

23rd January 2024

Unique or Special Wildlife Values Report

Unique or Special Wildlife Values – Part 4 of the Plantations and Reafforestation Act 1999

Section 32 of the *Plantations and Reafforestation Act 1999* (the Act) sets out the meaning of unique or special wildlife values.

For the purposes of this Act, land has unique or special wildlife values if:

- (a) any unique or special wildlife grows on or inhabits the land, or
- (b) any such wildlife is likely to grow on or inhabit the land.

Unique or special wildlife is:

- a) any endangered species, endangered ecological community or extinct species, within the meaning of the *Biodiversity Conservation Act 2016*, being a species of (or ecological community that includes) a vascular plant, amphibian, bird, mammal or reptile, or
- (b) any endangered species, endangered ecological community or species presumed extinct (within the meaning of Part 7A of the *Fisheries Management Act 1994*), being a species of (or ecological community that includes) fish.

Unique or special wildlife does not include any tree or shrub that is planted on an authorised plantation in the course of establishment or other operations on the plantation.

It is a condition of the authorisation that the plantation owner or manager notify the Minister (or delegate) as soon as they become aware that plantation operations have or are likely to have impact on unique or special wildlife values on the land concerned. Under section 34 of the Act the Minister (delegate) is required as soon as notified, or otherwise becomes aware is to arrange for:

- An evaluation of any such impacts or likely impacts of the plantation operations and
- A report to be provided addressing matters in section 34(2) of the Act.

The Minister administering the *Biodiversity Conservation Act 2016* is to be notified of such arrangements.

This document provides information that addresses the matters set out in Section 34(2) of the Act and an evaluation of the impacts or likely impacts of plantation operations on the unique or special wildlife the Minister (delegate) has been notified or made aware of. The report refers to following.

Land subject to this report: GR0706P Tuckers Nob State Forest – Compartments 26 & 27

Date the Minister first became aware/notified: 25th September 2023

Report prepared by: NSW DPI Plantation Regulation Unit

Trees or shrubs planted in the authorised plantation: *Eucalyptus saligna* (Sydney Blue Gum), *Eucalyptus grandis* (Flooded Gum), and *Eucalyptus pilularis* (Blackbutt).

Plantation operations on the plantation evaluated in this report: Plantation operations in Compartments 26 and 27 referred to in Harvest Plan No. 200002918 (Attachment B).

Unique or Special Wildlife Values Evaluated

Table 1: Unique or special wildlife likely to grow on or inhabit the land

Scientific Name	Common Name
<i>Myuchelys georgesi</i>	Bellinger River Snapping Turtle
<i>Phascolarctos cinereus</i>	Koala
<i>Rhodamnia rubescens</i>	Scrub Turpentine
<i>Rhodomyrtus psidioides</i>	Native Guava
<i>Marsdenia longiloba</i>	Slender Marsdenia
<i>Acacia chrysotricha</i>	Newry Golden Wattle
<i>Subtropical Coastal Floodplain Forest Endangered Ecological Community (EEC)</i>	

A report is required to be prepared evaluating the impacts or likely impacts on USWV when the Minister or Department is notified by the plantation owner or manager of impacts or likely impacts on USWV or otherwise becomes aware.

The Department was made aware of likely impacts of plantation operations on unique or special wildlife values within GR0706P, Compartments 26 and 27, due to the endangered species, Koala (*Phascolarctos cinereus*) likely inhabiting the land subject to operations. The Department was notified by the plantation owner/manager, Forestry Corporation of NSW (FCNSW), of the potential impacts of planned plantation operations on the same land due to other unique or special wildlife possibly growing or inhabiting the land. Therefore, they were included in this report prepared by the NSW DPI Plantation Regulation Unit.

The existence and extent of unique or special wildlife values

Forestry Corporation of NSW (FCNSW) has undertaken an assessment of the existence and extent of unique or special wildlife values (USWV) for land subject to plantation operations within compartments 26 and 27 of Tuckers nob State Forest, part of authorisation GR0706P. The assessment involved searches of relevant databases, field inspection and identification of any available habitat for compartments 26 and 27 in Tuckers Nob State Forest. The NSW DPI Plantations Regulation Unit verified the findings with a combination of desktop and field assessment following receipt of the FCNSW assessment report (Tuckers Nob 026_027 Plantation Assessment Report). The following are the findings of that assessment.

Unique or special wildlife values relating to the Bellinger River Snapping Turtle - *Myuchelys georgesi* inhabiting or likely to inhabit the land concerned

The existence and extent of unique or special wildlife values relating to the Bellinger River Snapping Turtle - *Myuchelys georgesi*

The NSW Government's threatened species profile and the NSW Scientific Committee's final determination for *M. georgesi* highlight habitat preference for the species is for moderate to deep pools (>2m) with a rocky substrate. Eggs are laid in nests at a depth of approximately 170mm, within 10m of the water's edge and located in heavily vegetated areas. The species is endemic to the Bellinger catchment, with potential for suitable habitat to be present within Compartments 26 and 27 due to third order stream linkages to the Bellinger River from within the compartments.

Although there is potential for the species to inhabit areas within the authorisation area, the values would be limited to the habitat within buffers required to be retained by the Code.

No individuals were detected on-site during inspections.

No historical records of the species within the compartments were identified in GR0706P Compartments 26 and 27.

The extent to which plantation operations are likely to have an adverse impact on unique or special wildlife values relating to the Bellinger River Snapping Turtle - *Myuchelys georgesi*

As per the Code prescriptions for the standards relating to the protection of soil and water, a 20m buffer for harvest will be applied to all 3rd order or higher drainage lines in this operation. The primary purpose of the prescriptions in the Code are not to prevent adverse impacts to the Bellinger River Snapping Turtle (*Myuchelys georgesi*) but, in this instance, the combination of the Code prescriptions and FCNSW not planning any plantation operations to be carried out in these areas,

the operations are unlikely to have an adverse impact on unique or special wildlife values relating to the Bellinger River Snapping Turtle (*Myuchelys georgesi*).

Plantation operations are limited to maintenance of one crossing on the land that has potential suitable habitat within Compartments 26 and 27.

Whether plantation operations in all or part of the authorised plantation must be prevented, suspended for a period or modified so as to minimise the adverse impact on unique or special wildlife values relating to the Bellinger River Snapping Turtle - *Myuchelys georgesi*

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Myuchelys georgesi* due to the operations being limited to areas outside the land that *Myuchelys georgesi* is likely to inhabit or minimal crossing maintenance on one crossing within the land with potential habitat; therefore, the plantation operations are not required to be prevented, suspended or modified.

Unique or special wildlife values relating to the Koala - *Phascolarctos cinereus* inhabiting or likely to inhabit the land concerned

The existence and extent of unique or special wildlife values relating to the Koala - *Phascolarctos cinereus*

Koalas have an extensive range in NSW and can be found in most eucalypt woodland and forest environments according to the NSW Government's threatened species profile.

Koalas are locally abundant in many parts of the north coast, including Bongil Bongil National Park, approximately 10km to the east of Compartments 26 and 27.

No individuals or scats were detected on-site during inspections; however, from neighbour reports and historical incidental observations and records, they are known to occur on the land concerned.

The species composition of the plantation, particularly the presence of Sydney Blue Gum *E. saligna* and Flooded Gum *E. grandis*, does increase the potential of koalas utilising them as browse trees (McAlpine et al., 2023, Law et al., 2022). However, with the retention of preferred browse trees such as Tallowwood *E. microcorys* in General Forest Management (Z4) and Other Hardwood Plantation Management Zone (Z5) areas (see Appendix C) and the retention of *E. saligna* and *E. grandis* within areas being late-age thinned, browse tree species diversity will be maintained across the site.

Koalas are highly mobile, with home range sizes varying with the quality of their habitat. Home ranges can range from a few hectares to several hundred hectares in size, depending on factors around the individual koala, such as sex and age, as well as the habitat. Potential koala habitat is of

varying quality throughout and adjacent to the plantation. Stands of non-plantation trees, including Tallowwood *E. microcorys*, are in native forest within Forest Management Zones (FMZ) 4 and 5 (Hardwood Plantation Management Zone). These areas, combined with vegetation protected by drainage feature prescriptions within the Plantations and Reafforestation (Code) Regulation 2001, are the most common locations of known koala records and have the highest likelihood of current koala presence.

The extent to which plantation operations are likely to have an adverse impact on unique or special wildlife values relating to the Koala - *Phascolarctos cinereus*

FCNSW have, as per their Plantation Harvest and Haul Plan for Tuckers Nob State Forest Compartments 26 and 27 (Harvest Plan No. 200002918), advised that the following standard mitigations and operational protocols will be adhered to:

Standard Mitigations:

- Connectivity to adjacent habitat: Areas of native forest or non-harvested native plantation are present within 500m of the plantation harvest area.
- Riparian vegetation will be retained on all mapped drainage lines following FCNSW standard mitigations applied in plantation harvesting, in excess of the Plantations and Reafforestation (Code) Regulation 2001 (the Code) requirements.
- The area will be re-established with local native eucalypt species as soon as practical after harvesting operations.

Operational Protocols:

The harvest crew must look for koalas, and evidence of koalas (scats), throughout the operation and make a record of this search via plan notes or the MapApp.

If a koala is located within the Authorised plantation during harvesting the following sequence of notification is to occur immediately;

Crew →Harvest Coordinator →DPI Plantation Regulation Unit:

The immediate action to be taken;

The inhabited tree must be marked and a 50m buffer (or greatest extent available) instigated around the inhabited tree and a temporary corridor of unharvested vegetation retained (collectively referred to as the temporary protection zone (TPZ)) to link the inhabited tree to the nearest retained native vegetation. Harvesting operations may then proceed around the TPZ whilst awaiting advice from DPI. When the koala has moved from within the TPZ, all available trees within this area may be harvested.

Building on FCNSW operational protocols, a 100m wide standard for the temporary corridor of unharvested vegetation retained to link the inhabited tree to the nearest retained native vegetation is recommended. This modification of plantation operations would minimise the adverse impact on koalas, should they be present in operational areas at the time of operations being carried out by

FCNSW. The journal article, Response of an arboreal species to plantation harvest (Hynes, Whisson & Stefano 2021), attributes high levels of koala survival, in a plantation setting, to spotting and the retention of the koala's tree, surrounding trees, and proximity to adjacent plantations.

The plantation owner has identified that Stage 1 of the planned operations will be limited to 30ha of the 130ha of plantation, with later stages thinning the remaining 100ha, likely in multiple phases. Combined with the establishment of the TPZ, as part of the koala prescription condition of the authorisation, this will further support the safe temporary dispersion of koalas out of the operational areas.

The clear-felled areas will be re-established with local native eucalypt species as soon as practical after harvesting operations. This will ensure the long-term replacement of potential browse trees for koalas to utilise as they traverse the local landscape, while also ensuring another rotation of hardwood timber crops are established for future harvests.

With the inclusion of the recommended koala prescription condition of the authorisation, standard mitigations, and operational protocols, the proposed plantation operations will have limited adverse impacts on the unique or special wildlife values in relation to the koala.

Whether plantation operations in all or part of the authorised plantation must be prevented, suspended for a period or modified so as to minimise the adverse impact on unique or special wildlife values relating to the Koala - *Phascolarctos cinereus*

For the identified USWVs that are likely to grow on or inhabit the land to which the authorised plantation applies, there are modified harvesting measures that must be implemented to minimise any adverse impact.

The recommended modification to Harvest Plan No. 200002918 operational protocols for koalas is to include a minimum width (or greatest extent available) of 100m for the temporary corridor of unharvested vegetation to be retained. This will ensure there is a clear standard for FCNSW to implement in the linkage of the inhabited tree 50m buffer and the nearest retained vegetation.

Actions within proposed plantation operations and additional mitigation measures will minimise the adverse impacts on USWV relating to the koala.

In the circumstance that USWV relating to the koala are confirmed on-site, further evaluation will be required to assess whether plantation operations on all or part of the authorised plantation must be prevented, suspended, or modified.

Unique or special wildlife values relating to the Scrub Turpentine - *Rhodamnia rubescens* growing or likely to grow on the land concerned

The existence and extent of unique or special wildlife values relating to the Scrub Turpentine - *Rhodamnia rubescens*

The NSW Government's threatened species profile and the NSW Scientific Committee's final determination for *Rhodamnia rubescens* highlight that the species is known to exist in coastal districts north from Batemans Bay in New South Wales to areas inland of Bundaberg in Queensland. *Rhodamnia rubescens* is found in coastal regions in littoral, warm temperate, and subtropical rainforests and wet sclerophyll forests, usually on volcanic and sedimentary soils.

A single historical record of the species occurring within an area of Compartment 27 was identified during desktop-based due diligence.

No individuals were detected on-site during inspections.

The extent to which plantation operations are likely to have an adverse impact on unique or special wildlife values relating to the Scrub Turpentine - *Rhodamnia rubescens*

Harvest Plan No. 200002918 states that if individuals are identified during operational activities, the harvesting coordinator must be notified. Operations must cease in the vicinity until the Senior Field Ecologist has determined conditions under which operations can continue.

Plantation operations are unlikely to have an adverse impact on the values of the land in relation to *Rhodamnia rubescens* as no records were detected and if detected it will be managed to minimise impacts. The land concerned is also not the habitat in which *Rhodamnia rubescens* is generally found.

Whether plantation operations in all or part of the authorised plantation must be prevented, suspended for a period or modified so as to minimise the adverse impact on unique or special wildlife values relating to the Scrub Turpentine - *Rhodamnia rubescens*

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Rhodamnia rubescens*; therefore, the plantation operations are not required to be prevented, suspended or modified.

Unique or special wildlife values relating to the Native Guava - *Rhodomyrtus psidioides* growing or likely to grow on the land concerned

The existence and extent of unique or special wildlife values relating to the Native Guava - *Rhodomyrtus psidioides*

The NSW Government's threatened species profile and the NSW Scientific Committee's final determination for *Rhodomyrtus psidioides* highlight that the species occurs from Broken Bay, approximately 90 km north of Sydney, New South Wales, to Maryborough in Queensland. Populations are typically restricted to coastal and sub-coastal areas of low elevation.

No historical records of the species within the compartments were identified.

No individuals were detected on-site during inspections.

The extent to which plantation operations are likely to have an adverse impact on unique or special wildlife values relating to the Native Guava - *Rhodomyrtus psidioides*

Harvest Plan No. 200002918 states that if individuals are identified during operational activities, the harvesting coordinator must be notified. Operations must cease in the vicinity until the Senior Field Ecologist has determined conditions under which operations can continue.

Plantation operations are unlikely to have an adverse impact on the values of the land in relation to *Rhodomyrtus psidioides* as no records were detected and if detected it will be managed to minimise impacts. The land concerned is also not the habitat in which *Rhodomyrtus psidioides* is generally found.

Whether plantation operations in all or part of the authorised plantation must be prevented, suspended for a period or modified so as to minimise the adverse impact on unique or special wildlife values relating to the Native Guava - *Rhodomyrtus psidioides*

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Rhodomyrtus psidioides*; therefore, the plantation operations are not required to be prevented, suspended or modified.

Unique or special wildlife values relating to the Slender Marsdenia - *Marsdenia longiloba* growing or likely to grow on the land concerned

The existence and extent of unique or special wildlife values relating to the Slender Marsdenia - *Marsdenia longiloba*

The NSW Government's threatened species profile for *Marsdenia longiloba* highlights that it usually occurs in lowland wet sclerophyll forest (in ecotone adjacent to rainforest) with rainforest species understorey. This species has a wide geographical range from the north coast and northern tablelands of NSW (Barrington Tops) to south-east QLD but is scattered within its range.

No historical records of the species within the compartments were identified.

No individuals were detected on-site during inspections.

The extent to which plantation operations are likely to have an adverse impact on unique or special wildlife values relating to the Slender Marsdenia - *Marsdenia longiloba*

Harvest Plan No. 200002918 states that if individuals are identified during operational activities, the harvesting coordinator must be notified. Operations must cease in the vicinity until the Senior Field Ecologist has determined conditions under which operations can continue.

Plantation operations are unlikely to have an adverse impact on the values of the land in relation to *Marsdenia longiloba* as no records were detected and if detected it will be managed to minimise impacts. The land concerned is also not the habitat in which *Marsdenia longiloba* is generally found.

Whether plantation operations in all or part of the authorised plantation must be prevented, suspended for a period or modified so as to minimise the adverse impact on unique or special wildlife values relating to the Slender Marsdenia - *Marsdenia longiloba*

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Marsdenia longiloba*; therefore, the plantation operations are not required to be prevented, suspended or modified.

Unique or special wildlife values relating to the Newry Golden Wattle - *Acacia chrysotricha* growing or likely to grow on the land concerned

The existence and extent of unique or special wildlife values relating to the Newry Golden Wattle - *Acacia chrysotricha*

The NSW Government's threatened species profile and the NSW Scientific Committee's final determination for *Acacia chrysotricha* highlight that it is an understory species that is usually found on the edges of rainforests and in wet or dry sclerophyll forests. It has a restricted distribution and is only found in an area south of Bellingen on quartzite soils. Compartments 26 and 27 are located approximately 3 kilometres northwest of Bellingen, therefore the species is unlikely to occur within them due to its restricted distribution.

No historical records of the species within the compartments were identified.

No individuals were detected on-site during inspections.

The extent to which plantation operations are likely to have an adverse impact on unique or special wildlife values relating to the Newry Golden Wattle - *Acacia chrysotricha*

Harvest Plan No. 200002918 states that if individuals are identified during operational activities, the harvesting coordinator must be notified. Operations must cease in the vicinity until the Senior Field Ecologist has determined conditions under which operations can continue.

Plantation operations are unlikely to have an adverse impact on the values of the land in relation to *Acacia chrysotricha* as no records were detected and if detected it will be managed to minimise impacts. The land concerned is also not the habitat in which *Acacia chrysotricha* is generally found.

Whether plantation operations in all or part of the authorised plantation must be prevented, suspended for a period or modified so as to minimise the adverse impact on unique or special wildlife values relating to the Newry Golden Wattle - *Acacia chrysotricha*

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Acacia chrysotricha*; therefore, the plantation operations are not required to be prevented, suspended or modified.

Unique or special wildlife values relating to the Subtropical Coastal Floodplain Forest Endangered Ecological Community (EEC) growing or likely to grow on the land concerned

The existence and extent of unique or special wildlife values relating to the Subtropical Coastal Floodplain Forest Endangered Ecological Community (EEC)

Based on the NSW BioNet Plant Community Type (PCT) data mapping, the following PCT's were identified within the already protected areas (FMZ 3A, 4, and 5) of Compartments 26 and 27, not within areas established with plantation trees:

PCT 3021 (Northern Lowland Subtropical Rainforest)

PCT 3165 (Northern Brush Box Subtropical Wet Forest)

PCP 3161 (Mid North Hinterland Wet Forest)

PCT 3169 (Northern Hinterland Tallowwood-Brush Box)

PCT 3171 (Northern Lowland Viney Wet Forest)

PCT 3248 (Northern Blackbutt-Turpentine Shrub Forest)

PCT 3252 (Northern Hinterland Grey Gum-Mahogany)

No PCT mapping indicated a presence of the EEC.

No instances of the EEC were detected on-site during inspections.

The extent to which plantation operations are likely to have an adverse impact on unique or special wildlife values relating to the Subtropical Coastal Floodplain Forest Endangered Ecological Community (EEC)

The proposed plantation operations within Harvest Plan No. 200002918 and the FCNSW assessment report highlight that a site assessment was conducted by a forestry corporation ecologist that did not find any extent of this EEC present in the plantation area. An inspection of PCT mapping further indicates the lack of potential presence of this EEC.

In the unlikely event that it is found to be present, it will be excluded from harvest, ensuring a nil to minimal impact on the EEC.

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values relating to the Subtropical Coastal Floodplain Forest EEC.

Whether plantation operations in all or part of the authorised plantation must be prevented, suspended for a period or modified so as to minimise the adverse impact on unique or special wildlife values relating to the Subtropical Coastal Floodplain Forest Endangered Ecological Community (EEC)

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to Subtropical Coastal Floodplain Forest Endangered Ecological Community (EEC); therefore, the plantation operations are not required to be prevented, suspended or modified.

In the case of an authorised timber plantation – the extent of the direct financial loss, if any, arising from harvesting operations on the plantation being so delayed, restricted or prevented altogether in order to protect unique or special wildlife values

The extent of any direct financial loss arising from harvesting operations being delayed, restricted, or prevented is unable to be determined at this time because no area of authorised plantation is proposed to restrict harvesting, other than the implementation of temporary harvest exclusion zones should a USWV species be confirmed on-site, however, there would be negligible financial impacts as a result of TPZ's being established.

Evaluation of any impacts or likely impacts of plantation operations on the unique or special wildlife values

In summary, plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Myuchelys georgesi*, *Rhodamnia rubescens*, *Rhodomyrtus psidioides*, *Marsdenia longiloba*, and *Acacia chrysotricha*. The evaluation of any impacts or likely impacts of the plantation operations on the unique or special wildlife values for each of the aforementioned species is detailed below.

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Myuchelys georgesi* due to the operations being limited to areas outside the land that *Myuchelys georgesi* is likely to inhabit or minimal crossing maintenance on one crossing within the land with potential habitat.

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Rhodamnia rubescens*, *Rhodomyrtus psidioides*, and *Acacia chrysotricha* as no records were detected and if detected they will be managed to minimise impacts as per the prescription within the FCNSW Harvest Plan No. 200002918. The land concerned is also not the habitat in which *Rhodamnia rubescens*, *Rhodomyrtus psidioides*, and *Acacia chrysotricha* are generally found.

Regarding Subtropical Coastal Floodplain Forest EEC, the proposed plantation operations within Harvest Plan No. 200002918 and the FCNSW assessment report highlight that a site assessment

was conducted by a forestry corporation ecologist that did not find any extent of this EEC present in the plantation area. An inspection of PCT mapping by the NSW DPI Plantation Regulation Unit further indicates the lack of potential presence of this EEC.

In the unlikely event, that it is found to be present, it will be excluded from harvest, ensuring a nil to minimal impact on the EEC.

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values relating to the Subtropical Coastal Floodplain Forest EEC.

In relation to koalas, connectivity to adjacent habitat is sound, with areas of native forest or non-harvested native plantation present within 500m of the plantation harvest area. Forest Management Zones (FMZ) that include Harvesting Exclusion Zones (FMZ 3A), native forest (FMZ 4), and Hardwood Plantation Management Zones (FMZ 5), highlighted in the harvest plan operational map for Compartments 26 and 27 (See Appendix C), will enable a safe dispersion of koalas out of the operational areas where clear-felling and thinning is undertaken. This will increase the probability of koala survival and reduce their energy expenditure and movement distances (Hynes, Whisson & Stefano 2021). The plantation owner has identified that Stage 1 of the planned operations will be limited to 30ha of the 130ha of plantation, with later stages thinning the remaining 100ha, likely in multiple phases. Combined with the establishment of the TPZ, as part of the koala prescription condition of the authorisation, this will further support the safe dispersion of koalas out of the operational areas.

Koalas moving through the protected FMZ 4 and 5 areas will also be able to take advantage of numerous mature Tallowwood *E. microcorys* retained within the council road reserve adjoining Gleniffer Road. Roses Road is bordered by large, linked areas of FMZ 4 and 5, as well as an area of retained plantation, reducing the likelihood of koalas crossing roads if they disperse out of operational areas. By ensuring the availability of such areas, only a minor effect on the amount of time koalas spend moving can be achieved, reducing the potential impact of operations on individuals if they are present in the compartments (Hynes, Whisson & Stefano 2021).

Located in the southwest corner of Tuckers Nob State Forest, Compartments 26 and 27 are within proximity to an extensive conservation network that includes Dorrigo River, Bellinger River, Bindarri, and Bongil Bongil National Parks, as well as formal and informal conservation areas on State Forest tenure. Native and plantation State Forest adjoins Compartments 26 and 27 to the east and south, with land to the north and west being predominantly private tenure that contains potential koala habitat (varying levels of connectivity and quality).

Despite the plantation being within a regional landscape that contains a significant meta-population of koalas, stretching from the coastal region around Coffs Harbour to the Dorrigo Plateau, the plantation itself is limited in value due to the extent of suitable koala habitat in surrounding formal and informal conservation areas and private land. However, it may provide some habitat linkages and allow individuals to move through the local area.

The species composition of the plantation, particularly the presence of Sydney Blue Gum *E. saligna* and Flooded Gum *E. grandis*, does increase the potential of koalas utilising them as browse trees

(McAlpine et al, 2023, Law et al., 2022). However, with the retention of preferred browse trees such as Tallowood *E. microcorys* in FMZ 4 and 5 areas, and the retention of *E. saligna* and *E. grandis* within areas being late-age thinned, browse tree species diversity will be maintained across the site.

Riparian vegetation will be retained on all mapped drainage lines following FCNSW standard mitigations applied in plantation harvesting. These form important linkages in the plantation, connecting koalas to areas of native forest that have not been harvested or areas that have not been harvested since 2000. Riparian corridors also provide koalas with refuge from bushfires (Runge, Rhodes & Latch 2021). FCNSW have highlighted that they will protect riparian vegetation in excess of the Code requirements.

The clear-felled areas will be re-established with local native eucalypt species as soon as practical after harvesting operations. This will ensure the long-term replacement of potential browse trees for koalas to utilise as they traverse the local landscape, while also ensuring another rotation of hardwood timber crops are established for future harvests.

Modified harvesting protocols are to be implemented if any USWV likely to grow on or inhabit the land are identified on-site. These include the cessation of harvesting until such time that adequate action can be taken to circumvent likely impact on individual USWV.

The owner/ manager must advise the DPI Plantations Regulation Unit should a USWV be confirmed within the harvest area.

Further investigation may be necessary to evaluate if proposed modified harvesting protocols will adequately address the individual circumstances of USWV confirmed on-site and minimise the likely impact on those values.

With the inclusion of the recommended koala prescription condition of the authorisation, standard mitigations, and operational protocols, the proposed plantation operations will have limited adverse impacts on the unique or special wildlife values in relation to the koala.

Report outcome

Plantation operations are unlikely to have an adverse impact on unique or special wildlife values in relation to *Myuchelys georgesii*, *Rhodamnia rubescens*, *Rhodomyrtus psidioides*, *Marsdenia longiloba*, and *Acacia chrysotricha*.

With the inclusion of the recommended koala prescription condition of the authorisation, standard mitigations, and operational protocols, the proposed plantation operations will have minimal adverse impacts on unique and special wildlife values in relation to *Phascolarctos cinereus*.

The implementation of modified harvesting protocols and the cessation of operations if USW is confirmed on-site will alleviate the likelihood of an adverse impact on the values of the land concerned in relation those species.

It is a condition of the plantation authorisation that the owner or manager of the plantation notify the Minister as soon as the owner or manager becomes aware that plantation operations on the


plantation have or are likely to have an impact on unique or special wildlife values of the land concerned.

The following prescription is recommended to be a condition of the Authorisation.

Koala - *Phascolarctos cinereus*

Where a koala is identified within the proposed harvest area the inhabited tree must be marked by the Harvest Coordinator or Crew, a 50m buffer (or greatest extent available) established around the inhabited tree. Additionally, a 100m wide temporary corridor (or greatest extent available) of unharvested vegetation retained to link the buffer surrounding the inhabited tree to the nearest retained native vegetation (collectively referred to as the temporary protection zone (TPZ)). When the koala has moved from within the TPZ, all available trees may be harvested.

It is noted that the 50m buffer (above) is double the distance of the koala prescription in the Coastal Integrated Forestry Operations Approval (CIFOA) conditions (Clause 75.2 - See Appendix A) and more than double the distance outlined in Appendix A, Clause 4.10 (1)(b), of the Private Native Forestry Code of Practice for Northern NSW (See Appendix B).

Position of delegated officer	Name	Signature	Date
Group Director – Forestry Policy Research & Development	Nick Milham		30 January 2024

Attachments

Attachment	Title
A	Regulatory controls for plantation operations impacting the critically endangered <i>Rhodomnia rubescens</i> and <i>Rhodomirtus psidioides</i>
B	Harvest Plan No. 200002918

Attachment A - Regulatory controls for plantation operations impacting the critically endangered *Rhodomnia rubescens* and *Rhodomyrtus psidioides*



Department of
Primary Industries

OUT19/14030

Mr Nick Roberts
CEO Forestry Corporation of NSW
121-131 Oratava Avenue
West Pennant Hills NSW 2125

Dear Nick,

Regulatory controls for plantation operations impacting the critically endangered *Rhodomnia rubescens* and *Rhodomyrtus psidioides*

Mr Matt Dobson, FCNSW Senior Ecologist, has requested formal confirmation of the advice provided by DPI Forestry Plantations staff relating to additional regulatory controls and the management of the critically endangered species, *Rhodomnia rubescens* and *Rhodomyrtus psidioides*.

After considering the reasons for the threatened species listing and information provided by the DPI Forest Science team, I am satisfied that FCNSW plantation operations won't, or aren't, likely to impact the populations of these species at this time. As a result, we do not propose to apply any additional regulatory controls on FCNSW plantation authorisations.

It would be appreciated if FCNSW could collate distribution information for these two species wherever they occur on FCNSW plantations. Any information you collect may assist with any discussions about impacts on these two species into the future.

If your plantations operations change and have, or are likely to have, an impact on either of these species, FCNSW must notify DPI Forestry as required by section 33 of the *Plantations and Reafforestation Act 1999* (attached).

If you require any further information, please contact me on 02 6391 3613.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Nick Milham'.

Nick Milham

Group Director Forestry Policy, Research and Development

18 October 2019

Attachment B - Harvest Plan No. 200002918

Plan name: HPRP_TUCKERS_NOB_Plantation_26_27_2022
Version 1

Plan number: 200002918



Hardwood Forests Division

Plantation Harvest and Haul Plan

Forestry Corporation of NSW acknowledges the traditional custodians of the land on which we live and work, and pay our respects to Elders past, present and future.

State Forest	Tuckers Nob	Compartments	TCK026_027
Management Area	Urunga	Plantation Age-class	1966, 1999
Harvest Plan No.	200002918	Plantation Authorisation No.	GR0706P
Legal Conditions	Plantation operations under the Plantations and Reafforestation Act 1999 and Regulation (Code) 2001. Access through native forest via 29/1 Trail and use of dump 1 under FOP REF due diligence process.		
Certification	Timber products removed from the plan area are within the Defined Forest Area covered by Responsible Wood Certificate 604224.		
Prepared by	Senior Planner	Bob Aspden	Date: 15/9/2023
Approved by	Planning Supervisor	Matthew Howat	Date: 15/9/2023
Abbreviations	FT = Forest Technician, HC = Harvesting Coordinator, RC = Roading Coordinator, Crew = Harvest Contractor/Forest Operators, Code = Plantations and Reafforestation (Code) Regulation 2001, CIFOA = Coastal Integrated Forestry Operations Approval, REF = Review of Environmental Factors, CH = Cultural Heritage, SOP = Standard Operating Procedure, HPOM = Harvest Plan Operational Map		

1. Harvest Area Details

	Cpt 026	Cpt 026	Cpt 027	Cpt 027	Total
Silviculture	Clearfall	Thinning	Clearfall	Thinning	
Harvest Area (ha)	10	36	21	83	150
Slope 0 – 16 degrees (%)	76	62	58	48	55
Slope 16 – 20 degrees (%)	22	32	31	40	35
Slope 20 – 25 degrees (%)	2	6	11	12	10
Slope 25 – 30 degrees (%)	0	0	0	0	0

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 1 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022
		Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

2. Expected Yields

Silviculture	Clearfall	First Thinning	Late-age Thinning	Total
Age Class	1966	1999	1966	
Species	Blue Gum / Flooded Gum	Blackbutt	Blue Gum / Flooded Gum	
Quality	Moderate	High	Moderate	
High Quality Large Sawlogs (m ³)	3,100	0	1,000	4,150
High Quality Small Sawlogs (m ³)	900	200	300	1,400
Poles (m ³)	0	1,500	0	1,500
Low Quality Sawlogs (m ³)	1,200	1,000	500	2,700
Veneer (m ³)	310	200	100	600
Residue (m ³)	1,550	9,000	1,000	11,500
Total Volume (m ³)	7,100	12,000	2,900	22,000

3. Harvesting Objectives

Silviculture Type	Harvesting Objectives, Plantation Condition and History
Plantation Clearfall (33ha)	<p>Consolidated areas of mature plantation (1966 age class).</p> <p>The objective is to harvest all available mature plantation to allow for establishment of a second rotation.</p> <p>The original Flooded Gum and Blue Gum plantation was established in 1965-1969. The plantation was commercially thinned in 1998. The timber crop is now mature and ready to be harvested to supply the local timber industry. The Crew must ensure trees are processed into the highest value product available, while waste must be minimised by utilising available residue markets.</p>
Plantation – First Thinning (100ha)	<p>1999 age-class plantation</p> <p>Thinning prescription – Thin from below removing approximately 60-70% of the stand (removing the poorer suppressed and sub-dominant stems) to achieve a final target of evenly distributed 200 stems/ha.</p> <p>This includes areas indicated as “assess in extent in field”, where the exact extent of the 1999 re-establishment operation is unconfirmed, and the areas may comprise 1966 or 1999 plantation. If 1999, apply first thinning prescription; if 1999, apply late-age thinning prescription.</p>
Plantation – Late-age Thinning (31ha)	<p>Mature plantation (1966 age-class) retained during previous clearfall event around perimeter of 1999 age-class.</p> <p>Thinning prescription - Thin from above removing approximately 60-70% of the stand (removing the higher quality stems) to achieve a final target of evenly distributed 100-150 stems/ha.</p>

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 2 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022
		Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

Retained Plantation (2ha)	Plantation not proposed for harvesting in this operation.
Access through plantations	Forwarding through younger age-class plantations will be required to access many of the late-age thinning areas. Forwarder tracks should be located to minimize disturbance to retained plantation trees.

4. Harvesting Exclusions, Modified Harvest Areas and Boundary Management

Exclusion/Boundary	Conditions
Forest Management Zones (FMZ)	<p>FMZ 3A – Harvesting Exclusion Zone. These areas are excluded from harvesting and must be protected as marked on the HPOM.</p> <p>FMZ 4 – Native Forest. Not available for harvesting under this harvest plan. A small number of extraction tracks through native forest are to be utilised to access plantation (e.g. to the north east of Dump 4).</p> <p>FMZ 5 – Hardwood Plantation Management Zone. Areas of the hardwood plantation estate that will be managed in compliance with the Plantations and Reafforestation Act 1999, associated regulation (Code) and other applicable regulatory requirements. This Zone includes areas that are not available for harvest under the Code because they were not planted, and areas subject to operational or statutory constraints.</p>
Private Property	Private property adjoins the plantation to the north (north of Roses Road), west and south. Harvesting must not impact on private property, and functional fences must be repaired if damaged during operations. Harvesting debris should not be left within 5m of the State Forest boundary. If a boundary is unclear, it must be managed conservatively, or the landowner and Planning Supervisor consulted to determine an agreed boundary location.
Aboriginal Cultural Heritage	<p>Aboriginal cultural heritage surveys and consultation were completed for plantation clearfall areas during August 2022 and no areas requiring protection were identified.</p> <p>If any potential heritage sites are identified an interim 100m exclusion buffer must be applied and the APL and Planning Supervisor notified immediately. The interim buffer will apply until alternative prescriptions are approved in writing by the Planning Supervisor.</p>
Plantation Authorisation boundary	<p>The area within the Plantation Authorisation boundary is authorised to be managed under the Plantations and Reafforestation Regulation 2001 (Code).</p> <p>Plantation operations must not be conducted beyond this boundary, regardless of the possible presence of any plantation outside this extent.</p>
State Forest boundary	Plantation may be present beyond the State Forest boundary in the vicinity of the intersection of McFayens and Hilliers Trails – operations must be confined to the State Forest boundary in this location.
Potential Mass Movement	An area of potential mass movement was detected on LiDAR derived hillshade imagery (see hatched area on HPOM). This small area is characterised by steep slopes. No other areas of potential mass movement have been identified through field inspection or through LiDAR derived hillshade imagery. The area of potential mass movement is to be excluded from all harvest operations. Site specific operating conditions relating to mass movement in SOP 14 must be applied to the remainder of the operational area.

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 3 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022
		Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

Native vegetation to be retained within plantation authorisation area	Areas of FMZ 5 not covered by the plantation harvest area, and other areas of FMZ 4 within the authorised plantation boundary may contain native vegetation. These areas are not available for harvest under this plan.
---	---

5. Haulage Route

Haulage Route	<p>Haulage is planned to access Timboon Road via Holmes Road, Little Hydes Creek Road and Olgas Road. This is the only approved haulage route for this operation. The route is approved for B-Double haulage, with conditions for use of B-Doubles as follows:</p> <ul style="list-style-type: none"> • Only operate during daylight hours 6am – 6pm • Observe maximum speed of 40km/hour in a school zone at any time. <p>B-doubles must travel south from Bonville via Pine Creek Way and Archeville Station Road to access the Pacific Highway.</p> <p>The HC must place kilometer markers along the haulage route prior to haulage commencing.</p> <p>The HC must place 40 kph speed limit signs (timber trucks only) on Gleniffer Road west of Murphys Road. State Forest roads on the haulage route must be closed during operations.</p> <p>FCNSW has been issued approval from Bellingen Council to implement a sight specific speed limit of 60km/hr along sections of Roses Road and Gleniffer Road during haulage operations. Application of this speed restriction requires preparation and implementation of a Traffic Control Plan.</p>
School Bus Routes	The Haulage Contractor must contact the school bus company and develop a safe working procedure before haulage on Roses Road and Gleniffer Road.
Non-haulage Roads	There are numerous non-haulage roads within the operational area. They may be used with HC approval for snigging or extraction provided they are drained to the appropriate specifications after use. They may be used for vehicular access where they have been assessed by the HC prior to use and are in a stable condition unlikely to cause environmental harm.

6. Community

Issue	Conditions
Public access to harvesting area	<p>For public safety the active harvest area will be closed during the period of roading and harvesting operations.</p> <p>The HC must erect closure notices on all entry points to the forest closure area.</p>
Noise Limits	<p>Multiple residences exist in proximity to the harvest area and may be impacted by noise.</p> <p>When operating in the vicinity north of dumps 6 and 27 machinery and haulage operating hours must be limited to:</p> <ul style="list-style-type: none"> - 7am to 5pm on weekdays - 8am to 1pm on Saturday <p>No noise generating activities on Sunday or Public Holidays.</p>

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 4 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022
		Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

	The HC must monitor progress of harvesting and potential impact on neighbours and may apply these prescriptions in additional areas if necessary.
Dust	HC must monitor road conditions and implement watering of Timboon Road past houses as required.
Harvesting adjacent to roads	A Traffic Management Plan must be implemented when harvesting with two tree lengths of Roses Road and Gleniffer Road. FCNSW has been issued approval from Bellingen Council to implement site specific traffic management for the purposes of vegetation management on haulage roads and harvesting plantation within two tree lengths of Roses Road and Gleniffer Road. Refer to FCNSW WHS Procedure 4.11 Traffic Management for guidance.

7. Infrastructure

Infrastructure	Conditions
Underground Cables	Underground Telstra utilities are present in the vicinity of Holmes Road, Gleniffer Road and Roses Road, and also at the intersections of Holmes Road, Hilliers Trail and McFayens Trail with Gleniffer Road. Indicative locations are shown on the HPOM. Use markers to identify field locations and contact licenced cable locators if excavation is required in the vicinity.
All Mapped Trails	Mapped trails must be reinstated to similar or better condition to that prior to harvesting/extraction and comply with the Code. Where trails do not comply with the Code the HC, in consultation with the RC, must determine the most appropriate maintenance work.

8. Flora, Fauna and Endangered Ecological Communities

Condition	Prescription
Unique and Special Wildlife Values	<p>The following endangered species are known to occur within 5km of the harvest area:</p> <ul style="list-style-type: none"> • Koala - <i>Phascolarctos cinereus</i> • Bellinger River Snapping Turtle - <i>Myuchelys georgesii</i> • Slender Marsdenia - <i>Marsdenia longiloba</i> • Newry Golden Wattle - <i>Acacia chrysotricha</i> • Native Guava - <i>Rhodomyrtus psidioides</i> • Scrub Turpentine - <i>Rhodamnia rubescens</i> • Subtropical Coastal Floodplain Forest <p>The HC and Crew must review descriptions and diagrams of these species prior to commencing operations. If identified during operational activities the Senior Ecologist must be notified and operations ceased in the vicinity until appropriate conditions are determined under which operations can proceed.</p>
Myrtle Rust	Native Guava (<i>Rhodomyrtus psidioides</i>) and Scrub Turpentine (<i>Rhodamnia rubescens</i>) are highly susceptible to infection by Myrtle Rust. Any new records and associated individual plant health information are to be collected where they occur on FCNSW plantations and provided to the Senior Field Ecologist.

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 5 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022
		Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

Koalas	<p>The harvest crew must look for koalas, and evidence of koalas (scats), throughout the operation and make a record of this search via plan notes or the MapApp. If a koala is located within the Authorised plantation during harvesting the following sequence of notification is to occur immediately:</p> <p>Crew → Harvest Coordinator → DPI Plantation Regulation Unit</p> <p>The immediate action to be taken:</p> <p>The inhabited tree must be marked by the HC or Crew, a 50m buffer (or greatest extent available) instigated around the inhabited tree and a temporary corridor of unharvested vegetation retained (collectively referred to as the temporary protection zone (TPZ)) to link the inhabited tree to the nearest retained native vegetation. Harvesting operations may then proceed around the TPZ whilst awaiting advice from DPI. When the koala has moved from within the TPZ, all available trees within this area may be harvested.</p>
Endangered Ecological Community (EEC)	<p>EEC 'Subtropical Coastal Floodplain Forest' is potentially present within these compartments; however, field assessments did not identify any present. If EEC is confirmed as present these areas must be excluded from harvesting. Areas containing this modelling within the plantation footprint must be assessed by prior to harvesting occurring in the vicinity.</p>
Rainforest	<p>Rainforest may occur within these compartments; however, field assessments did not identify any present. If rainforest is confirmed as present these areas must be excluded from harvesting.</p>
Remnant Native Trees	<p>Individual remnant trees within the plantation that are clearly an older age cohort than the planted trees must be retained during harvesting. These remnant trees must be marked on MapApp.</p> <p>This does not include plantation ingrowth (trees that have grown within the plantation boundary since the time of planting), which may exceed the size of the crop trees.</p> <p>The indicative locations of some remnant trees are shown on the HPOM. Others may be present in the harvest area.</p> <p>Notwithstanding the above, dangerous trees can be removed provided this is documented. HC must be consulted on removal of any individual remnant trees.</p>

9. Soil and Water Protection

Issue	Conditions
<p>Drainage Lines (1st & 2nd Order)</p> <p>Thinning and Clearfall prescriptions</p>	<p>The HPOM indicates the buffer zones - 10m either side for 1st and 2nd order watercourses.</p> <p>Harvesting within 5m of any drainage line (the 5m zone) is not permitted under this plan. Harvesting trees between 5m and 10m from a 1st or 2nd order drainage line is permitted, but harvesting machinery is not permitted within the 10m buffer ('reach in' techniques must be used). Shovel logging techniques should be used to lift trees outside the buffer for processing or forwarding. Operations must only occur within the buffer when the soil is dry enough to avoid rutting or log furrows. To minimise soil exposure operators must attempt to use walk over extraction techniques and minimising machinery skewing.</p>

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 6 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022
		Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

	<p>Harvesting within buffer zones must comply with conditions 16, 62-63 of the Plantations and Reafforestation (Code) Regulation 2001.</p> <p>These prescriptions do not apply to mapped drainage lines that are determined in the field to be drainage depressions (see clause below).</p> <p>To assist in locating drainage line features the HPOM contains indicative LIDAR derived drainage features. These indicative features may be drainage lines, depressions or neither</p>
Drainage Depressions	<p>Within 5m of the centre of drainage depressions trees may only be harvested if the top 200mm of soil is dry enough to avoid erosion to the feature. Machinery within 5m of the centre of drainage depressions must:</p> <ol style="list-style-type: none"> (1) Not create log furrows. (2) Minimise soil exposure by using slash, litter and other ground cover; and by using walkover extraction techniques where possible. (3) Prevent skewing of machinery tracks. (4) Not travel along drainage depressions. (5) Elevate the leading edge of the log when skidding.
Rivers (3 rd order or higher stream with permanent flow)	<p>All 3rd order and higher drainage lines within the plantation will be managed conservatively as per Code requirements for rivers with a 20m hard buffer either side. The crew must identify the boundary using GPS.</p>
Slope Limits for Harvesting Machinery	<p>The following conservative slope limits apply.</p> <p>< 22 degrees: No restrictions apply.</p> <p>22 - 25 degrees: Areas should be harvested using a tree length harvesting system and where possible tree heads should be bunched to facilitate disposal and direct planting. Shovel logging should be used to minimise soil disturbance. Where a skidder is used to pull logs to roadside, snig tracks must be located on stable ground and drained after use.</p> <p>25 – 30 degrees: Areas must only be thinned, with a maximum 60% basal area removal. Harvesting over 25 degrees must utilise shovel logging techniques. Snigging is not permitted. Clearfelling is not permitted.</p> <p>> 30 degrees: Harvesting is not permitted.</p> <p>Condition 59(2) of the Code, regarding the assessment of slope within the majority of the plantable area, applies to this operation.</p>
Ground Cover	<p>Any areas of significant soil disturbance must be stabilised by the Crew to prevent soil erosion (e.g. spreading grass seed).</p>
Log Dumps	<p>Refer to Conditions 60, 61 and 61A of the Code</p> <p>Log dumps may be located within plantation areas that are FMZ 5 and within the authorised plantation boundary.</p> <p>Log stockpile areas within native forest areas must be approved by the Planning Supervisor prior to use and must be located to minimise disturbance to understorey elements.</p>
Roading Management During Harvesting	<p>HC is responsible for monitoring road and crossing drainage during haulage.</p>

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 7 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022
		Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

Wet Weather Harvesting	<p>Refer to Condition 64C of the Code.</p> <p>Crew is responsible for implementing automatic closures and following notified closures.</p> <p>HC is responsible for ensuring crew notified when notified closure is lifted.</p>
Extraction Tracks	<p>Refer to Condition 64A and 64B of the Code.</p> <p>Crew is responsible for progressive drainage of extraction tracks.</p>

10. Drainage Line Crossing Approvals

Crossing	Conditions
Drainage line crossing points	<p>Where practical extraction routes must avoid drainage line crossings.</p> <p>Slash crossings must be used to cross drainage lines and depressions, and crossings may only be used if there is no water flowing in the channel or depression.</p> <p>The HC must assess indicative drainage line crossing points and determine the most suitable location. The HC must authorise the use of drainage lines crossings prior to use.</p> <p>Harvesting machinery must cross drainage lines at authorised crossings as per conditions 37-41 the Code.</p>

11. Required Documentation

Document	Conditions
Plantations and Reafforestation Regulation 2001 (Code)	<p>FCNSW staff and Crew must hold a copy of the Code onsite and ensure the operation remains compliant.</p>

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 8 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022 Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

12. Road & Crossing Works Summary

The specific locations of road works are identified in MapApp. The spatial data must be updated if the scope of roadworks change during plan implementation.

Haulage Road Maintenance

Road Name	Road Length (m)	Road Stability*	Site specific works and other conditions
27/3 Trail	250	Stable	Clear encroaching vegetation with slope-mower /small dozer to allow safe passage of log trucks. Maintain crown & mitre drains. Re-gravel steeper sections. Beware of underground Telstra cable running parallel with Roses Road in the vicinity of the Hilliers Trail and McFayens Trail intersections. Indicative locations only are shown on the HPOM. Use markers to identify field locations and contact licenced cable locators if excavation is required in the vicinity. Note: A Telstra pit occurs at the McFayens and Roses Road intersection. Improve sight distance and the safe passage of log trucks from Holmes, Hilliers Trail and McFayens Trail intersections with the Roses Road with roadside vegetation management as per "Summary of Proposed Intersection works onto BSC Roads - Gleniffer and Roses Rds".
Gleniffer Trail	200	Stable	
27/4 Trail	500	Stable	
Hilliers Trail	1600	Stable	
Joshua Trail	320	Stable	
27/5 Trail	850	Stable	
McFayens Trail	1500	Stable	
26/2 Trail	450	Stable	
26/3 Trail	400	Stable	
Boundary Road	80	Stable	
29/1 Trail	370	Stable	Roading planned outside authorised plantation area under FOP REF. Work approved within previously disturbed road prism. Clear encroaching vegetation with slope-mower /small dozer to allow safe passage of log trucks. Maintain crown & mitre drains. Re-gravel steeper sections.

*Road stability refers to an assessment of the stability of the road surface, cut batter, fill batter and road drainage structures. An unstable road is where the instability has the potential to cause or is causing water pollution or poses a safety hazard.

New Road Construction

Road Name	Road Length (m)	Site specific works and other conditions
27/3 Trail	60	Clear plantation trees, side-cut new road to improve alignment onto Gleniffer Trail.

Haulage Crossing Maintenance

Name	Works Type	Crossing Type	Stability and Stabilisation Works	In-Stream Works
A	Maintenance	Bridge	Stable –Replace decking and maintain 5/30 drainage structures.	No

Document title: HFD Plantation Harvest Plan Template	Version No.: 4	Page: 9 of 9
Document ID: D00266126	Document Owner:	Issue date: Dec 2022
		Review date: April 2027

Warning: a printed copy of this document may be uncontrolled. Please verify this is the latest version prior to use.

Appendix

Appendix	Title
A	Excerpt from Coastal Integrated Forestry Operations Approval (CIFOA) - Conditions - Clause 75.2
B	Excerpt from Private Native Forestry Code of Practice for Northern NSW - Clause 4.10 (1)(b)
C	Harvest Plan Operational Map Tuckers Nob State Forest Compartments TCK 026 & 027

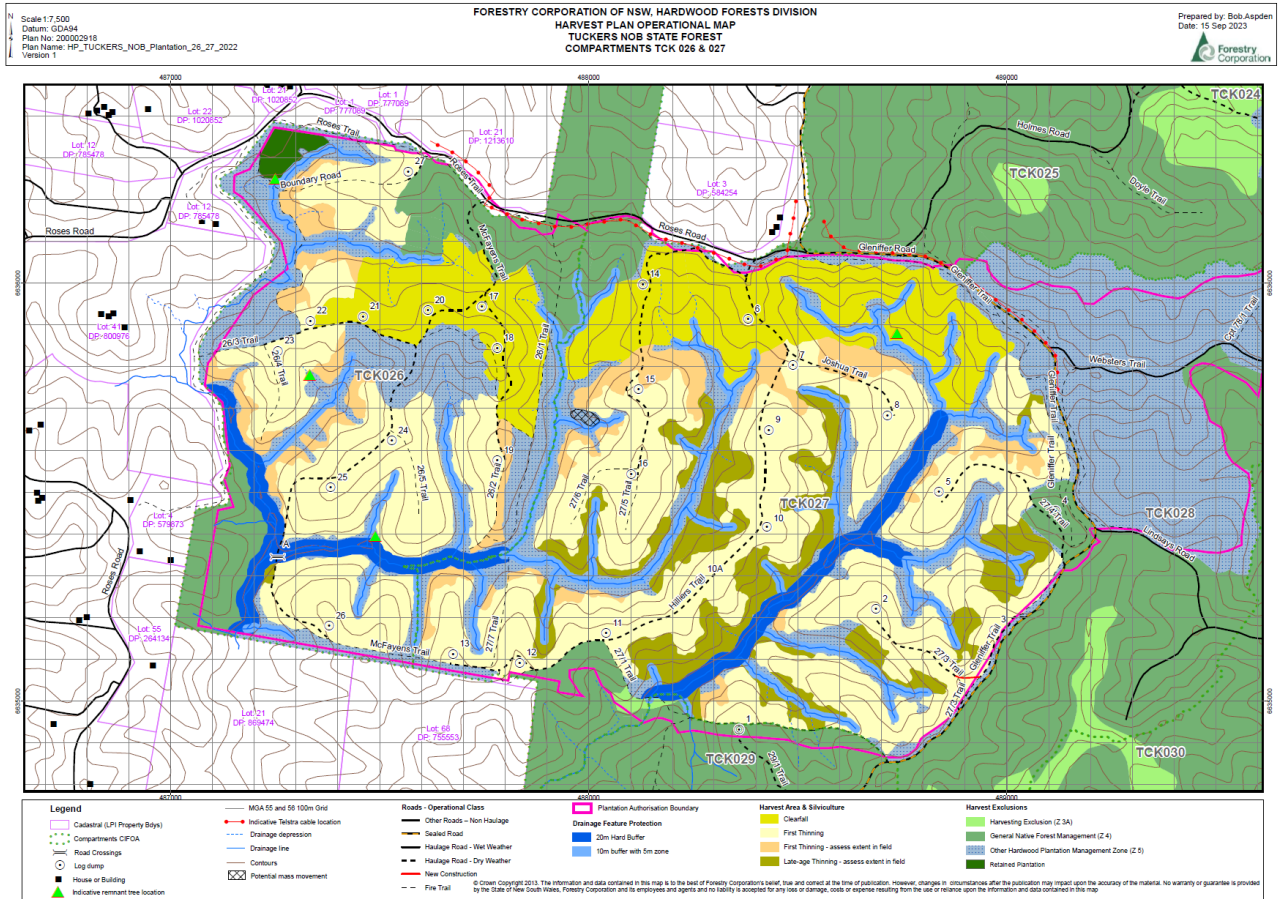
Appendix A – Excerpt from Coastal Integrated Forestry Operations Approval (CIFOA) - Conditions - Clause 75.2

75.2 If a Koala is located in a tree, an **exclusion zone** with a radius of 25 metres or greater must be retained around the tree. The **exclusion zone** may be removed once the Koala moves from that tree.

Appendix B – Excerpt from Private Native Forestry Code of Practice for Northern NSW - Clause 4.10 (1)(b)

- (b) Any tree containing a koala, or any tree beneath which 10 or more koala scats are found (or one or more koala scats in Central and Southern Tablelands Koala Management Area as shown in Figure 8), or where the presence of a koala is clearly identifiable by recent scratches must be retained, and an exclusion zone of 20 metres (50 metres in Central and Southern Tablelands Koala Management Area as shown in Figure 8) must be implemented around each tree required to be retained under clause 4.10 of this Appendix.

Appendix C – Harvest Plan Operational Map Tuckers Nob State Forest Compartments TCK 026 & 027



References

Hynes, Emily F., Whisson, Desley A., and Stefano, Julian Di (2021). Response of an arboreal species to plantation harvest. *Forest Ecology and Management* 490, 119092.

<https://doi.org/10.1016/j.foreco.2021.119092>

McAlpine, Clive A., Callaghan, John, Lunney, Daniel, Rhodes, Jonathan R., Goldingay, Ross, Goulding, Will, Adams-Hosking, Christine, Fielding, Kelly, Hetherington, Scott Benitez, Brace, Angie, Hopkins, Marama, Caddick, Liz, Taylor, Elisha, Vass, Lorraine, and Swankie, Linda (2023). Influences on koala habitat selection across four local government areas on the far north coast of NSW. *Austral Ecology* 48 (5), 928-951. <https://doi.org/10.1111/aec.13313>

Law, Brad, Gonsalves, Leroy, Burgar, Joanna, Brassil, Traeacey, Kerr, Isobel, O'Loughlin, Chris, Eichinski, Phil and Roe, Paul (2022). Regulated timber harvesting does not reduce koala density in north-east forests of New South Wales. *Scientific Reports* 12, 396. <https://doi.org/10.1038/s41598-022-08013-6>

Runge, Claire A., Rhodes, Jonathan R., Latch, Peter (2021). *A national approach to the integration of koala spatial data to inform conservation planning report*. NESP Threatened Species Recovery Hub Project 4.4.12 report, Brisbane

© State of New South Wales through Regional NSW 2023. The information contained in this publication is based on knowledge and understanding at the time of writing January, 2024. However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the Regional NSW or the user's independent adviser.