

LOCALITY MAP

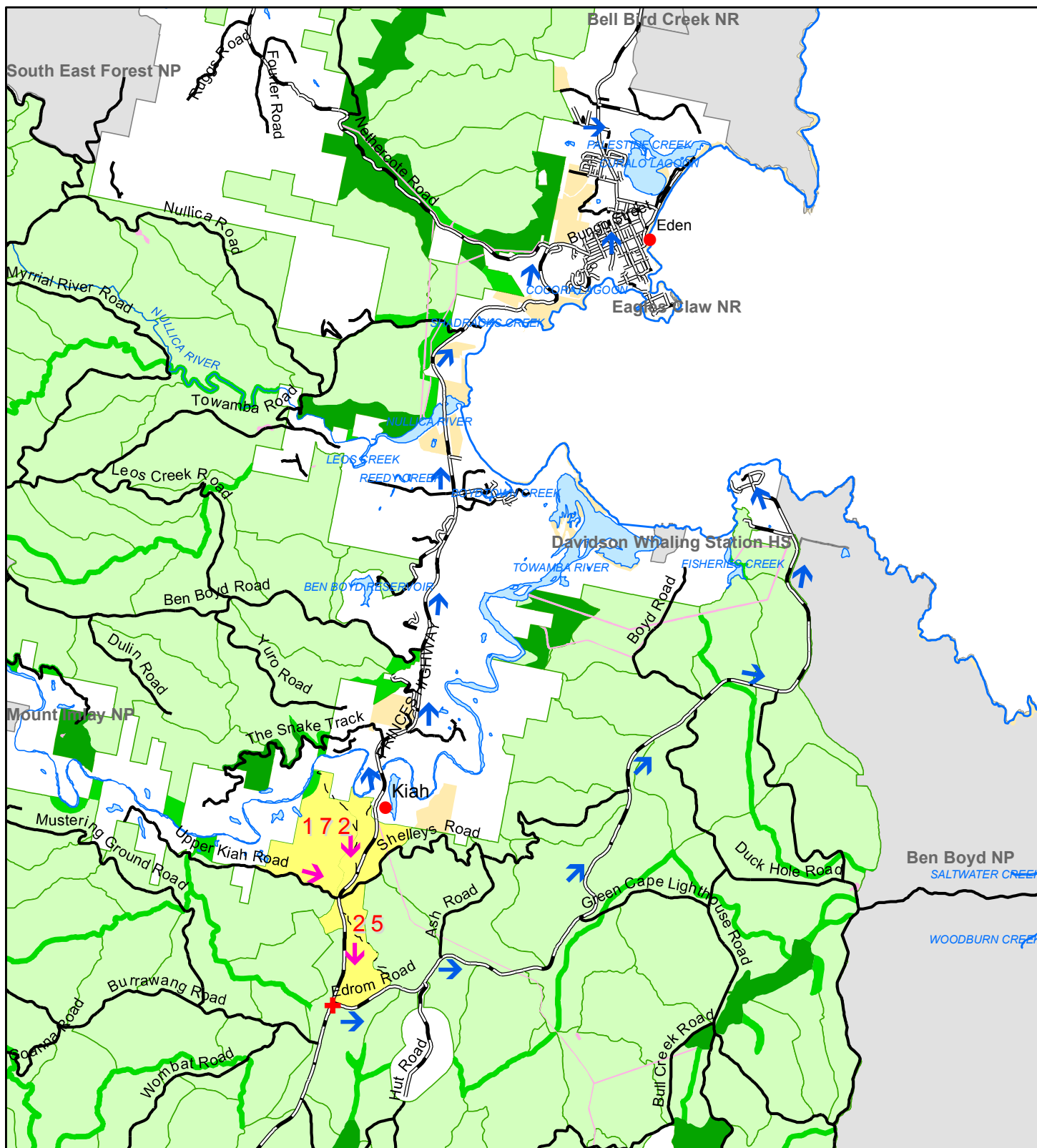
Compartments 25 & 172

State Forest: East Boyd No: 127

EDEN IFOA

EDEN MANAGEMENT AREA

Scale: 1:100,000



LEGEND

ROADS

- Sealed Road
- Major Forest Road
- Minor Forest Road

- Planning Unit
- State Forest
- Informal Reserve
- Freehold
- Vacant Crown Land

- Non Forest
- National Parks
- Water
- Major Rivers
- Towns & Localities

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

Prepared By: Jarod Addinsall

Harvest Plan Operational Map

Compartment: 25 & 172

State Forest: East Boyd No: 127

Eden IFOA

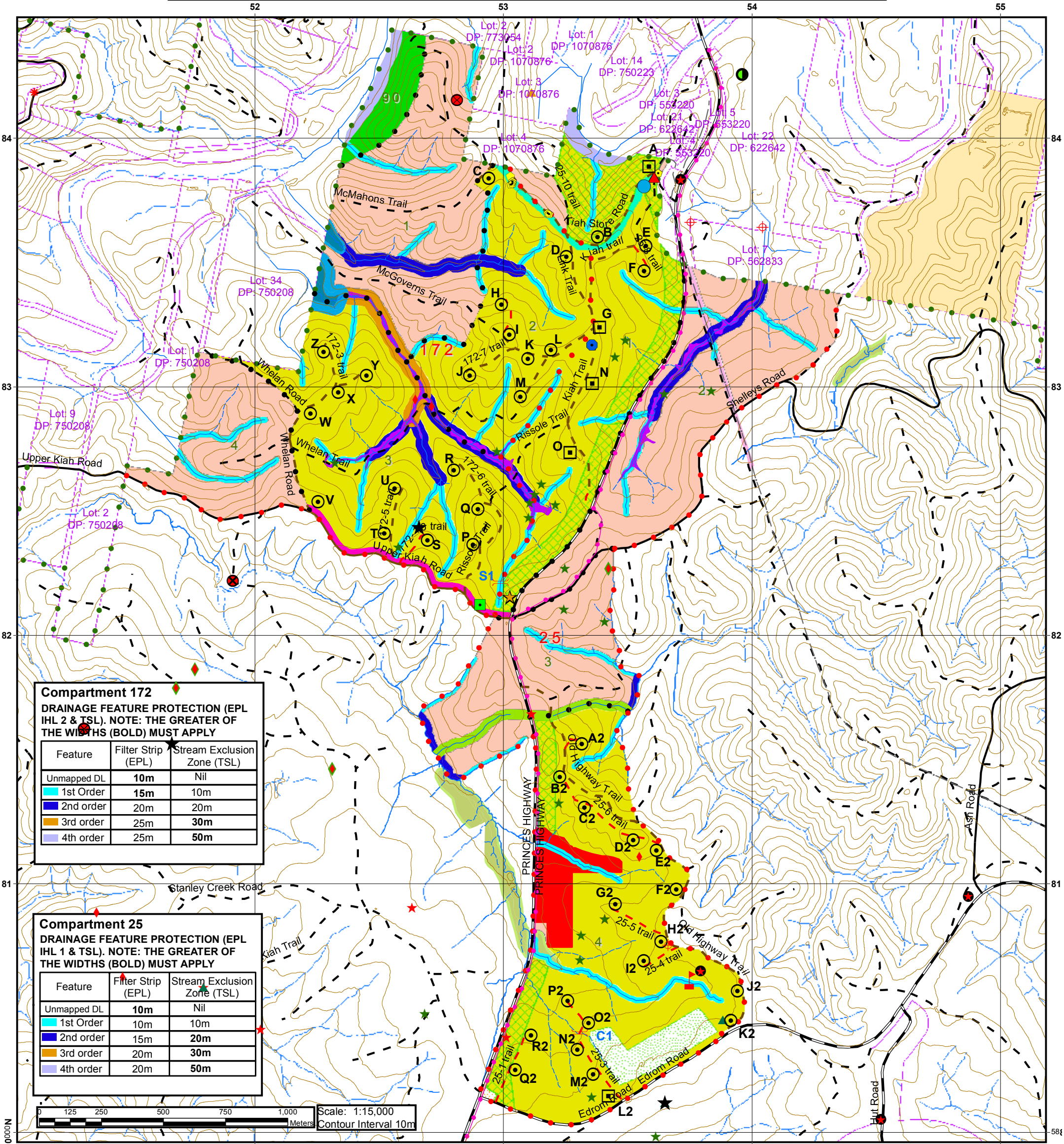
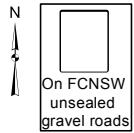
Map Sheet: Kiah 8823

Version: 1

OPERATIONS PLANNING MGR APPROVAL

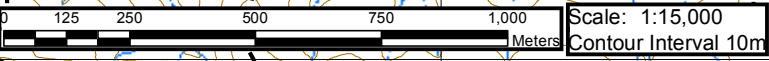
APPROVED: Lee BLESSINGTON

DATE: 04 / 08 / 2016



Compartment 172		
DRAINAGE FEATURE PROTECTION (EPL IHL 2 & TSL). NOTE: THE GREATER OF THE WIDTHS (BOLD) MUST APPLY		
Feature	Filter Strip (EPL)	Stream Exclusion Zone (TSL)
Unmapped DL	10m	Nil
1st Order	15m	10m
2nd order	20m	20m
3rd order	25m	30m
4th order	25m	50m

Compartment 25		
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 DL	10m	Nil
1st Order	10m	10m
2nd order	15m	20m
3rd order	20m	30m
4th order	20m	50m



LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary

ROADS

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

TENURE

- Vacant Crown Land
- Private Property

NET HARVEST AREA

- FMZ 3B & 4 - MSW
- FMZ3B - Special Prescription
- Underground Cable Zone

DRAINAGE

- LiDAR Corrected LIC Drainage
- Indicative Unmapped Drainage Feature

DUMPS & CROSSINGS

- Temporary Dry Weather
- Temporary Wet Weather
- New Crossing

NON HARVEST AREA

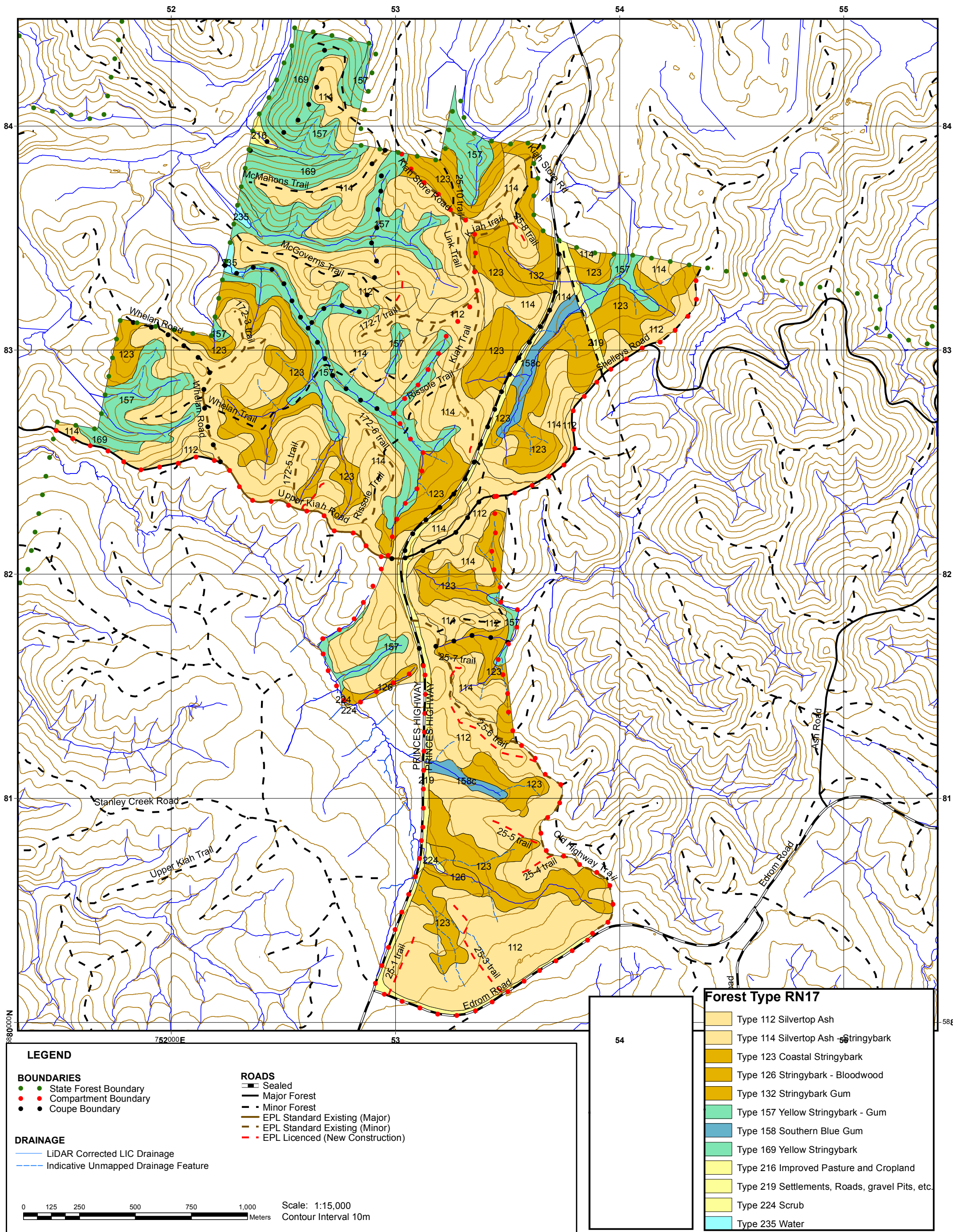
- Harvesting Protection (FMZ 3A)
- Non Forest Use (FMZ 7)
- Ridge & Headwater Habitat (40m)
- Heath & Exclusion Zone (10m)
- Wetland & Exclusion Zone (10m & 40m)
- Owl Landscape
- Rare Old Growth Forest Communities
- Rehabilitated Gravel Pit
- Car Park
- EEC - verified
- Excluded Forest
- Upper Kiah Rd Visual Exclusion Zone.

FAUNA

- Gang-gang Cockatoo
- Southern Brown Bandicoot
- Koala
- Scarlet Robin
- Green and Golden Bell Frog
- Sooty Owl
- Yellow-bellied Glider (Heard Call)
- Powerful Owl
- Yellow-bellied Glider
- Glossy Black-Cockatoo
- Glossy Black-Cockatoo (Feed Tree)
- Square-tailed Kite

MAP FEATURES

- Underground Fibre
- Optic Cable
- Powerline
- RFS Shed
- Water tank
- Telstra Points
- Dangerous Tree
- Rubbish Bin Bank
- Pond



Prepared By:
Jarod Addinsall

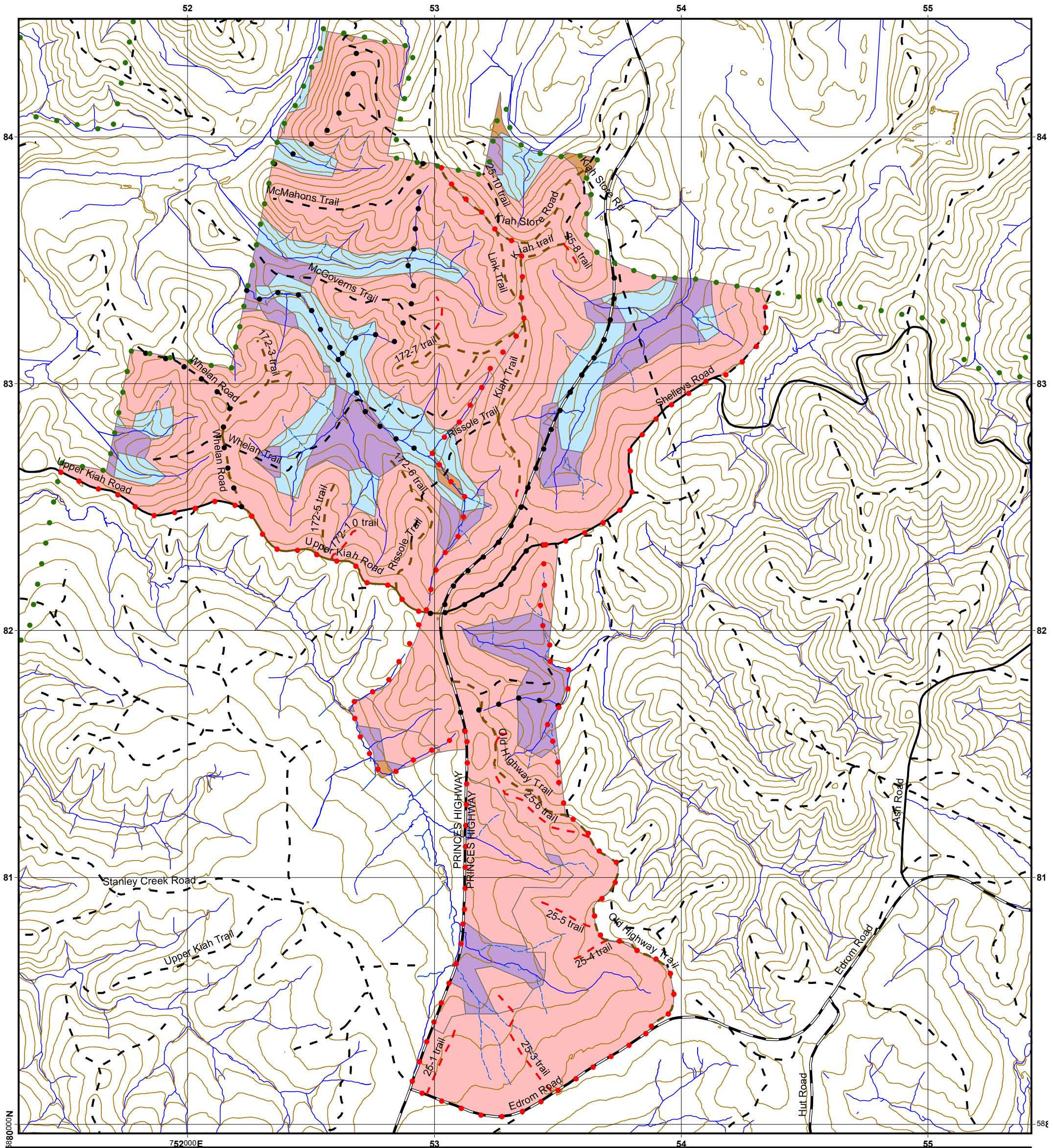
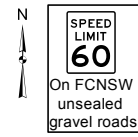
Harvest Plan Habitat Class Map

Compartment: 25 & 172

State Forest: East Boyd No: 127

Eden IFOA

Map Sheet: Kiah 8823



LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary

ROADS

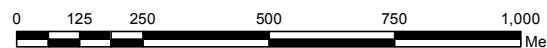
- Sealed
- Major Forest
- Minor Forest
- EPL Standard Existing (Major)
- EPL Standard Existing (Minor)
- EPL Licenced (New Construction)

HABITAT CLASS

- Unknown
- High
- Moderate
- Low

DRAINAGE

- LiDAR Corrected LIC Drainage
- Indicative Unmapped Drainage Feature



Scale: 1:15,000
Contour Interval 10m



HARDWOOD FORESTS- EDEN IFOA HARVESTING PLAN

East Boyd State Forest - Compartments 25 & 172

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: Operations Planning Manager	Lee Blessington
Signature	Jarod Addinsall	Signature	Lee Blessington
Date	04/08/2016	Date	04/08/2016

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, Roading 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 = Roding Coordinator, IFOA = Integrated Forestry Operations Approval, EPL = Environment Protection Licence, OEH = Office of Environment and Heritage.

Area Identification and Yield Estimates

State Forest	Compartment/s	Coupe/s	IFOA Region	Management Area	Certification
East Boyd	25	1 & 4	Eden	Eden	AFS 604224 AS4708:2013
East Boyd	172	2 & 3	Eden	Eden	AFS 604224 AS4708:2013

	Cpt 25	Cpt 172	Total
Plan Compartment ID	22273	22274	NA
Gross Area (ha)	256	208	464
Net Harvest Area (ha)	131	99	230
Estimated Yield Pulp (t)	9,000 t	7,000 t	16,000 t
Estimated Yield Sawlog (m3)	2,500 m3	1,500 m3	4,000 m3

Slope Classes (percent of harvest area)

Slope Class	Cpt 25 % of harvest area	Cpt 172 % of harvest area
0-20°	99	99
20-25 °	1	1
25-30 °	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 on Kiah Store Rd, Kiah Trail, Upper Kiah Rd, Old Highway, 25-1 Trail and 25-3 Trail. These roads exit onto either the Princes Hwy or Edrom Road (100km/hr Road).</p> <p>The intersection of the Old Highway and the Princes Hwy has been assessed as achieving a minimum sight distance of 200m for vehicles travelling on the Princes Hwy in a Southerly direction, but not for vehicles travelling along Princes Hwy in a Northerly direction. Therefore prior to haulage commencing, a suitably qualified person must implement "TCP195_ Cpt25_Old_Hwy_intersection" (attached to this harvest plan) at this intersection.</p> <p>The intersection of the Kiah Trail and the Princes Hwy has been assessed as achieving a minimum sight distance of 200m for vehicles travelling on the Princes Hwy in a Northerly direction, but not for vehicles travelling along Princes Hwy in a Southerly direction. Therefore prior to haulage commencing, a suitably qualified person must implement "TCP195_KiahTrail_PrincesHwy" (attached to this harvest plan) at this intersection.</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 snigging on roads or loading is occurring within 10 metres of a road. RMS approved Traffic Control Plans "TCP81_cpt25_EdromRd_section", "TCP81_cpt25_UpperKiahTrail_section" & "TCP81_cpt25_EdromRdharvest_section" must be implemented by a suitably qualified person whilst harvesting within 2 tree lengths of the Princes Hwy. An RMS approved Road Occupancy Licence and associated Speed Zone Authorisation must also be printed and onsite at all times whilst implementing the appropriate Traffic Control Plans.</p> <p>Council approved Traffic Control Plan "TCP77_Cpt172_UpperKiahRd" must be implemented by a suitably qualified person whilst harvesting within 2 tree lengths of the Upper Kiah Rd.</p> <p>Dust and noise – Log haulage on Kiah Store Rd (between the Kiah Store and Dump B) must minimise dust and noise to the greatest extent practicable. Trucks must reduce speed to 40km/hr or less, must restrict road use to no earlier than 7:00am and minimise the use of engine brakes through this area.</p> <p>Whilst working on or harvesting/snigging to dump A, all machine operation (harvest & haulage) must be between the hours of 7:00am to 5:00pm only.</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. Overhead powerlines or cables	Assess every individual tree for directional felling and degree of risk. Do not fall trees towards overhead hazard if within two tree lengths.		
3. Underground cables, pipelines	Minimise ground disturbance across or along cables & pipelines. Increase depth of earth cover if required. See page 13 for detailed controls.		
4. Quarries	Assess snig track routes and tree felling paths prior to operating. Identify and mark site accordingly.		
5. 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. One dangerous tree identified at: 753752E 5880613N. It is not marked.		
6. 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.		
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 traffic on Kiah Store Rd	Use UHF channel 1 (channel used by harvest contractor) whilst travelling within Harvest Plan area. When approaching corners communicate trucks location and/or direction of travel to alert local traffic. See Traffic Management section of this safety plan for detail.		
9.			

- 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: TCP195_Cpt25_Old_Hwy_intersection

Insert: TCP195_KiahTrail_PrincesHwy

Insert: TCP83_57PrincesHwy_KiahTrail

Insert: TCP81_cpt25_EdromRd_section

Insert: TCP81_cpt25_UpperKiahTrail_section

Insert: TCP77_Cpt172_UpperKiahRd

Insert: TCP81_cpt25_EdromRdharvest_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° 10' 24.7" S / 149° 50' 59.4" E		MGA: 753017E 5882073N	Datum: GDA 94 Zone: 55
Location description: Princes Hwy and Upper Kiah Rd intersection.			
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 Princes Hwy and Edrom Road.			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 37° 11' 27" S / 149° 50' 57" E			
Location description: Intersection of Princes Hwy and Edrom Road.			
Procedures to obtain ambulance assistance			
<ol style="list-style-type: none"> 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) 		<p>Contact nearest Forestry Corporation office on:</p> <p>Channel: 247</p> <p>Telephone: 1300 880 548</p> <p>Give details of the situation and ask for a 000 call to be placed.</p>	
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 25

Year	1951	1993	2001	2006	2008
TSI	X	X	ö	ö	X
HR Burning	X	ö	ö	X	ö
Wildfires	ö	X	X	X	X
Logging m³	0	0	6,789	4,026	0

ö - applies, X – not applicable

Compartment 172

Year	1951	1972	2001	2006	2008
TSI	X	X	X	ö	X
HR Burning	X	X	ö	X	ö
Wildfires	ö	X	X	X	X
Logging m³	0	9,067	0	5,175	0

ö - applies, X – not applicable

Silvicultural Planning

The stands to be harvested consist primarily of mature Silvertop Ash (*E.sieberi*), with some mature to over-mature Monkey Gum (*E.cypellocarpa*) & White Stringy Bark (*E.globoidea*).

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)	87%	Majority of NHA.	<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.

			<ul style="list-style-type: none"> Refer to Standard Harvest Planning Conditions for more detail.
Mature (even aged/ mixed aged)	13%	FMZ3B visual (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 or Upper Kiah Rd; 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.

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 Operations Planning Manager.

Upper Kiah Rd Visual Exclusion Zone

No harvesting permitted within the Upper Kiah Rd Visual Exclusion Zone. Burning, Roads and Dumps are permitted. This exclusion zone must be marked in field as mapped by the PA with pink tape.

Underground Telstra Telephone Cables

A Telstra Accredited Plant Locator has identified three separate underground telephone cables on the southern side of Kiah Store Rd. Orange marking tape on trees or shrubs, and white paint on the ground have been used to indicate the approximate location of the cables in the field. The Underground Cable Zone (UCZ) identifies the area on the HPOM.

Above ground infrastructure associated with the cables has also been identified within the UCZ and has been mapped as Telstra Points on the HPOM. The Telstra Points must be marked in the field and protected from damage.

When carrying out harvesting within the UCZ, there must be no dumps or snig tracks constructed. Minimise ground disturbance at all times and do not push trees or stumps.

When conducting road construction within the UCZ, there must be no pushing of mature trees or stumps. Minimise ground disturbance and follow the white marking tape. Increase depth of earth cover over new road construction by 200mm.

Any damage to cables or Telstra points must be immediately reported to Telstra on 13 22 03.

Underground Fibre Optic Cable

A dial before you dig request query of the compartments indicates that the underground Fibre Optic cable is present on the eastern side of the Princes Hwy. 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 a 5m harvest exclusion zone.

When carrying out harvesting or road maintenance activities near cables, minimise ground disturbance and the pushing of trees or stumps. From time to time above ground infrastructure associated with the cable 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 the cable must be immediately reported to Optus on 1800 505 777.

Legal Easements

Kiah Store Road and 25-10 trail are covered by legal easements. The easement type is “Right of Carriageway on State Forests”. These roads must be maintained and left in a safe and trafficable state to ensure the right of access for private property owners.

Community Assets

A disused RFS shed is located in the northern part of Compartment 25. Ensure all trees are directionally fell to avoid any damage to the structure.

A disused watertank is located in the northern part of Compartment 25. Ensure all trees are directionally fell to avoid any damage to the structure.

Noxious Weeds/Disease/Pests Hygiene Requirements

Compartments 25 & 172 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 BegaValley 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.

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 property occurs adjacent to the northern and southern boundaries of the compartments, 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 25 & 172:

Name	Lot/DP Number (s)	Postal Address	Contact number (& email if available)	Was harvest plan notification letter returned to sender?

- 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.

Apiary

One apiary site provided in the table below is located within the planning unit. Contact details are available from the Batemans Bay office.

Name	Site Number	Contact number

- The PA must provide the apiary permittee with at least two weeks advance notice when bee boxes need to be removed or relocated.

Forest Management Zoning

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

FMZ 3B (Visual) – A visual protection zone exists 80 metres wide parallel to the Princes Highway. Harvesting is permitted in this zone under 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).

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 Operations Planning Manager approval.

Construction or re-opening of roads or snig tracks may occur with prior approval in the following exclusion zones:

- Operations Planning Manager approval required for Stream Exclusion Zones.

During the harvesting operation the PA must identify any crossings required in these exclusion zones and contact the Planner to obtain required approvals.

Cultural Heritage

Cultural Heritage – There is one Cultural Heritage site and the Bundian Way is located within the compartments. All relevant representatives have been consulted &/or inspected Compartments 25 & 172. Due to the confidentiality of the Cultural Heritage sites, a Cultural Heritage site map will only be attached to the specific copies of the plan. All 10 metre radius exclusion buffers are to be marked in the field as **hard exclusion zones (i.e. pink tape)** where logging and/or road works are scheduled to be undertaken. **All operators must be taken to each site within the planned area before any activities are commenced.**

Flora and Fauna

Refer to TSL Booklet for Conditions

Mark-Up Conditions

During the pre-harvest mark up the PA must search for and record threatened species habitat features consistent with Conditions 5.2 and 8.6 of the TSL. Searches for threatened species

features must be conducted within that portion of the net planned area where harvesting will occur, and within 50 metres outside this area (eg HCVOG, etc) (conditions 5.1, 5.2 of the TSL).

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

Species adequately covered by general prescriptions:

The following species have been recorded in or around the compartments and are adequately covered by the general prescriptions. No further protection measures are required for these species: **Glossy Black-Cockatoo** (*Calyptorhynchus lathami*), **Common Bent-wing Bat** (*Miniopterus schreibersii*), **Square-tailed Kite** (*Lophoictinia isura*), **Varied Sittella** (*Daphoenositta chrysoptera*), **Little Lorikeet** (*Glossopsitta pusilla*), **Little Eagle** (*Hieraaetus morphnoides*), **Flame Robin** (*Petroica phoenicea*), **Scarlet Robin** (*Petroica boodang*), **Gang Gang Cockatoo** (*Callocephalon fimbriatum*), **Speckled Warbler** (*Chthonicola sagittata*).

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 dbhob to meet the required retention rate.

Habitat Quality	Hollow Bearing Tree/ 2ha	TSL Condition	Recruitment Trees/ 2ha	TSL Condition	Protection of Retained Trees	TSL Condition	Dead Standing Tree (only if safe)	TSL Condition	Significant Food Resource*	TSL Condition
High	12	5.6g(i)	12	5.6h(i)	0	5.6l	0	5.6j	0	5.6 k
Medium	8	5.6g(ii)	8	5.6 h(ii)	0	5.6l	0	5.6j	0	5.6 k
Low	4	5.6g(iii)	4	5.6 h(iii)	0	5.6l	0	5.6j	0	5.6 k

0 - Condition applies

*X Glossy black cockatoo feed trees, Yellow Bellied Glider/Squirrel Glider sap feed trees, occur within compartments 25 & 172 at locations shown in the table below.

Species	Feature	Zone	GDA Easting	GDA Northing	Comments
Glossy Black-Cockatoo	Feed tree	55	752323	5882694	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	752578	5882354	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	752661	5882436	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	753492	5883189	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	753449	5883121	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	752975	5883741	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	753107	5882534	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	753126	5882567	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	753154	5882610	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	753210	5882526	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	753102	5882475	Marked with orange tape

Glossy Black-Cockatoo	Feed tree	55	753355	5880143	Marked with orange tape
Glossy Black-Cockatoo	Feed tree	55	753247	5882270	
Glossy Black-Cockatoo	Feed tree	55	753837	5882985	
Glossy Black-Cockatoo	Feed tree	55	753243	5882104	
Glossy Black-Cockatoo	Feed tree	55	753407	5882055	
Glossy Black-Cockatoo	Feed tree	55	753647	5882972	
Glossy Black-Cockatoo	Feed tree	55	753308	5880694	
Glossy Black-Cockatoo	Feed tree	55	753313	5880794	
Glossy Black-Cockatoo	Feed tree	55	753223	5881324	
Glossy Black-Cockatoo	Feed tree	55	753409	5880859	

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	Rainforest is not mapped within the compartment(s) #.
Riparian Protection Zones	5.7	Yes
Ridge & Headwater Habitat	5.8	Yes
Wetlands	5.9	Yes
Heath and Scrub	5.10	Yes
Rocky Outcrops and Cliffs	5.11	Has been assessed & is unlikely to occur in the field. May require further investigation#.
Endangered Ecological Community	NA	Yes. 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 25 & 172	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 Cpt 25 & 172	Licence conditions under the TSC Act or relevant Site-specific prescription
Green and Golden Bell Frog <i>Litoria aurea</i>	no	6.1
Powerful Owl <i>Ninox strenua</i> , Barking Owl <i>Ninox connivens</i> Masked Owl <i>Tyto novaehollandie</i> , Sooty Owl <i>Tyto tenebricosa</i>	Yes	6.3 Owl Landscape Exclusion Zones occur in compartment 25. (Refer to HPOM).
Southern Brown Bandicoot <i>Isodon obesulus</i>	Yes	6.5A & Species Management Plan
Long-nosed Potoroo <i>Potorous tridactylus</i>	no	6.7 Long-nosed Potoroo retained tree buffer is shown on the HPOM. Harvesting and burning must be excluded from these areas.
Spotted tailed Quoll <i>Dasyurus maculatus</i>	no	6.10
Koala <i>Phascolarctos cinereus</i>	no	6.11
Yellow-bellied Glider <i>Petaurus australis</i>	Yes	6.13
Golden-tipped Bat <i>Kerivoula papuensis</i>	no	6.14
Cinnamon Bells <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	Cpt 25 = IHL1, Cpt 172 = IHL2.
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

44 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 in Compartment 25. Inherent hazard level 2 Conditions 26, 27, 28, 30, 31 and 33 of Schedule 4 of the EPL must apply in Compartment 172.

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) and one road crossing (C1) are approved for use on drainage features. (Refer to HPOM). Crossing details are contained in Attachment 2 of this Plan. Snig track crossing details are provided below:

Crossing Name & Coordinates	Crossing details	Required Works
S1-new Easting 752989 Northing 5882214	Mapped 1 st order drainage line, occurs as a drainage line in the field. Natural Causeway crossing. Not class 1 or 2 Fisheries Licence aquatic habitat. Class 4 fish passage class: unlikely fish habitat.	Construct 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 an angled 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 25 & 172 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 boundaries 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 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 25 & 172. 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
State Forest boundary	
Rare Old Growth Forest Community with Owl Landscape.	
Ridge and Headwater habitat	
Heath and exclusion zone	
Wetland and exclusion zone	
EEC	
Princes Highway	

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 25 & 172 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	Yes	Error	Yes		
Rainforest	No				
Rocky outcrops	No				
Wetlands	No				
Cultural Heritage	No				
Existing Roads	No				
New Roads	Yes	New	Yes		
Heath	No				
Powerlines etc	Yes	Error	Yes		
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.

[illegible]

*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.

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	2 nd	1 st	2 nd	1 st	2 nd	1st	2 nd	1st	2 nd
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	2 nd	1 st	2 nd	1 st	2 nd	1st	2 nd	1st	2 nd
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	2 nd	1 st	2 nd	1 st	2 nd	1st	2 nd	1st	2 nd
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	2 nd	1 st	2 nd	1 st	2 nd	1st	2 nd	1st	2 nd
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

[illegible]

PA Notes (continued)

[illegible]

PA Notes (continued)

[illegible]

PA Notes (continued)

[illegible]

PA Notes (continued)

[illegible]

Clearance Certificate

COMPARTMENTS: 25 & 172, EAST BOYD STATE FOREST

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 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

Dump No#	Sweep 1	Sweep 2	Sweep 3	Sweep 4	Average
				Post BA Average	m ² /ha
				Pre BA Average	m ² /ha

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	8,290m/15	Yes
New roads to be constructed	2,400m/11	Yes
Existing crossings used	0	NA
New crossings to be constructed	1	Yes
Length of road >10°	30m	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
Kiah Store Rd FCNSW Responsibility	Sheet road with at least 100mm depth of rock/gabion as mapped (approx. 75m length of road where Underground Cables go under road formation). Routine Maintenance. RC/PA Comments:			
Whelan Rd FCNSW Responsibility	Routine Maintenance RC/PA Comments:			
Edrom Rd FCNSW Responsibility	Routine Maintenance RC/PA Comments:			
Link Trail Contractor Responsibility	Sheet road with at least 100mm depth of rock/gabion as mapped (approx. 50m length of road within Underground Cable Zone).			

	<p>Clear and/or reshape road formation.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL.</p> <p>RC/PA Comments:</p>			
<p>Kiah Trail</p> <p>Contractor Responsibility</p>	<p>Clear and/or reshape road formation.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL.</p> <p>RC/PA Comments:</p>			
<p>McMahons Trail</p> <p>Contractor Responsibility</p>	<p>Clear and/or reshape road formation.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL.</p> <p>RC/PA Comments:</p>			
<p>McGoverns Trail</p> <p>Contractor Responsibility</p>	<p>Clear and/or reshape road formation.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL.</p> <p>RC/PA Comments:</p>			
<p>Whelan Trail</p> <p>Contractor Responsibility</p>	<p>Clear and/or reshape road formation.</p> <p>Clear up to 3m either side of road to facilitate truck movements.</p> <p>Install drainage as per EPL.</p> <p>RC/PA Comments:</p>			

Rissole Trail Contractor Responsibility	Clear and/or reshape road formation. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL. RC/PA Comments:			
Old Hwy Trail Contractor Responsibility	Clear and/or reshape road formation. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL. RC/PA Comments:			
172-3 Trail Contractor Responsibility	Clear and/or reshape road formation. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL. RC/PA Comments:			
172-5 Trail Contractor Responsibility	Clear and/or reshape road formation. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL. RC/PA Comments:			
172-6 Trail Contractor Responsibility	Clear and/or reshape road formation. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL. RC/PA Comments:			

172-7 Trail Contractor Responsibility	Clear and/or reshape road formation. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL. RC/PA Comments:			
172-9 Trail Contractor Responsibility	Clear and/or reshape road formation. Clear up to 3m either side of road to facilitate truck movements. Install drainage as per EPL. RC/PA Comments:			
C1 Contractor Responsibility	Refer to C1 crossing 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
25-1 trail	310m	7m	5°	2°	0m	0m	No	Retain	Contractor		
25-3 trail	480m	7m	4°	3°	0.5m	30m	No	Retain	Contractor		
25-4 trail	160m	7m	7°	5°	0.5m	50m	No	Retain	Contractor		
25-5 trail	260m	7m	5°	3°	0.5m	40m	No	Retain	Contractor		
25-6 trail	520m	7m	10°	10°	0m	0m	No	Retain	Contractor		
25-7 trail	120m	7m	9°	12°	1m	40m	No	Retain	Contractor		
25-8 trail	115m	7m	2°	3°	0m	0m	No	Retain	Contractor		
172-8 trail	160m	7m	9°	7°	0.5m	60m	No	Retain	Contractor		
172-10 trail	190m	7m	6°	9°	1.0m	150m	No	Retain	Contractor		
Kiah trail re-alignment	75m	7m	3°	5°	0.5m	10m	No	Retain	Contractor		
Kiah trail & Princes Hwy intersection	10m	10m	1°	1°	1m	5m	No	Retain	FCNSW		

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.