

LOCALITY MAP

Compartments 552 & 560

South East Forest NP

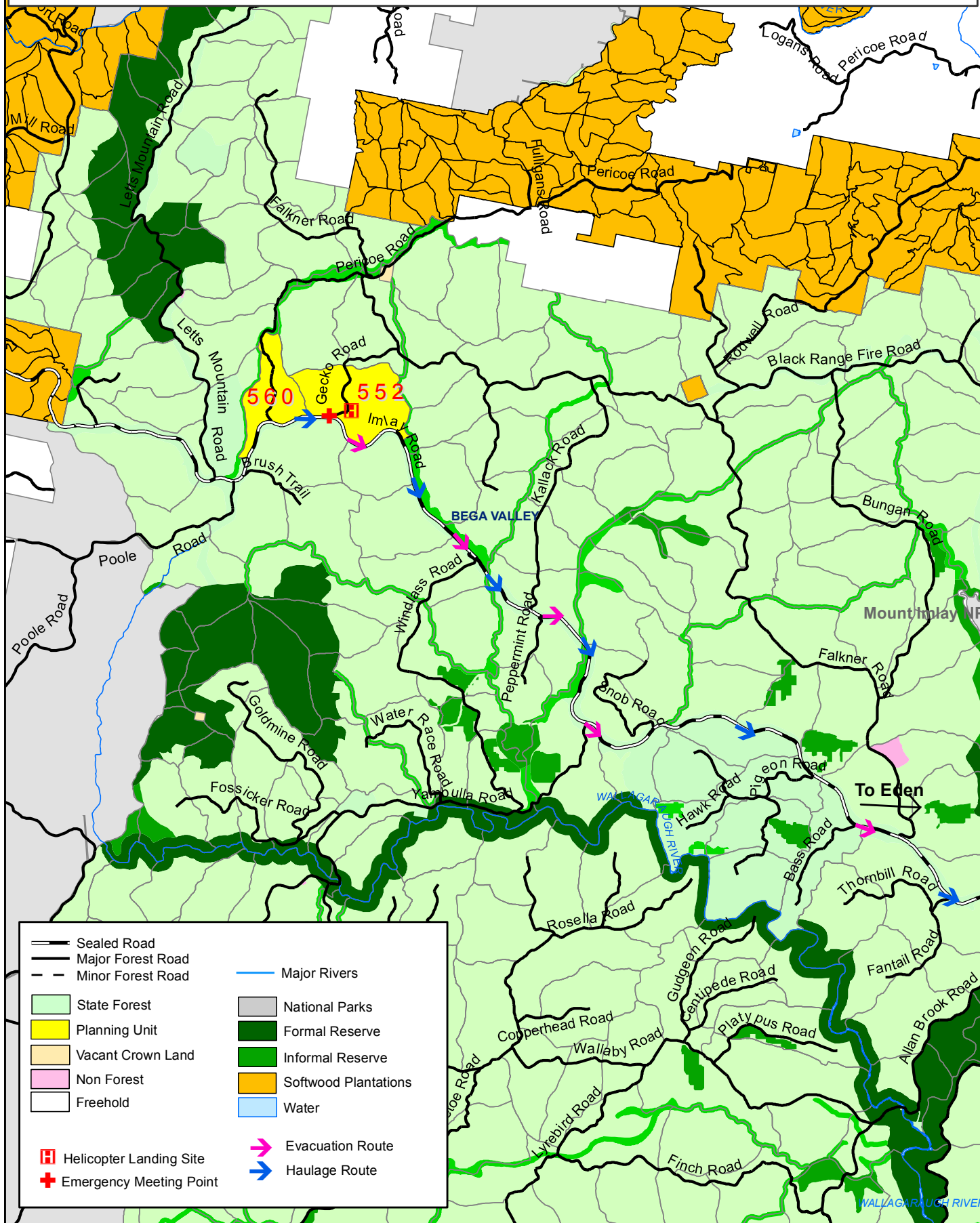
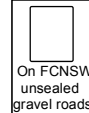
Yambulla State Forest No.126

EDEN IFOA : EDEN MANAGEMENT AREA

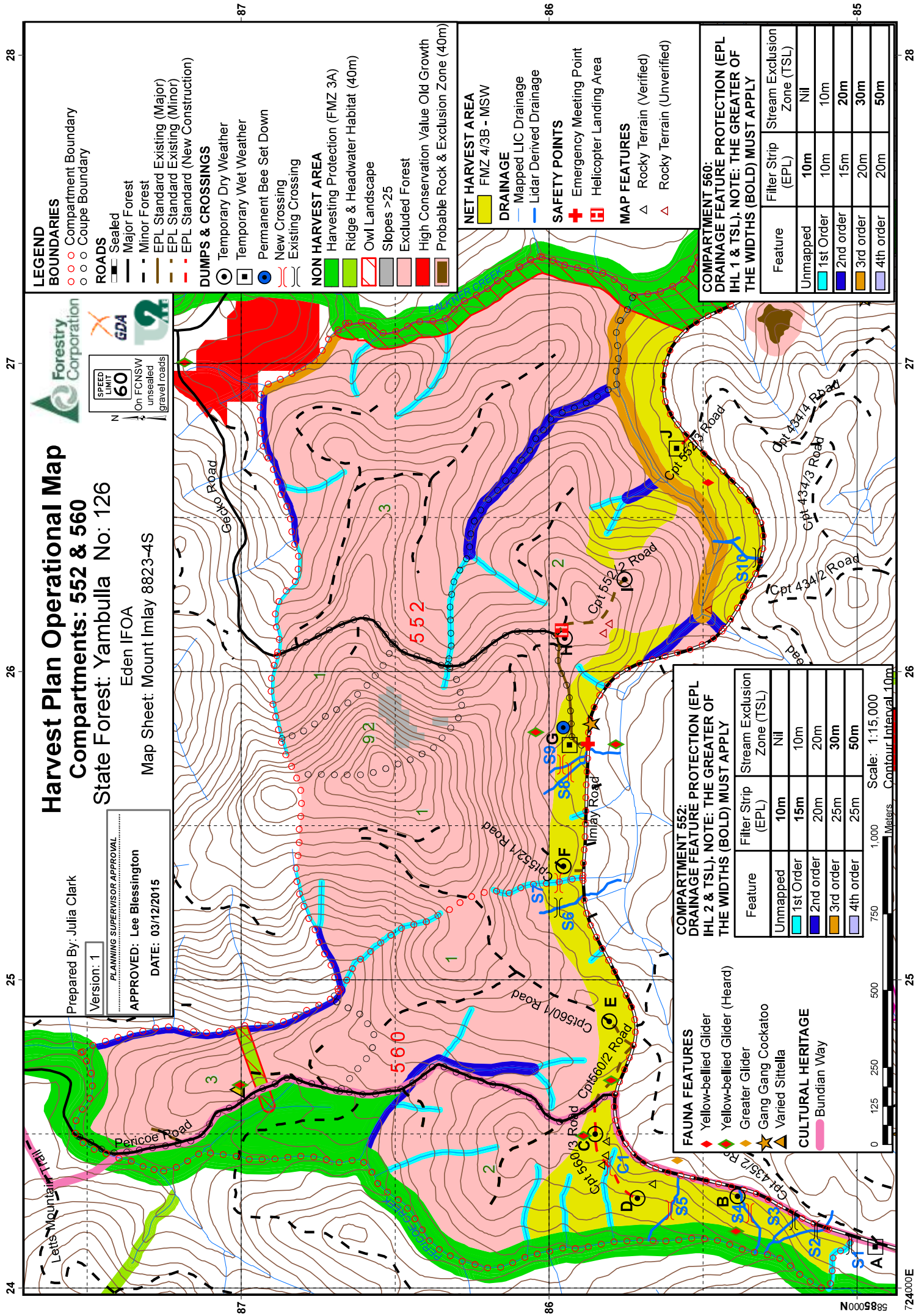
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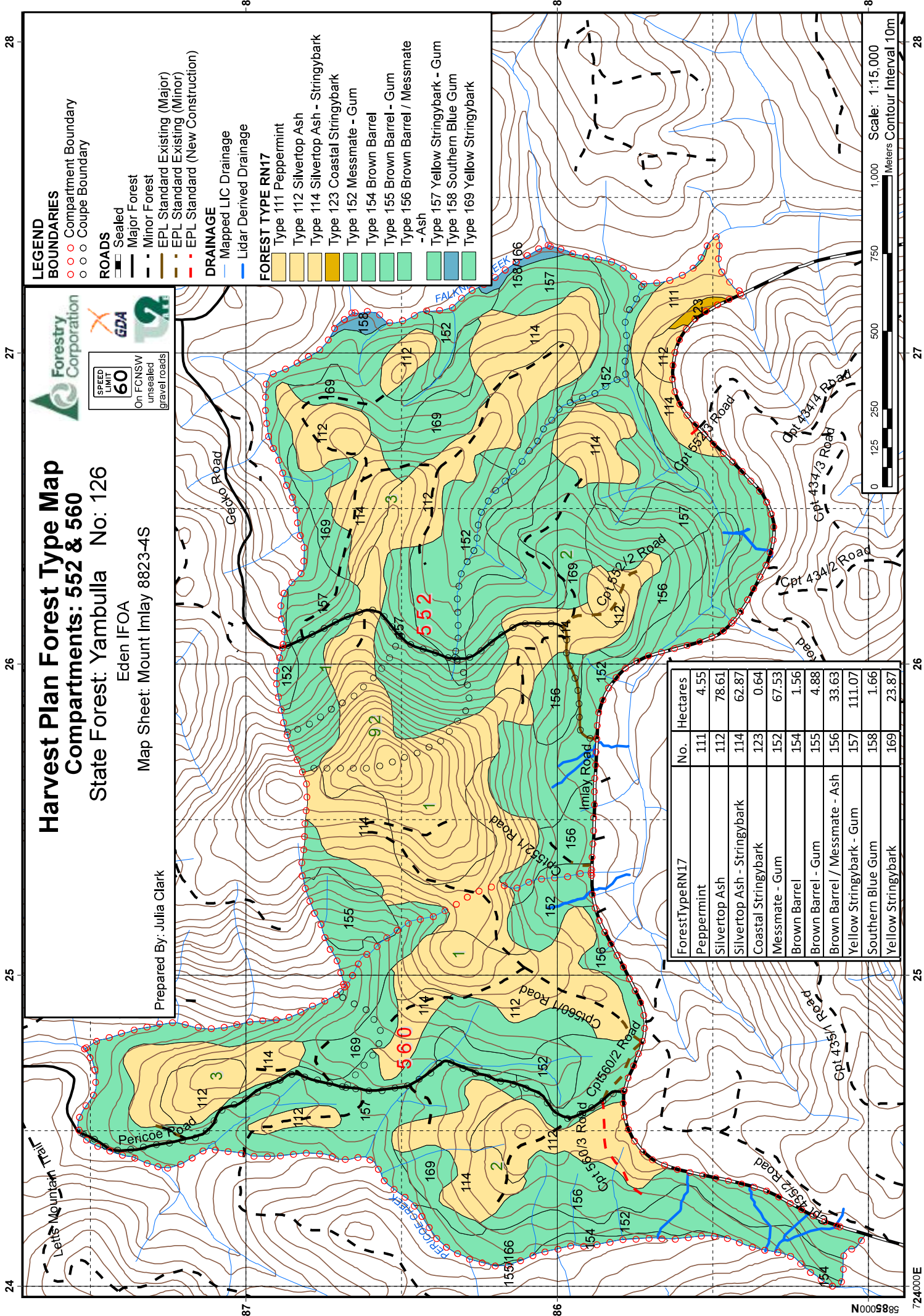


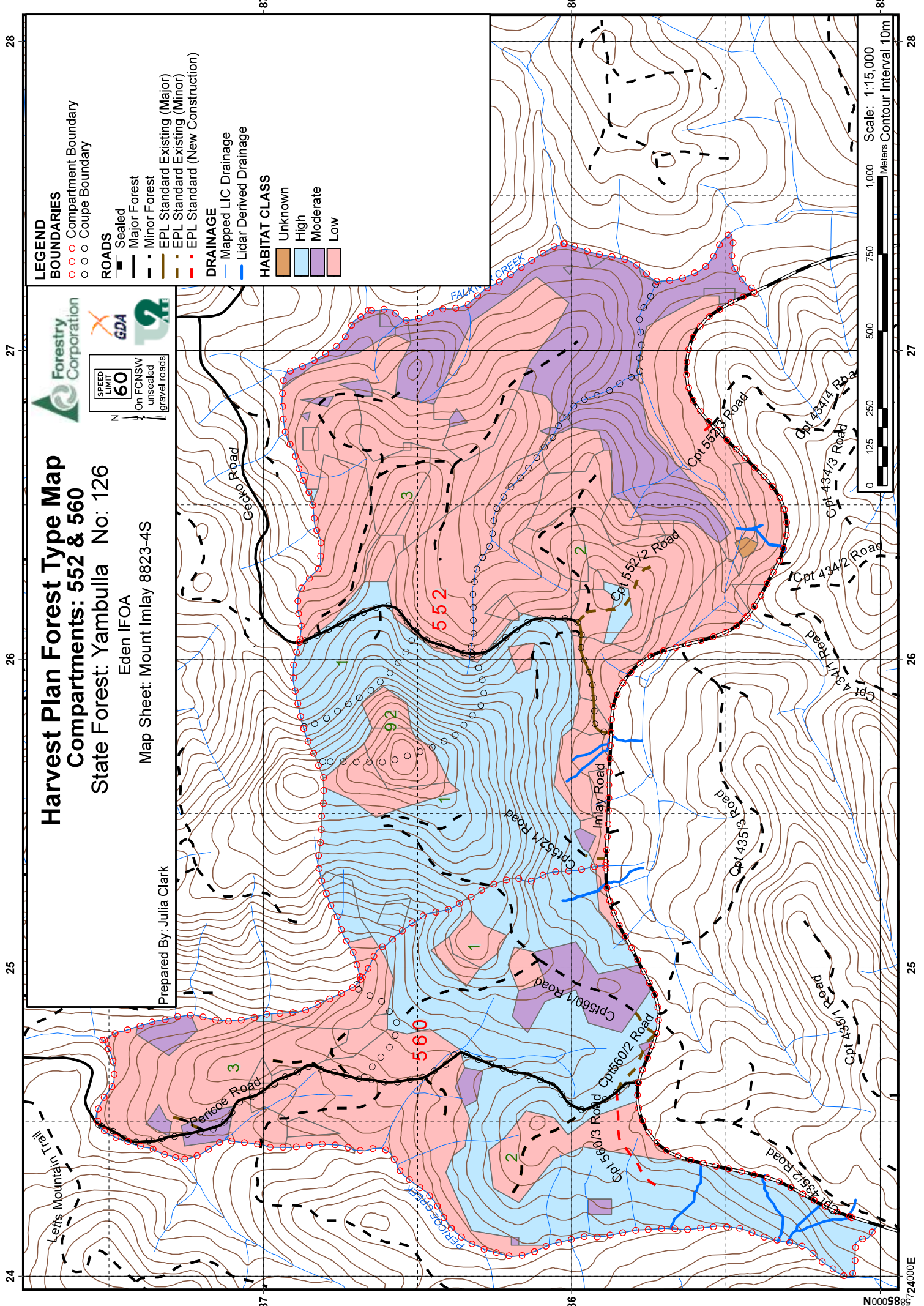
TOWAMBA RIVER



- | | |
|-------------------------|------------------------|
| — Sealed Road | — Major Rivers |
| — Major Forest Road | — National Parks |
| — Minor Forest Road | — Formal Reserve |
| State Forest | — Informal Reserve |
| Planning Unit | — Softwood Plantations |
| Vacant Crown Land | — Water |
| Non Forest | |
| Freehold | |
| Helicopter Landing Site | Evacuation Route |
| Emergency Meeting Point | Haulage Route |









Harvest Plan Forest Type Map Compartments: 552 & 560 State Forest: Yambulla No: 126

Eden IFOA
Map Sheet: Mount Inlay 8823-4S

Prepared By: Julia Clark



SPEED LIMIT 60

On FCNSW
unsealed
gravel roads

- LEGEND**
 - BOUNDARIES
 - ○ Compartment Boundary
 - ○ Coupe Boundary
 - ROADS
 - Sealed
 - Major Forest
 - Minor Forest
 - EPL Standard Existing (Major)
 - EPL Standard Existing (Minor)
 - EPL Standard (New Construction)
 - DRAINAGE
 - Mapped LIC Drainage
 - Lidar Derived Drainage
 - HABITAT CLASS
 - Unknown
 - High
 - Moderate
 - Low



N000585
724000E



HARDWOOD FORESTS- EDEN IFOA HARVESTING PLAN

Yambulla State Forest - Compartments 552 & 560

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 Eden apply to this operation.

Prepared By: Harvest Planner	Julia Clark	Approved By: Planning Supervisor	Lee Blessington
Signature	Julia Clark	Signature	Lee Blessington
Date	03.12.2015	Date	03.12.2015

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

Other maps included with this plan are Locality, Forest Type and Habitat Quality Class (Production Assistant and Indicative).

Description of Proposal

Harvesting of hardwood forest

(a) Integrated Harvesting of Hardwood Forest:

Mixed-age stands dominated by a commercially mature overstorey will be harvested to create regeneration opportunities through integrated harvesting of sawlogs and pulpwood with the retention of trees for future sawlogs, fauna habitat, seed trees, visual maintenance and soil and water protection.

(b) Roadside Vegetation Control of Native Forest

Imlay Road is classed as Strategic Fire Advantage Zone (SFAZ) in accordance with the Bega Valley Bush Fire Management Committee, Bush Fire Risk Management Plan. For the net harvest area immediately adjacent to Imlay Road within these compartments, roadside vegetation control will occur up to a maximum of 10m along the southern side of Imlay Road in accordance with the values of the SFAZ. In addition, the vegetation control will improve the safety conditions of Imlay Road by improving sight distances of road intersections and the removal of hazardous trees overhanging Imlay Road.

(c) High Value Sawlog Only Harvesting of Hardwood Forest:

Mixed-age stands dominated by a commercial mature overstorey along Pericoe Road (Bundian Way) will be harvested in a modified sawlog only operation to harvest only the high value sawlogs and retaining the remaining stand as a visual buffer.

This operation will be licensed under the EPL with notification sent to the regulatory authorities as per clause 23 of Integrated Forestry Operations Approval (IFOA).

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

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

Abbreviations used in this plan

PA = Production Assistant, PtS= Protection Supervisor, PS = Production Supervisor, RC = Rooding Coordinator, IFOA = Integrated Forestry Operations Approval, EPL = Environment Protection Licence, OEH = Office of Environment and Heritage.

Area Identification and Yield Estimates

State Forest	Compartment/s	Coupe/s	IFOA Region	Management Area	Certification
Yambulla	552	1 (part) & 2 (part)	Eden	Eden	No. 13761 (AS4708:2007 & ISO 14001)
Yambulla	560	1 (part) & 2 (part)	Eden	Eden	No. 13761 (AS4708:2007 & ISO 14001)

	Cpt 552	Cpt 560	Total
Plan Compartment ID	22176	22177	NA
Gross Area (ha)	246.3	144.6	390.9
Net Harvest Area (ha)	26.0	26.6	52.6
Estimated Yield Pulp (t)	3,242 t	3,317 t	6,559 t
Estimated Yield Sawlog (m3)	629 m3	644 m3	1,273m3

Slope Classes (percent of harvest area)

	Cpt 552	Cpt 560
Slope Class	% of harvest area	% of harvest area
0-20°	97.3	100.0
20-25 °	2.7	0.0
25-30 °	0.0	0.0



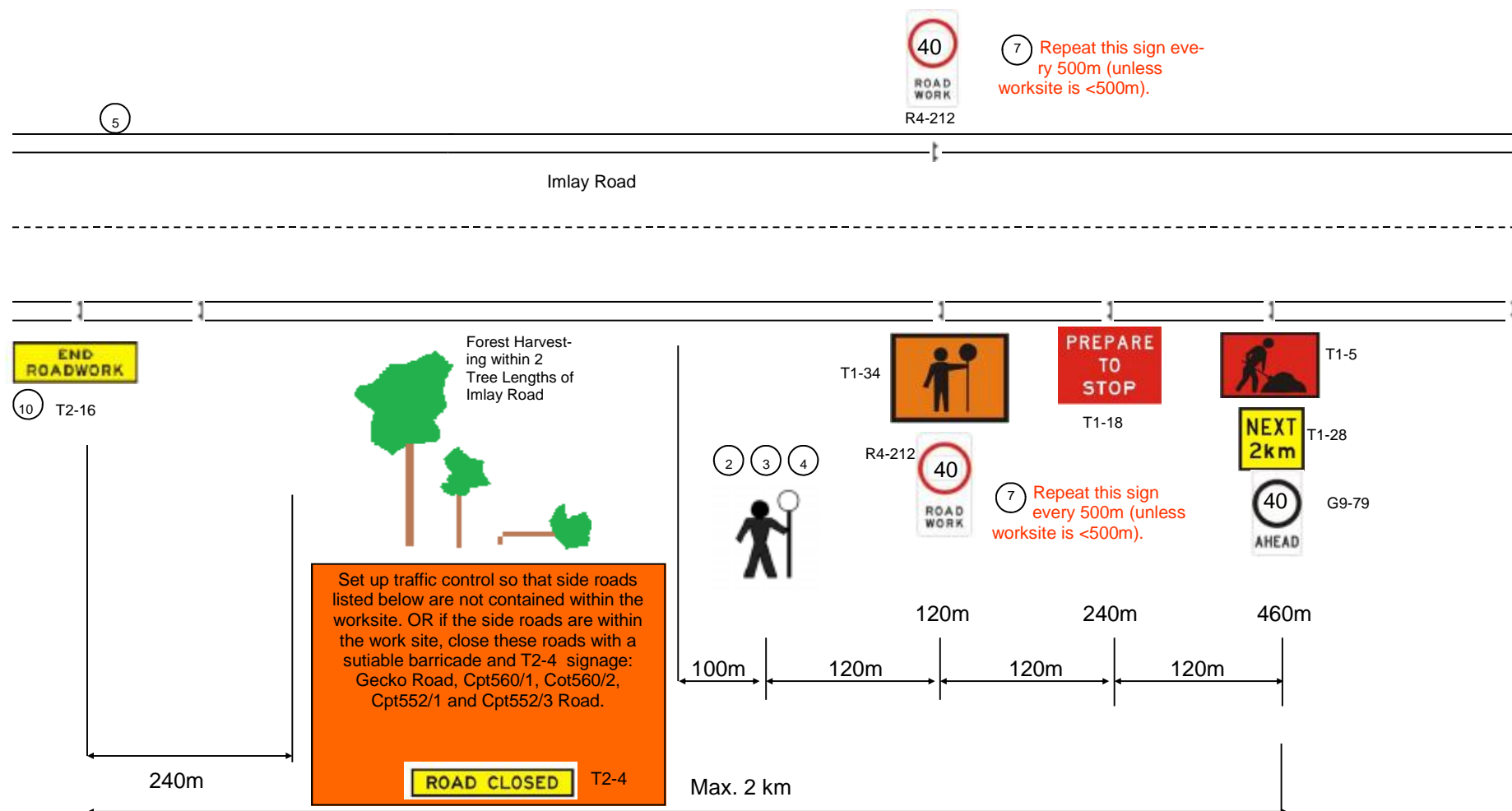
ATTACHMENT 1: SITE SAFETY PLAN

Worksite Information	
Is this Declared Hunting Area: Yes	Comments: Hunting exclusion zone does not cover this area. Before harvesting operation commences (ie during mark-up), signage is required.
Have Exclusion Zone signs been erected or checked prior to starting work daily.	Yes / No
Comments:	
Description of Work to be undertaken on site: - Refer to description of proposal above.	
Site Supervisor	
Name:	Contact number:
Communication	
Radio channel number	VHF: UHF
Other (e.g. hand signals):	
Traffic management (describe) e.g. Signage, Road closure, Traffic control	
<p>This plan identifies haulage from the compartments will be via east via Imlay Road (100km/hr road) turning left onto Princes Highway and then turning right onto Edrom road (100km/hr road).</p> <p>The logging contractor is responsible for traffic control on all roads (except for Imlay Road) when felling is within two tree lengths of the tallest tree to be felled of the road, or snagging on roads or loading is occurring within 10 metres of a road. Warning of trucks entering must be displayed 200 metres on either side of the junction/intersection of Gecko Road, access feeder to Dump A, Cpt560/1 Road, Cpt560/2 Road, Cpt552/1 Road and Cpt552/3 Road onto Imlay Road to warn motorists of emerging log trucks.</p> <p>In addition to the above, when harvesting within two tree lengths of Imlay Road, traffic must be temporarily stopped in accordance with a Traffic Control Plan. The Forestry Corporation of NSW will provide suitably accredited traffic controllers to implement "TCP78: Compartments 552 & 560 – Imlay Road" (attached to this harvest plan) when harvesting these areas.</p> <p>The intersection of Cpt552/1 Road has been assessed as achieving a minimum of 200m sight distance on both approaches. Therefore at this intersection additional signage in accordance with a Traffic Control Plan in not required.</p> <p>The intersections of the access feeder road to Dumps A and B, Cpt560/1 and Cpt560/2 Road and Cpt552/3 Road and Imlay Road has been assessed as achieving a minimum of 200m sight distance for vehicles travelling on Imlay Road in an easterly direction, but not for vehicles travelling along Imlay Road in a westerly direction. Therefore, prior to haulage commencing, a suitably qualified person must implement "TCP195_ImlayRoad_Eastern_Approach" attached to this harvest plan) at these intersections.</p> <p>The intersection of Gecko Road and Imlay Road has been assessed as not achieving a minimum of 200m sight distance for vehicles travelling in both directions. Therefore, prior to haulage commencing, a suitably qualified person must implement "TCP195_GeckoRoad_ImlayRoad" (attached to this harvest plan) at this intersection. When implementing the relevant traffic control plans, Production Supervisor are to notify Snowy Region, Bombala office, a week prior to traffic control on Gecko Road.</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. Implement Traffic Control plans (where specified in this harvest plan). 60km/hr speed limit on all State Forest natural surface/gravel roads unless otherwise signposted. Compliance with FCNSW lights on policy.		
2. Cliff lines & rocky 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 WHS procedure 4.26. Assess area within two tree lengths of work site. Assess risk, mark any Distinctly Dangerous Trees with the symbol Ø & if necessary remove hazard or move work site. Use machinery to assist with hazard removal if possible Contractor is responsible for implementing control strategies during harvesting.		
4. Overhead hazards associated with dumps	Refer to FCNSW WHS procedure 4.26. Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump site. Contractor is responsible for implementing control strategies during harvesting.		

- **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

**Wooded Forests Traffic Control Plan 78: Harvesting within 2 Tree Lengths of Imlay Road
Yambulla State Forest Compartments 552 & 560
(modified from RTA Traffic Control at Work Site TCP 78)**



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

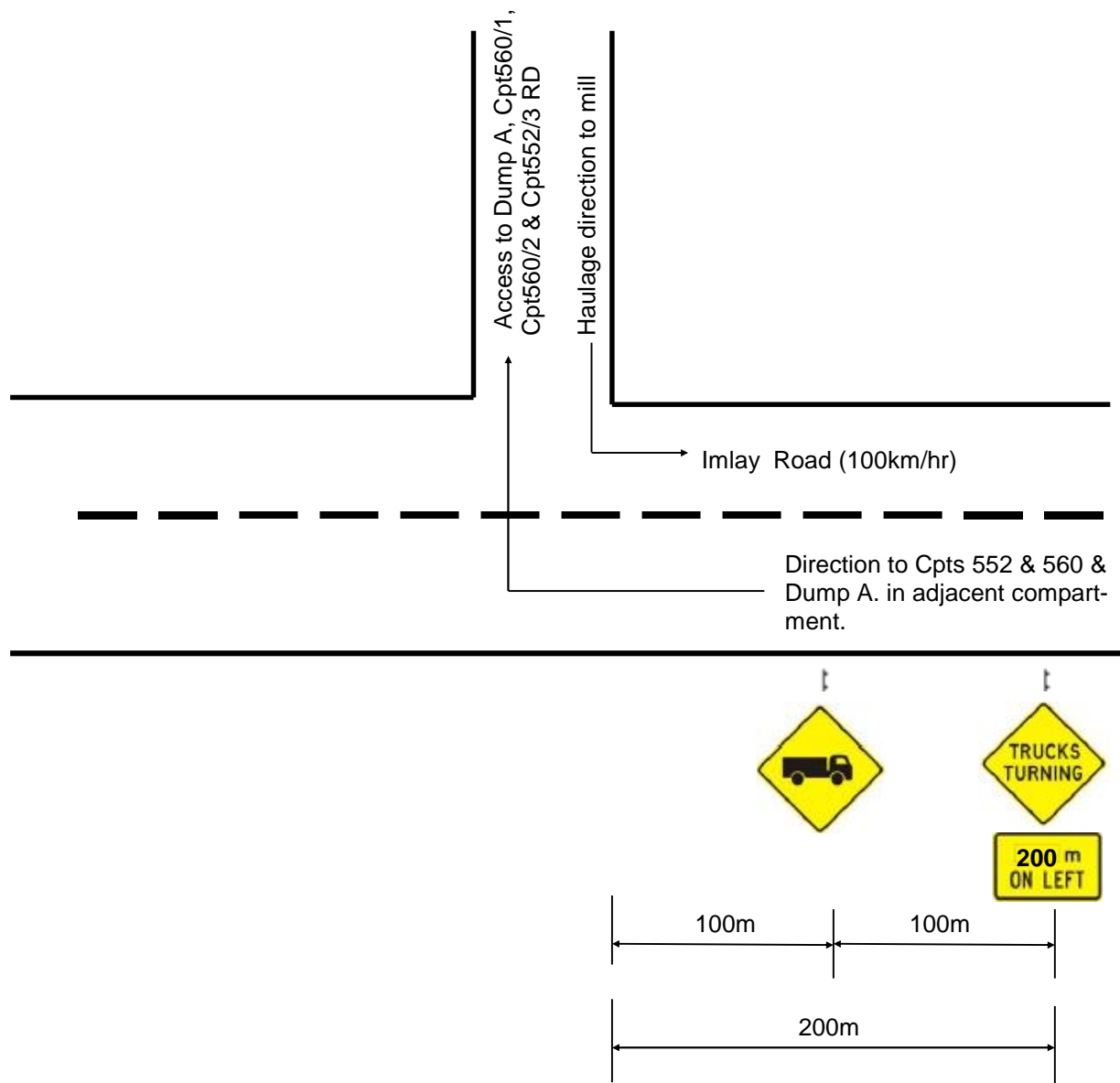
Prepared by Julia Clark ,

Reviewed & Approved by Robert Young Red Card Certificate No.5192053861 on 25/02/2015

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 falling 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. Traffic controller to be located at least two tree length from falling operation at all times.
4. Traffic controller must have sight distance to oncoming traffic of at least 150m. Traffic controller must wear hardhat at all times.
5. Traffic control plan must be mirrored for traffic approaching from the opposite direction.
6. Where possible the worksite should be less than 500m to minimise the distance traffic is required to travel 40km/hr through the worksite. The worksite MAY be longer than 500m but only if this is the only way to set the traffic control up with adequate sight distances for the traffic controller.
7. Where worksite is more than 500m, repeater R4 212 (40km speed limit) signs are required every 500m.
8. Roadwork signs are to be covered when not in use (meal breaks and shift breaks).
9. Permanent road signs which contradict this TCP must be covered whilst TCP is in operation.

Forestry Corporation NSW Eden IFOA TCP195: Imlay-Road_EasternApproach: (modified from RTA Traffic Control at Work Site TCP 195)



Notes:

- ① Log Haulage - Intersection of access feeder road to Dumps A and B, Cpt560/1 Road, Cpt560/2 Road and Cpt552/3 Road and Imlay Road (100km/hr). Sight distance restricted to <200m when travelling in westerly directions along Imlay Road.

LONG TERM USE

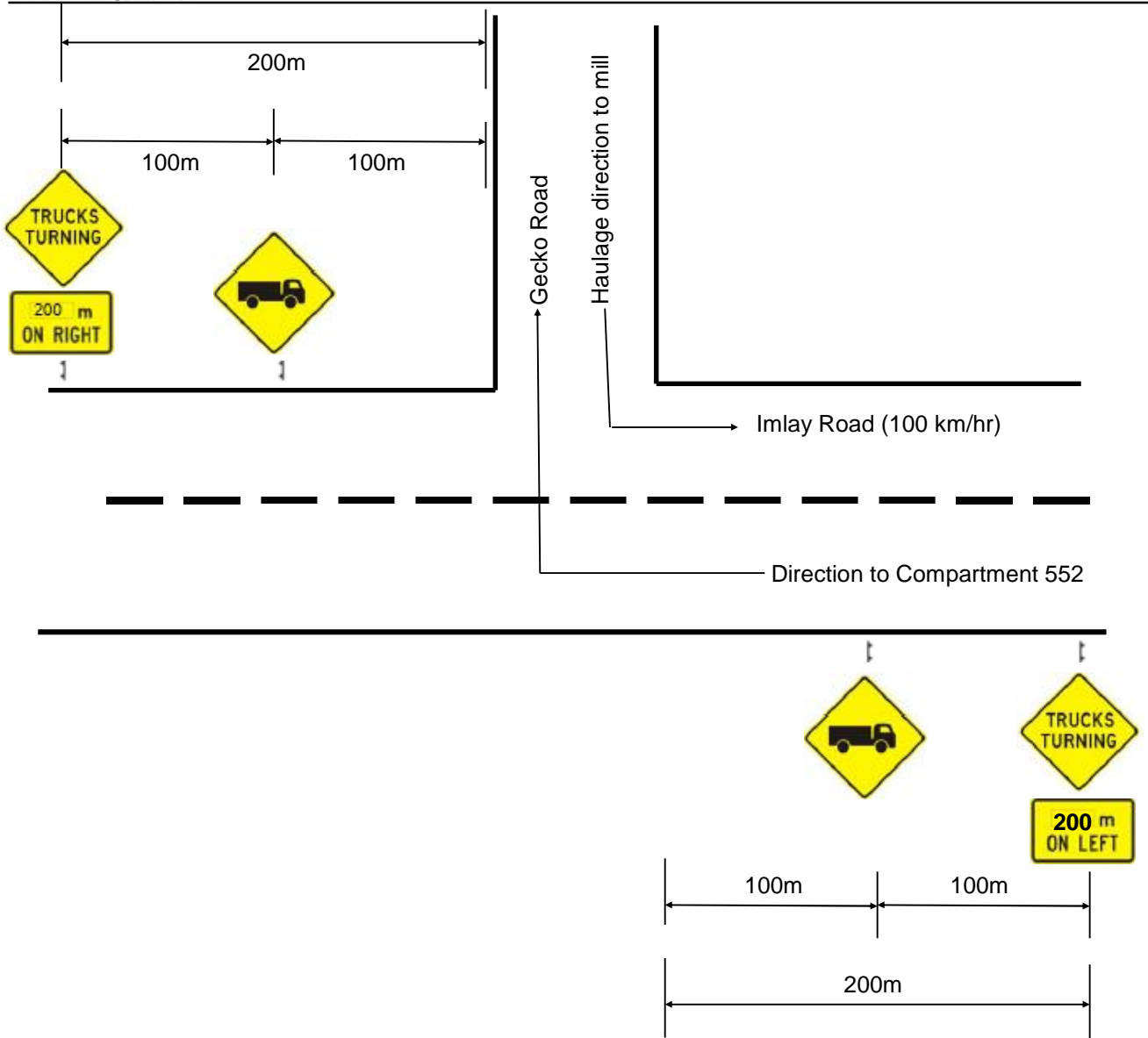
ADT < 1500, <20 Truck Movements, Sight Distance Restricted

Prepared by Julia Clark Reviewed & Approved by Rob Young Red Card Certificate No. 5192053861 on 25/05/2015

Forestry Corporation NSW Eden IFOA TCP195: Gecko Road—Imlay Road:



Modified from RTA Traffic Control at Work Site TCP 195)



Notes:

- ① Log Haulage - Intersection of Gecko Road and Imlay Road (100km/hr). Sight distance restricted to <200m when travelling in both directions along Imlay Road.

LONG TERM USE

ADT < 1500, <20 Truck Movements, Sight Distance Restricted

Prepared by Julia Clark Reviewed & Approved by Rob Young Red Card Certificate No. 5192053861 on /21/08/2014



MEDICAL EMERGENCY EVACUATION PLAN

Nearest reliable mobile phone reception (describe location)			
Next G Network: Poor	GSM: N/A		Satellite: N/A
GPS Lat/Long: 37° 09' 18" S / 149° 30' 56" E	MGA: 723411E 5884941N	Datum: GDA 94	Zone: 55
Location description: Letts Mountain Road within the 1k mark.			
Emergency meeting point for ambulance / police (refer to attached locality map)			
GPS Lat/Long: 37° 08' 46" S / 149° 32' 31" E	MGA: 725765E 5885875N	Datum: GDA 94	Zone: 55
Location description: Intersection of Gecko Road and Imlay Road.			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 37° 08' 43" S / 149° 32' 45" E			
Location description: Existing cleared Dump H in Compartment 552 at the intersection of Gecko Road and Cpt552/2 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: 247</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: Yambulla Nearest town or locality: Eden Nearest ambulance station: Eden	
3. Address?		Gecko Road	
4. Nearest road junction/cross street?		Gecko Road and Imlay Road	
5. Local government area?		Bega Valley	
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 Eden head south on the Princes Highway travel approx. 24km to Imlay Road (on right). Turn right onto Imlay Road and travel approx.. 33km to Gecko Road junction (on right).			
8. 4WD ambulance required Y / 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

Compartment 552

Year	1994	2008
TSI	X	X
HR Burning	X	X
Wildfires	X	X
Logging m ³	26,134	3,396

0 - applies, X – not applicable

Compartment 560

Year	1999	2007
TSI	X	X
HR Burning	X	X
Wildfires	X	X
Logging m ³	8,077	3,893

0 - applies, X – not applicable

Silvicultural Planning

The stand to be harvested consists primarily of mature to over mature overstorey with a component of advance regrowth from previous harvesting in 1994, 1997, 2007 and 2008 in alternate coupes. Predominant species are Silvertop Ash, Stringybarks, Messmate, Peppermint and Monkey Gum.

Mixed-age stands described above will be harvested in a modified shelter-wood silvicultural system in accordance with the Eden IFOA. It is proposed that the mixed-aged stands will next be available for commercial thinning operations in approximately 15-20 years time.

Harvesting Prescription

Stand type	% of net area	Area (refer to HPOM for details)	Treatment (% INT, THIN)
Mature (mixed aged)	90%	Majority of the NHA of Compartments 552 & 560 (FMZ 3B/4)	<ul style="list-style-type: none"> 100% Integrated (modified shelter-wood) Target sawlogs, pulpwood and other miscellaneous products as markets allow in line with TSL and EPL requirements. Retain potential sawlog growers. Refer to Standard Harvest Planning Conditions for more detail.
Mature (mixed age)	9%	Up to max. of 10m strip along Imlay Road. (FMZ 3B)	Roadside vegetation control: <ul style="list-style-type: none"> The 10 m roadside vegetation control distance is to be measured from the edge of the road prism (road prism as defined in EPL definitions). Any merchantable timber located within the road prism is also to be removed. Retain Habitat and Recruitment trees and stags as per TSL. Note these trees do not have to occur

			<p>within the vegetation control area provided sufficient additional trees are retained in the net harvest area outside the 10 m strip along Imlay Road.</p> <ul style="list-style-type: none"> Indicative spacings between retained stems within this strip are for: <ul style="list-style-type: none"> 4 Retained Trees/ha - 50 m 8 Retained Trees/ha - 35 m 12 Retained Trees/ha - 29 m 14 Retained Trees/ha – 27 m Remove all stems not required to be retained under the TSL. Where possible and safe to do so, trees are to be pushed, rather than cut, in order to remove the root ball. This will facilitate future grooming of road edges and enable maintenance of breaks with slashing. All stems are to be assessed for future hazard potential. Any tree that is deemed to be a potential safety risk or overhanging Imlay Road should be removed. Where operationally possible all harvesting debris (root balls, tree heads and unmerchantable stems) is to be windrowed in the area outside of this strip. To facilitate the burning of the windrow, tree heads are to be compacted with the windrow height and width not exceeding 3 m and the pushing of mineral earth into the windrow is to be minimised as far as operationally practical. Windrows must not be within 5 m of retained trees. To achieve a minimum of 70% ground cover, seed area within 5 days of the completion of the operation. Note within this vegetation control strip conditions and exclusion zones specified within the following sections of this plan must apply: “Tree retention non-regrowth area”, “General exclusion zone”, “General Threatened Flora and Fauna Prescriptions”, “Species and Site-Specific Threatened Flora and Fauna Prescriptions”, “Fisheries Licence Conditions” and “Site-specific EPL Conditions” .
Mature (mixed age)	<1%	20 m strip on either side along Pericoe Road. (Bundian Way)	<ul style="list-style-type: none"> Modified sawlog only. Target only high value sawlogs. <p>Retain the remaining stands as visual buffer along Pericoe Road.</p>

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

IFOA Limits

The integrated harvesting operation is in accordance with IFOA Part 1 Condition 5 (11).

No more than 60% of the net harvestable area within these compartments will be harvested during this operation. The next integrated harvesting operation is not permitted within 5 years from the completion of this harvesting event. (integrated)

The PA will ensure that TSL tree retention prescriptions are met concurrent with harvesting operations.

Special Requirements**Non-harvest areas**

The HPOM indicates the non-harvest areas in the compartments, as detailed in the legend. Harvesting disturbance is not permitted in non-harvest areas unless authorised by the Planning Supervisor.

Noxious Weeds/Disease/Pests Hygiene Requirements

There are no known noxious weeds, pathogens or diseases in the compartments. Harvesting Machinery is not required to be washed down prior to leaving the compartments.

Compartments 552 and 560 are within Bega Valley 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 Bega Valley 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 compartments.

Permanent Growth and Research Plots

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

Occupation Permits**Apiary**

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

Name	Site Number	Contact number	Pre burn notification complete?

- The PA must provide the apiary permittees with at least two weeks advance notice when bee boxes need to be removed or relocated.
- If the permanent apiary set down site located near Dump G (see HPOM) is disturbed, they must be levelled and be free of debris at the completion of logging.

Rocky Terrain

Rocky terrain occurs within the net planned area. Rocky terrain mapped as verified shown on the HPOM was assessed at the planning stage and is unlikely to meet the definition of a rocky outcrop or cliff. Rocky terrain mapped as unverified shown on the HPOM was not assessed at the planning stage. PA will continue to conduct on the ground mark-up and searches and report back to foresters/ecologist any feature requiring further investigation.

Forest Management Zoning

FMZ 3A Harvesting Excluded, FMZ 3B-Special Prescriptions (visual) and FMZ 4- General Management (normal harvesting prescriptions apply) occur within the compartments. Refer to HPOM for more detail.

Refer to Section 7 below for FMZ 3B (Heritage).

FMZ 3B (Visual) – A visual protection zone exists along Imlay Road. This visual area is visible from traffic along Imlay Road. Refer to harvesting prescription above for this area.

FMZ 3A – Harvesting and harvesting machinery are not permitted in these areas. 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

Approvals have not been obtained for snig track construction and/or use, road construction, road re-opening, routine road maintenance and log haulage in FMZ 3A. If the PA identifies the need for harvesting related activities to occur within FMZ3A during the operation, the Harvest Planner must be contacted to seek Planning Supervisor approval.

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

- Planning Supervisor approval required for Stream Exclusion Zones.

During the harvesting operation the PA must identify any crossings required in these exclusion zones and contact the Planner to obtain required approvals.

Cultural Heritage

Cultural Heritage - There is one Cultural Heritage line within the Compartment 560. This Cultural Heritage line is the Bundian Way along Pericoe Road. Refer to the harvesting prescription above for the modified harvesting prescription for this area. All relevant representatives have been consulted &/or inspected Compartments 552 and 560. No other Cultural Heritage sites have been found in the compartments.

Flora and Fauna

Refer to TSL Booklet for Conditions

Mark-Up Conditions

During the pre-harvest mark up the PA must search for and record threatened species habitat features consistent with Conditions 5.2 and 8.6 of the TSL. Searches for threatened species features must be conducted within that portion of the net planned area where harvesting will occur, and within 50 metres outside this area (eg HCVOG, etc) (conditions 5.1, 5.2 of the TSL).

Where any of these features are found, the feature must be recorded, the Harvesting Plan, including the HPOM, must be amended accordingly and the appropriate condition applied.

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: **Olive Whistler** (*Pachycephala olivacea*), **Eastern False Pipistrelle** (*Falsistrellus tasmaniensis*), **Common Bent-wing Bat** (*Miniopterus schreibersii*), **White-footed Dunnart** (*Sminthopsis leucopus*), **Varied Sittella** (*Daphoenositta chrysoptera*), **lame Robin** (*Petroica phoenicea*), **Scarlet Robin** (*Petroica boodang*), **Gang Gang Cockatoo** (*Callocephalon fimbriatum*).

Tree Retention-Non-Regrowth Zone

The non-regrowth zone applies to the entire net harvest area. The PA is to mark as per Condition 5.6 of the TSL, in conjunction with indicative Habitat Quality Class Map and on ground assessment. Where the density of habitat trees specified in the table are not available, retain the existing habitat trees plus additional trees of the largest dbhob to meet the required retention rate.

Habitat Quality	Hollow Bearing Tree/ 2ha	TSL Condition	Recruitment Trees/ 2ha	TSL Condition	Protection of Retained Trees	TSL Condition	Dead Standing Tree (only if safe)	TSL Condition	Significant Food Resource*	TSL Condition
High	12	5.6g(i)	12	5.6h(i)	0	5.6l	0	5.6j	0	5.6 k
Medium	8	5.6g(ii)	8	5.6 h(ii)	0	5.6l	0	5.6j	0	5.6 k
Low	4	5.6g(iii)	4	5.6 h(iii)	0	5.6l	0	5.6j	0	5.6 k

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	Rainforest is not mapped within the compartments #.
Riparian Protection Zones	5.7	Yes
Ridge & Headwater Habitat	5.8	Yes
Wetlands	5.9	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Heath and Scrub	5.10	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Rocky Outcrops and Cliffs	5.11	Has been assessed as a risk that it may occur in the field. May require further investigation#. There are rocky terrain scattered throughout the compartments. Areas mapped as rocky terrain verified has been assessed as unlikely to meet the definition of a rocky outcrop or cliff. Areas mapped as rocky terrain unverified has not been assessed.
Endangered Ecological Community	NA	Has been assessed & is unlikely to occur in the field. May require further investigation#. Removal of timber, harvesting machinery and post harvest burning must be excluded from all areas of EEC.

#PA 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 552 & 560	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

Contractors and supervisory staff must immediately report any sightings of Schedule 1 and 2 species to the PS. The Harvesting Plan must be amended to include additional prescriptions if necessary. If any species requiring a site specific prescription in accordance with condition 1.2 of the TSL are detected in or within 100m of the compartment boundaries cease operations immediately & Inform PS.

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 552 & 560	Licence conditions under the TSC Act or relevant Site-specific prescription
Yellow-bellied Glider <i>Petaurus australis</i>	Yes	6.13

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

The harvest area is situated on low coherence (but non dispersible) Pericoe Adamellite soils which have been verified as soil regolith 2. For this harvest plan, special conditions for harvesting and snigging apply (details in table below).

Elements	Conditions
Unmapped Drainage Lines	EPL applies
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	2 (Compartment 552) & 1 (Compartment 560)
Dispersible Soils	No
Seasonality Harvesting Exclusions	No
Seasonality Burning Exclusions	No
Log Dumps	Refer relevant conditions for IHL
Roads	See Schedule 5 of EPL Booklet
Slope limits for harvesting	Special prescription for Pericoe Adamellite R2 soils: No harvesting on slopes greater than 25 degrees. Note: EPL conditions relating no harvesting on IHL 4 also still apply (Schedule 4- B-Maximum Slope Limits).
Slope limits for snig tracks	Special prescription for Pericoe Adamellite R2 soils: Where practicable grade of snig track must not exceed 20 degrees.

	<p>Snig track grades 20-25 degrees are permitted in accordance with EPL Schedule 4. Clause 41 a) and b) but not 41. c)*, if:</p> <ul style="list-style-type: none"> • There is no other practical alternative route and • PA approval has been granted. <p>*The highly erodible nature of the R2 soil, means it is not appropriate to implement condition 41.c) in these compartments.</p>
Snig Drainage Spacing	<p>For snig track grades less than 20 degrees apply EPL spacing.</p> <p>Special prescription for Pericoe Adamellite R2 soils:</p> <p>For snig track grades greater than 20 degrees, install snig track drainage at half the EPL recommended spacing.</p>

Log Dump Location

10 log dumps are indicated on the HPOM. Log dump A is an existing dump site located in adjacent compartment to the south of Compartment 560. 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.

Expected Felling/ Extraction & Loading Method

The expected felling method is mechanical, extraction method by skidder, and loading method is by excavator.

Drainage Feature Crossings

Ten snig track crossings (S1, S2, S3, S4, S5, S6, S7, S8, S9 and S10) and 1 road crossing (C1) are approved for use on drainage features. (Refer to HPOM). Crossing details are contained in Attachment 2 of this Plan. Snig track crossing details are provided below:

Crossing Name & Coordinates	Crossing details	Required Works
S1-existing Easting 724149 Northing 5885018	<p>Mapped 1st order drainage line, occurs as drainage depression in the field.</p> <p>Existing Natural Causeway crossing.</p> <p>Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.</p>	<p>Clear off overgrown track pavement. Widen track if necessary. Keep clearing to a minimum required. Armour depression with rock/gravel if required in wet conditions. Drain within 5 – 20 m on both approaches. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.</p>
S2-existing Easting 724181 Northing 5885140	<p>Unmapped drainage depression.</p> <p>Existing Natural Causeway crossing.</p> <p>Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage</p>	<p>Clear off overgrown track pavement. Widen track if necessary. Armour depression with rock/gravel if required in wet conditions. Drain within 5 – 20 m on both approaches. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.</p>

	class: unlikely fish habitat.	
S3-existing Easting 724214 Northing 5885211	Unmapped drainage depression. Existing Natural Causeway crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Clear off overgrown track pavement. Widen track if necessary. Keep clearing to a minimum required. Armour depression with rock/gravel if required in wet conditions. Drain within 5 – 20 m on both approaches. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.
S4-New Easting 724249 Northing 5885356	Unmapped drainage depression. Temporary Slash Crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document <i>"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"</i> (attached to this plan). Construction should minimise disturbance and clearing and be at right angles to the flow unless and angled approach results in reduced disturbance. Armour depression with rock/gravel if required in wet conditions. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.
S5-New Easting 724244 Northing 5885617	Unmapped drainage depression. Temporary Slash Crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document <i>"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"</i> (attached to this plan). Construction should minimise disturbance and clearing and be at right angles to the flow unless and angled approach results in reduced disturbance. Armour depression with rock/gravel if required in wet conditions. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.
S6-existing Easting 725238 Northing 5885970	Unmapped drainage depression. Natural Causeway crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage	Clear off overgrown track pavement. Widen track if necessary. Keep clearing to a minimum required. Armour depression with rock/gravel if required in wet conditions. Drain within 5 – 20 m on both approaches. Install cross banks/rollovers on completion of use within timeframes and spacing's

	class: unlikely fish habitat.	specified in EPL.
S7-New Easting 725308 Northing 5885963	Mapped 1 st order drainage line, occurs as drainage depression in the field. Temporary Slash Crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Avoid damage to stag trees in the area where it is safe to do so. Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document <i>"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"</i> (attached to this plan). Construction should minimise disturbance and clearing and be at right angles to the flow unless and angled approach results in reduced disturbance. Armour depression with rock/gravel if required in wet conditions. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.
S8-New Easting 725672 Northing 5885936	Unmapped drainage depression. Temporary Slash Crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document <i>"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"</i> (attached to this plan). Construction should minimise disturbance and clearing and be at right angles to the flow unless and angled approach results in reduced disturbance. Armour depression with rock/gravel if required in wet conditions. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.
S9-New Easting 725694 Northing 5885948	Unmapped drainage line. Temporary rock causeway Crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Construct temporary rock causeway crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document <i>"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"</i> (attached to this plan). Construction should minimise disturbance and clearing and be at right angles to the flow unless and angled approach results in reduced disturbance. Armour track paveway with rock/gravel.

		Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.
S10-existing Easting 726373 Northing 5885327	Unmapped drainage depression. Natural Causeway crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Clear off overgrown track pavement. Widen track if necessary. Keep clearing to a minimum required. Armour depression with rock/gravel if required in wet conditions. Drain within 5 – 20 m on both approaches. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.

Mass Movement

Compartments 552 and 560 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 crossings or road crossing in the compartments.

Condition 47 of Schedule 4 of the EPL must apply.

Road Works

The roading and crossing works must be undertaken, by contractor or FCNSW staff, prior to the commencement of harvesting activity in the area served by the road or crossing. The roading plan specifies who is responsible for supervising and paying for the maintenance works.

Within the compartment boundary only roads that are shown on the HPOM as EPL standard or sealed may be used for haulage. **Refer to EPL Schedule 5 – Operating Conditions for Roads.**

Roads within the compartment boundary may be used with PA approval for snigging or extraction provided they are drained to EPL specifications.

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 PA 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 PA 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 552 and 560. 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
FMZ3A – Wildlife Corridor	
Excluded Forest	

Legal Conditions

In 1999, the Commonwealth and NSW Governments signed a Eden Regional Forest Agreement which, among other things, allows for the supply of timber for 20 years from public lands under the following NSW legislation:

- Forestry Act 2012, and
- Forestry & National Park Estate Act 1998

The latter Act provides for the Eden Forest Agreement and Eden Integrated Forest Operations Approval (IFOA), both approved by NSW Government Ministers. This harvest plan is issued under the authority provided within the IFOA.

The IFOA also contains three licences issued under:

- Section 55 of the Protection of the Environment Act 1997 (EPL)
- Threatened Species Conservation Act 1995 (TSL).
- Section 220ZW of the Fisheries Management Act 1994 (FL).

This harvest plan will be managed in the field under:

- Licences issued under the Forestry Act (2012)
- Forest Practices Code part 2 (Timber Harvesting in Native Forests - 1999) and part 4 (Forest Roads and Fire Trails - 1999)
- Standard Harvest Plan Conditions for Hardwood Forest Operations under the IFOA
- FCNSW Corporate Fuel Management Plan 2008.

Harvesting operations must comply with all of the above Licences and the Code.

Further information is available from <http://www.environment.nsw.gov.au/>

Pre Operational Briefing

I acknowledge that I have received a copy of the Harvesting Plan for Compartments 552 and 560 in Yambulla 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 PS or his/her delegate.

Position	Name	Signature	Date

Details to Record in PA Notes

- Dates of commencement and cessation of logging
- Record the commencement and completion of harvesting at each dump
- Record the occurrence of temporary stopping of harvesting at each dump.
- Situations where drainage could not be completed due to saturated soils must be recorded in PA Notes.
- Record the commencement and completion of each construction, upgrading or maintenance of drainage feature crossings by snig tracks or extraction tracks.
- Bi-weekly checks of road drainage structures during haulage operations.
- Record the date of checks, drainage structure compliance and the any repairs required within the specified time period.
- Records of Threatened Flora and Fauna identified during compartment markup.
- Minor variations associated with moving or adding dumps.
- Daily events of importance eg. Instructions to crew, work activity.

Post Harvest Mapping Features Confirmation Checklist

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

Snig/Extraction Track Crossing Record

Record the commencement and completion of each construction, upgrading or maintenance of watercourse/drainage line crossings by snig tracks or extraction tracks.

[illegible]

* If soil is not stabilised within 5 days it must be recorded as a non-compliance including the reason why on a Non-Compliance Report.

If soil is saturated, temporary stabilisation must be put in place, and the instance entered into the compartment diary.

**** If track edge clearing exceeds 3 metres, document the reason for field approval in the compartment diary.**

Weekly and Bi-weekly inspection

Item Inspected	Insert dates of inspection											
	Week 1		Week 2		Week 3		Week 4		Week 5		Week 6	
	1st	2 nd	1st	2 nd	1 st	2 nd	1 st	2 nd	1st	2 nd	1st	2 nd
Road drainage												
Road sediment controls												
Road causeways												
Road gully stuffers												
Snig gully stuffers												
PA initial												
PA presence												

Comments: record the item number in a box above and comment as required.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

Weekly and Bi-weekly inspection

Item Inspected	Insert dates of inspection											
	Week 7		Week 8		Week 9		Week 10		Week 11		Week 12	
	1st	2 nd	1st	2 nd	1 st	2 nd	1 st	2 nd	1st	2 nd	1st	2 nd
Road drainage												
Road sediment controls												
Road causeways												
Road gully stuffers												
Snig gully stuffers												
PA initial												
PA presence												

Comments: record the item number in a box above and comment as required.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

Weekly and Bi-weekly inspection

Item Inspected	Insert dates of inspection											
	Week 13		Week 14		Week 15		Week 16		Week 17		Week 18	
	1st	2 nd	1st	2 nd	1 st	2 nd	1 st	2 nd	1st	2 nd	1st	2 nd
Road drainage												
Road sediment controls												
Road causeways												
Road gully stuffers												
Snig gully stuffers												
PA initial												
PA presence												

Comments: record the item number in a box above and comment as required.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

Weekly and Bi-weekly inspection
--

Item Inspected	Insert dates of inspection											
	Week 19		Week 20		Week 21		Week 22		Week 23		Week 24	
	1st	2 nd	1st	2 nd	1 st	2 nd	1 st	2 nd	1st	2 nd	1st	2 nd
Road drainage												
Road sediment controls												
Road causeways												
Road gully stuffers												
Snig gully stuffers												
PA initial												
PA presence												

Comments: record the item number in a box above and comment as required.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

PA Notes

[illegible]

PA Notes (continued)

[illegible]

PA Notes (continued)

[illegible]

PA Notes (continued)

[illegible]

PA Notes (continued)

[illegible]

Clearance Certificate

COMPARTMENTS: 552 and 560, YAMBULLA STATE FOREST

ToProduction Assistant

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).....

Production Assistant**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 (PA estimate)	Number of AGS gaps created	Comments
Integrated/Modified shelterwood			
Thinning			
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.

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.	1210m/6	Yes
New roads to be constructed	410m/2	Yes
Existing crossings used	0	No
New crossings to be constructed	1	Yes
Length of road >10°	0m	NA
Borrow pits and gravel pits	0	NA
Mass movement prescriptions apply	No	NA
Dispersible soil conditions apply	No	NA
Seasonality provisions apply	No	NA

Note: Maintenance works not completed by Roading Coordinator must be recorded and passed onto the PA for completion 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
Pericoe Road (80 m unlicensed, Shire Road) <i>FCNSW Responsibility</i>	Brush off roadside vegetation. Remove fallen logs and debris from road. Ensure minimal required brushing off roadside vegetation to minimised as much as practicable the disturbance to the area on either side of this road. RC/PA Comments:			
Gecko Road (420 m) <i>FCNSW Responsibility</i>	Clean out inlets and outlets of existing pipes. RC/PA Comments:			
Cpt552/1 Road (70 m) <i>Contractor Responsibility</i>	Brush off roadside vegetation and clear fallen logs and debris. Clear up to 3m on either side where required. Install additional drainage structures according to EPL specifications. RC/PA Comments:			

Cpt552/2 Road (320 m) <i>Contractor Responsibility</i>	Brush off roadside vegetation and clear fallen logs and debris. Reshape road pavement. Clear up to 3m on either side where required. Install additional drainage structures according to EPL specifications. RC/PA Comments:			
Cpt560/1 Road (100 m) <i>Contractor Responsibility</i>	Brush off roadside vegetation and clear fallen logs and debris. Clear up to 3m on either side where required. Install additional drainage structures according to EPL specifications. RC/PA Comments:			
Cpt560/2 Road (220 m) <i>Contractor Responsibility</i>	Brush off roadside vegetation and clear fallen logs and debris. Clear up to 3m on either side where required. Install additional drainage structures according to EPL specifications. RC/PA Comments:			
Crossing C1 – new on Cpt560/3 Road (E724398 N5885805) <i>Contractor Responsibility</i>	Mapped 1 st order drainage line, occurs as a drainage depression. Construct road with a natural causeway at this location. Refer to Crossing Form for more details. RC/PA Comments:			

NEW ROAD CONSTRUCTION**Road Specific Conditions:**

Road Name	Road Length (m)	Max. width of road prism (m)	Max. road grade (length road >10 degrees?)	Max. ground slope (length road >30 degrees?)	Estimated Max. height of cut / fill batters (m)	Estimated Max length of batters (m)	Mass movement / dispersible soils	Final road use	Responsibility	Start Date	Finish Date
Cpt552/3 Rd	60m	7m	6°	8°	<1m	60m	No	Retain	Contractor		
Cpt560/3 Rd	350m	7m	7°	12°	1m	350m	No	Retain	Contractor		

General Instructions for road construction:

Features	Road Specifications	Additional instructions / Materials
Type of sediment trapping / soil erosion/ sediment control device to be used during construction	Natural surrounding vegetation supplemented with silt fencing, seed and mulch as required.	PA to monitor during road construction and assess requirements.
Recommended road drainage type	Recommend rubber flaps if >5 degrees. Rollovers or mitres if < or = 5 degrees. PA to measure & mark in the field in accordance to Sch. 5 Table 1 of the EPL. Trafficable rollovers to be installed upon harvest completion	Rubber flaps during operation. Permanent trafficable rollovers to be installed upon completion of use.
Spacing of road structures to be installed	As per EPL Sch. 5, Section C, Table 1	
Soil erosion / sediment control techniques	Drainage outlets must drain onto stable surface which provides efficient sediment trapping & energy dissipation. Upon harvest completion, logging debris is to be removed from table and mitre drains so they are left in effective working order	Seed & mulch as required
Stabilisation assessment intervals	As per EPL Sch. 5, Clauses 15, 17, 19 & 20	
Drop down & dissipater required	Required where fill batter >1m as per EPL Schedule 5 Clause 36	PA to monitor. Mitres with rock dissipater recommended.
Soil stabilisation techniques of disturbed areas	Seed & mulch as required	

Note: Maintenance works not completed by Roading Coordinator must be recorded and passed on to the PA.

Insert Crossing Forms

Cpt:560 **Date:**05.11.2015 **WAYPOINT#:** E724398 N5885805**Photo:** N**CROSSING NAME:** C1 (Mapped 1st Order DD)

Waterway Classification: Fish Passage Class 4- Unlikely fish habitat.

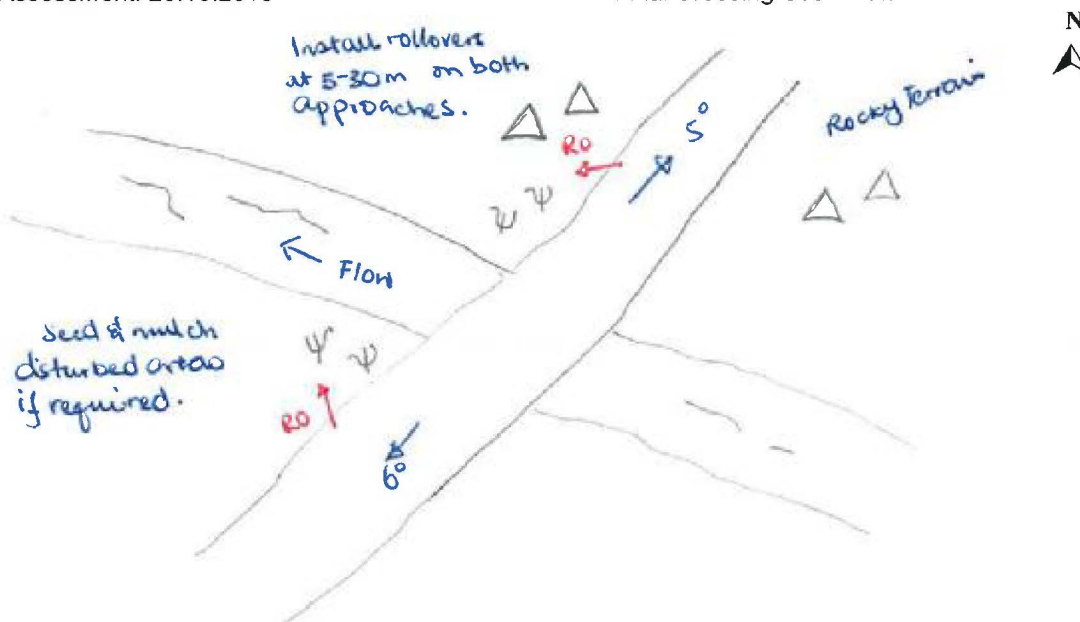
Fisheries Licence Aquatic Habitat: Not class 1 or 2

Assessors Name: Julia Clark **Crossing Type:** Natural Causeway (New Construction)

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Construct side cut causeway crossing. If possible construct at right angles to flow. If possible construct with cross fall drainage to avoid the need for table drain checking devices.	Dozer/Excavator
Bed and Banks	Reshape disturbed areas to achieve stable cross section.	Dozer/Excavator
Erosion and Sediment Control	- Minimize roadside clearing and soil disturbance to the greatest extent practicable. - Seed and mulch as required. Install rock if required in wet conditions.	Seed & mulch. 100mm rock.
Disposal of excess spoil	- All excess spoil to be removed outside of SEZ and/or re-spread & consolidated onto crossing and fill batter.	Dozer/Excavator.
Soil Stabilisation within 20m	- Seed and mulch disturbed areas.	Manual labour/Seed & mulch.
Road drainage within 5-30m <ul style="list-style-type: none"> Type outlet control table drain checking devices 	Install rollovers at both approaches.	Dozer/Excavator

Date of Assessment: 20.10.2015

Final Crossing Use: Retain



Date Work Started: _____

Key

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→R0	Rollover drain
ψ	Silt Log
ooooo	Rock
ψ	Seeding
▽	Silt trapping
::	Gravel

Cpt: 550 **Date:** 05.11.2015 **WAYPOINT#:** E724249 N5885356**Photo:** N**CROSSING NAME:** S4 (Unmapped DD)

Waterway Classification: Fish Passage Class 4- Unlikely fish habitat.

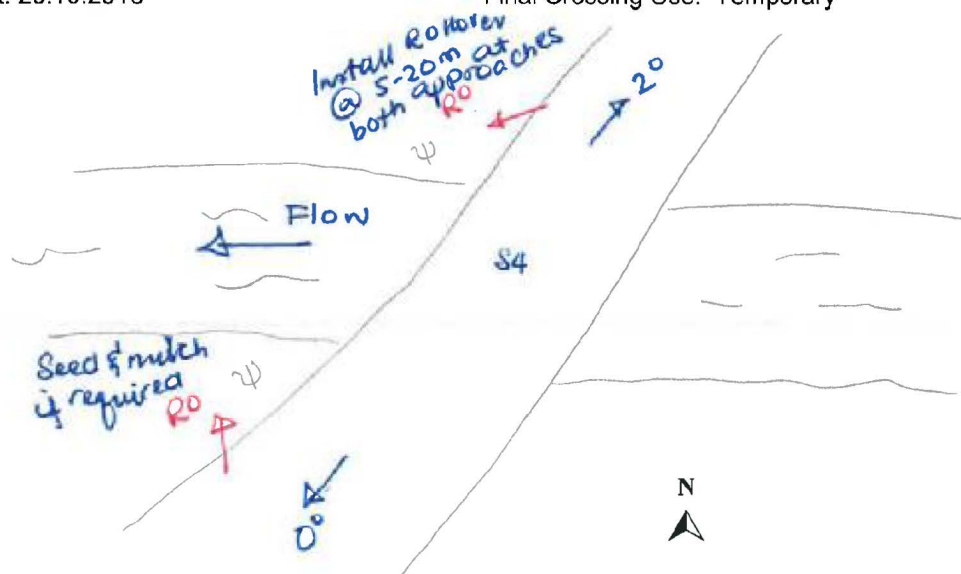
Fisheries Licence Aquatic Habitat: Not class 1 or 2

Assessors Name: Julia Clark **Crossing Type:** Snig Track Natural Causeway (New Construction)

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Construct side cut causeway crossing. - If possible construct at right angles to flow. If possible construct with cross fall drainage to avoid the need for table drain checking devices.	Dozer/Excavator
Bed and Banks	Reshape disturbed areas to achieve stable cross section.	Dozer/Excavator
Erosion and Sediment Control	- Minimize roadside clearing and soil disturbance to the greatest extent practicable. - Seed and mulch as required. Install rock if required in wet conditions.	Seed & mulch. 100mm rock.
Disposal of excess spoil	- All excess spoil to be removed outside of SEZ and/or re-spread & consolidated onto crossing and fill batter.	Dozer/Excavator.
Soil Stabilisation within 20m	- Seed and mulch disturbed areas.	Manual labour/Seed & mulch.
Road drainage within 5-20m • Type • outlet control • table drain checking devices	<ul style="list-style-type: none"> • Upon completion of crossing usage install rollovers on both approaches within timeframes specified in EPL sch 4, 79 & 80. • Install dropdown & dissipaters/slash at outlets of rollovers. • If possible utilise cross fall drainage, if not install hay bales or natural (rock/logs) checking devices. 	Dozer/Excavator

Date of Assessment: 20.10.2015

Final Crossing Use: Temporary



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→R0	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
▽	Silt trapping
::	Gravel

Cpt: 550 **Date:** 05.11.2015 **WAYPOINT#:** E724244 N5885617**Photo:** N**CROSSING NAME:** S5 (Unmapped DD)

Waterway Classification: Fish Passage Class 4- Unlikely fish habitat.

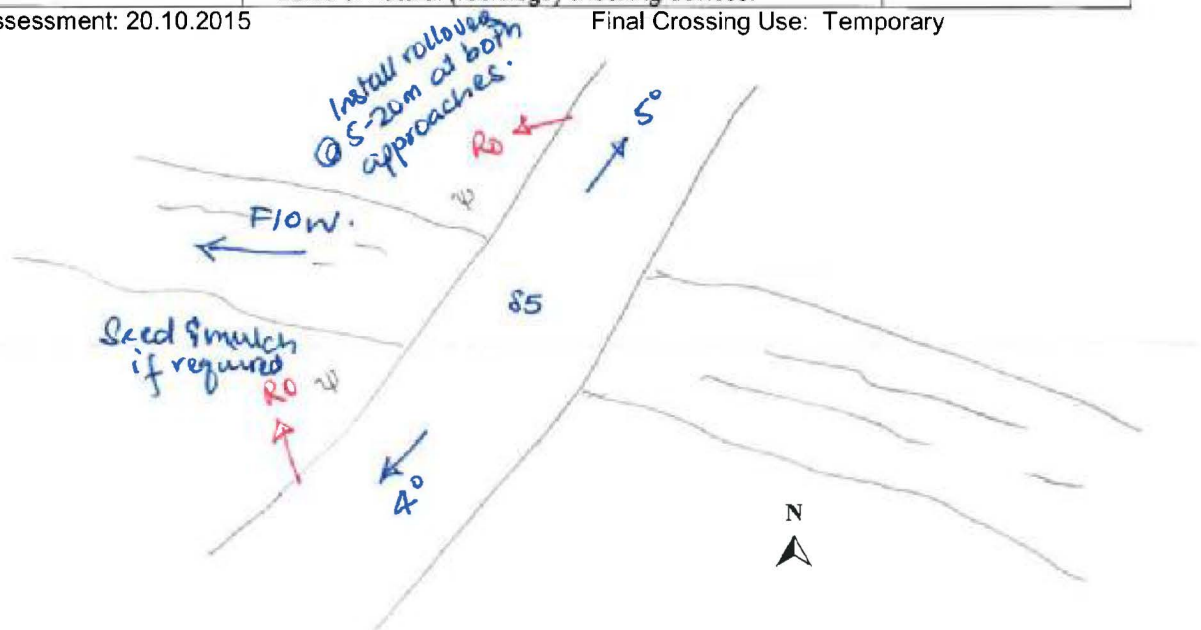
Fisheries Licence Aquatic Habitat: Not class 1 or 2

Assessors Name: Julia Clark **Crossing Type:** Snig Track Natural Causeway (New Construction)

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Construct side cut causeway crossing. - If possible construct at right angles to flow. If possible construct with cross fall drainage to avoid the need for table drain checking devices.	Dozer/Excavator
Bed and Banks	Reshape disturbed areas to achieve stable cross section.	Dozer/Excavator
Erosion and Sediment Control	- Minimize roadside clearing and soil disturbance to the greatest extent practicable. - Seed and mulch as required. Install rock if required in wet conditions.	Seed & mulch. 100mm rock.
Disposal of excess spoil	- All excess spoil to be removed outside of SEZ and/or re-spread & consolidated onto crossing and fill batter.	Dozer/Excavator.
Soil Stabilisation within 20m	- Seed and mulch disturbed areas.	Manual labour/Seed & mulch.
Road drainage within 5-20m • Type • outlet control • table drain checking devices	<ul style="list-style-type: none"> • Upon completion of crossing usage install rollovers on both approaches within timeframes specified in EPL sch 4, 79 & 80. • Install dropdown & dissipaters/slash at outlets of rollovers. • If possible utilise cross fall drainage, if not install hay bales or natural (rock/logs) checking devices. 	Dozer/Excavator

Date of Assessment: 20.10.2015

Final Crossing Use: Temporary



Date Work Started: _____

Key

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Silt Log
ooooo	Rock
ψ	Seeding
∇	Silt trapping
∴	Gravel

Cpt: 552&560 **Date:** 17.11.2015 **WAYPOINT#:** E725308 N5885963 **Photo:** N**CROSSING NAME:** S7 (Mapped 1st order DD)

Waterway Classification: Fish Passage Class 4- Unlikely fish habitat.

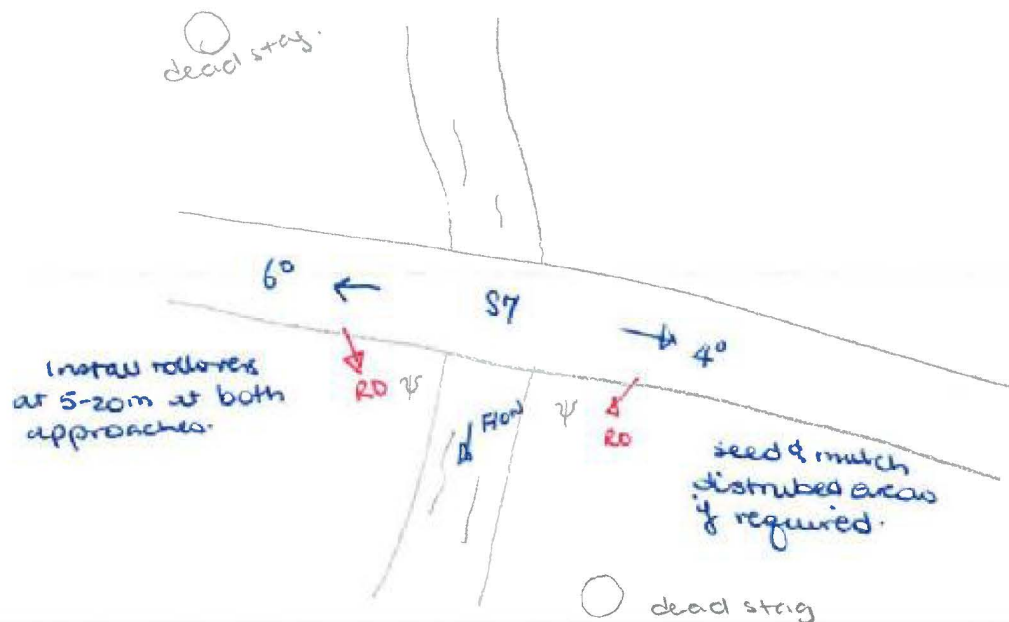
Fisheries Licence Aquatic Habitat: Not class 1 or 2

Assessors Name: Julia Clark **Crossing Type:** Snig Track Natural Causeway (New Construction)

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Construct side cut causeway crossing. - If possible construct at right angles to flow. If possible construct with cross fall drainage to avoid the need for table drain checking devices.	Dozer/Excavator
Bed and Banks	Reshape disturbed areas to achieve stable cross section.	Dozer/Excavator
Erosion and Sediment Control	- Minimize roadside clearing and soil disturbance to the greatest extent practicable. - Seed and mulch as required. Install rock if required in wet conditions.	Seed & mulch. 100mm rock.
Disposal of excess spoil	- All excess spoil to be removed outside of SEZ and/or re-spread & consolidated onto crossing and fill batter.	Dozer/Excavator.
Soil Stabilisation within 20m	- Seed and mulch disturbed areas.	Manual labour/Seed & mulch.
Road drainage within 5-20m <ul style="list-style-type: none"> Type <ul style="list-style-type: none"> outlet control table drain checking devices 	<ul style="list-style-type: none"> Upon completion of crossing usage install rollovers on both approaches within timeframes specified in EPL sch 4, 79 & 80. Install dropdown & dissipaters/slash at outlets of rollovers. If possible utilise cross fall drainage, if not install hay bales or natural (rock/logs) checking devices. 	Dozer/Excavator

Date of Assessment: 16.11.2015

Final Crossing Use: Temporary



Date Work Started: _____

Key

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Silt Log
ooooo	Rock
ψ	Seeding
▽	Silt trapping
∴	Gravel

Cpt:552 **Date:**17.11.2015 **WAYPOINT#:** E724214 N5885211**Photo:** N**CROSSING NAME:** S8 (Unmapped DD)

Waterway Classification: Fish Passage Class 4- Unlikely fish habitat.

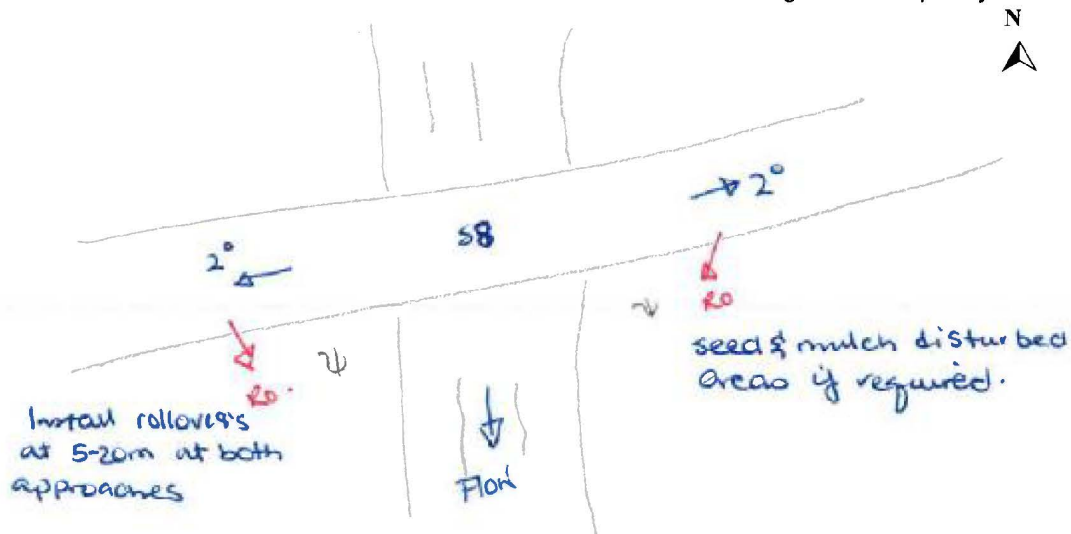
Fisheries Licence Aquatic Habitat: Not class 1 or 2

Assessors Name: Julia Clark **Crossing Type:** Snig Track Natural Causeway (New Construction)

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Construct side cut causeway crossing. - If possible construct at right angles to flow. If possible construct with cross fall drainage to avoid the need for table drain checking devices.	Dozer/Excavator
Bed and Banks	Reshape disturbed areas to achieve stable cross section.	Dozer/Excavator
Erosion and Sediment Control	- Minimize roadside clearing and soil disturbance to the greatest extent practicable. - Seed and mulch as required. Install rock if required in wet conditions.	Seed & mulch. 100mm rock.
Disposal of excess spoil	- All excess spoil to be removed outside of SEZ and/or re-spread & consolidated onto crossing and fill batter.	Dozer/Excavator.
Soil Stabilisation within 20m	- Seed and mulch disturbed areas.	Manual labour/Seed & mulch.
Road drainage within 5-20m • Type • outlet control • table drain checking devices	• Upon completion of crossing usage install rollovers on both approaches within timeframes specified in EPL sch 4, 79 & 80. • Install dropdown & dissipaters/slash at outlets of rollovers. • If possible utilise cross fall drainage, if not install hay bales or natural (rock/logs) checking devices.	Dozer/Excavator

Date of Assessment: 16.11.2015

Final Crossing Use: Temporary



Date Work Started: _____

Key

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
∇	Silt trapping
∴	Gravel

Cpt:552 **Date:**17.11.2015 **WAYPOINT#:** E725694 N5885948**Photo:** N**CROSSING NAME:** S9 (Unmapped DL)

Waterway Classification: Fish Passage Class 4- Unlikely fish habitat.

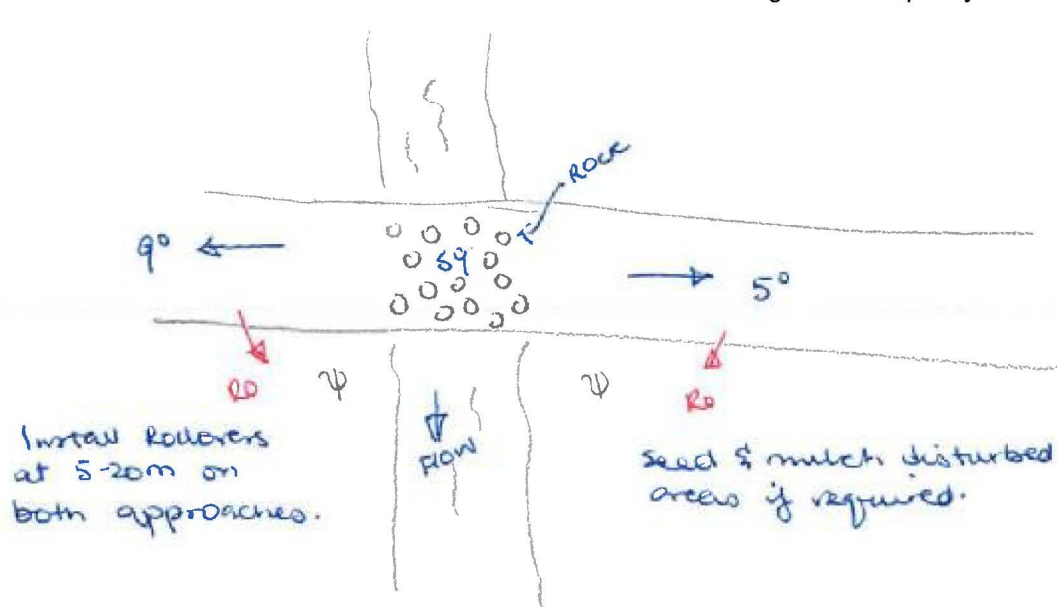
Fisheries Licence Aquatic Habitat: Not class 1 or 2

Assessors Name: Julia Clark **Crossing Type:** Snig Track ~~Rock~~ Causeway (New Construction)

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Construct side cut causeway crossing. - If possible construct at right angles to flow. If possible construct with cross fall drainage to avoid the need for table drain checking devices.	Dozer/Excavator
Bed and Banks	Reshape disturbed areas to achieve stable cross section.	Dozer/Excavator
Erosion and Sediment Control	- Minimize roadside clearing and soil disturbance to the greatest extent practicable. - Seed and mulch as required. Install rock on rock pavement.	Seed & mulch. 100mm rock.
Disposal of excess spoil	- All excess spoil to be removed outside of SEZ and/or re-spread & consolidated onto crossing and fill batter.	Dozer/Excavator.
Soil Stabilisation within 20m	- Seed and mulch disturbed areas.	Manual labour/Seed & mulch.
Road drainage within 5-20m • Type • outlet control • table drain checking devices	• Upon completion of crossing usage install rollovers on both approaches within timeframes specified in EPL sch 4, 79 & 80. • Install dropdown & dissipaters/slash at outlets of rollovers. • If possible utilise cross fall drainage, if not install hay bales or natural (rock/logs) checking devices.	Dozer/Excavator

Date of Assessment: 16.11.2015

Final Crossing Use: Temporary



Date Work Started: _____

Key

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
▽	Silt trapping
∴	Gravel