

**FORESTRY CORPORATION NEW SOUTH WALES  
HARVESTING PLAN NATIVE FOREST**

**Ingalba State Forest - Compartments 35, 36, 37, 38 & 39**

**Certification**

This plan has been prepared in accordance with the Integrated Forestry Operations Approval issued under the Forestry and National Park Estate Act 1998 and addresses significant aspects and impacts in the planning process. The Standard Harvest Plan Conditions for Native Forest Operations in Central Region apply to this operation.

Prepared by Sarah Gormley \_\_\_\_\_ 19/3/2015  
 Planning Forester Signature Date

Approved Justin Williams \_\_\_\_\_ 19/3/2015  
 Operations Planning Mgr Signature Date

*Note: Approval encompasses includes the Harvest Plan Operational Map (HPOM) with the corresponding approval date displayed on the map, verifying approved version.*

**Description of Proposal**

This is a plan for Integrated Harvesting of Native Forest and associated road works.

**This is not a Scheduled Operation and will not be licenced under the EPL.**

Attachment 1: Site Safety Plan prescribes describes safety requirements and Medical Emergency Evacuation Plan (MEEP) for this harvesting operation. Also includes:

- Appendix 1: Rural Roads Strategy
- Appendix 2: Telstra Duty of Care

Attachment 2: Operational Road Works Plan prescribes roading requirements for this harvesting operation.

Attachment 3: Standard Harvest Plan Conditions for Native Forest Operations

Attachment 4: Evidence of instability in channels

Attachment 5: Operational Forms

**Area Identification and Yield Estimates**

State Forest	Compartments	Management Area	Price Zone	Harvest Plan ID
Ingalba	35, 36, 37, 38 & 39	Kempsey	Kempsey Coastal	10667

	35	36	37	38	39	Total
PlanCptID	21865	21866	21867	21868	21869	
Gross Area (ha)	330	195	219	251	142	1137
Net Harvest Area (ha)	290	139	181	201	125	937
Actual expected NHA harvested this event	215	90	125	150	95	675
Estimated Yield (m3)	3000	1300	1800	2400	1500	10,000

**Silviculture and Harvesting Prescriptions**

These compartments have a long history of logging treatments, dating back to the 1950's and 1960's. Much of the area was burnt between 1960 to 1963 by wildfire and for silvicultural purposes. A number of smaller and specialised product specific harvesting operations, as well as TSI occurred throughout the 60's, 70's and 80's, before integrated harvesting occurred in these regrowth forests between 1998 & 2000. Treatment then included AGS, thinning and varying intensities of STS.

The resultant forest is multi-aged as a result of this long and varied history. Whilst large areas are typed as Blackbutt, previous logging regimes have resulted in many of the Blackbutt forest areas

containing high proportions of other species. Site quality varies from poor to medium quality, mostly dry forest with moister species limited to lower slopes and drainage lines.

### Silvicultural Planning

The intent of this harvesting operation is to harvest end-point stands of mature areas of forest, as well as poor quality regrowth stems, to create conditions suitable to achieve regeneration of the harvested areas. This will be done using varying intensities of STS.

Damage to growers should be minimised using directional felling.

Retention of seed trees and growers will be done by operator selection.

Following this harvesting event, the harvested areas will be left until regeneration from this, and previous logging events, is ready for harvest again in approximately 15-20 years.

### Harvesting Prescription

Stand type	% of net area	Example	Treatment (%STS,AGS,THIN)
Mature Regrowth Blackbutt	5	Areas off Allgomera Trail, and Allen's Road	<ul style="list-style-type: none"> <li>• Medium-Heavy STS</li> <li>• Retain High Quality Blackbutt Seed trees at ≤40 m spacing<sup>1</sup> (closer spacing where remaining seed trees are co-dominants rather than dominants).</li> <li>• Remove other non-Blackbutt merchantable product as market conditions allow.</li> <li>• Encourage ground disturbance to create suitable seed-bed through extraction track design</li> <li>• Treat areas between seed trees to aid regeneration<sup>2</sup></li> <li>• Damage to existing regeneration should be avoided where possible</li> </ul>
Mixed dry hardwood	80	Along McKays Road; Stubb's Road	<ul style="list-style-type: none"> <li>• Light-Medium STS</li> <li>• Harvest to remove marketable quality and stand end point stems.</li> <li>• Remove all merchantable product as market conditions allow</li> <li>• Minimise damage to growers</li> </ul>
Tallowwood-Sydney Bluegum, & Brushbox	5	Along lower slopes and drainage lines	<ul style="list-style-type: none"> <li>• Medium STS</li> <li>• Remove all merchantable product as market conditions allow</li> </ul>

#### Notes:

1. Retained seed trees must be mature, have good form and large, healthy crowns, and be within 2 tree lengths of each other. Do not retain suppressed trees as seed trees.
2. Unless otherwise directed by the HCC, areas between seed trees should be treated to aid regeneration, including removal of shade-tolerant stems as far as practicable under the conditions of the IFOA and as market conditions allow.

### IFOA Limits

40% BA removal limits are unlikely to be reached due to un-merchantable, and un-viable areas, and a silvicultural prescription across much of the area of light-medium STS.

The Harvest Planning Forester must be contacted if changes in market conditions allow the sale of large amounts of residue material, or a change in silviculture is proposed.

### Special Conditions

#### Private Property

Private property adjoins the northern, eastern and southern boundaries of these compartments. Some of these boundaries are fenced, and others are not. All unclear boundaries are to be located and marked with a GPS prior to harvesting in these areas.

Any damage to fences caused by harvesting must be immediately repaired by the contractor.

### **National Park**

Ngambaa Nature Reserve lies along the north-western boundary of compartment 36. All boundaries must be located prior to harvesting in this area.

### **Tamban Road – Road Reserve**

There is a Road Reserve for Tamban Road which is a 20m wide strip managed by Nambucca Shire Council. This can be cut the same as the surrounding area.

**RMS accredited traffic controllers with an appropriate Traffic Control Plan must be used when harvesting within two tree lengths of Tamban Road.**

### **Traffic Management**

All traffic is to exercise extreme caution entering and exiting to and from the Pacific Highway. Avoid dragging mud and debris onto sealed roads during haulage.

**Tamban road is well used by members of the public and local traffic. The communication procedures for trucks in SSP Appendix 1: Rural Roads Strategy must be used at all times.**

### **Modified Harvest Areas**

These are shown on the Harvest Plan Operational Map. Sites are protected by a 10m buffer zone. Existing Roads passing through the buffers may be used, however any disturbance must be minimised.

### **Research Plot**

There is an area of *Eucalyptus cloeziana* (Gympie Messmate) near the western boundary of compartment 36, just south of Allgoamera Trail. This area is not to be harvested as part of this harvesting plan.

### **Dial Before You Dig**

There are underground Telstra cables in the northern most section of compartment 37, in the vicinity of Cpt 37/1-Sam's Road. The approximate location of the cable is marked on the HPOM. There is to be no earth-works in the vicinity of this cable, and heavy machinery is not to come within 10m of estimated location. If harvesting crew wants to come within these site distances, they will need to engage a Telstra Accredited Locator before working in the area. The exact position of cables can only be confirmed by physically exposing the cable. See Site Safety Plan Appendix 2: Telstra Duty of Care for further information. This document must remain on site at all times.

### **Crossing Management – Gully Stuffer Monitoring**

Crossing D on Cpt 36/1 Trail is a gully stuffer. This structure is currently stable as at pre-harvest inspection. All drainage structures must be inspected by the HCCs for stability twice weekly during haulage operations over these crossings & recorded on Attachment 5: Operational Forms. Any instability must immediately be reported to the Roding Supervisor or Roding Co-ordinator, Wauchope, and crossing must be repaired within 5 days.

### **Forest Management Zoning Conditions**

**FMZ 2 (Exclusion):** Central area in compartment 37 – also appears on HCVOG layer, so will not be harvested.

**FMZ 3A (Exclusions):** Old Growth exclusions – not to be harvested.

**FMZ 4 (General Harvesting Prescription):** Available for harvesting

**FMZ 5 (Plantation):** *Eucalyptus cloeziana* – Gympie Messmate plantation (shown on HPOM as Research Trial)– not to be harvested

### **Cultural Heritage Conditions**

There are historic mining sites and relics located in these compartments, as well as a shield tree. The shield tree, and known mining sites have been recorded on the HPOM, but there may be others in the area. Old structures must not be damaged. Any new sites found during mark-up and harvesting should be recorded on the iPad/HPOM.

An Aboriginal site survey was performed by a Forestry Corporation Aboriginal Cultural Heritage Officer in March 2015. **Further cultural heritage assessments are required. No harvesting is to occur along Fig Tree Road or Allgoamera Roads (Dumps 20-25) until advised by Harvest Planner.**

If potential Aboriginal heritage sites are uncovered during harvesting operations, the ACHO must be contacted and an interim 20m buffer observed pending further inspection.

### Flora and Fauna Conditions

#### Refer to TSL Booklet for Conditions

The HPOM displays records and features that require implementation of a site-specific condition.

#### Endangered Ecological Communities (EECs)

Areas of mapped alluvial soils were inspected by the Ecologist and no EEC was identified.

#### General TSL Prescriptions

- **SFO Mark Up Searches** – Conditions 5.1(h), 5.2 and 5.13 (general, koala and bird roost and nest searches) must be implemented. One Koala star search trigger was identified during pre-harvest surveys. The star search for this has been completed which did not result in any high use or intermediate use areas
- **Tree Retention** –Regrowth Zone. Conditions 5.6 (d), (e) and (f), must be applied. Condition 6.9 (d) Greater Gliders (8 trees per ha) does not apply
- **Riparian Habitat Protection** – Condition 5.7 must be applied.
- **Ground Habitat protection** – Condition 5.17. No / commercial firewood collection permitted in these compartments.

#### Site-Specific Conditions, Exclusion Zones & Modified Harvest Areas

Mapped exclusion areas occur for the following (excluding *Parsonsia dorrigoensis*). Site-specific conditions must be implemented

Boundary Type	TSL Condition Number	Prescription Name	Prescription Summary	Prescription applies (Y/N)
4, Limited	5.03	HCVOG	Mapped Exclusion	y
4, Limited	5.08	Ridge and Headwater Habitat	Mapped Exclusion	y
1, Solid	5.12	Dams and waterbodies	10m buffer on dams	y
3, Machinery	6.03	Giant-barred or Stuttering Frog	Mapped exclusion, 30 m buffer on mapped streams within 200 m of a records and no UMDL within 200m of a record. Revert to 10m UMDL EPL protection	Y
3, Machinery	6.4A	Green Thighed Frog	Mapped exclusion, 30 m buffer on record or on the most suitable breeding habitat within 100m of the record	Y
3, Machinery	6.20	Golden-tipped Bat	Mapped exclusion, 30 m buffer on mapped streams within 200 m of a records and no UMDL within 200m of a record. Revert to 10m UMDL EPL protection	y
	6.27	Threatened Flora	NPWS approved monitoring program or alternative protection measures as approved by NPWS: <i>Niemeyera whitei</i> (syn. <i>Amorphospermum whitei</i> - Southern Metapopulation Unit), <i>Grammitis stenophylla</i> *, <i>Melaleuca groveana</i> *, <i>Parsonsia dorrigoensis</i> *, <i>Tasmania purpurascens</i> *	Y
5, Modified	6.17i	Yellow-bellied Glider Tree Retention	Tree retention requirements, heard call detection	y

### Soils and Water Protection Conditions

This is a Non-Scheduled forestry activity. All EPL conditions apply to harvesting and roading operations, except for Schedule 4 Condition 6 relating to filter strips on unmapped drainage lines.

The Best Management Practices detailed in Attachment 3: Standard Harvest Plan Conditions for Native Forest Operations in Central Region are to be applied to unmapped drainage lines. In addition to these BMPs, in compartments 35 & 38 refer to Attachment 4: Evidence of Instability in Channels.

#### Refer to EPL Booklet & Standard Plan Conditions

#### Site-specific EPL conditions:

Elements	Conditions
Inherent Hazard Class	IHC 1 (CPT 39) AND 2 (35, 36, 37 & 38)
Unmapped Drainage Lines	No UMDL logging where the following indicators of instability are found in, or adjacent to the channel (see Attachment 4): <ul style="list-style-type: none"> <li>Near vertical channel banks &amp;/or knickpoints &gt;1m high that are actively eroding, or</li> <li>Tunnel-gully erosion caused by the collapse of sub-surface drainage channels</li> </ul>
Drainage Feature Protection	See HPOM for widths
Dispersible Soils	Yes. The soils assessment noted Soil stability is variable across the compartments and 4/28 soil tests sites were found to be dispersible. The locations of these sites are shown on HPOM. Condition 69 (see crossings below) applies.
Mass Movement	Minor – limited to slumpage on road batters
Seasonal Harvesting Exclusions	No
Seasonal Burning Exclusions	No
Canopy Removal	Sch. 3 Canopy removal ≤50%
Log Dumps	Sch 4 Cond. 26, 27, 30 & 33 + IHL2 (Cpts 35, 36, 37 & 38) 28 & 31
Roads	See schedule 5 of EPL Booklet

- Any maintenance grading or road upgrading should aim not to undercut the toe of large cut batters.
- There should be no cutting through bedding planes where they dip at an angle paralleling the ground surface

#### Dump Management

- At the commencement of use at each dump, topsoil must be stockpiled from the dump. When dump usage has been completed, the stockpiled topsoil must be re-spread over dump area.
- Bark accumulated at the dump site should be dispersed back into the logging area where possible, and in heaps <2m<sup>3</sup>. All bark heaps must have a minimum of 5m mineral earth break around them, prior to the crew leaving the nearest dump site. If bark heaps are left on the dump, then individual heaps MUST NOT be located next to or under retained trees. Timber off-cuts must be stacked separately, and a minimum of 5m from any bark heap.

#### Snig & Extraction Tracks:

Elements	Conditions
Technique	Conditions 38-41 Schedule 4 EPL
Drainage	Conditions 70-80 Schedule 4 EPL
Crossings	Conditions 42-69 Schedule 4 EPL Condition 5.7 TSL <b>Cpts 35, 38 &amp; 39 (dispersible soils):</b> 70% ground-cover must be achieved on the track surface within 20m either side of any snig track crossing at the completion of operations at each crossing
Downhill Snigging	Condition 82 Schedule 4 EPL
Wet Weather	Condition 81 Schedule 4 EPL
Grade	Maximum grade must not exceed 25° except for short sections under certain circumstances. Refer to Condition 41 Schedule 4 EPL
Rutting	Maximum allowed soil disturbance Snig/Extraction tracks = depth 20cm / length 10m (Forest Practices Circular 2008/4)

## Legal Conditions

This operation must comply with:

- Standard Harvest Plan Condition for Native Forest Operations in Central Region
- Licence Conditions issued by Forests NSW under the Forestry Act (2012)
- State Forests of NSW Forest Practices Code - Part 2 Timber Harvesting in Native Forests 1999 and Forest Practices Code Part 4 Forest Roads and Fire Trails (1999).
- Integrated Forestry Operations Approval issued under part 4 of the Forestry and National Parks Estate Act 1998 (IFOA) as amended March 2013 including associated licences for Lower North East Region.
  - Threatened Species Conservation Licence (TSCL) issued under the Threatened Species Conservation Act (1995)
  - Fisheries Licence (FL) issued under section 220ZW of the Fisheries Management Act (1994)
  - Environment Protection Licence No. 3957 LNE issued under section 55 of the Protection of the Environment Operations Act 1997 (EPL).

**Note: The EPL conditions are applied as Best Management Practice ONLY in these compartments.**

**Operational Plan Briefing:** A briefing of this operational plan was conducted by:

Person	Role	Nature of Briefing	Date

**Document distribution register:** At the briefing the following documents were distributed:

Person receiving plan	No. of copies	Plan Type or Amendment No	Date





# HCC Post Logging NOTES

**LOCATION** SF: \_\_\_\_\_

**CPT NO:** \_\_\_\_\_

Record any circumstances of significance relating to the harvesting of this compartment.

Please draw or include any annotations on an attached operation scale map.

Actual area harvested (record on map)

Give reasons for harvestable areas that were not harvested (e.g. Too steep, defective timber). Make reference to map.

Silvicultural treatment undertaken;

Treatment	Area Treated	Number of AGS gaps	Comments
Australian Group Selection			
Single Tree Selection			
Thinning			

Possible next cut (*tick appropriate boxes*)

Main product type	Anticipated volume		
	H	M	L
High quality large sawlog			
High quality small sawlog			
Low Value			
Poles/piles/girders			
Veneer			
Pulpwood/chipwood			
Habitat			
Non-merchantable			

Time to next harvest
0 to 5 years
5 to 10 years
10 to 20 years
20 to 30 years
30 plus years

Noxious or environmental weed problems;

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High levels of feral animal use;

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Sites of soil erosion for attention;

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Boundary compromised; neighbour issues resulting from logging or haulage;

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Operation map errors (e.g. forest type; roads) to appropriate staff i.e. GIS, Planner etc, for attention;

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