

# LOCALITY MAP

Compartments 484, 485, 1730 & 1732

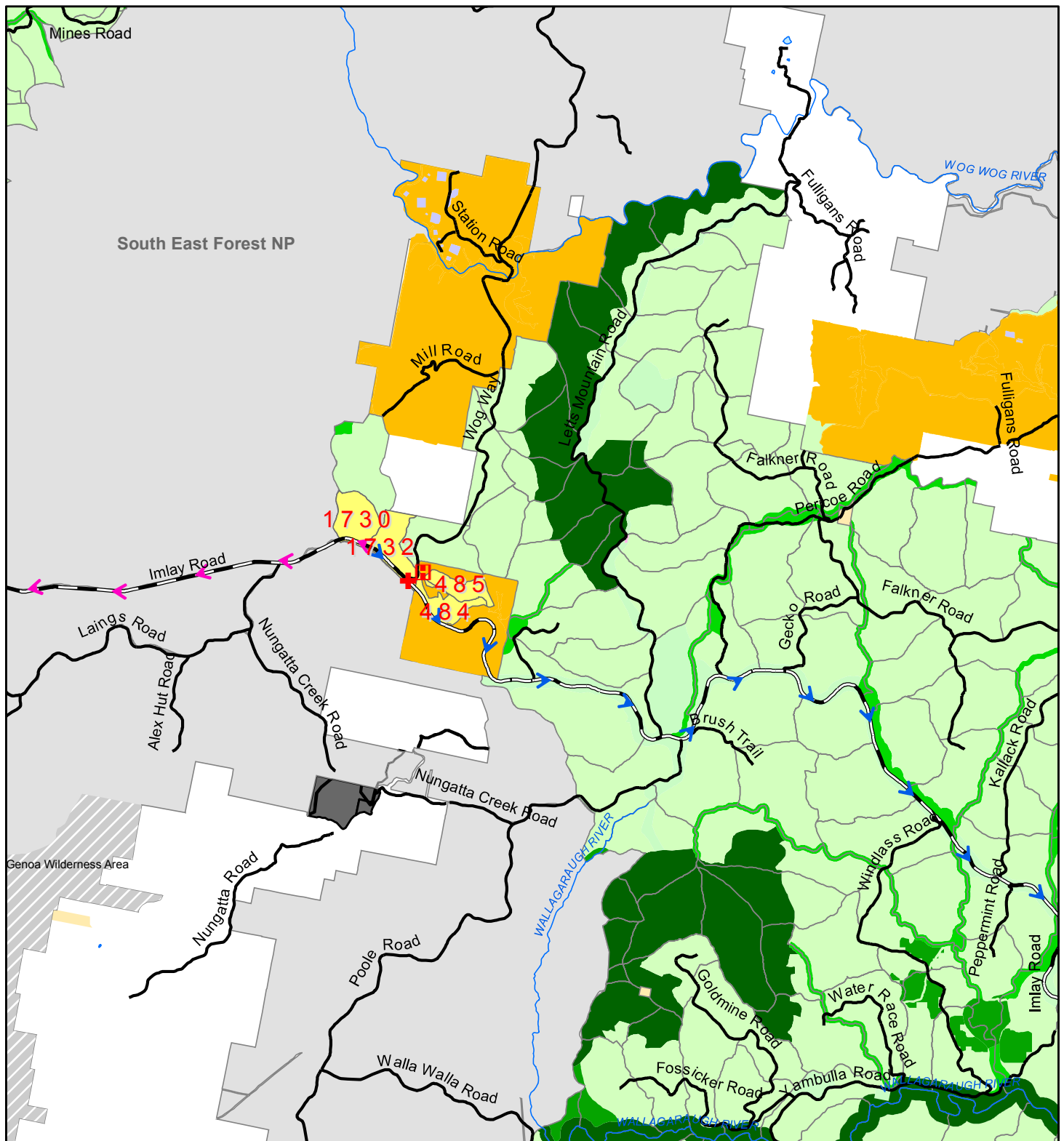
State Forest: Bondi

No:128

EDEN IFOA

EDEN MANAGEMENT AREA

Scale: 1:100,000



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

Prepared By:  
Megan Costello

Version: 1

PLANNING SUPERVISOR APPROVAL

APPROVED: LEE BLESSINGTON

DATE: 8 / 3 / 2016

# Harvest Plan Operational Map

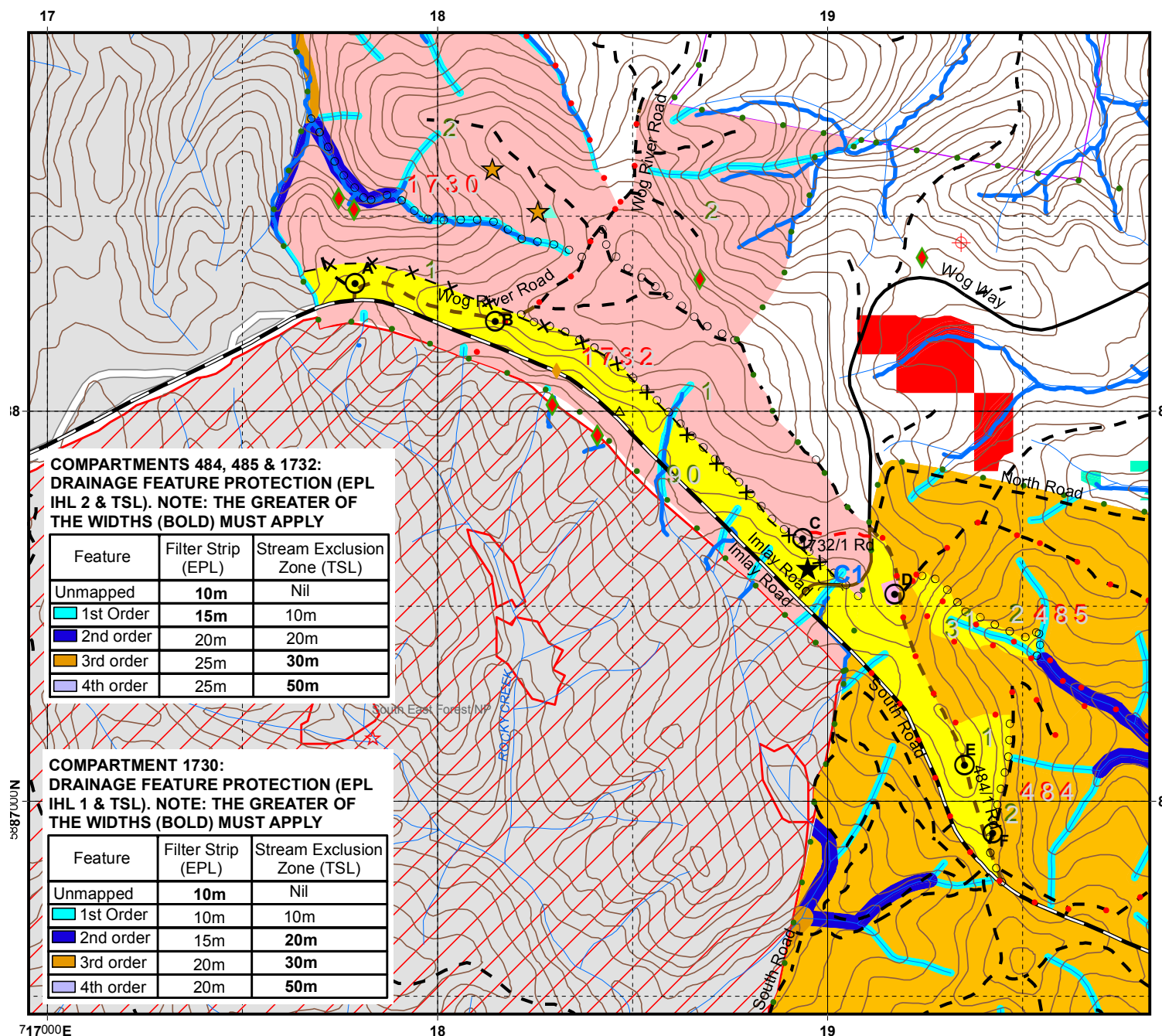
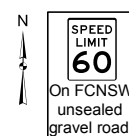
## Compartments: 484, 485, 1730 & 1732

State Forest: BONDI

No: 128

Eden IFOA

Map Sheet: NALBAUGH, NUNGATTA 8723-1N, 8723-1S



### LEGEND

#### BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary
- Proposed Control Line

#### ROADS

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

#### DRAINAGE

- Mapped LIC Drainage

#### NET HARVEST AREA

- FMZ 4 & FMZ 3B - MSW

#### DUMPS & CROSSINGS

- Temporary Dry Weather
- Existing Crossing

#### TENURE

- National Park Estate
- Private Property

#### FAUNA FEATURES

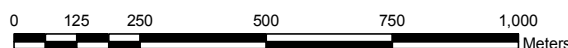
- Yellow-bellied Glider (Heard)
- Powerful Owl
- Spotted-tailed Quoll
- Gang-gang Cockatoo
- Greater Glider
- Swift Parrot

#### NON HARVEST AREA

- Non Harvest Area
- Softwood Plantations (FMZ 6)
- Non Forest Use (FMZ 7)
- Rare & Non Commercial Forest Ecosystems
- High Conservation Value Old Growth
- Owl Landscape

#### MAP FEATURES

- Rocky Terrain (Field Verified)



Scale: 1:15,000  
Contour Interval 10m

Prepared By:  
Megan Costello

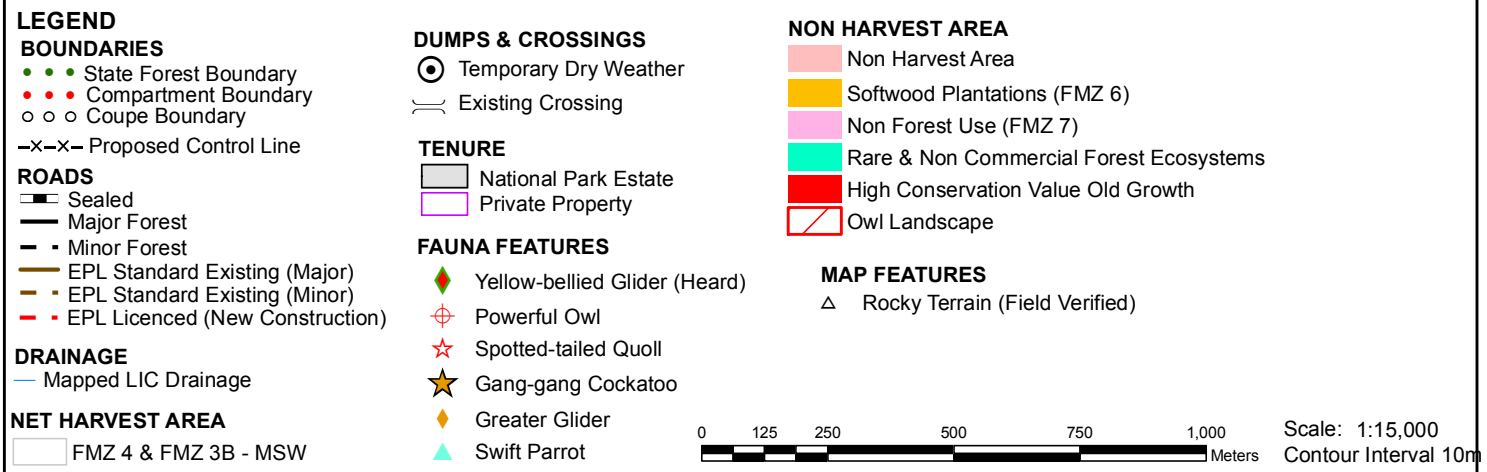
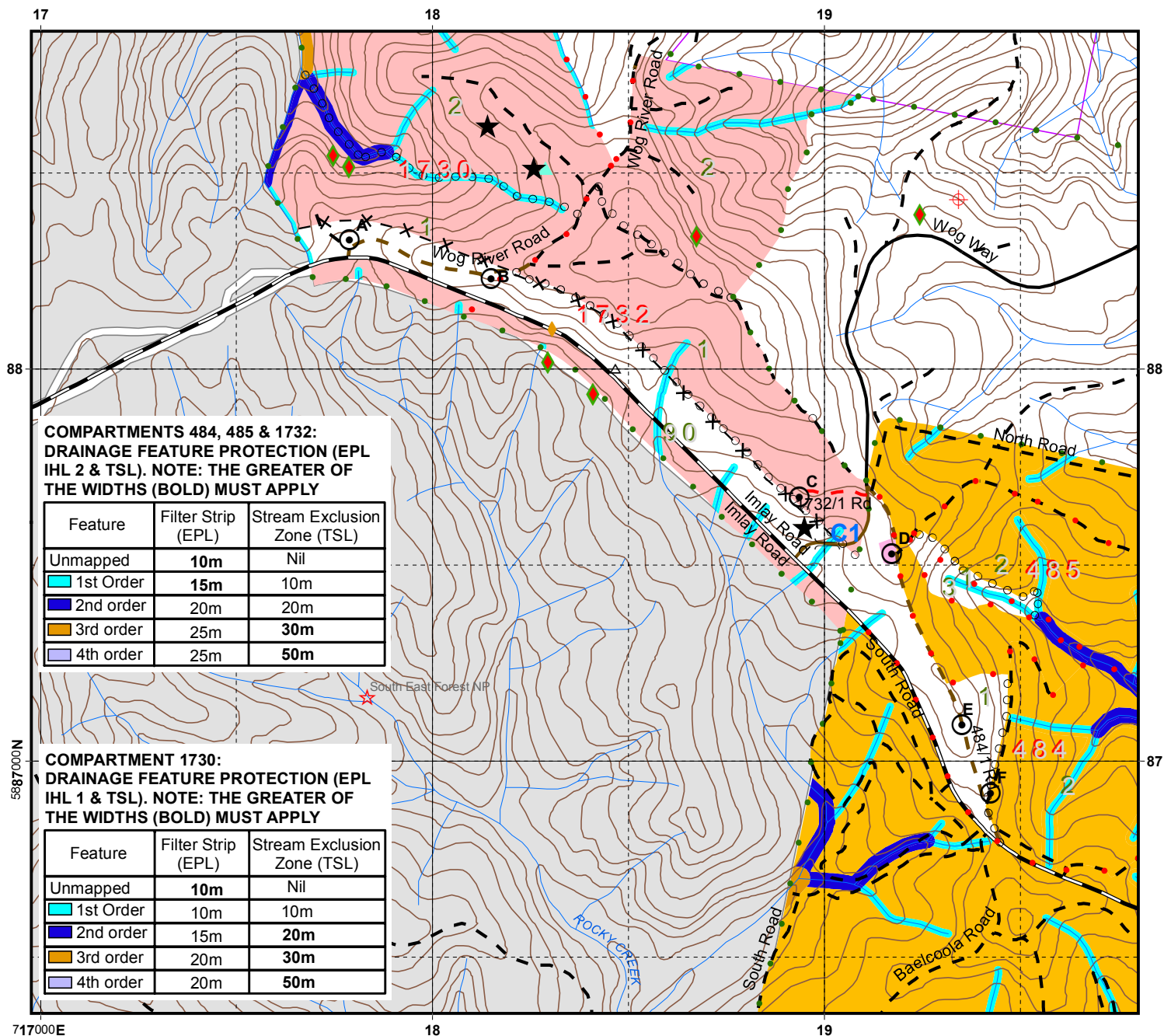
# PA Harvest Plan Operational Map

## Compartments: 484, 485, 1730 & 1732

State Forest: BONDI No: 128

Eden IFOA

Map Sheet: NALBAUGH, NUNGATTA 8723-1N, 8723-1S





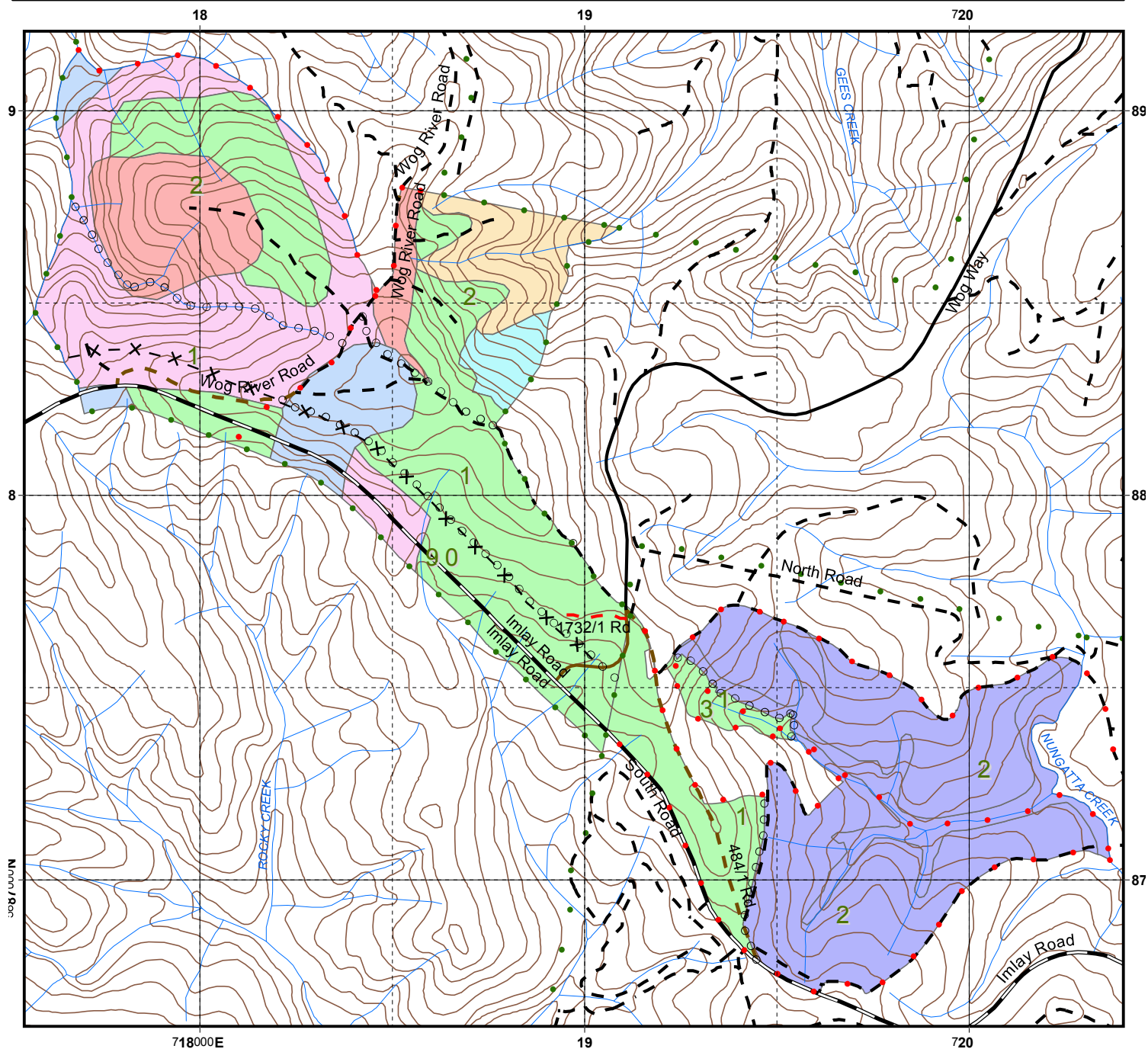
Prepared By:  
Megan Costello

# Harvest Plan Forest Type Map

## Compartments: 484, 485, 1730 & 1732

### State Forest: BONDI No: 128

Eden IFOA  
Map Sheet: NALBAUGH 8723-1N



#### LEGEND

##### BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary
- Proposed Control Line

##### ROADS

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

##### DUMPS & CROSSINGS

- Temporary Dry Weather
- Existing Crossing

##### DRAINAGE

- Mapped LIC Drainage

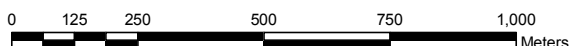
##### BROAD FOREST TYPES

- 111 - Peppermint
- 113 - Silvertop Ash - Peppermint
- 114 - Silvertop Ash - Stringybark
- 126 - Stringybark - Bloodwood
- 152 - Messmate - Gum
- 158 - Southern Blue Gum
- 218 - Forestry Plantations

Broad Forest Types	Gross Ha
111- Peppermint	16.1
113 - Silvertop Ash-Peppermint	35.5
114 - Silvertop Ash - Stringybark	65.3
126 - Stringybark - Bloodwood	3.5
152 - Messmate - Gum	10.9
158 - Southern Blue Gum	8.9
218 - Forestry Plantations	56.9

##### MAP FEATURES

- Rocky Terrain (Field Verified)



Scale: 1:15,000  
Contour Interval 10m

Prepared By:  
Megan Costello

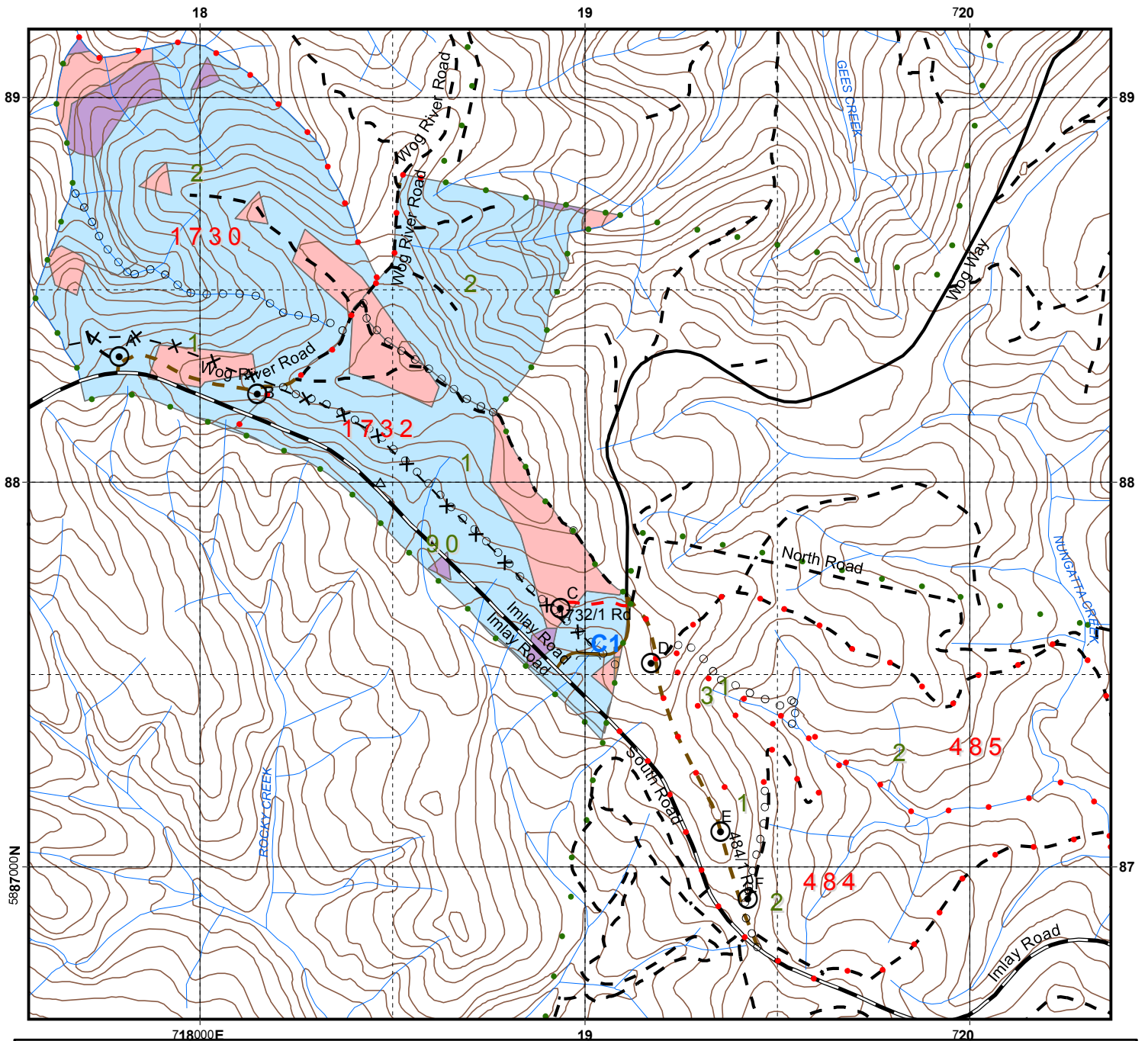
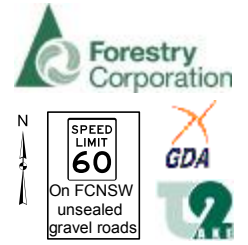
# Harvest Plan Habitat Class Map

Compartments: 484, 485, 1730 & 1732

State Forest: BONDI No: 128

Eden IFOA

Map Sheet: NALBAUGH 8723-1N



## LEGEND

### BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary
- Proposed Control Line

### ROADS

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

### MAP FEATURES

- Rocky Terrain (Field Verified)

### DRAINAGE

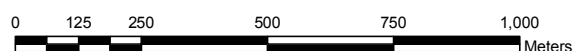
- Mapped LIC Drainage

### HABITAT CLASS

- High
- Moderate
- Low

### DUMPS & CROSSINGS

- Temporary Dry Weather
- Existing Crossing



Scale: 1:15,000  
Contour Interval 10m

Prepared By:  
Megan Costello

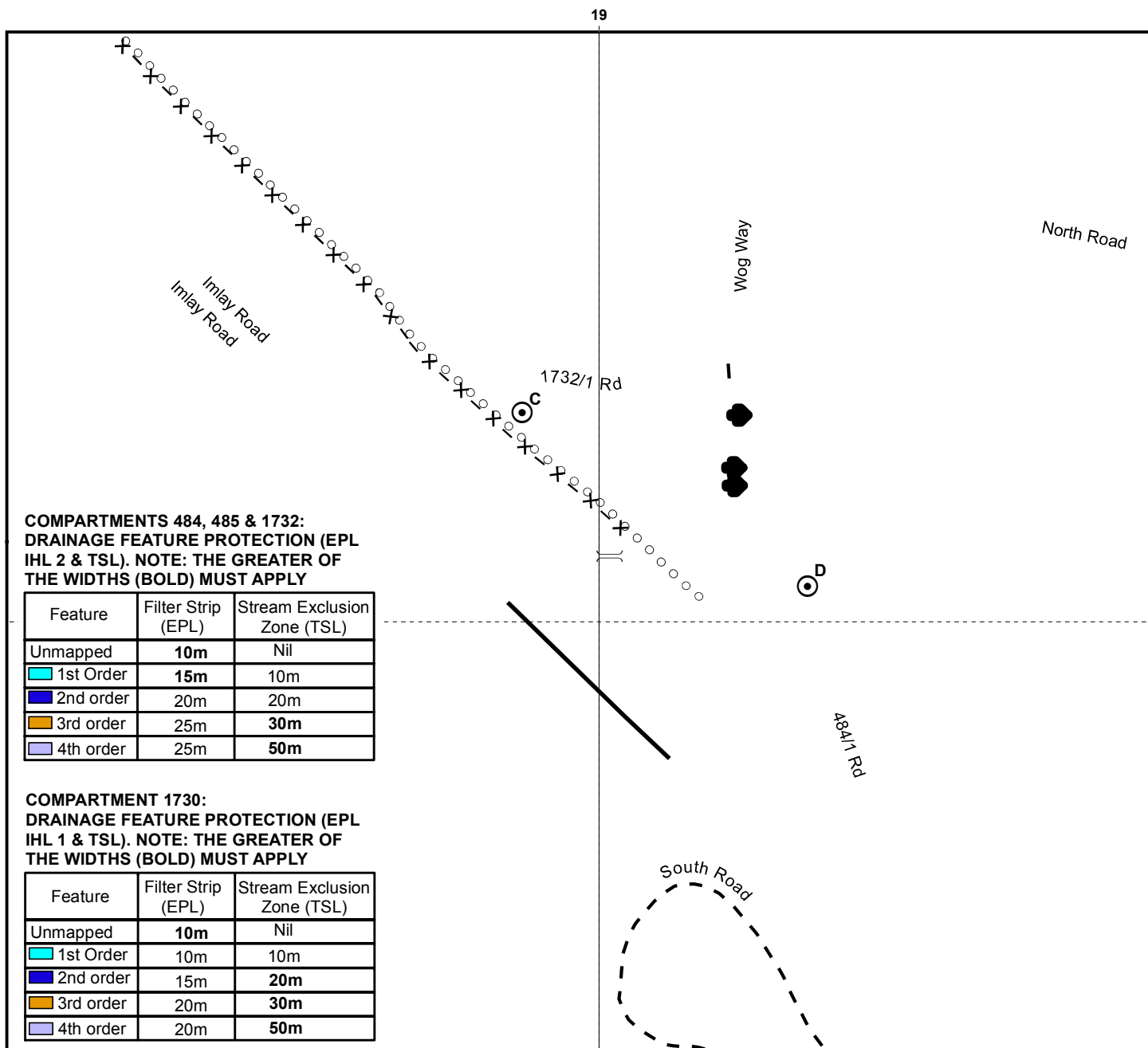
# Road Plan Operational Map

## Compartment: 484, 485, 1730 & 1732

State Forest: BONDI No: 128

Eden IFOA

Map Sheet: NALBAUGH, NUNGATTA 8723-1N, 8723-1S



**COMPARTMENTS 484, 485 & 1732:**  
**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	<b>10m</b>	Nil
1st Order	<b>15m</b>	10m
2nd order	20m	20m
3rd order	25m	<b>30m</b>
4th order	25m	<b>50m</b>

**COMPARTMENT 1730:**  
**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	<b>10m</b>	Nil
1st Order	10m	10m
2nd order	15m	<b>20m</b>
3rd order	20m	<b>30m</b>
4th order	20m	<b>50m</b>

### LEGEND

#### BOUNDARIES

- State Forest Boundary
- Compartment Boundary
- Coupe Boundary
- X-X- Proposed Control Line

#### ROADS

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

#### DRAINAGE

- Mapped LIC Drainage

#### NET HARVEST AREA

- FMZ 4 & FMZ 3B - MSW

#### DUMPS & CROSSINGS

- Temporary Dry Weather
- Existing Crossing

#### TENURE

- National Park Estate

#### FAUNA FEATURES

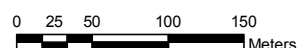
- Gang-gang Cockatoo

#### NON HARVEST AREA

- Non Harvest Area
- Softwood Plantations (FMZ 6)
- Non Forest Use (FMZ 7)
- High Conservation Value Old Growth
- Owl Landscape

#### ROAD DRAINAGE FEATURES

- Existing Culvert
- Existing Mitre Drain
- New Mitre Drain



Scale: 1:5,000  
Contour Interval 10m



## HARDWOOD FORESTS- EDEN IFOA HARVESTING PLAN

### Bondi State Forest – Compartments 484, 485, 1730 & 1732

#### 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	8/3/2016	Date	8/3/2016

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 = 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
Bondi	484	1 & 3	Eden	Eden	No. 604224 (AS4708:2013)
	485	1			
	1730	Part 1			
	1732	Part 90			

	Cpt	Cpt	Cpt	Cpt	Total
Plan Compartment ID	<b>484</b>	<b>485</b>	<b>1730</b>	<b>1732</b>	NA
Gross Area (ha)	41.1	36.2	62.9	64.1	204.3
Net Harvest Area (ha)	11.6	0.8	4.7	11.9	29.0
Estimated Yield Pulp (t)	465 t	40 t	235 t	1,000 t	1,740 t
Estimated Yield Sawlog (m3)	32 m3	4 m3	14 m3	208 m3	170 m3

**Slope Classes (percent of harvest area)**

	Cpt 484	Cpt 485	Cpt 1730	Cpt 1732
Slope Class	% of harvest area	% of harvest area	% of harvest area	% of harvest area
0-20°	99	91.7	100	96.8
20-25 °	1.1	8.3	0	3.2
25-30 °	0	0	0	0





## ATTACHMENT 1: SITE SAFETY PLAN

Worksite Information		
Is this Declared Hunting Area: Yes		Comments: Cpts 484, 485 & 1732 excluded
Have Exclusion Zone signs been erected or checked prior to starting work daily.		Yes / No
Comments: Exclusion Zone signs must be erected at the entry to the worksite for compartment 1730		
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 compartments 484 and 485 will be south via 484/1 Road turning left onto Imlay Road (100km/h road), before turning left onto Princes Hwy and finally turning right onto Edrom Road. The intersection of 484/1 Road has been assessed as achieving a minimum sight distance of 200m for vehicles travelling on Imlay Road in an easterly direction, but only a sight distance of 45m for vehicles travelling along Imlay Road in a westerly direction. Therefore prior to haulage commencing, a suitably qualified person must implement "TCP 195 484/1 Road" (attached to this harvest plan) at this intersection.</p> <p>This plan identifies haulage from compartment 1732 will be south via Wog 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 Wog 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 – Wog Way" (attached to this harvest plan) at this intersection.</p> <p>This plan identifies haulage from compartment 1730 will be south via Wog River Road turning left onto Imlay Road (100km/h road), before turning left onto Princes Hwy and finally turning right onto Edrom Road. The intersection of Wog River Road has been assessed as achieving a minimum sight distance of 200m for vehicles travelling on Imlay Road in a westerly direction, but not for vehicles travelling along Imlay Road in an easterly direction. Therefore prior to haulage commencing, a suitably qualified person must implement "TCP 195 – Wog River Road" (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. Cliff lines & rocky very steep terrain	Operators to assess work site within two tree lengths to identify immediate hazards. Communicate to other operators and mark sites.		
3. Hazardous or dead trees	<b>Refer to FCNSW WHS procedure 4.26.</b> 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 <b>Contractor is responsible for implementing control strategies during harvesting.</b>		
4. Overhead hazards associated with dumps	<b>Refer to FCNSW WHS procedure 4.26.</b> Assess overhead hazard within two tree lengths of the dump. Assess risk, & if necessary remove hazard or relocate dump site. <b>Contractor is responsible for implementing control strategies during harvesting.</b>		
5. Dust from passing vehicles along dirt haulage routes	Restrict speed to minimise dust generation, slow down when passing vehicles. Turn on driving and hazard lights to increase visibility.		
6.			

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



# MEDICAL EMERGENCY EVACUATION PLAN

Nearest reliable mobile phone reception (describe location)			
Next G Network: Good (nil at worksite)	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° 7' 59.14" S / 149° 27' 53.08" E	MGA: 718938E 5887519N	Datum: GDA 94	Zone: 55
Location description: Intersection of Wog Way and Imlay Road.			
Helicopter landing place (refer to attached locality map)			
GPS Lat/Long: 37° 7' 53.12" S / 149° 27' 59.94" E			
Location description: Intersection of Wog Way and 484/1 Road.			
Procedures to obtain ambulance assistance			
1. Dial 000 2. If there is no mobile coverage, dial 112 (which will work on any mobile phone system). 3. If no response on 112: <ul style="list-style-type: none"> <li>• use a radio link (TARA, be discrete with personal information)</li> <li>• move to an area with mobile coverage</li> <li>• find a landline</li> <li>• use another network (e.g. a contractor's VHF radio)</li> </ul>		Contact nearest Forestry Corporation office on: Channel: 247 Telephone: 1300 880 548 Give details of the situation and ask for a 000 call to be placed.	
000 operator question:		Response:	
1. Police, Fire, Ambulance?		NSW Ambulance,	
2. Suburb?		State Forest name: Bondi Nearest town or locality: Rockton Nearest ambulance station: Bombala	
3. Address?		Imlay Road	
4. Nearest road junction/cross street?		Imlay Road and Wog Way	
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 14.8km to EMP at the intersection with Wog 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

### Cpt 484

<b>Year</b>	2016
<b>TSI</b>	<b>X</b>
<b>HR Burning</b>	<b>X</b>
<b>Wildfires</b>	<b>X</b>
<b>Logging m<sup>3</sup></b>	<b>NA</b>

### Cpt 485

<b>Year</b>	2016
<b>TSI</b>	<b>X</b>
<b>HR Burning</b>	<b>X</b>
<b>Wildfires</b>	<b>X</b>
<b>Logging m<sup>3</sup></b>	<b>NA</b>

### Cpt 1730

<b>Year</b>	1999	2006
<b>TSI</b>	<b>X</b>	<b>X</b>
<b>HR Burning</b>	<b>X</b>	<b>X</b>
<b>Wildfires</b>	<b>X</b>	<b>X</b>
<b>Logging m<sup>3</sup></b>	<b>1,053</b>	<b>2,284</b>

### Cpt 1732

<b>Year</b>	1999	2006
<b>TSI</b>	<b>X</b>	<b>X</b>
<b>HR Burning</b>	<b>X</b>	<b>X</b>
<b>Wildfires</b>	<b>X</b>	<b>X</b>
<b>Logging m<sup>3</sup></b>	<b>4,108</b>	<b>1,149</b>

0 - applies, X – not applicable

## Silvicultural Planning

Compartments 484 and 485 are managed as FMZ 6: softwood pine plantation. They were most recently harvested in early 2016. Within these compartments are small remnants of native forest predominantly adjacent to the riparian buffers as well as a section along Imlay Road. These remnant stands are a combination of over-mature stems and suppressed regeneration.

Compartments 1730 and 1732 were harvested under a modified shelterwood system in 1999 and then again in 2006 in alternate coupes. This has resulted in a multi-aged forest consisting of a mosaic of logged and unlogged areas.

The forest type in the targeted harvest area of these compartments is dominated by Silvertop Ash-Stringybark, Messmate – Gum, and Silvertop Ash - Peppermint.

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)	100%	FMZ 4 & 3B	<ul style="list-style-type: none"> <li>100% Integrated (modified shelter-wood)</li> <li>Target sawlogs, pulpwood and other miscellaneous products as markets allow in line with TSL and EPL requirements.</li> <li>Retain potential sawlog growers.</li> <li>Refer to Standard Harvest Planning Conditions for more detail.</li> </ul>
Cleared former stockpile area		FMZ 7	<ul style="list-style-type: none"> <li>For use as a temporary dry weather dump only</li> <li>Blade and re-shape upon completion of operations</li> </ul>

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 boundary of compartment 1732, 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 Compartment 1732.

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.

### Rocky Terrain

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

### National Parks and Nature Reserves

South East National Park neighbours compartments 1730 and 1732 to the south west. The area immediately adjacent to South East National Park is not intended for harvest.

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

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

### Forest Management Zoning

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

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

**FMZ 3B (Visual)** – A visual protection zone is located 100 metres wide parallel to Imlay Road. Harvesting is permitted in this zone with no modified conditions. Refer to harvesting prescription above.

**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

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 484, 485, 1730 and 1732. 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: **Common Bent-wing Bat** (*Miniopterus schreibersii*), **Greater Broad-nosed Bat** (*Scoteanax rueppellii*), **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)	Ö	5.6l	Ö	5.6j	Ö	5.6 k
Medium	8	5.6g(ii)	8	5.6 h(ii)	Ö	5.6l	Ö	5.6j	Ö	5.6 k
Low	4	5.6g(iii)	4	5.6 h(iii)	Ö	5.6l	Ö	5.6j	Ö	5.6 k

Ö - Condition applies

**General exclusion zones**

General exclusions as listed below are shown on the HPOM.

Feature/Condition	TSL cond'n	Occurs within Planning Unit
<b>Rainforest</b>	5.4	Rainforest is not mapped within the compartment(s) #.
<b>Rare Forest Ecosystems</b>	5.5	No
<b>Riparian Protection Zones</b>	5.7	Yes
<b>Ridge &amp; Headwater Habitat</b>	5.8	No
<b>Wetlands</b>	5.9	Has been assessed & is unlikely to occur in the field. May require further investigation#.
<b>Heath and Scrub</b>	5.10	Has been assessed & is unlikely to occur in the field. May require further investigation#.
<b>Rocky Outcrops and Cliffs</b>	5.11	Has been assessed as a risk that it may occur in the field. May require further investigation#.
<b>Endangered Ecological Community</b>	NA	Has been assessed & is unlikely to occur in the field. May require further investigation#. <b>Removal of timber, harvesting machinery and post harvest burning must be excluded from all areas of EEC.</b>

#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 Cpts	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	Licence conditions under the TSC Act or relevant Site-specific prescription
<b>Powerful Owl</b> <i>Ninox strenua</i> , <b>Barking Owl</b> <i>Ninox connivens</i> <b>Masked Owl</b> <i>Tyto novaehollandiae</i> , <b>Sooty Owl</b> <i>Tyto tenebricosa</i>	No	6.3
<b>Swift Parrot</b> <i>Lathamus discolor</i> <b>Regent Honey eater</b> <i>Xanthomyza Phrygia</i>	Yes Cpt 1730	6.4 PA must mark 5 eucalypt feed trees/ha in Cpt 1730. H & R trees can double as eucalypt feed trees if suitable.
<b>Southern Brown Bandicoot</b> <i>Isodon obesulus</i>	No	6.5A & Species Management Plan
<b>Long-footed Potoroo</b> ( <i>Potorous longipes</i> )	No	If this species is identified in the compartment or within 100m of the compartment boundary inform the Senior Field Ecologist immediately to apply for a site specific prescription.
<b>Spotted tailed Quoll</b> <i>Dasyurus maculatus</i>	No	6.10
<b>Yellow-bellied Glider</b> <i>Petaurus australis</i>	Yes 1730 & 1732	6.13

### Fisheries Licence Conditions

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

### Soils and Water Protection

Refer to EPL Booklet & Standard Plan Conditions

Site-specific EPL Conditions

Elements	Conditions
Unmapped Drainage Lines	EPL applies

Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	1 – Cpt 1730 2 – Cpts 484, 485 & 1732
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

6 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 for compartment 1730. Inherent hazard level 2 Conditions 26, 27, 28, 30, 31 and 33 of Schedule 4 of the EPL must apply for compartments 484, 485 and 1732.

Dump C in compartment 1732 is only to be used in dry conditions.

### 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 road crossing (C1) is approved for use on drainage features. (Refer to HPOM). Crossing details are contained in Attachment 2 of this Plan.

### Mass Movement

Compartments 484, 485, 1730 and 1732 are not in an area identified as having a potential for mass movement. No specific prescriptions relating to mass movement/snigging are required.

### Suitability of existing log dams and gully stuffers

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

Condition 47 of Schedule 4 of the EPL must apply.

### Road Works

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

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

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

### Post Log Burning Control Lines

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

The table below lists critical boundaries in compartments 1730 and 1732. 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
Boundary at edge of non-harvest area to the north – north east of Cpts 1730 & 1732.	

### 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 484, 485, 1730 & 1732 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 e.g. Instructions to crew, work activity.

**Post Harvest Mapping Features Confirmation Checklist**

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



## Snig/Extraction Track Crossing Record

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

[illegible]

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

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

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

## Weekly and Bi-weekly inspection

Item Inspected	Insert dates of inspection											
	Week 1		Week 2		Week 3		Week 4		Week 5		Week 6	
	1st	2 <sup>nd</sup>	1st	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1st	2 <sup>nd</sup>	1st	2 <sup>nd</sup>
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 <sup>nd</sup>	1st	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1st	2 <sup>nd</sup>	1st	2 <sup>nd</sup>
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 <sup>nd</sup>	1st	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1st	2 <sup>nd</sup>	1st	2 <sup>nd</sup>
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 <sup>nd</sup>	1st	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1st	2 <sup>nd</sup>	1st	2 <sup>nd</sup>
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)
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[illegible]

<b>PA Notes (continued)</b>
-----------------------------

[illegible]

<b>PA Notes (continued)</b>
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[illegible]



<b>PA Notes (continued)</b>
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[illegible]

**Clearance Certificate**

**COMPARTMENTS: 484, 485, 1730 & 1732 BONDI STATE FOREST**

To .....Production Assistant

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

I certify that:

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

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

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

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

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

Last inspection was made on .....(Date)

Signed .....(Date).....  
**Production Assistant**



<b>ATTACHMENT 2                      ROADING PLAN</b>
---

**Summary of Roading Requirements**

Feature	Details	Works Required
Existing roads to be used.	1,820m/3	Yes
New roads to be constructed	179m/1	Yes
Existing crossings used	1	Yes
New crossings to be constructed	nil	NA
Length of road >10°	nil	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.

<b>CHECKLIST OF WORKS REQUIRED ON ROADS &amp; CROSSINGS</b>
---

Road/Crossing Name	Works Required	Date Started	Date finished	Signature
Wog Way (Length = 325m) <i>FCNSW Responsibility</i>	Re-instate mitre drains and table drains. Install 3 new mitre drains on eastern side of road at:  E 719112    N 5887612 E 719111    N 5887627 E 719116    N 5887671  <b>RC/PA Comments:</b>			
C1 E 719015 N 5887561 <i>FCNSW Responsibility</i>	Install mitre drain on eastern side of road uphill of crossing.  <b>RC/PA Comments:</b>			
Wog River Road (Length = 509m)  <i>FCNSW Responsibility</i>	Grade and shape road. Install drainage to meet EPL requirements. This may require constructing roll-overs where mitre drains cannot be constructed. Clear up to 3m to facilitate truck movements.  <b>RC/PA Comments:</b>			

484/1 Road (Length = 986m) <i>Contractor Responsibility</i>	Grade and shape road. Install drainage to meet EPL requirements. Clear up to 3m to facilitate truck movements. <b>RC/PA Comments:</b>			
1732/1 Road (Length = 179m) <i>Contractor Responsibility</i>	New road – refer to New Road Construction table. <b>RC/PA Comments:</b>			

**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
1732/1 Rd	179m	4m	5°	8°	0.30m	80m	No	Retain	Contractor		

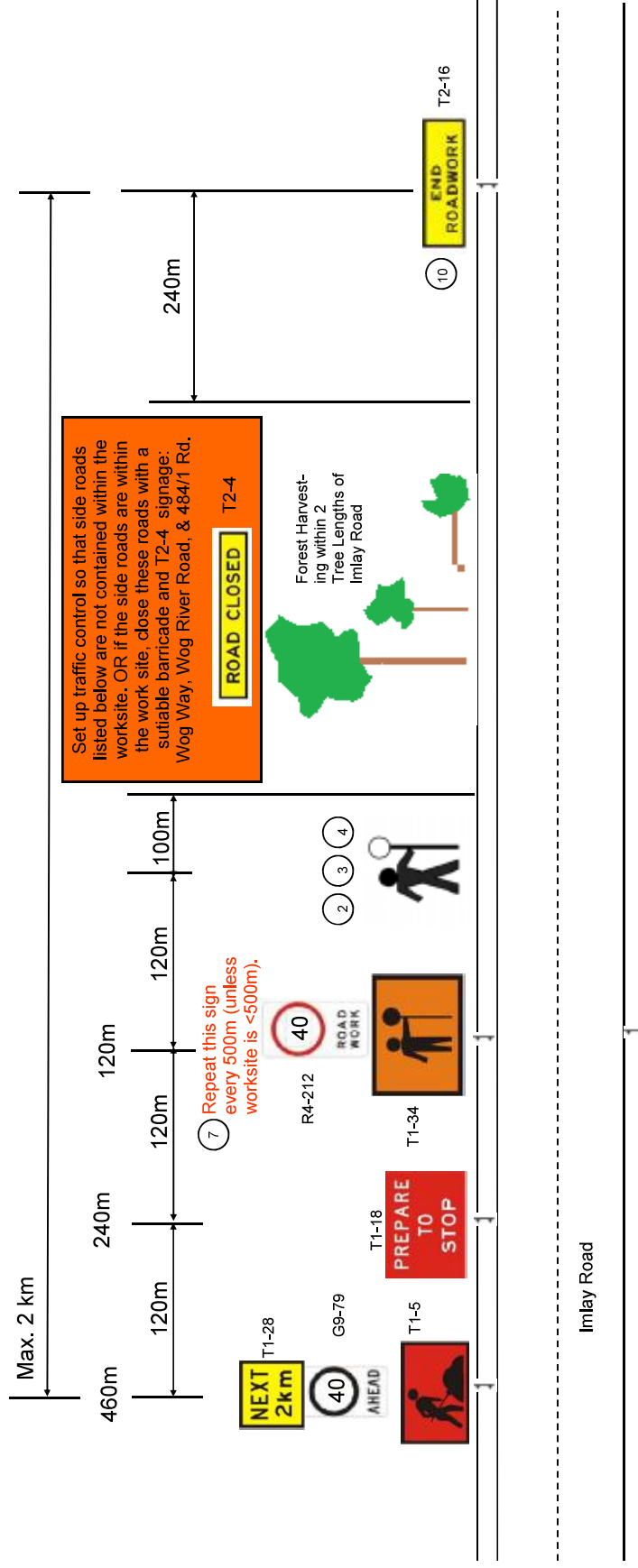
**General Instructions for road construction:**

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.

Forestry Corporation of NSW Eden Management Area Traffic Control Plan 78: Harvesting within 2 Tree Lengths of Imlay Road. Bondi State Forest Compartments 484, 1730 and 1732  
(modified from RTA Traffic Control at Work Site TCP 78)



Notes:

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

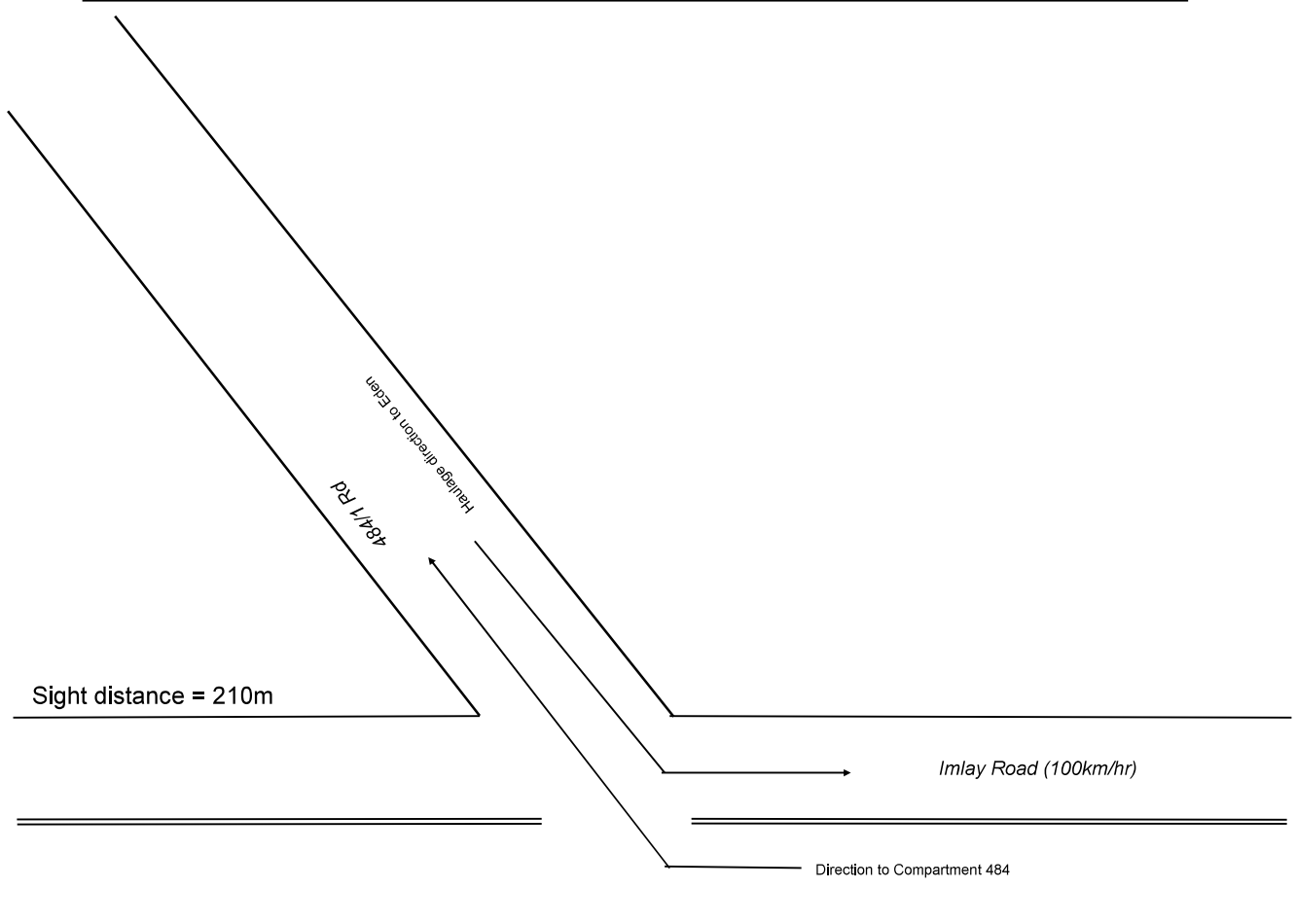
FREQUENTLY CHANGING WORK AREA  
2 LANE/2 WAY  
ADT < 3000

Prepared by Megan Costello

Reviewed & Approved by Robert Young Red Card Certificate No.5192053861 on 3/02/2016

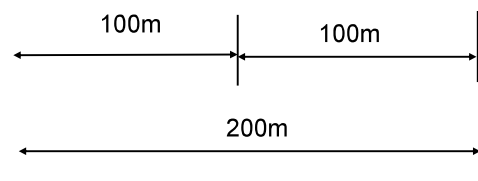


**Forestry Corporation of NSW Eden Management Area  
Traffic Control Plan 195:  
484/1 Rd — Imlay Road Intersection  
(modified from RTA  
Traffic Control at Work Site TCP 195)**



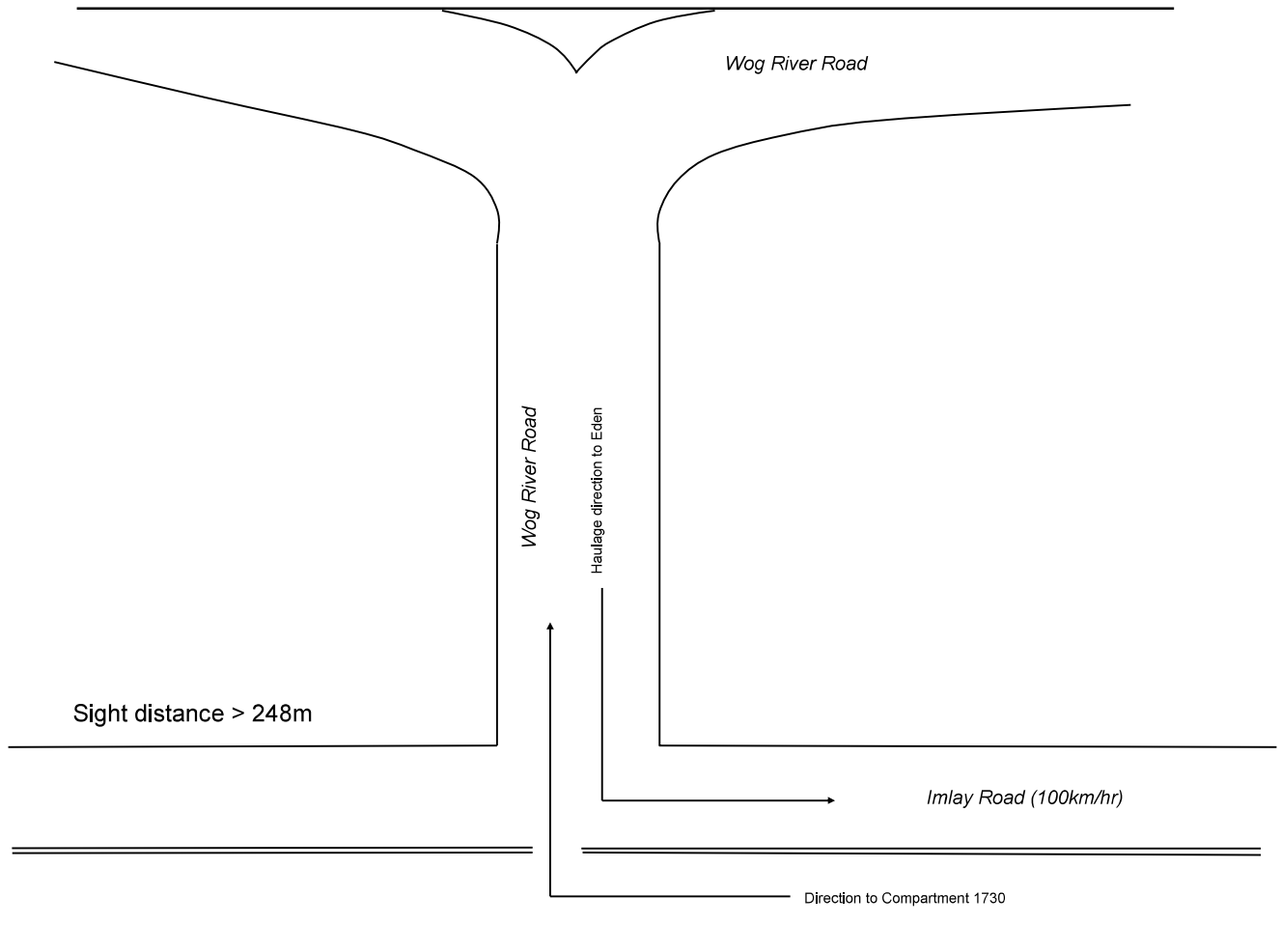
**Notes:**

- ① Log Haulage - Intersection of 484/1 Road and Imlay Road (100km/hr). Sight distance restricted to 45m when travelling from the east direction along Imlay Road.



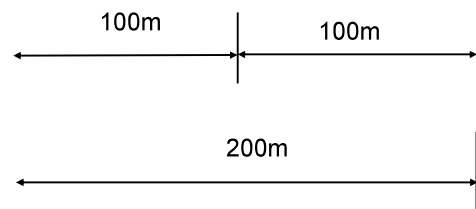
LONG TERM USE  
ADT < 1500, <20 Truck Movements (to/from compartment), Sight Distance Restricted  
Prepared by Megan Costello  
Reviewed and Approved by Rob Young, Red Card Certificate No. 5192053861 on 29/02/2016

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



**Notes:**

- <sup>1</sup> Log Haulage - Intersection of Wog River Road and Imlay Road (100km/hr) . Sight distance restricted to 185m when travelling from the east direction along Imlay Road.



LONG TERM USE  
ADT < 1500, <20 Truck Movements (to/from compartment), Sight Distance Restricted  
Prepared by Megan Costello  
Reviewed and Approved by Rob Young, Red Card Certificate No. 5192053861 on 29/02/2016



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



**Notes:**

- ① Log Haulage - Intersection of Wog Way and Imlay Road (100km/hr) .  
Sight distance restricted to 192m when travelling from the west  
direction along Imlay Road.

**LONG TERM USE**

ADT < 1500, <20 Truck Movements (to/from compartment), Sight Distance Restricted

Prepared by Megan Costello

Reviewed and Approved by Rob Young, Red Card Certificate No. 5192053861 on 29/02/2016