within the TLEP. Therefore, no provisions are required to be included in the Planning Proposal to protect or conserve such areas within the subject site.

Statute	Trigger / Background	Relevance
	(i) land reserved or dedicated under the *Crown Land Management Act 2016* for the preservation of flora, fauna, geological formations or for other environmental protection purposes, (j) land identified as being critical habitat under the *Threatened Species Conservation Act 1995* or Part 7A of the *Fisheries Management Act 1994.*	
NSW *Biodiversity Conservation Act 2016* (BC Act)	The BC Act provides a framework for the conservation of biodiversity in NSW. The BC Act mandates the Biodiversity Offset Scheme (BOS), which requires impacts of development over a certain threshold to be offset through purchasing of credits or creating a biodiversity stewardship site. This current ecological assessment pertains to a Planning Proposal. If a DA is submitted in the future, the provisions of the BC Act will be addressed at this point. Nonetheless, it is acknowledged that the Planning Proposal goes part way to enabling future development applications on the site. As such, biodiversity matters relevant to the BC Act are briefly assessed within this report. DAs (not Planning Proposals) trigger the requirement for Biodiversity Development Assessment Reports (BDAR) and the Biodiversity Offsets Scheme (BOS) where the following thresholds are met: • Exceedance of the native vegetation area clearing thresholds. • Impacts to land mapped on the State's Biodiversity Values Map (BV Map). • Significant impacts to matters listed under the BC Act (threatened species or ecological communities), as assessed using section 7.3 of the BC Act. • Offsets are required where impacts to Areas of Outstanding Biodiversity Value (AOBV) occur. • Offsets are required for 'serious and irreversible impacts' (SAII). Principles relating to SAII are set out in Clause 6.7 of the Biodiversity Conservation Regulation 2017 and OEH's Guidance to assist a decision-maker to prepare a serious and irreversible impact document (OEH 2017).	A BDAR would not be required for the Planning Proposal and the BOS would not be triggered at this stage. However, future DAs may trigger the BOS and require a BDAR. The native vegetation clearing threshold for this site will be 0.5 ha if the Planning Proposal is approved. Future DAs enabled by approval of this Planning Proposal, such as the proposed lot reconfiguration, may exceed the clearing threshold, and therefore trigger the BOS and require a BDAR in accordance with the BC Act. Further assessment under the BC Act is not required if land is included on the LLS NVRM as Category 1-exempt land (apart from Prescribed Impacts). Though the majority of the land is Category 1-exempt land, there are still some areas of Category 2-regulated land requiring native vegetation and requiring further assessment as part of future DAs. The proposed development would only involve establishing a 'right to clear' 0.19 ha of mapped native vegetation/PCTs within Category 2 land, so the vegetation clearing threshold would not be exceeded and a BDAR would not be required. The proposed development footprint is not overlaid by the BV mapping (Figure 19). No areas within the proposed development footprint are identified as AOBV. Therefore the BOS will not be triggered by these matters. The proposed development is unlikely to result in significant impacts to threatened species or ecological communities protected by the BC Act. The proposed future DAs are unlikely to result in any SAII. However, upon preparation of future DAs, further assessment is required to re-confirm whether the project will result in a significant impact to these matters. Re-assessment of the above will be required during preparation of future DAs.

***State Environmental Planning Policy (SEPP; Resilience and Hazards)* 2021- Chapter 2 Coastal Management**	The aim of the Coastal Management SEPP is to promote an integrated and coordinated approach to land use planning in the coastal zone. This is achieved by managing development in the coastal zone and protecting the environmental assets of the coast, and by establishing a framework for land use planning to guide decision-making in the coastal zone. Regarding Development on land within the coastal environment area, Part 2.2 Division 3 of the R&H SEPP states that: (1) Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following— (a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment, (b) coastal environmental values and natural coastal processes, (c) the water quality of the marine estate (within the meaning of the *Marine Estate Management Act 2014*), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1, (d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms, (e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability, (f) Aboriginal cultural heritage, practices and places, (g) the use of the surf zone. (2) Development consent must not be granted to development on land to which this section applies unless the consent authority is satisfied that— (a) the development is designed, sited and will be managed to avoid an adverse impact referred to in subsection (1), or (b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or (c) if that impact cannot be minimised—the development will be managed to mitigate that impact. Regarding development on land within the coastal use area, Part 2.2. Division 4 states that: (1) Development consent must not be granted to development on land that is within the coastal use area unless the consent authority— (a) has considered whether the proposed development is likely to cause an adverse impact on the following— (i) existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability, (ii) overshadowing, wind funnelling and the loss of views from public places to foreshores, (iii) the visual amenity and scenic qualities of the coast, including coastal headlands,	Coastal Management SEPP mapping exists over the site; therefore, **the provisions of the SEPP are relevant.** The site is mapped as containing Coastal Environment Area and Coastal Use Area under Chapter 2: Coastal Management of the State Environmental Planning Policy (Attachment 4; SEPP; Resilience and Hazards). The proposed development is unlikely to cause an adverse impact to matters (1a) to (1g) under Division 3, as it mostly avoids impacts to native vegetation, is not within the surf zone, would not restrict access to the Rous River and is unlikely to alter the function of hydrological or coastal processes on the subject lots. The proposed development is unlikely to cause an adverse impact to access to the Rous River, views, or visual amenity as it is located mostly on previously cleared land used for agriculture and would not create obstructions to the river, or any Coastal Use Areas under Division 4. Re-assessment of all relevant matters under the R&H SEPP will be required during preparation of future DAs. However, due to the limited potential impacts of the current proposed development, SEPP Part 2.2 Division 3 and Division 4 are very likely to be met.

Statute	Trigger / Background	Relevance
	(iv) Aboriginal cultural heritage, practices and places, (v) cultural and built environment heritage, and (b) is satisfied that— (i) the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or (ii) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or (iii) if that impact cannot be minimised—the development will be managed to mitigate that impact, and (c) has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development.	
State Environmental Planning Policy (Biodiversity and Conservation) 2021 **(Biodiversity and Conservation SEPP)**	The Biodiversity and Conservation SEPP includes Chapter 3 – Koala Habitat Protection 2020, which applies to the subject lots as it is RU1 – Primary Production and RU2 – Rural Landscape zoned land within the Tweed LGA. In this Chapter— **Potential Koala habitat** means areas of native vegetation where trees of the types listed in Schedule 1 constitute at least 15% of the total number of trees in the upper or lower strata of the tree component. **Core Koala habitat** means an area of land with a resident population of Koalas, evidenced by attributes such as breeding females, being females with young, and recent sightings of and historical records of a population. Part 3.3 – Development Control of Koala Habitat applies as the subject lots is > 1 ha. As such, the following needs to be considered as part of any future DA: *3.6 Step 1—Is the land potential Koala habitat?* *(1) Before a council may grant consent to a development application for consent to carry out development on land to which this Part applies, the council must be satisfied as to whether or not the land is a potential Koala habitat.* *(2) The council may be satisfied as to whether or not land is a potential Koala habitat only on information obtained by it, or by the applicant, from a person who is qualified and experienced in tree identification.* *(3) If the council is satisfied—* *(a) that the land is not a potential Koala habitat, it is not prevented, because of this Chapter, from granting consent to the development application, or* *(b) that the land is a potential Koala habitat, it must comply with section 3.7.* *3.7 Step 2—Is the land core Koala habitat?*	As mentioned in Section 3.7, the subject lots is assumed to contain Core Koala Habitat, due to the number of records in the area, and also because Koala scat was observed during the April site survey undertaken by Bower Ecology for this report. Construction of the proposed driveways and dwellings will not result in the clearing of core Koala habitat. The proposed lot reconfiguration would result in the right to clear small areas of PCTs associated with Koala (due to the 'as of right' clearing that would be associated with the 25 m bushfire clearing buffer). However, no potential habitat for Koala is actually proposed to be cleared, and any future DA consent could consider conditions to restrict clearing for the 25 m bushfire hazard reduction buffer. There is no existing approved Koala plan of management over the subject lots. If core Koala habitat is proposed to be cleared as part of the future DA, a KPoM for the site may be required.

Statute	Trigger / Background	Relevance
	(1) Before a council may grant consent to a development application for consent to carry out development on land to which this Part applies that it is satisfied is a potential Koala habitat, it must satisfy itself as to whether or not the land is a core Koala habitat. *(2) The council may be satisfied as to whether or not land is a core Koala habitat only on information obtained by it, or by the applicant, from a person with appropriate qualifications and experience in biological science and fauna survey and management.* *(3) If the council is satisfied—* *(a) that the land is not a core Koala habitat, it is not prevented, because of this Chapter, from granting consent to the development application, or* *(b) that the land is a core Koala habitat, it must comply with section 3.8.* *3.8 Step 3—Can development consent be granted in relation to core Koala habitat?* *(1) Before granting consent to a development application for consent to carry out development on land to which this Part applies that it is satisfied is a core Koala habitat, there must be a plan of management prepared in accordance with Part 3 that applies to the land.* *(2) The council's determination of the development application must not be inconsistent with the plan of management.*	
NSW *Water Management Act 2000* (WM Act)	The object of the WM Act is to provide for the sustainable and integrated management of the water sources of the State. Some activities are "controlled activities" under the act. For example, works on waterfront land. Waterfront land means the bed of any river, lake or estuary, and the land within 40 metres of the riverbanks, lake shore or estuary mean high-water mark.	Given the existence of mapped waterways on the subject lots, the requirements for approval for works on waterfront land will need to be confirmed with NSW DPE (Water), if any works on waterfront land are proposed in future DAs.
NSW *Fisheries Management Act 1994* (FM Act)	The FM Act aims 'to conserve, develop and share the fishery resources of the State for the benefit of present and future generations'. Part 7 of the FM Act outlines legislative provisions to protect fish habitat and Part 7A outlines provisions to conserve threatened species of fish and marine vegetation and their habitat.	Key Fish Habitat within the Northern Rivers basin is mapped within the subject lots, however it is outside the proposed development footprint for both the proposed lot reconfiguration and the proposed dwellings and driveways. No impacts to the Rous River or the habitat value it contains are anticipated to occur as a result of this project.
***Local Land Service Act 2013* (LLS Act)**	The LLS Act was developed in order to develop a balanced approach to assessing biodiversity within designated for rural land management practices such as agriculture and grazing. DPE (NSW) has released the draft Native Vegetation Regulatory (NVR) map while the statewide NVR map is being updated by the department. While the draft map does not have legal effect, DCCEEW states that *"landholders can utilise the draft native vegetation regulatory map when making decisions about native vegetation management. For example, if landholders agree that land mapped as draft category 1 (exempt) land meets the criteria in the Local*	The proposed development footprint contains mostly Category-1 exempt land, and some small areas of Category 2-regulated land, as shown on the Draft NVRM (Figure 6). Areas within Category 1-exempt land would not require further assessment under the BC Act as part of future DAs (except for assessment of Prescribed Impacts). However, the proposed future DAs include areas of Category 2 land on which further assessment will be required to determine the type and extent of vegetation and habitat present.

Statute	Trigger / Background	Relevance
	Land Services Act, they can feel confident they do not require Local Land Services approval to clear native vegetation on that land." [2] Hence, for the purpose of this assessment (or future assessments), the Draft LLS mapping can be accepted. Furthermore, according to the Section 6.8 of the BC Act, the biodiversity assessment method is to exclude the assessment of the impacts of any clearing of native vegetation and loss of habitat on category 1-exempt land (within the meaning of Part 5A of the *Local Land Services Act 2013*), other than any impacts prescribed by the regulations under Section 6.3 of BC Act (supported by Section 1.5 in NSW Biodiversity Assessment Methodology 2020). As per the draft NVR mapping, the subject land contains both Category 1 - exempt land and Category 2 – regulated land. Category 1 - exempt land is defined as: • land that was cleared of native vegetation as at 1 January 1990, and • land that contains low conservation value grasslands. Category 2 – regulated land is defined as: • land that was not cleared of native vegetation as at 1 January 1990, and • land that contains grasslands that are not low conservation value grasslands.	

[2]https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/native-vegetation-regulatory-map/draft-native-vegetation-regulatory-map)

5.2. Tweed Shire Council Requirements

The Tweed Shire Development Control Plan 2008 (DCP) applies to the subject lots.

The proposed development footprint includes land zoned as both RU1 Primary Production and RU2 Rural Landscape. These zones are known for primary industry productions and extensive agriculture but allow for residential land uses. As per the DCP, the proposed rural lot subdivision design should 'protect and encourage appropriate management of natural habitat and vegetation' and 'retain significant vegetation and habitat areas'. These requirements have been considered during the design of the Planning Proposal and would require further consideration as part of the two future DAs that may be facilitated by the Planning Proposal, as described in Table 1.

The Planning Proposal and future DAs have also been designed to consider overarching TLEP requirements pertaining to biodiversity. That is, pursuant to Part 1, Section 5 [a][i] and [c] of the *Tweed Local Environmental Plan 2000*, consideration has been taken to avoid impacts to the environment. As per the TLEP, subdivision works that occur within areas zoned as RU1 Primary Production and RU2 Rural Landscape must '*protect the ecological or scenic value of the land*'.

This ecological assessment found the site to have large areas of low biodiversity value, due to current cattle grazing land uses and containing only scattered patches of native trees. Regardless, consideration has been taken to propose new lot boundaries, dwellings and driveways in existing cleared paddock areas in order to comply with the DCP and minimise ecological impacts.

No mapped PCTs would be disturbed as part of the proposed dwelling and driveway construction. Furthermore, no vegetation clearing is proposed as part of the lot reconfiguration, despite the 'right to clear' permissions that would be granted along new lot boundaries. The 'right to clear' areas contain 5.63 ha of existing cleared paddock areas and only 0.68 ha of native vegetation comprising fragmented patches of vegetation. Larger, more intact patches of vegetation that contain habitat values on the subject lots have been avoided.

Table 5: Tweed Shire Council DCP Requirements

Controls	DCP Requirements	Proposed Response

C1	Red flags must be retained on site and associated ecological setbacks established:
	• Bushland
	  ○ Listed ecological communities (EECs) *30 m*
	  ○ Over-cleared vegetation types *20 m*
	  ○ Over-cleared landscapes *20 m*
	  ○ Old growth *30 m*
	  ○ Important wetlands *50 m*
	  ○ Other wetlands *20 m*
	  ○ Other bushland on a slope greater than 18 degrees *20 m*
	  ○ Pre-existing protected habitat *20 m or as above, whichever is larger*
	• Wildlife Corridors
	  ○ Land within a defined wildlife corridor *20 m*
	• Threatened and Significant Species
	  ○ Areas within a species polygon for threatened fauna or other significant fauna that are known or predicted to occur at the site *20 m*
	  ○ Areas within a species polygon for threatened flora or other significant flora that are known to occur at the site *10 m*
	• Koala Habitat (not applicable to development subject to Tweed Coast Comprehensive Koala Plan of Management)
	  ○ Core Koala habitat *20 m*
	  ○ Primary or Secondary (class A) Koala habitat *20 m*
	  ○ Isolated or scattered primary Koala food trees with evidence of Koala activity *20 m*
	  ○ Any other areas where Koalas are present *20 m*
	• Waterways and Riparian Areas
	  ○ First order stream *10 m*
	  ○ Second order stream *20 m*
	  ○ Third order stream *30 m*
	  ○ Fourth order stream *40 m*
	  ○ Estuarine area *50 m*
	• Flying Fox Camps
	  ○ Year round or intermittently occupied flying fox camp *20m*
	• Other Habitat Features
	  ○ Very large native trees *10 m*
	  ○ Stags and hollow-bearing trees *10 m*
	  ○ Raptor nests *50 m*
		The subject lots contain the following red flags:
		• Core Koala habitat
		• First order streams
		20 m ecological setbacks would be established around core Koala habitat and all areas would be retained.
		10 m ecological setbacks would be established around all first order streams and no development is proposed within these areas.
		A fourth order stream (the Rous River) is also located south of the subject lots. No development is proposed within 40 m of the Rous River.

Controls	DCP Requirements	Proposed Response
C2	Without pre-existing biodiversity offset arrangements with Council, state or federal government, clearing of bushland or other habitat not red flagged under C1 will generally not be supported unless all of the following apply: a) the area to be cleared is less than 5000 m^2 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 at least 20 m is maintained; and e) adequate provision is made to compensate for any clearing in accordance with C28- C30	No clearing of bushland is proposed as the proposed dwellings and driveways are located on existing cleared land and no clearing along proposed new lot boundaries is to be undertaken.
C3	In the case of pre-existing offsetting arrangements or other biodiversity management measures secured under a Council-endorsed strategic planning process (e.g. a master plan) or a State or Federal government approval 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	N/A – there are no pre-existing offsetting arrangements or other biodiversity management measures.
C4	In the case of bushland or wetland vegetation on the coastal floodplain (as per Council's 1 in 100-year flood mapping – See http://www.tweed.nsw.gov.au/Mapping) consideration shall be given to increasing the ecological setbacks required under C1 to allow for future landward migration of native vegetation affected by climate change induced increases in tidal inundation and rises in the water table.	N/A - the proposed dwellings and connecting driveways are not located within the probable maximum flood event extent.
C5	For development involving subdivision: a) a development envelope(s) is to be formally defined for created lots greater than or equal to one hectare to ensure that future development of the subdivided lot(s) avoid any relevant red flagged areas and associated ecological setbacks b) with the exception of individual very large trees, stags or hollow-bearing trees any proposed lot(s) with an area less than one hectare shall not include red flagged areas	Proposed new lots are >1 ha and the proposed developing envelopes (including dwellings and connecting driveways) avoid red flagged areas and associated ecological setbacks (except where C6 applies).
C6	Minor variations to the red flagged areas identified in C1 may be considered to achieve practical outcomes. Some examples include: • minor incursions into the ecological setbacks • ecological setbacks arising from adjoining land not in the same ownership • ecological setbacks that necessarily overlap with access roads or other linear infrastructure (e.g. a narrow access road that does not require clearing with bushland on both sides) • isolated patches of bushland with an area less than 1000 m^2 • strips of bushland less than 10 m wide • areas in low condition with an area less than 5000 m^2 • bushland dominated by exotic species • Threatened or other significant fauna that are considered vagrant, highly nomadic or are not closely associated with habitat on the site	Two minor variations may be sought for the proposed development: One of the proposed dwellings includes a minor incursion into an ecological setback in order to be located outside steep and flood prone mapped land. Part of a proposed driveway is also located within an ecological setback and it will not require clearing bushland.

Controls	DCP Requirements	Proposed Response
	• Threatened or other significant flora that occur as seedlings or saplings outside of bushland habitat • secondary (class B) Koala habitat without evidence of Koala activity • areas subject to a controlled activity approval under the *Water Management Act 2000* • stags and raptor nests where it is possible and feasible to relocate them nearby (Note, this has only been proved successful for osprey).	
C7	A minor variation referred to in C6 above must not: a) trigger a red flag in another biodiversity theme unless it also represents a variation for that theme; or b) conflict with any statutory consideration that would require the retention of the area.	The minor variations sought do not trigger a red flag or conflict with any statutory consideration.
C8	A development application seeking a variation referred to in C6 above must: a) clearly identify the variation sought; b) demonstrate that alternative layouts have been considered and that the impacts cannot reasonably be avoided; c) show how the variation impact is consistent with the relevant planning principles and objectives of this Section of the DCP.	Assuming the Planning Proposal is approved, a future DA would need to comply with C8.
C9	**Protection of Retained Habitat** The following areas that are within the same lot (or lots) to which the development application applies are to be protected in perpetuity as protected habitat: For Subdivision in Rural or Environmental Zones (e.g. RU1, RU2, E2, E3 or equivalent): Only if considered necessary to protect red flagged areas (including any contiguous bushland).	The need to establish protected areas would need to be assessed during future DAs.
C10	**Management of Protected Habitat** The following areas that are within the same lot (or lots) to which the development application applies are to be managed under an approved Habitat Management Plan (see C12) for the duration specified: For Subdivision in Rural or Environmental Zones (e.g. RU1, RU2, E2, E3 or equivalent), C10 applies to any areas protected under C9 and would be determined on a case by case basis. Only required if considered necessary to manage sensitive and/or significant areas likely to be affected by development.	As above.
C11	In cases where the protection and/or management requirements under C9 and/or C10 do not precisely match the development under consideration, the protection or management requirements shall be determined on a case by case basis generally consistent with the nature and scale of development specified in under C9 and/or C10.	As above.
C12	The Habitat Management Plan referred to in C10 above, must be prepared in accordance with Council's Habitat Management Plan Guideline as updated from time to time and include measures that: a) restore and enhance any retained bushland habitat; b) ensure that any ecological setback is managed as an ecological buffer to improve the ecological integrity of the retained bushland or other habitat feature; c) appropriately manage and control environmental weeds and pest animals as relevant to the site;	As above. If required, the Habitat Management Plan would be prepared in accordance with these guidelines.

Controls	DCP Requirements	Proposed Response
	d) consistent with C20 and C21 below, include bushfire management actions in retained or revegetated habitat that are directed toward maximising ecological values of the retained areas; e) in the case of any area(s) affected by wildlife corridors, improve habitat connectivity; f) in the case of any area(s) affected by any threatened flora, threatened fauna, other significant flora or other significant fauna, address their ongoing management, relative to the impacts of the development and the requirements of any relevant recovery plan; g) in the case of any area(s) affected by Koala habitat, address the ongoing management of any Koalas or their habitat relative to the impacts of the development considering any relevant provisions of the Tweed Coast Comprehensive Koala Plan of Management; h) acknowledge any individual Koala plan of management required under SEPP 44 - Koala Habitat Protection and integrate (or cross reference) any provisions that cover the same areas as the Habitat Management Plan; i) in the case of waterways and riparian areas, ensure that: (i) the waterway itself and the associated ecological setback is managed as an ecological buffer to minimise erosion and sedimentation and/or is revegetated with native vegetation appropriate to the site, and (ii) where appropriate, livestock are excluded from accessing the waterway (except designated crossings); j) in the case of any area(s) affected by a flying fox camp, address the ongoing management of flying foxes consistent with any relevant recovery plan or applicable flying fox plan of management and integrate (or cross reference) any provisions that cover the same areas as the Habitat Management Plan; k) in the case of any other key habitat features ensure that the feature is preserved and the area is managed to encourage the continued use by fauna; l) consider the likely impacts of climate change and implement contemporary best practice management to mitigate any adverse impacts on the viability of local flora or fauna populations, or the ecological integrity of their habitats including, where relevant and possible, allowing for the landward migration of coastal, or floodplain vegetation affected by climate change induced increases in tidal inundation or rises in the water table; m) provide for the ongoing management of any biodiversity offset in accordance with C28 and/or C30 below; n) consider and effectively minimise the ongoing threats from the development in accordance with Part C below or where otherwise identified as part of the development consent process; o) where applicable, manage threats to ecological values from areas adjacent to the development site.	
C13	Implementation of the Habitat Management Plan referred to in C10 and C12 above shall commence no later than the physical commencement of the development. In the case of staged development, implementation of the Habitat Management Plan shall clearly and proportionally reflect the staging of the development particularly in relation to the location and impacts of development.	As above. If required, the Habitat Management Plan would be implemented in accordance with C13.
C14	Where development consent is granted subject to final approval of a Habitat Management Plan, there shall be no physical commencement until the Habitat Management Plan has been approved by Council.	As above.

Controls	DCP Requirements	Proposed Response
C15	Council shall not grant consent for development subject to final approval of a Habitat Management Plan unless it is satisfied that the draft Habitat Management Plan submitted with the development application is compliant with the provisions of C12.	As above.
C16	Council may consider accepting the dedication of lands requiring a Habitat Management Plan under C10 providing adequate arrangements are made to resource the required management actions (see also Section A5 of this DCP – Subdivision Manual).	As above.
C17	**Additional Controls - Koala Planning** In relation to Koalas and their habitat, the development control provisions (Part 5) of the Tweed Coast Comprehensive Koala Plan of Management apply to development on the Tweed Coast (see http://www.tweed.nsw.gov.au/PlanningPolicies).	The subject lots are not within the land subject to the Tweed Coast Comprehensive Koala Plan of Management.
C18	For development outside of the Tweed Coast: a) the provisions of State Environmental Planning Policy No. 44 - Koala Habitat Protection continue to apply, including the preparation and approval by the Department of Planning and Environment of an individual Koala plan of management for land that contains core Koala habitat and has an area, together with any adjoining land in the same ownership, greater than one hectare; b) other provisions of this Section of the DCP, including those relating to habitat retention (e.g.C1), formal protection (e.g. C9) and management (e.g. C10, C12) apply to Koalas and their habitat	An individual Koala plan of management may be required as part of future DAs.
C19	**Additional Controls - Waterways and Riparian Areas** In relation to development adjoining waterways and riparian areas Council may, where considered appropriate require bank stabilisation works, adequate arrangements for public access, measures to minimise pollution and sedimentation and/or measures to reduce the impacts of biting insects.	Any additional controls required under C19 would be incorporated into future DAs; however, it is not anticipated this will be necessary.
C20	**Development Setbacks** Development setbacks required to manage potential bushfire risk shall not overlap with red flagged areas referred to in C1 or other retained bushland.	Development Setbacks (i.e. Proposed Asset Protection Zones) as part of future DAs would need to comply with C20.
C21	A development setback required to manage potential bushfire risk may overlap with an ecological setback to be managed as an ecological buffer in a Habitat Management Plan where: a) no more than the outer half of the ecological buffer is used for that purpose; and b) the overlap is managed to maximise ecological values within the scope of the bushfire management requirements (i.e. maintaining a minimum of 30% native tree canopy cover and a fuel reduced understorey).	Development Setbacks (i.e. Proposed Asset Protection Zones) as part of future DAs would need to comply with C21.
C22	A 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.	Development Setbacks (i.e. Proposed Asset Protection Zones) would be established in accordance with the Vegetation Clearing Code of Practice listed in C22.
C23	In relation to any flying fox camp, residential, commercial and educational buildings shall be located no less than 100 m from the outer edge of the flying fox camp or the relevant ecological buffer where a Habitat Management Plan is required under C10. This area shall be maintained largely free of suitable flying fox roosting habitat.	N/A – no active flying fox camps were identified on or in the immediate vicinity of the subject land.

Controls	DCP Requirements	Proposed Response
C24	**Serious and Irreversible Impacts (SAII) under the *Biodiversity Conservation Act 2016*** If the development application is required to be accompanied by a Biodiversity Development Assessment Report (BDAR) under the Biodiversity Conservation Act 2016, the proponent, when conducting the impact assessment of potential SAII entities for serious and irreversible impacts on biodiversity values (as specified in the Biodiversity Assessment Method; BAM), shall also include an assessment of any threatened species or communities listed at http://www.tweed.nsw.gov.au/PlanningPolicies/TSC_SAII.pdf that would be impacted by the proposed development.	If required, SAII would be assessed as per C24; though this is not anticipated to be an issue based on the current development proposal.
C25	**Measures to Avoid or Minimise Impacts under the *Biodiversity Conservation Act 2016*** For the purposes a development application affected by s7.13 of the Biodiversity Conservation Act 2016: a) the measures that the consent authority requires to avoid or minimise the impacts of a proposed development on biodiversity values (see s7.13(6) of the BC Act) include (but are not limited to) all controls (except C28-C30 which relate to offsets and habitat compensation) relevant to the development application contained in this Section of the DCP; and b) any avoid or minimise measures proposed in a Biodiversity Development Assessment Report (BDAR) that accompanies such an application shall be considered in the context of all matters relevant to the determination of the development application.	Relevant measures to avoid or minimise impacts will be identified and implemented in accordance with C25 as part of future DAs. At this stage however, avoidance of impacts to biodiversity have already been considered.
C26	**Other Acceptable Solutions** Other acceptable solutions may be appropriate (including any variations relating to development controls contained in Part C) but the applicant needs to demonstrate that: a) a clearly equivalent or superior long-term ecological outcome can be assured; and b) the variation is consistent with all relevant planning principles and objectives of this Section of the DCP	If applicable, other acceptable solutions would be identified and justified as part of future DAs.
C27	It is strongly advised that any proposal that involves variations to the development controls in this Section of the DCP or offsetting are discussed through Council's pre-lodgement consultation process (see Part D).	Any variations to DCP controls or offsetting would be discussed with Council in accordance with C27.
C28	**Habitat Compensation and Biodiversity Offsets** If the development application under consideration is not required to be accompanied by a Biodiversity Development Assessment Report (BDAR) under the Biodiversity Conservation Act 2016, any native vegetation, threatened or other significant fauna habitat cleared, damaged, or degraded as a result of the 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 the Habitat Management Plan referred to in C12 above.	As no clearing of native vegetation (mapped PCTs) is proposed as part of the lot reconfiguration (despite the RFS clearing permissions/'right to clear') the future DA may include provisions to ensure that no clearing is permitted along new lot boundaries and the requirement for offsets could be removed. However, this would require Council support as per C28.
C29	Council may waive the requirement for offsetting under C28 where the proponent can demonstrate that they have voluntarily created equivalent habitat on the land (or adjoining land in the same ownership) which is the subject of the development application. Such areas are to be secured in perpetuity as protected habitat and managed under the Habitat Management Plan referred to in C12 above.	As above.
C30	If the development application under consideration is required to be accompanied by a Biodiversity Development Assessment Report (BDAR) under the *Biodiversity Conservation Act 2016*, Council may	As above. If a BDAR is required, C30 may apply. However, this would need to be assessed as part of future DAs.

Controls	DCP Requirements	Proposed Response
	consider seeking to reduce the number of biodiversity credits by up to 50% of the number that may otherwise be required to be retired (pursuant to s7.13(4) of the BC Act) where all of the following apply: a) the offset is secured on the development site or within Tweed Shire; b) the BDAR is accompanied by a biodiversity stewardship site assessment report in accordance with Stage 3 of the BAM; c) at the proposed biodiversity stewardship site, the structural condition (as calculated using the BAM) of the tallest growth form is not more than the following proportions of the structural condition benchmarks for the relevant plant community type: i. 20% for forests ii. 30% for shrublands iii. 50% for treeless wetlands.	

6 Conclusions

This ecological assessment provides relevant information to assist in the assessment of the Planning Proposal for 133-139 Dulguigan Road, Dulguigan. The proposed TLEP amendments include provisions to amend Map - LSZ_004 (Minimum Lot Size Map) to reduce the minimum lot size from 40 ha to 1.5 ha via a Planning Proposal under the *Environmental Planning and Assessment Act 1979*. If the Planning Proposal is approved, the proposed TLEP minimum lot size amendments will facilitate future DA/s which will include a proposed lot reconfiguration alongside potential dwellings (and associated driveways) in the future. The proposed lot reconfiguration would result in six new lots from the existing lots. The potential dwellings and connecting driveways are proposed to be located in the existing Lot 1 DP328107 and Lot 8 DP755685.

The 'proposed development footprint' for this report, therefore, includes the 25 m wide boundary clearing permissions along new lot boundaries (under the RFS Rural Boundary Clearing Code) in addition to the potential dwelling and driveway footprints (6.54 ha in total). We note that clearing is not actually proposed along the new lot boundaries, though the proposed lot amendment would result in the landowners having the 'right to clear'.

The desktop assessment found that the majority (6.18 ha) of the proposed development footprint is mapped as 'Category 1-exempt land' per the Draft NVRM. The vegetation on site was observed to largely align with the Draft NVRM. The remaining 0.36 ha of the proposed development footprint (within the proposed new boundary clearing permission area only) is mapped as Category 2 land on the Draft NVRM (including 0.23 ha of Category 2-regulated land and 0.13 ha of Category 2-vulnerable regulated land).

Field surveys showed that the proposed development footprint (including both Category 1 and Category 2 land) contains approximately 0.68 ha of native vegetation across three PCTs: 0.13 ha of PCT 3148, 0.15 ha of PCT 3232 and 0.39 ha of PCT 3990. To avoid ecological impacts, a majority (5.86 ha) of the proposed development footprint (including all proposed dwellings and driveways, and the majority of the new lot boundaries) is intentionally located within existing paddock areas, which are dominated by exotic grasses and forbs and have been subject to grazing.

No threatened flora or fauna species or threatened ecological communities listed under the BC Act or EPBC Act were recorded during field surveys; and none are expected to occur in the development footprint. Nonetheless, koala scat was identified within PCT 3232 immediately adjacent to the proposed development footprint, and several BioNet database records of Koala exist on the subject lots or within the immediate vicinity, suggesting that core Koala habitat is present on the subject land. It is not expected that a significant impact to threatened species will result if the site is developed, however this would need to be confirmed in the future DA/s if any changes to the development footprint are proposed and a Koala plan of management may still be required.

If the Planning Proposal is approved, the Biodiversity Offsets Scheme (BOS) vegetation clearing threshold would be determined by the new minimum lot size of 1.5 ha (i.e. ≥0.5 ha threshold). As per Section 6.8 of the BC Act, the biodiversity assessment method is to exclude the assessment of the impacts of any clearing of native vegetation and loss of habitat on category 1-exempt land (within the meaning of Part 5A of the LLS Act). Therefore, 6.18 ha of the proposed development footprint (including the majority of the new lot boundary clearing permission, all proposed dwelling footprints and most of the driveways) would not qualify for entry into the BOS as part of future DAs because Category 1-exempt land is excluded from further assessment.

Of the remaining 0.36 ha of the proposed development footprint mapped as Category 2-regulated land, only 0.19 ha was found to contain native vegetation (0.13 ha of PCT 3148 and 0.06 ha of PCT 3232), while 0.17 ha was found to be previously cleared land dominated by exotic vegetation. Therefore, neither the proposed lot reconfiguration (which involves establishing the 'right to clear' 0.19 ha of native vegetation within Category 2 land) or the proposed development (dwellings and connecting driveways, which would not involve clearing any mapped PCTs) would exceed the 0.5 ha vegetation clearing threshold or trigger the BOS.

However, Council may still advise that areas of Category 1-exempt land that contain mapped PCTs do require further assessment. This may result in proposed lot reconfiguration exceeding the vegetation clearing threshold, triggering the BOS and requiring a BDAR to be prepared, as 0.68 ha of native vegetation was mapped across the proposed development footprint. The assessment approach would need to be confirmed as part of future DAs.

Despite the above, and noting that no *actual* clearing is proposed within the 25 m boundary buffer area, the proposed development (potential dwellings and connecting driveways only) do not contain native vegetation and would not trigger the BOS (or requirement for a BDAR).

If a BDAR is required for the proposed lot reconfiguration, it may be possible for Council to add a condition to the DA approval to state that no vegetation clearing is allowed to occur along the new lot boundaries (as none is proposed anyway). As all impacts of the proposed lot reconfiguration would therefore be avoided, the consent authority may decide to reduce the number of biodiversity credits required to be retired (as per Division 4, Part 7.13 (4) of the BC Act).

The controls outlined in the Tweed Shire Council Development Control Plan 2008 (DCP) were also reviewed. Assuming the Planning Proposal is approved, the future DAs for the proposed lot reconfiguration and development of dwellings and driveways would comply with the DCP objectives and controls apart from some minor encroachments into the ecological setback areas. These minor variations and all relevant controls would be dealt with during future DAs.

If the proposed development is enabled via approval of the Planning Proposal, the resultant ecological impacts are likely to be minor overall, whilst there is also opportunity for further impact reduction via future DA design and environmental management. In conclusion, the approval of the Planning Proposal will not result in unreasonable or significant impacts to ecological matters. Further, approval of the Planning Proposal will not enable development that is exempt from further ecological assessment and impact mitigation.

7 References

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Appendix A: Site visit Notes and Photos

Table 6: Field notes from site visit to 133-139 Dulguigan Road, Dulguigan

No.	Description	Image
1	Exotic - Setaria grassland, Cobblers pegs, *Cuphea*, Mullumbimby couch	 
2	*Ficus obliqua* with understorey of Camphor laurel*	

3, 4, 5	Hoop pine forest	
6	Cattle yard area	
7	*Flindersia australis*	

8	*Solanum chrysotrichum**, Lantana*, Camphor laurel* with exotic groundcover	
9	15 m *Flindersia australis*	
10, 11	Camphor laurel* (80-95%) with few native ferns, and occasional *Guioa semiglauca* and *Jagera pseudorhus* in the canopy.	

		
12	Camphor laurel*	
13	Camphor laurel*	

14	Camphor laurel*	
15, 16, 18	Camphor laurel*	

17, 19	Brushbox x 2	 
20	*Alphitonia excelsa*	

21	Evidence of Koala Presence-Scat found	
22	*Corymbia* sp. with *Eucalyptus* sp. Brushbox adjacent.	

		
23	Large stick nest	

		
24	Fenceline	
25	One of the proposed dwelling sites – exotic pasture and absence of HJG.	No photo available.

26	Exotic pasture with *Setaria sphacelata*, *Paspalum urvillei**, *Gomphocarpus* sp.*, *Cuphea carthagenensis*, *Bidens pilosa* and *Crassocephalum crepidioides*.	
27	Drainage line travelling east from the top of the hill.	
28	*Jagera pseudorhus* and Camphor laurel*	

29	Boggy area, likely spring fed. Dominated by *Cyperus* sp., *Cuphea carthagenensis**, *Paspalum urvillei*, *Persicaria hydropiper*, *Myriophyllum aquaticum**, *Ranunculus inundatus, Eleocharis sp., Tradescantia fluminensis**, and *HypoTLEPis muelleri*	
30	Camphor laurel*, S*olanum**, Ageratina adenophora *, *Lantana camara**, *Persicaria hydropiper.*	

31	Vegetation overhanging (not within) clearing area	
32	*Lophostemon confertus* forest with dense understory of Camphor laurel*	
33	*Ficus obliqua*