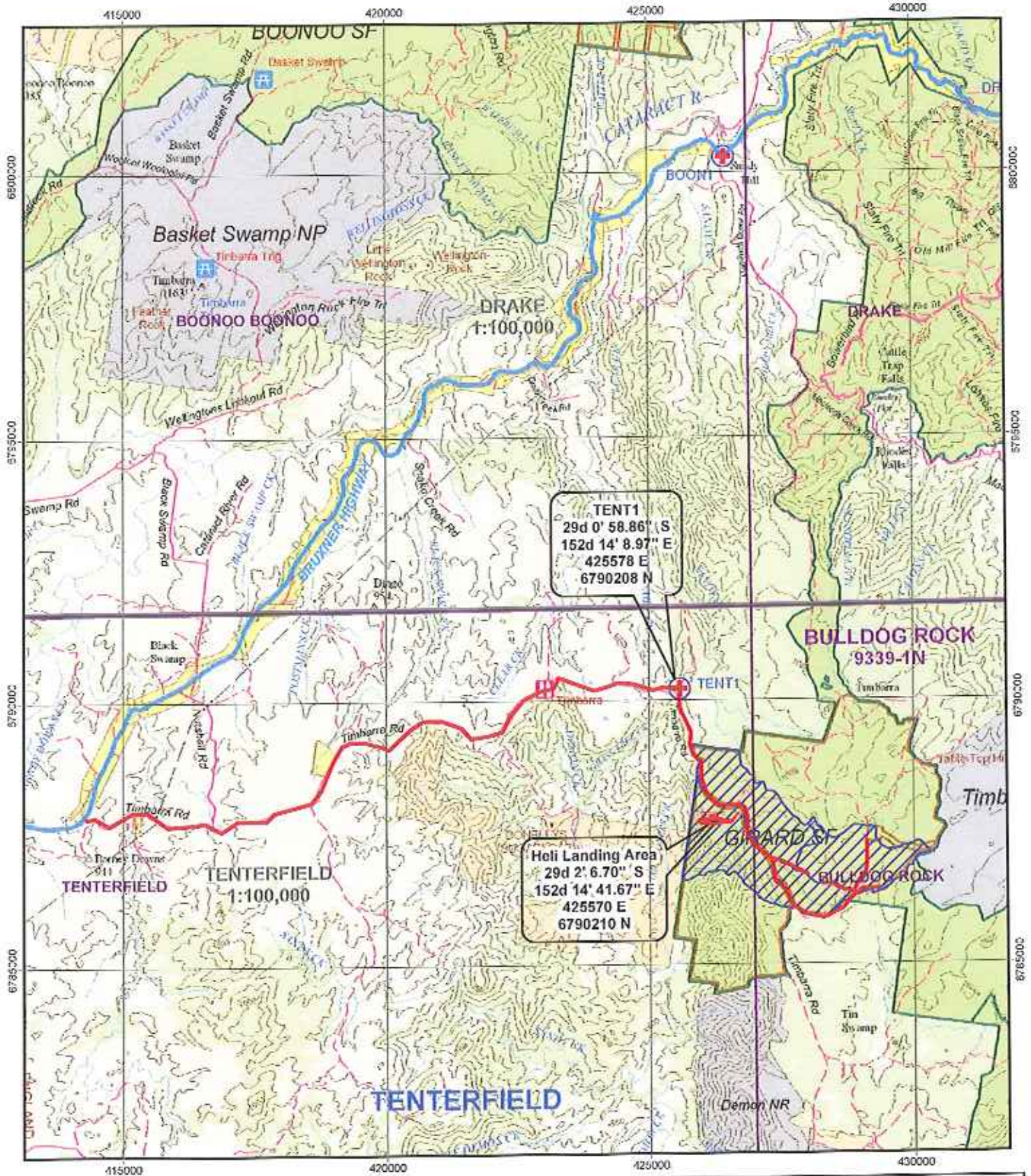


N  
 Map Sheets:  
 1:25000 Bulldog Rock  
 1:100000 Tenterfield  
 Scale 1:100000

North East Region - Tenterfield MA  
 Locality Map  
 Compartments 398, 399, 403 & 404  
 Girard State Forest

MGA 56

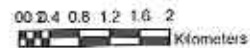


**TENT1**  
 29d 0' 58.86" S  
 152d 14' 8.97" E  
 425578 E  
 6790208 N

**Heli Landing Area**  
 29d 2' 6.70" S  
 152d 14' 41.67" E  
 425570 E  
 6790210 N

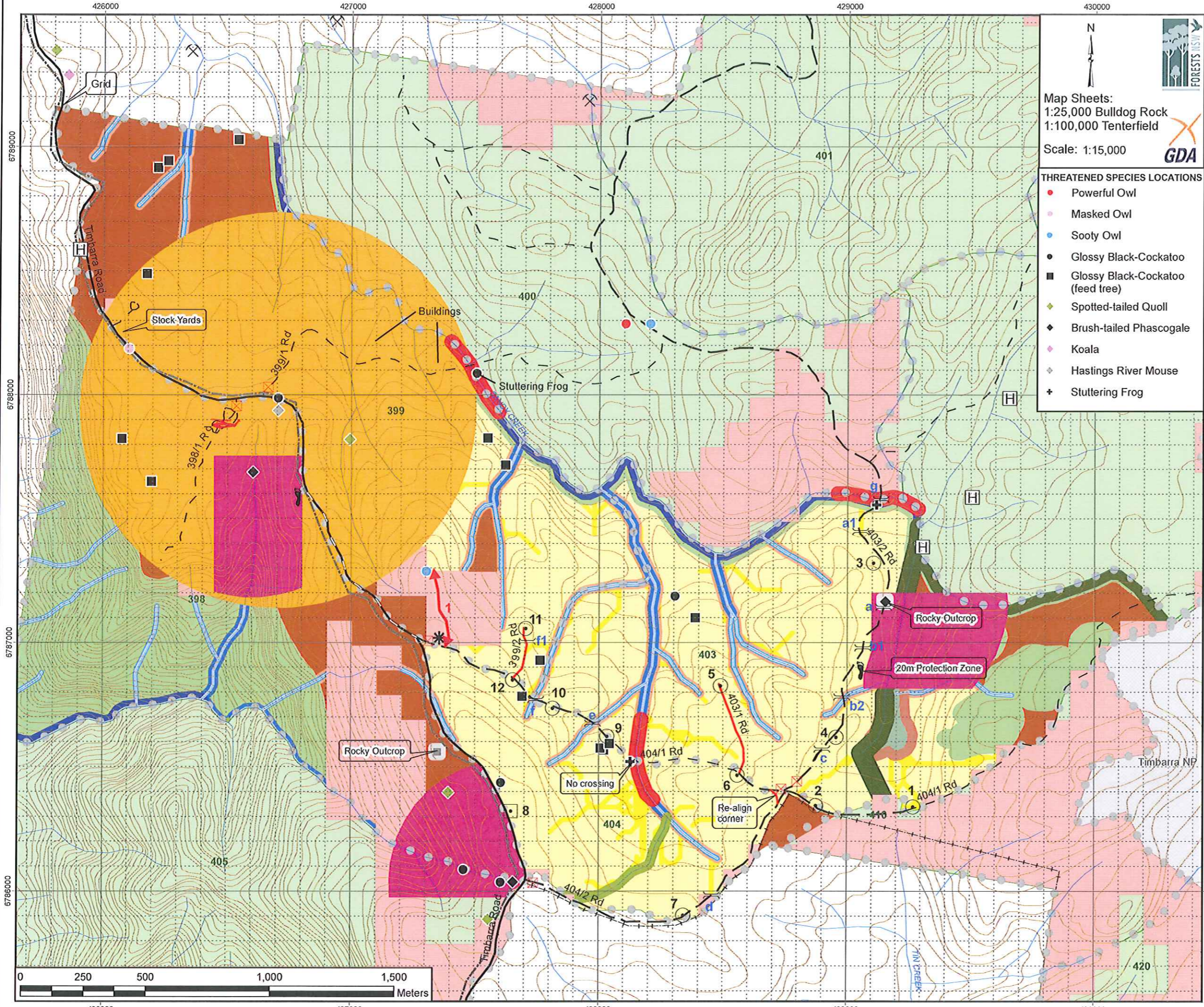
MAP FEATURES

- Subject Area
- Emergency Meeting Point (Safety Point)
- State Forest
- National Park Estate
- 1:25000 Map Sheet
- 1:100000 Map Sheet
- Haulage Route
- Helicopter Landing Area



Prepared by... D. Allon  
 Date: 23/8/10

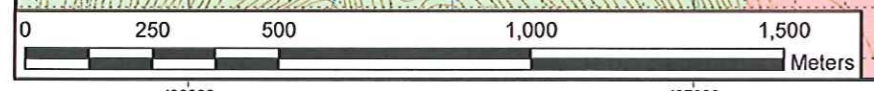
North East Region - Tenterfield MA  
 Harvest Plan Operational Map  
 Cpts 398, 399, 403, 404  
 Girard State Forest



Map Sheets:  
 1:25,000 Bulldog Rock  
 1:100,000 Tenterfield  
 Scale: 1:15,000

- THREATENED SPECIES LOCATIONS**
- Powerful Owl
  - Masked Owl
  - Sooty Owl
  - Glossy Black-Cockatoo
  - Glossy Black-Cockatoo (feed tree)
  - ◆ Spotted-tailed Quoll
  - ◆ Brush-tailed Phascogale
  - ◆ Koala
  - ◆ Hastings River Mouse
  - ◆ Stuttering Frog

- MAP FEATURES**
- State Forest Boundary
  - Compartments Boundary
  - 1 Km Grid
  - - - Powerline
  - - - Fenceline
  - 10 / 100 m Contour
  - State Forest
  - National Park Estate
  - Swd Pit (Z6) / Non Forest (Z7)
- ROADS**
- Sealed
  - All Weather, Unsealed
  - - - Dry Weather, Unsealed
  - - - 4WD Track
  - New Construction
- HARVESTING PRESCRIPTIONS**
- General Management (FMZ 4)
  - Areas for Further Assessment (FMZ 8)
  - Non Forestry Use (FMZ 7)
  - Non-viable
- HARVESTING PROTECTION (TSCL, EPL & FL)**
- Riparian (IHC 1 & 2)**
- Filter 5m either side
  - Protection 5m either side
  - Protection 15m either side
  - Protection 25m either side
  - Protection 45m either side
  - Operational zone 10m either side
- FOREST MANAGEMENT PROTECTION**
- Special Protection (FMZ 1)
  - Special Management (FMZ 2)
  - Harvesting Protection (FMZ 3A)
  - High Conservation Value Old Growth
  - Rock
  - Rock buffer (20m from edge of rock)
  - Rainforest - Craffi + RN17
  - Rainforest (Warm Temperate) buffer
  - Rare & Non Commercial Forest Type
  - Wetland (TSL & SEPP 14)
  - Wetland buffer
  - Slopes > 30 degrees
  - Aboriginal Sites
  - Non Aboriginal Heritage
  - ➔ Approved IFOA exclusion crossing
  - ✱ Gravel Pit
  - ⊠ Gate
- RIDGE & HEADWATER HABITAT**
- 40m wide exclusion
  - 80m wide exclusion
- TSL PRESCRIPTIONS / ZONES**
- Hastings River Mouse Protection
  - Brush-tailed Phascogale Protection (20 ha)
  - Stuttering Frog Protection (30 x 200 m)

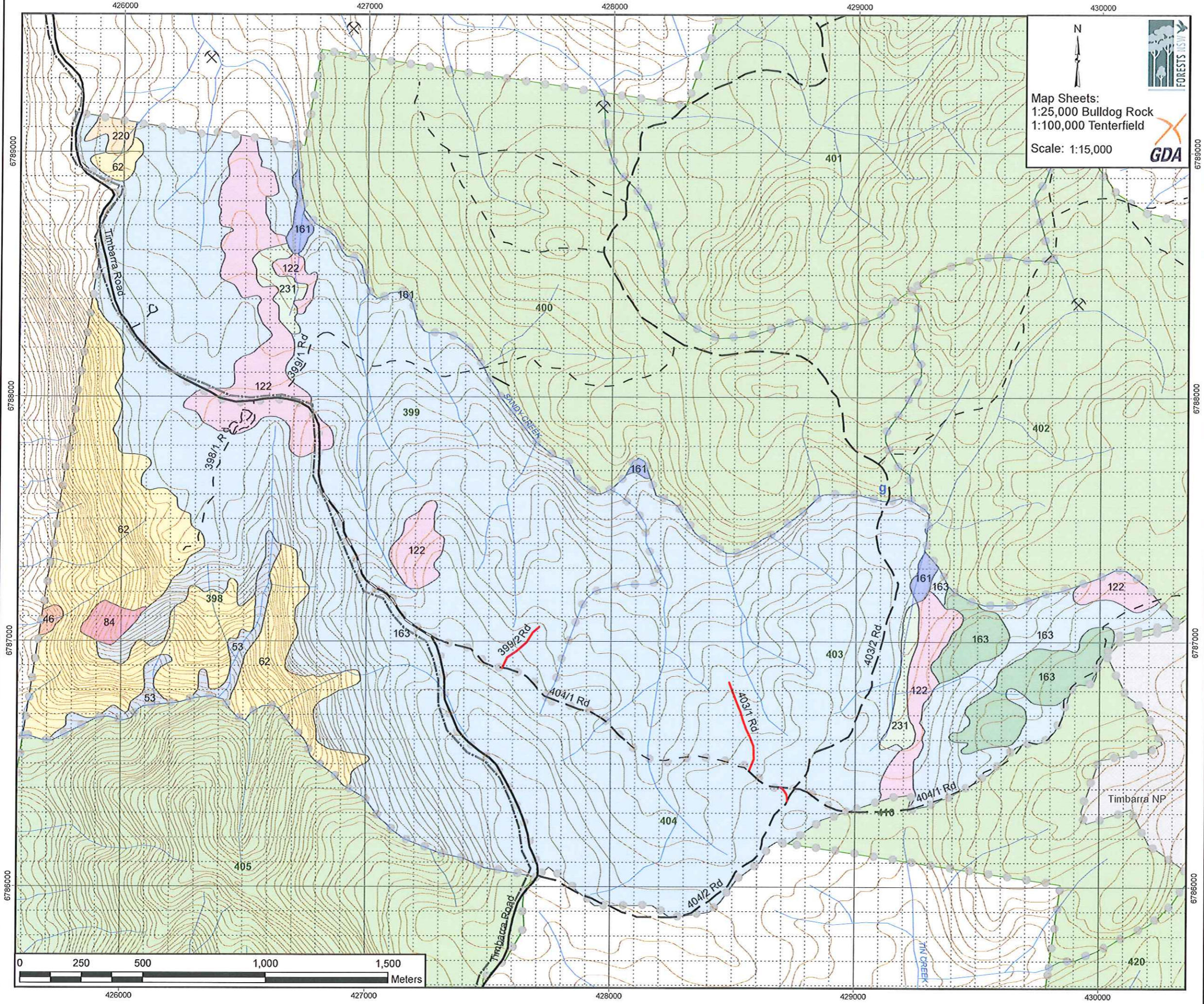


North East Region - Tenterfield MA  
Harvest Plan Forest Type Map  
Cpts 398, 399, 403, 404  
Girard State Forest



Map Sheets:  
1:25,000 Bulldog Rock  
1:100,000 Tenterfield  
Scale: 1:15,000  
GDA

- MAP FEATURES**
- State Forest Boundary
  - Compartments Boundary
  - 1 Km Grid
  - - - Powerline
  - - - Fenceline
  - 10 / 100 m Contour
  - State Forest
  - National Park Estate
  - Swd Pit (Z6) / Non Forest (Z7)
- ROADS**
- Sealed
  - All Weather, Unsealed
  - · - Dry Weather, Unsealed
  - - - 4WD Track
  - New Construction
- FOREST TYPES**
- Type 122 New England Stringybark
  - Type 161 Roundleaved Gum
  - Type 163 New England Blackbutt
  - Type 163 + 234 New England Blackbutt / Rock
  - Type 220 Cleared / Partially Cleared
  - Type 231 Swamp
  - Type 46 Sydney Blue Gum
  - Type 53 Brush Box
  - Type 62 Grey Gum - Grey Ironbark - White Mahogany
  - Type 84 Ironbark




**FORESTS NEW SOUTH WALES - NORTH EAST REGION**  
**HARVESTING PLAN No. 3725**

**Girard State Forest - Compartments 398, 399, 403 & 404**

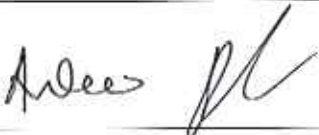
**1. Certification**

This plan has been prepared in accordance with the Integrated Forestry Operations Approval issued under the Forestry and National Park Estate Act 1998 and addresses significant aspects and impacts in the planning process. The **Standard Harvest Plan Conditions for Native Forest Operations in North East Region** apply to this operation.


Prepared by:

Harvest Planner		Date: 14/4/11
Dan Allen		

Endorsed by:

Harvest Planning Team Leader		Date: 15/4/11
Andrew Pitzen Steve Pickering		

Endorsed by:

Regional Planning Manager		Date: 18/4/11
John Murray		

Approved by:

Regional Manager		Date: 18/4/11
Craig Busby		

Note: Approval includes the Harvest Plan Operational Map (HPOM) version 1.

**2. Description of Proposal**

Selective harvesting of regrowth native forest stands, using Single Tree Selection.

Other

	Proposed	Details
Roadworks	Yes	Roadworks Plan (attached)
Post harvest Burning	Yes	Plan to be prepared separately
Rehabilitation	No	

### 3. Area Identification and Yield Estimates

Region	North East Region
Management Area	Tenterfield
State Forest	Girard
State Forest No.	303
Pricing area	Tenterfield
Other Tenure Details (if applicable) For Lease & other non State Forest tenure (Lot/DP)	Cn L 1936/03

	Cpt 398	Cpt 399	Cpt 403	Cpt 404	Total
Gross Area (ha)	217	221	198	81	717
Net Harvest Area (ha)	0	77	122	74	272
Estimated Yield (m3/ha)	0	18	22	20	20 (ave.)
Volume (m3) All Product	0	1,379	2,677	1,472	5,438

Products	Total (m3)
High Quality Large	2,719
High Quality Small	1,481
Low Quality	1,481

### 4. Forest Description

#### Forest Type: (See Forest type map)

- New England Blackbutt (type 163) dominates the net area with Grey Gum – Grey Iron Bark – White Mahogany (type 62) found on steeper slopes of southerly/western aspects.
- Isolated patches of New England Stringybark (type 122) can be found along some drainage features and ridge lines.
- Brush Box (type 53) is found in the heads of some of moister gullies of southerly aspect.

#### Harvest History:

- Compartment last harvested 1992 - 1995, using Single Tree Selection to remove the highest quality and largest trees.
- Only salvage was cut from cpt. 404 in 1994. HQ products are currently present and viable from this compartment.

#### Stand Age/Size Class Description: Three main age/size cohorts exist:

- Mature/overmature 40-60cm dbhob component.
- Only minimal unmerchantable component, 20-30cm dbhob re-growth resulted from recent harvest events.

- The northern most section of cpt. 399 looks to have had a broad scale single regeneration event (likely severe fire) in the recent past resulting in the present even age stand of spruce re-growth. Stand should be thinned in approx. 10 years.

**Site Quality**

- Generally low - moderate site quality with site height 20-30m.
- Poorer forest quality to the east of cpt 403 where rocky outcrops dominate the landscape. Gum types are generally poorer in height and form.

**Stand health**

- Good – few old defective trees.

**5. Silviculture and Harvesting Prescriptions**

Notwithstanding the prescriptions detailed below, all conditions of the IFOA, including General and Species Specific conditions of the Threatened Species Licence and the Environment Protection Licence are to be applied, where they are described in this plan or in the respective licences.

**Objectives:**

- Maximise the recovery of merchantable timber from the mature age/size cohort within the constraints of the harvest plan
- Create suitable conditions for a regeneration event.

	<b>Stand Description</b>
	Mature age, mixed species.
<b>Treatment – current ops</b>	STS
Est. % of NHA	100%
Expected BA Removal (%)	35%
<b>Future Ops (years)</b>	
10	Thinning (cpt. 399)

**Single Tree Selection prescription:**

- Tree removal and ground disturbance must also maximise regeneration opportunities.
- Single Tree Selection must remove no more than 40% of the basal area across the net harvest area. Trees with dbhob <20cm must not be selected for harvesting under STS (1.5.10 IFOA).
- In areas designated for STS it is expected that the basal area removal across the tract will fall below 40 %. BA removal will exceed 40% in some localized areas, but will be balanced by non harvest areas and tree retention across the tract.

**6. Special Conditions**

6.1 Seasonal Harvesting and Burning Restrictions

No

**6.2 Leases, Permits, Plots**

	Occurs	Details	Conditions
Crown Leases	Yes	Cn L (1936/03) exists over the entire harvest area.	The Harvesting Forester must contact the leaseholder prior to commencing harvesting. Agreed procedures must be established for communication, gate opening/closing, fences and signage prior to commencing harvesting. These agreed procedures must form part of the plan induction and must be followed during the course of operations.
Occupation Permits (grazing)	No		
Occupation Permits (aplary)	No		
Occupation Permits (other)	No		
PGP's	No		
Research Plots/Plus Trees	No		
Special Purpose Permits	No		

**6.3 Critical Boundaries**

**Private Property:** Private property boundary abuts the harvest area to the south (cpt. 404). Survey is to be undertaken to adequately define this boundary prior to harvesting within 100m of this boundary.

All other boundaries are remote from the harvest area.

404/2 Rd will be surveyed prior to tree marking and harvesting all dumps will be located on the northern side of this road.

Any harvesting/haulage related damage to private property fence lines are to be reported to the SFO and repaired immediately.

**National Park:** Timbarra NR very nearly adjoins the eastern most boundary of cpt. 403. This area is however not part of the net harvest area.

**6.4 Haulage Considerations**

- Haulage is planned to access the Bruxner Highway via Timbarra Road.
- Additional signage should be used on Bruxner Highway to notify traffic of turning trucks associated with the Timbarra Road intersection.

**6.5 IFOA Required Approval Of Forestry Activities**

Approvals have been obtained for the following activities / locations as shown on the operational map.

Crossing No.	Activity	Type	Conditions
1	Snig track crossing construction and use.	HCVOG.	Minimise size of snig track and drain to EPL on completion of snigging.

- NOTE: Any crossings of Rainforest, HCVOG and Riparian Protection Zones require prior Regional Manager (or NPWS) approval before can be undertaken.

- It is the responsibility of the SFO to identify any additional areas that need to be crossed, the location of any such crossings without approval and to contact the Planning Unit to obtain the necessary approval.

#### 6.6 Unmapped Rainforest

- Unmapped rainforest is to be identified and marked for retention in accordance with Forest Practices Circular 2005/02

#### 6.7 Transmission Lines

- A transmission line runs along Timbarra Road, predominantly on the western side of this road but does cross to the eastern side as indicated on the Operational Harvesting Map. Risk assessment by contractor required prior to harvesting within two tree lengths of this transmission line. If a scheduled power outage is necessary then arrangements are to be made approx. 2 weeks in advance by the Harvesting Forester.
- Appropriate safety procedures must be in place before any work is undertaken in proximity to this power line (see Country Energy *Electrical Hazard Awareness* safety notice safety supplement, attached).

### 7. Forest Management Zoning Conditions

The following Forest Management Zones and conditions apply:

FMZ	Type	Notes
Zone 3A	Harvesting Protection	High Conservation Old Growth Forest (HCVOG), New England Blackbutt / rock outcrop Forest Type Protection. Protects sections of steep topography & non-commercial hardwood types and pockets of forest isolated due to other protection zones. These areas must be protected as marked on the map.
Zone 4	General Management	Available for harvesting in accordance with the conditions of this harvest plan.
Zone 7	Non Forestry Use	Not available for harvesting under this harvest plan
Zone 8	Further Assessment	Consist of <ul style="list-style-type: none"> <li>• Mapped drainage features – identify in the field and apply EPL and TSL conditions based on actual field location,</li> <li>• Modeled drainage features - require further assessment: Further assessment of the modeled streams is to be undertaken by the SFO. Appropriate prescriptions (Schedule 4 of the EPL) are to be applied if required and noted on the harvesting operational map.</li> </ul>

### 8. Cultural Heritage Conditions

#### Aboriginal Cultural Heritage

Follow prescriptions for Aboriginal heritage sites as shown on operational map.

#### Non Aboriginal Cultural Heritage

No special conditions apply.

### 9. Flora and Fauna Conditions

10. Refer to Technical Guidance Note 2005-3A March 2005 for conditions (TSI Booklet)



### Mark-up Conditions

The SFO must search for threatened species and mark-up the block as per Conditions 5.1 (General), and 5.2 (Koala) of the TSL. The Tree Marking code is shown in the Standard Harvest Plan Conditions for Native Forest Operations in North East Region.

### Tree retention Conditions applying:

Prescription	TSL Condition
Hollow bearing and recruit trees	(Non-Regrowth Zone) 5.6 a,b
Greater Glider density > 1 per ha?	No. 6.9 does not apply.
Stag Retention	5.6e
Significant Food Resources	5.6f
Protection of Retained Trees	5.6g

### Species Known or Likely to Occur

- Recent and reliable records exist within, or within close proximity of the compartments for the following threatened species. These species require species-specific or site-specific prescriptions if further records or habitat features are identified during mark-up.

SPECIES GROUP	COMMON NAME	SCIENTIFIC NAME
Amphibians	Stuttering Frog	<i>Mixophyes balbus</i>
Mammals	Spotted-tailed Quoll	<i>Dasyurus maculatus</i>
	Golden-tipped Bat	<i>Kerivoula papuensis</i>
	Hastings River Mouse	<i>Pseudomys oralis</i>
	Brush-tailed Phascogale	<i>Phascogale tapoatafa</i>
Birds	Masked Owl	<i>Tyto novaehollandiae</i>
	Brown Treecreeper	<i>Climacteris picumnus picumnus</i>
	Glossy-black Cockatoo	<i>Calyptorhynchus lathami</i>
Flora		<i>Pomaderris notata</i>

### Site-Specific Conditions, Exclusion Zones & Modified Harvest Areas

Table 1: General Conditions

TSL Condition	TSL Condition No.	Record Details	Prescription Summary
Tree Retention	5.6 (f),(g)	14 GLBC feed trees recorded in all cpts	Retain and protect glossy black cockatoo feed trees.
Rocky Outcrops and Cliffs	5.11	2 rocky outcrops recorded in cpt T_398, 404	SFA prohibited from feature, 20m protection buffer if > 0.1ha (approx. 30m x 30m).
Burning	5.16	Threatened species have been recorded in these cpts.	The habitat requirement of threatened species must be taken into account when instigating hazard reduction burns to promote and maintain an understorey mosaic, significant areas of dense understorey vegetation and to minimise impact on large fallen logs.
Ground Habitat Protection	5.17 (b)	CWRV + small	Commercial Firewood collection is not permitted

TSL Condition	TSL Condition No.	Record Details	Prescription Summary
	5.17 (d)	mammals reptiles  Larger CWRV	Firewood licences state that timber with hollows and/or over 40 cm diameter must not be collected or damaged.

Table 2: Species-specific Conditions

TSL Condition	TSL Condition No.	Record Details	Prescription Summary
Stuttering Frog ( <i>Mixophyes balbus</i> )	6.3	4 MIX BAL records at the same locations in cpts T_403, 404  1 previous MIX BAL record within 50m of cpt T_399 boundary	Protection zone of 30m on both sides of all streams within 200m of record as mapped.
Powerful Owl ( <i>Ninox strenua</i> )  Masked Owl ( <i>Tyto novaehollandiae</i> )	6.9	1 previous POWL record in compartment T_399  1 MOWL records in cpt T_404  1 Previous MOWL record in cpt T_399	Search gully lines and heads of gullies for roost and nest sites. Condition 5.13 may be applicable to protect any roosts or nests found. <b>Landscape approach as specified in 6.9.2 will be used.</b>
Brush-tailed Phascogale ( <i>Phascogale tapoatafa</i> )	6.12	1 BTP recorded in cpt T_403  3 previous BRTP records in cpt T_398, and within 500m of cpt boundaries	Exclusion zone of 20ha to be retained as mapped. Den records must be contained within exclusion zones.
Hastings River Mouse ( <i>Pseudomys oralis</i> )	6.13	1 previous HARM record in cpt T_398	Exclusion zone of 200m radius must be implemented around all records. A further exclusion zone must be applied on all habitat of moderate or high suitability within 800m of records as mapped from field assessment.
Spotted-tailed Quoll ( <i>Dasyurus maculatus</i> )	6.15	2 TIQU records in cpts T_398, 399	Search for maternal dens, permanent dens and latrine sites. If found, stop all SFA immediately and notify Harvest Planner and/or Ecologist.

TSL Condition	TSL Condition No.	Record Details	Prescription Summary
		1 previous TIQU record within 200m of cpt boundary	

Table 3: Default Species-specific Conditions in lieu of survey

TSL Condition	TSL Condition No.	Record Details	Prescription Summary
Swift Parrot ( <i>Lathamus discolor</i> ) Regent Honeyeater ( <i>Xanthomyza phrygia</i> )	7. b) x.	Nil records	Retain 10 eucalypt feed trees (which may include habitat and recruitment feed tree species) within every 2ha of NLA. All trees where species were observed feeding must be retained.

Table 4: Other Ecological Considerations

Issue, Feature or Record	Presence	Assessment and Management Recommendations
EFC: Grey Box – Grey Gum Wet Sclerophyll Forest in the NSW North Coast bioregion.	Likely to be present - continue search.	Identify and mark in field to exclude specified forestry activities. Contact NSW ecology unit for guidance if required.

In addition to Forest Management Zone Exclusions, the following exclusion zones occur and are shown on the operational map. Boundary marking conditions for each exclusion zone are described on the HPOM and in the tree marking code.

Riparian Protection (TSL Condition 5.7)  
Ridge and Headwater Habitat (TSL Condition 5.8)

Boundary marking conditions for each exclusion zone are described on the HPOM and in the tree marking code (see Standard Harvest Plan Conditions for Native Forest Harvesting in North East Region).

#### 11. Fisheries Licence Conditions

Refer to Technical Guidance Note 2005- 02 March 2005 (Fisheries Licence Booklet)

Class 2 Aquatic Habitat (Eastern Freshwater Cod) has been identified as occurring within these compartments. Conditions of the Fisheries Licence apply.

Condition 7.9 of the Fisheries Licence apply to snig track crossings of mapped and unmapped drainage lines.

- Crossings must be approved and marked in the field prior to use
- Crossings may only be used where it is not reasonably practicable to use another route or site.
- Conditions 8.2 and 8.4 of the Fisheries Licence apply to crossings.

## 12. Soils and Water Protection Conditions

Refer to Technical Guidance Note 2005- 1C (Environment Protection Licence Booklet) & Standard Harvest Plan Conditions for Native Forest Harvesting in North East Region

Site-specific EPL conditions –

Elements	Conditions
Unmapped Drainage Lines	EPL applies
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	2
Dispersible Soils	No
Mass Movement	No
Log Dumps	Refer relevant conditions for IHL
Snig Tracks	Refer relevant conditions for IHL
Roads	See schedule 5 of EPL Booklet
Non-Haulage Roads	May be used for extraction EPL applies Remove debris on completion of operations

## 13. Legal Conditions

This operation must comply with:

- Standard Harvest Plan Condition for Native Forest Operations in North East Region
- Licence Conditions issued by Forests NSW under the Forestry Act (1916)
- State Forests of NSW Forest Practices Code - Part 2 Timber Harvesting in Native Forests February 1999 and Forest Practices Code Part 4 Forest Roads and Fire Trails (February 1999).
- Integrated Forestry Operations Approval issued under part 4 of the Forestry and National Parks Estate Act 1998 (IFOA) including the associated licences:
  - Threatened Species Conservation Licence (TSL) issued under the Threatened Species Conservation Act (1995) as amended May 2003
  - Licence issued under section 220ZW of the Fisheries Management Act 1994 (FL) as amended May 2003

## 14. Attachments

- Attachment 1: Locality Map
- Attachment 2: Harvest Plan Operational Map
- Attachment 3: Forest Type Map
- Attachment 4: Site Safety Plan prescribes describes safety requirements and Medical Emergency Evacuation Plan for this harvesting operation.
- Attachment 5: Roding Plan prescribes roading requirements for this harvesting operation.

**15. Pre-Operational Briefing**

I acknowledge that I have received a copy of the Harvesting Plan for Compartments 398, 399, 403 & 404 in Girard State Forest and that I have been briefed on the conditions of the Plan. I understand the supervision and operational control requirements as outlined in the plan.

Position	Name	Signature	Date



# ROAD WORKS PLAN

Compartments 398, 399, 403 & 404

Girard State Forest

North East Region



Prepared by: Planner

*Dan Allen*

Signature

Date: 11-4-11

Endorsed by: Works Program Supervisor

*[Signature]*

Signature

Date:

Approved by: Regional Manager

*[Signature]*

Signature

Date:

12/4/11

## GENERAL INFORMATION FOR MAINTENANCE/CONSTRUCTION CREW

### Compartment 398, 399, 403 & 404, Girard State Forest

#### 1 Need for the proposal

This proposal is required to service native forest harvesting operations within the above compartments. These compartments are scheduled for harvest in 2011.

#### 2 Costs, Benefits and Material & Plant Requirements

A full breakdown of the costs, benefits and material & plant requirements is given in the Financial Analysis spreadsheet, on file in the North East Region office.

#### 3 Specifications/Legal Conditions

- Not EPL licenced. All road works must comply with Schedule 5 of the EPL unless otherwise specified.
- FNSW Forest Practices Codes part 4, Forest Roads and Fire Trails (February 1999).
- Technical Guidance Notes for Road works.

#### 4 Special Conditions

Feature	Conditions
Cultural Heritage	Yes 20m buffer around aboriginal site on 403/2 Rd (grid: 428970 E 6786700 N)
Threatened Species Licence	See harvesting plan. Minimise disturbance within protection zones.
Dispersible Soils Hazard -	No
Mass Movement Hazard -	No
Seasonality	Yes
Engineering Design	No
Environmental impacts i.e Dust, Noise, Water, Visual	No
National Park	No
Private Property	Yes
Permit To Enter required	Yes
Quarries and Gravel Pits	No
Underground/Overhead Utilities	Yes Overhead power lines run along the entire length of Timbarra Road (crossing from side-to-side across the easement). Refer to Country Energy <i>Electrical Hazard Awareness</i> safety notice (attached) for further information re: working around overhead power lines. Conduct a risk assessment prior to working within 2 tree lengths of the powerlines
Safety Issues (includes hazards, public use of roads)	Yes See Hazard Assessment in the Site Safety Pack

**NOTE 1:** Clearing is generally permitted within 3m of the road prism for all roads. Ground disturbance and tree debris may impact outside this 3m either side of the road prism as is required to effect clearing within 3m of the road prism. Conditions 5, 6 and 47 Schedule 5 of the EPL must apply



# Road Maintenance/Upgrade

Road Name 404/2 Rd

Category PERMANENT

Location Southern most boundary road (pp boundary).

Length (m) 1350

		WORKS	YES	INSTRUCTIONS/SITE SPECIFIC CONDITIONS		
Site Info	Works >30 Slopes		<input type="checkbox"/>			
	Mass Movement		<input type="checkbox"/>			
	Dispersible		<input type="checkbox"/>			
Pavement	Upgrade	Widening	<input type="checkbox"/>	Locallon NA Formation Width (m) NA Curve Widening NA	Upgrade Length (m) Upgrade Spoil	
		Grade Lowering	<input type="checkbox"/>	NA		
		Realignment	<input type="checkbox"/>	NA		
		Reopening	<input type="checkbox"/>	NA		
	Maintenance	Clear veg/debris	<input type="checkbox"/>	NA	Maintenance Length (m)	
		Repair surface	<input checked="" type="checkbox"/>	Where necessary		
		Crown/Crossfall	<input checked="" type="checkbox"/>	Where necessary		
		Gravel	<input type="checkbox"/>	NA	Gravel Length (m)	0
Roadside/Batters	Remove trees >20 cm	<input type="checkbox"/>	Remove Dangerous trees/stags only			
	Remove trees <20 cm	<input type="checkbox"/>	Clearing outside the road prism:			
	Batter Repair/Upgrade	<input type="checkbox"/>	NA			
Drainage	Culverts	<input type="checkbox"/>		Size:	Sets:	
	Mitres	<input checked="" type="checkbox"/>				
	ROD/Spoon	<input checked="" type="checkbox"/>	Sets: 1			
	Bells/Channels	<input type="checkbox"/>	Sets:			
	Drop Downs	<input type="checkbox"/>	Sets:			
	Silt Trapping	<input type="checkbox"/>				

Comments: Reshape and drainage to EPL (dry weather haulage only).

Start Date:                      Finish Date:                      Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Road Name 404/1 Rd

Category **PERMANENT**

Location Connecting road between Timbarra Rd & 403/2 Rd.

Length (m) 3700

		WORKS	YES	INSTRUCTIONS/SITE SPECIFIC CONDITIONS	
Site Info	Works >30 Slopes		<input type="checkbox"/>		
	Mass Movement		<input type="checkbox"/>		
	Dispersible		<input type="checkbox"/>		
Pavement	Upgrade	Widening	<input checked="" type="checkbox"/>	Location Yes Formation Width (m) 3.7 Curve Widening Yes Upgrade Length (m) Upgrade Spoil	
		Grade Lowering	<input checked="" type="checkbox"/>	At intersection with Timbarra Rd.	
		Realignment	<input checked="" type="checkbox"/>	Intersection onto 404/2 Rd.	
		Reopening	<input type="checkbox"/>	NA	
	Maintenance	Clear veg/dobris	<input checked="" type="checkbox"/>	Where necessary.	Maintenance Length (m)
		Repair surface	<input checked="" type="checkbox"/>	Where necessary	
		Crown/Crossfall	<input checked="" type="checkbox"/>	Where necessary	
		Gravel	<input checked="" type="checkbox"/>	Low spot in road approx. 50m west of crossing f.	Gravel Length (m) 30
Roadside/Batters	Remove trees >20 cm	<input type="checkbox"/>	Remove Dangerous trees/stags only		
	Remove trees <20 cm	<input type="checkbox"/>	Clearing outside the road prism;		
	Batter Repair/Upgrade	<input type="checkbox"/>	NA		
Drainage	Culverts	<input type="checkbox"/>		Size: Sets:	
	Mires	<input checked="" type="checkbox"/>			
	ROD/Spoon	<input checked="" type="checkbox"/>	Sets: 1		
	Bells/Channels	<input type="checkbox"/>	Sets:		
	Drop Downs	<input type="checkbox"/>	Sets:		
	Silt Trapping	<input type="checkbox"/>			
Comments: Reshape and drainage to EPL (dry weather haulage only).					

Start Date:                      Finish Date:                      Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Road Name 403/2 Rd

Category PERMANENT

Location Follows on from 404/2 Rd.

Length (m) 1350

		WORKS	YES	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works >30 Slopes		<input type="checkbox"/>	
	Mass Movement		<input type="checkbox"/>	
	Dispersible		<input type="checkbox"/>	
Pavement	Upgrade	Widening	<input type="checkbox"/>	Location NA Formation Width (m) NA Curve Widening NA Upgrade Length (m) Upgrade Spoil
		Grade Lowering	<input type="checkbox"/>	NA
		Realignment	<input type="checkbox"/>	NA
	Maintenance	Reopening	<input type="checkbox"/>	NA
		Clear veg/debris	<input type="checkbox"/>	NA Maintenance Length (m)
		Repair surface	<input checked="" type="checkbox"/>	Where necessary
		Crown/Crossfall	<input checked="" type="checkbox"/>	Where necessary
Gravel	<input type="checkbox"/>	NA Gravel Length (m) 0		
Roadside/Batters	Remove trees >20 cm	<input type="checkbox"/>	Remove Dangerous trees/slugs only	
	Remove trees <20 cm	<input type="checkbox"/>	Clearing outside the road prism:	
	Batter Repair/Upgrade	<input type="checkbox"/>	NA	
Drainage	Culverts	<input type="checkbox"/>	Size: Sets:	
	Mitres	<input checked="" type="checkbox"/>		
	ROD/Spoon	<input checked="" type="checkbox"/>	Sets: 4	
	Bolts/Channels	<input type="checkbox"/>	Sets:	
	Drop Downs	<input type="checkbox"/>	Sets:	
	Silt Trapping	<input type="checkbox"/>		
Comments: Reshape and drainage to EPL (dry weather haulage only).				

Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

# Construction

Road Name 399/2 Rd Road Category Temporary  
 Road Length (m) 200 Road Location Between dumps 11 and 12.

## Site Information

Mass Movement	No
Dispersible	No
Ground Slope (deg)	3
>30 deg Slopes	No
Proximity Drainage	0

## Specifications

Prism Width (m)	7.5
Formation Width (m)	3.7
Pavement Width (m)	3
Roadside Width (m)	0.7
Max Grade (deg)	3 Road Length > 10Deg
Angle Cut Batter	NA Max Length Batter: 0
Angle Fill Batter	NA Max Height Batter: 0
Gravel	0 Gravel Length

## Drainage

Drainage for >10Deg

Rod/Spoon	<input checked="" type="checkbox"/> Rod/Spoon No: 1
Belt/Channel	<input type="checkbox"/> Channel/Belt No:
Mitre	<input checked="" type="checkbox"/>
Culvert	<input type="checkbox"/> Culvert Size Culvert Set Number

## Soil Erosion and Stabilisation Controls

Drop Down Type	
Sediment Trap	
Stabilisation	Compact fill batters >1m and grass seed, hay and Jutemesh
Stabilisation Interval	Fortnightly or after storm event

Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Road Name	399/3 Rd	Road Category	Temporary
Road Length (m)	700	Road Location	From existing gravel pit to dump 13.
<b>Site Information</b>			
Mass Movement	No		
Dispersible	No		
Ground Slope (deg)	4		
>30 deg Slopes			
Proximity Drainage	0		
<b>Specifications</b>			
Prism Width (m)	7.5		
Formation Width (m)	3.7		
Pavement Width (m)	3		
Roadside Width (m)	0.7		
Max Grade (deg)	4	Road Length > 10Deg	
Angle Cut Batter	NA	Max Length Batter:	0
Angle Fill Batter	NA	Max Height Batter:	0
Gravel	0	Gravel Length	
<b>Drainage</b>	Drainage for >10Deg		
Rod/Spoon	<input checked="" type="checkbox"/>	Rod/Spoon No:	5
Belt/Channel	<input type="checkbox"/>	Channel/Belt No:	
Mitre	<input checked="" type="checkbox"/>		
Culvert	<input type="checkbox"/>	Culvert Size	Culvert Set Number
<b>Soil Erosion and Stabilisation Controls</b>			
Drop Down Type			
Sediment Trap			
Stabilisation	Compact fill batters >1m and grass seed, hay and jutesh		
Stabilisation Interval	Fortnightly or after storm event		
Start Date:	Finish Date:	Soil Stabilisation Date (must be within 5 days):	
Date	Event		Initial

Road Name	403/1 Rd	Road Category	Temporary
Road Length (m)	400	Road Location	Between dumps 5 and 6.

**Site Information**

Mass Movement	No
Dispersible	No
Ground Slope (deg)	3
>30 deg Slopes	No
Proximity Drainage	0

**Specifications**

Prism Width (m)	7.5		
Formation Width (m)	3.7		
Pavement Width (m)	3		
Roadside Width (m)	0.7		
Max Grade (deg)	2	Road Length > 10Deg	
Angle Cut Batter	NA	Max Length Batter:	0
Angle Fill Batter	NA	Max Height Batter:	0
Gravel	0	Gravel Length	

**Drainage**      Drainage for >10Deg

Rod/Spoon	<input checked="" type="checkbox"/>	Rod/Spoon No:	2
Belt/Channel	<input type="checkbox"/>	Channel/Belt No:	
Mitre	<input checked="" type="checkbox"/>		
Culvert	<input type="checkbox"/>	Culvert Size	Culvert Set Number

**Soil Erosion and Stabilisation Controls**

Drop Down Type	
Sediment Trap	
Stabilisation	Compact fill batters >1m and grass seed, hay and jutomosh
Stabilisation Interval	Fortnightly or after storm event

Start Date:                      Finish Date:                      Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

# Crossing Works

Crossing Name a Road Name 403/2 Road Location 900m along 403/2 road  
 Drainage Feature 1st order DL Stream Permanency Intermittent

Existing Crossing	Size	Stability Status	Crossing Required	Size (mm/m)	Future
Pipe Culvert	450	Stable (no works)	Existing		Permanent

Crossing Works		Approaches and Road Drainage	
Pavement/Structure	Construct Ros	Approaches	Nil
Reshape Bed/banks	Nil	Temporary Drainage	Nil
Disposal of Spoil	NA	5-30m Upstream Left	Rollover
Inlet	Nil	5-30m Upstream Right	Rollover
Outlet	Nil	Practices where no 5-30	NA
Stabilisation	Nil	OutletControl	Natural vegetation
ErosionControl	Nil	TableDrain	Natural vegetation

Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

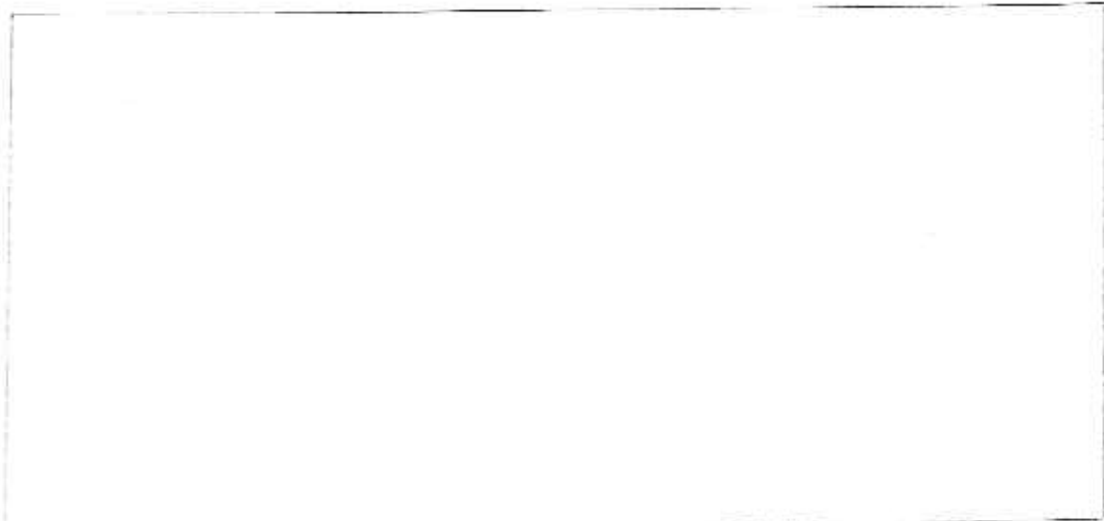
Date	Event	Initial

Crossing Name b1 Road Name 403/2 Road Location 740m along 403/2

Drainage Feature Depression Stream Permanency Intermittent

Existing Crossing	Size	Stability Status	Crossing Required	Size (mm/m)	Future
Causeway	NA	Unstable (upgrade)	Existing		Permanent

Crossing Works		Approaches and Road Drainage	
Pavement/Structure	water running 15m upstream . left , armour with gravel. Construct RO upstream left.	Approaches	Nil
Reshape Bed/banks	Reshape causeway	Temporary Drainage	Nil
Disposal of Spoil	NA	5-30m Upstream Left	Rollover
Inlet	Nil	5-30m Upstream Right	Falls away
Outlet	Nil	Practices where no 5-30	NA
Stabilisation	Nil	OutletControl	Natural vegetation
ErosionControl	Nil	TableDrain	Natural vegetation



Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial



Crossing Name b2 Road Name 403/2 Road Location 550m along 403/2 Road

Drainage Feature Depression Stream Permanency Intermittent

Existing Crossing	Size	Stability Status	Crossing Required	Size (mm/m)	Future
Causeway	NA	Stable (no works)	Existing	NA	Permanent

Crossing Works		Approaches and Road Drainage	
Pavement/Structure	Construct RO upstream left.	Approaches	Nil
Reshape Bed/banks	Nil	Temporary Drainage	Nil
Disposal of Spoil	NA	5-30m Upstream Left	Rollover
Inlet	Nil	5-30m Upstream Right	Existing crest
Outlet	Nil	Practices where no 5-30	NA
Stabilisation	Nil	OutletControl	Natural vegetation
ErosionControl	Nil	TableDrain	Natural vegetation

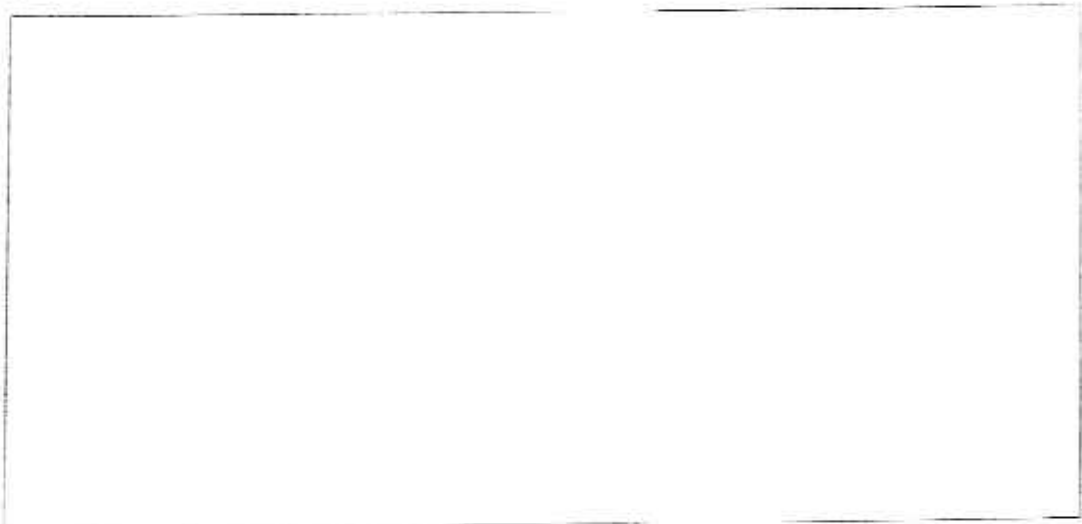
Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Crossing Name c Road Name 403/2 rd Location 240m along 403/2 Road  
 Drainage Feature Depression Stream Permanency Intermittent

Existing Crossing	Size	Stability Status	Crossing Required	Size (mm/m)	Future
Causeway	NA	Unstable (upgrade)	Existing	NA	Permanent

Crossing Works		Approaches and Road Drainage	
Pavement/Structure	Armour with gravel Water running 15m upstream left, needs armouring with gravel. Construct RO upstream left.	Approaches	Nil
Roshapo Bod/banks	Reshape causeway	Temporary Drainage	Nil
Disposal of Spoil	NA	5-30m Upstream Left	Rollover
Inlet	Nil	5-30m Upstream Right	Existing crest
Outlet	Nil	Practices where no 5-30	NA
Stabilisation	Nil	OutletControl	Natural vegetation
ErosionControl	Nil	TableDrain	Natural vegetation



Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Crossing Name d Road Name 404 2 Road Location 830m along 404/2 rd

Drainage Feature Depression Stream Permanency Intermittent

Existing Crossing	Size	Stability Status	Crossing Required	Size (mm/m)	Future
Causeway	NA	Unstable (upgrade)	Existing	NA	Permanent

Crossing Works		Approaches and Road Drainage	
Pavement/Structure	Armour with gravel Remove windrow on outlet and armour with small rock. Construct RO upstream right.	Approaches	Nil
Reshape Bed/banks	Nil	Temporary Drainage	Nil
Disposal of Spoil	NA	5-30m Upstream Left	Existing crest
Inlet	Nil	5-30m Upstream Right	Rollover
Outlet	Nil	Practices where no 5-30	NA
Stabilisation	Nil	OutletControl	Natural vegetation
ErosionControl	Nil	TableDrain	Natural vegetation



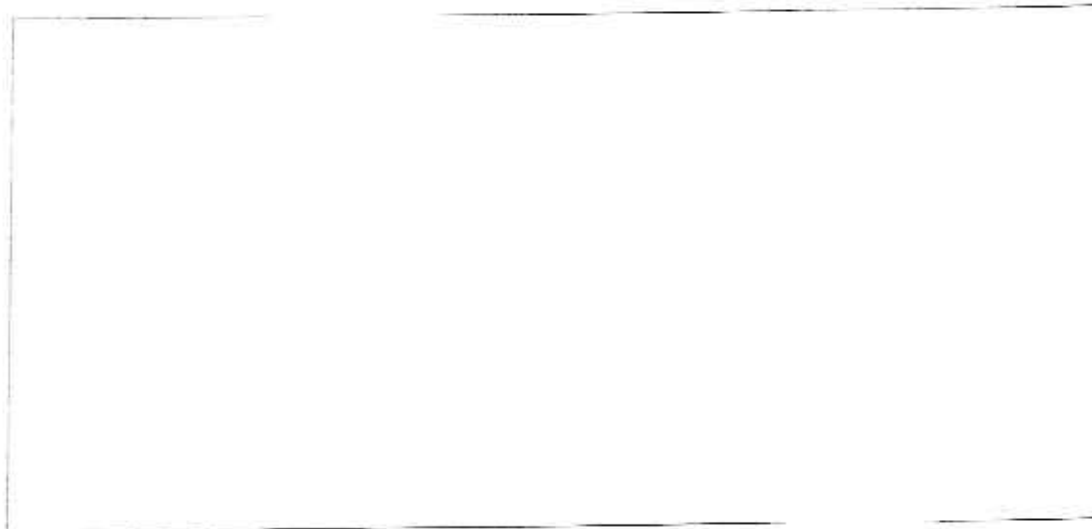
Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Crossing Name e                      Road Name 404/1 Rd                      Location 800m along 404/1 Road  
 Drainage Feature 1st order DL                      Stream Permanency Intermittent

Existing Crossing	Size	Stability Status	Crossing Required	Size (mm/m)	Future
Causeway	NA	Unstable (upgrade)	Existing	NA	Permanent

Crossing Works		Approaches and Road Drainage	
Pavement/Structure	Armour with rock Construct RO upstream left.	Approaches	Gravel both sides
Reshape Bed/banks	Reshape causeway	Temporary Drainage	Nil
Disposal of Spoil	NA	5-30m Upstream Left	Existing crest
Inlet	Nil	5-30m Upstream Right	Rollover
Outlet	Nil	Practicus where no 5-30	NA
Stabilisation	Nil	OutletControl	Natural vegetation
ErosionControl	Nil	TableDrain	Natural vegetation



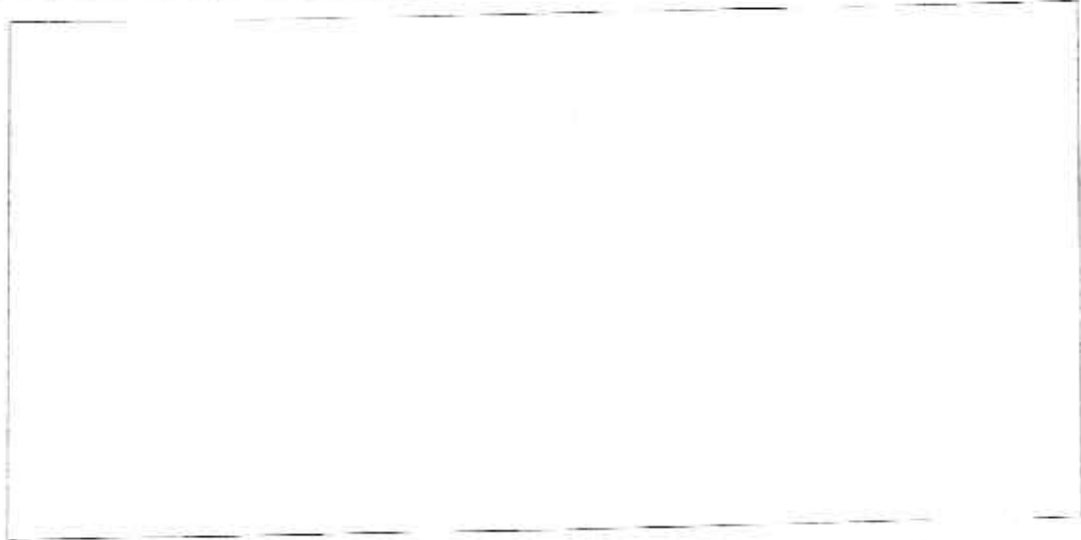
Start Date:                      Finish Date:                      Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Crossing Name : f      Road Name 404/1 Road      Location 550m along 404 1 Road  
 Drainage Feature 1st order DL      Stream Permanency Intermittent

Existing Crossing	Size	Stability Status	Crossing Required	Size (mm/m)	Future
Causeway	NA	Unstable (upgrade)	Existing	NA	Permanent

Crossing Works		Approaches and Road Drainage	
Pavement/Structure	Armour with rock	Approaches	Nil
Reshape Bed/banks	Nil	Temporary Drainage	Nil
Disposal of Spoil	NA	5-30m Upstream Left	Existing crest
Inlet	Nil	5-30m Upstream Right	Existing crest
Outlet	Nil	Practices where no 5-30	NA
Stabilisation	Nil	OutletControl	Natural vegetation
ErosionControl	Nil	TableDrain	Natural vegetation



Start Date:      Finish Date:      Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Crossing Name g      Road Name 403/2 Rd      Location 1350m along 403/2 Rd  
 Drainage Feature 3rd Order      Stream Permanency Permanent

Existing Crossing	Size	Stability Status	Crossing Required	Size (mm/m)	Future
Log bridge (destroyed)		Unstable (repair)	Causeway		Permanent
Crossing Works		Approaches and Road Drainage			
Pavement/Structure	Remove existing bridge remnants, excavate approaches, construct causeway with rock and ballast as required, armour excavated approaches with gravel (50-100m either side). Construct Ros.	Approaches	Excavate and armour		
Reshape Bed/banks	Reshape causeway	Temporary Drainage			
Disposal of Spoil	Incorporate into pavement.	5-30m Upstream Left	Rollover		
Inlet	NA	5-30m Upstream Right	Rollover		
Outlet	NA	Practices where no 5-30			
Stabilisation	Disturbed ballers: dute mesh & seed	OutletControl	Natural vegetation		
ErosionControl	Natural vegetation	TableDrain	Rock armour cut approache		



Start Date:      Finish Date:      Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

**Pre Operational briefing**

I acknowledge that I have received a copy of the Road works Plan for Compartments 398, 399, 403 & 404 Girard 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 Forest Planner or his/her delegate.

Inducted By (Signature):		Name:	
	<b>Harvest Planner</b>	Date:	
Signature:		Name:	
Position	<b>Roading Co-Ordinator</b>	Date:	

**Staff/Contractor Acknowledgment**

I acknowledge that I have received a copy of the Road works Plan for Compartments 398, 399, 403 & 404 Girard State Forest and that I understand the conditions of the Plan as explained to me by a Forests NSW officer.

**Personnel attending Induction**

Personnel (Print Name and sign)	Date	Inducted By (Print Name and sign)	Date

This pre operation briefing must be returned to NER on completion of Operations and filed with the official copy of the plan.

