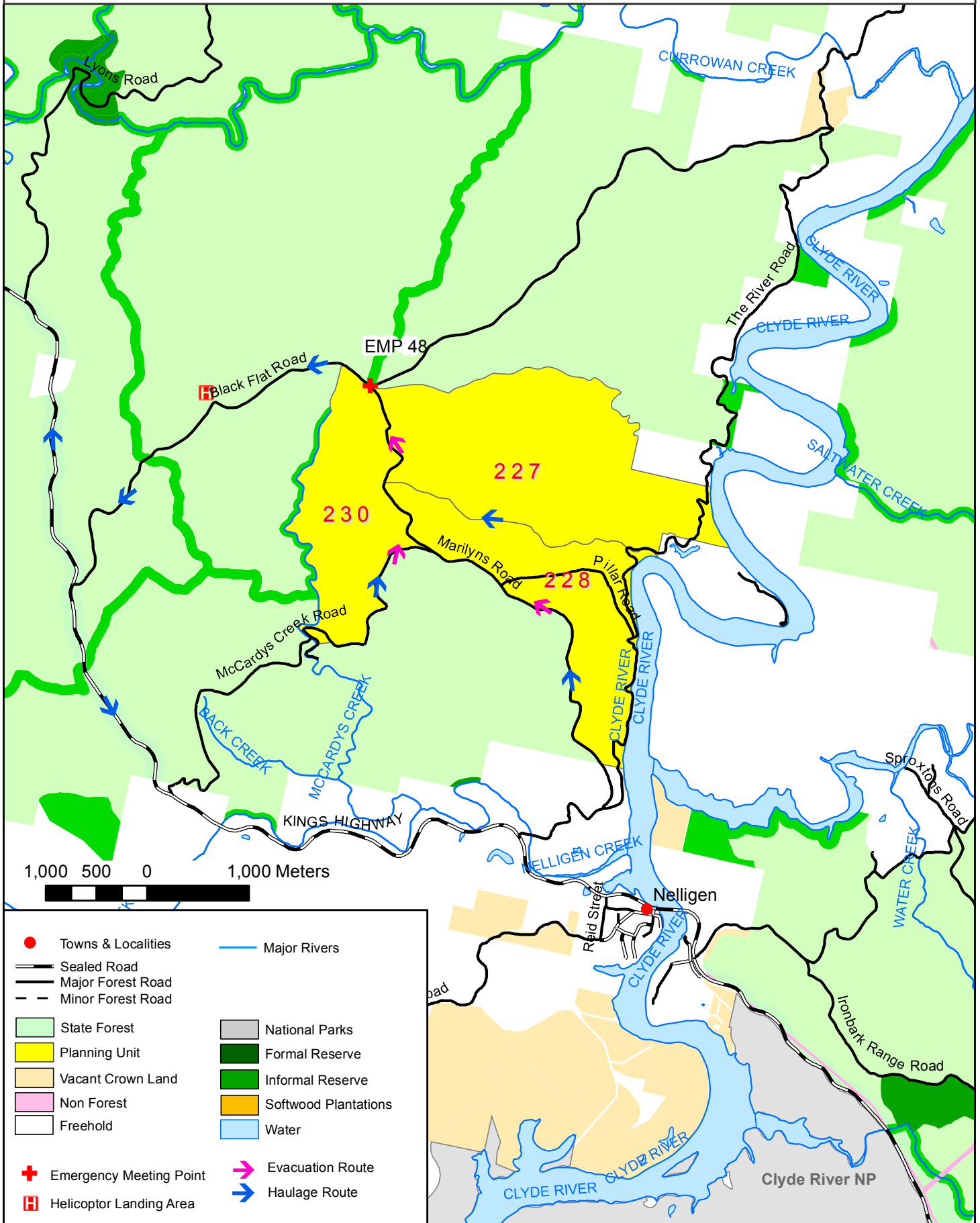


# LOCALITY MAP

Compartments 227, 228, 230  
Currowan State Forest No.820

SOUTHERN IFOA - South Coast: BATEMANS BAY MANAGEMENT AREA  
Scale: 1:50,000



	Towns & Localities		Major Rivers
	Sealed Road		Major Forest Road
	Minor Forest Road		State Forest
	Planning Unit		National Parks
	Vacant Crown Land		Formal Reserve
	Non Forest		Informal Reserve
	Freehold		Softwood Plantations
	Emergency Meeting Point		Water
	Helicopter Landing Area		Evacuation Route
			Haulage Route



# Harvest Plan Operational Map

## Compartments 227,228,230

State Forest: CURROWAN No: 820

Southern IFOA - South Coast

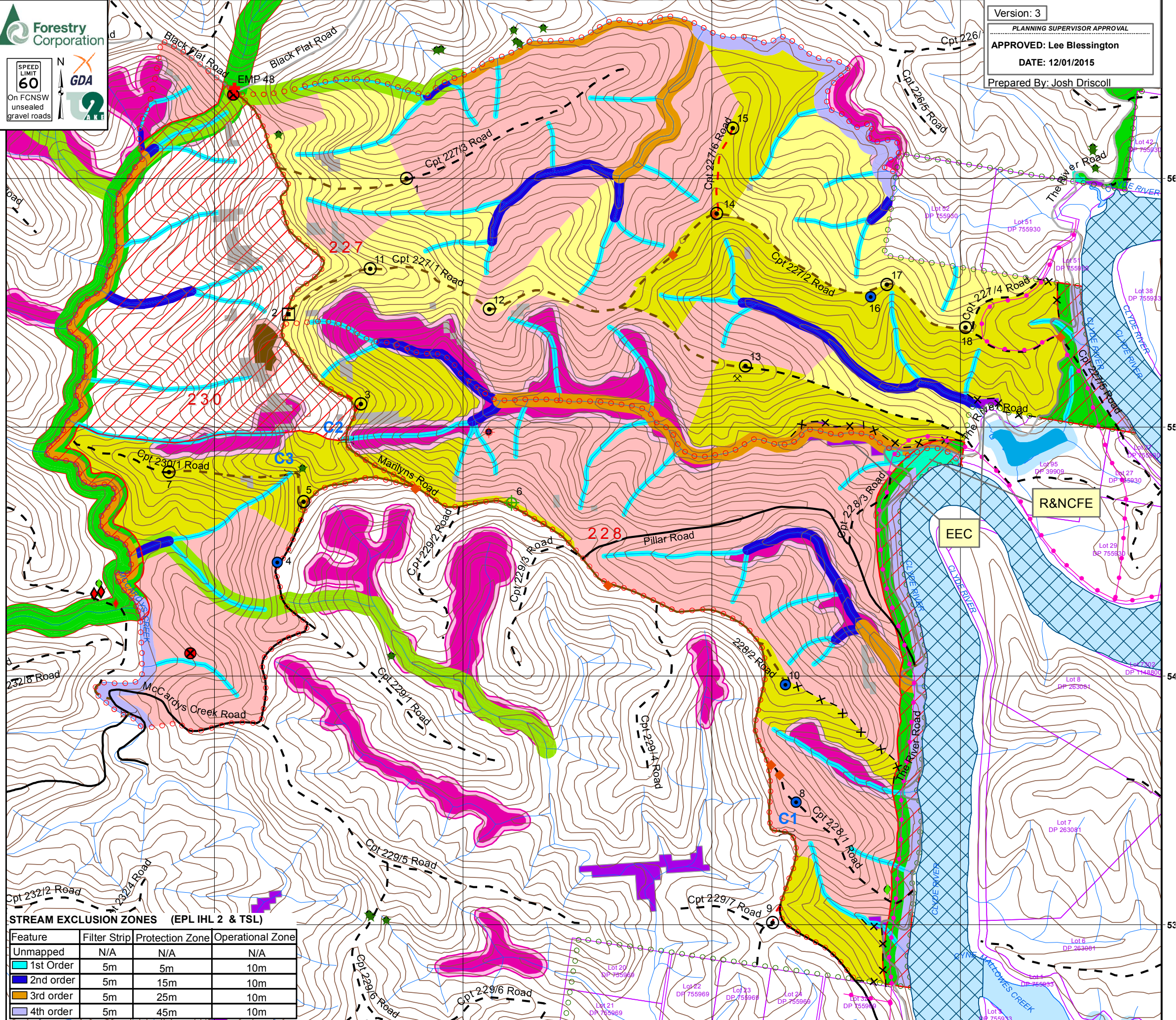
Map Sheets: CURROWAN 8926-4N NELLIGEN 8926-4S



Version: 3  
 PLANNING SUPERVISOR APPROVAL  
 APPROVED: Lee Blessington  
 DATE: 12/01/2015  
 Prepared By: Josh Driscoll

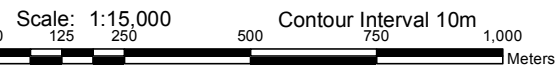
### LEGEND

- BOUNDARIES**
  - ○ State Forest Boundary
  - ○ Compartment Boundary
  - x-x- Proposed Control Line
- DRAINAGE**
  - Mapped LIC Drainage
- ROADS**
  - Major Forest
  - - Minor Forest
  - EPL Standard Existing (Major)
  - - EPL Standard Existing (Minor)
  - - EPL Standard (New Construction)
  - Shire Owned/Maintained
- DUMPS & CROSSINGS**
  - ⊙ Temporary Dry Weather
  - ⊠ Temporary Wet Weather
  - ⊙ Permanent Bee Set Down
  - ⊕ Loading Bay/Turning Circle
  - Existing Crossing
- NET HARVEST AREA**
  - RU 1 \ FMZ 4 \ STS Heavy
  - RU 2 \ FMZ 4 \ STS Medium
- NON HARVEST AREA**
  - Harvesting Protection (FMZ 3A)
  - Probable Rainforest & Exclusion Zone (20m)
  - Ridge & Headwater Habitat (40m & 80m total width)
  - Owl Landscape
  - Probable EEC - Riverflat Eucalypt on Coastal Floodplains of the New South Wales South East Corner Bioregion
  - Slopes >30 (IHL 4)
  - RU 3 \ FMZ 4 \ Excluded Forest
  - Rare & Non Commercial Forest Ecosystems: South Coast Swamp Forest - Casuarina glauca
  - Probable Rock & Exclusion Zone (20m)
- MARINE PARK AUTHORITY ZONE**
  - Habitat Protection Zone
- TENURE**
  - Private Property
- OTHER MAP FEATURES**
  - Water bodies
- UTILITY**
  - Underground Cable
- RESEARCH PLOTS**
  - ⊕ Permanent Growth Plot
- SAFETY POINTS**
  - ⊕ Emergency Meeting Point
- FAUNA FEATURES**
  - ⊕ Sooty Owl
  - ⊕ Powerful Owl
  - ◆ Yellow-bellied Glider (Feed Tree)
  - ◆ Yellow-bellied Glider (Den)
  - ◆ Yellow-bellied Glider (Heard)
  - ◆ Glossy Black-Cockatoo (Feed Tree)
  - ◆ Grey-headed Flying-fox



### 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





# Harvest Plan Forest Type Map

## Compartments 227,228,230

State Forest: CURROWAN No: 820

Southern IFOA - South Coast

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



### LEGEND

- BOUNDARIES**
- State Forest Boundary
  - Compartment Boundary

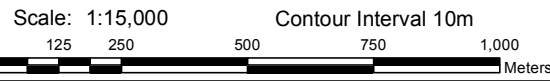
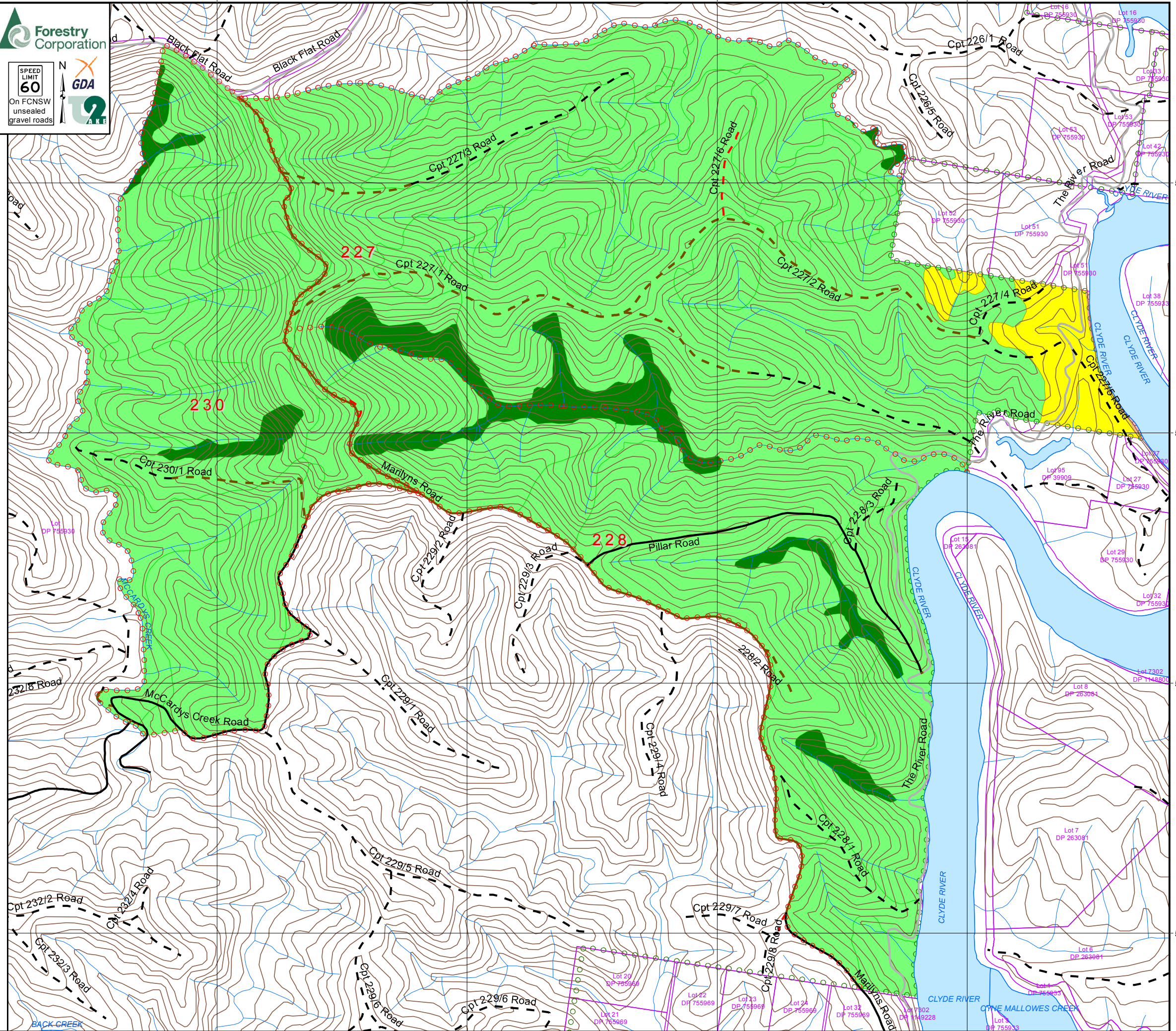
- DRAINAGE**
- Mapped LIC Drainage

- ROADS**
- Major Forest
  - Minor Forest
  - EPL Standard Existing (Major)
  - EPL Standard Existing (Minor)
  - EPL Standard (New Construction)
  - Shire Owned/Maintained

- FOREST TYPE**
- Spotted Gum - 741.4 ha
  - Coastal Dry Forest - 20.1 ha
  - Rainforest - 44.7 ha
  - Non Eucalypt Forest - 0.4 ha

- TENURE**
- Private Property

- OTHER MAP FEATURES**
- Waterbodies





	<b>SOUTHERN (South Coast) Forest Agreement Region IFOA HARVESTING PLAN</b>
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## Currowan State Forest - Compartments 227, 228 and 230

### 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	<b>Lee Blessington</b>
Date	2/10/2014	Date	2/10/2014

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, Roding 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 (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.

**Appendix 3:** Details prescribed burning requirements for the harvesting operation.

**Abbreviations used in this plan**

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

**Area Identification and Yield Estimates**

State Forest	Compartments	Region	Management Area	Certification
Currowan	227, 228 & 230	Southern (South Coast) Forest Agreement	Batemans Bay	AS4708:2007 ISO 14001

	227	228	230	Total
Plan Compartment ID	21848	21849	21850	NA
Gross Area (ha)	383.3	228.4	195.0	806.7
Net Harvestable Area (ha)	187.6	40.5	29.3	257.4
Harvest Area (ha)	187.6	40.5	29.3	257.4
Poles, Piles, Veneer & Girders	0m <sup>3</sup>	0m <sup>3</sup>	0m <sup>3</sup>	0m <sup>3</sup>
Quota Logs (HQL)	686m <sup>3</sup>	138m <sup>3</sup>	205m <sup>3</sup>	1030m <sup>3</sup>
High Quality Small	230m <sup>3</sup>	50m <sup>3</sup>	70m <sup>3</sup>	350m <sup>3</sup>
Salvage	360m <sup>3</sup>	70m <sup>3</sup>	110m <sup>3</sup>	540m <sup>3</sup>
Pulp E1	1000t	200t	300t	1500t
Firewood/Misc	630t	130t	190t	950t

**Note: The yield estimates in the table above are derived from a Tactical Inventory (updated)**

**Slope Classes (percent of harvest area)**

Slope Class	Cpt 227 % of harvest area	Cpt 228 % of harvest area	Cpt 230 % of harvest area
0-20°	77.1	56.9	64.9
20-25 °	17.1	30.5	26.0
25-30 °	5.0	9.6	8.5

**Forestry Corporation of NSW – Southern Region  
Harvesting Plan HP\_BB\_227\_228\_230\_08  
Compartments 227, 228 and 230**

**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.  
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*):  
(*Nearest town or named locality*):  
(*Nearest Ambulance station*):

Currowan  
Nelligen  
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:  
condition of casualties.

Give details of accident, number and

7. Where is the accident:

Worksite location (Centre of Compartment).

MGA Grid reference:

Zone 56 E238334 N6054646.

Lat/long for GPS:

35° 37' 3" S 150° 6' 39" 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
3. Underground cables, pipelines	2D	Minimise ground disturbance across or along cables & pipelines. Increase depth of earth cover if required.	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: One shaft has been identified and is shown on the HPOM. The shaft is not marked in the field. Assess snig track routes and tree felling paths prior to operating. Identify and mark site accordingly.	3E
6. Hazardous or dead trees	1B	<b>Refer to FCNSW operational safety standard OSS010.</b> Assess area within two tree lengths of work site. Assess risk, mark any Distinctly Dangerous Trees with the symbol $\emptyset$ & if necessary remove hazard or move work site. Use machinery to assist with hazard removal if possible <b>Contractor is responsible for implementing control strategies during harvesting.</b>	1D
7. Overhead hazards associated with dumps	1B	<b>Refer to FCNSW operational safety standard OSS010.</b> Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump site. <b>Contractor is responsible for implementing control strategies during harvesting.</b>	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 Nos. 3 & 5 (south of dump 13) are shown on the attached HPOM.

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**

When felling is within two tree lengths of the tallest tree to be felled of Shire owned The River Road and or loading is occurring within 10 metres of this road, the road must be closed in accordance with “TCP78\_57\_TheRiverRoad\_Cpt227\_228”. FCNSW will provide suitably qualified staff to implement this Traffic Control Plan (TCP). The HTL must provide the OTL, 2 weeks notices prior to implementing the TCP.

This plan identifies haulage from the compartments 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.

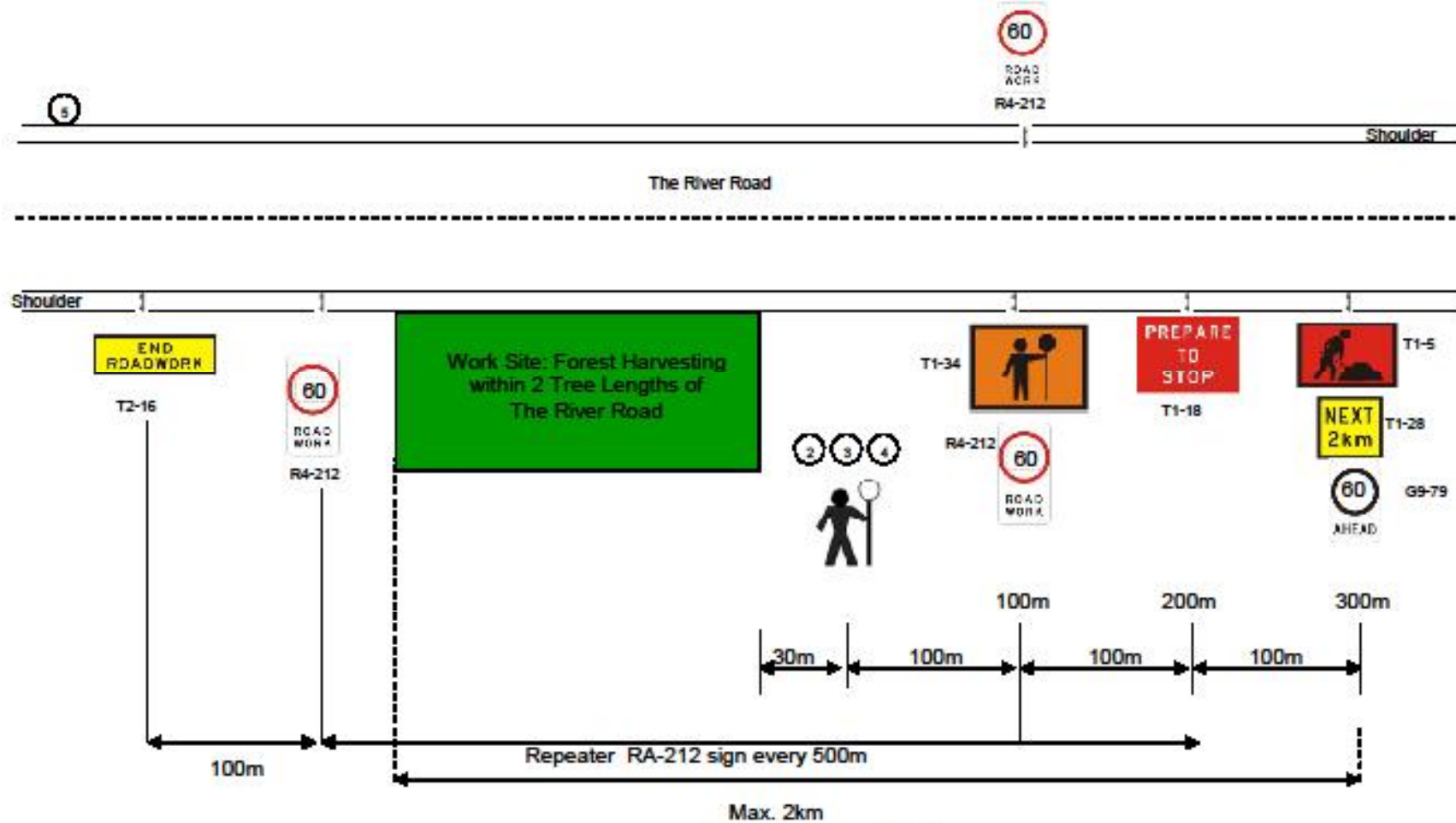
Road intersections outside the control of FCNSW are not covered by this plan or any FCNSW Traffic Control Plan. Haulage contractors must abide by RMS road laws and standard operating procedures in relation to haulage routes outside the control of FCNSW.

### **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. Haulage contractors must be aware that local traffic from private property in the area use Black Flat Road.

**Forestry Corporation NSW Southern Region Traffic Control Plan 78 & 57: Harvesting within 2 Tree Lengths of The River Road**  
 (modified from RTA Traffic Control at Work Site TCP 78 & 57)  
 Speed limit not posted, assumed maximum 100km/hr, drive to the conditions is assessed as 60km/hr



FREQUENTLY CHANGING WORK AREA  
 2 LANE/2 WAY  
 ADT < 3000

Prepared by Kate Hallon, Red Card Certificate No. 5192055074 on 13/08/2014

Notes:

1. Each stoppage less than 5 minutes.
2. Traffic controllers to stop traffic for duration of work and then direct traffic past work area, once tree felling has ceased and any debris has been cleared from road.
3. Traffic controllers and tree faller to maintain radio contact so that no tree felling is occurring while traffic is let through.
4. Traffic controller must have sight distance to oncoming traffic of at least 150m.
5. Traffic control plan must be mirrored for traffic approaching from the opposite direction.
6. If worksite is kept less than 500m long, repeater RA-212 (60 Road Work) signs are not required.

**Silviculture and Harvesting Prescriptions**

**Compartment 227**

Year	1938	1975	1990	1991	1996	2003
<b>TSI</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>HR Burning</b>	<b>X</b>	<b>X</b>	<b>X</b>	√	√	<b>X</b>
<b>Wildfires</b>	√	<b>X</b>	√	√	<b>X</b>	√
<b>Logging m<sup>3</sup></b>	<b>X</b>	<b>2119</b>	<b>X</b>	<b>4455</b>	<b>X</b>	<b>X</b>

√ - applies, **X** – not applicable

**Compartment 228**

Year	1938	1972	1974	1991	2004
<b>TSI</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>HR Burning</b>	<b>X</b>	<b>X</b>	<b>X</b>	√	<b>X</b>
<b>Wildfires</b>	√	<b>X</b>	√	√	√
<b>Logging m<sup>3</sup></b>	<b>X</b>	91	561	<b>X</b>	<b>X</b>

√ - applies, **X** – not applicable

**Compartment 230**

Year	1938	1972	1990	1994	2004
<b>TSI</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>HR Burning</b>	<b>X</b>	<b>X</b>	<b>X</b>	√	<b>X</b>
<b>Wildfires</b>	√	√	√	<b>X</b>	√
<b>Logging m<sup>3</sup></b>	<b>X</b>	145	<b>X</b>	<b>X</b>	<b>X</b>

√ - applies, **X** – not applicable

Compartment	Resource Unit	No. of Sweeps	BA Average (m <sup>2</sup> /ha)	BA Range (m <sup>2</sup> /ha)
227, 228 & 230	1	17	24	10-36
227, 228 & 230	2	4	25	16-32

**Silvicultural Planning**

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 150.1 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 107.4 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 10m<sup>2</sup> per hectare within the tract.**

Resource Unit (Refer to HPOM for detail)	Species Composition	Stand History	Stand Structure and Condition
1	Overstorey dominated by spotted gum ( <i>Corymbia maculata</i> ) and grey ironbark ( <i>Eucalyptus paniculata</i> ).  Other overstorey species include: white stringybark ( <i>E. globoidea</i> ), blackbutt ( <i>E. pilularis</i> ), Sydney blue gum ( <i>E. saligna</i> ), monkey gum ( <i>E. cypellocarpa</i> ), blue-leaved stringybark ( <i>E. agglomerata</i> ), bangalay ( <i>E. botryoides</i> ), red bloodwood ( <i>C. gummifera</i> ), Sydney peppermint ( <i>E. piperita</i> ), rough-barked apple ( <i>Angophora floribunda</i> ).	<ul style="list-style-type: none"> <li>• The resource unit has undergone selective logging, targeting sawlogs and mining timber, in the 70's (Cpt 228 &amp; 230) and 90s (Cpt 227).</li> <li>• The Resource Unit has had a lower intensity of harvest from past events than the surrounding forest.</li> </ul>	<ul style="list-style-type: none"> <li>• The resource unit is a multi-aged forest, dominated by the mature \ over mature component.</li> </ul>
2	Same species composition as Resource Unit 1.	<ul style="list-style-type: none"> <li>• The resource unit has undergone selective logging, targeting sawlogs and mining timber, in the 70's (Cpt 228 &amp; 230) and 90s (Cpt 227).</li> </ul>	<ul style="list-style-type: none"> <li>• The resource unit is predominately even-aged regrowth dominated forest, with a minor mature component.</li> <li>• The regrowth component would benefit from basal area reduction and release from the mature \ over mature component.</li> </ul>
3	Same species composition as Resource Unit 1.	<ul style="list-style-type: none"> <li>• Same history as resource unit 2.</li> </ul>	<ul style="list-style-type: none"> <li>• The resource unit is predominately even-aged regrowth dominated forest. Limited current commercial value due to low sawlog yield.</li> </ul>

**Harvesting Prescription**

Resource Unit (Refer to HPOM for detail)	% of Harvest Area	Silvicultural Treatment
1	58%	<p>STS heavy:</p> <ul style="list-style-type: none"> <li>● Retain and protect from harvesting/fire damage:                             <ul style="list-style-type: none"> <li>- habitat and recruitment trees as per TSL,</li> <li>- 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.</li> <li>- advanced regrowth (&lt;40cm DBHOB) with the best potential to produce future high quality products with good form and vigour,</li> </ul> </li> <li>● Retained trees should be evenly spaced throughout the resource unit.</li> <li>● Ensure no more than 45% of the BA within the resource unit is removed, while retaining a minimum BA of 10m<sup>2</sup> per hectare within the tract.</li> <li>● 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"> <li>- reject tree felling (HC must first obtain approval from HS),</li> <li>- defer harvesting until ideal market conditions prevail,</li> <li>- consider harvesting under a light or medium STS regime</li> </ul> </li> </ul>
2	42%	<p>STS medium:</p> <ul style="list-style-type: none"> <li>● Retain and protect from harvesting/fire damage:                             <ul style="list-style-type: none"> <li>- habitat and recruitment trees as per TSL,</li> <li>- 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.</li> <li>- Retain additional advanced regrowth trees (&lt;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%.</li> </ul> </li> <li>● Retained trees should be evenly spaced throughout the resource unit for development into the next crop.</li> </ul> <p><u>Retained tree selection: Future Crop</u></p> <ul style="list-style-type: none"> <li>- Good tree form – straightness, shape, minimal limbs etc</li> <li>- Healthy full crowns</li> <li>- Wood quality – look for minimal signs of defect – bumps, scars, hollows, spiral grain, bleeds etc.</li> <li>● All other products should be removed.</li> </ul>
3		<ul style="list-style-type: none"> <li>● Excluded Forest</li> </ul>

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**

Compartments 227, 228 and 230 are 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**

**Permanent Growth Plots** – A PGP (PSD 234) is located in the north of compartment 230. It is within a non harvest area - Owl Landscape.

Any other inventory plots located during the harvesting operation which are not shown on the HPOM or described above are to be treated the same as the surrounding area.

**Road Works**

Except for Black Flat Road (Shire Owned and maintained), within the compartments boundaries 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 northern and the western 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 Compartments 227, 228 or 230:

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

- 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**



7 apiary sites provided in the table below 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?

- 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, 8, 10 and 16 (see HPOM). Dumps 4, 8 and 16 are not proposed to be used.
- Permanent apiary set down sites 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. 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 compartments indicates that Telstra and Essential Energy underground cables are present on the eastern side of the compartments, along side Cpt 227/4 Road, eastern most end of Cpt 227/2 Road and along The River Road (see HPOM). Dial before you dig and field markers (where located) have been used to indicate the approximate location of the cable on the HPOM. Prior to any harvesting or roading activity taking place in the vicinity of the cables, the HC should inspect the area for markers or other evidence of the cables and flag with marking tape.

When carrying out harvesting or road maintenance activities near cables, minimise ground disturbance across or along and increase depth of earth cover if required.

From time to time above ground infrastructure associated with the cables occurs. Where this infrastructure is detected, the FT should pass the location and details on to the burning supervisor who should consider if extra protection measures (eg rake hoe line) are required.

Any damages to cables must be immediately reported to Telstra on 13 22 03 and/or Essential Energy on 13 23 91.

### Marine Park

The Batemans Bay Protection Zone (Clyde River) for Batemans Marine Park borders the eastern boundaries of compartments 227 and 228. The boundary between Marine Park and compartments 227 and 228 is the mean high water mark of the Clyde River.

No harvest or post log burning disturbance is permitted within Marine Park.

As an additional protection measure fire must be prevented from entering the State Forest FMZ 3A zone which borders the Marine Park.

### **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 Standard Harvest Plan Conditions for Hardwood Forest Operations in Southern Region, South Coast for detail of what logging operations are permitted in this zone.

Post log burning will be restricted from entering the FMZ 3A zone via mineral earth breaks and/or roads as an additional protection measure for the Batemans Bay Protection Zone (Clyde River) for Batemans Marine Park.

### **IFOA Required Approval of Forestry Activities**

All areas of Rainforest, Rare Non-Commercial Forest Ecosystems 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 -**

**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*), **Little Lorikeet** (*Glossopsitta pusilla*), **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*
<b>Regrowth</b>	<b>Up to 5</b>	<b>1 for every tree retained under 5.6d</b>	√	√	√
<b>TSL condition</b>	5.6d	5.6e	5.6h	5.6f	5.6 g

√ - Condition applies

x2 Glossy black cockatoo feed trees and x2 Yellow Bellied Glider sap feed trees, occur within the planned compartments at locations shown in the table below. Note only 1 Glossy black cockatoo feed tree occur within the harvest area.

Species	Feature	Zone	GDA Easting	GDA Northing	Comments
Glossy Black-Cockatoo	Feed tree	56	238356	6054835	Harvest Area flagged with pink tape
Glossy Black-Cockatoo	Feed tree	56	238259	6056178	Excluded forest
Yellow Bellied Glider	Feed tree	56	240706	6053139	Excluded forest flagged with pink tape
Yellow Bellied Glider	Feed tree	56	240706	6053139	Excluded forest flagged 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
<b>Rainforest</b>	5.4	Has been assessed as a risk that Warm Temperate/Cool Temperate/Depauperate (Dry) may occur in the field. May require further investigation#.
<b>Rare Non Commercial Forest Ecosystems</b>	5.5	Yes
<b>Riparian Protection Zones</b>	5.7	Yes
<b>Ridge &amp; Headwater Habitat</b>	5.8	Yes
<b>Wetlands</b>	5.9	Has been assessed & is unlikely to occur in the field. May require further investigation#.
<b>Heath and Scrub</b>	5.10	Has been assessed & is unlikely to occur in the field. May require further investigation#.
<b>Rocky Outcrops and Cliffs</b>	5.11	Has been assessed as a risk that it may occur in the field. May require further investigation#.
<b>Endangered Ecological Community</b>	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. The FT must field verify the presence/absence of EEC during pre-harvest markup#. <b>Harvesting, harvesting machinery and post harvest burning must be excluded from all areas of EEC.</b>

#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 Cpts 227, 228 or 230	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 Cpts 227, 228 or 230	Licence conditions under the TSC Act or relevant Site-specific prescription
<b>Powerful Owl</b> <i>Ninox strenua</i> <b>Masked Owl</b> <i>Tyto novaehollandie</i>	Yes No	6.4 <i>Owl Landscape Exclusion Zones occur in compartments 227, 228 and 230.</i>
<b>Spotted tailed Quoll</b> <i>Dasyurus maculatus</i>	No	6.10
<b>Koala</b> <i>Phascolarctos cinereus</i>	No	6.11
<b>Yellow-bellied Glider</b> <i>Petaurus australis</i>	Yes	6.13
<b><i>Correa baeuerlenii</i></b>	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.
<b><i>Budawangia gnidioides</i></b>	No	1.2

**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**

<b>Elements</b>	<b>Conditions</b>
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)**

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

# 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**

18 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**

3 road crossings (C1, C2 and C3) are approved for use on drainage features. (Refer to HPOM). Road crossing details are contained in Attachment 2 of this Plan.

### **Mass Movement**

Compartments 227, 228 and 230 are 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 compartments 227, 228 and 230. 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 compartments 227, 228 and 230. 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 FMZ 3A and associated Owl Landscape where the boundary is not The River Road.	
Boundary between harvest area and probable EEC exclusion (River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales South East Corner Bioregion)	
Private Property (Lot 32 DP 755969) boundary from Marilyn's Road east to FMZ 3A.	
Private Property (Lot 95 DP 39909) boundary from The River Road west along boundary.	

**Pre-Operational Briefing**

I acknowledge that I have received a copy of the Harvesting Plan for Compartments 227, 228 and 230 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	New	no		Temp. Roads
Heath	No				
Powerlines etc	No				
Other (state what it is)					

















**Clearance Certificate**

**COMPARTMENTS: 227, 228 and 230**

**CURROWAN STATE FOREST, SOUTHERN REGION**

To .....HC

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	Waypoint	GPS (GDA 94E)	GPS (GDA 94N)	Pre-harvest (B) BA m <sup>2</sup> /ha	Post-harvest(A) BA m <sup>2</sup> /ha	Difference (D) (B – A) m <sup>2</sup> /ha	% BA removed D/B x100	STS
1	308	237610	6054909	28				heavy
2	310	237821	6054674	14				heavy
3	311	238062	6054858	32				heavy
4	315	238902	6055085	30				heavy
5	316	238724	6055243	18				heavy
6	317	238570	6055245	26				heavy
7	318	238394	6055338	16				medium
8	319	238546	6055541	10				heavy
9	322	238534	6054836	26				heavy
10	323	240325	6056428	36				heavy
11	324	240229	6056223	32				heavy
12	328	240137	6055606	24				heavy
13	329	241093	6055173	26				heavy
14	330	241205	6055437	34				heavy
15	331	238861	6055902	26				medium
16	332	238528	6056006	32				medium
17	335	238575	6055782	24				medium
18	336	240800	6054963	28				heavy
19	337	240361	6055122	22				heavy
20	339	240657	6052919	18				heavy
21	340	240383	6053827	10				heavy
Total Averages				24				

NOTE: the featureclass 'BA\_Sweeps\_plots' 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	

<b>ATTACHMENT 2</b>	<b>ROADING PLAN</b>
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**Summary of Roding Requirements**

Feature	Details	Works Required
Existing roads to be used.	7795m / 5	Yes
New roads to be constructed	585m / 2	Yes
Existing crossings used	3	Yes
New crossings to be constructed	0	NA
Length of road >10°	130m	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 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.

<b>CHECKLIST OF WORKS REQUIRED ON ROADS &amp; CROSSINGS</b>
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Road/Crossing Name	Works Required	Date Started	Date Finished	Signature
Marilyns Road (2875m)	<ul style="list-style-type: none"> <li>● Minor grading and roadside clearing.</li> <li>● Dump 6 to be used as a turnaround for haulage from McCardys Creek Road out to Black Flat Road.</li> <li>● <b>x4 new mitres required.</b></li> <li>● <b>x7 new rubber flap crossbanks required.</b></li> <li>● Replace rollover crossbanks with rubber flaps.</li> <li>● Install <b>dropdown structure</b> with existing pipe (542) south of 228/1 Road.</li> <li>● Clear existing mitres and pipes to ensure they are draining effectively.</li> </ul> <p><b>RC/HC Comments:</b></p>			

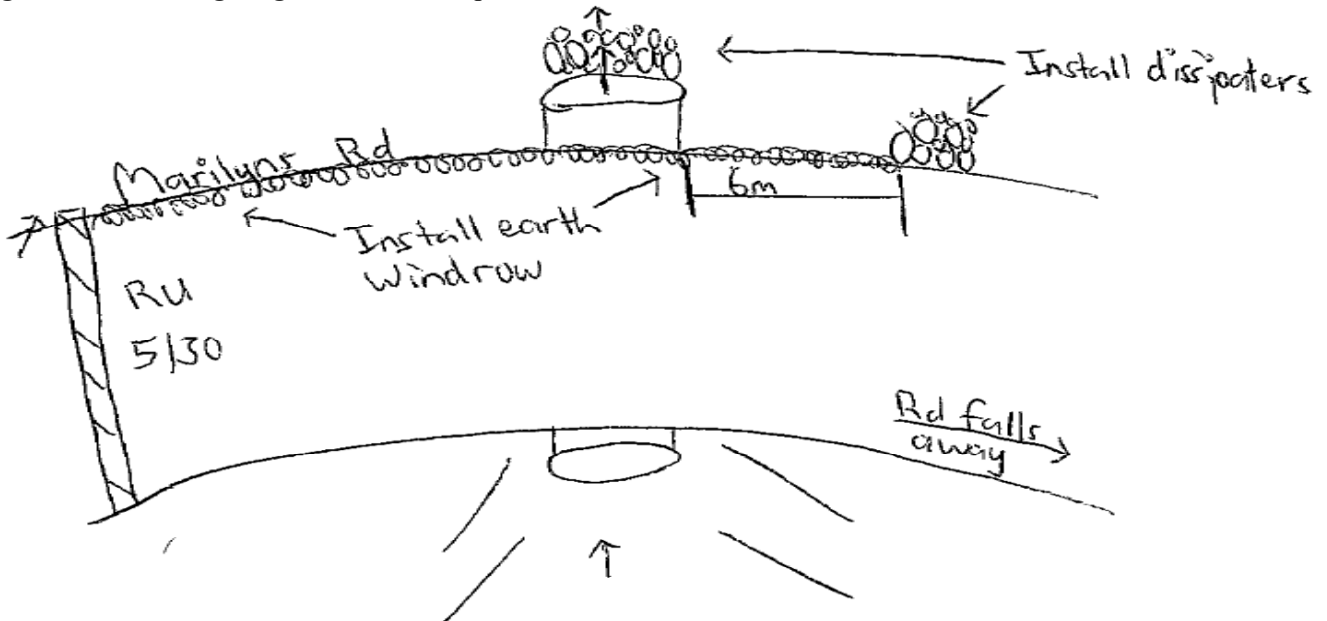
Road/Crossing Name	Works Required	Date Started	Date Finished	Signature
Marilyns Road (2875m)	<ul style="list-style-type: none"> <li>● Minor grading and roadside clearing.</li> <li>● <b>x1 rubber flap crossbanks required.</b></li> <li>● Clear existing mitres and pipes to ensure they are draining effectively.</li> <li>● 40m @ 11° near Marilyns Road intersection – no realignment necessary.</li> </ul> <p><b>RC/HC Comments:</b></p>			
227/1 Road (2075m)	<ul style="list-style-type: none"> <li>● Pavement and roadside clearing.</li> <li>● Reshape where required.</li> <li>● Install mitre drains, rollover and/or rubber flap crossbanks in line with EPL.</li> <li>● Currently the entire length of the cutting from Marilyns Road intersection east to dump 11 is currently draining into a mitre at the cutting end point which has lead to erosion. Bring cutting in line with EPL, install windrow over eroded mitre outlet to a point where a new mitre can be installed.</li> <li>● 30m @ 10° between dump 11 and 12 – no realignment necessary.</li> </ul> <p><b>RC/HC Comments:</b></p>			
Pillar Road	<ul style="list-style-type: none"> <li>● Although Pillar Road will not be licensed during the operation rollover drains should be installed to stabilise the road near intersection with The River Road (east end).</li> </ul> <p><b>RC/HC Comments:</b></p>			



Road/Crossing Name	Works Required	Date Started	Date Finished	Signature
<p>227/2 Road (1720m)</p> <p>227/3 Road (660m)</p> <p>228/2 Road (130m)</p>	<ul style="list-style-type: none"> <li>● Pavement and roadside clearing.</li> <li>● Reshape where required.</li> <li>● Install mitre drains and rubber flap crossbanks in line with EPL.</li> <li>● <b>227/3 Road:</b> 60m @ 11° between dump 11 and 12 – no realignment necessary.</li> </ul> <p><b>RC/HC Comments:</b></p>			
<p>230/1 Road (660m)</p>	<ul style="list-style-type: none"> <li>● Pavement and roadside clearing. <i>(10-20cm DBH regrowth on pavement)</i></li> <li>● Reshape required – rilling on pavement and in table drain.</li> <li>● Install mitre drains and rubber flap crossbanks in line with EPL.</li> </ul> <p><b>RC/HC Comments:</b></p>			
<p>C1 (Marilyns Road) Easting 240304 Northing 6053369 Mapped 1st 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.</p>	<ul style="list-style-type: none"> <li>● Outlet scour protection: Flume drop down structure and/or 200mm diameter packed rocks.</li> <li>● Install windrow on cutting road edge from northern 5-30m drainage to 5m past C1.</li> <li>● Seed and mulch to be used on disturbed areas.</li> <li>● Northern approach 5-30m drainage: Install rubber flap crossbank at 22m. Install sediment trap in table drain between rubber flap and crossing point.</li> <li>● Southern approach 5-30m drainage: Nil required. Approach is -5°. Sediment will be deposited away from drainage line.</li> </ul> <p><b>RC/HC Comments:</b></p>			

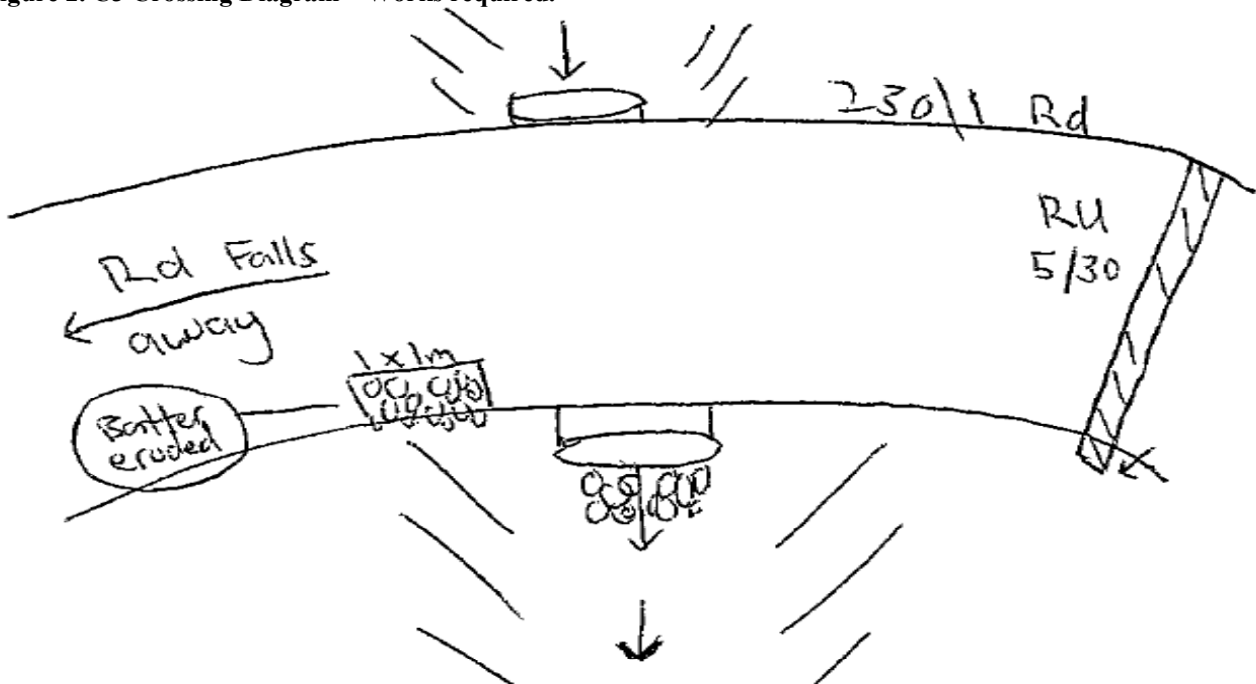
<p>C2 (Marilyns Road) Easting 238518 Northing 6054945 Mapped 1st order drainage line, occurs as a drainage line in the field. Existing Pipe (450mm) Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.</p>	<ul style="list-style-type: none"> <li>● Stabilise the fill batter adjacent to pipe with rock (<i>erosion present</i>).</li> <li>● Install windrow on the road batter side of road to carry runoff through crossing and discharge onto stable section of the fill batter.</li> <li>● Pipe Outlet &amp; discharge site scour protection: Flume drop down structure and/or 200mm diameter packed rocks.</li> <li>● Seed and mulch to be used on disturbed areas.</li> <li>● Northern approach 5-30m drainage: Install rubber flap crossbank at 21m.</li> <li>● Southern approach 5-30m drainage: Nil required. Approach is -3°. Sediment will be deposited away from drainage line.</li> </ul> <p><b>RC/HC Comments:</b></p>			
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Figure 1. C2 Crossing Diagram – Works required.



<p>C3 (230/1 Road) Easting 238315 Northing 6054817 Mapped 1st 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.</p>	<ul style="list-style-type: none"> <li>● fill eroded section of fill batter adjacent west of pipe with rock.</li> <li>● Reshape crossing point.</li> <li>● Pipe Outlet &amp; discharge site scour protection: 200mm diameter packed rocks.</li> <li>● Seed and mulch to be used on disturbed areas.</li> <li>● Eastern approach 5-30m drainage: Install rubber flap crossbank at 20m.</li> <li>● Western approach 5-30m drainage: Access after crossing point reshaped. Install rubber flap crossbank at 6m if road does not fall away from crossing after reshaped.</li> </ul> <p><b>RC/HC Comments:</b></p>			
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Figure 2. C3 Crossing Diagram – Works required.



<b>NEW ROAD CONSTRUCTION</b>
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**Road Specific Conditions:**

Road Name	Road Length (m)	Max. width of road prism (m)	Max. road grade (length road > degrees?)	Max. ground slope (length road > 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
227/6 Road	365	7	7°	7°	0	0	No	Temp.	Contractor		
228/4 Road	130	7	11°	23°	1.5	130	no	Temp.	Contractor		
229/7 Dump Road	90	7	7°	10°	<0.5	80	no	Temp.	Contractor		

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

- Gravel is required for the construction of 228/4 Road at the intersections with Marilyns Road.
- Fill batters on 228/4 Road will be >1m. Drop down structures/ dissipaters are to be used at drainage outlets as per EPL.
- 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

Compartments 227,228,230

State Forest: CURROWAN No: 820

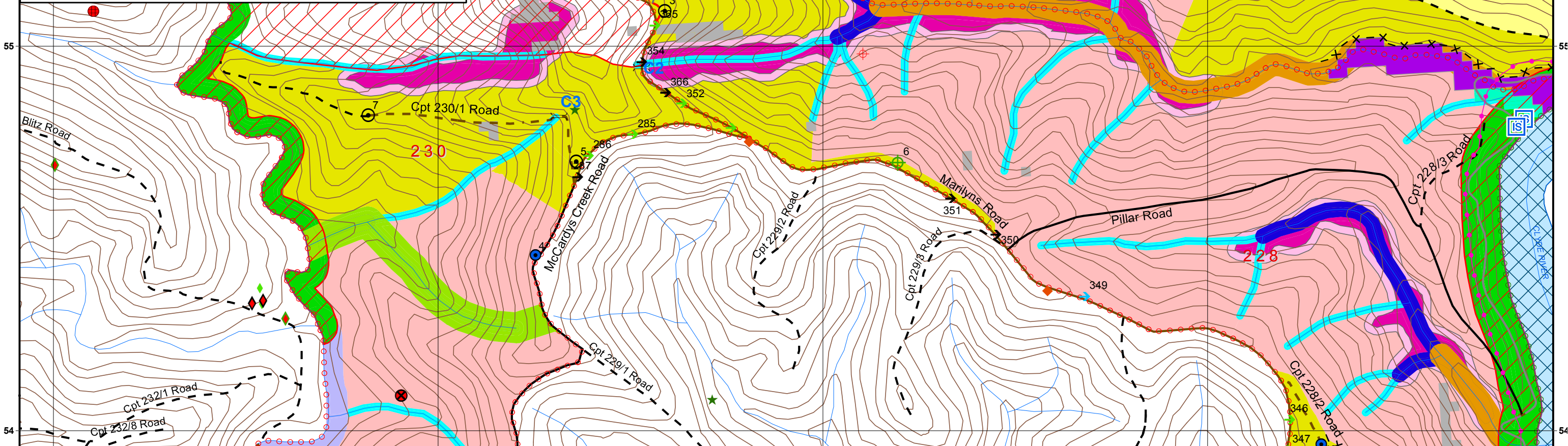
Southern IFOA - South Coast

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

**Forestry Corporation**

SPEED LIMIT 60  
On FCNSW unsealed gravel roads

N  
GDA



**Map 1 of 2**

**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)
- Shire Owned/Maintained

**ROADING FEATURES**

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

**DUMPS & CROSSINGS**

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

**UTILITY**

- Underground Cable

**SAFETY POINTS**

- Emergency Meeting Point

**NET HARVEST AREA**

- RU 1 \ STS Heavy
- RU 2 \ STS Medium

**CULTURAL HERITAGE**

- Heritage Site (10m buffer)

**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

Scale: 1:10,000 Contour Interval 10m

0 125 250 500 750 1,000 Meters

6053000N



# Harvest Plan Roding Map

Compartments 227,228,230

State Forest: CURROWAN No: 820

Southern IFOA - South Coast

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

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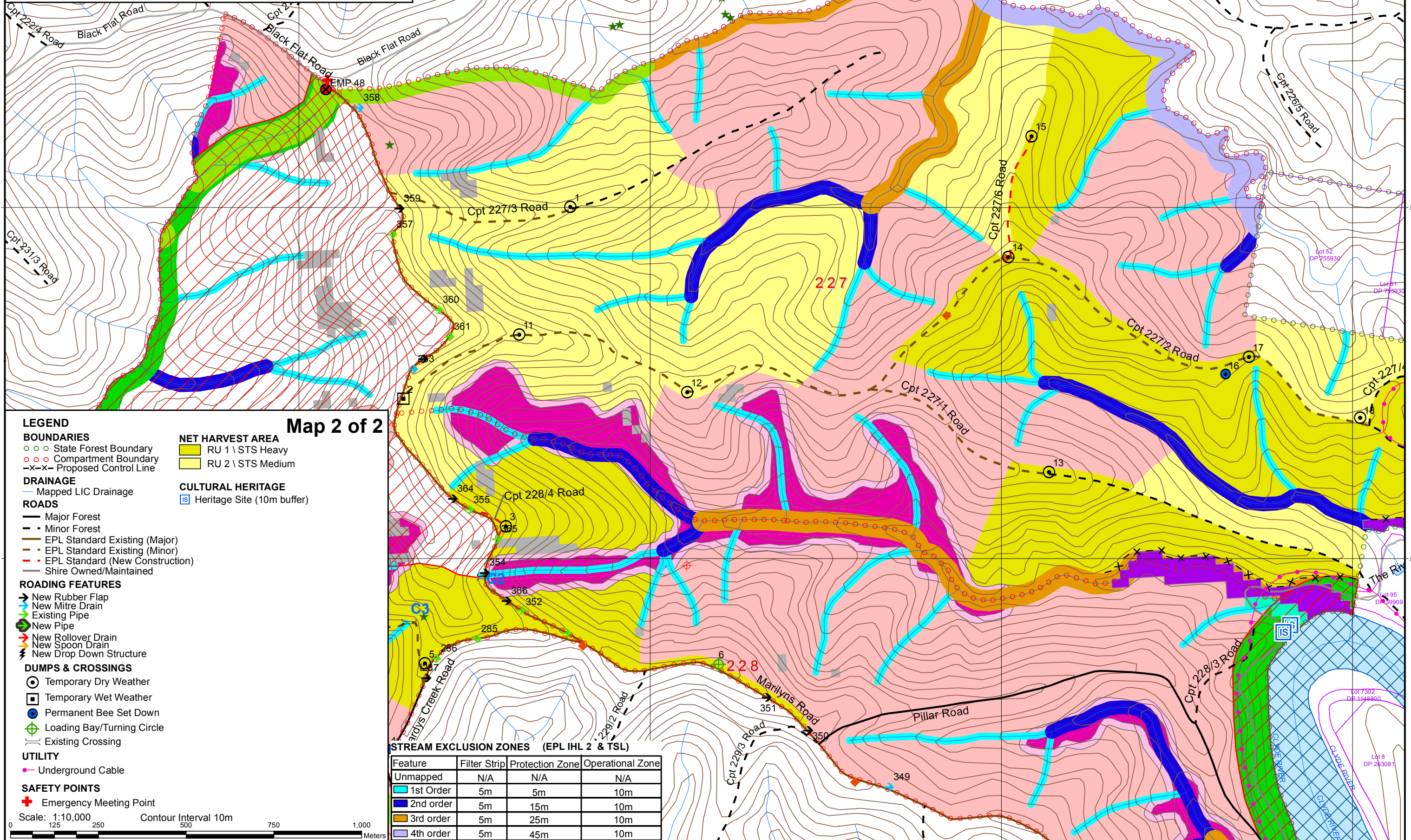
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**Forestry Corporation**

SPEED LIMIT 60  
On FCNSW unsealed gravel roads

N  
GDA

Map 2 of 2

- LEGEND**
- BOUNDARIES**
- State Forest Boundary
  - Compartment Boundary
  - x-x- Proposed Control Line
- DRAINAGE**
- Mapped LIC Drainage
- ROADS**
- Major Forest
  - Minor Forest
  - EPL Standard Existing (Major)
  - EPL Standard Existing (Minor)
  - EPL Standard (New Construction)
  - Shire Owned/Maintained
- ROADING FEATURES**
- New Rubber Flap
  - New Mitre Drain
  - Existing Pipe
  - New Pipe
  - New Rollover Drain
  - New Spoon Drain
  - New Drop Down Structure
- DUMPS & CROSSINGS**
- Temporary Dry Weather
  - Temporary Wet Weather
  - Permanent Bee Set Down
  - ⊕ Loading Bay/Turning Circle
  - Existing Crossing
- UTILITY**
- Underground Cable
- SAFETY POINTS**
- ⊕ Emergency Meeting Point

- NET HARVEST AREA**
- RU 1 \ STS Heavy
  - RU 2 \ STS Medium
- CULTURAL HERITAGE**
- Heritage Site (10m buffer)

**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

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