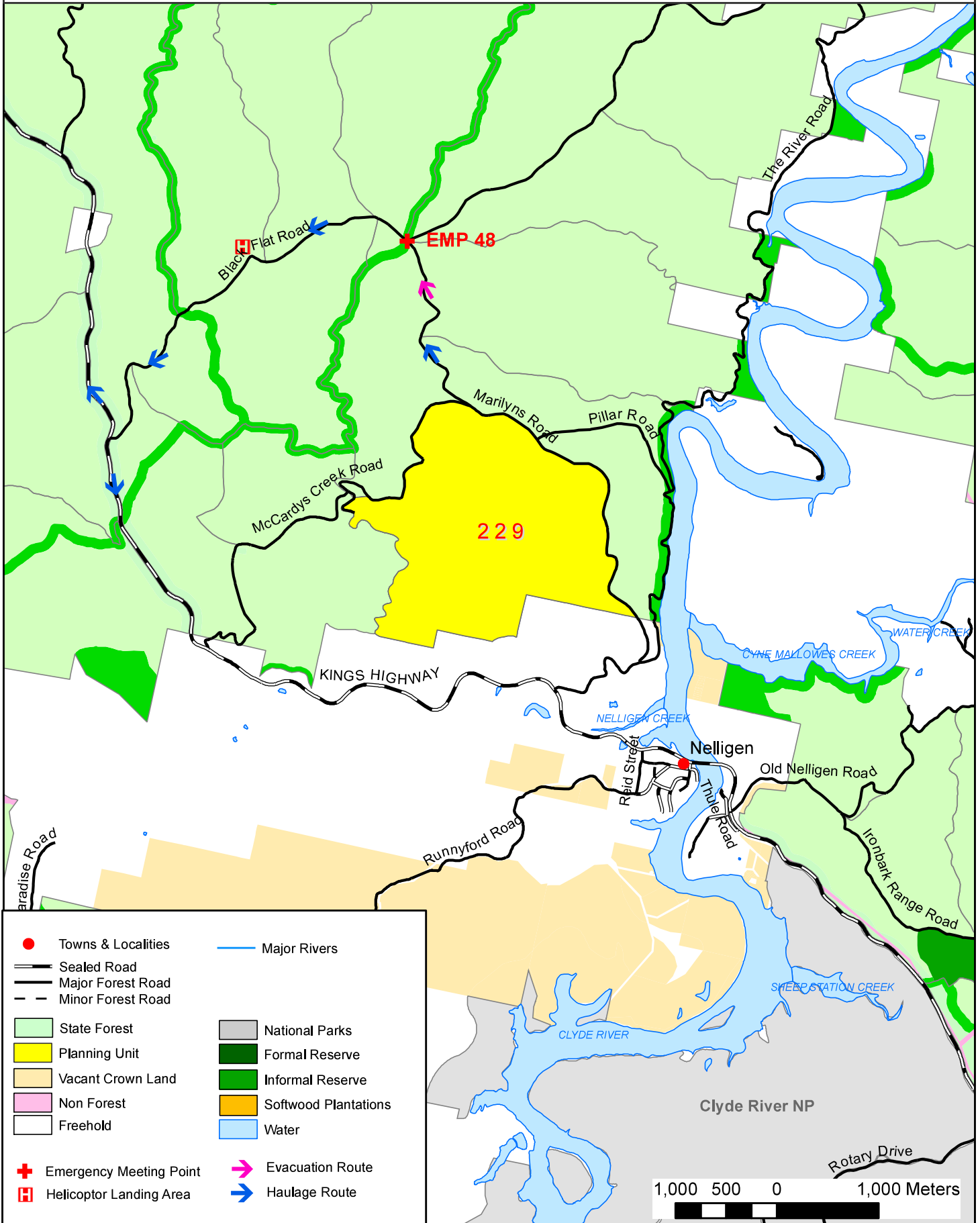


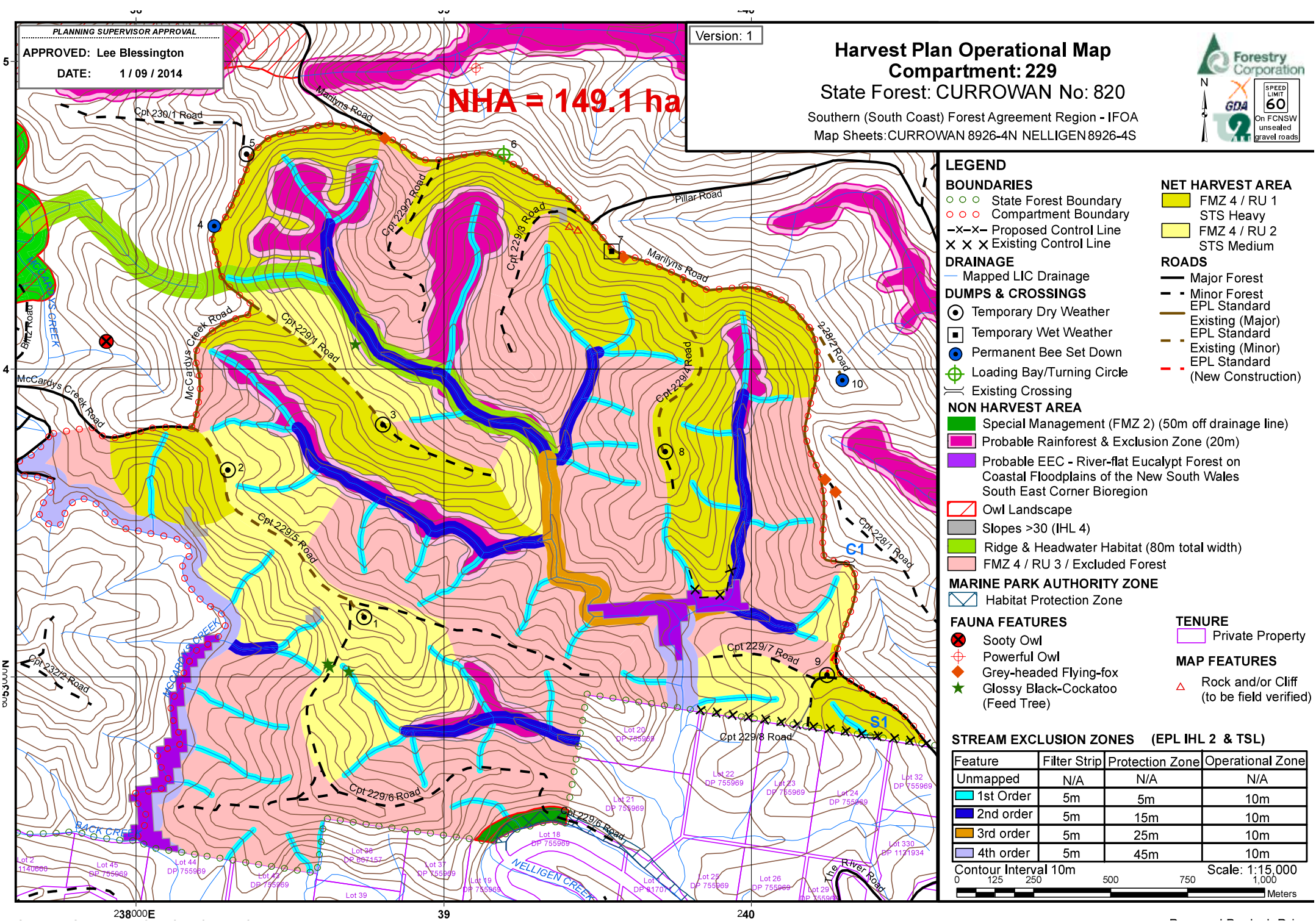
LOCALITY MAP

Compartments 229

Currowan State Forest No.820

SOUTHERN IFOA - South Coast
Batemans Bay Management Area
Scale: 1:50,000





PLANNING SUPERVISOR APPROVAL
APPROVED: Lee Blessington
DATE: 1 / 09 / 2014

Version: 1

Harvest Plan Operational Map
Compartment: 229
State Forest: CURROWAN No: 820
Southern (South Coast) Forest Agreement Region - IFOA
Map Sheets: CURROWAN 8926-4N NELLIGEN 8926-4S



LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Proposed Control Line
- Existing Control Line

DRAINAGE

- Mapped LIC Drainage

DUMPS & CROSSINGS

- Temporary Dry Weather
- Temporary Wet Weather
- Permanent Bee Set Down
- Loading Bay/Turning Circle
- Existing Crossing

NON HARVEST AREA

- Special Management (FMZ 2) (50m off drainage line)
- Probable Rainforest & Exclusion Zone (20m)
- Probable EEC - River-flat Eucalypt Forest on Coastal Floodplains of the New South Wales South East Corner Bioregion
- Owl Landscape
- Slopes >30 (IHL 4)
- Ridge & Headwater Habitat (80m total width)
- FMZ 4 / RU 3 / Excluded Forest

MARINE PARK AUTHORITY ZONE

- Habitat Protection Zone

FAUNA FEATURES

- Sooty Owl
- Powerful Owl
- Grey-headed Flying-fox
- Glossy Black-Cockatoo (Feed Tree)

NET HARVEST AREA

- FMZ 4 / RU 1 STS Heavy
- FMZ 4 / RU 2 STS Medium

ROADS

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

TENURE

- Private Property

MAP FEATURES

- Rock and/or Cliff (to be field verified)

STREAM EXCLUSION ZONES (EPL IHL 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

Contour Interval 10m
0 125 250 500 750 1,000 Meters
Scale: 1:15,000



Southern (South Coast) Forest Agreement Region IFOA HARVESTING PLAN

Currowan State Forest - Compartment 229

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 Standard Harvest Plan Conditions for Hardwood Forest Operations in Southern (South Coast) Forest Agreement Region IFOA, apply to this operation.

Prepared By: Senior Planner	Josh Driscoll	Approved By: Planning Supervisor	Lee Blessington
Signature		Signature	Lee Blessington
Date:	29/08/2014	Date:	1/09/2014

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 and Roding.

Description of Proposal

Harvesting of Hardwood forest

Harvesting of Hardwood forest, using Single Tree Selection Silviculture subject to the Southern (South Coast) Forest Agreement Region 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: Roding plan prescribes roding requirements for this harvesting operation.

Abbreviations used in this plan

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

Area Identification and Yield Estimates

State Forest	Compartment	Region	Management Area	Certification
Currowan	229	Southern (South Coast) Forest Agreement	Batemans Bay	AS4708:2007 ISO 14001

	229	Total
Plan Compartment ID	20891	NA
Gross Area (ha)	410.2	410.2
Net Harvestable Area (ha)	149.0	149.0
Harvest Area (ha)	149.0	149.0
Poles, Piles, Veneer & Girders	0m ³	0m ³
Quota Logs (HQL)	665m ³	665m ³
High Quality Small	650m ³	650m ³
Salvage	342m ³	342m ³
Pulp E1	1700t	1500t
Pulp E2	0t	0t
Firewood/Misc	1150t	1150t

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

Slope Classes (percent of harvest area)

Slope Class	Cpt 229
	% of harvest area
0-20°	76.5
20-25 °	19.3
25-30 °	3.9

**Forestry Corporation of NSW
Harvesting Plan HP_BB_229_14
Compartment 229**

Attachment 1 – Site Safety Plan

SAFETY CONSIDERATIONS

Emergency Plan Information

(a) **Mobile Phone reception on work site:**

☒ Good ☐ Poor ☐ Nil

Nearest reliable reception: Higher points on Marilyns Road and some ridges within planned area.

(b) **FCNSW Radio from work site:**

Channel No: 236
Call to: Batemans Bay
Call sign from: Your name

Contractor Radio at work site:

UHF Channel No:
Contractor Radio No:
Call to Bush Boss:

(c) **Emergency meeting point for ambulance:**

Junction of Black Flat Road & Marilyns Road
1:100000 map sheet: Batemans Bay 8926
MGA zone: 56
MGA Grid reference: E238080 N6056350.
Lat/Long for GPS: 35° 36' 7" S 150° 6' 32" E.

(d) **Closest Helicopter Landing Place:**

Black Flat Road: old dump within Cpt 221. Access via 221/1 Road (off Black Flat Road).
1:100000 map sheet: Batemans Bay 8926
MGA zone: 56
MGA Grid reference: E236472 N6056191.
Lat/Long for GPS: 35° 36' 11" S 150° 5' 28" E.

(e) **Procedure for obtaining Ambulance assistance:**

Dial "000" OR Call Batemans Bay Forestry Office 1300 880 548 for Ambulance assistance.

Dial "112" only as an alternative to "000" if you have a GSM digital mobile phone and you are outside your own provider's GSM network coverage area.

"000" Operator Question.

Response

1. Police , Fire , Ambulance? Ambulance.
2. Suburb (*State Forest name*): Currowan
 (*Nearest town or named locality*): Nelligen
 (*Nearest Ambulance station*): Batemans Bay
3. Address: (*Nearest named State forest road*): Marilyns Road
4. Nearest Road Junction: Black Flat Road and Marilyns Road Junction.
- 5 Local Government Area: Eurobodalla Shire Council.
6. Nature of the problem: Give details of accident, number and condition of casualties.
7. Where is the accident: Worksite location (Centre of Compartment).
 MGA Grid reference: Zone 56 E239100 N6053600.
 Lat/long for GPS: 35° 37' 37" S 150° 7' 9" E.
8. Directions to navigate from Ambulance Station to meeting point:
 Directions from Batemans Bay:
 - Head North on the Princes Highway for approx. 750m to Kings Highway junction.
 - Turn left onto Kings Highway and travel for approx. 17 km to Black Flat Road junction (on the right).
 - Turn right onto Black Flat Road and travel for approx. 4.4 km to Marilyns Road Junction (on the right).
9. Injuries?: Give detailed information about the condition of the casualty.
10. Call back No.: Give your Mobile Number.
 or Batemans Bay Office:1300 880 548.
11. Name of Reporter: Give own name.

Site Specific Identified Hazards

IDENTIFIED HAZARD	RISK RATING (prior to implementation of control measures)	SUGGESTED CONTROL STRATEGY	RISK RATING (after implementation of control measures)
1. Vehicle collision at adjoining roads of various traffic levels	1B	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.	2E
4. Cliff lines & rocky very steep terrain	3C	Operators to assess work site within two tree lengths to identify immediate hazards. Communicate to other operators and mark sites.	3E
5. Mine shafts/quarries	3C	Planning Unit identified as having potential mine shafts: None located or marked. Assess snig track routes and tree felling paths prior to operating. Identify and mark site accordingly.	3E
6. Hazardous or dead trees	1B	Refer to FCNSW safety standard 1.3.9. 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.	1D
7. Overhead hazards associated with dumps	1B	Refer to FCNSW safety standard 1.3.9. 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.	1D
8. Dust from passing vehicles along dirt haulage routes	1B	Restrict speed to minimise dust generation, slow down when passing vehicles. Turn on driving and hazard lights to increase visibility.	2E

Hazard No.4 is shown on the attached HPOM. Other areas may be present.

Hazard No. 6. • Trees marked (Ø/pink tape) along SE boundary with PP: imbedded fencing wire.

- Large spotted gum with large branch hung up above 229/6 Road marked with yellow and pink tape.

Risk ratings are in accordance with FCNSW Document “Risk Management Assessment Matrices, TRIM No. D00143573 Version No.: 1 Issue Date: June 2013 Review Date: June 2014 “.

Traffic management/road closures

This plan identifies haulage from the compartment will be north via Marilyns Road turning left onto Black Flat Road (Shire Owned), and then turning left or right onto the Kings Highway (RMS). The intersection of Marilyns Road and Black Flat Road has been assessed as exceeding the minimum of 120m sight distance (road condition: 60km/hr) on both approaches (East 260m / West 280m). Therefore at this intersection additional signage in accordance with a Traffic Control Plan is not required.

Road intersections outside the control of FCNSW are not covered by this plan or any FCNSW Traffic Control Plan. Haulage contractors must abide by RMS road laws and standard operating procedures in relation to haulage routes outside the control of FCNSW.

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.

School bus route - No roads within the planned area or the haulage road Black Flat Road are used by school buses.

Note: Local traffic from private property in the area use Black Flat Road.

Silviculture and Harvesting Prescriptions

Year	1938	1972	1974	1994	2004
TSI	X	X	X	X	X
HR Burning	X	X	X	Ö	X
Wildfires	Ö	X	X	X	Ö
Logging m ³	0	347	643	0	0

Ö - applies, X – not applicable

Compartment	Resource Unit	No. of Sweeps	BA Average (m ² /ha)	BA Range (m ² /ha)
229	1	10	28	18-34
229	2	7	25	20-32

Silvicultural Planning**Single Tree Selection**Resource Unit 1

Multi-aged forest, dominated by the mature / over mature component. The resource unit will be harvested under a heavy single tree selection (STS) regime. The objective within the 86.3 ha harvest area for this operation is to remove 45% of the basal area whilst retaining and minimising damage to stems with the best potential to produce future high quality products, to create canopy openings for regeneration and minimising damage to seed trees, habitat trees and habitat recruitment trees as per TSL.

Resource Unit 2

Predominantly even aged regrowth forest, with a minor mature component. The resource unit will be harvested under a medium single tree selection (STS) regime. The objective within the 62.7 ha harvest area for this operation is to remove 35% of the basal area, whilst retaining an even distribution of stems with the best potential to produce future high quality products and minimising damage to habitat trees and habitat recruitment trees as per TSL.

Resource Unit 3

Even aged regrowth forest. Excluded from harvesting.

Single Tree Selection (STS) must remove no more than 45% of the basal area (BA), while retaining a minimum BA of 10m² per hectare within the tract.

Resource Unit (Refer to HPOM for detail)	Species Composition	Stand History	Stand Structure and Condition
1	<p>Overstorey dominated by spotted gum (<i>Corymbia maculata</i>) and grey ironbark (<i>Eucalyptus paniculata</i>),</p> <p>Other overstorey species include: white stringybark (<i>E. globoidea</i>), blackbutt (<i>E. pilularis</i>), Sydney blue gum (<i>E. saligna</i>), red bloodwood (<i>C. gummifera</i>), blue-leaved stringybark (<i>E. agglomerata</i>) Sydney peppermint (<i>E. piperita</i>), rough-barked apple (<i>Angophora floribunda</i>).</p>	<ul style="list-style-type: none"> The resource unit has undergone selective logging, targeting sawlogs and mining timber, in the 70's. 	<ul style="list-style-type: none"> The resource unit is a multi-aged forest, dominated by the mature \ over mature component.
2	Same species composition as Resource Unit 1.	<ul style="list-style-type: none"> The resource unit has undergone selective logging, targeting sawlogs and mining timber, in the 70's. 	<ul style="list-style-type: none"> The resource unit is predominately even-aged regrowth dominated forest, with a minor mature component. The regrowth component would benefit from basal area reduction and release from the mature \ over mature component.
3	Same species composition as Resource Unit 1.	<ul style="list-style-type: none"> The resource unit has undergone selective logging, targeting sawlogs and mining timber, in the 70's. 	<ul style="list-style-type: none"> The resource unit is predominately even-aged regrowth dominated forest. Limited commercial value due to low sawlog yield.

Harvesting Prescription

	% of Harvest Area	Silvicultural Treatment
1	58%	<p>STS heavy:</p> <ul style="list-style-type: none"> Retain and protect from harvesting/fire damage: <ul style="list-style-type: none"> habitat and recruitment trees as per TSL, Seed trees within 2 tree heights of large canopy openings, where lignotubers are not present. Canopy openings should be adequately disturbed to be receptive to seed regeneration if lignotubers are not present. advanced regrowth (<40cm DBHOB) with the best potential to produce future high quality products with good form and vigour, Retained trees should be evenly spaced throughout the resource unit. Ensure no more than 45% of the BA within the resource unit is removed, while retaining a minimum BA of 10m² per hectare within the tract. 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
2	42%	<p>STS medium:</p> <ul style="list-style-type: none"> Retain and protect from harvesting/fire damage: <ul style="list-style-type: none"> habitat and recruitment trees as per TSL, Seed trees within 2 tree heights of large canopy openings, where lignotubers are not present. Canopy openings should be adequately disturbed to be receptive to seed regeneration if lignotubers are not present. Retain additional advanced regrowth trees (<40cm DBHOB) with good form and vigour and potential to produce high future quality products to ensure the total BA removed across the resource unit is no more than 35%. Retained trees should be evenly spaced throughout the resource unit for development into the next crop. <p><u>Retained tree selection: Future Crop</u></p> <ul style="list-style-type: none"> Good tree form – straightness, shape, minimal limbs etc Healthy full crowns Wood quality – look for minimal signs of defect – bumps, scars, hollows, spiral grain, bleeds etc. All other products should be removed.
3		<ul style="list-style-type: none"> Excluded Forest

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 229 is within Eurobodalla 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 Eurobodalla 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

No Permanent Growth Plots or Research Plots are located within the planning area. Any inventory plots located during the harvesting operation are to be treated the same as the surrounding area.

Road Works

Within the compartment boundary only roads that are shown on the HPOM as EPL standard or sealed may be used for haulage.

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 229.

Name	Lot/DP Number (s)	Postal Address	Contact number (& email if available)	Was harvest plan notification letter returned to sender?	Pre burn notification done?
	Lots 19, 20, 21, 37, 43, 44, DP 755969 and Lot 38 DP 607157		N/A	No	
	Lot 32 DP 755969			No	
	Lot 24 DP 755969		N/A	No	
	Lot 23 DP 755969		N/A	No	
	Lot 22 DP 755969		N/A	No	
	Lot 18 DP 755969		N/A	No	
	Lot 45 DP 755969		N/A	No	

- 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.

Apiary

4 apiary bee ranges sites, are located within the planning unit as detailed in the table below. Contact details are available from the Batemans Bay office.

Name	Permit type & No.	Contact number	Pre burn notification complete?
	Scbby 19.22 & 19.23		
	Scbby 18.23		
	Scbby 18.22		

- The HC must provide the apiary permittees with at least two weeks advance notice when bee boxes need to be removed or relocated.
- Permanent apiary set down sites are located on dump 4 (not proposed to be used) and dump 10 (see HPOM). They must be levelled and free of debris at the completion of logging. They are also not to be ripped.

Rocky Terrain

Rocky terrain may occur within the net planned area. Rocky terrain shown on the HPOM was not assessed at the planning stage and needs to be assessed to determine whether it meets the definition of a rocky outcrop or cliff. FT/HC will continue to conduct on the ground mark-up and searches and report back to HS / Harvest Planner / Ecologist any feature requiring further investigation.

Underground Cables

A dial before you dig request query of the compartment indicates that **no underground cables are present within the compartment.**

Forest Management Zoning

Only FMZ 4- General Management (normal harvesting prescriptions apply) occur within the compartment. Refer to HPOM for more detail.

IFOA Required Approval of Forestry Activities

All areas of Rainforest require prior OEH approval and Stream Exclusion Zones require prior Planning Supervisor approval before forest harvesting related activities (eg: road or snig track construction & reopening) can be undertaken. It is the responsibility of the HC to identify any exclusion areas which will need to be crossed during harvesting. The HC should then contact the Harvest Planner to obtain the necessary approval.

Cultural Heritage

Cultural Heritage - There are no Cultural Heritage sites within the compartment. All relevant representatives have been consulted &/or inspected Compartment 229.

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** (*Calyptorhynchus lathami*), **Grey-headed Flying Fox** (*Pteropus poliocephalus*), **Black Bittern** (*Ixobrychus flavicollis*), **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	0	0	0
TSL condition	5.6d	5.6e	5.6h	5.6f	5.6g

0 - Condition applies

*4 Glossy black cockatoo feed trees occur within compartment 229 at locations shown in the table below. Note all of these are within the planned harvest area.

Species	Feature	Zone	GDA Easting	GDA Northing	Comments
Glossy Black-Cockatoo	Feed tree	56	238630	6053033	Marked with pink tape
Glossy Black-Cockatoo	Feed tree	56	238623	6053043	Marked with pink tape
Glossy Black-Cockatoo	Feed tree	56	238713	6054081	Marked with pink tape
Glossy Black-Cockatoo	Feed tree	56	238692	6053018	Marked with pink tape

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 as a risk that Warm Temperate/Cool Temperate/Depauperate (Dry) may occur in the field. May require further investigation#.
Riparian Protection Zones	5.7	Yes
Ridge & Headwater Habitat	5.8	Yes
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 as a risk that it may occur in the field. May require further investigation#.
Endangered Ecological Community	NA	Has been assessed as a risk that River-flat Eucalypt Forest on Coastal Floodplains of the New South Wales South East Corner Bioregion EEC may occur in the field. Requires further investigation# during pre-harvest markup. Harvesting, harvesting machinery and post harvest burning must be excluded from all areas of EEC.

#FT/HCs 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 229	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 229	Licence conditions under the TSC Act or relevant Site-specific prescription
Powerful Owl <i>Ninox strenua</i> , Masked Owl <i>Tyto novaehollandie</i> .	No	6.4 If Owl Landscape within compartment - <i>Owl Landscape Exclusion Zones occur in compartment 229.</i>
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>	No	6.13
<i>Correa baeuerlenii</i>	No	6.16.1 Exclusion of specified forestry activities from 100% of individuals and no buffer. To assist burning crew exclude burning individuals, minimise accumulation of debris around the base or retained trees within a 10m radius of each record. Species profile is attached to plan.

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****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.

Stream Order	EPL Filter Strip TSL Protection (hard)	EPL Protection Zone TSL Protection* (soft)	EPL Operational Zone
Unmapped	N/A#	N/A#	N/A#
1st order	5	5	10
2nd order	5	15	10
3 rd order	5	25	10
4 th order or greater	5	45	10

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

10 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.

Bee set down Dump 4 has not been marked as it is not proposed to be used. Dump 5 should service the harvest area. Dump 4 can be used if required but it must be levelled, free of debris and not ripped at the completion of logging.

Dump 6 is also to be used as a turning circle for haulage from McCardys Creek Road northwest on Marilyns Road.

Inherent hazard level 2 Conditions 26, 27, 28, 30, 31 and 33 of Schedule 4 of the EPL must apply.

Drainage Feature Crossings

One snig track crossing (S1) to be utilised as a part of a control line for post harvest burning and 1 road crossing (C1) are approved for use on drainage features. (Refer to HPOM). Road crossing details are contained in Attachment 2 of this Plan. Snig track crossing details are provided below:

Crossing Name & Coordinates	Crossing details	Required Works
S1 PP boundary control line Easting 240382 Northing 6052807	Mapped 1 st order drainage line, occurs as a drainage line in the field. Existing Natural Causeway crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Maintain natural causeway crossing (expected side cut <0.5m) as per EPL. Maintenance should minimise disturbance and clearing and be at right angles to the flow unless an angled approach results in reduced disturbance. Armour depression with rock/gravel if required in wet conditions. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL. Insure cross banks are trafficable by 4WD.

Mass Movement

Compartment 229 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 229. 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
Boundary between harvest area and Ridge & Headwater habitat	
Boundary between harvest area and Rainforest	

The table below lists critical boundaries in compartment 229. 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 to 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
Boundary between harvest area and probable EEC exclusion (River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales South East Corner Bioregion)	
From Marilyn's Road west along Private Property boundary to 4 th order drainage line (existing track along boundary)	
Boundary between Marine Park Habitat Protection Zone and associated FMZ 2 and Owl Landscape (Excluded Forest)	

Pre-Operational Briefing

I acknowledge that I have received a copy of the Harvesting Plan for Compartment 229 in Currowan 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	No				
New Roads	No				
Heath	No				
Powerlines etc	No				
Other (state what it is)					

HC/FT Notes

[illegible]

HC/FT Notes (continued)

[illegible]

HC/FT Notes (continued)

[illegible]

HC/FT Notes (continued)

[illegible]

HC/FT Notes (continued)

[illegible]

Clearance Certificate

COMPARTMENTS: 229

CURROWAN STATE FOREST, SOUTHERN REGION

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 Operations Branch 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	WP	GPS (GDA 94E)	GPS (GDA 94N)	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	404	238962	6053118	26				RU 2 STS Medium
2	405	239235	6053702	26				RU 2 STS Medium
3	406	239167	6053581	34				RU 1 STS Heavy
4	409	238632	6053874	18				RU 1 STS Heavy
5	410	238531	6054207	20				RU 2 STS Medium
6	416	239391	6054375	20				RU 1 STS Heavy
7	419	240291	6052946	38				RU 1 STS Heavy
8	421	240081	6054133	34				RU 1 STS Heavy
9	422	239861	6053688	24				RU 1 STS Heavy
10	423	239895	6053970	20				RU 1 STS Heavy
11	426	238686	6052953	22				RU 2 STS Medium
12	429	238446	6053311	26				RU 2 STS Medium
13	431	238384	6053751	32				RU 2 STS Medium
14	432	238134	6053733	34				RU 1 STS Heavy
15	433	238362	6054109	30				RU 1 STS Heavy
16	434	238652	6054729	28				RU 1 STS Heavy
17	435	240245	6053171	24				RU 2 STS Medium
Average				27				

NOTE: the featureclass 'BA_Sweeps' within the plandata database can be uploaded to GPS to locate each sample point.

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
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Summary of Roding Requirements

Feature	Details	Works Required
Existing roads to be used.	6480m / 6	Yes
New roads to be constructed	90m / 1	Yes
Existing crossings used	1	Yes
New crossings to be constructed	0	NA
Length of road >10°	40m	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 the Roding team must be recorded and passed onto the HC Harvesting for completion and documentation.

The start and finish dates of all maintenance and construction must be recorded on the individual roding 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
McCardy Creek Road (1500m)	<ul style="list-style-type: none"> • Minor grading and roadside clearing. • x3 new mitres required. • x6 rubber flap crossbanks required. • Clear existing mitres and pipes to ensure they are draining effectively. • Replace rollover crossbanks with rubber flaps. • 40m @ 11° near Marilyn's Road intersection – no realignment necessary. • Clean x 3 existing pipes (pipe 297 & x2 immediately west) and install flume drop down structure on non-EPL section near compartment western boundary. <p>RC/HC Comments:</p>			

Road/Crossing Name	Works Required	Date Started	Date Finished	Signature
Marilyns Road (2875m)	<ul style="list-style-type: none"> • Minor grading and roadside clearing. • Dump 6 to be used as a turnaround for haulage from McCurdy Creek Road out to Black Flat Road. • x2 new mitres required. • x3 new rubber flap crossbanks required. • Replace rollover crossbanks with rubber flaps. • Install dropdown structure with existing pipe (542) south of 228/1 Road. • Clear existing mitres and pipes to ensure they are draining effectively. <p>RC/HC Comments:</p>			
Cpt 229/1 Road (610m)	<ul style="list-style-type: none"> • Pavement and roadside clearing • Reshape where required • Install mitre drains, rollover and/or rubber flap crossbanks in line with EPL. • The installation of additional rollover crossbanks is recommended past the EPL licensed road along the cutting immediately east of the EPL licensed section. Currently the total length of the cutting drains into a mitre at the cutting end point which has lead to erosion. <p>RC/HC Comments:</p>			
Cpt 229/4 Road (625m)	<ul style="list-style-type: none"> • Pavement and roadside clearing • Reshape required – rilling on pavement and in table drain. • Install mitre drains, rollover and/or rubber flap crossbanks in line with EPL. <p>RC/HC Comments:</p>			

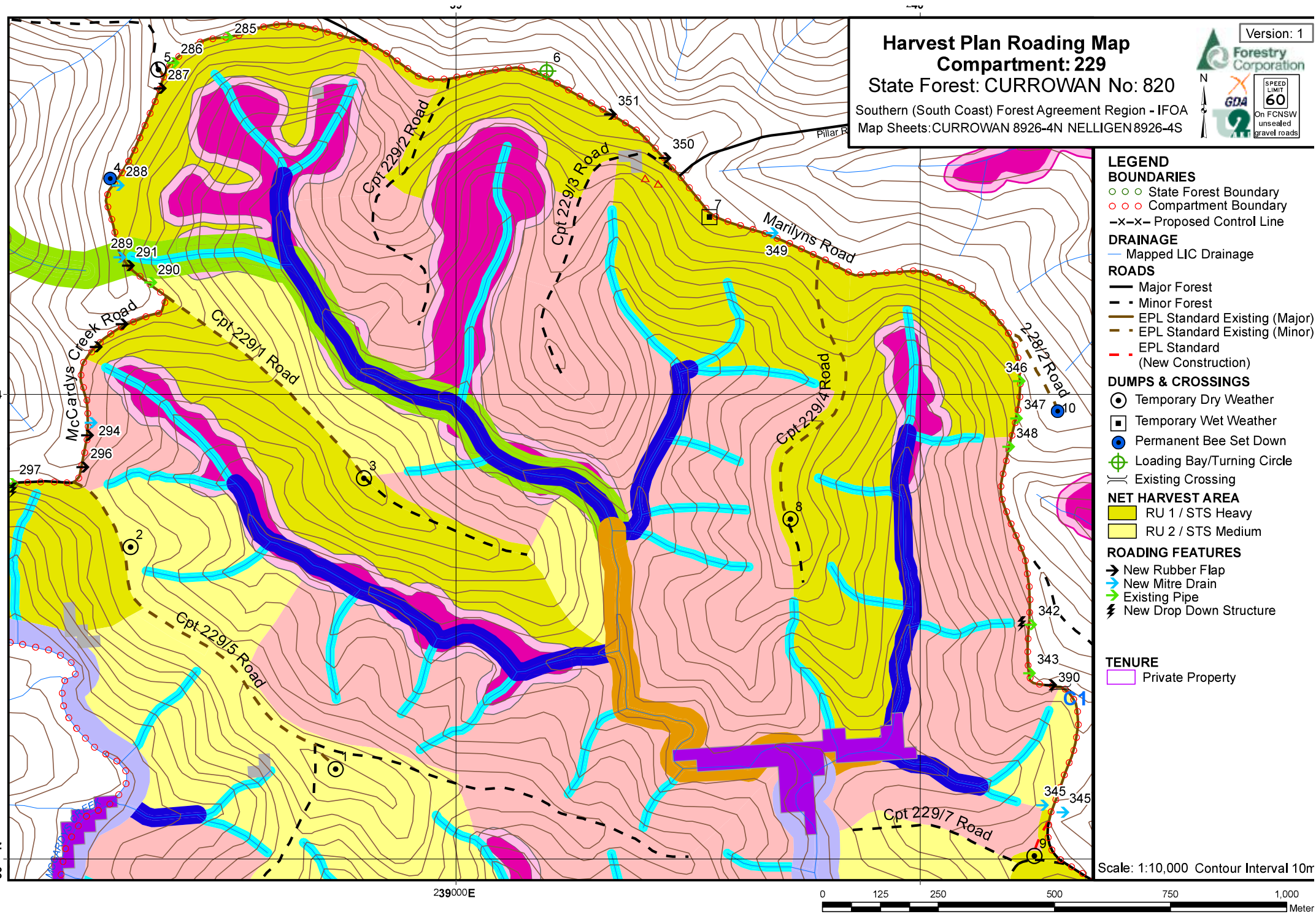
Road/Crossing Name	Works Required	Date Started	Date Finished	Signature
Cpt 229/5 Road (780m) Cpt 229/5 Dump Road (90m)	<ul style="list-style-type: none"> Pavement and roadside clearing Reshape where required Install mitre drains, rollover and/or rubber flap crossbanks in line with EPL. RC/HC Comments:			
C1 (Marilyns Road) Easting 240304 Northing 6053369 Mapped 1 st order drainage line, occurs as a drainage line in the field. Existing Pipe (450mm) Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	<ul style="list-style-type: none"> Outlet scour protection: Flume drop down structure and/or 200mm diameter packed rocks. Install windrow on cutting side of road edge from northern 5-30m drainage to 5m past C1. Seed and mulch to be used on disturbed areas. Northern approach 5-30m drainage: Install rubber flap crossbank at 22m. Install sediment trap in table drain between rubber flap and crossing point. Southern approach 5-30m drainage: Nil required. Approach is -5°. Sediment will be deposited away from drainage line. RC/HC Comments:			

NEW ROAD CONSTRUCTION**Road Specific Conditions:**

Road Name	Road Length (m)	Max. width of road prism (m)	Max. road grade (length road > 10 degrees?)	Max. ground slope (length road > 30 degrees?)	Estimated Max. height of cut / fill batters (m)	Estimated Max length of batters (m)	Mass movement / dispersible soils	Final road use	Responsibility	Start Date	Finish Date
229/7 Dump Road	90m	7m	7°	10°	<0.5m	80m	no	Temp.	Contractor		

Additional Instructions for road construction (in addition to General Instructions for Road Construction contained in harvest plan standard conditions):

There is extensive amount of dumped rubbish around dump 9 (229/7 Road). The majority is scrap metal. The HC must organise for the rubbish to be collected and disposed of correctly.



Harvest Plan Roding Map

Compartment: 229

State Forest: CURROWAN No: 820

Southern (South Coast) Forest Agreement Region - IFOA

Map Sheets: CURROWAN 8926-4N NELLIGEN 8926-4S

Version: 1

On FCSW
unsealed
gravel roads

LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Proposed Control Line

DRAINAGE

- Mapped LIC Drainage

ROADS

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

DUMPS & CROSSINGS

- Temporary Dry Weather
- Temporary Wet Weather
- Permanent Bee Set Down
- Loading Bay/Turning Circle
- Existing Crossing

NET HARVEST AREA

- RU 1 / STS Heavy
- RU 2 / STS Medium

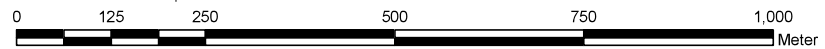
ROADING FEATURES

- New Rubber Flap
- New Mitre Drain
- Existing Pipe
- New Drop Down Structure

TENURE

- Private Property

Scale: 1:10,000 Contour Interval 10m



Correa baeuerlenii Chef's Cap

Description:

- small to medium shrub about 2m high and 2m wide.
- Leaves: 6cm long and 2cm wide, glossy dark green on top and lighter underneath.
- flowers are cylindrical, about 3cm long and greenish yellow in colour.
- A cap like structure connects the top of the flower to the plant stem and resembles a chef's hat

Habitat:

- Found in damp gullies and on the banks of streams

Distribution:

- south coast of NSW from Batemans Bay to Bega,
- inland to the foothills of the Great Dividing Range escarpment.

TSL REQUIREMENTS

- **Condition 6.16.1 Exclusion of specified forestry activities from 100% of individuals and no buffer**



FORESTRY CORPORATION OF NSW-SOUTHERN REGION**Harvest Plan Briefing Form**

State Forest	Compartment	Event ID	Date Previous Reliable Survey Expires	EPL Licenced? No (New road and/or Harvesting)
Currowan	229	20891	13/02/2022	Harvesting

Stage of plan at time of briefing (circle applicable): **Draft** **Final**

Name of person carrying out briefing: _____

Position of person carrying out briefing (circle applicable):

Planning Supervisor, Planner, Harvesting Supervisor, Roding Supervisor, Forest Technician, Harvesting Coordinator, Roding Coordinator Other
(specify) _____

Items to be covered by briefing:	Comment
1. Flora & Fauna Site/Species Specific prescriptions.	<ul style="list-style-type: none"> • x3 Glossy Black-Cockatoo feed trees • Additional greater glider tree retention does NOT apply.
2. Roding requirements (can include shire and private property road requirements).	<ul style="list-style-type: none"> • All existing Roads. • C1 – existing crossing on Marilyns Road.
3. Exclusion zones (eg riparian, FMZ, EEC, ridge & headwater, etc).	<ul style="list-style-type: none"> • Harvesting Protection FMZ 2 (w/ Batemans marine park & owl landscape) -not adjacent to harvest area wont be affected. • Ridge & Headwater Habitat. • Rainforest. • Probable EEC – River-flat Eucalypt Forest on Coastal Floodplains of the New South Wales South East Corner Bioregion. • Drainage exclusions
4. Cultural heritage issues.	<ul style="list-style-type: none"> • Nil CH sites.
5. EPL prescriptions (seasonality restrictions, mass movement, erosion, dispersable soils, site specific prescriptions etc).	<ul style="list-style-type: none"> • IHL 2 • IHL 4 (slope >30°) • S1 snig crossing – required for burning control line.
6. MEEP, site specific hazards and traffic management sections of the harvest plan clearly explained?	<ul style="list-style-type: none"> • MEEP intersection of Marilyns & Black Flat Road • HLA: old dump site within Cpt 221 Access via 221/1 Road (off Black Flat Road)
7. Special boundaries prescriptions/issues (eg National Park, Marine Park, PP)	Private Property borders southern boundary of compartment 229.

HP_BB_229_14_Harvest Plan Briefing Form

8. Silviculture	<ul style="list-style-type: none"> • STS Heavy & Medium. • Where large gaps occur and lignotubers are not present, seed trees should occur within 2 tree heights for seed regeneration and gaps heavily disturbed. • Resource Unit 2 is regrowth dominant: <ul style="list-style-type: none"> ◦ STS Medium: max. 35% BA removal ◦ Ensure a viable crop of trees with potential to produce future high quality products is retained.
9. Critical Boundaries for burning	<ul style="list-style-type: none"> • Boundary between harvest area and probable EEC • From Marilyns Road west along Private Property boundary to 4th order drainage line (existing track along boundary) • Boundary between Marine Park Habitat Protection Zone and associated FMZ 2 and Owl Landscape • Other critical boundaries are exclusions for: Rainforest and Ridge and Headwater Habitat.
10. Other items	<ul style="list-style-type: none"> • Fisheries Licence not triggered. • Where Harvest Area and Excluded forest occur on the same ridge, Harvest area extends 20m over the ridgetop roads. • Some dumps are to be used for both HP_BB_229_14 & HP_BB_227_228_230_08.

I acknowledge all the items of this briefing form as per harvest plan HP_ED_310_311_12 have been clearly explained to me and that any conditions which were not clear have been resolved:

Name	Position	Signature	Date

Document the distribution of this harvest plan (or components of this harvest plan) in the table below.

Name	No. of copies	Date	Comments (i.e. roading plan only)

