

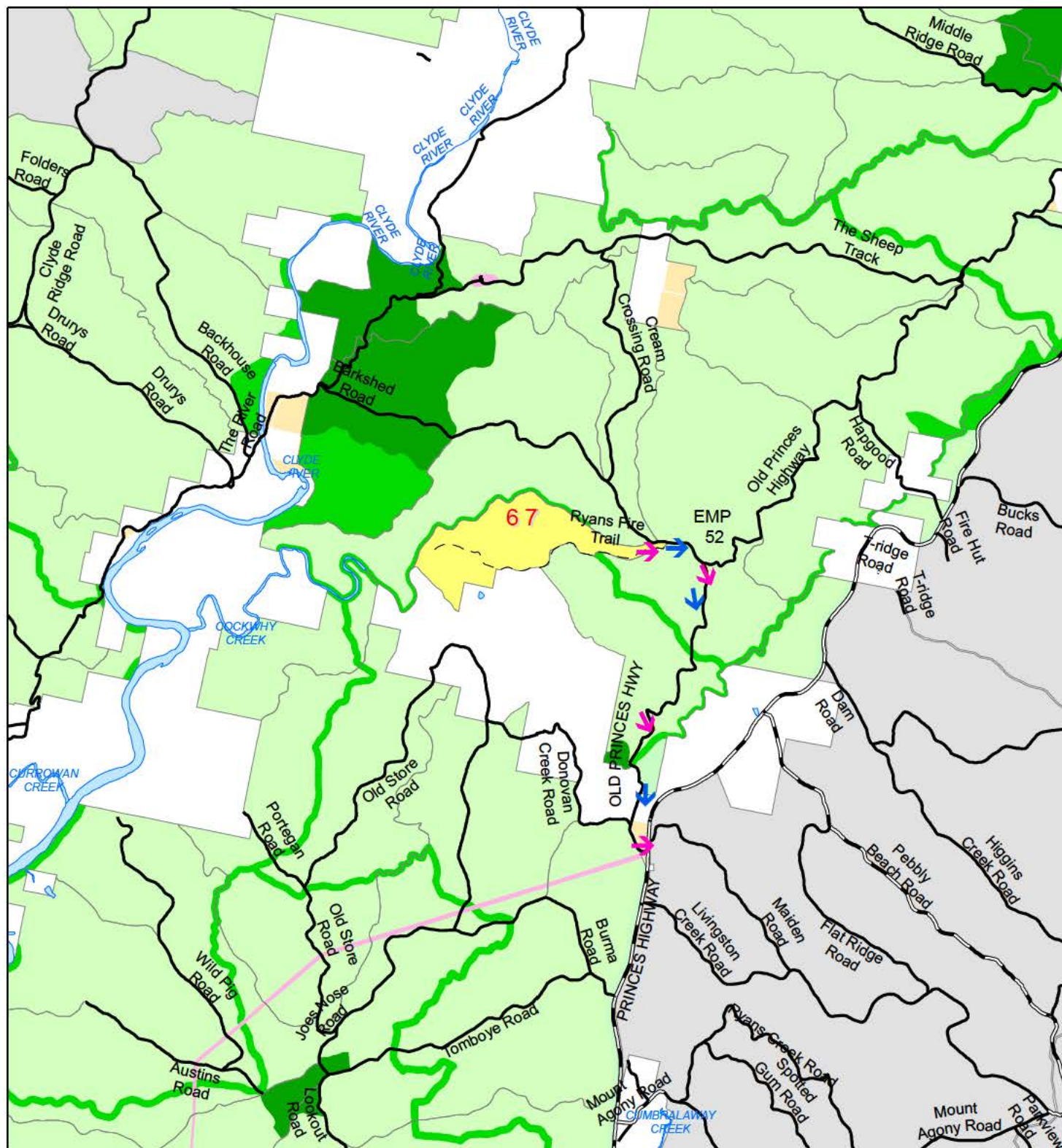
LOCALITY MAP

Compartment 67

State Forest: South Brooman No. 830

SOUTH COAST IFOA BATEMANS BAY MANAGEMENT AREA

Scale: 1:75,000



— Sealed Road
— Major Forest Road
- - Minor Forest Road
— Major Rivers

State Forest
Planning Unit
Vacant Crown Land
Non Forest
Freehold

National Parks
Formal Reserve
Informal Reserve
Water

+ Emergency Meeting Point
and Helicopter Landing Site
➡ Evacuation Route
➡ Haulage Route

Prepared By: Kate Halton

Version: 1

OPS PLANNING MGR APPROVAL

APPROVED: LEE BLESSINGTON

DATE: 19/05/2016

Scale: 1:15,000

Contour Interval 10m

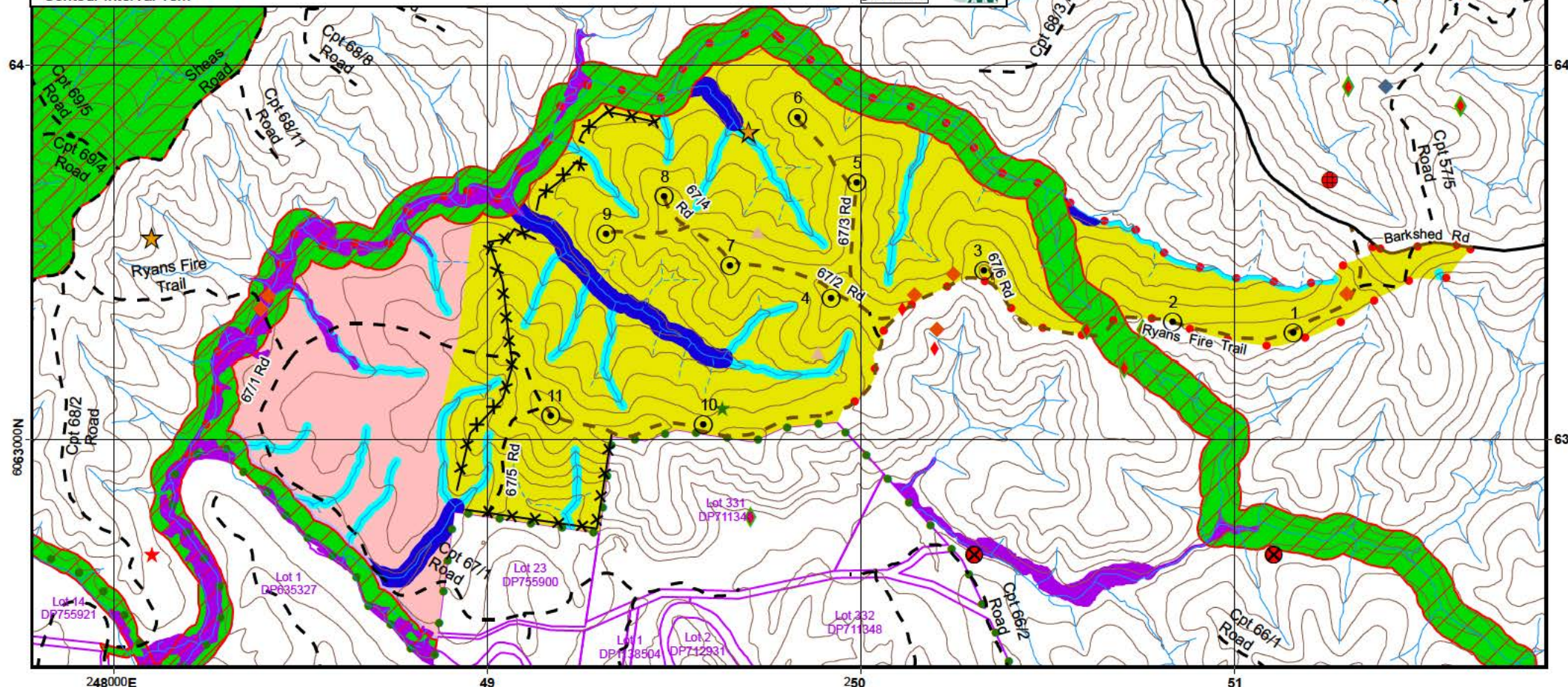
Harvest Plan Operational Map

Compartment: 67

State Forest: SOUTH BROOMAN No: 830

Southern IFOA - South Coast

Map Sheet: CURROWAN (8926-4N) & KIOLOA (8926-1N)



LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Proposed Control Line

DUMPS & CROSSINGS

- Temporary Dry Weather

DRAINAGE

- LiDAR Corrected LIC drainage
- Indicative Unmapped Drainage Feature

ROADS

- Major Forest
- Minor Forest
- EPL Standard Existing (Major)
- EPL Standard Existing (Minor)

HARVEST AREA

- FMZ 4 - RU1-STs Heavy

NON HARVEST AREA

- Special Management (FMZ 2)
- Harvesting Protection (FMZ 3A)
- EEC (Riverflat Euc.)-Not field verified.
- Excluded Forest
- Owl Landscape

TENURE

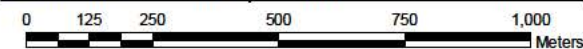
- Private Property

FAUNA FEATURES

- Little Lorikeet
- Sooty Owl
- Yellow-bellied Glider (Heard)
- Masked Owl
- Yellow-bellied Glider
- Glossy Black-Cockatoo
- Glossy Black-Cockatoo (Feed Tree)
- Gang-gang Cockatoo
- Grey-headed Flying-fox
- Greater Broad-nosed Bat

STREAM EXCLUSION ZONES (EPL IHL 1/2 & TSL)

Feature	Filter Strip	Protection Zone	Operational Zone
Unmapped	N/A	N/A	N/A
1st Order	5m	5m	10m
2nd order	5m	15m	10m
3rd order	5m	25m	10m
4th order	5m	45m	10m



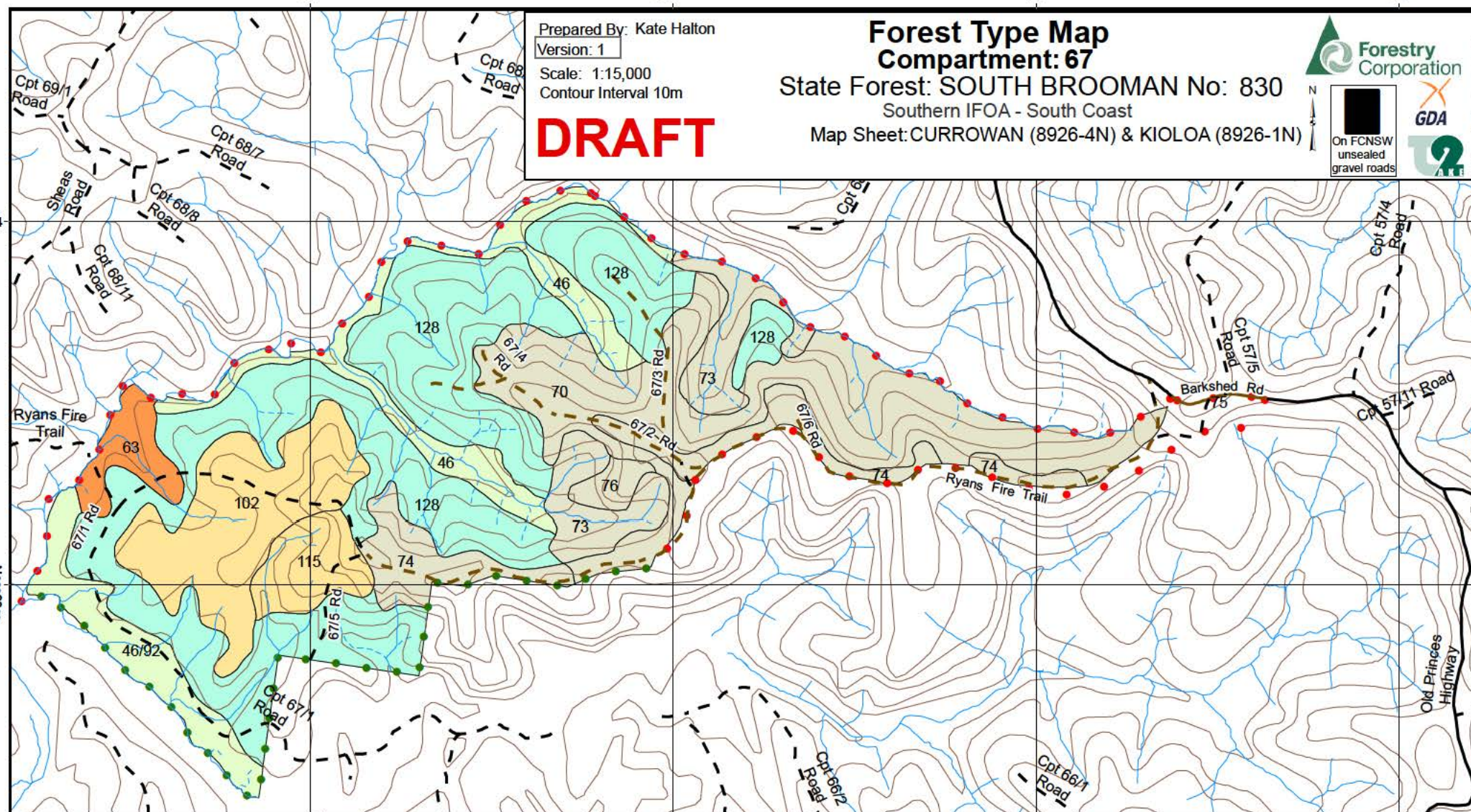
Prepared By: Kate Halton
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Contour Interval 10m

DRAFT

Forest Type Map

Compartment: 67

State Forest: SOUTH BROOMAN No: 830
Southern IFOA - South Coast
Map Sheet: CURROWAN (8926-4N) & KIOLOA (8926-1N)



LEGEND
BOUNDARIES
●●● State Forest Boundary
●●● Compartment Boundary

DRAINAGE
— LiDAR Corrected LIC drainage
- - - Indicative unmapped drainage feature

ROADS
— Major Forest
- - Minor Forest
— EPL Standard Existing (Major)
- - EPL Standard Existing (Minor)

249000E

FOREST TYPE (RN17)

Type 46 Sydney Blue Gum
Type 63 Woollybutt
Type 70 Spotted Gum
Type 73 Spotted Gum - Sydney Blue Gum / Bangalay
Type 74 Spotted Gum - Ironbark / Grey Gum
Type 75 Spotted Gum - Yellow / White Stringybark
Type 76 Spotted Gum - Blackbutt
Type 102 Yertchuk
Type 115 Sydney Peppermint - Stringybark
Type 128 Sydney Peppermint
Type 4692 Sydney Blue Gum/Bangalay

RN 17 Forest Type	Gross Area (ha)	RN 17 Forest Type	Gross Area (ha)
46	13.6	75	0.01
63	5.0	76	2.0
70	39.5	102	20.9
73	12.2	115	6.6
74	13.6	128	73.8
		46\92	9.7





HARDWOOD FORESTS- SOUTHERN IFOA SOUTH COAST HARVESTING PLAN

South Brooman State Forest - Compartment 67

Certification

This plan has been prepared in accordance with the Integrated Forestry Operations Approval issued under the Forestry and National Park Estate Act 1998. The Harvest Plan Standard Conditions for Hardwood Forest Operations in South Coast apply to this operation.

Prepared By: Harvest Planner	Kate Halton	Approved By: Operations Planning Mgr	Lee Blessington
Signature	Kate Halton	Signature	Lee Blessington
Date	19/05/16	Date	19/05/16

Note: Approval includes the Harvest Plan Operational Map (HPOM) with the corresponding approval date displayed on the map, verifying final approved version. Other maps included with this plan are Locality, Forest Type, Roading and Cultural Heritage (limited distribution).

Description of Proposal

Harvesting of Hardwood forest

Harvesting of Hardwood forest, using Single Tree Selection, Silviculture subject to the Southern IFOA requirements will be undertaken within this planning unit. **Timber harvesting and road construction will not be licensed under the EPL.**

The primary product of the harvesting is high quality large sawlogs (quota logs), small high quality sawlogs, veneer logs, girders, poles & piles where timber markets are available. Parts of felled logs that do not meet high quality log specifications are segregated and graded into other classifications such as salvage sawlogs, pulp logs & miscellaneous timbers e.g. split & round posts, firewood, mining timbers & craftwood. The availability of miscellaneous timbers depends mainly on forest types, log defectiveness & market conditions at the time of harvesting.

Clause 22 – Integrated Forestry Operations Approval (IFOA) Consideration

All relevant factors have been reviewed taking into account the volume and monetary value of each forest product to supply Term Agreement Holders. The harvesting operation also complies with Clause 22 of the IFOA.

Attachment 1: Site Safety Plan prescribes safety requirements and Medical Emergency Evacuation Plan for this harvesting operation.

Attachment 2: Roading plan prescribes roading requirements for this harvesting operation.

Abbreviations used in this plan

FT = Forest Technician, HC= Harvesting Coordinator, PtS= Protection Supervisor, HS = Harvesting Supervisor, RC = Roading Coordinator, IFOA = Integrated Forestry Operations Approval.

Area Identification and Yield Estimates

State Forest	Compartment/s	IFOA Region	Management Area	Certification
South Brooman	67	Southern	Batemans Bay	AFS 604224 AS4708:2013

	Cpt 67
Plan Compartment ID	22237
Gross Area (ha)	203.8
Net Harvestable Area (ha)	157
Harvest Area (ha)	122
Poles, Piles, Veneer & Girders	0m ³
Quota Logs (HQL)	850m ³
High Quality Small	300m ³
Salvage	300m ³
Pulp E1	850t
Firewood/Misc	850t

Note: The yield estimates in the table above are derived from the Plan of Operations.

Slope Classes (percent of harvest area)

	Cpt 67
Slope Class	% of harvest area
0-20°	96.4
20-25 °	3.5
25-30 °	0.1



ATTACHMENT 1: SITE SAFETY PLAN

Worksite Information			
Is this Declared Hunting Area: No		Comments:	
Have Exclusion Zone signs been erected or checked prior to starting work daily.		NA	
Comments:			
Description of Work to be undertaken on site: - Refer to description of proposal above.			
Site Supervisor			
Name:		Contact number:	
Communication			
Radio channel number	VHF:	UHF	
Other (e.g. hand signals):			
Traffic management (describe) e.g. Signage, Road closure, Traffic control			
<p>This plan identifies haulage from the compartment will be east on Ryan's Fire Trail turning right onto Barkshed Road (both FCNSW Roads). From Barkshed, right (south) onto Old Princes Hwy (FCNSW Road, becoming Shoalhaven Shire Owned Road at the bridge). There are no intersections which require signage in accordance with a Traffic Control Plan.</p> <p>Dust, noise and school bus routes Dust and noise – Where log haulage routes pass close to rural housing along natural surface/gravel roads dust and noise must be minimised to the greatest extent practicable. Trucks should reduce speed, restrict use to daylight hours and minimise the use of engine brakes through these areas.</p>			
Name of on-site safety first-aiders/s			
Location of first-aid kit			
SITE HAZARD & RISK ASSESSMENT NO.			
CONTROL		WHO	IMPLEMENTED
1. Vehicle collision at adjoining roads of various traffic levels	Warning signs at FCNSW intersections, road closure on FCNSW roads. Implement Traffic Control plans (where specified in this harvest plan). 60km/hr speed limit on all State Forest gravel roads unless otherwise signposted. Compliance with FCNSW lights on policy.		
2. Hazardous or dead trees	Refer to FCNSW WHS procedure 4.26. Assess area within two tree lengths of work site. Assess risk, mark any Distinctly Dangerous Trees with the symbol Ø & if necessary remove hazard or move		

	work site. Use machinery to assist with hazard removal if possible Contractor is responsible for implementing control strategies during harvesting.		
3. Overhead hazards associated with dumps	Refer to FCNSW WHS procedure 4.26. Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump site. Contractor is responsible for implementing control strategies during harvesting.		
4. Dust from passing vehicles along dirt haulage routes	Restrict speed to minimise dust generation, slow down when passing vehicles. Turn on driving and hazard lights to increase visibility.		
5.			

- **All** visitors, contractors and employees **must** be fully **inducted** onto the worksite by the workplace supervisor e.g. the Principal Contractor or the Forestry Corporation supervisor. This must be recorded on the attached induction sheet.
- Relevant **Safe Work Procedures** are available and understood for the type of work to be undertaken.
- A **Risk and Hazard Assessment Worksheet** must be completed if site specific hazards are identified that are not covered by a **Safe Work Procedure**. The top (pink sheet) is to be attached to this site safety plan.
- Operators in training must be supervised by the site supervisor.
- All appropriate Personal Protective Equipment (PPE) must be worn on the worksite at all times



MEDICAL EMERGENCY EVACUATION PLAN

Nearest reliable mobile phone reception (describe location)			
Next G Network: Poor in spots.	GSM: N/A		Satellite: N/A
GPS Lat/Long: 35° 32' 20" S / 150° 14' 31" E	MGA: 249976E 6063669N	Datum: GDA 94	Zone: 56
Location description: 67/3 Road			
Emergency meeting point for ambulance / police (refer to attached locality map)			
GPS Lat/Long: 35° 32' 42" S / 150° 15' 53" E	MGA: 252131E 6063264N	Datum: GDA 94	Zone: 56
Location description: Intersection of Barkshed Rd and Old Princes Hwy (EMP 52)			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 35° 32' 42" S / 150° 15' 53" E			
Location description: Intersection of Barkshed Rd and Old Princes Hwy (EMP 52)			
Procedures to obtain ambulance assistance			
<ol style="list-style-type: none"> 1. Dial 000 2. If there is no mobile coverage, dial 112 (which will work on any mobile phone system). 3. If no response on 112: <ul style="list-style-type: none"> • use a radio link (TARA, be discrete with personal information) • move to an area with mobile coverage • find a landline • use another network (e.g. a contractor's VHF radio) 		<p>Contact nearest Forestry Corporation office on:</p> <p>Channel: 236</p> <p>Telephone: 1300 880 548</p> <p>Give details of the situation and ask for a 000 call to be placed.</p>	
000 operator question:		Response:	
1. Police, Fire, Ambulance?		NSW Ambulance,	
2. Suburb?		State Forest name: South Brooman Nearest town or locality: East Lynne Nearest ambulance station: Batemans Bay	
3. Address?		Barkshed Rd	
4. Nearest road junction/cross street?		Barkshed Rd/Old Princes Hwy	
5. Local government area?		Shoalhaven	
6. Nature of the problem?		Describe the accident, number and condition of casualties	
7. Where is the accident?		Refer to safety meeting point above	
Directions to navigate from nearest ambulance station to the emergency meeting point. From Batemans Bay, travel north along the Princes Highway for approx 18.5 km and turn left into The Old Highway. Travel a further 5 km to Barkshed Road intersection on the left.			
8. 4WD ambulance required N		CB radio channel to use:	
9. Injuries?		Give detailed information about the condition of the casualty (do not mention names over radio system)	
10. Your name and call back number:			

Silviculture and Harvesting Prescriptions
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Year	1944	1965	1968	1972	1980	1982	1991	1994	2009/ 09	2001
TSI	X	X	X	X	X	√	X	X	X	X
HR Burning	X	X	X	X	X	X	X	X	√	X
Wildfires	√	√	√	√	√	√	√	√	X	√
Logging m ³	0	0	0	0	0	0	8000	0	0	0

√ - applies, X – not applicable

Pre Harvest Basal Area Sweeps

Compartment	Resource Unit	No. of Sweeps	BA Average (m ² /ha)	BA Range (m ² /ha)
67	1	12	28	16-40

Silvicultural Planning

Single Tree Selection

The STS tract (157ha) is a predominantly mixed aged mature forest, part of which will be harvested under a heavy single tree selection (STS) regime. The objective within the 122 ha harvest area for this operation (resource unit 1) is to remove 57% of the basal area (BA) to create canopy openings for regeneration, whilst retaining and minimising damage to young regenerating stems, seed trees, habitat and recruitment trees. The HC must monitor BAY removal and ensure retained BA in the harvest area does not fall below an average of 12m²/ha.

It is envisaged that the next harvesting operation in this compartment would be on average 30 years time.

Resource Unit (Refer to HPOM for detail)	Species Composition	Stand Structure and Condition
1	Spotted gum, Ironbark, White Stringy bark, Brown bloodwood, Sydney Peppermint, Silvertop Ash and Large Fruited Red Mahogany.	<ul style="list-style-type: none"> Predominantly mixed aged stand which is mature to overmature, with some sparse/scattered regrowth. Generally the stand has reached its end point in terms of value adding growth, however is in good health. Generally the majority of the sawlog is on the ridges and just off the ridges and thins out towards the drainage lines. The viability of the harvest areas around the drainage lines will be dependant on firewood markets at time of harvest.

Harvesting Prescription

Resource Unit (Refer to HPOM for detail)	% of Harvest Area	Silvicultural Treatment
		<p>STS heavy:</p> <ul style="list-style-type: none"> Retain and protect from harvesting/fire damage: <ul style="list-style-type: none"> -poles/advanced growth (<40cm DBHOB) with good form and vigour, -habitat and recruitment trees as per TSL, Retained trees should be evenly spaced throughout the resource unit. Ensure no more than 57% of the BA within the resource unit is removed, a minimum BA of 12m² per hectare within the resource unit must be retained. All other products should be removed markets permitting. If this objective cannot be achieved the following options should be considered: <ul style="list-style-type: none"> -reject tree felling (HC must first obtain approval from HS), -defer harvesting until ideal market conditions prevail, -consider harvesting under a light or medium STS regime

Note: The area of each silvicultural treatment must be mapped and recorded in the Post logging information section of this plan.

Special Requirements**Noxious Weeds/Disease/Pests Hygiene Requirements**

Compartment 67 is within Shoalhaven Shire Council which is a designated red zone for Myrtle Rust. In order to prevent the spread of Myrtle Rust all harvesting machinery, equipment and vehicles heading west from Shoalhaven Shire Council or south into Victoria must be inspected for vegetation containing Myrtle Rust. If present, the vegetation must be removed from the harvesting machinery, equipment or vehicle prior to leaving the compartment.

Permanent Growth and Research Plots

Any inventory plots located during the harvesting operation are to be treated the same as the surrounding area.

Private Property

Private property occurs adjacent to the southern boundary of the compartment, as indicated on the HPOM. Private property owners have been notified of the scheduled harvesting and post-harvest burning. The table below lists neighbours who adjoin Compartment 67:

Name	Lot/DP Number (s)	Postal Address	Contact number (& email if available)	Was harvest plan notification letter returned to sender?
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED] [REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

- No harvest disturbance is permitted on private property.
- Harvesting debris must not be left within five metres of the boundary fence lines.
- Any damage to fences must be repaired by the contractor.
- Access roads must be maintained free of debris and in a trafficable state.

Occupation Permits

Apiary

4 apiary sites provided in the table below are located within the planning unit. Contact details are available from the Batemans Bay office.

Name	Site Number	Contact number
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

- The HC must provide the apiary permittees with at least two weeks advance notice when bee boxes need to be removed or relocated.

Forest Management Zoning

FMZ 3A Harvesting Excluded and FMZ 4- General Management (normal harvesting prescriptions apply) occur within the compartment. Refer to HPOM for more detail.

FMZ 3A - Logging operations are restricted as per condition 18(b) of the IFOA. Refer to Harvest Plan Standard Conditions for Hardwood Forest Operations in South Coast for detail of what logging operations are permitted in this zone.

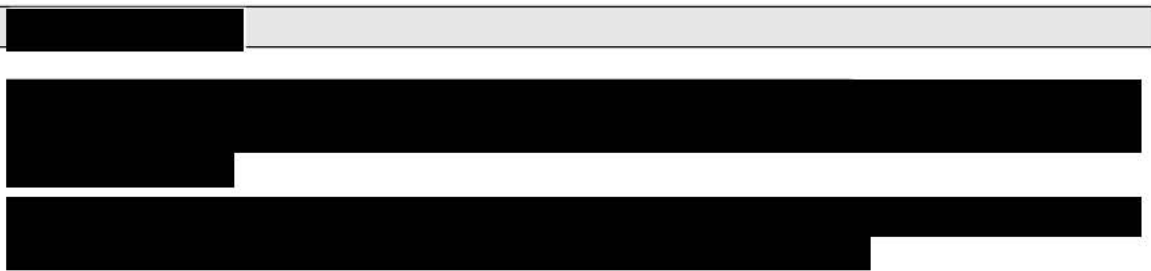
IFOA Required Approval of Forestry Activities

Operations Planning Mgr approvals have been obtained for routine road maintenance and log haulage in FMZ 3A at one location, Ryan's Fire Trail. No other crossings of these features are approved. Forestry Operations within the plan area must minimise

impacts to the exclusion zones and meet the requirements of the EPL and General Exclusion Zones in section of this plan.

Construction or re-opening of roads or snig tracks may occur with prior approval in the following exclusion zones:

- Operations Planning Mgr approval required for Stream Exclusion Zones .
- During the harvesting operation the HC must identify any crossings required in these exclusion zones and contact the Planner to obtain required approvals.



Flora and Fauna

Species adequately covered by general prescriptions:

The following species have been recorded in or around the compartments and are adequately covered by the general prescriptions. No further protection measures are required for these species:

Sooty Owl (*Tyto tenebricosa*), **Glossy Black-Cockatoo** (*Calyptrorhynchus lathamii*), **Greater Broad-nosed Bat** (*Scoteanax rueppellii*), **Grey-headed Flying Fox** (*Pteropus poliocephalus*), **Little Lorikeet** (*Glossopsitta pusilla*) and **Gang Gang Cockatoo** (*Callocephalon fimbriatum*).

Tree Retention

Zone	Hollow bearing Trees/ha	Recruitment Trees /ha	Protection of Retained Trees	Dead Standing Trees (only if safe)	Significant Food Resource*
Regrowth	Up to 5	1 for every tree retained under 5.6d	√	√	√
TSL condition	5.6d	5.6e	5.6h	5.6f	5.6 g

√ - Condition applies

*1 Glossy black cockatoo feed occurs within compartment 67 at locations shown in the table below.

Species	Feature	Zone	GDA Easting	GDA Northing	Comments
Glossy Black-Cockatoo	Feed tree	56	249630	6063083	Historic record- not marked during planning, FT to locate and flag during mark up.

General exclusion zones

General exclusions as listed below are shown on the HPOM.

Feature/Condition	TSL cond'n	Occurs within Planning Unit
Rainforest	5.4	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Riparian Protection Zones	5.7	Yes Based on spatially corrected LIC drainage.
Ridge & Headwater Habitat	5.8	Yes-not shown on HPOM as it is within FMZ3A/Owl Landscape exclusions.
Wetlands	5.9	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Heath and Scrub	5.10	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Rocky Outcrops and Cliffs	5.11	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Endangered Ecological Community	NA	Has been assessed as a risk that Riverflat Eucalypt Forest on Coastal Forest Floodplain EEC may occur in the field. May require further investigation#. The area shown on HPOM is to be marked as mapped by the FT/HC. Harvesting, harvesting machinery and post harvest burning must be excluded from all areas of EEC.

#FT/HC will continue to conduct on the ground mark-up & searches and report back to foresters/ecologists any features requiring further investigation.

General Threatened Flora and Fauna Prescriptions

Feature	Records in 67	Licence conditions under the TSC Act
Threatened Frog General Protection Measures	No	5.12
Bird Nest and Roost Site Protection	No	5.13
Tree Bat Roost Protection	No	5.14.1
Subterranean Roost Protection	No	5.14.2
Protection of flying-fox Camps	No	5.14.3
Burning	Net planned area	5.16
Ground Habitat Protection	Net planned area	5.17

Species & Site-Specific Threatened Flora and Fauna Prescriptions

The following species have been recorded within or nearby the area and the associated prescriptions must be implemented:

Threatened species and habitat features within trigger distance	Records in 67	Licence conditions under the TSC Act or relevant Site-specific prescription
Powerful Owl <i>Ninox strenua</i> Masked Owl <i>Tyto novaehollandiae</i>	No	6.4 <i>Owl Landscape Exclusion Zones occur in compartment 67.</i>
Regent Honey eater <i>Xanthomyza phrygia</i>	No	6.5
Spotted tailed Quoll <i>Dasyurus maculatus</i>	No	6.10
Koala <i>Phascolarctos cinereus</i>	No	6.11
Yellow-bellied Glider <i>Petaurus australis</i>	Yes	6.13
Golden-tipped Bat <i>Kerivoula papuensis</i>	No	6.14
Eastern Pygmy Possum <i>Cercartetus nanus</i>	No	If this species is detected in or within 100m of the compartment boundaries cease operations immediately & Inform HS.

Fisheries Licence Conditions

There are no known records of threatened fish species or class 1 or 2 aquatic habitat relevant to this operation. The conditions of the fisheries licence are not triggered for this operation.

Soils and Water Protection

Refer to EPL Booklet & Standard Plan Conditions

Spatially Corrected LIC Drainage

Spatially corrected LIC drainage has been built using LiDAR derived drainage in compartment 67. Protection zones and filter strips have been rebuilt based on spatially correct LIC drainage and an additional mean stream bed width included for each stream order. Stream based Owl Landscape, Ridge and Headwater and FMZ 3A Exclusions have been rebuilt based on spatially corrected LIC drainage (mean stream width is not built in to this exclusion). The FT may choose to carry out mark up using lpad/GPS based on spatially corrected LIC drainage or traditional measure and mark up methods.

Site-specific EPL Conditions

Elements	Conditions
Unmapped Drainage Lines	EPL does not apply: refer to drainage feature protection below.
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	2
Dispersible Soils	No
Seasonality Harvesting Exclusions	No
Seasonality Burning Exclusions	No
Log Dumps	Refer relevant conditions for IHL

Snig Tracks	Refer relevant conditions for IHL
Roads	See Schedule 5 of EPL Booklet
Slope limits for harvesting	Refer to Schedule 4B.3 of EPL

Drainage Feature Protection

Filter strips (EPL), Protection Zones (EPL), Operational Zones (EPL), Protection Zones -hard (TSL) and Protection Zones -soft (TSL) must be retained along all drainage lines, prescribed streams and watercourses within the net planned area of the compartments at minimum widths as stated in the Table below.

Table 1: Minimum filter strip, protection zone and operational zone widths for mapped and unmapped drainage lines, prescribed streams and watercourses in hardwood forests in Inherent Hazard Level 1 & 2 (metres – measured along the ground surface)

Stream Order	EPL Filter Strip TSL Protection (hard)	EPL Protection Zone TSL Protection* (soft)	EPL Operational Zone	Drainage Feature Protection: FT/HC marking instruction
Unmapped	N/A#	N/A#	N/A#	5m (Red)
1st order	5	5	10	10m (Pink)
2nd order	5	15	10	20m (Pink)
3 rd order	5	25	10	30m (Pink)
4 th order +	5	45	10	50m (Pink)

for this operation FCNSW has chosen to harvest this area without EPL coverage. All EPL conditions continue to apply **except** for the rules applying to filter strips, protection zones and operational zones of the **unmapped drainage lines**. Refer to Best Management Practices for unmapped drainage lines in the standard conditions. Harvesting of unmapped drainage lines, **MUST NOT** occur in unmapped drainage lines which are running or holding water. It is the responsibility of the HC to inspect each unmapped drainage line prior to harvesting it, to determine if it is running or holding water.

Log Dump Location

11 log dumps are indicated on the HPOM. Field location of log dumps must utilise the most level site available consistent with the location indicated on the HPOM. Inherent hazard level 2 Conditions 26, 27, 28, 30, 31 and 33 of Schedule 4 of the EPL must apply.

Drainage Feature Crossings

There are no drainage feature crossings in compartment 67.

Mass Movement

Compartment 67 is not in an area identified as having a potential for mass movement. No specific prescriptions relating to mass movement/snigging are required.

Suitability of existing log dams and gully stuffers

There are no known log dams or gully stuffers on snig track or road crossings in the compartments.

Condition 47 of Schedule 4 of the EPL must apply.

Post Log Burning Control Lines

To assist the post log burning crews prevent fire from entering areas to be excluded from burning, control line construction must be undertaken concurrently with harvesting. Where possible snig tracks patterns should be designed to double as control lines. Control lines must be located as close as reasonably practical to the feature to be excluded from burning. The HC must assess the areas harvested, snig track network and existing roads to determine if there are sufficient control lines in place and where required instruct the contractor to construct additional mineral earth control lines to supplement these. The HC must record instances where it was not possible to construct a suitable control line close to the feature to be excluded and recommend harvest areas which should be excluded from the post log burning operation due to inadequate control lines.

The table below lists critical boundaries in compartment 67. Where possible design snig track patterns so they double as bare earth containment lines as close as possible to these boundaries. Where this is not practical, it is NOT necessary to construct a bare earth break along boundary of the exclusion; the practice of no direct ignition will be followed.

Critical boundary	Completed Yes /No
Owl Landcape/FMZ 3A/Ridge & Headwater	

The table below lists critical boundaries in compartment 67. Where possible design snig track patterns so they double as bare earth containment lines as close as possible to these boundaries. Where this is not practical, HC must instruct contractor to construct a bare earth break (drained as per EPL snig track conditions) as close as possible to the critical boundary.

Critical boundary	Completed Yes /No
Excluded Forest	
Private Property	
EEC	

Pre-Operational Briefing

I acknowledge that I have received a copy of the Harvesting Plan for Compartment 67 in South Brooman State Forest and that I have been briefed on the conditions of the Plan and understand the supervision and operational control requirements as explained to me by the HS or his/her delegate.

Position	Name	Signature	Date

Post Harvest Mapping Features Confirmation Checklist

Feature	Planning Updates	Reason (Error/New)	GIS update tool completed?	Harvesting Updates	Comments
Soil Regolith	No				
Mapped Drainage	No				
Rainforest	No				
Rocky outcrops	No				
Wetlands	No				
Cultural Heritage	No				
Existing Roads	Yes	Error	Yes		
New Roads	No	New	Yes		
Heath	No				
Powerlines etc	No				
Other (state what it is)					

HC Feature Usage Record

Dates of commencement and cessation of logging

Date of commencement of logging: _____

Date of cessation of logging: _____

DUMP USAGE RECORD

- Record the commencement and completion of harvesting at each dump
- Record the occurrence of temporary stopping of harvesting at each dump.

[illegible]

*At completion of snig track/dump, track drainage must be completed within 2 days unless soil is saturated.

*At temporary cessation of snig track use, track drainage must be completed within 5 days unless soil is saturated.

Situations where drainage could not be completed due to saturated soils must be recorded in HC/FT Notes.

HC/FT Notes

[illegible]

HC/FT Notes (continued)					
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[illegible]

HC/FT Notes (continued)

[illegible]

[illegible][illegible]

HC/FT Notes (continued)	
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[illegible]

Clearance Certificate

COMPARTMENTS: 67, South Brooman STATE FOREST

ToHC

I request approval for me to move my logging crew and all associated machinery from the above-mentioned area to the next compartment in accordance with Section 3.5 of the Forest Practices Code.

I certify that:

- (a) all permanent roads, trails and mitre drains have been cleared of harvesting debris;
- (b) butt damage to retained trees has been kept to acceptable limits;
- (c) all trees marked for removal have been felled;
- (d) utilisation limits have been satisfactorily met;
- (e) stump heights conform to requirements;
- (f) all hanging trees have been felled and brought down;
- (g) all log dumpsites have been satisfactorily restored as required;
- (h) harvesting debris is not accumulated around retained trees;
- (i) all accumulated litter has been disposed of properly;
- (j) all filter and buffer strip requirements have been complied with;
- (k) all snig track, extraction track and temporary logging road drainage has been installed satisfactorily and other required rehabilitation work has been completed;
- (l) all necessary repairs to damaged roads, signs, fences and other structures have been carried out.
- (m) _____ **(insert quantity) rubber flaps have been recovered in a satisfactory condition and reported to Roading Coordinator for collection.**
- (n) all machinery, equipment and vehicles have been checked and are free of noxious weeds, diseases and pests.

I believe that I have met all my obligations under the conditions of the Contractors Licence, the EPL and TSL which apply to the compartment just completed, as stated in this Harvesting Plan.

Signature.....Name.....Date
Contractor

As a result of inspections of the logging operations made in accordance with this Harvesting Plan, I am satisfied that, to the best of my knowledge, the contractor responsible for this harvesting operation has satisfactorily completed all work and approval is given for her/him to remove her/his machinery and equipment and leave the area/commence operations in another compartment.

This clearance does not release the contractor from any obligation to undertake any remedial work if subsequent deficiencies are shown to result from inadequate practices during the harvesting operation, which are found during any inspections of the area made within 12 months of the date of this post-harvesting inspection.

Last inspection was made on(Date)

Signed(Date).....
HC

Post Logging Information

Record any circumstances of significance relating to the harvesting of this compartment. Please draw or include any annotations on the attached operation scale map.

Summary of silvicultural treatment

Treatment type	Area (ha) subject to treatment (HC estimate)	Number of AGS gaps created	Comments
Australian Group Selection			
Single Tree Selection			
Thinning/Spacing			
Post Harvest Silviculture			

Actual area harvested (record on attached HPOM) Give reasons for harvestable areas that were not harvested (eg. Too steep, defective timber). Make reference to map.

Post Logging Basal Area sweeps

Sample point	GPS (GDA 94)	Pre-harvest (B) BA m ² /ha	Post-harvest(A) BA m ² /ha	Difference (D) (B – A) m ² /ha	% BA removed D/B x100	Comments
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
Total averages						

Comply with maximum STS BA removal of 45% or Thinning BA removal of 60% Y/N

Possible next cut (tick appropriate boxes)

Main product type	Anticipated volume		
	H	M	L
Girders			
Veneer			
Poles/piles			
Quota			
Smalls/Thinnings			
Salvage			
Pulpwood/chipwood			

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

ATTACHMENT 2 ROADING PLAN

Summary of Roading Requirements

Feature	Details	Works Required
Existing roads to be used.	5420m/5	Yes
New roads to be constructed	0	NA
Existing crossings used	0	NA
New crossings to be constructed	0	NA
Length of road >10°	60m	NA
Borrow pits and gravel pits	0	NA
Mass movement prescriptions apply	No	NA
Dispersible soil conditions apply	No	NA
Seasonality provisions apply	No	NA

Note: Maintenance works not completed by Roading Coordinator must be recorded and passed onto the HC for completion during harvesting and documentation.

The start and finish dates of all maintenance and construction must be recorded on the individual roading sheets along with other relevant changes or explanations.

All rubber flaps on minor forest roads must be removed and replaced with trafficable rollover banks on completion of operation.

CHECKLIST OF WORKS REQUIRED ON ROADS & CROSSINGS

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
Barkshed Rd (270 m)	Nil works, road is adequately crowned and drained with effectively working mitre drains. RC/HC Comments:			
Ryans's Fire Trail (3600m)	Grade pavement. Clear roadside. Remove rollovers, open mitres & utilise crests, saddle and crossfall where available for drainage. Install additional drainage (mitres/RU) to EPL spacing.* RC/HC Comments:			
67/2 Rd (850m)	Grade/reshape pavement. Clear roadside & pavement. Remove rollovers, open mitres & utilise crests, saddle and crossfall where available for drainage. Install additional drainage (mitres/RU) to EPL spacing.* RC/HC Comments:			

67/3 Rd (550m)	<p>Grade/reshape pavement.</p> <p>Clear roadside & pavement.</p> <p>Remove rollovers, open mitres & utilise crests, saddle and crossfall where available for drainage.</p> <p>Install additional drainage (mitres/RU) to EPL spacing.*</p> <p>One 60m section of 11 degrees, no works required.</p> <p>RC/HC Comments:</p>			
67/4 Rd (100m)	<p>Grade/reshape pavement.</p> <p>Clear roadside & pavement.</p> <p>Remove rollovers, open mitres & utilise crests, saddle and crossfall where available for drainage.</p> <p>Install additional drainage (mitres/RU) to EPL spacing.*</p> <p>RC/HC Comments:</p>			
67/6 Road (50m)	<p>Grade/reshape pavement.</p> <p>Clear roadside & pavement.</p> <p>Drainage not required given the short length and low grade of road.</p>			

* The HC/RC is responsible for assessing spacing of existing drainage structures and ensuring additional drainage is installed to EPL specification, this has not been done at planning stage.