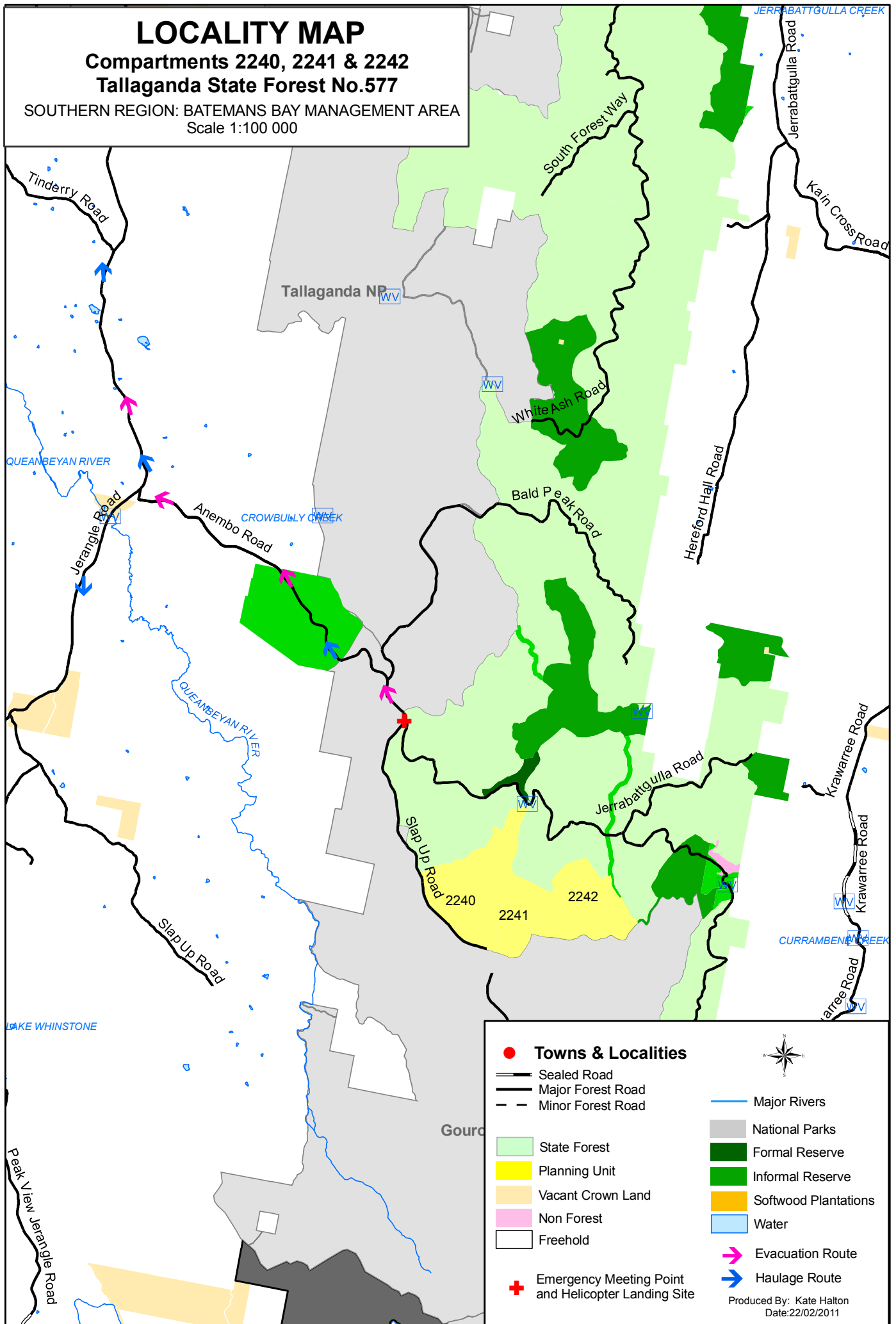


# LOCALITY MAP

Compartments 2240, 2241 & 2242  
Tallaganda State Forest No.577

SOUTHERN REGION: BATEMANS BAY MANAGEMENT AREA  
Scale 1:100 000



<b>● Towns &amp; Localities</b>	
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	Evacuation Route
Freehold	Haulage Route
Emergency Meeting Point and Helicopter Landing Site	Produced By: Kate Halton
	Date: 22/02/2011

725000 726000 727000 728000 729000 730000

6027000

6026000

6025000

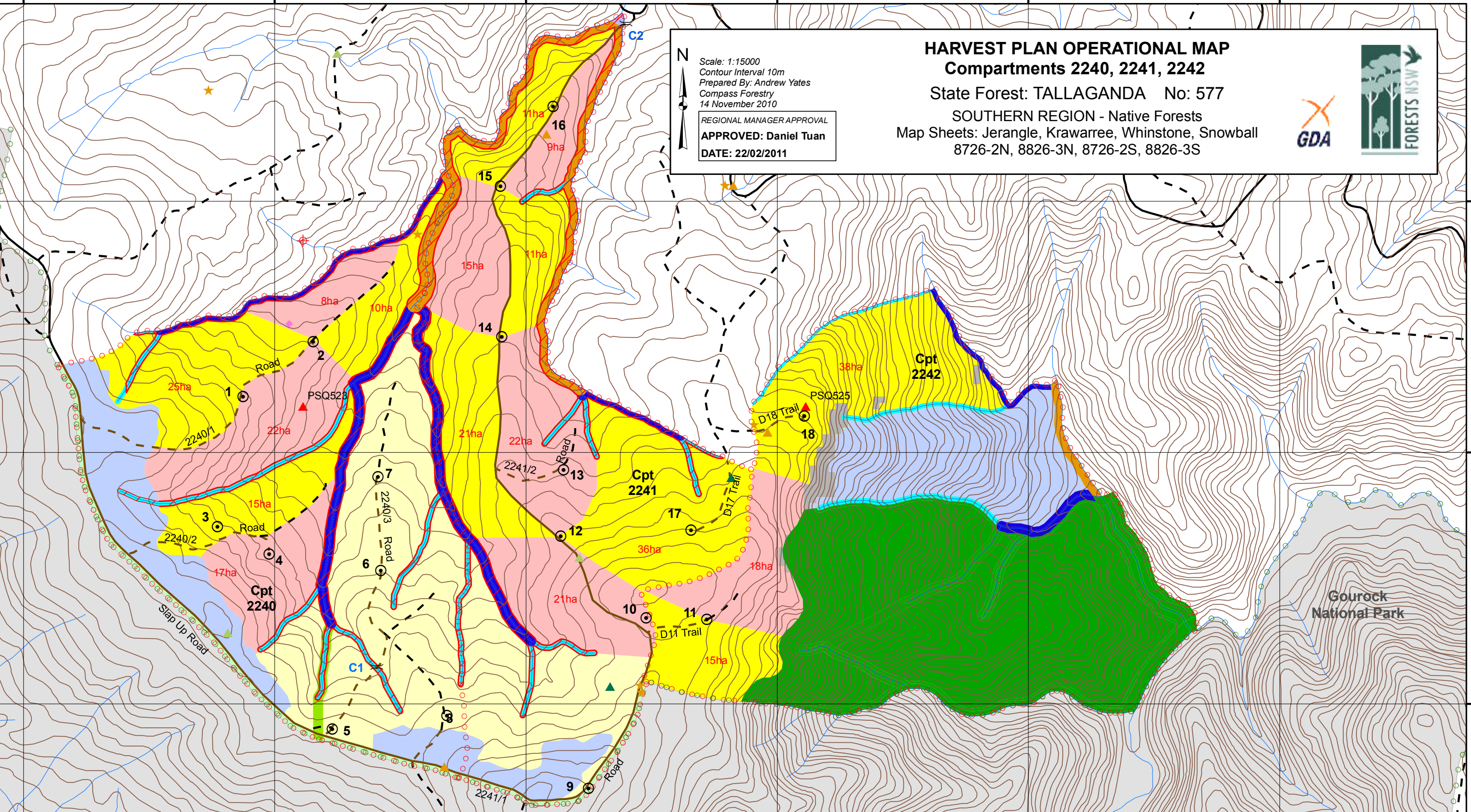
6024000

6027000

6026000

6025000

6024000



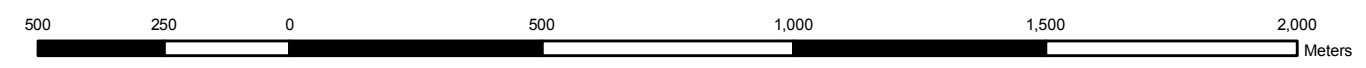
Scale: 1:15000  
 Contour Interval 10m  
 Prepared By: Andrew Yates  
 Compass Forestry  
 14 November 2010

REGIONAL MANAGER APPROVAL  
**APPROVED: Daniel Tuan**  
**DATE: 22/02/2011**

**HARVEST PLAN OPERATIONAL MAP**  
**Compartments 2240, 2241, 2242**  
 State Forest: TALLAGANDA No: 577  
 SOUTHERN REGION - Native Forests  
 Map Sheets: Jerangle, Krawarree, Whinstone, Snowball  
 8726-2N, 8826-3N, 8726-2S, 8826-3S



NHA SILVICULTURE PRESCRIPTIONS		BOUNDARIES		NON HARVEST AREAS		ROADS CROSSINGS		FAUNA FEATURES		STREAM EXCLUSION ZONES (EPL IHC 2 & TSL)			
	FMZ 4 - Regen Harvest 1st Cut (available to harvest for this operation)		Cpt Boundary		FMZ 2 - Special Management		Major Forest Road		Gang Gang Cockatoo - Observed	Feature	Filter Strip	Protection Zone	Operational Zone
	FMZ 4 - STS, Mixed Age (available to harvest for this operation)		State Forest Boundary		FMZ 3b - Special Prescription		Minor Forest Road		Flame Robin - Observed	Unmapped	NA	NA	NA
	FMZ 4 - Retained BA Exclusion (not available to harvest for this operation)		National Park		Ridge & Headwater (40m)		DECC Licenced Existing Road (Major)		Scarlet Robin - Observed	1st Order	5m	5m	10m
	FMZ 4 - Regen Harvest 2nd Cut (not available to harvest for this operation)		Research - PGP		Owl Reserve		DECC Licenced Existing Road (Minor)		Olive Whistler - Observed	2nd order	5m	15m	10m
			Research - Inventory		IHL4 (slopes >30 - indicative)		Drainage Feature Crossing		Powerful Owl - Heard	3rd order	5m	25m	10m
							Dumps			4th order	5m	45m	10m



725000 726000 727000 728000 729000 730000



## FORESTS NEW SOUTH WALES - SOUTHERN REGION HARVESTING PLAN NATIVE FOREST

### Tallaganda State Forest - Compartments 2240, 2241, 2242

#### Certification

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

Prepared By: Harvest Planner	Andrew Yates	Endorsed By: HPTL	Kate Halton	Approved By: Regional Manager	Daniel Tuan
Signature		Signature		Signature	
Date	22/02/2011	Date	22/02/2011	Date	22/02/2011

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 roading.

#### Description of Proposal

##### Harvesting of native forest

Harvesting of native forest using Single Tree Selection (STS). Silviculture subject to the Southern Region, IFOA requirements will be undertaken within this planning unit.

This operation will not be licensed under the EPL.

The primary product of the harvesting is high quality large sawlogs (quota logs), small high quality sawlogs, veneer logs, girders, poles and 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 and round posts, firewood, mining timbers and craft wood. The availability of miscellaneous timbers depends mainly on forest types, log defectiveness & market conditions at the time of harvesting.

##### Clause 22 (IFOA) Consideration

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

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

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

**Attachment 3:** Burning Plan prescribes burning requirements for this harvesting operation.

Post-harvest burning should be confined as far as practicable to the Net Harvest Area. Site specific burning exclusions associated with Flora, Fauna, Cultural Heritage, Riparian and other exclusion zones are explained within the relevant sections of this Harvest Plan and indicated on the HPOM.

Where practicable, snig track patterns should be designed to double as bare earth control lines to prevent fire entering specified burning exclusion zones i.e. Smoky Mouse, Southern Brown Bandicoot & significant Cultural Heritage sites.

Where this is not practical, the SFO is to assess the need for a bare earth break to be constructed close to harvesting exclusion boundary and seek advice and approval from the Harvesting Team Leader for the additional earth works.

### Area Identification and Yield Estimates

Area Identification:

State Forest	Cpt/s	Region	Management Area	Certification	Harvest Plan ID
Tallaganda	2240 2241 2242	Southern	Queanbeyan	AS4708: 2007 ISO 14001	3668

Yield Estimates:

	Cpt 2240	Cpt 2241	Cpt 2242	Total
Event ID	14448	14449	14450	
Gross Area (ha)	225	207	231	663
Net Harvest Area (ha)	170	178	71	419
Quota Logs (HQL)	5 m <sup>3</sup> /ha	9 m <sup>3</sup> /ha	7 m <sup>3</sup> /ha	7 m <sup>3</sup> /ha
High Quality Small	0.5 m <sup>3</sup> /ha	2 m <sup>3</sup> /ha	2 m <sup>3</sup> /ha	1.5 m <sup>3</sup> /ha
Salvage	7.0 m <sup>3</sup> /ha	11 m <sup>3</sup> /ha	11 m <sup>3</sup> /ha	9.5 m <sup>3</sup> /ha
Pulp	t/ha 12 m <sup>3</sup> /ha	t/ha 22.5 m <sup>3</sup> /ha	t/ha 15.0 m <sup>3</sup> /ha	t/ha 17 m <sup>3</sup> /ha
Est., Yield (m <sup>3</sup> /ha)	24.5 m <sup>3</sup> /ha	44.5 m <sup>3</sup> /ha	35.0 m <sup>3</sup> /ha	35 m <sup>3</sup> /ha
Est. Total Volume (m <sup>3</sup> )	4165 m <sup>3</sup>	7920 m <sup>3</sup>	2485 m <sup>3</sup>	14570 m <sup>3</sup>

Notes:

- The actual area harvested or treated may be less due to unmapped exclusions, small-scale variations in forest condition and commercial viability. Analysis of previously harvested compartments has estimated the reduction of the Net Planned Area due to un-mapped exclusions alone to be in the order of 28% across the Southern Region.



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

- Dial "000" or call Batemans Bay Forestry Office on 1300 880 548 for Ambulance assistance.
- Dial "112" only as an alternative to "000" if you have a GSM digital mobile phone and you are outside your own provider's GSM network coverage area.

OR no response

- Radio Batemans Bay forestry office on channel 236 & say ' this is <name>, Emergency Call, Emergency Call, Over'. When the office responds, provide brief details of the situation and ask for the office to relay a "000" call.
- The information provided to the "000" operator will be in the following sequence:

<b>"000" Operator Question</b>	<b>Response</b>
1. Police, Fire, Ambulance	NSW Ambulance, Wollongong Operations Centre
2. Suburb	<b>Tallaganda</b> State Forest Nearest town/locality is <b>Captains Flat</b> Nearest ambulance station is <b>Queanbeyan</b>
3. Address	<b>Slap Up Road</b>
4. Nearest Road junction/ Cross street	EMP: <b>Intersection of Anembo Road, Jerrabattgull Road and Slap Up Road</b>
5. Local Government Area	Work site: <b>Palerang LGA</b> EMP: <b>Cooma-Monaro LGA</b>
6. Nature of the problem	Brief statement of the nature of the accident, number and condition of casualties.
7. Where is the accident	Work site location (Centre of compartments) Lat/Long for GPS: <b>S 35° 53'10" E 149°31'04"</b> Grid reference: MGA Zone <b>55 E727275</b> <b>N6025750</b>
8. Directions to navigate from Ambulance Station to meeting point	<ul style="list-style-type: none"> <li>• Travel west from Queanbeyan along Kings Highway for approximately 4kms</li> <li>• Turn right at Captains Flat Road and follow to Captains Flat, approximately 40km.</li> <li>• Turn right at Foxlow Road, head southwest (over bridge) onto Jerangle Road.</li> <li>• Travel Jerangle Road for approximately 25km, mostly gravelled</li> <li>• Left turn at Anembo Road. Travel 8km to meeting point.</li> </ul> <p><b>Nominate UHF channel.</b></p>
9. Injuries	Detailed information about the condition of the casualty
10. Call Back Number	Mobile phone number if available Forests NSW Batemans Bay office - 1300880548
11. Name of reporter	Your name

**Site Specific Identified Hazards**

Assessment of existing hazards where undertaken at the time of planning. These hazards are in the attached table and where appropriate control strategies have been applied. Where no control strategy has been described, the contractor must develop appropriate strategies as part of the contractors Safety Management Plan. A copy of the hazard assessment and control strategies is provided to assist in the development of the contractors Safety Management Plan for this harvesting area.

Identified hazards requiring risk assessment and control strategy in Safety Management Plan:

IDENTIFIED HAZARD	RISK RATING	SUGGESTED CONTROL STRATEGY
1. Adjoining roads of various traffic levels	1	Warning signs at intersections, road closure and traffic control measures
2. Cliff lines & rocky very steep terrain	3	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	1	<b>Refer to Forests NSW safety standard 1.3.9.</b> 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. <b>Contractor is responsible for implementing control strategies during harvesting.</b>
4. Overhead hazards associated with dumps	1	<b>Refer to Forests NSW safety standard 1.3.9.</b> Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump. <b>Contractor is responsible for implementing control strategies during harvesting.</b>
5. Dust from passing vehicles along dirt haulage routes	2	Restrict speed to minimise dust generation, slow down when passing vehicles. Turn on driving and hazard lights to increase visibility.

### **Traffic management/road closures**

The logging contractor is responsible for traffic control on all forest roads when felling is within two tree lengths of the tallest tree to be felled of the road or snigging on roads or loading is occurring within 10 metres of a road. Warning of timber harvesting operations must be **displayed 200 metres either side** of State forest Roads where harvesting operations are in progress.

Truck entering signs must be placed 200 metres either side of the intersections of 2241/2 Road and Jerrabattgulla Road to warn motorists of emerging log trucks.

**Forests NSW – Southern Region  
Harvesting Plan – Tallaganda State Forest  
Compartments 2240, 2241, 2242**

***Site Specific Harvesting Plan***

**Silviculture and Harvesting Prescriptions**

**Compartment History:**

Year	1975	1977	1979	2004
TSI	X	X	X	X
HR Burning	X	X	X	<b>2240 Part 2241</b>
Wildfires	X	X	X	X
Harvesting Volume (cubic metres)	<b>Cpt 2240 14070m</b>	<b>Cpt 2241 9345m</b>	<b>Cpt 2242 3870m</b>	X

X: Not applicable

**Forest Types:**

RN17 Forest Type	Type Description	Gross Area (ha)
112	Silvertop Ash	30
138	Snow Gum	55
154	Brown Barrel	180
155	Brown Barrel - Gum	355
156	Brown Barrel/ Messmate - Ash	5
158	Southern Blue Gum	16
165	Gully Peppermint	21

**Basal Area:**

Cpt	Number of Samples	Samples/NHA (ha)	BA Average (m <sup>2</sup> /ha)	BA Range (m <sup>2</sup> /ha)
2240	27	6.3	30.44	18-40
2241	16	11.1	37.63	24-48
2242	7	10.1	30.86	20-36
<b>Total</b>	<b>50</b>	<b>8.4</b>	<b>32.80</b>	<b>18-48</b>

### **Silviculture Prescription:**

Compartment 2240. The forest stands in the west of compartment 2240 (ridges accessed by 2240/3 and 2240/4 Trails) are typically single age class as there is little or no regeneration from the previous harvesting event. Due to the maturity of the stands active forest growth is not occurring. However potential productivity of the site is evident along trails, snig tracks and dumps where regeneration prolific, these areas received maximum ground disturbance in the past but are small in area.

These ridges will be treated with regeneration harvest STS, retaining late mature trees as habitat and removing all other merchantable timber.

Note that the small areas of good regeneration can be treated to a thinning from below; these areas have not been recorded on the silviculture prescriptions map (due to their limited size), the SFO may note these areas on the post logging information section of this plan if significant.

The remaining stands in compartment 2240 (ridges accessed by 2240/2 Trail) have multiple age classes with either better regeneration from previous harvesting, or subject to less intensive harvesting. The younger age class is large enough to be utilised as small quota logs.

There are two options for the silviculture treatment of these stands depending on market conditions. If the pulp and salvage market is depressed then standard STS can be applied, harvesting should target high value products while creating the disturbance required for regeneration. Alternatively with good market conditions the stands can be treated with regeneration harvest STS, retaining late mature trees as habitat and removing all other merchantable timber.

Note:

- Dieback and extensive understory damage is occurring in the northern sections of compartment 2240 from wild pigs.

Compartment 2241. The south facing ridges in compartment 2241, extending from compartment 2240 along 2241/1 Trail to dump 11 are similar to those stands described above (along 2240/2 Trail) and will be subject to the same silviculture treatment depending on market conditions.

The remaining stands along the northern aspect have a single age class; stocking and tree size is excellent, the forest has reached maturity and in terms of timber production these stands have reached their end point.

These ridges will be treated with regeneration harvest STS, retaining late mature trees as habitat and removing all other merchantable timber.

Compartment 2243. Is made up of mature stands on steeper slopes. At least two age classes exist, neither fully stocked with high value timber.

A regeneration harvest will be applied as far as slope allows. When the slope exceeds safe limits for mechanical harvesting STS by hand falling should be applied.

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

## Silvicultural Planning

### Thinning

Thinning will be limited to very small areas only, up to 3ha. These areas are not marked on the Silviculture Prescriptions map, but do occur within compartment 2240. Thinning will be opportunistic only.

**Retained trees** will be those selected for growth into future crop tree:

- Dominant or co-dominant, look for larger, full, symmetrical, conically shaped crowns that show little evidence of past suppression.
- Superior log quality
  - Good tree form – look for minimal external defect, straightness and shape.
  - Wood quality – look for minimal internal defect, bumps, scars, hollows, spiral grain and bleeds.
- Highest potential to expand crown volume
- Thinning in all areas will be from below. Trees available for removal or destruction will be trees not selected for retention.

Ensure no more than 60% of the pre-operational basal area is removed or destroyed.

- The Harvesting Forester may specify a basal area retention target greater than the minimum of 40%. However, avoid creating large gaps that promote significant regeneration or promote lower limb development.
- As a guide, create a canopy gap at least as big as the adjacent retained tree crown (varies with species); retain a less than ideally spaced superior tree in preference to an ideally spaced poor quality tree.

### Single Tree Selection

Forest stands of mixed age cover 100% of the STS tract (419ha) and will be harvested under heavy two cut regeneration harvest single tree selection regime with the objective of removing approx 45% of mature trees and defective trees containing a sawlog, while minimising damage to young regenerating stems, and creating canopy openings where appropriate for regeneration.

It is envisaged that the next harvesting operation in this compartment would be in approximately 5-15 years time, depending on level of regeneration.

The STS tract for IFOA purposes includes the part compartments 2240, 2241 and 2243 as indicated on the HPOM.

**Single tree selection must remove no more than 45% of the basal area (BA) while retaining a minimum BA of 10m<sup>2</sup> within the tract.** High volume areas may require careful tree marking to ensure the minimum BA is retained.

## **Harvesting Prescription– Resource Units**

Current status and basic silviculture guidelines for each Resource Unit are as follows:

### **Resource Unit 1 Compartments 2240, 2241**

Structure: Even aged, mostly fully stocked.

Species: Snow Gum, scattered Shining Gum

Condition: Good (for forest typing).

Site Height: 20-25m. Site productivity – Poor

Understorey: Mesic understorey. Mostly open (native grass, burrawangs, litter/humus, logs & limbs, snow grasses, bracken fern).

Silvicultural Objectives: Nil, exclude from commercial harvesting as non-commercial forest type. Scattered Shining Gum to remain and included in BA offset.

Practice: Nil.

### **Resource Unit 2, Compartment 2240**

Structure: Highly variable over short distances, mostly over-mature with non-productive gaps, limited advanced pole/small sawlog sizes and some very small clumps of regrowth.

Species: Dominated by Brown Barrel and Shining Gum.

Condition: Poor. Remnant over-storey in very poor timber condition, Good Shinning Gum regrowth is limited to roads, snig tracks and log dumps.

Site Height: 30-35m. Site productivity – Poor

Understorey: Mesic understorey. Mostly open (native grass, burrawangs, litter/humus, logs & limbs, snow grasses, bracken fern).

Silvicultural Objectives: Whilst protecting regrowth patches, remove all defective trees as timber markets and tree removal limits allow, create canopy openings to promote regeneration and disturb soil seedbed areas, release existing regrowth from overhead competition.

Practice: Regeneration STS – Heavy.

### **Resource Unit 3, Compartments 2240, 2241**

Structure: Clumps of mature trees in a two aged class forest, generally fully stocked. Advanced growth composition reflects original canopy.

Species: Dominated by Brown Barrel and Shining Gum.

Condition: Good. Over-storey mature and regrowth is generally in good condition and well stocked.

Site Height: 30-35m. Site productivity – Moderate

Understorey: Mesic understorey. Mostly open (native grass, burrawangs, litter/humus, logs & limbs, snow grasses, bracken fern).

Silvicultural Objectives: Whilst protecting advanced growth and regrowth patches, remove all defective trees as timber markets and tree removal limits allow, create canopy openings to promote regeneration and disturb soil seedbed areas, release existing regrowth from overhead competition.

Practice: STS Medium.

### **Resource Unit 4, Compartment 2241**

Structure: Even aged, mostly fully stocked.

Species: Dominated by Brown Barrel, Shining Gum and some Messmate.

Condition: Very good.

Site Height: 30-35m. Site productivity – Very Good (however at end point)

Understorey: Mesic understorey. Mostly open (native grass, burrawangs, litter/humus, logs & limbs, snow grasses, bracken fern).

Silvicultural Objectives: Whilst protecting advanced growth and regrowth patches, remove all defective trees as timber markets and tree removal limits allow, create canopy openings to promote regeneration and disturb soil seedbed areas, release existing regrowth from overhead competition.

Practice: Regeneration STS – Heavy.

#### **Resource Unit 5, Compartment 2242**

Structure: Highly variable over short distances, mostly over-mature with non-productive gaps, limited advanced pole/small sawlog.

Species: Dominated by Brown Barrel and Shining Gum.

Condition: Moderate. The remnant over-storey is in poor timber condition. However there is a small area similar to resource unit 4 (off dump 11) in good condition.

Site Height: 30-35m. Site productivity – Poor/moderate

Understorey: Mesic understorey. Mostly open (native grass, burrawangs, litter/humus, logs & limbs, snow grasses, bracken fern).

Silvicultural Objectives: Whilst protecting regrowth patches, remove all defective trees as timber markets and tree removal limits allow, create canopy openings to promote regeneration and disturb soil seedbed areas, release existing regrowth from overhead competition.

Practice: Regeneration STS – Heavy. Giving way to moderate STS when slope limits safe use of mechanical harvesting off Dump 18.

#### **Resource Unit 6, Compartment 2242**

Structure: Highly variable over short distances, mostly over-mature.

Species: Dominated by Brown Barrel, Silvertop Ash and Snow Gum

Condition: Moderate.

Site Height: 30-35m. Site productivity – Moderate

Understorey: Mesic understorey. Mostly open (native grass, burrawangs, litter/humus, logs & limbs, snow grasses, bracken fern).

Silvicultural Objectives: Nil, exclude from commercial harvesting as inaccessible due to slope.

Practice: Nil.

#### **Resource Unit 7, Compartment 2242 – FMZ 2 (Stand not inspected)**

Structure: Unknown

Species: Dominated by Silvertop Ash, Gully Peppermint and Brown Barrel.

Condition: Unknown

Site Height: Unknown

Understorey: Unknown

Silvicultural Objectives: Nil, exclude from commercial harvesting as FMZ exclusion.

Practice: Nil.

## 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 Regional Manager.

### Permanent Growth and Research Plots

**Permanent Growth Plots (PGP)** – Two plots are located within the planning unit, one within Dump 18 (PSQ525) and the other south of dump 2 (PSQ523). The PGP's are to be treated the same as the surrounding harvested area. The SFO must collect all metal measurement tags from trees fallen during harvesting and return them to the Resources Forester Batemans Bay.

**Research Plots** – An inventory plot exists west of dump 2 (46147), this is to be treated the same as the surrounding harvesting area (regeneration harvest 2<sup>nd</sup> cut).

### Occupation Permits

#### Apiary

Four apiary sites (one owner) provided in the table below are located within the planning unit as detailed in the table below. Contact details are available from the Batemans Bay office.

Name	Boundary Location

- The SFO must provide the apiary the permittee with at least two weeks advance notice when bee boxes need to be removed or relocated.
- During planning no set down sites where located.

### National Parks

National Park forms the southern boundary of the planning unit. Slap Up Road and 2241/1 Road form the boundary. A 20m Road maintenance corridor applies along these roads to allow for road maintenance activities. Harvesting is not permitted within the road corridor.

- No harvest disturbance is permitted within National Park.
- Access roads must be maintained free of debris and in a trafficable state.

## Forest Management Zoning

FMZ 4: General Management areas occur within the compartments (shown on HPOM). Normal harvesting prescriptions apply in this area.

FMZ 3B: Special Prescriptions (visual) occurs 20m along the southern side of Slap Up Road where it adjoins National Park (shown on HPOM). This zone is designed to allow road maintenance activities on State forest roads without impacting on National Park. All harvesting activities are to be excluded except road maintenance.

FMZ 3A: Wildlife corridor exists along the drainage line the forms the eastern boundary of compartment 2241. A 50 m exclusion zone either side of the drainage line applies. As this zone is contained within other exclusions and is not within a distance that will impact the harvest area it is not shown on the HPOM.

FMZ 2: Special prescriptions areas occur in compartment 2242 (shown on the HPOM). Harvesting is excluded in this zone.

Note: In the FMZ 3A and FMZ 2 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 and log haulage in FMZ 2/3A. If the SFO identifies the need for harvesting related activities to occur within FMZ 2/3A during the operation, the Planning Forester must be contacted to seek Regional Manager approval.

All Stream Exclusion Zones require prior Regional Manager approval before forest harvesting related activities (eg: road or snig track construction & reopening) can be undertaken. It is the responsibility of the SFO to identify any exclusion areas which will need to be crossed during harvesting. The SFO should then contact the Harvesting Forester to obtain the necessary approval.

### Cultural Heritage

**Cultural Heritage** - There are no Cultural Heritage sites within the compartment. All relevant representatives have been consulted and/or inspected Compartments. Due to the confidentiality of the Cultural Heritage sites, a Cultural Heritage site map will only be attached to the specific copies of the plan. All 10 metre radius exclusion buffers are to be marked in the field as **hard exclusion zones (i.e. pink & yellow tape)** where logging and/or road works are scheduled to be undertaken. **All operators must be taken to each site within the planned area before any activities are commenced.**

### Flora and Fauna

**Refer to TSL Booklet for Conditions**

#### Mark-Up Conditions

During the pre-harvest mark up the SFO 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 (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.

The results of the database search and pre-harvest surveys resulted in the following consideration of flora & fauna issues as shown in the table below:

Prescription	Species
<b>General prescriptions</b>	<b>Olive Whistler</b> ( <i>Pachycephala olivacea</i> ) (Desktop Review) <b>Eastern False Pipistrelle</b> ( <i>Falsistrellus tasmaniensis</i> ) (Desktop Review)
<b>Species specific prescriptions:</b>	<b>Powerful Owl</b> ( <i>Ninox strenua</i> ) (Desktop Review) <b>Spotted-tailed Quoll</b> ( <i>Dasyurus maculatus</i> ) (Desktop Review)
<b>Site specific prescriptions</b>	<b>Gang Gang Cockatoo</b> ( <i>Callocephalon fimbriatum</i> ) (Desktop Review, Compartment traverse) <b>Scarlet Robin</b> ( <i>Petroica multicolour</i> ) (Compartment traverse) <b>Flame Robin</b> ( <i>Petroica phoenicea</i> ) (Compartment traverse)

All known flora and fauna information has been considered by the Regional Ecologist in consultation with the Forest Planner in applying general and site specific prescriptions for the protection of the above species. It is acknowledged that 3 of 7 species listed above were recorded during pre-harvest surveys. All species are adequately protected under their relevant prescriptions and do not require additional measures.

#### Tree Retention

Zone	Habitat Trees/ 2ha	Recruitment Trees/ 2ha	Protection of Retained Trees	Stag Retention (Only if safe)	Significant Food Resource	GG density >1/ha + Habitat/ 2ha
<b>Non Regrowth</b>	10	10	√	√	√	+ 6
<b>TSL condition</b>	5.6a	5.6b	5.6g	5.6e	5.6f	6.4d 6.10f

√ - Condition applies

#### General exclusion zones

General exclusions as listed below are shown on the HPOM if they occur.

Feature/Condition	TSL Condition	Occurs within Planning Unit
<b>Rainforest</b>	5.4	No
<b>Riparian Protection Zones</b>	5.7	Yes
<b>Ridge &amp; Headwater Habitat</b>	5.8	Yes
<b>Wetlands</b>	5.9	No
<b>Heath and Scrub</b>	5.10	No
<b>Rocky Outcrops and Cliffs</b>	5.11	No

### General Threatened Flora and Fauna Prescriptions

Feature	Records in Cpt	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
Significant Subterranean Roost Protection	No	5.14.3
Protection of flying-fox Camps	No	5.14.4
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 Harvesting Team Leader. The Harvesting Plan must be amended to include additional prescriptions if necessary.

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 2240, 2241, 2242	Licence conditions under the TSC Act or relevant Site-specific prescription
<b>Powerful Owl</b> <i>Ninox strenua</i>	No	6.4
<b>Spotted tailed Quoll</b> <i>Dasyurus maculatus</i>	No	6.10
<b>Gang-gang Cockatoo</b> <i>Callocephalon fimbriatum</i>	Yes	Refer to Condition 5.13(a), (d) & (f) for Glossy Black Cockatoo
<b>Flame Robin</b> <i>Petroica phoenicea</i>	Yes	Site Specific Prescription: 50m exclusion zone around nests and roosts.
<b>Scarlet Robin</b> <i>Petroica multicolour</i>	Yes	Site Specific Prescription: 50m exclusion zone around nests and roosts.

**Fisheries Licence Conditions**

There is no Class 1 or Class 2 aquatic habitat within the harvest area. The fisheries licence does not apply to this operation.

**Soils and Water Protection**

**Refer to EPL Booklet & Standard Plan Conditions**

**Site-specific EPL Conditions**

<b>Elements</b>	<b>Conditions</b>
Unmapped Drainage Lines	EPL not licensed: Refer to drainage feature protection below.
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	Cpt 2240 – 1 Cpt 2241 – 1 Cpt 2242 – 2
Dispersible Soils	No
Mass Movement	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

**Prescribed streams**

There are no prescribed streams within the compartments.

**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, and watercourses within the net planned area of the compartments at minimum widths as stated in the Table below.

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

**Note: TSL Protection zones (hard & soft) are contained within the EPL Filter strip, which have the greater level of protection.**

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

**Log Dump Location**

18 log dumps are indicated on the HPOM. Field location of log dumps must utilise the most level site available consistent with the location indicated on the HPOM.

- Cpts 2240 and 2241: Inherent hazard level 1 Conditions 26, 27, 30, and 33 of Schedule 4 of the EPL must apply.
- Cpt 2242: 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.

**Mass Movement**

Compartments 2240, 2241 and 2242 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 in the compartments.

**Road Works**

The HPOM indicates the location of existing roads and crossings.

Feature	Length &/or Number	Work Required
Existing Roads	12190m	Yes
New Roads	Nil	No
Existing Crossings	Two	Yes
New Crossing	Nil	No
Borrow & Gravel Pits	Nil	No

**Roading and Crossing details are contained within Attachment 2 of this Plan.**

**The roading and crossing works must be undertaken, by contractor or Forests NSW staff, prior to the commencement of harvesting activity in the area served by the road or crossing.** Forests NSW will supervise and pay for the maintenance works.

Roads that are not EPA Licensed (refer to HPOM) are not to be used by log trucks. They may be used with SFO approval for snigging or extraction provided they are drained to appropriate specifications. **Refer to EPL Schedule 5 – Operating Conditions for Roads.**

## Legal Conditions

In 2001, the Commonwealth and NSW Governments signed a Southern 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 1916, and
- Forestry & National Park Estate Act 1998

The latter Act provides for the Southern Forest Agreement and Southern Integrated Forest Operations Approval (IFOA), both approved by NSW Government Ministers in May 2002. 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:

- The Standard Harvest Plan Conditions for Native Forest Operations in Southern Region, South Coast apply to this operation.
- Licences issued under the Forestry Act (1916).
- Forest Practices Code part 2 (Timber Harvesting in Native Forests - 1999) and part 4 (Forest Roads and Fire Trails - 1999)

Harvesting operations must comply with all of the above Licences and the Code (unless otherwise stated within this plan).

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 2240, 2241 and 2242 in Tallaganda 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 Harvesting Team Leader or his/her delegate.

Position	Name	Signature	Date

**Details to Record in SFO 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 SFO 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 mark-up.
- 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 Shape Exists	Harvesting Updates	Comments
Soil Regolith					
Mapped Drainage					
Rainforest					
Rocky outcrops					
Wetlands					
Cultural Heritage					
Existing Roads					
New Roads					
Heath					













**Clearance Certificate**

**COMPARTMENTS: 2240, 2241 and 2242**

**TALLAGANDA STATE FOREST, SOUTHERN REGION**

To .....Supervising Forest Officer

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

I certify that:

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

I believe that I have met all my obligations under the conditions of the Timber 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).....

**Supervising Forest Officer**



## Forests NSW – Southern Region Harvesting Plan – Tallaganda State Forest Compartments 2240, 2241, 2242

### *Attachment 2 – Road Works Plan*

#### Summary of Roding Requirements

Length of existing roads/trails to be maintained	9890m
Length of existing roads/trails to be re-opened	2300m
Length of new roads to be constructed	Nil
Number of existing crossings to be maintained	Two
Number of new crossings to be constructed	Nil
Length of road >10°	Nil
Gravelling	Nil
Mass movement prescriptions apply	No
Dispersible soil conditions apply	No
Seasonality provisions apply	No

#### Checklist of Works required on Roads and Crossings

Road/Crossing Name	Works Required	Date Started	Date Finished	Signature
Slap Up Road - Access Road	<p><u>Works:</u> 2250m of road maintenance. Natural running surface, stable.</p> <ul style="list-style-type: none"> <li>• Install 450mm relief pipe as shown on operational map.</li> <li>• Maintain existing road drainage.</li> </ul> <p><b>Ops/SFO Comments:</b></p>			
2240/1 Road - Harvesting Road	<p><u>Works:</u> 1150m of road reopening. Natural running surface, stable.</p> <ul style="list-style-type: none"> <li>• Remove surface vegetation and trees &gt;20cm DBH.</li> <li>• Grade pavement and install drainage structures to comply with EPL spacing's.</li> </ul> <p><b>Ops/SFO Comments:</b></p>			
2240/2 Road - Harvesting Road	<p><u>Works:</u> 650m of road maintenance. Natural running surface, stable.</p> <ul style="list-style-type: none"> <li>• Remove surface vegetation.</li> <li>• Grade pavement and install drainage structures to comply</li> </ul>			

	with EPL spacing's.  <b>Ops/SFO Comments:</b>			
2240/3 Road - Harvesting Road	<p><u>Works:</u> 1150m of road reopening. Natural running surface, stable.</p> <ul style="list-style-type: none"> <li>• Level batter off Slap Up Road to access existing road.</li> <li>• Remove surface vegetation and trees &gt;20cm DBH.</li> <li>• Grade pavement and install drainage structures to comply with EPL spacing's.</li> </ul> <p>Note: Second entrance to road exists within ridge and headwater habitat, while it is legal to use this access, not considered the best option during planning.</p> <p><b>Ops/SFO Comments:</b></p>			
Dump 8 Trail - Harvesting Road	<p><u>Works:</u> 150m of road maintenance. Natural running surface, stable.</p> <ul style="list-style-type: none"> <li>• Remove surface vegetation.</li> <li>• Grade pavement and install drainage structures to comply with EPL spacing's.</li> <li>• Ensure dump located outside exclusion zone (may have to move location marked in field).</li> </ul> <p><b>Ops/SFO Comments:</b></p>			
2241/1 Road - Harvesting Road	<p><u>Works:</u> 5760m of road maintenance. Natural running surface, stable.</p> <ul style="list-style-type: none"> <li>• Remove surface vegetation.</li> <li>• Grade pavement and install drainage structures to comply with EPL spacing's.</li> </ul> <p><b>Ops/SFO Comments:</b></p>			
Dump 11 Trail - Harvesting Road	<p><u>Works:</u> 240m of road maintenance. Natural running surface, stable.</p> <ul style="list-style-type: none"> <li>• Remove surface vegetation.</li> <li>• Grade pavement and install drainage structures to comply</li> </ul>			

	with EPL spacing's.  <b>Ops/SFO Comments:</b>			
2241/2 Road - Harvesting Road	<u>Works:</u> 280m of road maintenance. Natural running surface, stable. <ul style="list-style-type: none"> <li>Remove surface vegetation.</li> <li>Grade pavement and install drainage structures to comply with EPL spacing's.</li> </ul> <b>Ops/SFO Comments:</b>			
Dump 17 Trail - Harvesting Road	<u>Works:</u> 360m of road maintenance. Natural running surface, stable. <ul style="list-style-type: none"> <li>Remove surface vegetation.</li> <li>Grade pavement and install drainage structures to comply with EPL spacing's.</li> </ul> <p>Note: Access through cpt 2235, existing road requires removal of logging debris and light grade.</p> <b>Ops/SFO Comments:</b>			
Dump 18 Trail - Harvesting Road	<u>Works:</u> 200m of road maintenance. Natural running surface, stable. <ul style="list-style-type: none"> <li>Remove surface vegetation.</li> <li>Grade pavement and install drainage structures to comply with EPL spacing's.</li> </ul> <p>Note: Access through cpt 2235, existing road requires removal of logging debris and light grade.</p> <b>Ops/SFO Comments:</b>			
Crossing 1	<u>Works:</u> Existing causeway over drainage depression (mapped) <ul style="list-style-type: none"> <li>Install 5-30m drainage to comply with EPL conditions</li> </ul> <b>Ops/SFO Comments:</b>			

<p>Crossing 2</p>	<p><u>Works:</u> Existing 600mm pipe</p> <ul style="list-style-type: none"> <li>• Complies with 5-30m spacing.</li> <li>• Complies with 1:5 year storm waterway calculations. Overflow will occur 1:10 year storm, crossing stable no sign of previous wash.</li> <li>• No work required.</li> </ul> <p><b>Ops/SFO Comments:</b></p>			
-------------------	--	--	--	--

**Planning Notes:**

- Proposed new construction was flagged during planning between dumps 11 and 18. This will not be used as alternative access to dump 18 was found during planning through cpt 2235. Flagging tap remains as back up option.
- In general where new road drainage structures are required the following is applied:
  - Install outfall and mitre drains wherever possible
  - Construct rollover drains on roads with slope < 5 degrees
  - Install rubber flap drains on roads with slope > 5 degrees
- Crossing 2 was stable at time of inspection, no evidence overflow has occurred.
- **Operation staff may elect to use alternative road drainage structures if effective and cost efficient, document any changes without need for variation.**
- **Maintenance works not completed by Operations must be recorded and passed onto the SFO Harvesting 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.**

**Forests NSW – Southern Region  
Harvesting Plan – Tallaganda State Forest  
Compartments 2240, 2241, 2242**

***Attachment 3 – Post Harvest Burn Plan***

**Planning Information**

**LGA:** Palerang

**Fuel Management Zone & Proposed Burn Summary**

(Refer to the Harvest Plan for details)

**Fuel Load (t/ha):** 50-100 tons per hectare of Logging Slash - Estimated 10 t/ha between fallen tree heads.

**Season:** autumn / winter / spring

**Zone 3B:** Post-Harvest

**Fuel Reduction Objectives: % of net planned area to be burned:** Approx 75% of harvested area  
**Reduce fuels to:** < 10 t/ha

**Regional Burning Guideline**

**Max Temp (°C):** 20°C    **Min RH (%):** 40%    **Max BKDI:** 100

**Max Wind Speed (km/h):** 15 km/h

**Max FDI:** 6 (Calculate using McArthur Meter if favourable conditions deteriorate)

**Minimum Fuel Moisture Content:** 12% (16% on edge of Main Drainage lines, not in dry up-slope filter strips)

**Max Rate of Spread:** 1.5 m/min (Regulate with lighting pattern. Eg, A single “spot fire” on the up-hill side of head, and don’t light heads directly beneath deliberately retained trees)

**Average Flame height:** 5m (Post-logging burn tree head debris only)

**Scorch Height:** to 15m (i.e. scorch height = approx 3 times flame height)

**Burn Area Information**

**Fuel loads:** 50-100 tons per hectare of Logging Slash - Estimated 10 t/ha between fallen tree heads.

**Fuel arrangement:** Multi-tiered structure (litter, grasses, shrubs, eucalypt regeneration and mature trees)

**Terrain:** 1% > 30°, 31% @ 25°-30°, 6% @ 20°-25°, 32% @ 10°-20°, 58% @ 0°-10° slope.

**Time since last burn:** Cpts 2240 and part 2241 burnt in 2004 (hazard reduction), cpt 2242 unknown.

---

## **IMPORTANT BURNING PRESCRIPTIONS**

---

- A small test burn must always be lit prior to main burn. This will assist in determining FIRE BEHAVIOUR and IGNITION PATTERNS.
- **Seek information from Harvesting SFO on regrowth excluded burn areas.**
- Sections will be lit by drip torch to a determined ignition pattern.
- Areas will generally be burnt from ridge tops down and into the wind to minimise excessive fire behaviour.
- **Minimise fire intensity in regrowth stands.**

## **Burn Objectives**

- To reduce fuel loads to 10 tonnes/ha. (Assisting future fire suppression)
- A burn coverage 75%
- To contain fire within designated boundaries.
- To observe and record data, assisting in future high fuel load and advanced regrowth area burns.
- To minimise crown scorch; not exceeding 10% of dominant and co-dominant crowns.
- To minimise defect damage to retained regrowth stems.

## **Environmental Prescriptions**

### **FLORA AND FAUNA:**

Refer to Harvest plan document. H & R trees should be raked around if the risk of burning is high. Logging slash collected around retained trees should not be burnt.

### **SOIL, WATER & AQUATIC HABITAT:**

Refer to the Harvest plan document.

- Preferred months of burn – April to September
- Fuel moisture differentials will be utilised to minimise impacts upon drainage features within the burn area
- Harvesting of unmapped drainage lines was planned to occur within these compartments. To ensure that >70% ground cover within the modified harvest zone of the unmapped drainage lines is not compromised, the burn supervisor should pay particular attention to the fuel moisture differentials mentioned above and not deliberately burn heads within the modified harvesting zone.

### **ABORIGINAL CULTURAL HERITAGE:**

Refer to section 7 of the Harvest plan document. Significant sites, e.g. scar trees, groove stones, should be raked around to prevent fire damage. Where practically possible, burning of scattered artefacts should be avoided.

**Control and Strategy**

**CONTROL LINES:**

<b>EXISTING</b> Description of each control line	<b>Description of Work Required</b>	<b>Completed Yes /No</b>
Slap Up Road	Nil	
2241/1 Road	Nil	
Various 1, 2 <sup>nd</sup> and 3 <sup>rd</sup> order drainage (north of planning unit.	Fuel moisture >16%	
Check for trees that could burn down and fall over any boundary roads and wet down or rake around as necessary		
<b>PROPOSED</b> Description of each control line	<b>Description of Work Required</b>	<b>Completed Yes /No</b>
Off Slap Up Trail (start) northwest to drainage line on boundary with cpt to the north.	Snig track construction. SFO to mark on map prior to burning.	
Off 2241/1 Trail west to drainage line on boundary with National Park.	Snig track construction. SFO to mark on map prior to burning.	

**SMOKE HAZARD AND MANAGEMENT:**

<http://www.bom.gov.au/general/reg/smoke/nsw/index.shtml>

Smoke / Hazard Reduction Signs required?:..... YES NO ( tick to indicate)  
 Smoke Dispersion Forecasting via BOM utilised? .... YES NO ( tick to indicate)

<b>Safety Considerations (pre-burn)</b>		DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
Personnel	Names of fire crew documented daily.							
Visitors on site	Visitor on site induction carried out							
Neighbours notified	Documented in plan							
Traffic control	Traffic control signs to regulate traffic if required							
Smoke management	Assessment of prevailing winds at the time of burn. Roadside signs warning of smoke hazard.							
Supervisor to initial								

<b>Pre-burn preparation activities and responsibilities</b>			
<b>Activity</b>	<b>Specifications and tasks</b>	<b>Responsibility</b>	<b>Signed</b>
Fuel monitoring	Regular monitoring prior to burning		
Weather monitoring	Conducted prior to and during burning operations		
Trail preparation <ul style="list-style-type: none"> <li>• D3</li> <li>• Hand tools</li> </ul>	Mineral earth control lines prepared prior to burning to contain fire within designated burning block		
Neighbour liaison	Notification and communications documented		
Liaison with fire & emergency authorities	“As above”		
Media releases	Advise local community of SF burning activities		
Radio station notifications	“As above”		
Equipment	Ensure all required equipment is available		
Communications	“As above”		
Visitor Safety	Burn is sign posted. All visitors to report to burn supervisor immediately		
Burn approval	Daily burn approvals given by delegated officers		

**Notification Requirements**

Neighbours..... Contractors..... Lessees.....  
 Apiarists..... Shire FCO..... Govt Agencies.....

**Notification Register**

**RFS (Rural Fire Service)**

Name	Position	Phone Number	Notified
	FCO		

**APIARISTS: (Refer to compartment planning folder for details prior to burning)**

Name	Site Number/s	Phone Number	Notified

**Daily Crew SMEACS Briefing Sheet**

(Tick daily when briefed)

**SITUATION**

DAY 1 2 3 4 5 6 7

- Burn area to be treated (location, boundaries, control line types and exclusive areas).....
- Burn area characteristics (e.g. terrain, forest cover, sensitive areas, etc .....
- Burn area access by road class (checked beforehand, dead ends, watering points etc.) .....
- Fuel Loadings and fire behaviour prescriptions for the HRB area .....
- Staging areas .....
- Expected weather .....

**MISSION**

- Overall aim of the hazard reduction burn.....
- Site specific aims for sections of the HRB (eg, protection of patches of advanced regrowth, rainforest pockets, buildings, bridges, etc.).....
- Secondary aim/s should the HRB escape .....

**EXECUTION**

- Plant and manpower resources (FNSW, RFS, DEC, others) .....
- Division of burn area into 'Sections' .....
- Starting points, starting times, finish times (start 'down wind' if possible).....
- Safe 'approved' lighting patterns and directions .....
- Work down-slope, keeping below active fire (except where good fuel breaks occur).....
- Location and activity of other burning crews.....
- Personal and crew safety - buddy system when lighting up .....
- Progress reports at pre-designated times.....
- Maintain awareness of other burning crews (do not light up below other burning crews).....
- Expected fire behaviour, trouble points and contingency plans .....
- Actions to be taken in the event of an escape e.g. to pause the light-up.....
- End of burn debrief e.g. reporting areas requiring 'follow-up' patrols after burn .....

**ADMINISTRATION**

- Reporting field fire weather to the office at regular times.....
- Receiving forecast weather reports from office .....
- Logistical support (fuel, food, water, heavy plant, back-up crews etc.).....

**CONTROL, COMMAND, COMMUNICATIONS**

- Chain of command (burn supervisor and sector bosses) .....
- Communications systems for fire-ground and command (UHF & VHF radios, mobile phones) .....

**SAFETY**

- Medical Emergency Evacuation Plan & Site Safety Plan .....
- Areas of likely tree or limb falling hazards (methods to identify/mark hazards) .....
- Look up and look around procedure (for self and workmates).....
- Location first aid kits and first aiders .....
- Pre-burn safety actions including 'Smoke Hazard' sign locations, traffic control plan etc.....
- Location of safety zones, and escape routes .....
- Safe parking of SF vehicles within the burn area and vehicle speeds during the burn .....
- Crew vehicles to have headlights and flashing beacons on where practicable .....
- Schedule adequate rest breaks and set appropriate work pace .....
- Ensure crews have access to supplies of drinking water.....
- Visitors to the site are inducted into the SSP .....

- Day 1 - Burn Supervisor.....Date.....
- Day 2 - Burn Supervisor.....Date.....
- Day 3 - Burn Supervisor.....Date.....
- Day 4 - Burn Supervisor.....Date.....
- Day 5 - Burn Supervisor.....Date.....
- Day 6 - Burn Supervisor.....Date.....
- Day 7 - Burn Supervisor.....Date.....
- Day 8 - Burn Supervisor.....Date.....

**Employee Identification**

EMPLOYEE	NAME	PROOF OF ACCREDITATION (Eg. FNSW RECORDS)	DATE	SUPERVISOR OR RELEVANT AGENCY SIGNATURE
Incident Controller				
Burn Supervisor				
Crew Leader				
Crew Leader				
Crew Member				
Crew Member				
Crew Member				
Crew Member				
Crew Member				
Crew Member				
Crew Member				
Crew Member				
Crew Member				

**Personnel and equipment requirements:**

Resource	State Forests	NPWS	Brigades	SFO Signature
Incident Controller				
Crew Leaders				
Crew Members				
Tankers				
Slip – on Units				
Dozer				
Helicopter				
Radios – handheld UHF	1 per person			
Weather monitoring equip.	1 per crew			

Burning Operations Record

**Forecast Weather and Indices** (Obtain from Office)

See attached daily weather forecasts and relevant indices obtained from the Bureau of Meteorology

**Burn Site Weather Readings**

Take daily on site readings (hourly if possible) and note un-forecast weather changes.

Date	Time	Temp (°C)	RH (%)	Wind Direction	Wind Sp. (km/h)	FDI	FMC %	COMMENTS



**POST BURN ASSESSMENT**

Estimated burn coverage (% of net area):..... %

Estimated burn coverage:..... ha

Fine fuel reduced to an average of: ..... t/ha

Estimated area of crown scorch: ..... %

**OPERATIONAL PERFORMANCE REVIEW**

Burn complete?	Yes/No
Follow up action required?	Yes/No
Burn contained within planned boundaries?	Yes/No
Burn coverage objective met?	Yes/No
Fine fuel reduction objective met?	Yes/No
Environmental prescriptions met?	Yes/No
Threatened Species License conditions met?	Yes/No
Fisheries License conditions met?	Yes/No

**Remedial Action required**

(If any): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Remedial works certified complete.**

Work Supervisor \_\_\_\_\_ Date: \_\_\_\_\_

**Comments:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Attach additional pages as required



### 6.08.01 Bush Fire Mapping Symbols

DTG refers to *Date Time Group* which uses the two digits for the date and 24 hour time, eg 10:51hrs on 4 November would be: **04 1051**

NAME	SYMBOL		NOTES		
PREDICTED (fire edge)			Show DTG		
GOING (fire edge)			Show DTG		
CONTAINED (fire edge)			Show DTG		
PROPOSED (control line)	X—X—X—X—X—X—		Draw on far side of feature		
COMPLETED (control line)	X+X+X+X+X+X+		Show DTG		
PROPOSED (backburn)			Draw on near side of feature		
COMPLETED (backburn)			Show DTG		
BACKBURN BURNING IN			Lines show depth of burn at DTG		
<b>RED – FIRE</b>					
<b>BLACK – CONTROL LINES</b>		<b>BLUE – WRITING &amp; SYMBOLS</b>			
△ Strategic or Tactical Significance	○ Command, Control & Coordination	□ Logistics Related	◇ Assets to be Protected		
Fire Origin	Red		Show DTG		
Fire Direction	Blue		Show DTG		
Wind Direction	Blue		Show DTG		
Spot Fire	Red		Isolated fire ahead of main fire		
Burnt Area	Black		Burnt area (if old, show month and year)		
Aerial Ignition	Red		Proposed path to be treated		
Divisional Boundary	Blue		Use geographical names		
Sector Boundary	Blue		Use alphabetical names		
Refuge Area	Blue		Escape Route (Add arrow to show safe exit)	Blue	
Control Centre (Incident Management Team location)	Blue		Staging Area (Where resources are prepared or available)	Blue	
Divisional Command	Blue		Base Camp	Blue	
Sector Command	Blue		Airbase (Fixed wing and/or helicopter base)	Blue	
Helipad	Blue		Water Point Helicopter (Helicopter water supply)	Blue	
Water Point Vehicle (Firefighting water supply)	Blue		Aboriginal Site or Artifacts	Blue	
Ambulance Location	Blue		Endangered Flora	Blue	
Threatened Property	Blue		Endangered Fauna	Blue	
Historic Site (Building or Structures)	Blue				

The use of colours is optional.

**CROSSING NAME:** C1

**Assessors Name:** Andrew Yates

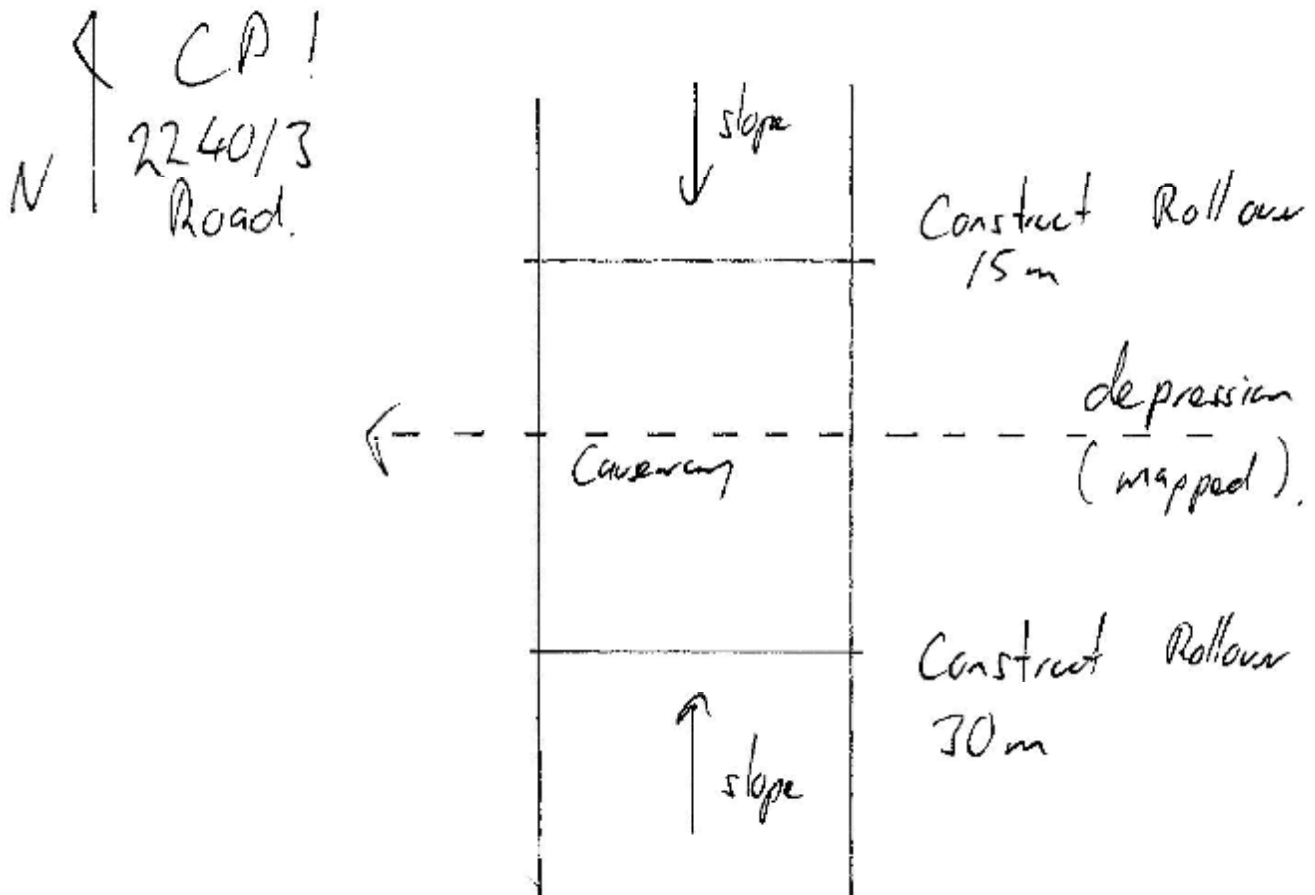
**Crossing Type:** Causeway

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Causeway	Nil
Bed and Banks	Nil - Stable	Nil
Erosion and Sediment Control	Nil - Stable	Nil
Disposal of excess spoil	N/A	Nil
Soil Stabilisation within 20m	Seed if required	Grass seed
Road drainage within 5-30m <ul style="list-style-type: none"><li>Type</li><li>outlet control</li><li>table drain checking devices</li></ul>	Rollover Natural vegetation. Leave undisturbed.	Dozer N/A N/A

Date of Assessment: 20/Sept/2010

Final Crossing Use: Retain

Event	Min. pipe size(mm)	Min. Fill (cm)	Outlet Protection
1:5	NA	NA	Vegetation



Date Work Started: \_\_\_\_\_

Date Work Finished: \_\_\_\_\_

Soil stabilisation must be completed within 5 days  
Record implementation date here: \_\_\_\_\_

**CROSSING NAME:** C2    **Assessors Name:** Andrew Yates

**Crossing Type:** 600mm Pipe

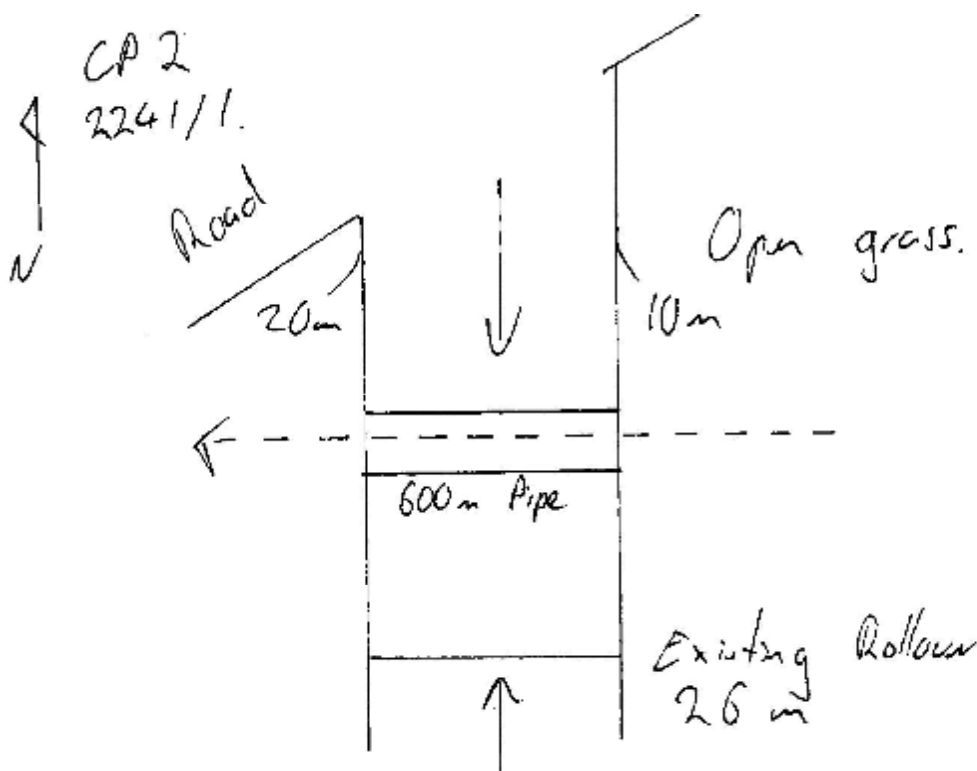
**No Work Required at time of inspection.**

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	600mm Pipe	Nil
Bed and Banks	Nil - Stable	Nil
Erosion and Sediment Control	Nil - Stable	Nil
Disposal of excess spoil	N/A	Nil
Soil Stabilisation within 20m	Nil	Nil
Road drainage within 5-30m		
• Type	Existing Rollover and Mitres	N/A
• outlet control	Natural vegetation	N/A
• table drain checking devices	Leave undisturbed	N/A

Date of Assessment: 20/Sept/2010

Final Crossing Use: Retain

Event	Min. pipe size(mm)	Min. Fill (cm)	Outlet Protection
1:5	600mm	0.04cm	Nil



No Work Required at time of inspection.

Date Work Started: \_\_\_\_\_

Date Work Finished: \_\_\_\_\_

Soil stabilisation must be completed within 5 days  
Record implementation date here: \_\_\_\_\_