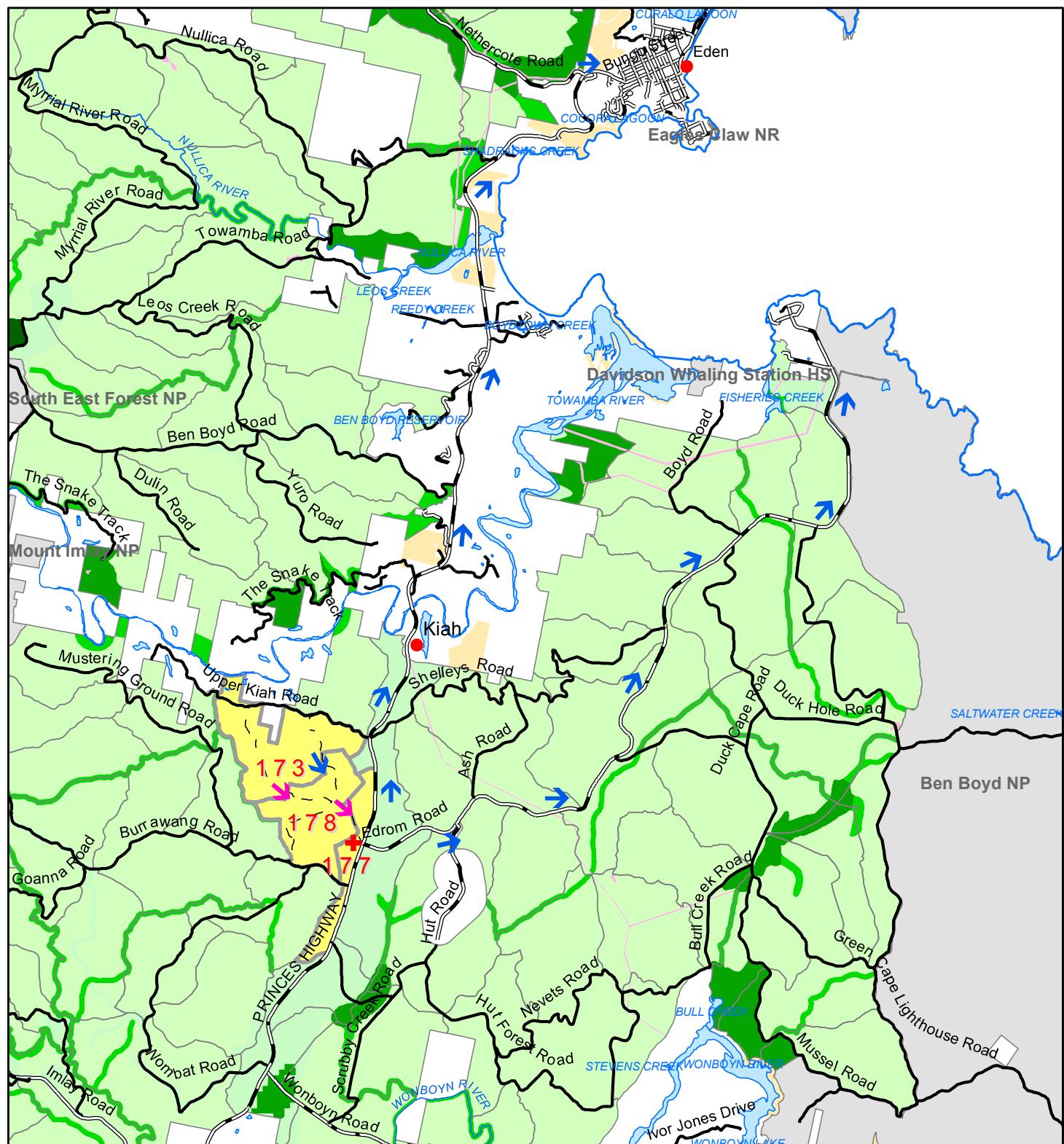


LOCALITY MAP

Compartments 173, 177 & 178
State Forest: East Boyd No:127

EDEN IFOA EDEN MANAGEMENT AREA

Scale: 1:100,000



- Towns & Localities
- Sealed Road
- Major Forest Road
- Minor Forest Road
- Major Rivers

- State Forest
- Planning Unit
- Vacant Crown Land
- Non Forest
- Freehold
- National Parks
- Formal Reserve
- Informal Reserve
- Water

- Emergency Meeting Point and Helicopter Landing Site
- Evacuation Route
- Haulage Route

Version: 1

PLANNING SUPERVISOR APPROVAL

APPROVED: Lee Blessington

DATE: 24 / 09 / 2015

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LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary

ROADS

- Sealed
- Major Forest
- Minor Forest
- EPL Standard Existing (Major)
- EPL Standard Existing (Minor)
- EPL Licensed (New Construction)

DUMPS & CROSSINGS

- Temporary Dry Weather
- Temporary Wet Weather
- Existing Crossing

NET HARVEST AREA

- FMZ 4 & 3B- MSW
- FMZ 3B - Visual Special Prescription

NON HARVEST AREA

- Harvesting Protection (FMZ 3A)
- Owl Landscape
- Ridge & Headwater Habitat (40m & 80m)
- Probable Heath & Exclusion Zone (10m)
- Probable Wetland & Exclusion Zone (40m)
- Excluded Forest
- Rest Area (Princes Hwy)
- Pine Stockpile Area
- High Conservation Value Old Growth

MAP FEATURES

- Underground Cable
- Proposed Control Line

DRAINAGE

- Mapped LIC Drainage
- Waterbodies

TENURE

- Private Property

FAUNA

- Sooty Owl
- Masked Owl
- Yellow-bellied Glider (heard)
- Powerful Owl
- Spotted-tailed Quoll
- Yellow-bellied Glider
- Glossy Black-Cockatoo
- Glossy Black-Cockatoo (Feed Tree)
- Gang-gang Cockatoo
- Greater Glider
- Southern Brown Bandicoot
- Scarlet Robin
- Little Lorikeet
- Glossy Black-Cockatoo (Nest/Roost)
- SBB (Indicative)

**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

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

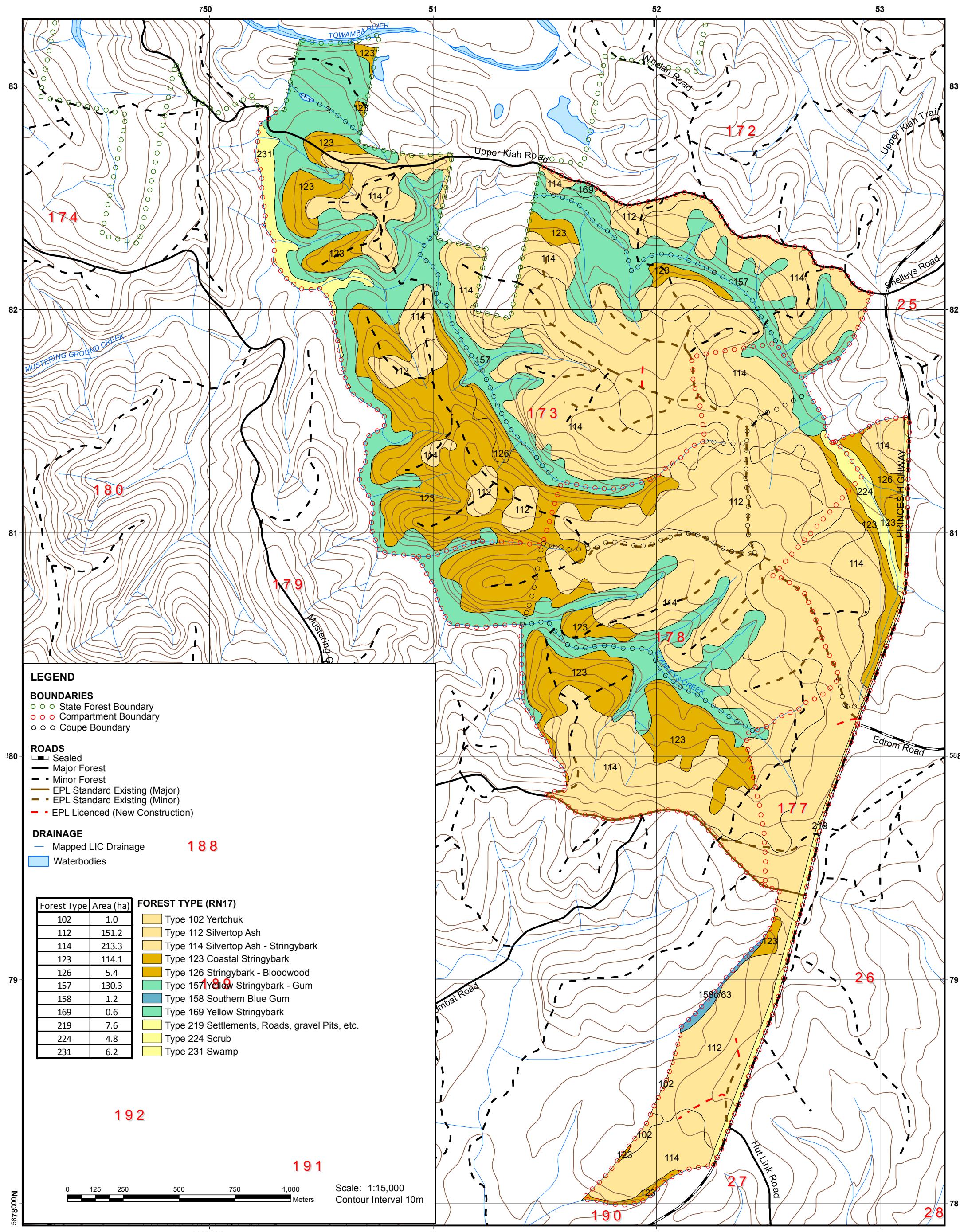
Harvest Plan Forest Type Map

Compartments: 173, 177 & 178

State Forest: East Boyd No: 127

Eden IFOA

Map Sheet: KIAH 8823-1S



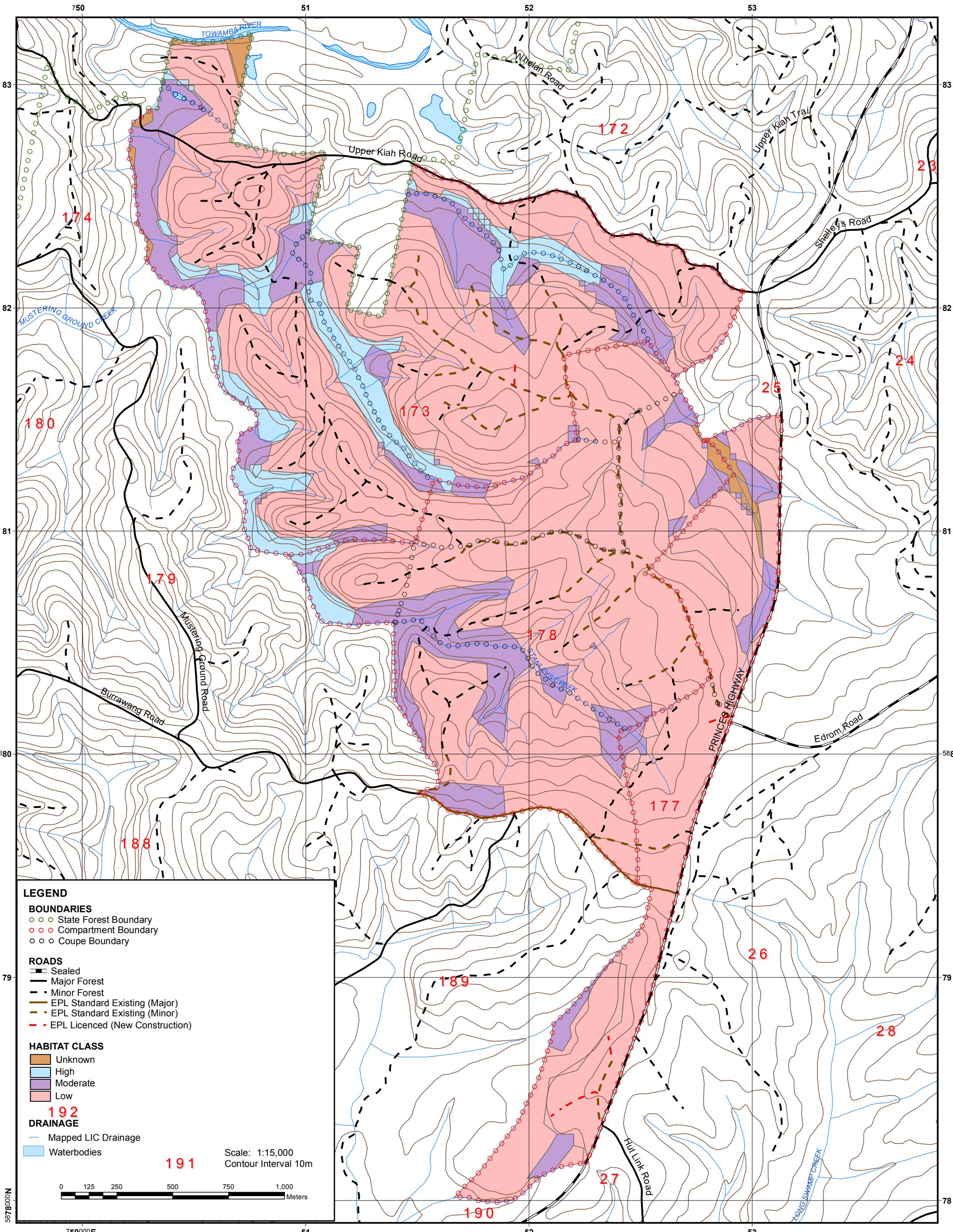
Harvest Plan Habitat Class Map

Compartments: 173, 177 & 178

State Forest: East Boyd No: 127

Eden IFOA

Map Sheet: KIAH 8823-1S





HARDWOOD FORESTS- EDEN IFOA HARVESTING PLAN

East Boyd State Forest - Compartments 173, 177 & 178

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	Lee Blessington
Date	24/09/2015	Date	24/09/2015

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	Compartments	Coups	IFOA Region	Management Area	Certification
East Boyd	173	2 (part)	Eden	Eden	AS4708:2007 ISO 14001
East Boyd	177	2 (part)	Eden	Eden	AS4708:2007 ISO 14001
East Boyd	178	2 (part), 4 (part) & 5 (part)	Eden	Eden	AS4708:2007 ISO 14001

	Cpt 173	Cpt 177	Cpt 178	Total
Plan Compartment ID	22170	22171	22172	NA
Gross Area (ha)	297	111	227	635
Net Harvest Area (ha)	92	56	111	259
Estimated Yield Pulp (t)	4,500 t	3,000 t	5,750 t	13,250 t
Estimated Yield Sawlog (m3)	500 m3	500 m3	750 m3	1,750 m3

Slope Classes (percent of harvest area)

Slope Class	Cpt 173	Cpt 177	Cpt 178
	% of harvest area	% of harvest area	% of harvest area
0-20°	97.2	100	100
20-25 °	1.7	0	0
25-30 °	0.6	0	0



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			
<p>This plan identifies haulage from the compartments will be via Stanley Ck Road, Burrawang Road & Cpt 177_2 Trail onto the Princes Hwy then turning right onto Edrom Road (100km/hr Road). The intersections of Stanley Ck Road, Burrawang Road & Cpt 177_2 Trail with the Princes Hwy have been assessed as achieving a minimum of 200m sight distance on both approaches. Therefore at this intersection additional signage in accordance with a Traffic Control Plan is not required.</p> <p>The logging contractor is responsible for traffic control on all roads when felling is within two tree lengths of the tallest tree to be felled of the road, or snagging on roads or loading is occurring within 10 metres of a road. RMS approved Traffic Control Plans "TCP81_cpt177_EdromRd_section" & "TCP81_cpt177_HutLinkRd_section" must be implemented by a suitably qualified person whilst harvesting within 2 tree lengths of the Princes Hwy. RMS approved Road Occupancy Licence 488978 and associated Speed Zone Authorisation 488978/001 must be printed and onsite at all times whilst implementing the appropriate Traffic Control Plans.</p> <p>2 weeks prior to implementing a road closure on Burrawang Rd the Production Supervisor must contact the NPWS and advise them of the planned road closure. Harvesting along Burrawang Rd should be scheduled to avoid holiday periods.</p>			
Name of on-site safety first aider/s			
Location of first aid kit			
SITE HAZARD & RISK ASSESSMENT NO.	CONTROL	WHO	IMPLEMENTED
1. Vehicle collision at adjoining roads of various traffic levels	Warning signs at FCNSW intersections, road closure on FCNSW roads. Implement Traffic Control plans (where specified in this harvest plan).		

	60km/hr speed limit on all State Forest natural surface/gravel roads unless otherwise signposted. Compliance with FCNSW lights on policy.		
2. Hazardous or dead trees	Refer to FCNSW WHS procedure 4.26. Assess area within two tree lengths of work site. Assess risk, mark any Distinctly Dangerous Trees with the symbol Ø & if necessary remove hazard or move work site. Use machinery to assist with hazard removal if possible Contractor is responsible for implementing control strategies during harvesting.		
3. Overhead hazards associated with dumps	Refer to FCNSW WHS procedure 4.26. Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump site. Contractor is responsible for implementing control strategies during harvesting.		
4. 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.		
5.			

- **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

Insert “TCP81_cpt177_EdromRd_section”.

Insert “TCP81_cpt177_HutLinkRd_section”.



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° 11' 27" S / 149° 50' 57" E	MGA: 752900E 5880143N	Datum: GDA 94	Zone: 55
Location description: Intersection of Edrom Road and Princes Hwy.			
Emergency meeting point for ambulance / police (refer to attached locality map)			
GPS Lat/Long: 37° 11' 27" S / 149° 50' 57" E	MGA: 752900E 5880143N	Datum: GDA 94	Zone: 55
Location description: Intersection of Edrom Road and Princes Hwy.			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 37° 11' 27" S / 149° 50' 57" E			
Location description: Intersection Edrom Rd and Princes Hwy			
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:	East Boyd	
	Nearest town or locality:	Kiah	
	Nearest ambulance station:	Eden	
3. Address?	Edrom Road		
4. Nearest road junction/cross street?	Edrom Road and Princes Highway		
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. 18km to intersection with Edrom Road (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 173

Year	1951	1972	1973	1980	1994	2001	2010
TSI	X	X	X	X	X	Ö	X
HR Burning	X	X	X	X	Ö	X	Ö
Wildfires	Ö	Ö	X	Ö	X	X	X
Logging m³	0	0	9,581	0	0	4,284	0

Ö - applies, X – not applicable

Compartment 177

Year	1951	1972	1994	2001	2010
TSI	X	X	X	Ö	X
HR Burning	X	X	Ö	X	Ö
Wildfires	Ö	Ö	X	X	X
Logging m³	0	0	0	4,868	0

Ö - applies, X – not applicable

Compartment 178

Year	1951	1972	1976	1994	2001	2010
TSI	X	X	X	X	Ö	X
HR Burning	X	X	X	Ö	X	Ö
Wildfires	Ö	Ö	X	X	X	X
Logging m³	0	0	2,766	0	6,831	0

Ö - applies, X – not applicable

Silvicultural Planning

The stands to be harvested consist primarily of mature to over-mature 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.

The current integrated operation within part of the FMZ 3B area (as mapped on HPOM) is intended to remove sawlog and pulp products targeting sawlog, whilst maintaining the visual integrity of the forest. This will be achieved by retaining a 50% canopy cover of trees including those requiring retention under the TSL along with potential sawlog growers (trees within 25-40cm diameter of good form).

Harvesting Prescription

Stand type	% of net area	Area (refer to HPOM for details)	Treatment (% INT, THIN)
Mature (even aged/mixed aged)	96%	All NHA west of FMZ 3B area.	<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 (even aged/mixed aged)	4%	FMZ visual 3B (as mapped).	<ul style="list-style-type: none"> • 100% Integrated (modified shelterwood) with 50% canopy retention. Target sawlogs for removal • Larger diameter trees (i.e. Habitat trees) or the most visually pleasant trees that are within the largest 30% diameter class of the stand should be retained; • Tree selection should be evenly spread over the FMZ 3B area; • Tree heads should be felled to avoid windrows and minimise the visual effects from the Princes Highway; and • Snigging of timber should be by the shortest possible route outside the FMZ 3B area and then by the most direct route to the nearest log dump.

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 173, 177 & 178 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 the 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 compartment.

Permanent Growth and Research Plots

Any inventory plots located during the harvesting operation which are not shown on the HPOM or described above are to be treated the same as the surrounding area.

Private Property

Private property occurs adjacent to the northern boundary of compartment 173, as indicated on the HPOM. Private property owners have been notified of the scheduled harvesting and post-harvest burning.

- 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.

Underground Cables

A dial before you dig request query of the compartment indicates that underground Optic cables are present on the eastern side of the Princes Hwy. Prior to any harvesting or roading activity taking place in the FMZ 3B area, the PA should inspect the area for markers or other evidence of the cables.

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

Forest Management Zoning

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

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

FMZ 3B (Visual) – A visual protection zone exists 80 metres wide parallel to the Princes Highway. Harvesting is permitted in this zone under the following modified conditions. Refer to harvesting prescription above.

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

IFOA Required Approval of Forestry Activities

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

All areas of 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 compartments. All relevant representatives have been consulted &/or inspected Compartments 173, 177 & 178.

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: **Glossy Black-Cockatoo** (*Calyptorhynchus lathami*), **Common Bent-wing Bat** (*Miniopterus schreibersii*), **Square-tailed Kite** (*Lophoictinia isura*), **Little Lorikeet** (*Glossopsitta pusilla*), **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
High	12	5.6g(i)
Medium	8	5.6g(ii)
Low	4	5.6g(iii)

ö - Condition applies

*X Glossy black cockatoo feed trees occur within compartment 173 & 178 at locations shown in the table below. Note all of these are within the excluded forest area.

Species	Feature	Zone	GDA Easting	GDA Northing	Comments
Glossy Black-Cockatoo	Feed tree	55	752284	5879731	Not marked.
Glossy Black-Cockatoo	Feed tree	55	751786	5881618	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
Rainforest	5.4	Rainforest is not mapped within the compartments #.
Riparian Protection Zones	5.7	Yes
Ridge & Headwater Habitat	5.8	Yes
Wetlands	5.9	Has been assessed as a risk that it may 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 & is unlikely to 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 173, 177, 178.	Licence conditions under the TSC Act
Threatened Frog General Protection Measures	no	5.12
Bird Nest and Roost Site Protection	no	5.13
Tree Bat Roost Protection	no	5.14.1
Subterranean Roost Protection	no	5.14.2
Protection of flying-fox Camps	No	5.14.3
Burning	Net planned area	5.16
Ground Habitat Protection	Net planned area	5.17

Species & Site-Specific Threatened Flora and Fauna Prescriptions

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

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

Threatened species and habitat features within trigger distance	Records in 173, 177, 178.	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
Southern Brown Bandicoot <i>Isoodon obesulus</i>	no	6.5A & Species Management Plan
Long-nosed Potoroo <i>Potorous tridactylus</i>	no	6.7
Spotted tailed Quoll <i>Dasyurus maculatus</i>	Yes	6.10
Yellow-bellied Glider <i>Petaurus australis</i>	Yes	6.13
Golden-tipped Bat <i>Kerivoula papuensis</i>	no	6.14
<i>Gastrodia sesamoides</i> .	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	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

26 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, and loading method is by excavator.

Drainage Feature Crossings

One snig track crossing (S1) is approved for use on a drainage feature. (Refer to HPOM). Snig track crossing details are provided below:

Crossing Name & Coordinates	Crossing details	Required Works
S1-existing Easting 751722 Northing 5879932	Mapped 1 st order drainage line, occurs as a drainage line in the field. Natural Causeway crossing.	Utilise natural causeway crossing (expected side cut <0.5m) as per EPL. Construction should minimise disturbance and clearing and be at right angles to the flow unless angled

	Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	approach results in reduced disturbance. Armour depression with rock/gravel if required in wet conditions. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL.
--	--	--

Mass Movement

Compartments 173, 177 & 178 are not in an area identified as having a potential for mass movement. No specific prescriptions relating to mass movement/snigging are required.

Suitability of existing log dams and gully stuffers

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

Condition 47 of Schedule 4 of the EPL must apply.

Road Works

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

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

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

Post Log Burning Control Lines

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

The table below lists critical boundaries in compartment 173. 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 adjacent to compartment 173 (as mapped).	

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 173, 177 & 178 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	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	2nd	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	2nd	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	2nd	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	2nd	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: 173, 177 & 178, EAST BOYD 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.	9,080m/13	Yes
New roads to be constructed	540m/4	Yes
Existing crossings used	0	NA
New crossings to be constructed	0	NA
Length of road >10°	NA	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
Burrawang Rd FCNSW Responsibility	Routine maintenance. RC/PA Comments:			
Upper Kiah Trail Contractor Responsibility	Clear and reshape entire length of road. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL requirements. RC/PA Comments:			
Stanley Ck Rd Contractor Responsibility	Clear and reshape entire length of road. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL requirements. RC/PA Comments:			
173-1 trail Contractor Responsibility	Clear and reshape entire length of road. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL requirements.			

	RC/PA Comments:			
173-2 trail Contractor Responsibility	<p>Clear and reshape entire length of road.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL requirements.</p> <p>RC/PA Comments:</p>			
173-3 trail Contractor Responsibility	<p>Clear and reshape entire length of road.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL requirements.</p> <p>RC/PA Comments:</p>			
173-4 trail Contractor Responsibility	<p>Clear and reshape entire length of road.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL requirements.</p> <p>RC/PA Comments:</p>			
178-1 trail Contractor Responsibility	<p>Clear and reshape entire length of road.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL requirements.</p> <p>RC/PA Comments:</p>			
178-2 trail Contractor Responsibility	<p>Clear and reshape entire length of road.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL requirements.</p> <p>RC/PA Comments:</p>			
178-3 trail Contractor Responsibility	<p>Clear and reshape entire length of road.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL requirements.</p> <p>RC/PA Comments:</p>			
178-4 trail Contractor Responsibility	<p>Clear and reshape entire length of road.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL requirements.</p>			

	RC/PA Comments:			
178-5 trail Contractor Responsibility	Clear and reshape entire length of road. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL requirements. RC/PA Comments:			
177-2 trail Contractor Responsibility	Clear and reshape entire length of road. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL requirements. RC/PA Comments:			
177-1 trail Contractor Responsibility	Refer to new road construction form. RC/PA Comments:			
177-2 trail ext Contractor Responsibility	Refer to new road construction form. RC/PA Comments:			
177-3 trail Contractor Responsibility	Refer to new road construction form. RC/PA Comments:			
173-5 trail Contractor Responsibility	Refer to new road construction form. 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
177-1 trail	120m	7m	2°	2°	<1m	NA	No	Retain	Contractor		
177-2 trail	100m	7m	1°	1°	<1m	NA	No	Retain	Contractor		
177-3 trail	180m	7m	1°	1°	<1m	NA	No	Retain	Contractor		
173-1 trail	100m	7m	2°	2°	<1m	NA	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.