

LOCALITY MAP

Compartments 1226, 1710 & 1770

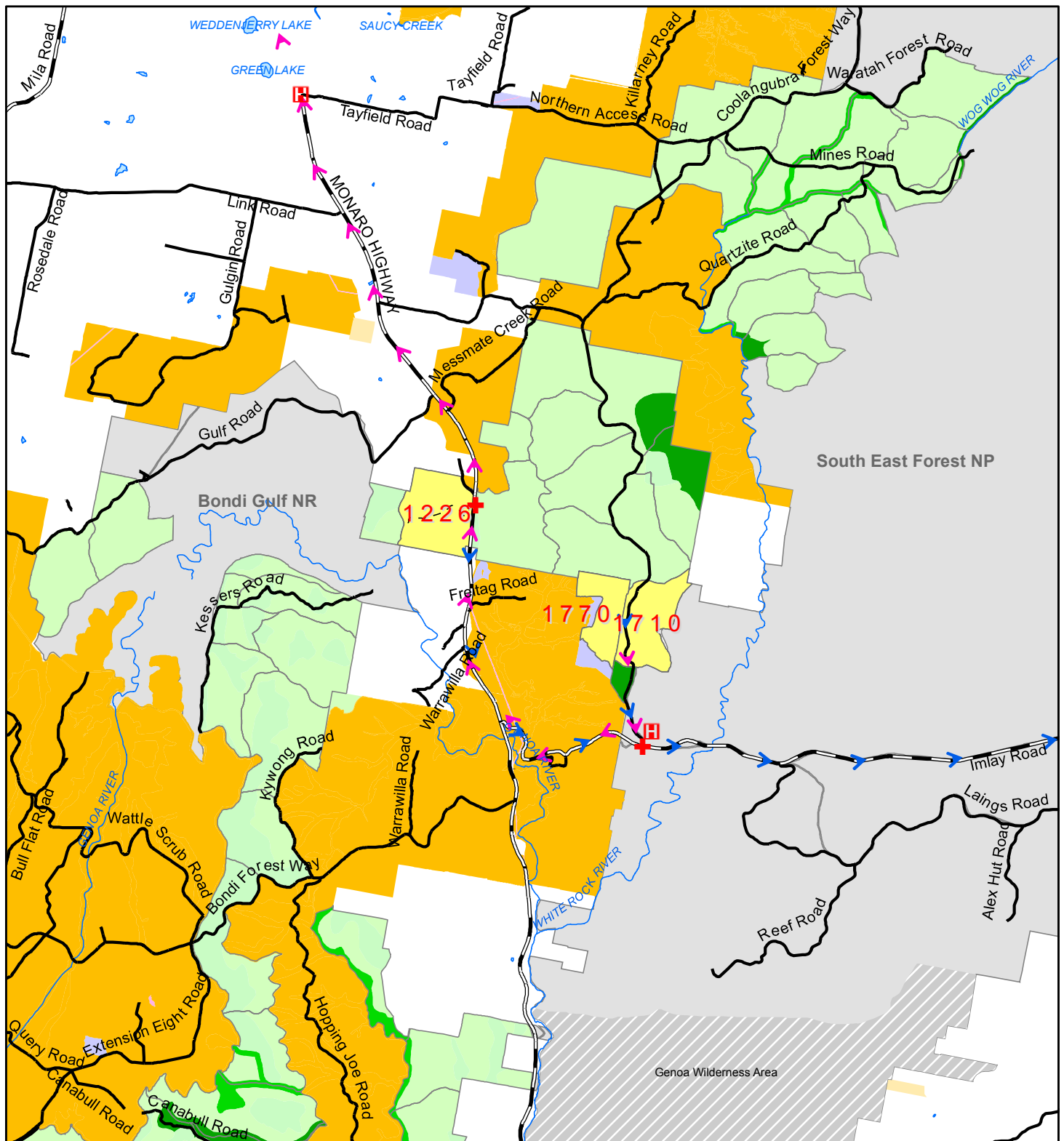
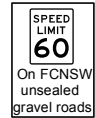
State Forest: BONDJ

No: 128

EDEN IFOA

EDEN MANAGEMENT AREA

Scale: 1:100,000



Sealed Road	Water	Formal Reserve	Helicopter Landing Site
Major Forest Road	Vacant Crown Land	Informal Reserve	Emergency Meeting Point
Minor Forest Road	Freehold	Softwood Plantations	Evacuation Route
Major Rivers	NPWS Declared Wilderness	Hardwood Plantations	Haulage Route
State Forest	National Parks		
Planning Unit			

Prepared By:
Megan Costello

Harvest Plan Operational Map

Compartment: 1226

State Forest: Bondi

No: 128

Eden IFOA

Map Sheet: NALBAUGH

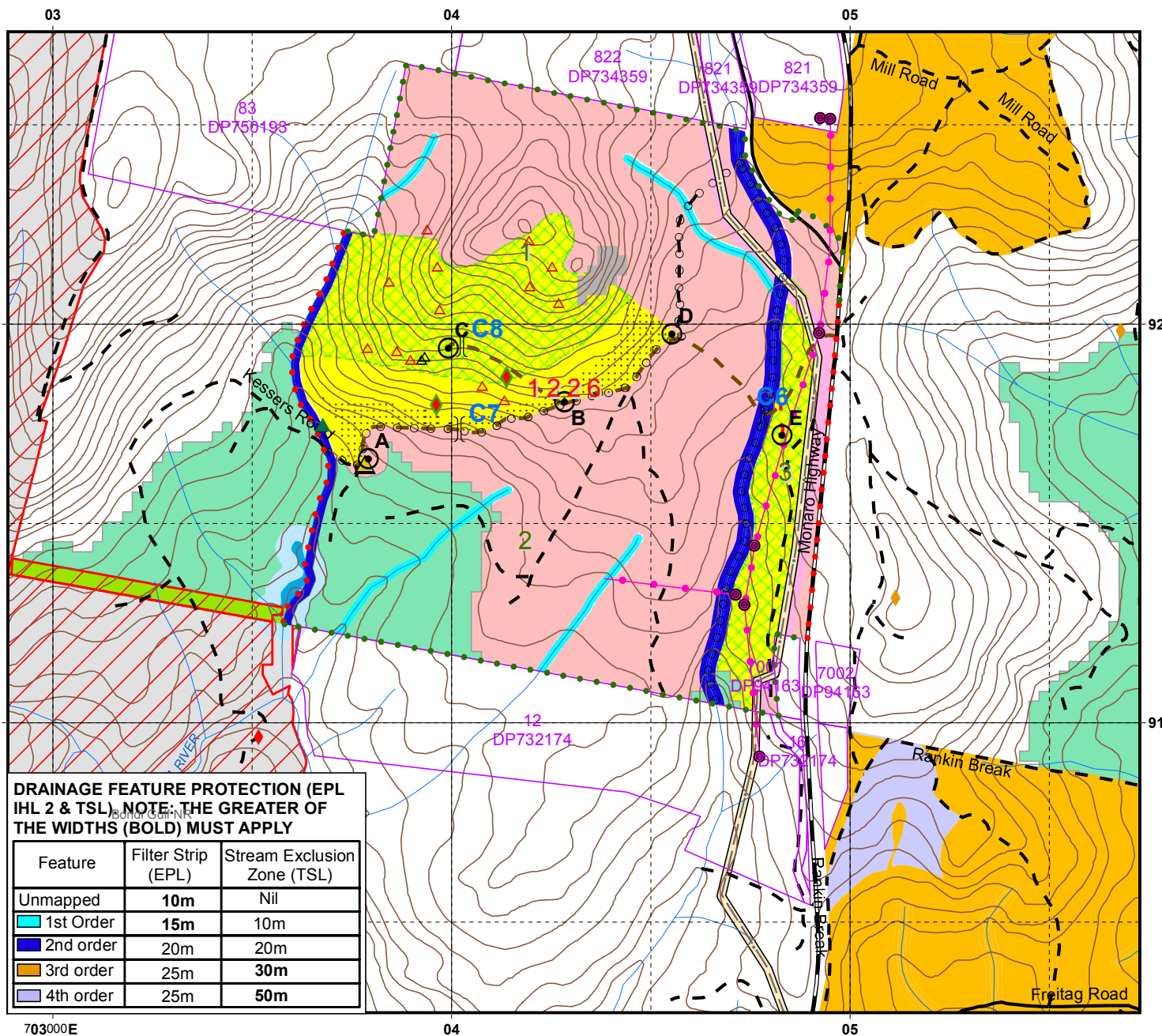
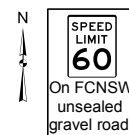
8723-1N

Version: 1

PLANNING SUPERVISOR APPROVAL

APPROVED: Lee Blessington

DATE: 3 / 2 / 2016



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

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

LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary

ROADS

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

JUMPS & CROSSINGS

- Temporary Dry Weather
- Existing Crossing

DRAINAGE

- Mapped LIC Drainage

TENURE

- National Park Estate
- Private Property

MAP FEATURES

- Rocky Terrain
- Rocky Terrain (to be validated)
- Underground Cable
- Powerline
- Elevated Telstra Cable Joint (approximate location)

NET HARVEST AREA

- Special Prescription (Zone 3B)
- Regrowth
- MSW

FAUNA FEATURES

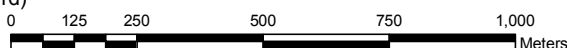
- Yellow-bellied Glider
- Greater Glider
- Scarlet Robin
- Varied Sittella
- Yellow-bellied Glider (heard)

NOT FOR HARVEST

- Non Harvest Area
- Slopes > 30 (IHL 4)
- Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland (To be field verified)
- Ridge & Headwater Habitat
- Owl Landscape
- Probable Wetland & Exclusion Zone (40m)
- Softwood Plantations (FMZ 6)
- Hardwood Plantations (FMZ 5)
- Non Forest Use (FMZ 7)

OCCUPATION PERMITS

- Utility Occupation



Scale: 1:15,000
Contour Interval 10m

Prepared By:
Megan Costello

Harvest Plan Operational Map

Compartment: 1710 & 1770



Version: 1

PLANNING SUPERVISOR APPROVAL

APPROVED: Lee Blessington

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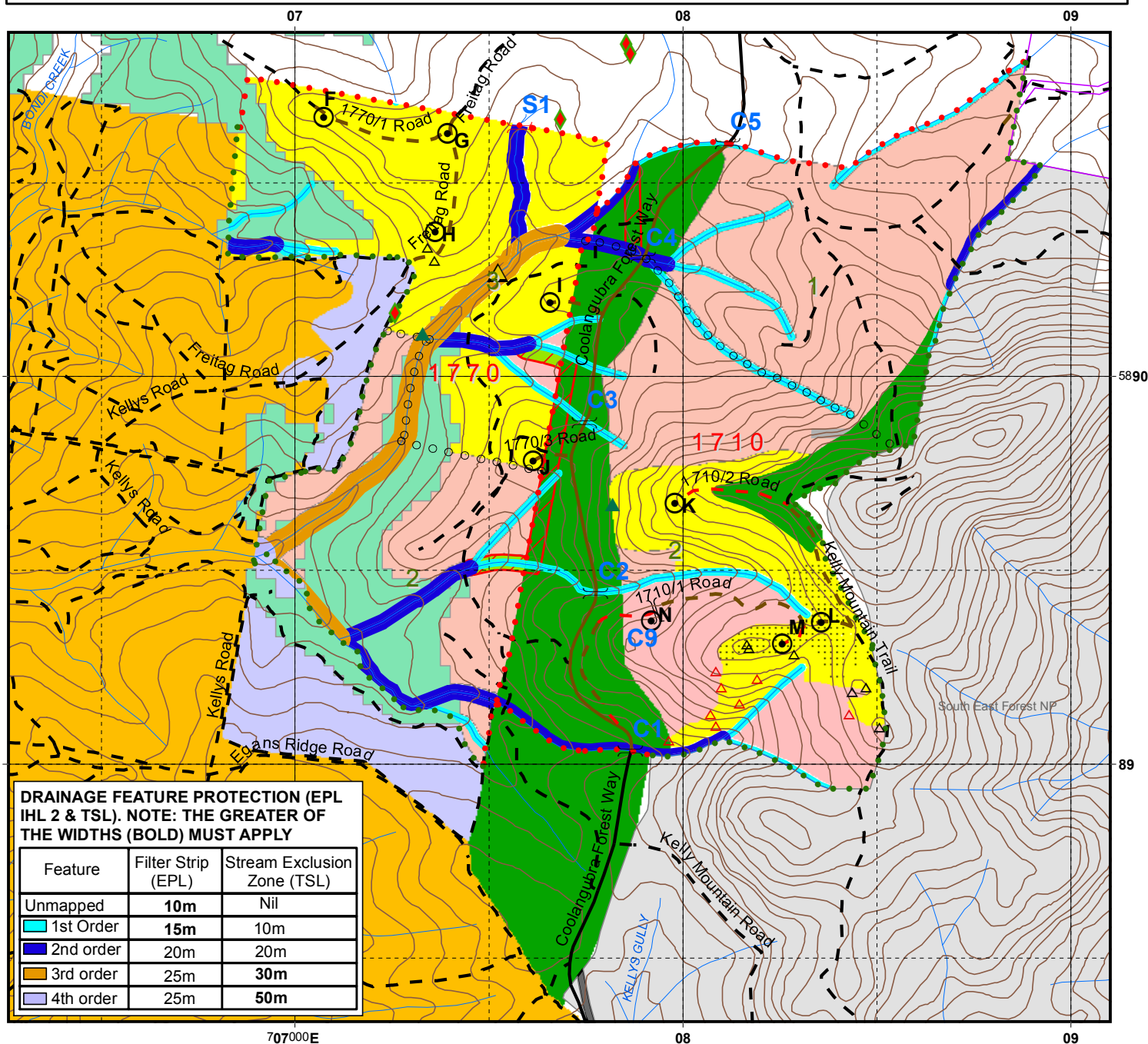
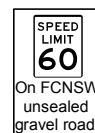
State Forest: Bondi

No: 128

Eden IFOA

Map Sheet: NALBAUGH

8723-1N



LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary

ROADS

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

DUMPS & CROSSINGS

- Temporary Dry Weather
- Existing Crossing
- New Crossing

DRAINAGE

- Mapped LIC Drainage

TENURE

- National Park Estate
- Private Property
- NPWS Vested

NET HARVEST AREA

- Regrowth
- MSW

FAUNA FEATURES

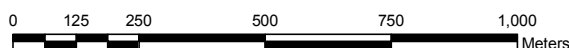
- Gang Gang Cockatoo
- Scarlet Robin
- Varied Sittella
- Yellow-bellied Glider (Heard)

NOT FOR HARVEST

- Special Management (FMZ 2)
- Non Harvest Area
- Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland (To be field verified)
- Ridge & Headwater Habitat (40m)
- Owl Landscape
- Softwood Plantations (FMZ 6)
- Hardwood Plantations (FMZ 5)
- Slopes > 30 (IHL 4)

MAP FEATURES

- Rocky Terrain
- Rocky Terrain (to be validated)



Scale: 1:15,000
Contour Interval 10m

Prepared By:
Megan Costello

Road Plan Operational Map

Compartments: 1710 & 1770

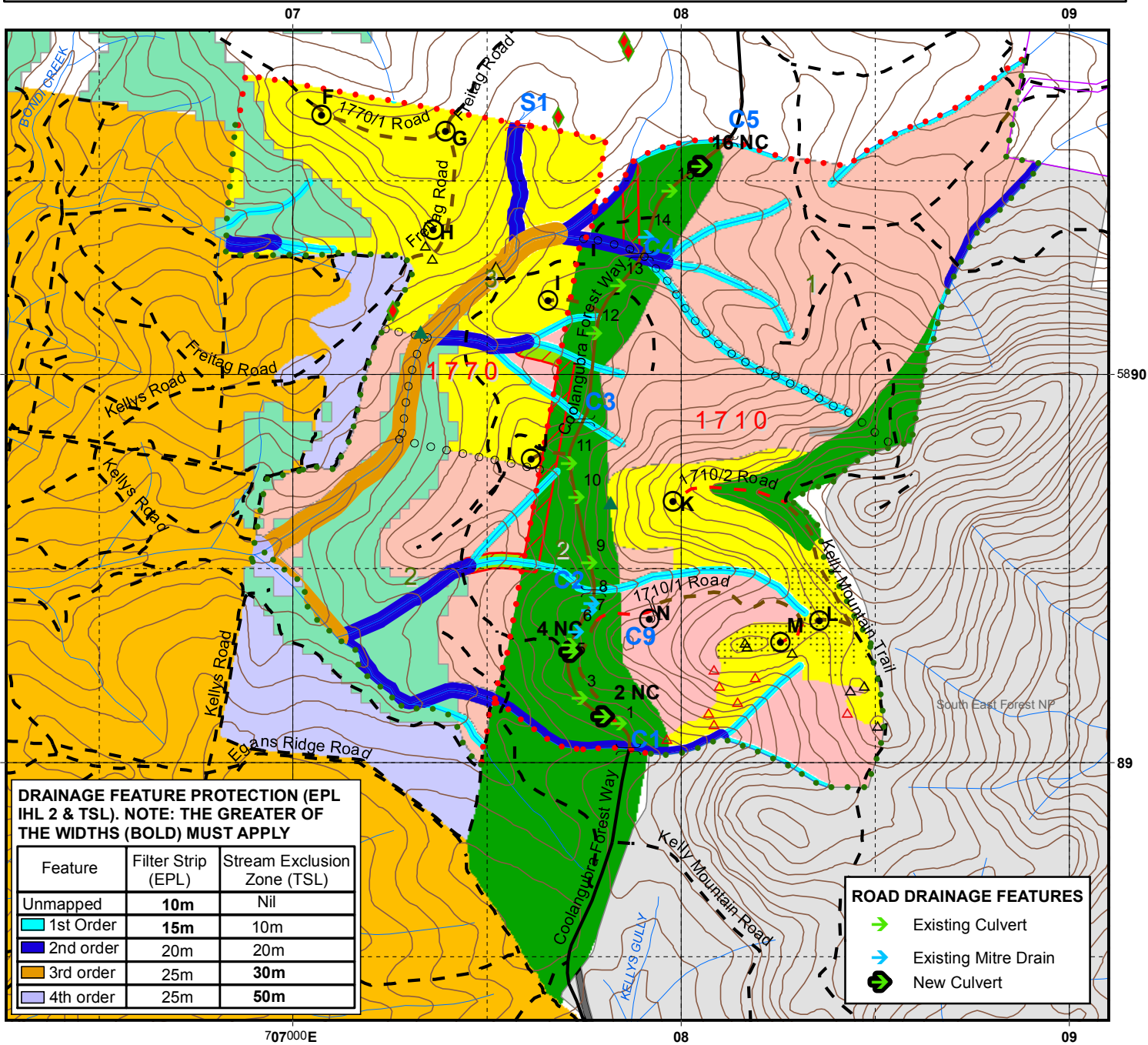
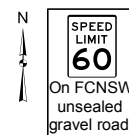
State Forest: Bondi

No: 128

Eden IFOA

Map Sheet: NALBAUGH

8723-1N



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

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

ROAD DRAINAGE FEATURES

- Existing Culvert
- Existing Mitre Drain
- New Culvert

LEGEND

BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary

ROADS

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

DUMPS & CROSSINGS

- Temporary Dry Weather
- Existing Crossing
- New Crossing

DRAINAGE

- Mapped LIC Drainage

TENURE

- National Park Estate
- Private Property
- NPWS Vested

NET HARVEST AREA

- Regrowth
- MSW

FAUNA FEATURES

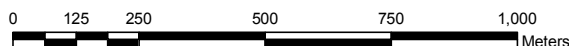
- Gang Gang Cockatoo
- Scarlet Robin
- Varied Sittella
- Yellow-bellied Glider (Heard)

NOT FOR HARVEST

- Special Management (FMZ 2)
- Non Harvest Area
- Tablelands Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland (To be field validated)
- Ridge & Headwater Habitat (40m)
- Owl Landscape
- Softwood Plantations (FMZ 6)
- Hardwood Plantations (FMZ 5)
- Slopes > 30 (IHL 4)

MAP FEATURES

- Rocky Terrain
- Rocky Terrain (to be validated)



Scale: 1:15,000
Contour Interval 10m



HARDWOOD FORESTS- EDEN IFOA HARVESTING PLAN

Bondi State Forest – Compartments 1226, 1710 & 1770

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	Megan Costello	Approved By: Planning Supervisor	Lee Blessington
Signature	Megan Costello	Signature	Lee Blessington
Date	3/2/2016	Date	3/2/2016

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, Roding and Cultural Heritage (limited distribution).

Description of Proposal

Harvesting of hardwood forest

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: Roding plan prescribes roding requirements for this harvesting operation.

Abbreviations used in this plan

PA = Production Assistant, PtS= Protection Supervisor, PS = Production Supervisor, RC = Roving 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
Bondi	1226	Part 1 & Part 3	Eden	Eden	No. 13761 (AS4708:2007 & ISO 14001)
	1710	Part 2			
	1770	3			

	Cpt	Cpt	Cpt	Total
Plan Compartment ID	1226	1710	1770	NA
Gross Area (ha)	163.7	148.6	96.7	409
Net Harvest Area (ha)	45.5	21.0	47.0	113.5
Estimated Yield Pulp (t)	3,419 t	1,629 t	3,647 t	8,695 t
Estimated Yield Sawlog (m3)	65 m ³	190 m ³	420 m ³	670 m ³

Slope Classes (percent of harvest area)

	Cpt 1226	Cpt 1710	Cpt 1770
Slope Class	% of harvest area	% of harvest area	% of harvest area
0-20°	69.9	68.7	100
20-25 °	26.1	27.0	
25-30 °	3.0	4.3	
> 30 °	0.9	0.0	

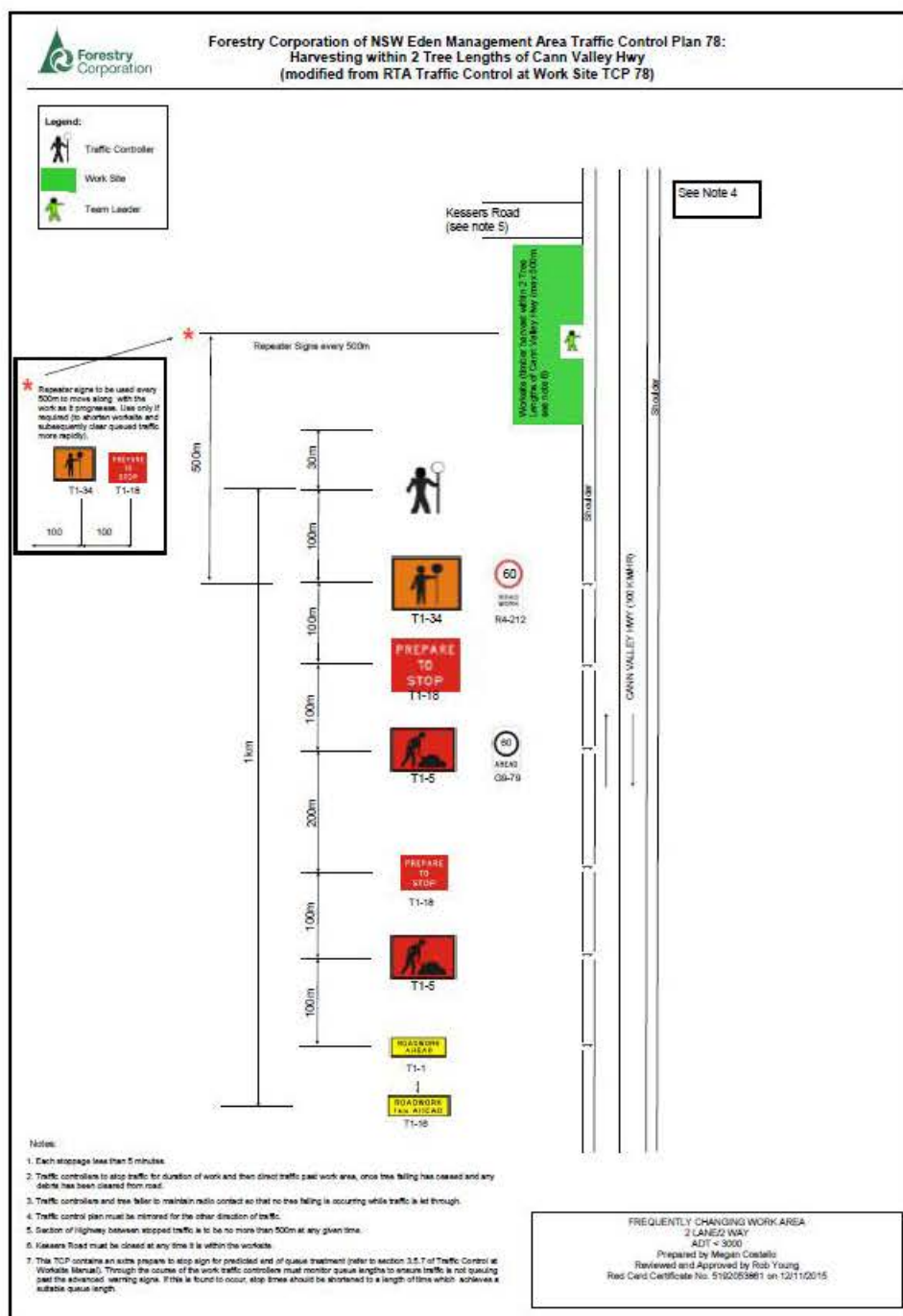


ATTACHMENT 1: SITE SAFETY PLAN

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 compartment 1226 will be east via Kessers Road (FCNSW owned) turning right onto Monaro Highway (100km/h road), before turning left onto Imlay Road, then turning left onto Princes Hwy and finally turning right onto Edrom Road. The intersection of Kessers Road and Monaro Highway does achieve a minimum sight distance of 200m in both directions; therefore a TCP at this intersection is not required.</p> <p>This plan identifies haulage from compartments 1710 and 1770 will be south via Coolangubra Forest Way turning left onto Imlay Road (100km/h road), before turning left onto Princes Hwy and finally turning right onto Edrom Road. The intersection of Coolangubra Forest Way has been assessed as achieving a minimum sight distance of 200m for vehicles travelling on Imlay Road in an easterly direction, but not for vehicles travelling along Imlay Road in a westerly direction. Therefore prior to haulage commencing, a suitably qualified person must implement "TCP 195" (attached to this harvest plan) at this intersection.</p> <p>Road intersections outside the control of FCNSW are not covered by this plan or any FCNSW Traffic Control Plan. Haulage contractors must abide by RTA road laws and standard operating procedures in relation to haulage routes outside the control of FCNSW.</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)		

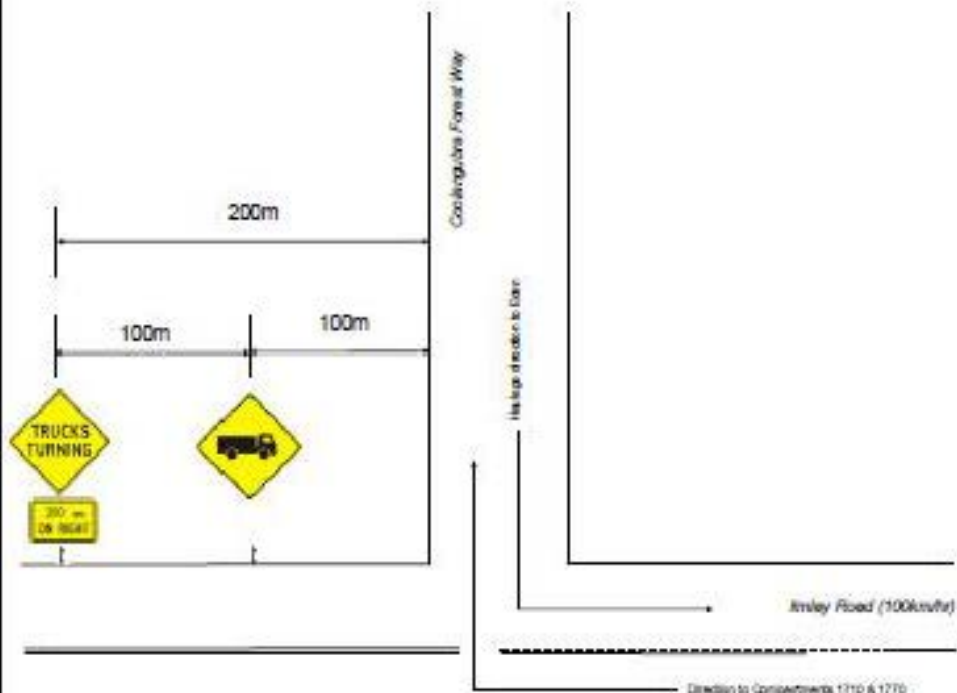
	in this harvest plan). 60km/hr speed limit on all State Forest natural surface/gravel roads unless otherwise signposted. Compliance with FCNSW lights on policy.		
2. Overhead powerlines or cables	Refer to FCNSW WHS procedure 4.8. Assess every individual tree for directional felling and degree of risk. Do not fall trees towards overhead hazard if within two tree lengths.		
3. Underground cables, pipelines	Refer to FCNSW WHS procedure 4.8. Minimise ground disturbance across or along cables & pipelines. Increase depth of earth cover if required.		
4. Cliff lines & rocky very steep terrain	Operators to assess work site within two tree lengths to identify immediate hazards. Communicate to other operators and mark sites.		
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.		
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. Use UHF channel 30 while hauling on Coolangubra Forest Way.		

- **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





Forestry Corporation of NSW Eden Management Area
Traffic Control Plan 195:
Coolangubra Forest Way— Imlay Road Intersection
 (modified from RTA Traffic Control at Work Site TCP 195)



Notes:

- ① Log Haulage - Intersection of Coolangubra Forest Way and Imlay Road (100km/hr). Sight distance restricted to 172m when travelling from the west direction along Imlay Road.

LONG TERM USE

ADT < 1500, <20 Truck Movements (50/100m from compartment), Sight Distance Restricted
 Prepared by Megan Costello
 Reviewed and Approved by Rob Young, Red Card Certificate No. 5162053861 on 10/04/2015



MEDICAL EMERGENCY EVACUATION PLAN – CPT 1226

Nearest reliable mobile phone reception (describe location)			
Next G Network: Poor		GSM: Telstra	Satellite: N/A
GPS Lat/Long: 37° 4' 41.6" S / 149° 17' 51.6" E		MGA: 704243E 5893980N	Datum: GDA 94 Zone: 55
Location description: Intersection of Gulf Road and Monaro Hwy			
Emergency meeting point for ambulance / police (refer to attached locality map)			
GPS Lat/Long: 37° 5' 46.0" S / 149° 18' 23.0" E		MGA: 704962E 5891975N	Datum: GDA 94 Zone: 55
Location description: Intersection of Kessers Road and Monaro Hwy			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 37° 1' 46.9" S / 149° 16' 7.7" E			
Location description: M21: Intersection of Tayfield Road and Monaro Hwy			
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: 165</p> <p>Telephone: 02 6458 3177</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: Bondi Nearest town or locality: Rockton Nearest ambulance station: Bombala	
3. Address?		Kessers Road	
4. Nearest road junction/cross street?		Kessers Road and Monaro Hwy	
5. Local government area?		Bombala	
6. Nature of the problem?		Describe the accident, number and condition of casualties	
7. Where is the accident?		Refer to safety meeting point above	
Directions to navigate from nearest ambulance station to the emergency meeting point.			
From Bombala head south on the Monaro Hwy and travel approximately 24km to intersection with Kessers Road.			
8. 4WD ambulance required N		CB radio channel to use:	
9. Injuries?		Give detailed information about the condition of the casualty (do not mention names over radio system)	
10. Your name and call back number:			



MEDICAL EMERGENCY EVACUATION PLAN – CPTS 1710 & 1770

Nearest reliable mobile phone reception (describe location)			
Next G Network: Good	GSM: Telstra		Satellite: N/A
GPS Lat/Long: 37° 4' 41.40" S / 149° 19' 58.26" E	MGA: 707371E 5893910N	Datum: GDA 94	Zone: 55
Location description: Higher points on Coolangubra Forest Way			
Emergency meeting point for ambulance / police (refer to attached locality map)			
GPS Lat/Long: 37° 8' 5.8" S / 149° 20' 30.6" E	MGA: 708014E 5887590N	Datum: GDA 94	Zone: 55
Location description: EMP 27. Intersection of Coolangubra Road and Imlay Road.			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 37° 8' 5.8" S / 149° 20' 30.6" E			
Location description: EMP 27. Intersection of Coolangubra Forest Way and Imlay 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: 165</p> <p>Telephone: 02 6458 3177</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: Bondi Nearest town or locality: Rockton Nearest ambulance station: Bombala	
3. Address?		Coolangubra Road	
4. Nearest road junction/cross street?		Coolangubra Road and Imlay Road	
5. Local government area?		Bombala	
6. Nature of the problem?		Describe the accident, number and condition of casualties	
7. Where is the accident?		Refer to safety meeting point above	
Directions to navigate from nearest ambulance station to the emergency meeting point.			
From Bombala head south on the Monaro Hwy and travel approximately 28.5km to intersection with Imlay Road. Turn left onto Imlay Road, then travel approximately 3.4km to EMP at the intersection with Coolangubra Forest Way (on left).			
8. 4WD ambulance required N		CB radio channel to use:	
9. Injuries?		Give detailed information about the condition of the casualty (do not mention names over radio system)	
10. Your name and call back number:			

Silviculture and Harvesting Prescriptions

Compartment 1226

Year	1982	1987	1994
TSI	X	X	X
HR Burning	X	X	X
Wildfires	Ö	X	X
Logging m ³	0	1,511	11,630

Compartment 1710

Year	1965	1982	1983	1995
TSI	X	X	X	X
HR Burning	X	X	X	X
Wildfires	Ö	Ö	X	X
Logging m ³	0	0	1,525	7,915

Compartment 1770

Year	1982	2004
TSI	X	X
HR Burning	X	X
Wildfires	Ö	X
Logging m ³	0	4,906

Ö - applies, X – not applicable

Silvicultural Planning

Compartments 1226 and 1710 were harvested under a modified shelterwood system in 1983 and 1987, and then again in 1994-95 in alternate coupes. These areas were also affected by wildfire in 1965 and 1982. Compartment 1770 was thinned in 2004. Compartment 1770 was affected by wildfire in 1982. This has resulted in a multi-aged forest consisting of a mosaic of wildfire burned, logged, thinned, and unlogged areas.

The forest type in compartments 1710 and 1770 is dominated by Silvertop Ash. In compartment 1226, the dominant forest type at the higher elevations is Messmate Gum with a portion of Peppermint and Mountain/Manna Gum. The mid-slopes feature Stringybark – Gum with Silvertop Ash and Coastal Stringybark.

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

Harvesting Prescription

Stand type	% of net area	Area (refer to HPOM for details)	Treatment (% INT, THIN)
Mature (even aged/mixed aged)	60%	All of Cpt 1770. Section of Cpt 1710 west of Kelly Mountain Trail Strip within Cpt 1226 between regrowth adjacent to Kessers Road and FMZ 3B visual at the top of the ridge	<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.
Regrowth (even aged)	10%	Cpt 1710: area adjacent to Kelly Mountain Trail Cpt 1226: adjacent to Kessers Road	<ul style="list-style-type: none"> • Thinning from below. • Refer to Standard Harvest Planning Conditions for more detail. • Avoid disturbance to advance regeneration where practicable
Mature (even aged/mixed aged)	30%	FMZ 3B visual. Cpt 1226: coupe 3 and ridge top and upper slopes above Kessers Road.	<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 Monaro 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.

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

There are no known noxious weeds, pathogens or diseases in the compartment. Harvesting Machinery is not required to be washed down prior to leaving the compartment.

Private Property

Private property occurs adjacent to the northern and the southern boundary of compartment 1226 and to the north of compartment 1710 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 1226 and 1710

- 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.

Rocky Terrain

Rocky terrain occurs within the net planned area. All rocky terrain shown on the HPOM was assessed at the planning stage and is unlikely to meet the definition of a rocky outcrop or cliff. Areas of probable rocky terrain that have not yet been field verified are shown on the HPOM. The PA will continue to conduct on the ground mark-up and searches and report back to foresters/ecologist any feature requiring further investigation.

National Parks and Nature Reserves

South East Forest National Park neighbours compartment 1710 to the south and east. The boundary between South East Forest National Park and compartment 1710 is represented by Kelly Mountain Trail for the majority of the eastern boundary.

Within the road maintenance corridor the only activities allowed are routine road maintenance (e.g.: road side clearing, road drainage and road re-alignment). Harvesting is NOT permitted within the road corridor.

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

- Harvesting debris must not be left within five metres of the boundary.
- Access roads must be maintained free of debris and in a trafficable state.
- Boundaries must be marked in the field.

Underground Cables

A dial before you dig request query of the compartment indicates that underground Telstra cables are present within coupe 3 of Compartment 1226. 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.

The contractor is responsible for contacting a Telstra accredited location service if the exact location of the cable is required. Information on Telstra accredited location services can be provided by the Harvest Planner upon request.

Temporary Dry Weather Dump E is located close to where the Telstra cables are indicated. During construction of this dump excavation is to be avoided and material is to be brought in to increase depth of earth cover and level out the area in order to avoid damaging the cable.

When carrying out harvesting or road maintenance activities near cables, minimise ground disturbance across or along and increase depth of earth cover if required. From time to time above ground infrastructure associated with the cables occurs. Where this infrastructure is detected, the PA should pass the location and details on to the burning supervisor who should consider if extra protection measures (e.g. rake hoe line) are required.

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

Forest Management Zoning

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

FMZ 3B (Visual) – Compartment 1226: A visual protection zone exists parallel to the Monaro Highway and the upper slopes of the hill above Kessers Road. Harvesting is permitted in this zone under the following modified conditions. Refer to harvesting prescription above.

FMZ 2 – 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). Permission has been obtained to construct 1710/1 Road through the FMZ 2 reserve east of Coolangubra Forest Way and 1710/2 Road through the FMZ 2 reserve to the east of Temporary Dry Weather Dump K.

IFOA Required Approval of Forestry Activities

Planning Supervisor approvals have been obtained for snig track construction and road construction, road re-opening, routine road maintenance and log haulage in FMZ 2 and their locations are indicated on the HPOM by 1710/1 Road, 1710/2 Road and stream crossing S1. No other crossings of these features are approved. Forestry Operations within the plan area must minimise impacts to the exclusion zones and meet the requirements of the EPL and General Exclusion Zones in section of this plan.

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

- Planning Supervisor 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 - All relevant representatives have been consulted &/or inspected Compartments 1226, 1710 and 1770. 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 (e.g. HCVOG, etc) (conditions 5.1, 5.2 of the TSL).

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

Species adequately covered by general prescriptions:

The following species have been recorded in or around the compartments and are adequately covered by the general prescriptions. No further protection measures are required for these species: **Olive Whistler** (*Pachycephala olivacea*), **Eastern False Pipistrelle** (*Falsistrellus tasmaniensis*), **Common Bent-wing Bat** (*Miniopterus schreibersii*), **Greater Broad-nosed Bat** (*Scoteanax rueppellii*), **Eastern Freetail-bat** (*Mormopterus norfolkensis*), **Varied Sittella** (*Daphoenositta chrysoptera*), **Flame Robin** (*Petroica phoenicea*), **Scarlet Robin** (*Petroica boodang*), **Gang Gang Cockatoo** (*Callocephalon fimbriatum*),

Tree Retention-Non-Regrowth Zone

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

General exclusion zones

General exclusions as listed below are shown on the HPOM.

Feature/Condition	TSL cond'n	Occurs within Planning Unit
Rainforest	5.4	Rainforest is not mapped within the compartment(s) #.
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 & is unlikely to occur in the field. May require further investigation#.
Rocky Outcrops and Cliffs	5.11	Has been assessed as a risk that it may occur in the field. May require further investigation#.
Endangered Ecological Community	NA	Has been assessed as a risk that Tableland Snow Gum, Black Sallee, Candlebark and Ribbon Gum Grassy Woodland EEC may 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 Cpt	Licence conditions under the TSC Act
Threatened Frog General Protection Measures	No	5.12

Feature	Records in Cpt	Licence conditions under the TSC Act
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	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>	No	6.3 Owl Landscape Exclusion Zones occur in compartments 1710 and 1770 (Refer to HPOM).
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 Cpts 1226 & 1770	6.13
Narrabarba Wattle <i>Acacia constablei</i> , Hidden Violet <i>Viola cleistogamoides</i> or Small-flower Grevillea <i>Grevillea parviflora</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	2
Dispersible Soils	No
Seasonality Harvesting Exclusions	No
Seasonality Burning Exclusions	No
Log Dumps	Refer relevant conditions for IHL
Snig Tracks	Refer relevant conditions for IHL
Roads	See Schedule 5 of EPL Booklet
Slope limits for harvesting	Refer to Schedule 4B.3 of EPL

Log Dump Location

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

Expected Felling/ Extraction & Loading Method

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

Drainage Feature Crossings

One snig track crossings (S1) and 9 road crossings (C1, C2, C3, C4, C5, C6, C7, C8, and C9) 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 707576 Northing 5890649	Mapped 2 nd order drainage line, occurs as a drainage line in the field. Natural Causeway crossing. Not class 1 or 2 Fisheries Licence aquatic habitat.	Construct natural causeway crossing 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.

	Class 4 fish passage class: unlikely fish habitat.	Armour depression with corduroy if required in wet conditions. Install cross banks/rollovers on completion of use within timeframes and spacing's specified in EPL. Remove any structures placed in the crossing upon completion of operations. Apply mulch and seed as required to disturbed areas.
--	--	--

Mass Movement

Compartments 1226, 1710 and 1770 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.

Legal Conditions

In 1999, the Commonwealth and NSW Governments signed an 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 1226, 1710 and 1770 in Bondi 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	Yes	New	yes		
Existing Roads	Yes	Update	yes		
New Roads	Yes	New	no		
Heath	No				
Powerlines etc	no				
Other (state what it is) coupe boundaries	Yes	Update	Yes		

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: 1226, 1710 & 1770 BONDI 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.	5,874m/9	Yes
New roads to be constructed	706m/4	Yes
Existing crossings used	9	Yes
New crossings to be constructed	0	NA
Length of road >10°	121m	Yes
Borrow pits and gravel pits	0	NA
Mass movement prescriptions apply	No	NA
Dispersible soil conditions apply	No	NA
Seasonality provisions apply	No	NA

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

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

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

CHECKLIST OF WORKS REQUIRED ON ROADS & CROSSINGS

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
Kessers Road (Length = 1,536m) <i>Contractor Responsibility</i>	Grade and shape road. Re-instate mitre drains. Re-shape roll overs to allow for truck movements. Install drainage to meet EPL requirements where required. Clear up to 3m to facilitate truck movements RC/PA Comments:			
C6 E 704783 N 5891778 <i>Contractor Responsibility</i>	Re-instate mitre drains on either side of crossing and install silt barriers, seed and mulch as required. Monitor and inspect during operations to identify any issues associated with rainfall events or log haulage. RC/PA Comments:			
C7 E 704022 N 5891732 <i>Contractor</i>	Natural causeway. Install mitre drains on downhill side of road on both sides of crossing within 5 and 30m. Install silt barriers as required. May require rock armour if used during wet conditions.			

<i>Responsibility</i>	RC/PA Comments:			
1226/1 Road (Length = 334m) <i>Contractor Responsibility</i>	Grade and shape road. Re-instate mitre drains on downhill slope. Install drainage to meet EPL requirements. Clear up to 3m to allow facilitate truck movements RC/PA Comments:			
C8 E 704027 N 5891945 <i>Contractor Responsibility</i>	Natural causeway. Install mitre drains on downhill side of road on both sides of crossing within 5 and 30m. Install silt barriers as required. May require rock armour if used during wet conditions. RC/PA Comments:			
1226/2 Road (Length = 79m) <i>Contractor Responsibility</i>	New road – refer to New Road Construction table RC/PA Comments:			
Coolangubra Forest Way – Cpt 1710 (Length = 1,789m) <i>FCNSW Responsibility</i>	Grade and shape road and table drains. Re-instate mitre drains. Clear inlets and outlets of culverts. Install 3 new culverts at: E 707798 N 5889121 E 707715 N 5889286 E 708048 N 5890537			
C1 E 707860 N 5889038 <i>FCNSW Responsibility</i>	Maintain mitres to ensure that they are effective. No works required. RC/PA Comments:			
C2 E 707777 N 5889441 <i>FCNSW Responsibility</i>	Maintain mitres to ensure that they are effective. No works required. RC/PA Comments:			
C3 E 707747 N 5889886 <i>FCNSW Responsibility</i>	Maintain mitres to ensure that they are effective. No works required. RC/PA Comments:			

C4 E 707894 N 5890313 <i>FCNSW Responsibility</i>	Maintain mitres to ensure that they are effective. No works required. RC/PA Comments:			
C5 E 708111 N 5890599 <i>FCNSW Responsibility</i>	Maintain mitres to ensure that they are effective. No works required. RC/PA Comments:			
1710/1 Road (Length = 1,037m) <i>Contractor Responsibility</i>	Re-shape and level road. Install drainage to meet EPL requirements. Clear up to 3m to allow facilitate truck movements. Also refer to New Road Construction table RC/PA Comments:			
C9 E 707925 N 5889397 <i>Contractor Responsibility</i>	Natural causeway over un-mapped drainage depression. Install drainage either side of crossing between 5 & 30m. RC/PA Comments:			
1710/2 Road (Length = 308m) <i>Contractor Responsibility</i>	New road – refer to New Road Construction table RC/PA Comments:			
1710/3 Road (Length = 80m) <i>Contractor Responsibility</i>	New road – refer to New Road Construction table RC/PA Comments:			
Kelly Mountain Trail (Length = 363m) <i>Contractor Responsibility</i>	Grade and shape road. Install drainage to meet EPL requirements. Remove regrowth and clear up to 3m to allow facilitate truck movements. RC/PA Comments:			

Freitag Road (Length = 424m) <i>Contractor Responsibility</i>	Grade and shape road. Install drainage to meet EPL requirements. Clear up to 3m to allow facilitate truck movements. RC/PA Comments:			
1770/1 Road (Length = 383m) <i>Contractor Responsibility</i>	Grade and shape road. Install drainage to meet EPL requirements. Clear up to 3m to allow facilitate truck movements. RC/PA Comments:			
1770/2 Road (Length = 142m) <i>Contractor Responsibility</i>	Grade and shape road. Install drainage to meet EPL requirements. Clear up to 3m to allow facilitate truck movements if required. RC/PA Comments:			
1770/3 Road (Length = 105m) <i>Contractor Responsibility</i>	Grade and shape road. Install drainage to meet EPL requirements. Clear up to 3m to allow facilitate truck movements if required. 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
1226/2 Rd	79m	4m	4°	9°	0.3m	79m	No	Retain	Contractor		
1710/1 Rd	239m	4m	12° 121	19°	0.8m	239m	No	Retain	Contractor		
1710/2 Rd	308m	4m	10°	8°	NA	NA	No	Retain	Contractor		
1710/3 Rd	80m	4m	4°	2°	NA	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.

H:\Planning\HarvestPlans\Eden\Cpt_1226_1710_1770_15\Cpt_1226_1710_1770_15\HarvestPlan\Roads and Crossings\Crossing form-S1.doc

HP_ED_1226_1710_1770_15

19/11/2015

Cpt: 1770 Date: 19/11/2015 Location: E 707577 N 5890645 Photo: Y

CROSSING NAME: S1 DL, (mapped DL)

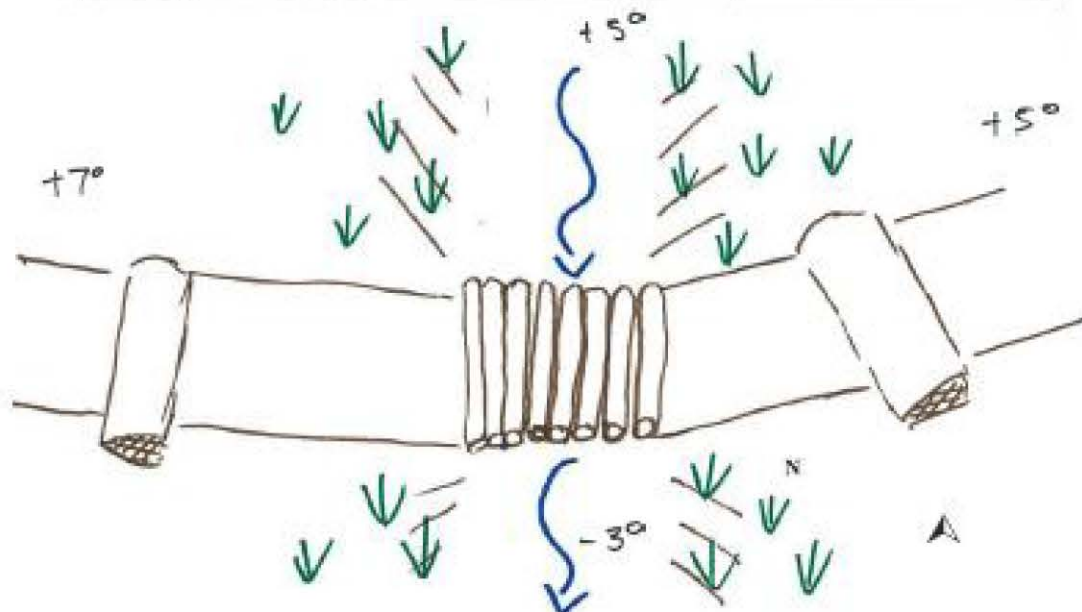
Waterway Classification: Fish Passage Class 4- Unlikely fish habitat (select appropriate class for your crossing).

Fisheries Licence Aquatic Not class 1 or 2

Assessors Name: Megan Costello

Crossing Type: New Causeway

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Natural causeway. Install corduroy if used in wet conditions and remove upon completion of operations.	Corduroy Forwarder labour
Bed and Banks	Apply seed and mulch to disturbed areas as required	Seed and mulch.
Erosion and Sediment Control	Install silt barrier if required	Silt barriers as required
Disposal of excess spoil	Ensure all spoil and any corduroy used is disposed outside of the Stream Exclusion Zone.	Flatten and seed as required
Soil Stabilisation within 20m	NA.	NA.
Road drainage within 5-20m		
• Type	Crossbanks	
• outlet control	Existing vegetation	
• table drain checking devices	Hay bales or silt barriers	Hay bales and silt barriers as required.



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Key

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Rd	Rollover drain
ψ	Silt Log
oooo	Rock
ψ	Seeding
▽	Sediment control
□	Gravel

REPORT 1

IFOA PLANNING REQUIREMENTS NOT COVERED IN OTHER REPORTS

APPROVALS FOR ACTIVITIES IN EXCLUSION ZONES FOR IFOA AND TSL

IFOA – Harvest Planner Approvals

Nil Required or

Routine Road Maintenance or Road Re-opening through the following FMZ 1, 2, 3A areas requires assessment by the Planner (IFOA Clause 39):

Or Road Re-opening / Road Construction in Ridge and Headwater Habitat requires assessment by the Harvest Planner (TSL 5.8 f):

Location(s)	1710/1 Road
FMZ	2 – Special Management
Activities Proposed (IFOA/TSL Clause)	Re-opening road
Feature at Locations	1710/1 Road – visual buffer for Coolangubra Forest Way
Removal details	Any vegetation regrowth on track plus 3m either side for truck movements
Options Considered	1710/1 road – use of NPWS Kelly Mountain Track which is not permissible
Measures to minimise impacts	use of dump outside of FMZ 2 area

Authorised by


Planner

10/12/15
Date

IFOA – Planning Supervisor Approval

Nil Required or

Road construction through the following FMZ 1, 2, 3A areas requires approval by the Planning Supervisor (IFOA Clause 39):

Snigging through the following FMZ 1, 2, 3A areas requires approval by the Planning Supervisor (IFOA Clause 19):

Locations	1710/1 Road and 1710/2 Road
FMZ	2 – Special Management
Activities Proposed (IFOA Clause)	New road construction
Feature at Locations	1710/1 Road – visual buffer for Coolangubra Forest Way 1710/2 Road – visual buffer along ridge top
Removal details	Road width plus 3m either side for truck movements
Options Considered	1710/1 road – use of NPWS Kelly Mountain Track which is not permissible 1710/2 road – switch back and cut/fill construction of approx. 200m on side slope of 24°
Measures to minimise impacts	1710/1 road – minimising length of new construction by linking up with existing tracks within and exterior to FMZ 2 area 1710/2 road – ridgeline road to minimise soil disturbance and erosion

Approved by:


Planning Supervisor

10/12/15
Date