



LOCALITY MAP

Compartments 48, 49 & 50
East Boyd State Forest No. 127

EDEN IFOA: EDEN MANAGEMENT AREA
Scale: 1:100,000

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Scale: 1:100,000

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This map illustrates the road network and land use in the Kiah and Wonboyn regions. Key features include:

- Roads:** PRINCES HIGHWAY, Twenty Three Mile Road, Swamp Road, Cockatoo Road, Link Road, Old Bridge Road, Mountain Road, Centre Ridge Road, Bruce's Creek Road, Leigh Road, Irela Road, Timms Road, Ludwigs Road, Corduroy Road, Marrabat-a Road, Banksia Road, Imlay Road, Burrawang Road, Goanna Road, Muster-ing Ground Road, Upper Kiah Road, Shelleys Road, Ash Road, Duck Creek Road, Duck Cape Road, Duck Hole Road, Hut Road, Edrom Road, Nevets Road, Hutt Forest Road, Scrubby Creek Road, Wombat Road, Wonboyn Road, and Imlay NP Road.
- Rivers:** WONOBOYN RIVER, STEVENS CREEK, BULL CREEK, and MERRICA RIVER.
- Land Use:** State Forest (light green), Planning Unit 49 (yellow), Planning Unit 50 (light yellow), Vacant Crown Land (orange), Non Forest (pink), Formal Reserve (dark green), Informal Reserve (medium green), National Parks (grey), and National Parks - Declared Wilderness (diagonal lines).
- Towns & Localities:** KIAH and WONBOYN.
- Emergency Points:** Towns, Sealed Road, Major Forest Road, Minor Forest Road, Non Forest, Freehold, Emergency Meeting Point / Helicopter Landing Area, Evacuation Route, and Haulage Route.

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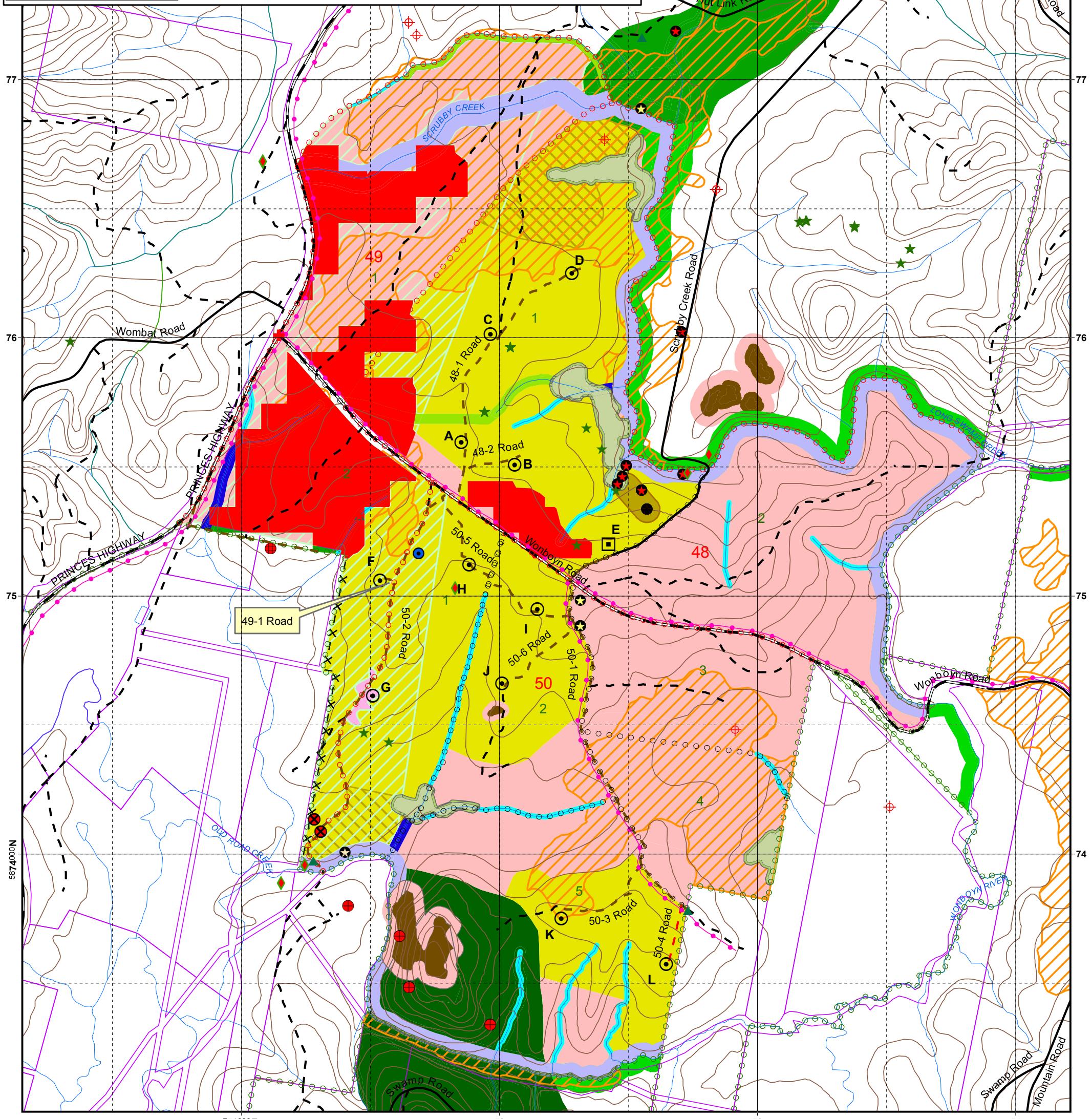
Harvest Plan Operational Map

Compartments: 48, 49 & 50

State Forest: East Boyd No:127

Eden IFOA

Map Sheet: Narrabarba 8823-2N & Kiah 8823-1S


LEGEND
BOUNDARIES

○ ○ State Forest Boundary

○ ○ Compartment Boundary

○ ○ Coupe Boundary

- - - - Proposed Control Line

ROADS

— Sealed

— Major Forest

- - Minor Forest

— EPL Standard Existing (Major)

- - EPL Standard Existing (Minor)

- - - EPL Licenced (New Construction)

DUMPS & CROSSINGS

○ Temporary Dry Weather

□ Temporary Wet Weather

○ Permanent Bee Set Down

DRAINAGE

— Mapped LIC Drainage

NET HARVEST AREA

FMZ 4 - MSW

FMZ 3B

FLORA FEATURES

○ Acacia constablei

FAUNA FEATURES

○ Powerful Owl

○ Masked Owl

○ Yellow-bellied Glider (Heard)

○ Yellow-bellied Glider

○ Glossy Black-Cockatoo (Feed Tree)

○ Glossy Black-Cockatoo

○ Southern Brown Bandicoot

○ Long-nosed Potoroo

○ Scarlet Robin

○ Sooty Owl

○ Eastern Pygmy-possum

NON HARVEST AREA

○ Special Protection (FMZ 1)

(Narrabarba Flora Reserve)

○ Special Management (FMZ 2)

○ Harvesting Protection (FMZ 3A)

○ Non Forest Use (FMZ 7)

(Abandoned Quarry)

○ Ridge & Headwater Habitat (40m)

○ Probable Rock & Exclusion Zone (40m)

○ Probable Heath & Exclusion Zone (10m)

○ Owl Landscape

○ High Conservation Value Old Growth

○ Excluded Forest

○ Southern Brown Bandicoot Habitat (Indicative)

○ Long-nosed Potoroo Retention Area

○ Eastern Pygmy-possum Exclusion Zone

(50 m radius and 100m wide link)

SAFETY POINTS
○ Emergency Meeting Point/
Helicopter Landing Area
TENURE

○ Private Property

MAP FEATURES

○ Underground Cable

**DRAINAGE FEATURE PROTECTION (EPL
IHL 1 & TSL). NOTE: THE GREATER OF
THE WIDTHS (BOLD) MUST APPLY**

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

0 125 250 500 750 1,000 Meters
Contour Interval 10m

Harvest Plan Forest Type Map

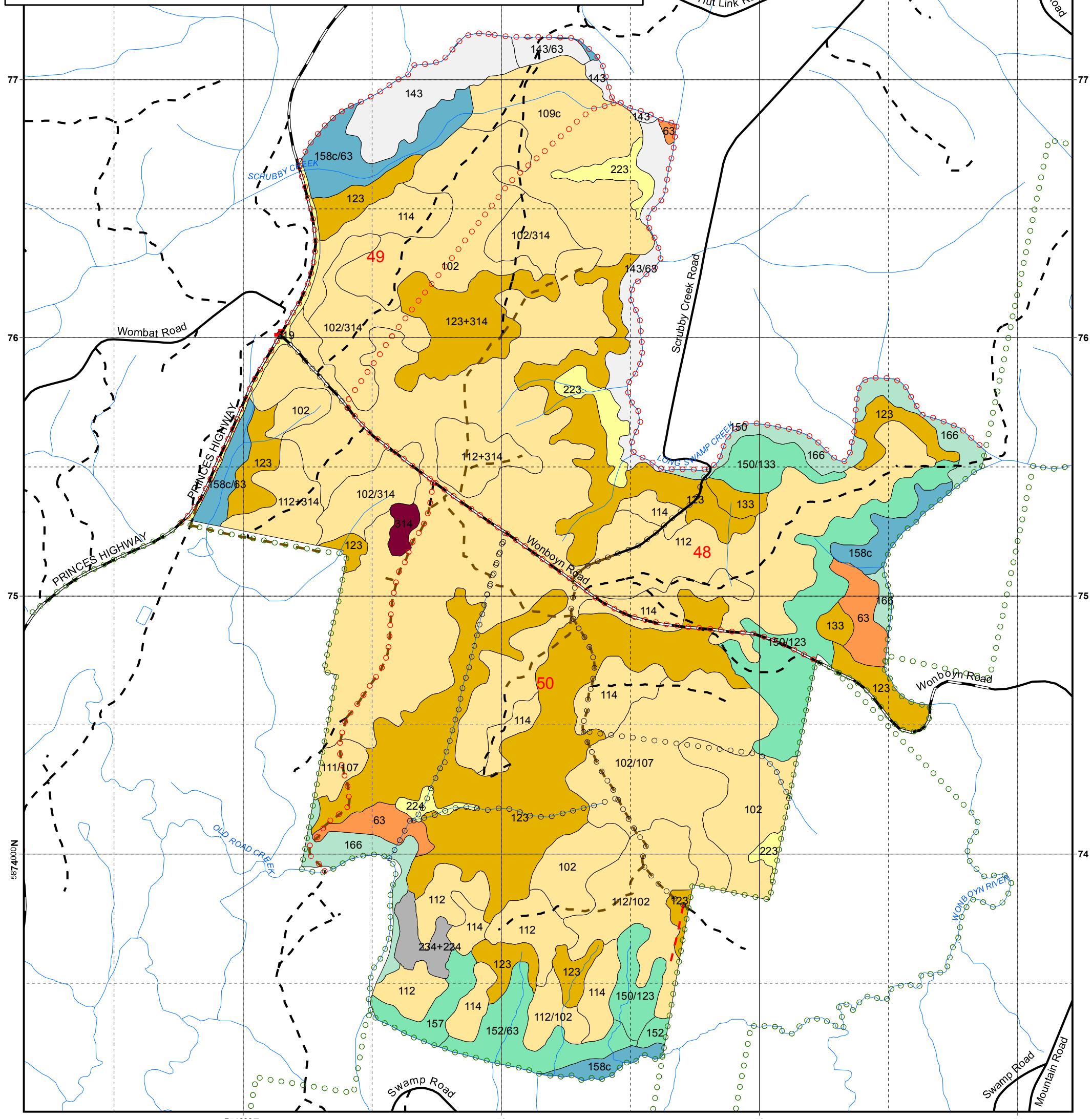
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Prepared By: Julia Clark



LEGEND

BOUNDARIES

State Forest Boundary (green line)

Compartment Boundary (red line)

Coupe Boundary (black line)

ROADS

Sealed (solid line)

Major Forest (thick solid line)

Minor Forest (dashed line)

EPL Standard Existing (Major) (brown line)

EPL Standard Existing (Minor) (brown line)

EPL Licenced (New Construction) (red line)

DRAINAGE

Mapped LIC Drainage (blue line)

FOREST TYPES - RN17

Type 63 Woollybutt (orange)

Type 102 Yertchuk (light orange)

Type 109 Brittle Gum (yellow)

Type 111 Peppermint (yellow)

FOREST TYPES - RN17	
Type 112 Silvertop Ash	
Type 114 Silvertop Ash - Stringybark	
Type 123 Coastal Stringybark	
Type 133 Stringybark - Appletopped Box	
Type 143 Swamp Gum / Black Gum / Broadleaved Sallee	
Type 150 Messmate	
Type 152 Messmate - Gum	
Type 157 Yellow Stringybark - Gum	
Type 158 Southern Blue Gum	
Type 166 River Peppermint	
Type 314 She-Oak	
Type 219 Settlements, Roads, gravel Pits, etc.	
Type 223 Heath	
Type 224 Scrub	
Type 234 Rock	

FOREST TYPES - RN17

ForestType	No.	Ha
Woollybutt	63	9.26
Yertchuk	102	107.67
Brittle Gum	109	29.84
Peppermint	111	3.12
Silvertop Ash	112	206.93
Silvertop Ash - Stringybark	114	34.75
Coastal Stringybark	123	129.24
Stringybark - Appletopped Box	133	3.65
Swamp Gum/Black Gum/Broadleaved Sallee	143	25.42
Messmate	150	31.93
Messmate - Gum	152	11.26
Yellow Stringybark - Gum	157	4.95
Southern Blue Gum	158	21.05
River Peppermint	166	16.35
She-Oak	219	2.64
Settlements, Roads, Gravel Pits, etc.	223	8.34
Heath	224	1.54
Scrub	234	4.02
Rock	314	1.77

Scale: 1:15,000

Contour Interval 10m

Harvest Plan Habitat Class Map (Indicative)

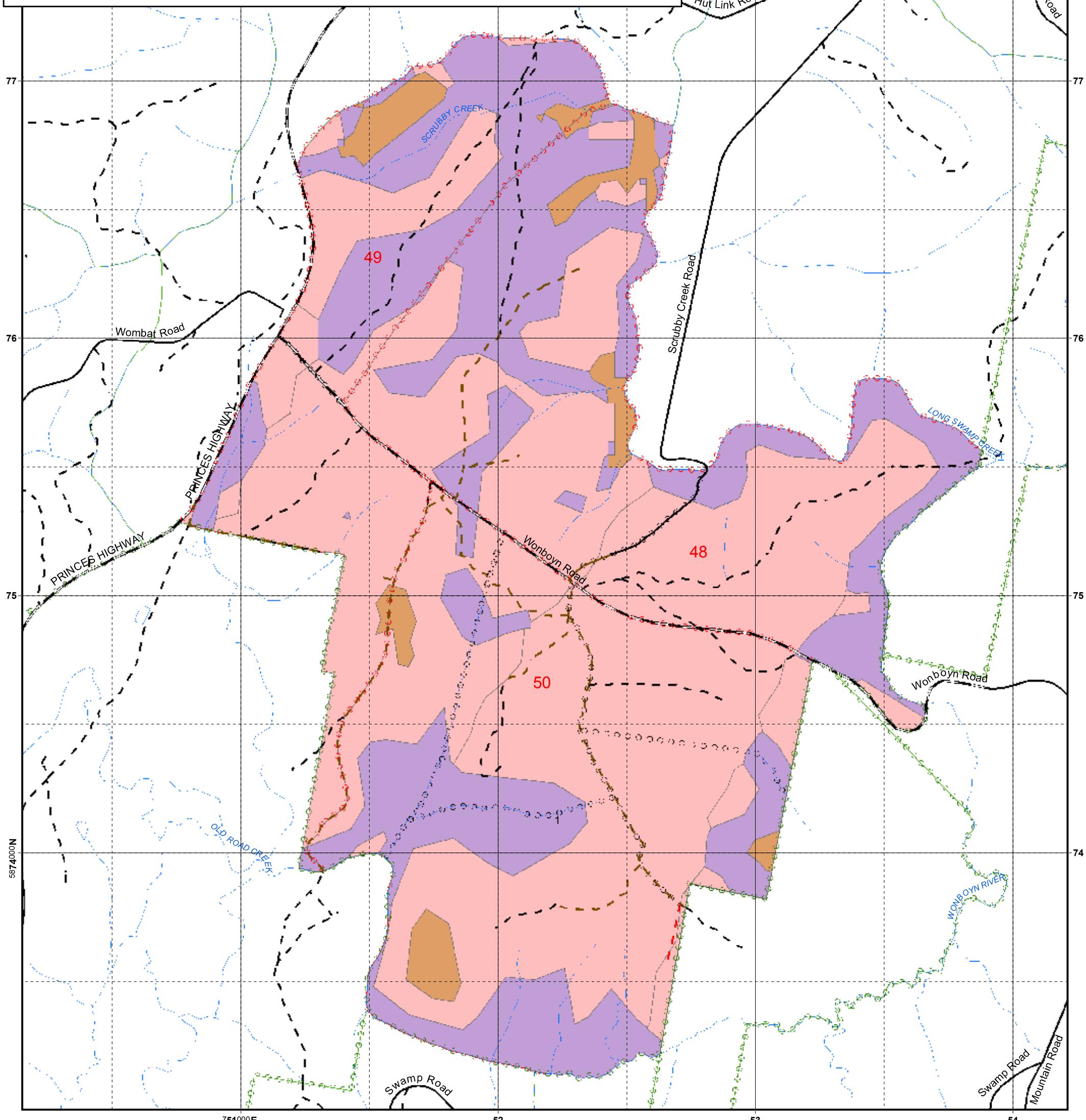
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LEGEND

BOUNDARIES

- State Forest Boundary (green line)
- Compartment Boundary (red line)
- Coupe Boundary (black line)

ROADS

- Sealed (black line)
- Major Forest (thick black line)
- Minor Forest (dashed black line)
- EPL Standard Existing (Major) (brown line)
- EPL Standard Existing (Minor) (dashed brown line)
- EPL Licenced (New Construction) (red line)

DRAINAGE

- Mapped LIC Drainage (blue line)

HABITAT CLASS

- Unknown (brown)
- High (light blue)
- Moderate (purple)
- Low (pink)

0 125 250 500 750 1,000 Meters Scale: 1:15,000 Contour Interval 10m



HARDWOOD FORESTS- EDEN IFOA HARVESTING PLAN

East Boyd State Forest - Compartments 48, 49 and 50

Certification

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

Prepared By: Harvest Planner	Julia Clark	Approved By: Planning Supervisor	Lee Blessington
Signature	Julia Clark	Signature	Lee Blessington
Date	01.12.2014	Date	01.12.2014

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

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

Description of Proposal

Harvesting of hardwood forest

(a) Integrated Harvesting of Hardwood Forest:

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

(b) Roadside Vegetation Control for Wonboyn Road

Wonboyn Road is a shire road. There is a 30m road reserve along this road. With Council approval, roadside vegetation control will occur up to a maximum of 10m on the southern side of Wonboyn Road within the boundary of these compartments. This will reduce the fire hazard risk for the vicinity of this area and improve the safety conditions of Wonboyn Road by improving sight distances of road intersections and the removal of hazardous trees overhanging Wonboyn Road as well as allowing for better drying condition for Wonboyn Road.

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	Compartments	Coups	IFOA Region	Management Area	Certification
East Boyd	48	1 (part)	Eden	Eden	AS4708:2007 ISO 14001
East Boyd	49	1 (part) 2 (part)	Eden	Eden	AS4708:2007 ISO 14001
East Boyd	50	1, 2 (part) & 5 (part)	Eden	Eden	AS4708:2007 ISO 14001

	Cpt 48	Cpt 49	Cpt 50	Total
Plan Compartment ID	21835	21836	21837	NA
Gross Area (ha)	231.3	149.0	276.2	656.5
Net Harvest Area (ha)	94.9	22.1	104.3	221.3
Estimated Yield Pulp (t)	6,453t	1,746t	3,755t	11,954t
Estimated Yield Sawlog (m3)	1,139 m3	221 m3	626 m3	1,986 m3

Slope Classes (percent of harvest area)

Slope Class	Cpt 48 % of harvest area	Cpt 49 % of harvest area	Cpt 50 % of harvest area
0-20°	100	100.0	100
20-25 °	0.0	0.0	0.0
25-30 °	0.0	0.0	0.0



ATTACHMENT 1: SITE SAFETY PLAN

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 gravel roads unless otherwise signposted. Compliance with FCNSW lights on policy.		
2. Underground cables, pipelines		There are marker posts for the Telstra cable along Wonboyn Road (E751816 N5875409, E751903 N5875343, E752279 N5875076) and 50-1 road (E752282 N5874903, E752326 N5874548). These markers are marked with pink tapes. Minimise ground disturbance across or along cables particularly at the junction of Wonboyn Road and 48-1 Road and along 50-1 Road. Increase depth of earth cover if required.		
3. 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.		
4. Mine shafts/quarries		There is an abandoned quarry site on the boundary of Compartments 49 and 50 on 50-2 Road. This is a flat area that has partially regenerated and present no safety hazard to the harvesting operation.		
5. 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. Traffic Controllers on Imlay Road are to wear hard hats at all times.		
6. 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.		
7. 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.		
8. Trucks colliding with oncoming school buses on Wonboyn Road weekdays 7.15-8.00am and 4.00-4.45 pm.		Use UHF channel 3 (channel used by school buses) whilst travelling along Wonboyn Road. When approaching corners communicate trucks location and/or direction of travel to alert bus drivers.		

9.			
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- 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 time.

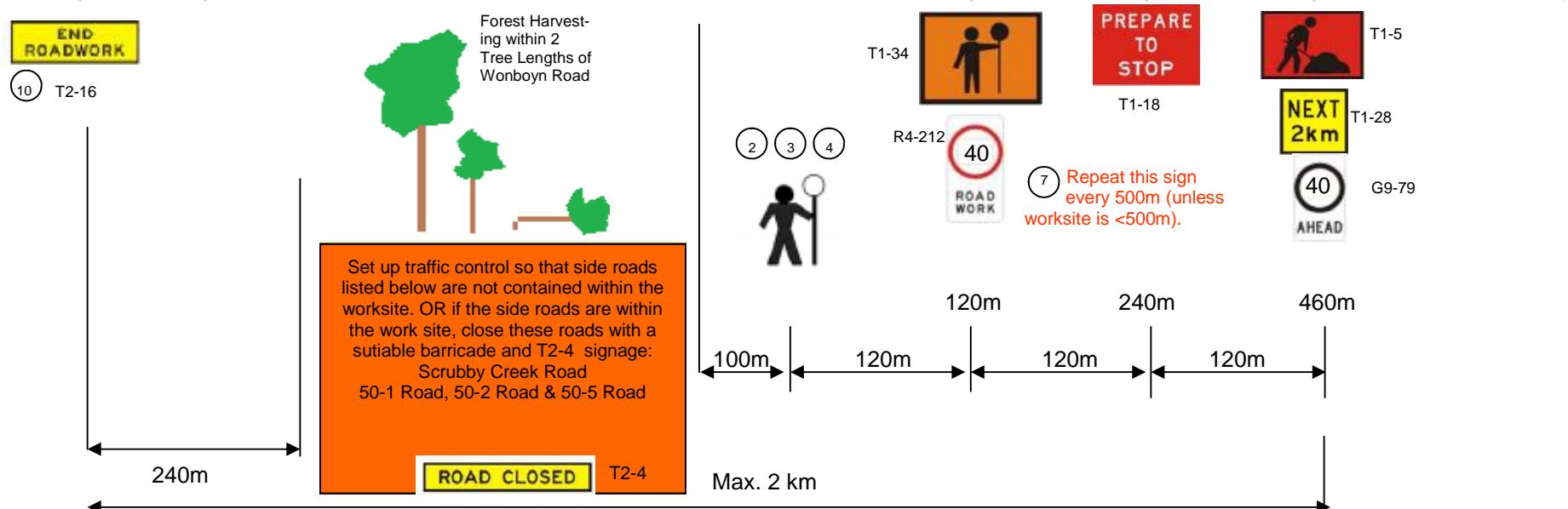
Forestry Corporation NSW Hardwood Forests Traffic Control Plan 78: Harvesting within 2 Tree Lengths of Wonboyn Road
East Boyd State Forest Compartments 48, 49 & 50
(modified from RTA Traffic Control at Work Site TCP 78)



7 Repeat this sign every 500m (unless worksite is <500m).
 R4-212

5

Wonboyn Road



Notes:

1. Each stoppage less than 5 minutes.
2. Traffic controllers to stop traffic for duration of work and then direct traffic past work area, once tree falling has ceased and any debris has been cleared from road.
3. Traffic controllers and tree faller to maintain radio contact so that no tree felling is occurring while traffic is let through. Traffic controller to be located at least two tree length from falling operation at all times.
4. Traffic controller must have sight distance to oncoming traffic of at least 150m. Traffic controller must wear hardhat at all times.
5. Traffic control plan must be mirrored.
6. Where possible the worksite should be less than 500m to minimise the distance traffic is required to travel 40km/hr through the worksite. The worksite MAY be longer than 500m but only if this is the only way to set the traffic control up with adequate sight distances for the traffic controller.
7. Where worksite is more than 500m, repeater R4 212 (40km speed limit) signs are required every 500m.
8. Roadwork signs are to be covered when not in use (meal breaks and shift breaks).
9. Permanent road signs which contradict this TCP must be covered whilst TCP is in operation.

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

Prepared by Julia Clark ,

Reviewed & Approved by Rob Young: Red Card Certificate No.5192053861 on 24/10/2014



MEDICAL EMERGENCY EVACUATION PLAN

Nearest reliable mobile phone reception (describe location)					
Next G Network: Good	GSM: N/A		Satellite: N/A		
GPS Lat/Long: 37° 13' 43" S / 149° 49' 50" E	MGA: 751147E 5876009N	Datum: GDA 94	Zone: 55		
Location description: Higher points on Wonboyn Rd					
Emergency meeting point for ambulance / police (refer to attached safety map)					
GPS Lat/Long: 37° 13' 43" S / 149° 49' 50" E	MGA: 751147E 5876009N	Datum: GDA 94	Zone: 55		
Location description: Intersection of Wonboyn Road and Princes Highway.					
Helicopter landing place (refer to attached safety map)					
GPS Lat/Long: 37° 13' 43" S / 149° 49' 50" E					
Location description: Intersection of Wonboyn Road and Princes Highway.					
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 coverage • find a landline • use 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: East Boyd Nearest town or locality: Wonboyn Nearest ambulance station: Eden				
3. Address?	Wonboyn Road				
4. Nearest road junction/cross street?	Scrubby Creek Road and Wonboyn Road				
5. Local government area?	Bega Valley				
6. Nature of the problem?	Describe the accident, number and condition of casualties				
7. Where is the accident?	Refer to safety meeting point above				
Directions to navigate from nearest ambulance station to the emergency meeting point. From Eden head south on the Princes Highway travel approx. 23 km to the intersection with Wonboyn Road (on left).					
8. 4WD ambulance required Y / N	CB radio channel to use:				
9. Injuries?	Give detailed information about the condition of the casualty (do not mention names over radio system)				
10. Your name and call back number:					

Silviculture and Harvesting Prescriptions

Compartment 48

Year	1951	1976	1980	1999	2002	2004
TSI	X	X	X	X	X	Ö
HR Burning	X	X	X	Ö	Ö	X
Wildfires	Ö	X	Ö	X	X	X
Logging m³	X	2,298	X	X	X	5,167

Ö - applies, X – not applicable

Compartment 49

Year	1951	1976	1980	1999	2002	2004
TSI	X	X	X	X	X	X
HR Burning	X	X	X	X	Ö	X
Wildfires	Ö	X	Ö	X	X	X
Logging m³	X	X	X	X	X	X

Ö - applies, X – not applicable

Compartment 50

Year	1951	1976	1980	1992	2002	2004
TSI	X	X	X	X	X	Ö
HR Burning	X	X	X	Ö	X	X
Wildfires	Ö	X	Ö	X	X	X
Logging m³	X	X	X	X	X	1,157

Ö - applies, X – not applicable

Silvicultural Planning

In Compartments 48 and 50, the stands to be harvested consist primarily of mature to over-mature Silvertop Ash (*E. siberi*), and Yellow Stringybark (*E. muelleriana*) from previous wildfires in 1951 and 1980 and patches of thinned areas in 2004.

In Compartments 49 the stands to be harvested consist primarily of mature to over-mature Silvertop Ash (*E. siberi*), and Yellow Stringybark (*E. muelleriana*) from previous wildfires in 1951 and 1980.

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

Harvesting Prescription

Stand type	% of net area	Area (refer to HPOM for details)	Treatment (% INT, THIN)
Mature (even aged/mixed aged)	100%	FMZ 3B visual in western part of Coupe 2 in Compartment 48, Coupe 2 of Compartment 49 and western part of Coupe 1 in Compartment 50. Rest of nha in Coupes 2 and 5 of Compartment 50.	<ul style="list-style-type: none"> • 100% Integrated (modified shelter-wood) • Target sawlogs, pulpwood and other miscellaneous products as markets allow in line with TSL and EPL requirements. • Retain potential sawlog growers. • Refer to Standard Harvest Planning Conditions for more detail.
Mature (mixed age)	~10%	Up to max. of 10 m strip along the southern side of Wonboyn Road.	<p>Roadside vegetation control:</p> <ul style="list-style-type: none"> • The 10 m roadside vegetation control distance is to be measured from the edge of the road prism (road prism as defined in EPL definitions). Any merchantable timber located within the road prism is also to be removed. • Where possible and safe to do so, trees are to be pushed, rather than cut, in order to remove root ball. This will facilitate future grooming of road edges and enable maintenance of breaks with slashing. • All stems are to be assessed for future hazard potential. Any tree that is deemed to be a potential safety risk or overhanging Imlay Road should be removed for safety and to allow for better drying of Wonboyn Road. • Where operationally possible all harvesting debris (root balls, tree heads and unmerchantable stems) is to be windrowed in the area outside of this strip. • To facilitate the burning of the windrow, tree heads are to be compacted with the windrow height and width not exceeding 3 m and the pushing of mineral earth into the windrow is to be minimised as far as operationally practical. As far as operationally practicable, avoid pushing windrow within 5 m of retained trees. • To achieve a minimum of 70% ground cover, seed area within 5 days of the completion of the operation.

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

IFOA Limits

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

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

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

Special Requirements

Non-harvest areas

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

Noxious Weeds/Disease/Pests Hygiene Requirements

Compartments 48, 49 and 50 are within Bega Valley Shire Council which is a designated red zone for Myrtle Rust. In order to prevent the spread of Myrtle Rust all harvesting machinery, equipment and vehicles heading west from Bega Valley Shire Council or south into Victoria must be inspected for vegetation containing Myrtle Rust. If present, the vegetation must be removed from the harvesting machinery, equipment or vehicle prior to leaving the compartments.

The soil-borne pathogen *Phytophthora cinnamomi* has been detected in the vicinity of Compartment 48 within the Scrubby Creek Catchment. The fungus could also potentially be present within Compartments 49 and 50. As a precaution to limit the spread of Phytophthora, the following conditions must be implemented.

- Trucks, Contractor and PA vehicles are to remain within the designated log dump locations and remain on licensed roads.
- Excavator operator is to ensure that all loose dirt/plant material is bumped from the logs before loading onto truck.
- If walking in the forest away from dumps and roads, you must brush loose dirt from boots and spray with a 50% metho/water mix from a spray bottle before leaving the dump or compartments daily.
- Wash down all plant and vehicles which have ceased operating from one designated log dump prior to moving to another within the planning unit, using a slip-on with foam on to remove all dirt and mud.
- All contractor machinery is to be thoroughly washed down to remove all dirt/mud after the completion of the operation and before being floated from the compartments – PA to supervise.

Permanent Growth and Research Plots

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

Private Property

Private properties occur adjacent to the eastern boundary of Compartment 48 and the western and southern western boundaries of the Compartment 49 and the eastern boundary of Compartment 50, as indicated on the HPOM. Private property owners have been notified of the scheduled harvesting and post-harvest burning. The table below lists neighbours who adjoin Compartments 48, 49 and 50.

Name	Lot/DP Number (s)	Postal Address	Contact number (& email if available)	Was harvest plan notification letter returned to sender?	Pre burn notification done?
	1/1017989 & 100/11029 59			No	
	4/750222			No	
	17/750222			No	
	6/750222			No	
	15 & 19/750239			No	
	101/11029 59			No	

- No harvest disturbance is permitted on private property.
- Harvesting debris must not be left within five metres of the boundary fence lines.
- Any damage to fences must be repaired by the contractor.
- Access roads must be maintained free of debris and in a trafficable state.

Occupation Permits

Apiary

An apiary site 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	Site Number	Contact number	Pre burn notification complete?
	AU 15		

- The PA must provide the apiary permittee with at least two weeks advance notice when bee boxes need to be removed or relocated.
- If the permanent apiary set down site located off the side of 50-2 Road in Coupe 1 of Compartment 50 (see HPOM) is disturbed, it must be levelled and free of debris at the completion of logging.
- Permanent sites must not be ripped.

Rocky Terrain

Rocky terrain occurs within the net planned area. A rocky outcrop is located south of Dump J in Coupe 2 of Compartment 50 as shown on HPOM. PA will continue to conduct on the ground mark-up and searches and report back to foresters/ecologist any feature requiring further investigation.

Underground Cables

A dial before you dig request query of the compartments indicates that underground Telstra cables are present along the northern side of Wonboyn Road along the western side of 50-1 Road. Dial before you dig and field markers (where located) have been used to indicate the approximate location of the cable on the HPOM. Prior to any harvesting or roading activity taking place in the vicinity of the cables, the PA should inspect the area for markers or other evidence of the cables and flag with marking tape.

When carrying out harvesting or road maintenance activities near cables, minimise ground disturbance across or along and increase depth of earth cover if required.

From time to time above ground infrastructure associated with the cables occurs. Where this infrastructure is detected, the PA should pass the location and details on to the burning supervisor who should consider if extra protection measures (eg rake hoe line) are required.

Any damages to cables must be immediately reported to Telstra on 13 22 03.

Forest Management Zoning

FMZ 1-Special Protection (Narrabarba Flora Reserve), FMZ 2 – Special Management, FMZ 3A Harvesting Excluded (Wildlife Corridor), FMZ 3B-Special Prescriptions (visual), FMZ 7 – Non Forest Use (Abandoned quarry site) and FMZ 4- General Management (normal harvesting prescriptions apply) occur within the compartments. Refer to HPOM for more detail.

FMZ 3B (Visual) – A visual protection zone exists next to the Princes Highway. Normal harvesting is permitted and will be carried out within the area of this zone that is not directly adjacent to the Princes Highway. Refer to HPOM.

FMZ 1, 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. owl landscape, rainforest, cultural heritage etc. (Refer to cultural heritage flora and fauna sections of this plan and the standard harvest plan conditions for more detail).

FMZ 7 – Prescribed burning is only permitted if fire does not conflict with the specific non-forest use of the site.

IFOA Required Approval of Forestry Activities

Approvals have not been obtained for snig track construction and/or use, road construction, road re-opening, routine road maintenance and log haulage in FMZ 1/2/3A. If the PA identifies the need for harvesting related activities to occur within FMZ1/2/3A during the operation, the Harvest Planner must be contacted to seek Planning Supervisor approval.

All areas of High Conservation Value Old Growth and Owl Landscape require prior OEH approval and Stream Exclusion Zones require prior Planning Supervisor approval before forest harvesting related activities (eg: road or snig track construction and 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 -

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 within the Harvesting Plan and the HPOM, must be amended accordingly and the appropriate conditions 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: **Glossy Black-Cockatoo** (*Calyptorhynchus lathami*), **Little Lorikeet** (*Glossopsitta pusilla*), **Flame Robin** (*Petroica phoenicea*), **Scarlet Robin** (*Petroica boodang*), **Gang Gang Cockatoo** (*Callocephalon fimbriatum*).

Tree Retention-Non-Regrowth Zone

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

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

Ø - Condition applies

*X Glossy black cockatoo feed trees occur within Compartments 48 and 50 at locations shown in the table below.

Species	Feature	Zone	GDA Easting	GDA Northing	Comments
Glossy Black-Cockatoo	Feed tree	55	752338	5875652	Marked with orange tape.
Glossy Black-Cockatoo	Feed tree	55	752301	5875197	Marked with orange tape.
Glossy Black-Cockatoo	Feed tree	55	752453	5875409	Marked with orange tape.
Glossy Black-Cockatoo	Feed tree	55	752398	5875570	Marked with orange tape.
Glossy Black-Cockatoo	Feed tree	55	751943	5875714	Marked with orange tape.
Glossy Black-Cockatoo	Feed tree	55	752043	5875964	Marked with orange tape.
Glossy Black-Cockatoo	Feed tree	55	751572	5874435	Marked with orange tape.
Glossy Black-Cockatoo	Feed tree	55	751475	5874471	Marked with orange tape.

General exclusion zones

General exclusions as listed below are shown on the HPOM.

Feature/Condition	TSL cond'n	Occurs within Planning Unit
Rare Old Growth Forest Communities	5.3	Yes
Rainforest	5.4	Has been assessed and is unlikely to occur in the field. May require further investigation. (#)
Riparian Protection Zones	5.7	Yes
Ridge & Headwater Habitat	5.8	Yes
Wetlands	5.9	Has been assessed and is unlikely to occur in the field. May require further investigation. (#)
Heath and Scrub	5.10	Has been assessed as a risk that it may 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 and 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 and searches and report back to the supervising forester and ecologists any features requiring further investigation.

General Threatened Flora and Fauna Prescriptions

Feature	Records in 48, 49 and 50	Licence conditions under the TSC Act
Threatened Frog General Protection Measures	No	5.12
Bird Nest and Roost Site Protection	No	5.13
Tree Bat Roost Protection	No	5.14.1
Subterranean Roost Protection	No	5.14.2
Protection of flying-fox Camps	No	5.14.3
Burning	Net planned area	5.16
Ground Habitat Protection	Net planned area	5.17

Species and 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 and inform the 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 48, 49 and 50	Licence conditions under the TSC Act or relevant Site-specific prescription
Powerful Owl <i>Ninox strenua</i> , Sooty Owl <i>Tyto tenebricosa</i>	Yes	6.3 Owl Landscape Exclusion Zones occur in Compartments 48, 49 and 50 (Refer to HPOM).
Southern Brown Bandicoot <i>Isoodon obesulus</i>	Yes	6.5A and Species Management Plan
Long-nosed Potoroo <i>Potorous tridactylus</i>	Yes	6.7 Long-nosed Potoroo retained tree buffer is shown on the HPOM. Harvesting and burning must be excluded from these areas.
Yellow-bellied Glider <i>Petaurus australis</i>	Yes	6.13

Threatened species and habitat features within trigger distance	Records in 48, 49 and 50	Licence conditions under the TSC Act or relevant Site-specific prescription
Eastern Pygmy Possum <i>Cercartetus nanus</i>	Yes	<p>If this species is identified in the compartments or within 100m of the compartment boundaries, cease operations immediately and contact the PS.</p> <ul style="list-style-type: none"> • An exclusion zone must be implemented which includes the area within a 50 m radius of this record north of Dump E in Coupe 1 of Compartment 48 as well as a 100 m wide linkage to the stream exclusion zone and the heath and scrub exclusion zone north east of this record. (Refer to HPOM) • Specified forestry activities are prohibited within the exclusion zone. • Trees must not be felled into the exclusion zone. If a tree is felled into the exclusion zone then no part of that tree may be removed from the exclusion zone. • Harvesting machinery is prohibited from operation in the exclusion zone. • Commercial firewood collection is not permitted in Compartment 48. • While TSL condition 5.6(k)(v) - “Damage to flowering or fruiting baksias and <i>Xanthorrhoea</i> species should be avoided during forestry operation”, particular care must be taken in this operation to minimise disturbance to all flowering or fruiting heath vegetation including but not limited to species of the genera <i>Banksia</i>, <i>Callistemon</i>, <i>Grevillea</i>, <i>Melaleuca</i> and <i>Xanthorrhoea</i>. • Prevent disturbance within 100 m of the exclusion zone where clumps of flowering <i>Banksia serrata</i> form the dominant understorey. • Post-harvest burning within Compartment 48 must reflect the ecological values required by the Eastern Pygmy Possum and its habitat.

Narrabarba Wattle <i>Acacia constablei</i> , (OR any other plant species you encounter within 2km of the cpt/s which is not listed in Table 1 of the TSL)	Yes	6.18 Apply 10m exclusion around individuals. If colonies of more than 5 individuals are found apply 6.18 (d) additional modified harvesting zone. Note there are records of this species within the southern part of Compartment 50 in the FMZ 1 – Special Protection Area (Narrabarba Flora Reserve)
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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 and Standard Plan Conditions

Site-specific EPL Conditions

Elements	Conditions
Unmapped Drainage Lines	EPL applies
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	1
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

12 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 1 Conditions 26, 27, 30, 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/forwarder, and loading method is by excavator.

Drainage Feature Crossings

There are no drainage feature crossings required for this harvesting operation.

Mass Movement

Compartments 48, 49 and 50 are not in an area identified as having a potential for mass movement. No specific prescriptions relating to mass movement/snigging are required.

Suitability of existing log dams and gully stuffers

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

Condition 47 of Schedule 4 of the EPL must apply.

Road Works

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

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

Roads within the compartment boundaries 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 48, 49 and 50. 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 1 – Special Protection (Narrabarba Flora Reserve)	
FMZ 2 – Special Management / High Conservation Value Old Growth/ Owl Landscape	
Probable Rocky Outcrop and exclusion zone.	
Probable Heath and exclusion zone.	
Ridge and Headwater Habitat	
Excluded forest	
Eastern Pygmy-possum Exclusion Zone	

The table below lists critical boundaries in compartments 48, 49 and 50. 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, PA must instruct contractor to construct a bare earth break (drained as per EPL snig track conditions) as close as possible to the critical boundary.

Critical boundary	Completed Yes /No
Private property boundaries – south-eastern boundary of Coupe 2 of Compartment 49.	

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 48, 49 and 50 in East Boyd 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	Yes	New	Yes		
Wetlands	No				
Cultural Heritage	No				
Existing Roads	Yes	New	Yes		
New Roads	Yes	New	Yes		
Heath	No				
Powerlines etc	No				
Other – Coupling the compartments	No	New	Yes		

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 cessation 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: 48, 49 and 50

EAST BOYD STATE FOREST, EDEN IFOA

ToProduction Assistant

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

I certify that:

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

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

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

Contractor

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

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

Last inspection was made on(Date)

Signed(Date).....

Production Assistant

Post Logging Information

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

Summary of silvicultural treatment

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

Actual area harvested (record on attached HPOM)

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

Possible next cut (tick appropriate boxes)

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

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

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

Feature	Details	Works Required
Existing roads to be used.	5540m/9	Yes
New roads to be constructed	250m/1	Yes
Existing crossings used	0	0NA
New crossings to be constructed	0	0NA
Length of road >10°	0	NA
Borrow pits and gravel pits	0	NA
Mass movement prescriptions apply	No	NA
Dispersible soil conditions apply	No	NA
Seasonality provisions apply	No	NA

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

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

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

CHECKLIST OF WORKS REQUIRED ON ROADS & CROSSINGS

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
Scrubby Creek Road (200 m) <i>FCNSW Responsibility</i>	<p>Clear and reshape entire length.</p> <p>Clear up to 3 m on either side to facilitate truck movement.</p> <p>Install additional drainage structures according to EPL specifications.</p> <p>Do not dig down at the start of road where the Telstra cable is.</p> <p>RC/PA Comments:</p>			
48-1 Road (1100 m) <i>Contractor Responsibility</i>	<p>Clear and reshape entire length.</p> <p>Clear up to 3 m on either side to facilitate truck movement.</p> <p>Install additional drainage structures according to EPL specifications.</p> <p>Do not dig down at the start of road where the Telstra cable is.</p> <p>RC/PA Comments:</p>			

<p>48-2 Road (220 m)</p> <p><i>Contractor Responsibility</i></p>	<p>Clear and reshape entire length. Clear up to 3 m on either side to facilitate truck movement. Install additional drainage structures according to EPL specifications.</p> <p>RC/PA Comments:</p>			
<p>49-1 Road (60 m)</p> <p><i>Contractor Responsibility</i></p>	<p>Clear and reshape entire length. Clear up to 3 m on either side to facilitate truck movement. Install additional drainage structures according to EPL specifications.</p> <p>RC/PA Comments:</p>			
<p>50-1 Road (1450 m)</p> <p><i>Contractor Responsibility</i></p> <p><i>FCNSW Responsibility (Post harvesting)</i></p>	<p>Clear and reshape entire length. Clear up to 3 m on either side to facilitate truck movement. Install additional drainage structures according to EPL specifications.</p> <p>Do not dig down off the side of the road where the Telstra cable is.</p> <p>Upon completion of harvesting operation, grade road to allow ease of trafficability for private use.</p> <p>RC/PA Comments:</p>			
<p>50-2 Road (900 m)</p> <p><i>Contractor Responsibility</i></p> <p><i>FCNSW Responsibility (Post harvesting)</i></p>	<p>Clear and reshape entire length. Clear up to 3 m on either side to facilitate truck movement. Install additional drainage structures according to EPL specifications.</p> <p>Upon completion of harvesting operation, grade road to allow ease of trafficability for private use.</p> <p>RC/PA Comments:</p>			

50-3 Road (400 m) <i>Contractor Responsibility</i>	Clear and reshape entire length. Clear up to 3 m on either side to facilitate truck movement. Install additional drainage structures according to EPL specifications. RC/PA Comments:		
50-5 Road (800 m) <i>Contractor Responsibility</i>	Clear and reshape entire length. Clear up to 3 m on either side to facilitate truck movement. Install additional drainage structures according to EPL specifications. RC/PA Comments:		
50-6 Road (410 m) <i>Contractor Responsibility</i>	Clear and reshape entire length. Clear up to 3 m on either side to facilitate truck movement. Install additional drainage structures according to EPL specifications. 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
50-4 Rd	250m	7m	2°	3°	<1m	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	

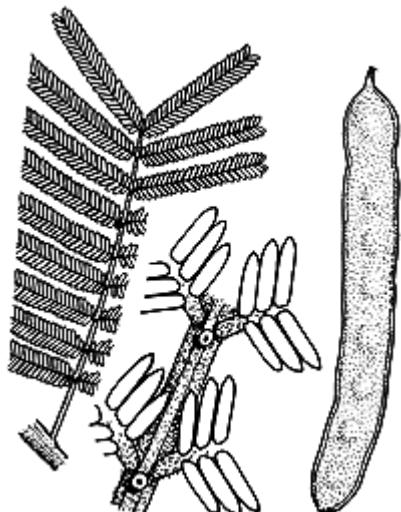
Note: Maintenance works not completed by Roading Coordinator must be recorded and passed on to the PA.

Acacia constablei Tindale

Family **Fabaceae**
Subfamily **Mimosoideae**

Acacia constablei Tindale **APNI***

Synonyms: *Racosperma constablei* (Tindale) Pedley **APNI***



Description: Erect to straggly, often slender or whipstick-like shrub 1–3 m high, sometimes to 5 m high in protected areas; bark smooth, mottled light to medium grey; branchlets angled to terete, with knobbly ridges, minutely greyish-hairy.

Leaves with petiole 0.2–1 cm long, hairy, usually 1 gland at base of or below basal pair of pinnae; rachis usually 1.7–5 cm long (rarely to 8.5 cm long), with knobbly-undulate ridges, hairy, jugary glands present at all or most pairs of pinnae (sometimes to 1 mm or more below pinnae and appearing more interjugary), interjugary glands rare; pinnae mostly 6–15 pairs, 0.8–3 cm long; pinnules 9–30 pairs, oblong to narrowly oblong, thick, 1.5–2.5 mm or sometimes to 4 mm long, usually 0.5–0.8 mm wide, subglabrous, ciliate and a tuft of hairs at apex.

Inflorescences in axillary or terminal racemes or sometimes panicles; peduncles usually 2–6 mm long, appressed-hairy; heads globose, 30–45-flowered, 5–7 mm diam., pale yellow.

Pods ± straight or sometimes slightly curved, ± flat, ± straight-sided but often irregularly constricted between seeds, 3–11.5 cm long, 7–10 mm wide, leathery, with minute ± appressed hairs, glabrescent; seeds longitudinal; funicle filiform.



Illustration
Robin Griffiths



Habitat
Photo A.E. Orme



Habit
Photo T.M. Tame



Flower
Photo A.E. Orme



Other photo
Photo A.E. Orme

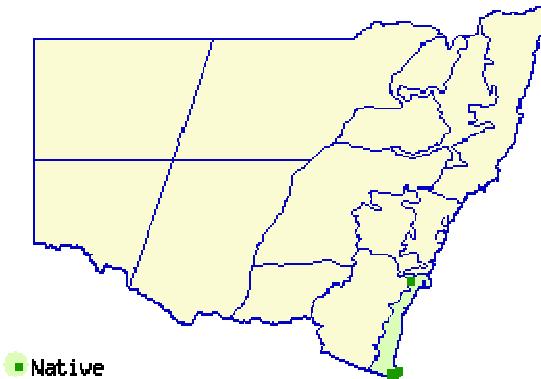
Flowering: Flowers June and July.

Distribution and occurrence: Narrabarba area (west of Disaster Bay) and Nadgee area; rare.

Grows in shrubland, often the dominant species, mostly on rhyolite and granite, on rocky ridgetops and hillslopes.

NSW subdivisions: SC

Threatened species: [NSW TSCA](#): Vulnerable ROTAP: 2V



The indumentum is often pale yellowish to grey, the hairs on branchlets and leaf rachis often in small tufts on the knobbly ridges. *Acacia constablei* is similar to *A. mearnsii* which has several interjugary glands, more pairs of pinnae and pinnules, and a longer petiole. Named after Ernest F. Constable (1903–1986), a former botanical collector at the Royal Botanic Gardens, Sydney.

Text by P.G. Kodela (last updated February 2009)
Taxon concept: P.G. Kodela & G.J. Harden, Flora of NSW Vol. 2 (2002)