

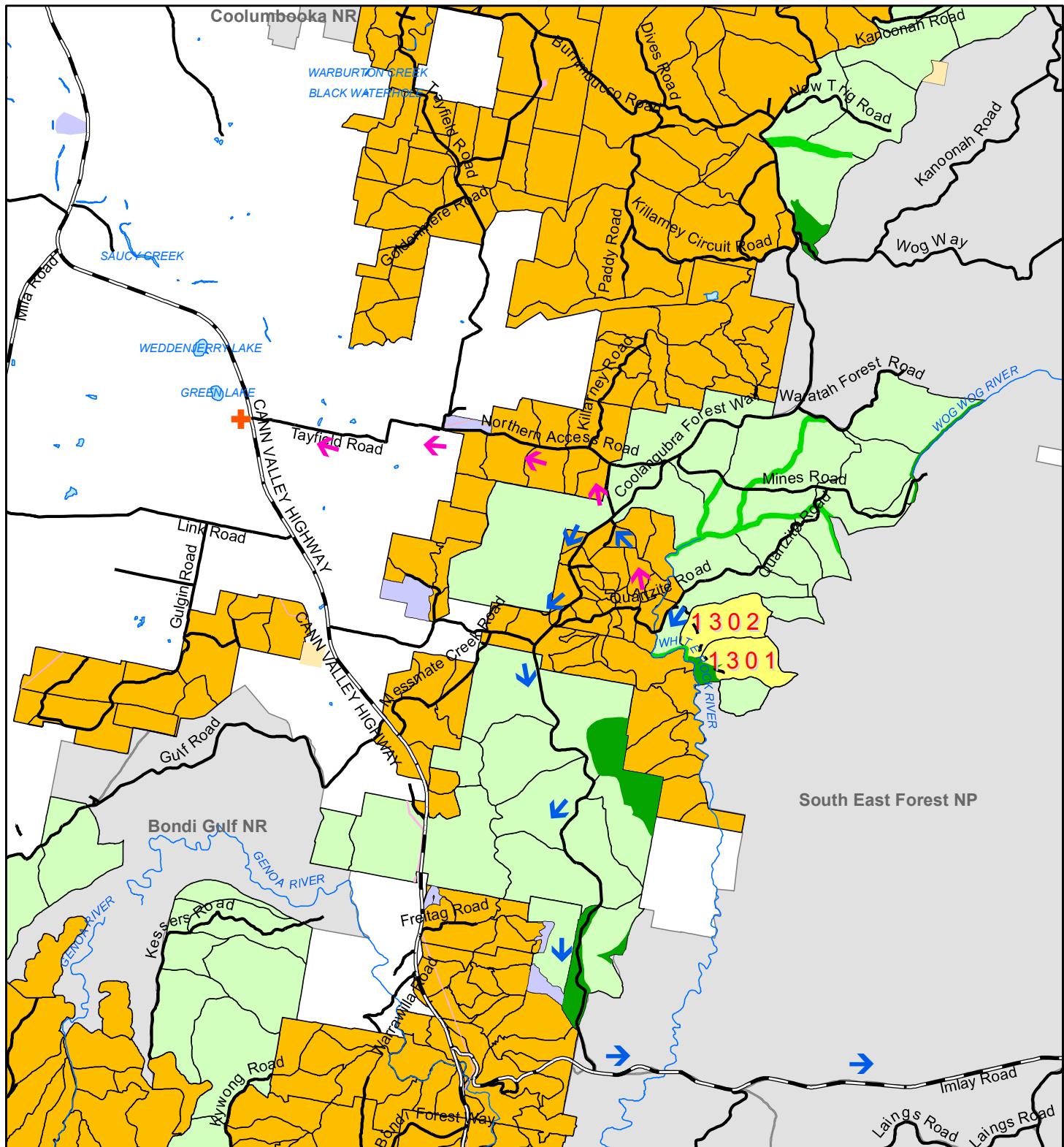
LOCALITY MAP

Compartments 1301 & 1302

State Forest:Nalbaugh No: 129

EDEN IFOA EDEN MANAGEMENT AREA

Scale: 1:100,000



Legend	<ul style="list-style-type: none"> Sealed Road Major Forest Road Minor Forest Road 	<ul style="list-style-type: none"> State Forest Planning Unit Vacant Crown Land Freehold Non Forest 	<ul style="list-style-type: none"> National Parks Formal Reserve Informal Reserve Softwood Plantations Hardwood Plantations 	<ul style="list-style-type: none"> Emergency Meeting Point and Helicopter Landing Site Evacuation Route Haulage Route
	<ul style="list-style-type: none"> Water Major Rivers 			

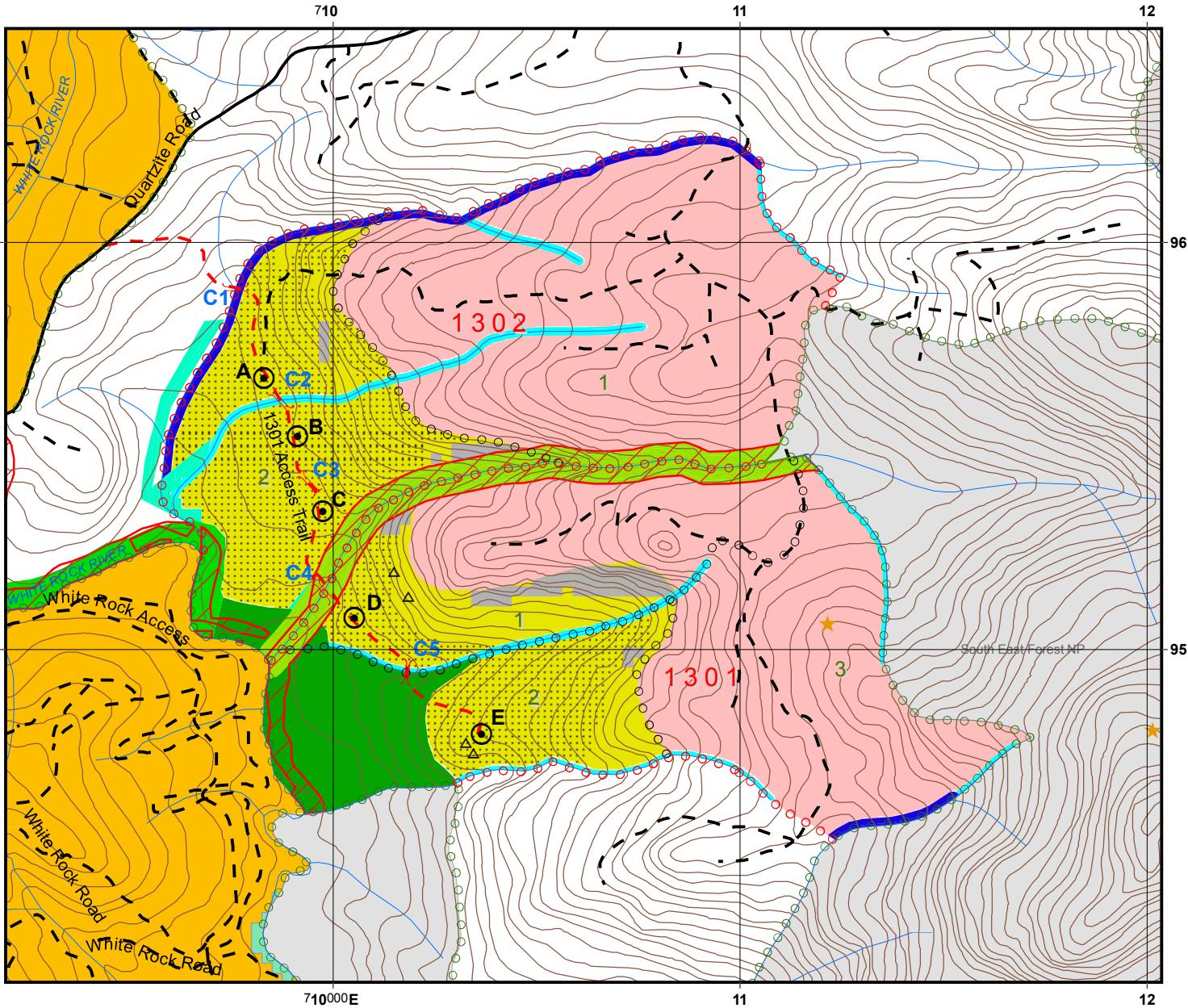
Harvest Plan Operational Map

Compartment: 1301 & 1302

State Forest: Nalbaugh No: 129

Eden IFOA

Map Sheet: Nalbaugh 8723-1N



LEGEND

BOUNDARIES

- ○ ○ State Forest Boundary
- ○ ○ Compartment Boundary
- ○ ○ Coupe Boundary

ROADS

- Major Forest
- - Minor Forest
- - - EPL Licensed (New Construction)

DUMPS & CROSSINGS

- Temporary Dry Weather
- New Crossing

DRAINAGE

- Mapped LIC Drainage

TENURE

- National Park Estate

NET HARVEST AREA

- FMZ 4 - MSW
- Verified MAF

NON HARVEST AREA

- Special Management (FMZ 2)
- Harvesting Protection (FMZ 3A)
- Softwood Plantations (FMZ 6)
- Ridge & Headwater Habitat (80m)
- Rare Forest Ecosystems
- Owl Landscape
- Excluded Forest
- IHL 4
- Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland

FAUNA

- ★ Gang-gang Cockatoo

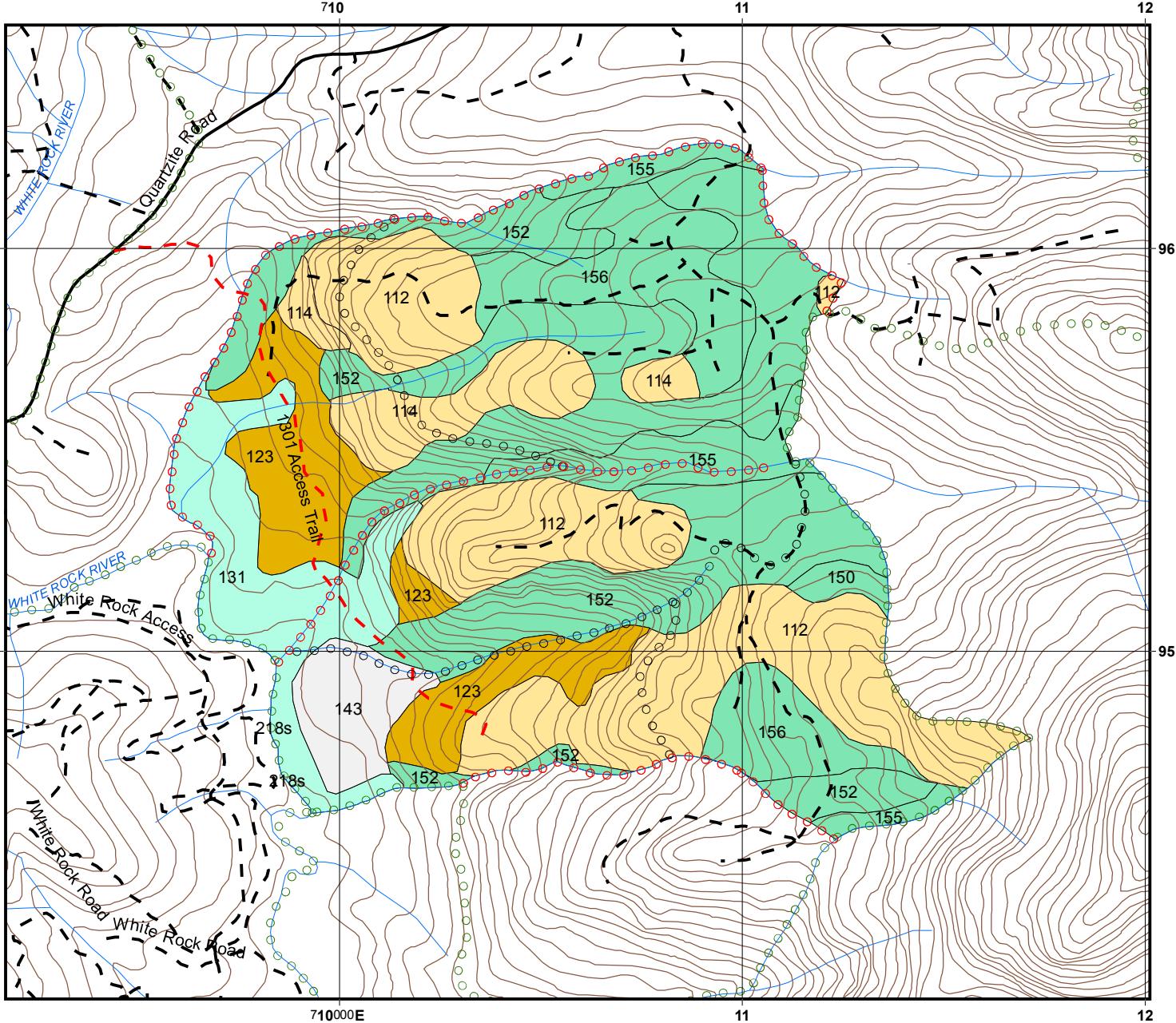
DRAINAGE FEATURE PROTECTION (EPL IHL 2 & TSL). NOTE: THE GREATER OF THE WIDTHS (BOLD) MUST APPLY

Feature	Filter Strip (EPL)	Stream Exclusion Zone (TSL)
Unmapped	10m	Nil
1st Order	15m	10m
2nd order	20m	20m
3rd order	25m	30m
4th order	25m	50m

Harvest Plan Forest Type Map

Compartment: 1301 & 1302
State Forest: Nalbaugh No: 129

Eden IFOA
Map Sheet: Nalbaugh 8723-1N



LEGEND

BOUNDARIES

- State Forest Boundary (green dashed line)
- Compartment Boundary (red dashed line)
- Coupe Boundary (white dashed line)

ROADS

- Major Forest (solid black line)
- Minor Forest (dashed black line)
- EPL Licenced (New Construction) (red dashed line)

DRAINAGE

- Mapped LIC Drainage (blue line)

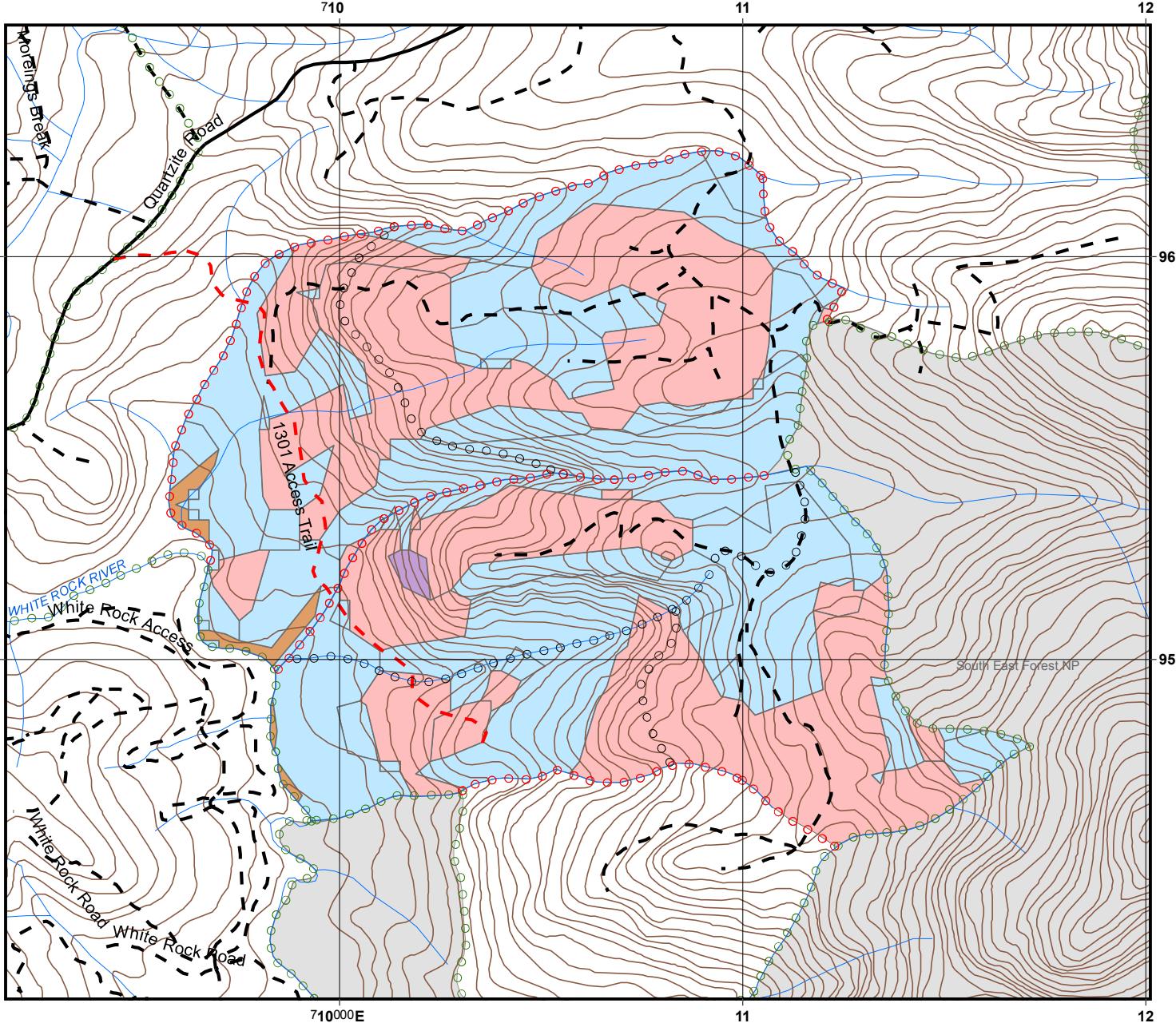
Forest Type

- | |
|---|
| Type 112 Silvertop Ash |
| Type 114 Silvertop Ash - Stringybark |
| Type 123 Coastal Stringybark |
| Type 131 Peppermint - Mountain / Manna Gum |
| Type 143 Swamp Gum / Black Gum / Broadleaved Sallee |
| Type 150 Messmate |
| Type 152 Messmate - Gum |
| Type 155 Brown Barrel - Gum |
| Type 156 Brown Barrel / Messmate - Ash |
| Type 218 Forestry Plantations |

Harvest Plan Habitat Class Map

Compartment: 1301 & 1302
State Forest: Nalbaugh No: 129

Eden IFOA
Map Sheet: Nalbaugh 8723-1N



LEGEND

BOUNDARIES
State Forest Boundary
Compartment Boundary
Coupe Boundary

ROADS
Major Forest
Minor Forest
EPL Standard (New Construction)

DRAINAGE
Mapped LIC Drainage

HABITAT CLASS

Unknown
High
Moderate
Low

TENURE

National Park Estate



HARDWOOD FORESTS- EDEN IFOA HARVESTING PLAN

Nalbaugh State Forest - Compartments 1301 & 1302

Certification

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

Prepared By: Harvest Planner	Jarod Addinsall	Approved By: Planning Supervisor	Lee Blessington
Signature	Jarod Addinsall	Signature	Jarod Addinsall
Date	14/04/2015	Date	14/04/2015

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

Other maps included with this plan are Locality, Forest Type, and Cultural Heritage (limited distribution).

Description of Proposal

Harvesting of hardwood forest

(a) Integrated Harvesting of Hardwood Forest:

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

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

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

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

Abbreviations used in this plan

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

Area Identification and Yield Estimates

State Forest	Compartment/s	Coupe/s	IFOA Region	Management Area	Certification
Nalbaugh	1301	1 & 2	Eden	Eden	AS4708:2007 ISO 14001
Nalbaugh	1302	2	Eden	Eden	AS4708:2007 ISO 14001

	Cpt 1301	Cpt 1302	Total
Plan Compartment ID	22038	22039	NA
Gross Area (ha)	115.8	116.0	231.8
Net Harvest Area (ha)	30.8	33.2	64.0
Estimated Yield Pulp (t)	2,750 t	4,750 t	7,500 t
Estimated Yield Sawlog (m3)	750 m3	750 m3	1,500 m3

Slope Classes (percent of harvest area)

Slope Class	Cpt 1301	Cpt 1302
	% of harvest area	% of harvest area
0-20°	54.7	74.4
20-25 °	20.4	13.7
25-30 °	14.6	9.6



ATTACHMENT 1: SITE SAFETY PLAN

Worksite Information			
Is this Declared Hunting Area: Yes		Comments: Hunting exclusion zone in place	
Have Exclusion Zone signs been erected or checked prior to starting work daily.		NA	
Comments:			
Description of Work to be undertaken on site: - Refer to description of proposal above.			
Site Supervisor			
Name:		Contact number:	
Communication			
Radio channel number	VHF:	UHF	
Other (e.g. hand signals):			
Traffic management (describe) e.g. Signage, Road closure, Traffic control			
This plan identifies haulage from the compartment will be west via Quartzite Road (FCNSW owned), turning right onto Pines Road (FCNSW owned), turning left onto Coolangubra Forest Way (FCNSW owned), turning left onto Imlay Rd (FCNSW owned) and then turning left onto the Princes Hwy (State Owned).			
Road intersections outside the control of FCNSW are not covered by this plan or any FCNSW Traffic Control Plan. Haulage contractors must abide by RTA road laws and standard operating procedures in relation to haulage routes outside the control of FCNSW.			
Name of on-site safety first-aider/s			
Location of first-aid kit			
SITE HAZARD & RISK ASSESSMENT NO.	CONTROL	WHO	IMPLEMENTED
1. Vehicle collision at adjoining roads of various traffic levels	Warning signs at FCNSW intersections, road closure on FCNSW roads. Implement Traffic Control plans (where specified in this harvest plan). 60km/hr speed limit on all State Forest natural surface/gravel roads unless otherwise signposted. Compliance with FCNSW lights on policy.		
2. Cliff lines & rocky very steep terrain	Operators to assess work site within two tree lengths to identify immediate hazards. Communicate to other operators and mark sites.		

3. Hazardous or dead trees	Refer to FCNSW operational safety standard OSS010 . Assess area within two tree lengths of work site. Assess risk, mark any Distinctly Dangerous Trees with the symbol Ø & if necessary remove hazard or move work site. Use machinery to assist with hazard removal if possible. Contractor is responsible for implementing control strategies during harvesting.		
4. Overhead hazards associated with dumps	Refer to FCNSW operational safety standard OSS010 . Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump site. Contractor is responsible for implementing control strategies during harvesting.		
5. Dust from passing vehicles along dirt haulage routes	Restrict speed to minimise dust generation, slow down when passing vehicles. Turn on driving and hazard lights to increase visibility.		
6.			

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



MEDICAL EMERGENCY EVACUATION PLAN

Nearest reliable mobile phone reception (describe location)			
Next G Network: Poor	GSM: N/A	Satellite: N/A	
GPS Lat/Long: 37° 02' 41" S / 149° 20' 33" E	MGA: 708330E 5897600N	Datum: GDA 94	Zone: 55
Location description: Intersection of Coolangubra Forest Way and Pines Rd.			
Emergency meeting point for ambulance / police (refer to attached locality map)			
GPS Lat/Long: 37° 01' 46" S / 149° 20' 33" E	MGA: 701812E 5899440N	Datum: GDA 94	Zone: 55
Location description: EMP 21 - Intersection of Monaro (Cann Valley) Hwy and Northern Access Road.			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 37° 01' 46" S / 149° 20' 33" E			
Location description: EMP 21 - Intersection of Monaro (Cann Valley) Hwy and Northern Access Road.			
Procedures to obtain ambulance assistance			
1. Dial 000 2. If there is no mobile coverage, dial 112 (which will work on any mobile phone system). 3. If no response on 112: <ul style="list-style-type: none">use a radio link (TARA, be discrete with personal information)move to an area with mobile coveragefind a landlineuse another network (e.g. a contractor's VHF radio)	Contact nearest Forestry Corporation office on: Channel: 247 Telephone: 1300 880 548 Give details of the situation and ask for a 000 call to be placed.		
000 operator question:	Response:		
1. Police, Fire, Ambulance?	NSW Ambulance,		
2. Suburb?	State Forest name:	Nalbaugh	
	Nearest town or locality:	Bombala	
	Nearest ambulance station:	Bombala	
3. Address?	Quartzite Road, Nalbaugh State Forest.		
4. Nearest road junction/cross street?	Monaro (Cann Valley) Hwy and Northern Access Road.		
5. Local government area?	Bombala		
6. Nature of the problem?	Describe the accident, number and condition of casualties		
7. Where is the accident?	Refer to safety meeting point above		
Directions to navigate from nearest ambulance station to the emergency meeting point. From Bombala head south on the Monaro (Cann Valley) Highway travel approx. 15km to intersection with Northern Access Rd (on left).			
8. 4WD ambulance required No	CB radio channel to use:		
9. Injuries?	Give detailed information about the condition of the casualty (do not mention names over radio system)		
10. Your name and call back number:			

Silviculture and Harvesting Prescriptions

Compartment 1301

Year	1965	1994	2007
TSI	X	X	X
HR Burning	X	X	X
Wildfires	Ø	X	X
Logging m³	0	5,843	4,594

Ø - applies, X – not applicable

Compartment 1302

Year	2007
TSI	X
HR Burning	X
Wildfires	X
Logging m³	7,324

Ø - applies, X – not applicable

Silvicultural Planning

The stands to be harvested consist primarily of mature to over-mature Mountain Grey Gum (*E.cypellocarpa*), Messmate (*E.obliqua*), Narrow-leaved Peppermint (*E.croajingolensis*) and Silvertop Ash (*E.sieberi*).

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

Harvesting Prescription

Stand type	% of net area	Area (refer to HPM for details)	Treatment (% INT, THIN)
Mature (even aged/mixed aged)	100%	Area southeast of Quartzite Rd	<ul style="list-style-type: none">• 100% Integrated (modified shelter-wood)• Target sawlogs, pulpwood and other miscellaneous products as markets allow in line with TSL and EPL requirements.• Retain potential sawlog growers.• Refer to Standard Harvest Planning Conditions for more detail.

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

IFOA Limits

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

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

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

Special Requirements

Non-harvest areas

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

Permanent Growth and Research Plots

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

Rocky Terrain

Rocky terrain occurs within the net planned area. All rocky terrain shown on the HPOM was assessed at the planning stage and is unlikely to meet the definition of a rocky outcrop or cliff. PA will continue to conduct on the ground mark-up and searches and report back to foresters/ecologist any feature requiring further investigation.

National Parks and Nature Reserves

National Park and Nature Reserve form the eastern and southern boundary of the planning unit.

No harvest disturbance is permitted within National Park or Nature Reserves.

- Harvesting debris must not be left within five metres of the boundary fence lines.
- The contractor must repair any damage to fences.
- Access roads must be maintained free of debris and in a trafficable state.
- Boundaries must be marked in the field.

Forest Management Zoning

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

FMZ 2 & 3A – Harvesting and harvesting machinery are not permitted in these areas. Prescribed burning is only permitted in these areas where fire does not conflict with underlying protection zones e.g. rainforest, cultural heritage etc. (Refer to cultural heritage flora and fauna sections of this plan and the standard harvest plan conditions for more detail).

IFOA Required Approval of Forestry Activities

Planning Supervisor approvals have been obtained for road construction, routine road maintenance and log haulage in FMZ 2 and their locations are indicated on the HPOM by FMZ approved crossing C5, and stream crossing C5. No other crossings of these features are approved. Forestry Operations within the plan area must minimise impacts to the exclusion zones and meet the requirements of the EPL and General Exclusion Zones in section of this plan.

All areas of Rare Forest Ecosystems require prior OEH approval and Stream Exclusion Zones require prior Planning Supervisor approval before forest harvesting related activities (eg: road or snig track construction & reopening) can be undertaken. It is the responsibility of the PA to identify any exclusion areas which will need to be crossed during harvesting. The PA should then contact the Harvest Planner to obtain the necessary approval.

Cultural Heritage

Cultural Heritage - There are no Cultural Heritage sites within the compartment. All relevant representatives have been consulted &/or inspected Compartment 1301 & 1302. 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 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 PA must search for and record threatened species habitat features consistent with Conditions 5.2 and 8.6 of the TSL. Searches for threatened species features must be conducted within that portion of the net planned area where harvesting will occur, and within 50 metres outside this area (eg HCVOG, etc) (conditions 5.1, 5.2 of the TSL).

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

Species adequately covered by general prescriptions:

The following species have been recorded in or around the compartments and are adequately covered by the general prescriptions. No further protection measures are required for these species: **Olive Whistler** (*Pachycephala olivacea*), **Scarlet Robin** (*Petroica boodang*), **Gang Gang Cockatoo** (*Callocephalon fimbriatum*).

Tree Retention-Non-Regrowth Zone

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

Habitat Quality	TSL Condition	Significant Food Resource*								
Dead Standing Tree (only if safe)	TSL Condition	TSL Condition								
High	12	5.6g(i)	12	5.6h(ii)	Ø	5.6l	Ø	5.6j	Ø	5.6 k
Medium	8	5.6g(ii)	8	5.6 h(ii)	Ø	5.6l	Ø	5.6j	Ø	5.6 k
Low	4	5.6g(iii)	4	5.6 h(iii)	Ø	5.6l	Ø	5.6j	Ø	5.6 k

Ø - Condition applies

General exclusion zones

General exclusions as listed below are shown on the HPOM.

Feature/Condition	TSL cond'n	Occurs within Planning Unit
Rainforest	5.4	Rainforest is not mapped within the compartment(s) #.
Rare Forest Ecosystems	5.5	Yes
Riparian Protection Zones	5.7	Yes
Ridge & Headwater Habitat	5.8	Yes
Wetlands	5.9	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Heath and Scrub	5.10	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Rocky Outcrops and Cliffs	5.11	Has been assessed as a risk that it may occur in the field. May require further investigation#.
Endangered Ecological Community	NA	Has been assessed & is unlikely to occur in the field. May require further investigation#. Removal of timber, harvesting machinery and post harvest burning must be excluded from all areas of EEC.

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

General Threatened Flora and Fauna Prescriptions

Feature	Records in 1301 & 1302	Licence conditions under the TSC Act
Threatened Frog General Protection Measures	no	5.12
Bird Nest and Roost Site	no	5.13

Feature	Records in 1301 & 1302	Licence conditions under the TSC Act
Protection		
Tree Bat Roost Protection	no	5.14.1
Subterranean Roost Protection	no	5.14.2
Protection of flying-fox Camps	No	5.14.3
Burning	Net planned area	5.16
Ground Habitat Protection	Net planned area	5.17

Species & Site-Specific Threatened Flora and Fauna Prescriptions

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

The following species have been recorded within or nearby the area and the associated prescriptions must be implemented:

Threatened species and habitat features within trigger distance	Records in 1301 & 1302	Licence conditions under the TSC Act or relevant Site-specific prescription
Green and Golden Bell Frog <i>Litoria aurea</i>	no	6.1
Giant Burrowing Frog <i>Heleioporus australiacus</i>	no	Species Management Plan
Littlejohn's Tree Frog <i>Litoria littlejohni</i>	no	6.2B
Stuttering Frog <i>Mixophyes balbus</i>	no	6.2

Threatened species and habitat features within trigger distance	Records in 1301 & 1302	Licence conditions under the TSC Act or relevant Site-specific prescription
Powerful Owl <i>Ninox strenua</i> , Barking Owl <i>Ninox connivens</i> Masked Owl <i>Tyto novaehollandie</i> , Sooty Owl <i>Tyto tenebricosa</i>	Yes	6.3 Owl Landscape Exclusion Zones occur in compartment 1301 & 1302. (Refer to HPOM).
Swift Parrot <i>Lathamus discolor</i> Regent Honey eater <i>Xanthomyza phrygia</i>	no	6.4
Black-chinned Honeyeater (eastern sub-species) <i>Melithreptus gularis gularis</i>	no	6.4 & 5.13
Southern Brown Bandicoot <i>Isoodon obesulus</i>	Yes	6.5A & Species Management Plan
Long-footed Potoroo (<i>Potorous longipes</i>)	Yes/no	If this species is identified in the compartment or within 100m of the compartment boundary inform the Senior Field Ecologist immediately to apply for a site specific prescription.
Long-nosed Potoroo <i>Potorous tridactylus</i>	no	6.7 Long-nosed Potoroo retained tree buffer is shown on the HPOM. Harvesting and burning must be excluded from these areas.
Smoky Mouse <i>Pseudomys fumeus</i>	no	Species Management Plan
Brush-tailed Phascogale <i>Phascogale tatoatafa</i>	no	6.9
Spotted tailed Quoll <i>Dasyurus maculatus</i>	Yes	6.10
Koala <i>Phascolarctos cinereus</i>	no	6.11
Squirrel Glider <i>Petaurus norfolkensis</i>	no	6.12
Yellow-bellied Glider <i>Petaurus australis</i>	Yes	6.13
Golden-tipped Bat <i>Kerivoula papuensis</i>	no	6.14

Threatened species and habitat features within trigger distance	Records in 1301 & 1302	Licence conditions under the TSC Act or relevant Site-specific prescription
Booroolong Frog <i>Litoria booroolongensis</i>	no	If this species is identified in the compartment/s or within 100m of the compartment boundary/boundaries cease operations immediately and contact the PS.
Rosenberg's Monitor <i>Varenus rosenbergi</i>	no	If this species is identified in the compartment/s or within 100m of the compartment boundary/boundaries cease operations immediately and contact the PS.
Eastern Bristlebird <i>Dasyornis brachypterus</i>	no	If this species is identified in the compartment/s or within 100m of the compartment boundary/boundaries cease operations immediately and contact the PS.
Broad-toothed Rat <i>Mastacomys fuscus</i>	no	If this species is identified in the compartment/s or within 100m of the compartment boundary/boundaries cease operations immediately and contact the PS.
Eastern Pygmy Possum <i>Cercartetus nanus</i>	no	If this species is identified in the compartment/s or within 100m of the compartment boundary/boundaries cease operations immediately and contact the PS..
Eastern Quoll <i>Dasyurus viverrinus</i>	no	If this species is identified in the compartment/s or within 100m of the compartment boundary/boundaries cease operations immediately and contact the PS.
Acacia georgensis, Allocasuarina diminuta subsp. Annectans, Astroloba pinifolium, Boronia nana var. hyssopifolia, Botrychium austral, Bracteantha viscosa, Caustis recurvata, Correa baeuerlenii, Eucalyptus ignorabilis, Eucalyptus tereticornis, Lasiopetalum parvifolium, Logania pusilla, Lysimachia vulgaris var. Davurica, Mazus pumilio, Pomaderris Bodalla, Pomaderris parrisiae, Psoralea adscendens, Rutidosis leptorrhynchoides, Santalum obtusifolium, Trachymene humilis, Leionema ralstonii	no	6.17 Where practicable, minimise damage to individuals from specified forestry activities.
Astrotricha sp. Wallagaraugh, Callistemon forresterae, Chamaesyce psammogeton, Correa lawrenceana subsp. Genoensis, Corybas undulatus, Cryptostylis hunteriana, Davallia pyxidata, Eucalyptus parvula, Eucalyptus pulverulenta, Euphrasia scabra, Galium austral, Gentiana baeuerlenii, Pomaderris cotoneaster, Pomaderris	no	6.18 Apply 10m exclusion around individuals. If colonies of more than 5 individuals are found apply 6.18 d) additional modified harvesting zone.

Threatened species and habitat features within trigger distance	Records in 1301 & 1302	Licence conditions under the TSC Act or relevant Site-specific prescription
<i>elachophylla, Prasophyllum canaliculatum, Pseudanthus ovalifolius, Pultenaea pedunculata, Thelymitra atronitida, Thesium australe</i>		
<i>Deyeuxia accedens, Festuca asperula, Festuca hookeriana, Poa cheelii, Poa costiniana</i>	no	6.19
Narrabarba Wattle <i>Acacia constablei</i> , Hidden Violet <i>Viola cleistogamoides</i> (OR any other plant species you encounter within 2km of the cpt/s which is not listed in Table 1 of the TSL)	no	6.18 Apply 10m exclusion around individuals. If colonies of more than 5 individuals are found apply 6.18 d) additional modified harvesting zone.

Fisheries Licence Conditions

There are no known records of threatened fish species or class 1 or 2 aquatic habitat relevant to this operation. The conditions of the fisheries licence are not triggered for this operation.

Soils and Water Protection

Refer to EPL Booklet & Standard Plan Conditions

Site-specific EPL Conditions

Elements	Conditions
Unmapped Drainage Lines	EPL applies
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	2
Dispersible Soils	No
Seasonality Harvesting Exclusions	No
Seasonality Burning Exclusions	No
Log Dumps	Refer relevant conditions for IHL
Snig Tracks	Refer relevant conditions for IHL
Roads	See Schedule 5 of EPL Booklet
Slope limits for harvesting	Refer to Schedule 4B.3 of EPL

Log Dump Location

Five log dumps are indicated on the HPOM. Field location of log dumps must utilise the most level site available consistent with the location indicated on the HPOM. Inherent hazard level 2 Conditions 26, 27, 28, 30, 31 and 33 of Schedule 4 of the EPL must apply.

Expected Felling/ Extraction & Loading Method

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

Drainage Feature Crossings

Five road crossings (C1, C2, C3, C4 and C5) are approved for use on drainage features. (Refer to HPOM). Crossing details are contained in Attachment 2 of this Plan.

Mass Movement

Compartments 1301 & 1302 is not in an area identified as having a potential for mass movement. No specific prescriptions relating to mass movement/snigging are required.

Suitability of existing log dams and gully stuffers

There are no known log dams or gully stuffers on snig track crossings or road crossing in the compartments.

Condition 47 of Schedule 4 of the EPL must apply.

Road Works

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

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

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

Post Log Burning Control Lines

To assist the post log burning crews prevent fire from entering areas to be excluded from burning, control line construction must be undertaken concurrently with harvesting. Where possible snig tracks patterns should be designed to double as control lines. Control lines must be located as close as reasonably practical to the feature to be excluded from burning. The PA must assess the areas harvested, snig track network and existing roads to determine if there are sufficient control lines in place and where required instruct the contractor to construct additional mineral earth control lines to supplement these. The PA must record instances where it was not possible to construct a suitable control line close to the feature to be excluded and recommend harvest areas which should be excluded from the post log burning operation due to inadequate control lines.

The table below lists critical boundaries in compartments 1301 & 1302. Where possible design snig track patterns so they double as bare earth containment lines as close as possible to these boundaries. Where this is not practical, it is NOT necessary to construct a bare earth break along boundary of the exclusion; the practice of no direct ignition will be followed.

Critical boundary	Completed Yes /No
FMZ 2	
FMZ 3A	
Owl Landscape / Ridge & Headwater Habitat	

Rare and Non Commercial Forest Ecosystem	
South East Forest National Park	

Legal Conditions

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

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

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

The IFOA also contains three licences issued under:

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

This harvest plan will be managed in the field under:

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

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

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

Pre Operational Briefing

I acknowledge that I have received a copy of the Harvesting Plan for Compartments 1301 & 1302 in Nalbaugh State Forest and that I have been briefed on the conditions of the Plan and understand the supervision and operational control requirements as explained to me by the PS or his/her delegate.

Position	Name	Signature	Date

Details to Record in PA Notes

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

Post Harvest Mapping Features Confirmation Checklist

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

PA Feature Usage Record

Dates of commencement and cessation of logging

Date of commencement of logging: _____

Date of cessation of logging: _____

DUMP USAGE RECORD

- Record the commencement and completion of harvesting at each dump
 - Record the occurrence of temporary stopping of harvesting at each dump.

*At completion of snig track/dump, track drainage must be completed within **2** days unless soil is saturated.

*At temporary cessation of snig track use, track drainage must be completed within **5** days unless soil is saturated.

Situations where drainage could not be completed due to saturated soils must be recorded in PA Notes.

Snig/Extraction Track Crossing Record

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

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

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

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

Weekly and Bi-weekly inspection

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

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

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

Weekly and Bi-weekly inspection

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

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

1._____

2._____

3._____

4._____

5._____

6._____

7._____

8._____

9._____

Weekly and Bi-weekly inspection

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

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

1._____

2._____

3._____

4._____

5._____

6._____

7._____

8._____

9._____

Weekly and Bi-weekly inspection

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

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

1._____

2._____

3._____

4._____

5._____

6._____

7._____

8._____

9._____

PA Notes

PA Notes (continued)

PA Notes (continued)

PA Notes (continued)

PA Notes (continued)

Clearance Certificate

COMPARTMENTS: 1301 & 1302, Nalbaugh STATE FOREST

To Production Assistant

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

I certify that:

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

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

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

Contractor

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

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

Last inspection was made on(Date)

Signed(Date)
Production Assistant

Post Logging Information

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

Summary of silvicultural treatment

Treatment type	Area (ha) subject to treatment (PA estimate)	Number of AGS gaps created	Comments
Integrated/Modified shelterwood			
Thinning			
Post Harvest Silviculture			

Actual area harvested (record on attached HPOM)

Give reasons for harvestable areas that were not harvested (eg. Too steep, defective timber). Make reference to map.

Post Logging Basal Area sweeps

Comply with maximum Thinning BA removal of 75%?

Y/N

Possible next cut (tick appropriate boxes)

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

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

ATTACHMENT 2**ROADING PLAN****Summary of Roading Requirements**

Feature	Details	Works Required
Existing roads to be used.	0m/0	NA
New roads to be constructed	1,800m/1	Yes
Existing crossings used	0	NA
New crossings to be constructed	5	Yes
Length of road >10°	300m	Yes
Borrow pits and gravel pits	0	NA
Mass movement prescriptions apply	No	NA
Dispersible soil conditions apply	No	NA
Seasonality provisions apply	No	NA

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

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

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

CHECKLIST OF WORKS REQUIRED ON ROADS & CROSSINGS

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
1301 Access Trail	Refer to new road construction form. RC/PA Comments:			
C1	Refer to C1 crossing form and C1 schedule 6 RC/PA Comments:			
C2	Refer to C2 crossing form and C2 schedule 6 RC/PA Comments:			
C3	Refer to C3 crossing form. RC/PA Comments:			
C4	Refer to C4 crossing form and C4 schedule 6 RC/PA Comments:			
C5	Refer to C5 crossing form and C5 schedule 6 RC/PA Comments:			

NEW ROAD CONSTRUCTION

Road Specific Conditions:

Road Name	Road Length (m)	Max. width of road prism (m)	Max. road grade (length road >10 degrees?)	Max. ground slope (length road >30 degrees?)	Estimated Max. height of cut / fill batters (m)	Estimated Max length of batters (m)	Mass movement / dispersible soils	Final road use	Responsibility	Start Date	Finish Date
1301 Access Trail	1,800m	7m	12° (300m)	20°	<1.5 m	250m	No	Retain	Contractor		

General Instructions for road construction:

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

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