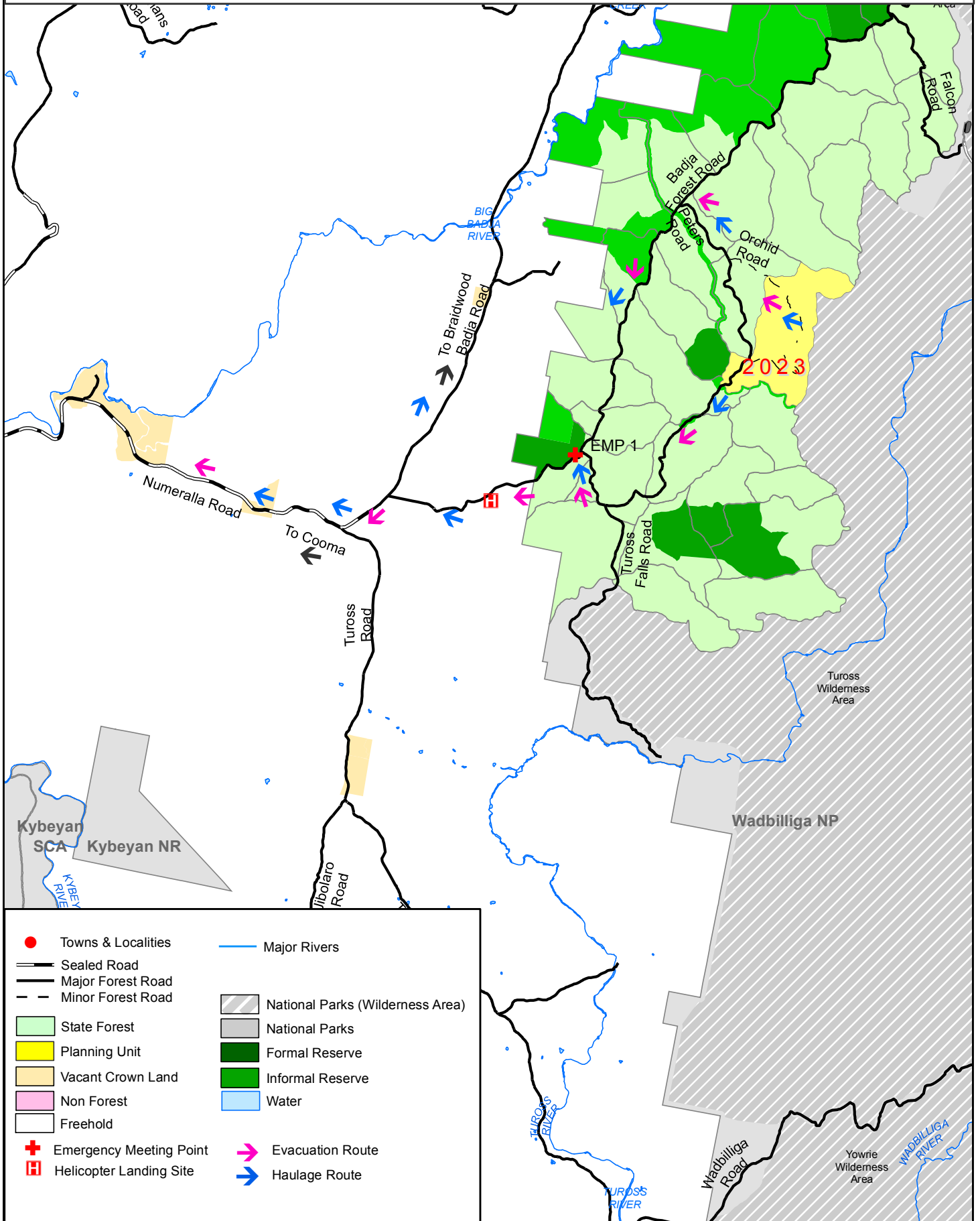


LOCALITY MAP

Compartments 2023

Badja State Forest No. 567

BADJA MANAGEMENT AREA
Scale: 1:100,000



Harvest Plan Operational Map

Compartment: 2023**State Forest: BADJA No: 567**

Southern IFOA - South Coast

Map Sheet: BELOWRA 8825-4S

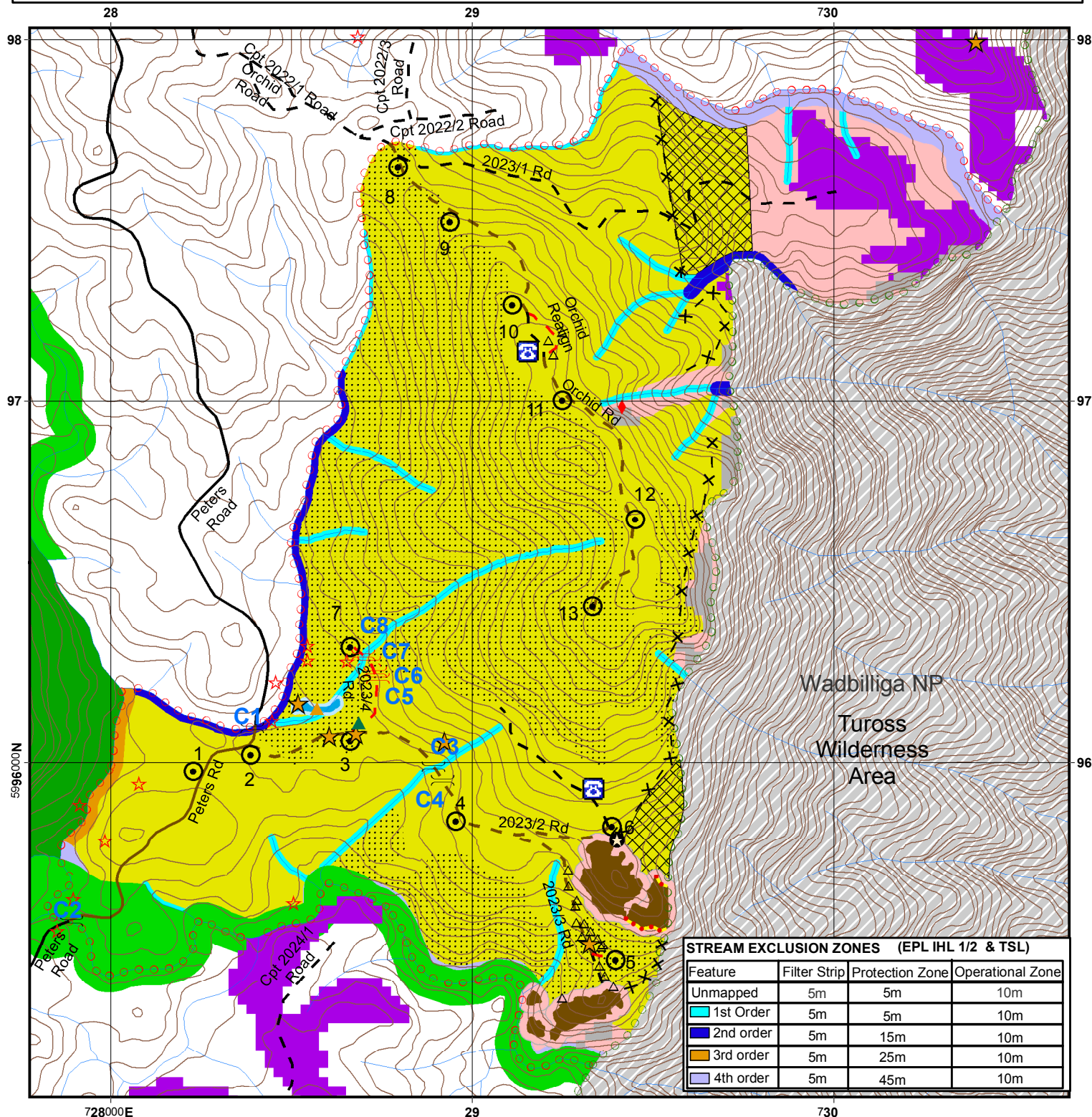


Version: 1

PLANNING SUPERVISOR APPROVAL

APPROVED: Lee Blessington

DATE: 02/04/2015

**LEGEND****BOUNDARIES**

- State Forest Boundary
- Compartment Boundary
- Proposed Control Line

ROADS

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

NET HARVEST AREA

- FMZ 4 - STS-Heavy
- Confirmed Sawlog Area
- Long-nosed Potoroo Tree Retention Area

NON HARVEST AREA

- Special Management (FMZ 2)
- Harvesting Exclusion (FMZ 3A)
- Probable EEC (tablelands snow gum)
- Slopes >30 (IHL 4)
- Probable Wetland & Exclusion Zone (10m)
- Excluded Forest
- Probable Rock & Exclusion Zone (20m)
- National Park Estate

DRAINAGE

- Mapped LIC Drainage

FAUNA FEATURES

- Gang-gang Cockatoo
- Yellow-bellied Glider
- Spotted-tailed Quoll
- Flame Robin
- Scarlet Robin
- Long-nosed potoroo

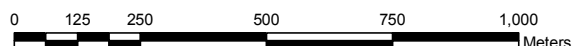
MAP FEATURES

- Rocky Terrain
- Probable Rocky Outcrop boundary not field verified
- Reliable phone service

DUMPS & CROSSINGS

- Temporary Dry Weather
- Existing Crossing
- New Crossing

Contour Interval 10m Scale 1:5,000

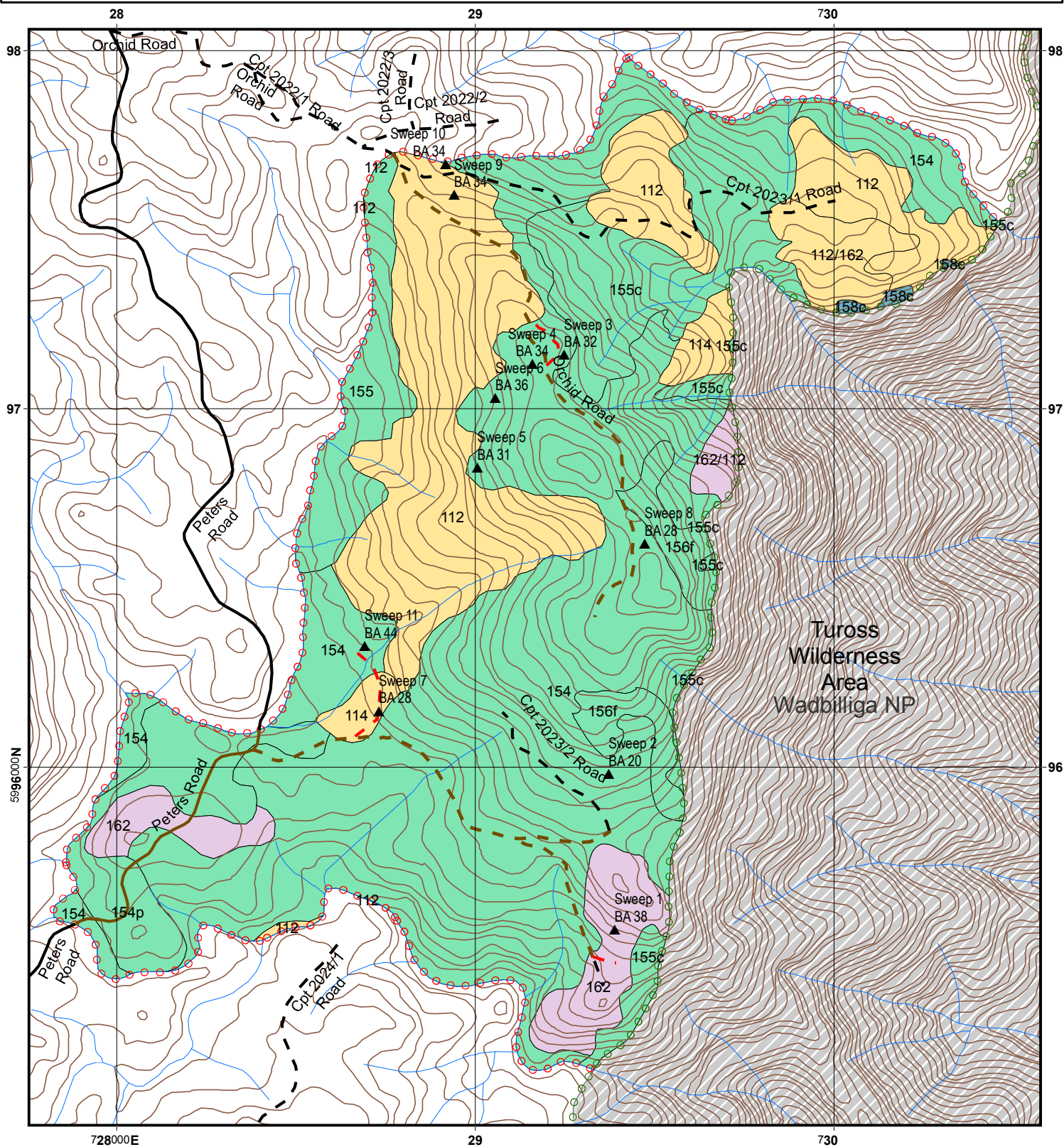


Harvest Plan Forest Type Map

Compartment: 2023**State Forest: BADJA No: 567**

Southern IFOA - South Coast

Map Sheet: BELOWRA 8825-4S

**LEGEND**
BOUNDARIES

- ○ State Forest Boundary
- ○ Compartment Boundary

ROADS

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

DRAINAGE

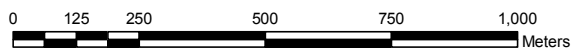
- Mapped LIC Drainage

FOREST TYPE (RN17) & GROSS AREA (Ha)

- Type 112 Silvertop Ash-74.6 ha
- Type 114 Silvertop Ash - Stringybark-5.6ha
- Type 154 Brown Barrel-173.4ha
- Type 155 Brown Barrel - Gum -45ha
- Type 156 Brown Barrel / Messmate - Ash-8.9ha
- Type 158 Southern Blue Gum-0.6ha
- Type 162 White Ash-17.9ha

▲ Preharvest BA Sweeps

Contour Interval 10m Scale: 1:15,000





HARDWOOD FORESTS- SOUTHERN IFOA SOUTH COAST HARVESTING PLAN

Badja State Forest - Compartment 2023

Certification

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

Prepared By:	Kate Halton	Approved By:	Lee Blessington
Harvest Planner		Planning Supervisor	
Signature	Kate Halton	Signature	Lee Blessington
Date	1/4/15	Date	2/4/15

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, Roding and Forest Type.

Description of Proposal

Harvesting of Hardwood forest

Harvesting of hardwood forest, using Single Tree Selection silviculture subject to the Southern IFOA requirements will be undertaken within this planning unit. **Timber harvesting and road construction will 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, PtS= Protection Supervisor, HS = Harvesting Supervisor, RC = Roding Coordinator, IFOA = Integrated Forestry Operations Approval.

Area Identification and Yield Estimates

State Forest	Compartment/s	IFOA Region	Management Area	Certification
Badja	2023	Southern	Badja	AS4708:2007 ISO 14001

	Cpt 2023
Plan Compartment ID	21861
Gross Area (ha)	326
Net Harvestable Area (ha)	288
Harvest Area (ha)	250
Poles, Piles, Veneer & Girders	0 m ³
Quota Logs (HQL)	1200m ³
High Quality Small	30m ³
Salvage	1725m ³
Pulp E1	900t
Firewood/Misc	300t

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

Slope Classes (percent of harvest area)

	Cpt 2023
Slope Class	% of harvest area
0-20°	82.3
20-25 °	13.1
25-30 °	3



ATTACHMENT 1: SITE SAFETY PLAN

Worksite Information			
Is this Declared Hunting Area: Yes		Comments:	
Is hunting excluded?: Yes			
Have Exclusion Zone signs been erected or checked prior to starting work daily.		N/A	
Comments: No signage required – hunting excluded			
Description of Work to be undertaken on site: - Refer to description of proposal above.			
Site Supervisor			
Name:		Contact number:	
Communication			
Radio channel number	VHF:	UHF	
Other (e.g. hand signals):			
Traffic management (describe) e.g. Signage, Road closure, Traffic control			
<p>This plan identifies haulage from the compartment will be north on Peters Road (FCNSW owned Road) or south along Peters Road/Tuross Falls Road, with both options, turning left onto Badja Forest Road (FCNSW owned, then Cooma-Monaro Shire Council owned where the State Forest ends) then left or right onto Badja Road Cooma-Monaro Shire Council Owned).</p> <p>Road intersections outside the control of FCNSW are not covered by this plan or any FCNSW Traffic Control Plan. Haulage contractors must abide by RTA road laws and standard operating procedures in relation to haulage routes outside the control of FCNSW.</p>			
Name of on-site safety first-aider/s			
Location of first-aid kit			
SITE HAZARD & RISK ASSESSMENT NO.	CONTROL	WHO	IMPLEMENTED
1. Vehicle collision at adjoining roads of various traffic levels	Warning signs at FCNSW intersections, road closure on FCNSW roads. 60km/hr speed limit on all State Forest gravel roads unless otherwise signposted. Compliance with FCNSW lights on policy.		
2. Cliff lines & rocky very steep terrain	Operators to assess work site within two tree lengths to identify immediate hazards. Communicate to other operators and mark sites.		
3. Hazardous or dead trees	Refer to FCNSW operational safety standard OSS010. 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.		
4. Overhead hazards associated with dumps	Refer to FCNSW operational safety standard OSS010. 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.		
5. Dust from passing vehicles along dirt haulage routes	Restrict speed to minimise dust generation, slow down when passing vehicles. Turn on driving and hazard lights to increase visibility.		
6.			
7.			

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



MEDICAL EMERGENCY EVACUATION PLAN

Nearest reliable mobile phone reception (describe location)			
Next G Network: Generally Nil. Good in 2 locations.		GSM: N/A	Satellite: N/A
GPS Lat/Long: 36° 9' 15" S / 149° 32' 56" E or 36° 8' 46" S / 149° 32' 49" E		MGA: 729313E 5995924N or 729177E 5997165N	Datum: GDA 94 Zone: 55
Location description: Higher points on 2023/2 Rd (eastern end of cpt) and higher points along Orchid Rd (near the new Road realignment section).			
Emergency meeting point for ambulance / police (refer to attached locality map)			
GPS Lat/Long: 36° 10' 19" S / 149° 30' 04" E		MGA: 725079E 5994248N	Datum: GDA 94 Zone: 55
Location description: Intersection Badja Forest Road and Tuross Falls Road			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 36° 10' 52" S 149° 28' 30" E			
Location description: Private Property to West of EMP on Badja Forest Road.			
Procedures to obtain ambulance assistance			
<ol style="list-style-type: none"> 1. Dial 000 2. If there is no mobile coverage, dial 112 (which will work on any mobile phone system). 3. If no response on 112: <ul style="list-style-type: none"> • use a radio link (TARA, be discrete with personal information) • move to an area with mobile coverage • find a landline • use another network (e.g. a contractor's VHF radio) 		<p>Contact nearest Forestry Corporation office on:</p> <p>Channel: 236</p> <p>Telephone: 1300 880 548</p> <p>Give details of the situation and ask for a 000 call to be placed.</p>	
000 operator question:		Response:	
1. Police, Fire, Ambulance?		NSW Ambulance,	
2. Suburb?		State Forest name: Badja Nearest town or locality: Numeralla Nearest ambulance station: Cooma	
3. Address?		Peters Road	
4. Nearest road junction/cross street?		Peters Road and Badja Forest Way	
5. Local government area?		Cooma-Monaro	
6. Nature of the problem?		Describe the accident, number and condition of casualties	
7. Where is the accident?		Refer to safety meeting point above	
Directions to navigate from nearest ambulance station to the emergency meeting point. From Cooma, travel north east approx 35km along the Cooma-Numeralla Road. Turn right into Badja Forest road and travel a further 4.5km to Tuross Falls Road intersection.			
8. 4WD ambulance required N		CB radio channel to use:	
9. Injuries?		Give detailed information about the condition of the casualty (do not mention names over radio system)	
10. Your name and call back number:			

Silviculture and Harvesting Prescriptions

Year	1980
TSI	X
HR Burning	X
Wildfires	X
Logging m³	5000

0 - applies, X – not applicable

Compartment	Resource Unit	No. of Sweeps	BA Average (m²/ha)	BA Range (m²/ha)
2023	1	11	33	20-44

Silvicultural Planning

Single Tree Selection

The STS tract (250 ha) is a predominantly mixed aged mature forest and will be harvested under a heavy single tree selection (STS) regime. The objective within the 250 ha harvest area for this operation (resource unit 1) is to remove 45% of the basal area to create canopy openings for regeneration, whilst retaining and minimising damage to young regenerating stems, seed trees, habitat and recruitment trees.

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

The STS tract for IFOA purposes includes the harvest area of compartment 2023 as indicated on the HPOM

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 Structure and Condition
1	Overstorey dominated by brown barrel, white ash and silvertop ash. Manna gum, narrow-leaved peppermint, gully peppermint and mountain gum are also present in the overstorey.	South western corner of compartment and north eastern corner of compartment contains stands of regrowth from previous harvesting operation. In these areas mature and overmature trees are scattered throughout. The majority of these areas do not contain sufficient merchantable timber to warrant harvesting. The remaining areas in the compartment are predominately a mature to overmature stand of trees with limited growth potential.

Harvesting Prescription

Resource Unit (Refer to HPOM for detail)	% of Harvest Area	Silvicultural Treatment
1	100	<p>STS heavy:</p> <ul style="list-style-type: none"> Retain and protect from harvesting/fire damage: <ul style="list-style-type: none"> -poles/advanced growth (<40cm DBHOB) with good form and vigour, -habitat and recruitment trees as per TSL, Retained trees should be evenly spaced throughout the resource unit. Ensure no more than 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.

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

Special Requirements**Permanent Growth and Research Plots**

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

Rocky Terrain

Rocky terrain occurs within the net planned area. All rocky terrain shown on the HPOM was assessed at the planning stage and is unlikely to meet 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 Planner/Field Ecologist any feature requiring further investigation.

National Parks and Wilderness Area

Tuross Wilderness Area/ Wadbilliga National Park form the eastern boundary of the compartment. The boundary is to be marked in the field using GPS.

No harvest disturbance is permitted within National Park or Wilderness Area.

Forest Management Zoning

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

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

FMZ 3A – Prescribed burning is only permitted in these areas where fire does not conflict with underlying protection zones e.g. rainforest, cultural heritage etc. (Refer to cultural heritage flora and fauna sections of this plan and the standard harvest plan conditions for more detail).

IFOA Required Approval of Forestry Activities

Planning Supervisor approvals have been obtained for routine road maintenance and log haulage in FMZ 3A (Peters Road and C2). Forestry Operations within the plan area must minimise impacts to the exclusion zones and meet the requirements of the EPL and General Exclusion Zones in section of this plan.

All areas of Rainforest, 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 must then contact the Planner to obtain the necessary approval.

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*), **Olive Whistler** (*Pachycephala olivacea*), **Glossy Black-Cockatoo** (*Calyptrorhynchus lathamii*), **Flame Robin** (*Petroica phoenicea*), **Scarlet Robin** (*Petroica boodang*), **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
Non Regrowth	5	5	0	0	0
TSL condition	5.6b	5.6c	5.6h	5.6f	5.6 g

0 - Condition applies

General exclusion zones

General exclusions as listed below are shown on the HPOM.

Feature/Condition	TSL cond'n	Occurs within Planning Unit
Rainforest	5.4	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Riparian Protection Zones	5.7	Yes
Ridge & Headwater Habitat	5.8	No
Wetlands	5.9	Has been assessed as a risk that it may occur in the field. May require further investigation#. Area shown on HPOM has been field verified (0.23ha) and boundary marked with blue tape. FT to mark 10m exclusion.
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#. All areas shown on HPOM have been field verified and boundary marked with blue tape, except for the areas shown as "Probable Rocky Outcrop Boundary not field verified". This area must be field verified during mark up (and 20m exclusion marked). If the field verified boundary differs to that shown on HPOM, FT must appropriately document the actual boundary.
Endangered Ecological Community	NA	Has been assessed as a risk that Tablelands Snow Gum, Black Salle, Candlebark and Ribbon Gum Grassy Woodland Etc, EEC may occur in the field. May require further investigation#. Harvesting, harvesting machinery and post harvest burning must be excluded from all areas of EEC. Area shown on HPOM has not been field verified at planning stage.

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

General Threatened Flora and Fauna Prescriptions

Feature	Records in 2023	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

Feature	Records in 2023	Licence conditions under the TSC Act
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 2023	Licence conditions under the TSC Act or relevant Site-specific prescription
Long-nosed Potoroo <i>Potorous tridactylus</i>	Yes	6.7 a) Specified forestry activities must be excluded from a 5 metre radius buffer around 12 retained trees per 2 hectares. These 12 trees can include trees retained under other conditions of this licence. b) Post-logging burning must be planned to avoid burning within the 5 metre radius buffers by scheduling burning at times of higher fuel moisture, and individually lighting heaps of logging debris, so that burning is mainly confined to those heaps. Long-nosed Potoroo tree retention area is shown on HPOM.
Spotted tailed Quoll <i>Dasyurus maculatus</i>	Yes	6.10
Squirrel Glider <i>Petaurus norfolcensis</i>	No	6.12
Yellow-bellied Glider <i>Petaurus australis</i>	Yes	6.13
Golden-tipped Bat <i>Kerivoula papuensis</i>	No	6.14
<i>Eucalyptus kartzoffiana</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 applies.
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	2
Dispersible Soils	No
Seasonality Harvesting Exclusions	No
Seasonality Burning Exclusions	No
Log Dumps	Refer relevant conditions for IHL
Snig Tracks	Refer relevant conditions for IHL
Roads	See Schedule 5 of EPL Booklet
Slope limits for harvesting	Refer to Schedule 4B.3 of EPL

Drainage Feature Protection

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

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

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

Log Dump Location

13 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

8 road crossings (C1-C8) are approved for use on drainage features. (Refer to HPOM). Road crossing details are contained in Attachment 2 of this Plan.

Mass Movement

Compartment 2023 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 2023. 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
Probable Rocky Outcrop, probable wetland	
Probable EEC (the small area south of second order drainage line)	

The table below lists critical boundaries in compartment 2023. Where possible design snig track patterns so they double as bare earth containment lines as close as possible to these boundaries. Where this is not practical, HC must instruct contractor to construct a bare earth break (drained as per EPL snig track conditions) as close as possible to the critical boundary.

Critical boundary	Completed Yes /No
National Park/Wilderness Area	
Probable EEC	
Long-nosed Potoroo tree retention areas	

Pre-Operational Briefing

I acknowledge that I have received a copy of the Harvesting Plan for Compartment 2023 in Badja 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	Yes	New	Yes		
Wetlands	Yes	New	Yes		
Cultural Heritage	No				
Existing Roads	Yes	Error	Yes		
New Roads	Yes	New	Yes		
Heath	No				
Powerlines etc	No				
Other (state what it is)					

HC/FT Notes

[illegible]

HC/FT Notes (continued)					

[illegible]

HC/FT Notes (continued)	
1	1. The first row of the table is labeled "HC/FT Notes (continued)".

[illegible]

HC/FT Notes (continued)	
1	1. The first row of the table is labeled "HC/FT Notes (continued)".

[illegible]

[illegible][illegible]

Clearance Certificate

COMPARTMENT 2023, Badja STATE FOREST

ToHC

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

I certify that:

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

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

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

Contractor

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

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

Last inspection was made on(Date)

Signed(Date).....

HC

Post Logging Information

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

Summary of silvicultural treatment

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

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

Post Logging Basal Area sweeps

Sample point	GPS (GDA 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	729389	5995547	38				
2	729373	5995981	20				
3	729248	5997151	32				
4	729160	5997126	34				
5	729007	5996836	31				
6	729057	5997030	36				
7	728732	5996157	28				
8	729472	5996624	28				
9	728942	5997596	34				
10	728918	5997682	34				
11	728692	5996339	44				
12							
13							
Total Averages							

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

Possible next cut (tick appropriate boxes)

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

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

ATTACHMENT 2 ROADING PLAN

Summary of Roading Requirements

Feature	Details	Works Required
Existing roads to be used.	4080m/4*	Yes
New roads to be constructed	550m/3	Yes
Existing crossings used	4	Yes
New crossings to be constructed	4	Yes
Length of road >10°	110m	Yes
Borrow pits and gravel pits	0	NA
Mass movement prescriptions apply	No	NA
Dispersible soil conditions apply	No	NA
Seasonality provisions apply	No	NA

* Includes sections of Orchid Road (980m) and 2022/1 Rd (230m) outside of compartment 2023.

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

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

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

CHECKLIST OF WORKS REQUIRED ON ROADS & CROSSINGS

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
Orchid Road (1650m) (Section within cpt 2023)	<p>Grade/reshape pavement (includes removing fallen logs/debris).</p> <p>Roadside clearing (dozer required).</p> <p>Remove rollovers. Open existing mitres and spoons and install additional RU's/mitres/spoons at EPL spacing (roading supervisor to determine appropriate spacing).</p> <p>Where possible remove 2-3 rocks which are protruding on road surface.</p> <p>One steep section (14 degrees for 60m), realign road (see new road construction section below).</p> <p>2 other steep sections (refer to roading map): carry out earthworks to lower grade if possible. Both sections are a maximum of 11 degrees, one for 30m, the other for 80m. Both sections trucks are uphill empty.</p> <p>Note: The entire planned length of Orchid Road may not be required, depending on contractors preferred extraction pattern. HS must advise RS prior to road maintenance which dumps will be used along this road.</p> <p>RC/HC Comments:</p>			

Orchid Road (980m) & 2022/1 Rd (230m) (Section outside cpt 2023 between Peters Road and cpt boundary)	<p>Grade/reshape pavement.</p> <p>Roadside clearing (dozer required).</p> <p>Remove rollovers, utilise existing crests, mitres and spoons for drainage.</p> <p>One steep section is 11 degrees for 50m (not shown on roading map). For this section either use 2022/1 Road (carry out same works as above) or carry out earthworks to lower the slope.</p> <p>RC/HC Comments:</p>			
Peters Road (800m)	<p>Grade pavement.</p> <p>Roadside clearing where required (occasional overhanging branch).</p> <p>Reopen all mitres and spoons.</p> <p>Clean 1 pipe and install 1 new pipe at locations marked in field and shown on roading map).</p> <p>RC/HC Comments:</p>			
2023/2 Road (1200m) *Note this road not recommended for wet weather/winter haulage.	<p>Grade/reshape pavement (includes removing fallen logs/debris).</p> <p>Gravel & geotextile as required. Two areas identified during planning, 1st is associated with C3 and C4, the second area shown on roading map.</p> <p>Roadside clearing (dozer required).</p> <p>Remove rollovers. Open existing mitres and spoons and install additional RU's/mitres/spoons at EPL spacing (roading supervisor to determine appropriate spacing).</p> <p>RC/HC Comments:</p>			
2023/3 Road (430m)	<p>Road reopening.</p> <p>Remove trees (up to 30cm dbh) from pavement and roadside. -Dozer required.</p> <p>Grade/reshape.</p> <p>Remove rollovers. Open existing mitres and spoons and install additional RU's/mitres/spoons at EPL spacing (roading supervisor to determine appropriate spacing).</p> <p>See new Road Construction section for details of realignment of southern section.</p> <p>RC/HC Comments:</p>			

C1-C4	See crossing forms attached to this plan.			
<p>C5, C6 and C7</p> <p>Unmapped drainage lines.</p> <p>Natural Causeway crossing or 300mm pipe.</p> <p>Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.</p>	<p>Schedule construction of these crossings during dry times.</p> <p>Construct natural causeway crossing or 300mm pipe/headwall (with 125mm packed rock at outlet) crossing.</p> <p>For pipe crossing ensure there is a minimum of 40cm fill over pipe.</p> <p>The decision to make crossing causeway or pipe it the responsibility of the roading supervisor. Causeway is the preferred option, however pipe crossing should be considered if crossings remain wet during construction phase and depending on how incised the channel is at the final crossing location (which may vary slightly from the planned location due to minor alignment of the road for reasons such as rock).</p> <p>Gravel/geotextile are recommended for these crossings.</p> <p>Install 5-30m drainage (RU's) on both approaches and apply all other EPL conditions during construction phase.</p> <p>RC/HC Comments:</p>			
<p>C8</p> <p>Mapped first order drainage line.</p> <p>600mm pipe.</p> <p>Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.</p>	<p>Schedule construction of this crossing during dry times.</p> <p>Install 600mm pipe/headwall (with 125mm packed rock at outlet), ensuring there is a minimum of 40cm fill over pipe.</p> <p>Gravel crossing if required in wet conditions.</p> <p>Install 5-30m drainage (RU's) on both approaches and apply all other EPL conditions during construction phase.</p> <p>RC/HC Comments:</p>			

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
Orchid realignment	180m	7m	9°	15°	1.0m	150m	No	Retain			
2023/4 Rd*	300m	7m	9°	18°	1.5m	250m	No	Retain			
2023/3 Rd realignment	70	7m	9°	22°	1.5	50	No	Retain			

*Schedule road construction in dry times. It is highly likely that gravel/geotextile will be required on pavement especially in the vicinity of the crossings. This road is not recommended for wet weather/winter haulage.

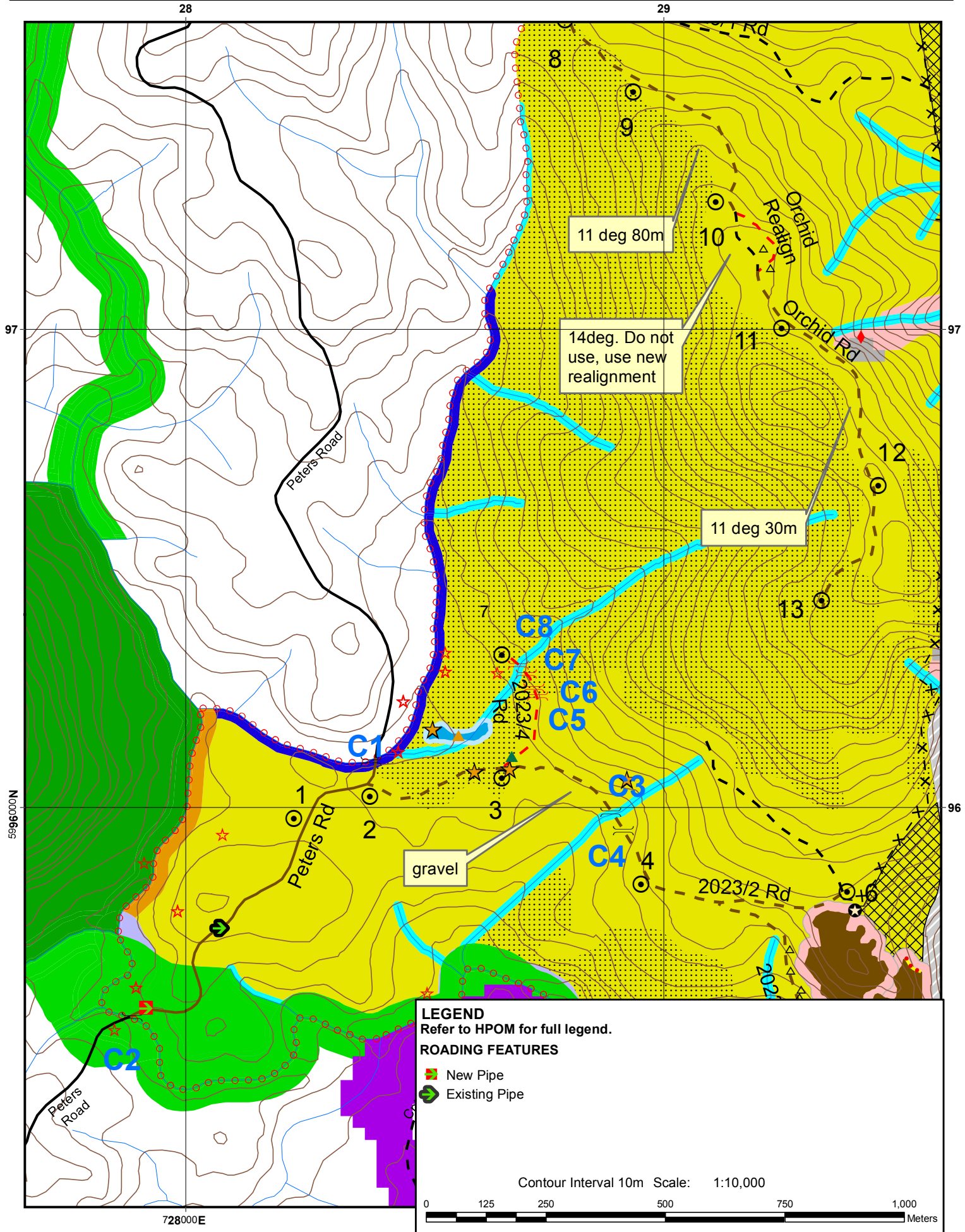
Harvest Plan Roding Map

Compartment: 2023

State Forest: BADJA No: 567

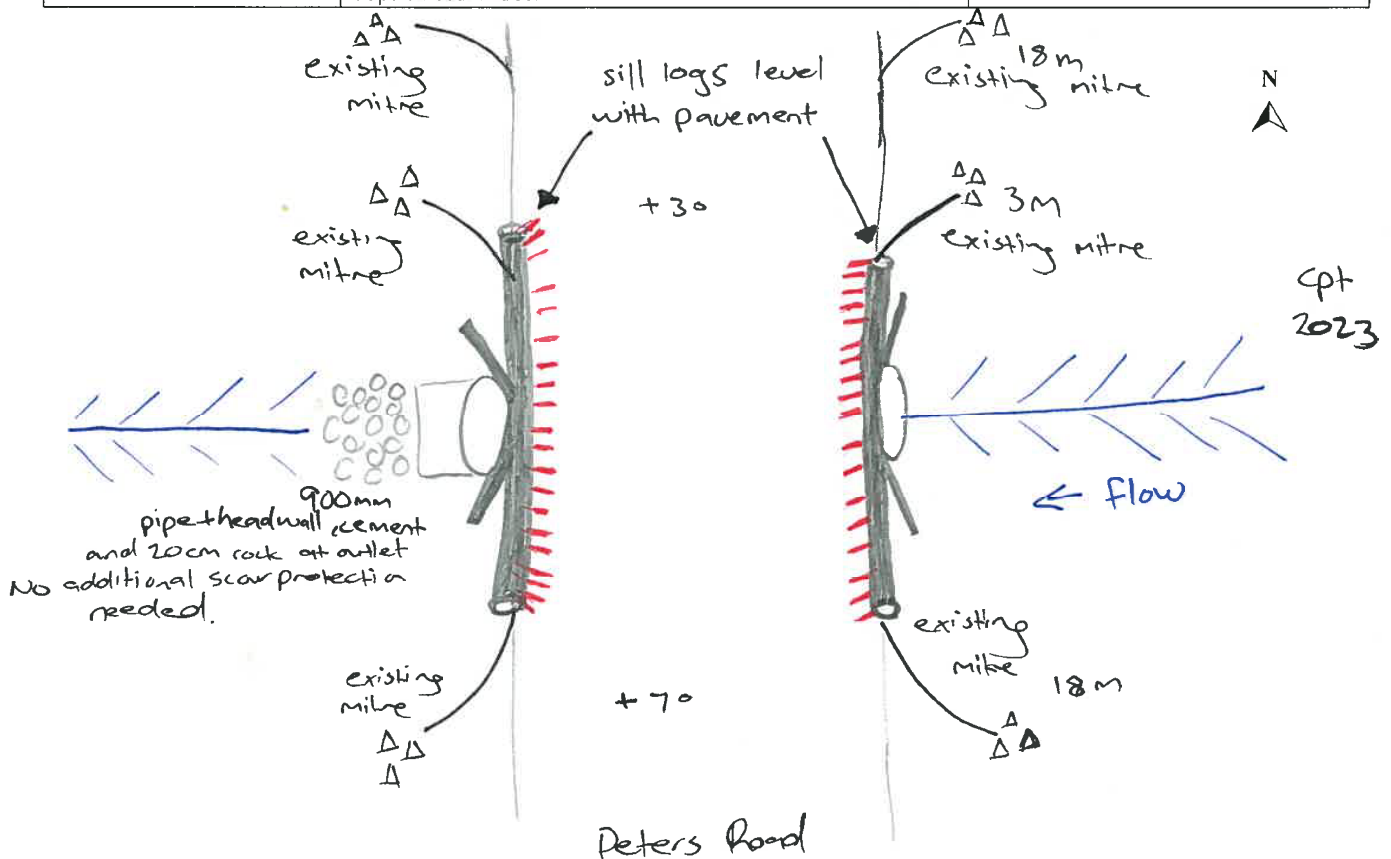
Southern IFOA - South Coast

Map Sheet: BELOWRA 8825-4S



CROSSING NAME: C1(Mapped 2nd Order Drainage Line) **Waterway Classification:** Fish Passage Class 3 -minimal fish habitat
Fisheries Licence Aquatic Habitat: Not class 1 or 2 **Assessors Name:** Kate Halton **Crossing Type:** Existing Pipe
Date of Assessment: 29/09/2014 **Final Crossing Use:** Retain

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Nil-stable at time of assessment.	NA.
Bed and Banks	Nil-vegetated & stable at time of assessment.	NA.
Erosion and Sediment Control	Crossing contains sill logs which are level with road pavement. Install windrow either side of crossing between mitres on southern side and 1 st set of mitres on northern side of crossing to prevent pooling on crossing and spoil entering crossing via low sill logs.	Manual. Seed/Mulch
Disposal of excess spoil	Outside Stream Exclusion Zone/Consolidate onto road pavement.	Grader
Soil Stabilisation within 20m	Seed & Mulch on disturbed areas.	Manual. Seed/Mulch
Road drainage within 5-30m • Type • outlet control • table drain checking devices	Northern side, maintain both sets of mitres (1 st set at 3m, 2 nd set at 18m). Realign 1 st set of mitres at 3m such that they are angled as far away from crossing as possible. Install silt traps on both sets of mitres. Southern side, maintain mitres at 18m from crossing, installing silt traps on both mitres.	Grader. Silt trap.



Key
 A Install
 AA checking
 device (silt
 trap.
 /// = windrow to
 be installed

Date Work Started: _____

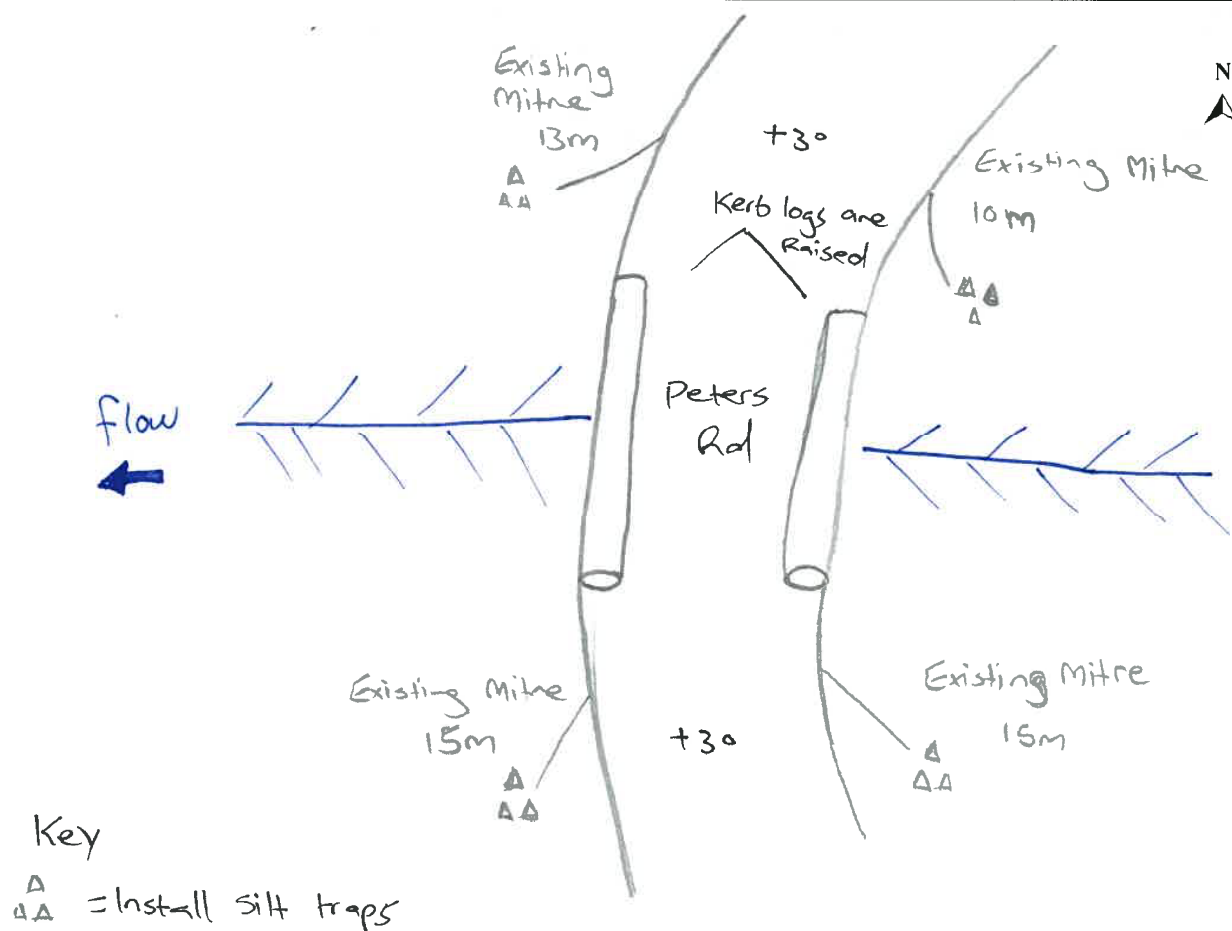
Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

CROSSING NAME: C2(Mapped 4th Order Drainage Line) **Waterway Classification:** Fish Passage Class 2 - Moderate Fish habitatFisheries Licence Aquatic Habitat: Not class 1 or 2 **Assessors Name:** Kate Halton **Crossing Type:** Existing Bridge**Date of Assessment:** 29/09/2014 **Final Crossing Use:** Retain

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Nil work-bridge stable at time of assessment. Grade pavement.	NA.
Bed and Banks	Nil-vegetated & stable at time of assessment.	NA.
Erosion and Sediment Control	Silt logs on crossing (both sides) are high enough to sufficiently contain sediment on crossing. Nil work required.	NA
Disposal of excess spoil	Outside Stream Exclusion Zone/Consolidate onto road pavement.	Grader
Soil Stabilisation within 20m	Seed & Mulch on disturbed areas.	Manual, Seed/Mulch
Road drainage within 5-30m <ul style="list-style-type: none"> Type outlet control table drain checking devices 	North: Maintain existing mitres and install silt traps. South: Maintain existing mitres and install silt traps.	Grader. Silt trap.



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

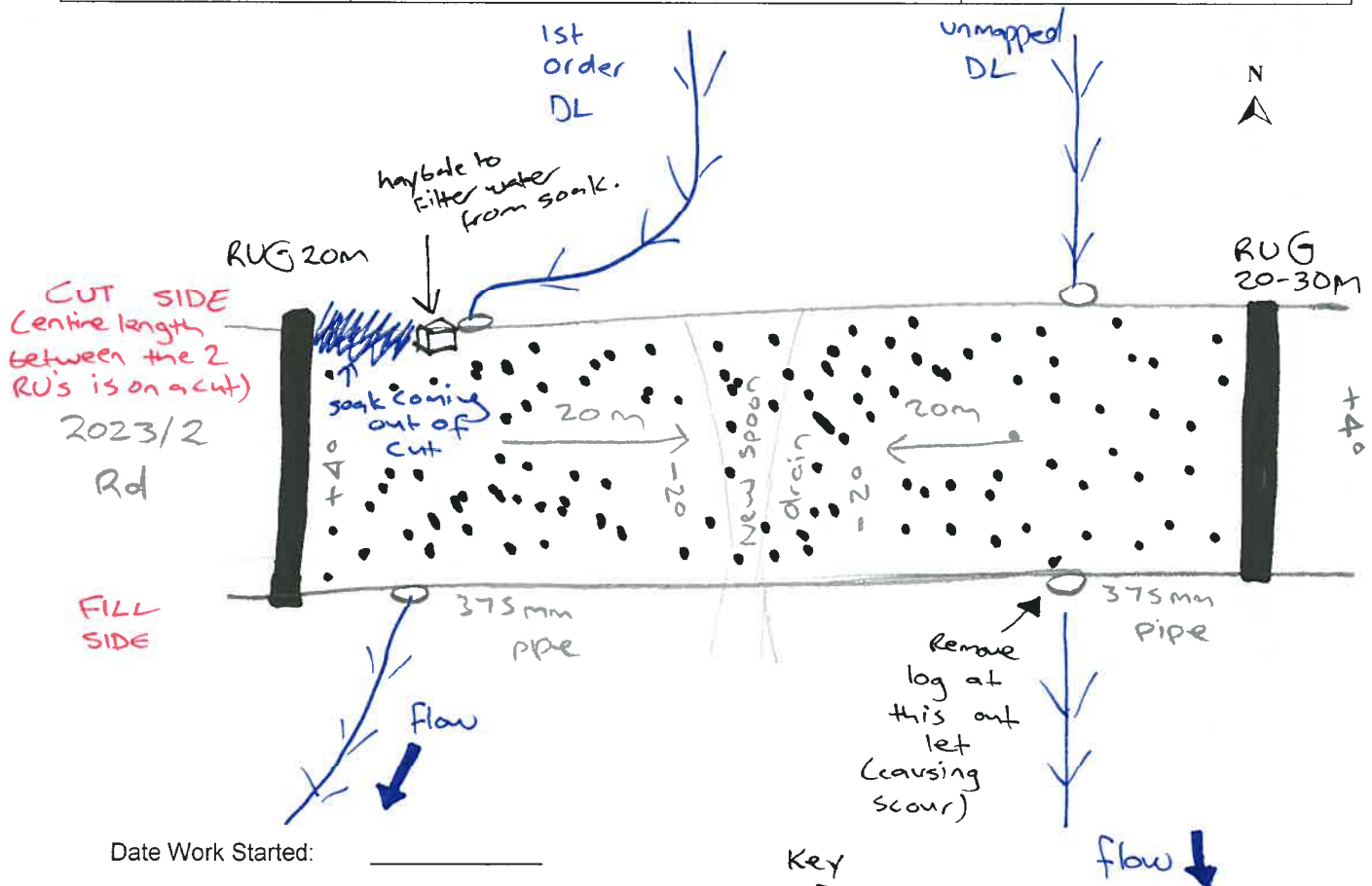
CROSSING NAME: C3 (Mapped 1st Order Drainage Line) & C4 (Unmapped Drainage Line)

Waterway Classification: Fish Passage Class 4 -unlikely fish habitat **Fisheries Licence Aquatic Habitat:** Not class 1 or 2

Assessors Name: Kate Halton **Crossing Type:** Both crossings are existing 375mm pipes

Date of Assessment: 29/09/2014 **Final Crossing Use:** Retain

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Unblock pipes and excavate around inlet and outlets (pipes are buried). Grade/reshape road.	NA.
Bed and Banks	Nil-vegetated & stable at time of assessment.	NA.
Erosion and Sediment Control	When grading pavement, enhance slope of road between C3 and C4, such that water on pavement efficiently drains away from the pipes and towards the spoon drain which is to be created between the crossings. Install Geotextile and gravel (from RU to RU). Rock armor outlet of both crossings (For C4 will firstly need to remove the log which is causing water to divert flow/scour bed).	Manual. Seed/Mulch
Disposal of excess spoil	Outside Stream Exclusion Zone/Consolidate onto road pavement.	Grader
Soil Stabilisation within 20m	Seed & Mulch on disturbed areas.	Manual. Seed/Mulch
Road drainage within 5-30m <ul style="list-style-type: none"> Type outlet control table drain checking devices 	Between C3 and C4-New spoon drain C3 West-install RU at 20m. C4 East-Install RU between 20-30m. For C3 Install hay bale just before pipe, to filter water coming from soak (just to west of pipe).	Grader. Silt trap.



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Araluen Gum - profile

Scientific name: *Eucalyptus kartzoffiana*

Conservation status in NSW: [Vulnerable](#)

Commonwealth status: [Vulnerable](#)

Profile last updated: 13 May 2013

Description

Growing to 30 m high, the Araluen Gum has rough, pale grey, scaly bark for up to 4 m from the ground; above that the bark is smooth and grey or white and sheds in long ribbons. The juvenile leaves are opposite, oval, blue-green and stalkless. Adult leaves are alternate, long and slender (to 20 cm by 2 cm). They have a vein within a millimetre of the margin and a flattened stalk. Flowers are in groups of three, also on a flattened stalk. Buds and fruits are blue-green. The buds are cylindrical with a conical cap; fruits are bell-shaped, to 7 mm long and wide.

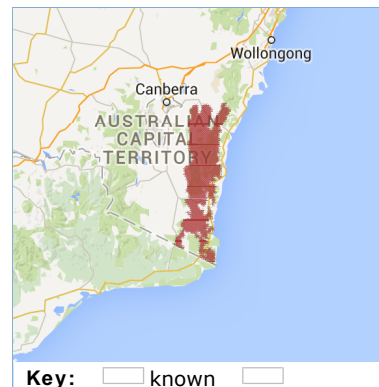
Distribution

Araluen Gum is found in the Araluen, Bendethera and Majors Creek area, south of Braidwood.

Habitat and ecology

- Grows near rivers, in grassy or shrubby woodland or in wet sclerophyll forest on moderately fertile sandy soil on granite.

Indicative distribution



The areas shown in pink and purple are the sub-regions where the species or community is known or predicted to occur. They may not occur throughout the sub-region but may be restricted to certain areas. ([click here](#) to see geographic restrictions). The information presented in this map is only indicative and may contain errors and omissions.

