N

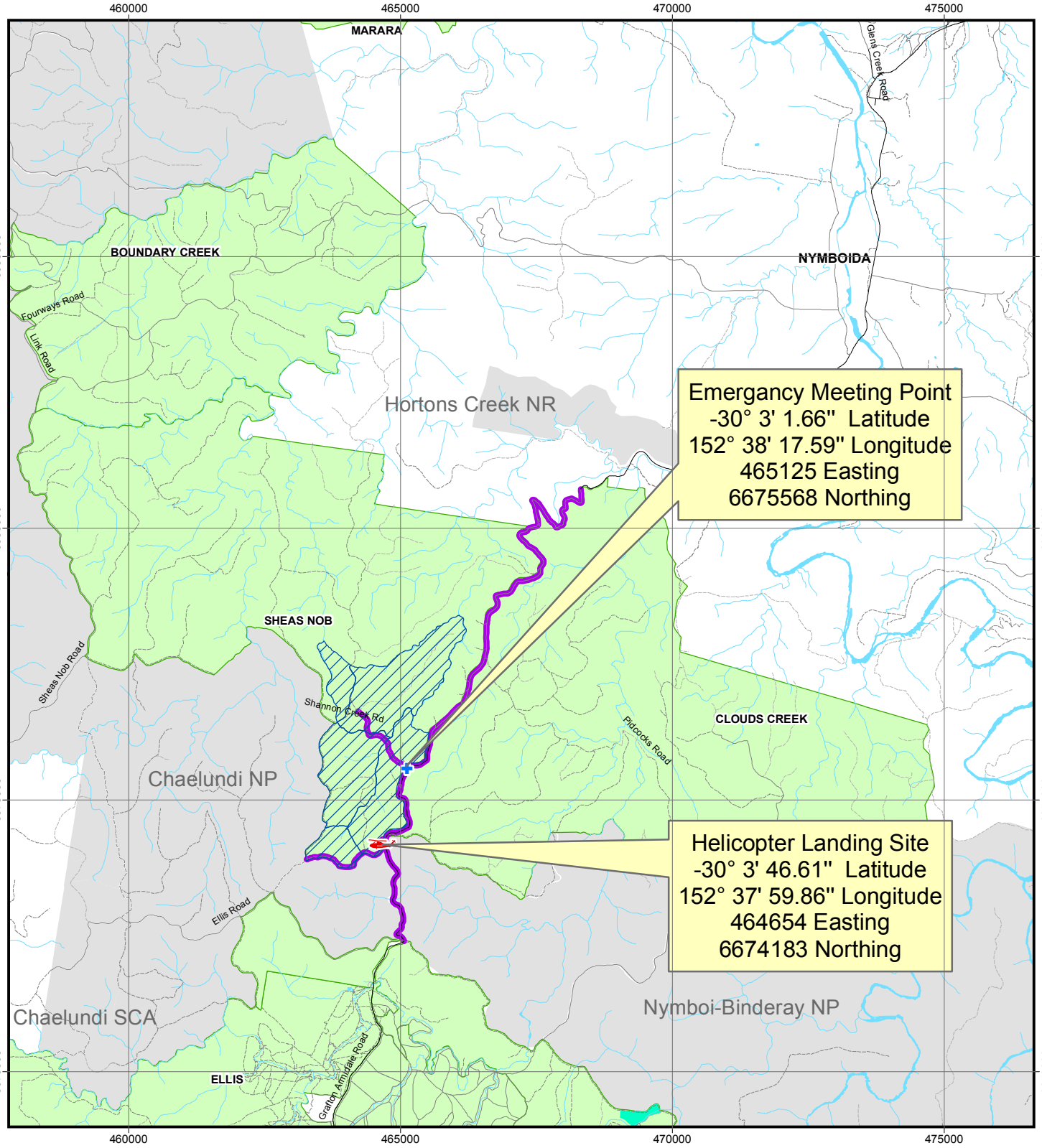
Map Sheets:
1:100,000 Dorrigo 9437
1:25,000 Clouds Creek 9437-4N

Scale: 100,000

North East Region - Grafton Management Area
Locality Map
Compartments 186, 187, 188, 221 & 232
Sheas Nob State Forest

Forestry Corporation GDA

Datum: GCS_GDA_1994
Projection: GDA_1994_MGA_Zone_56



MAP FEATURES
- Harvest Area
- State Forest
- National Park & Nature Reserve
- Drainage Feature

ROADS
- Sealed
- All Weather, Unsealed
- Dry Weather, Unsealed
- Four Wheel Drive
- Proposed Haulage

SAFETY POINTS
- Helicopter Landing Area
- Safety Points

0 500 1,000 2,000 3,000 4,000 5,000 Meters

Created By: Philip McKenzie
Created: 22/11/2018
Printed: 22/11/2018

FORESTRY CORPORATION OF NSW, HARDWOOD FORESTS DIVISION
HARVEST PLAN OPERATIONAL MAP

Forestry Corporation

GN MN 13°

1:15,000

Contour Interval 10m

GDA_1994_MGA_Zone_56

SHEAS NOB Forest
NO. 803
Cpt No: 186,187, 188, 221, 232
Management Area:GRAFTON
Mapsheet: Dorrigo 9437

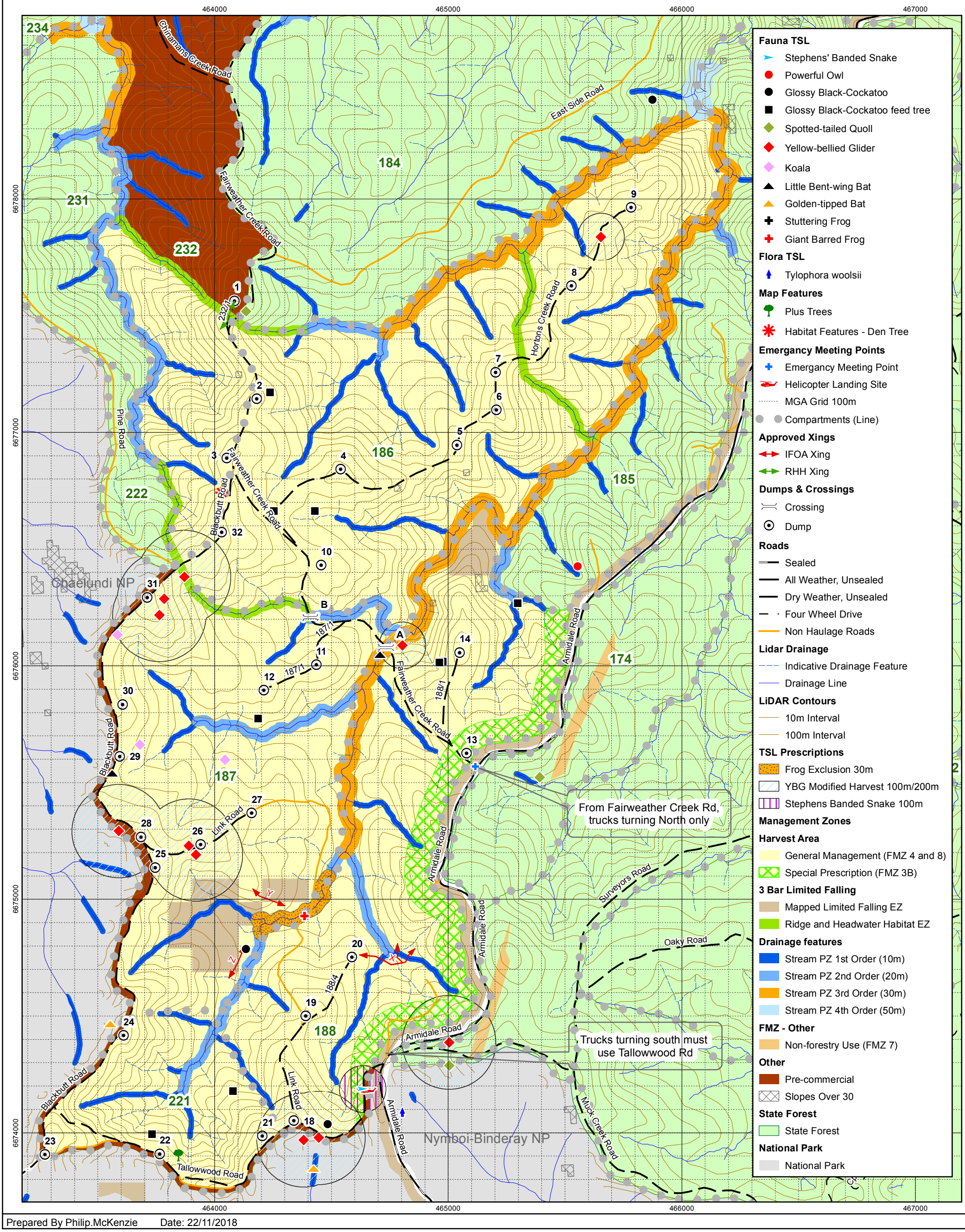
Plan Name: G_186_187_188_221_232

Plan No:48799

VERSION:

v1

Date Printed: 20/12/2018



Prepared By Philip.McKenzie Date: 22/11/2018

Kilometres
0 0.5 1 1.5

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FORESTRY CORPORATION OF NSW, HARDWOOD FORESTS DIVISION
FOREST TYPE MAP

Forestry Corporation

GN MN 13°

1:15,000

Contour Interval 10m

GDA_1994_MGA_Zone_56

SHEAS NOB Forest
NO. 803
Cpt No:232,186,187,221,188
Management Area:GRAFTON
Mapsheet

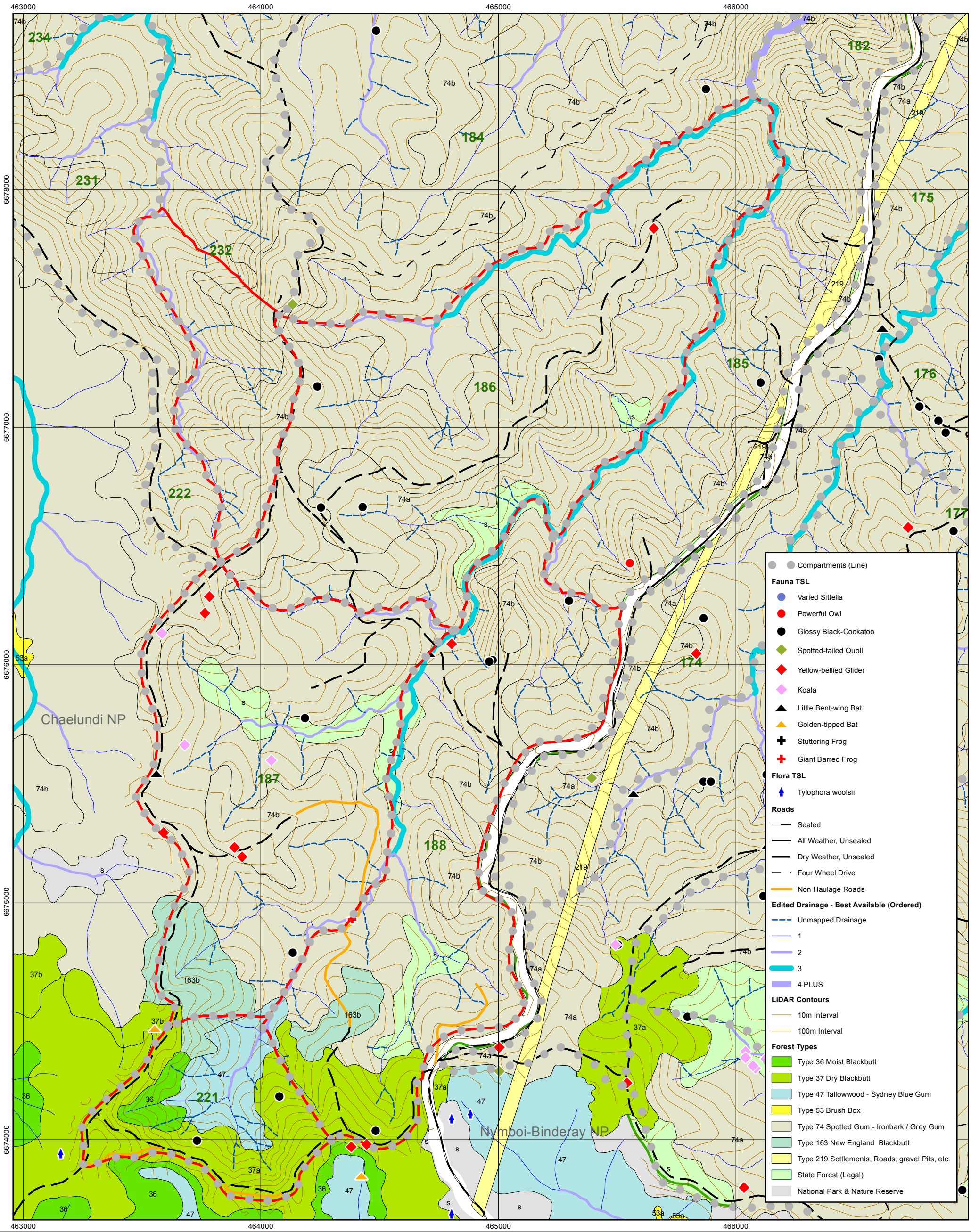
Plan Name:SHEAS NOB_232_186_187_221_188

Plan No:48799

VERSION:

v1

Date Printed: 2/03/2018



Prepared By Philip.McKenzie Date: 01/03/2018

Kilometres
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Hardwood Forests Division

Harvest and Haul Plan

State Forest	Sheas Nob	Compartments	186, 187, 188, 221 & 232
Management Area	Grafton	IFOA Region	Upper North East
Harvest Plan No.	48799	Supply Zone	Zone 2 / Dorrigo Central
Legal Conditions	Native Forest Harvesting under the UNE IFOA. Survey expiry date for this plan is **14/02/27**		
Certification	Timber products removed from the plan area are within the Defined Forest Area covered by Australian Forestry Standard and ISO14001 Certificate 13761		
Prepared by	Senior Planner Philip McKenzie	SIGNATURE ON FILE	Date: 01/03/2018
Reviewed by	Senior Planner Flavio Bugno	SIGNATURE ON FILE	Date: 11/10/2018
Approved by	Planning Supervisor Matt Kinny	SIGNATURE ON FILE	Date: 18/12/2018
Abbreviations	FT = Forest Technician, HC = Harvesting Coordinator, PtS= Protection Supervisor, HS = Harvesting Supervisor, RC = Roading Coordinator, Crew = Harvest Contractor/Forest Operators, IFOA = Integrated Forestry Operations Approval, TSL = Threatened Species Licence, EPL = Environment Protection Licence, FL = Fisheries Licence, CH = Cultural Heritage, SOP = Standard Operating Procedure.		

1. Harvest Area Details (all Slope info is LiDAR derived)

Compartment	186	187	188	221	232	Total
PlanCpt ID	**60242**	**60243**	**60245**	**60244**	60241	
Gross Area (ha)	231	162	161	50	221	825
Harvest Area (ha)	195	135	136	46	39	551
Estimated Yield (m^3)	2828	1958	1972	667	566	7990
Yield/ha (m^3/ha)	14.5	14.5	14.5	14.5	14.5	14.5
Slope (% 0-15 degrees)	25	21	18	4	2	70
Slope (% 15-30 degrees)	12	2	6	4	6	30
Slope (% 0-20 degrees)	32	23	23	6	5	89
Slope (% 20-25 degrees)	3	0	1	2	2	8
Slope (% 25-30 degrees)	2	0	1	0	0	3

Contractor must ensure timber removed is allocated to the correct compartment when entered into the Electronic Delivery Docket.

2. Management Conditions on Boundaries

Boundary	Conditions
SMZ / FMZ	**FMZ 2 and 3 a** – HCVOG is present and is mapped on HPOM as exclusion, to be located by crew using GPS. **FMZ 3b** – a visual protection zone is mapped along Armidale Road. Harvesting operations within this area must aim at retaining the visual amenity of the forest by one or more of the following options, or an appropriate alternative: - Minimise snig tracks within visible forest areas. - Snig tracks to run perpendicular to the road where practical. - Retain understory vegetation where practical to provide visual screening. - Limit tree removals to maximum 50 percent of canopy. Log dumps are permitted (dump 13) within the visual protection zone. Measures should be taken to retain the visual amenity, e.g. minimise dump size, select location not on top on ridgeline and retain screen of trees. **FMZ 4** – Available for harvesting under the conditions of this plan and displayed on the HPOM as net harvest area. **FMZ 7** – there is an old quarry located on Tallowood Rd, this is not for forestry use, as it partially located within Chaelundi NP.
Neighbours	Chaelundi National Park is located west & south of the harvest area. The boundary with Chaelundi National Park to the west is formed by a 20m offset from the centreline of Blackbutt Rd, from the intersection with Pine Rd to Tallowood Rd. The boundary to the south is formed by a 20m offset from the centreline of Tallowwood Rd. Forestry operation must not impact on the National Park. Contact details for National Park and Wildlife Service are held on file. There is a TSR along the eastern boundary of the SF & Armidale Road. Other than routine road maintenance on existing roads, no forestry activities are permitted within the TSR.
Armidale Road	NO HARVESTING WITHIN TWO TREE LENGTHS OF ARMIDALE ROAD.
Cultural Heritage	Surveys were conducted in November 2016. No sites were identified within the harvest area during the surveys, although there are known sites within close proximity. If any potential heritage sites are identified during mark-up or

	harvesting, an interim 100m exclusion buffer must be applied and Planning Supervisor notified immediately.
Plus Tree	A blackbutt plus tree is located within the net harvest area directly east of dump 22 at **463845E** & **6673905N** (See HPOM). The FT must mark this tree for protection from harvesting and using 'eyes in the bush' within FCMap App record their location and condition. The Crew must ensure any logging debris within a 5m radius is removed or flattened to a height of less than one metre and following harvesting the HC must inspect all plus trees and update their condition in FCMap App

3. Expected Yields

Product Estimates	Volume (m3)
HQ Large Sawlog (Quota)	1650
HQ Small Sawlog	1380
Poles, Piles and Girders	1380
Veneer	550
LQ Sawlog (Salvage)	3030
Residue	0
Total	7990

Species	Species Mix (%)
BBT	9
SPG	40
SBG	2
TWD	15
BBX	10
NEH	4
OTH	20

4. Haulage Route and Contractor Travel Route

Haulage Route	Internal compartment roads/trails to Fairweather Creek Rd, Blackbutt Rd & Tallowwood Rd – then out onto Armidale Road. Armidale Road is a very busy rural road with a speed limit of 100 km/h. The haulage contractor, Crew & HC must conduct their own risk assessment for traffic turning onto Armidale Road (both Fairweather Creek Rd & Tallowwood Rd). All trucks **must turn north** onto Armidale Road from Fairweather Creek Rd. Trucks **hauling to the south must use** the Tallowwood Road intersection. **BEWARE** – Fairweather Creek Road forms the main access route for private property to the north of the harvest area.
Traffic Control Plan	If required, based on the risk assessment above, a traffic control plan (TCP), restricting the speed of traffic on Armidale Rd is available for trucks turning onto Armidale Rd.

5. Community

Issue	Detail	Conditions
Public Road Users		Fairweather Creek Road, Blackbutt Road & Tallowwood road provide access to Chaelundi National Park and private property to the North. Road closures will be required when working within two tree lengths of any road.
Forest Permits	Apiary	Numerous apiary sites occur within the planning unit. Harvesting should aim to minimise impact on any occupied apiary site. If the presence of hives is unduly constraining harvesting, the HC must consult the apiarist to organise for the hives to be moved (contact details are available from the planner).
	Grazing OP: 13559	Harvesting must not impact on any functional fence line; any damage must be immediately repaired by the contractor. The HC to contact permit holder prior to commencing operations (contact details are available from the planner).

6. Infrastructure

Infrastructure	Conditions
All Mapped Fire Trails	Mapped trails must be reinstated to similar or better condition for access to that prior to harvesting/snigging and comply with the EPL.

7. Harvesting Conditions

Silviculture Type	Harvesting Objectives and Condition for each stand condition
STS Medium	It is intended that STS medium be implemented, based on harvesting trees that have reached their maximum economic end use. BA removal may exceed 40% in some localized areas <1ha but is unlikely to occur across large contiguous areas. Crew to remove all merchantable high quality large and salvage quality stems. Where appropriate the Crew must thin high-quality small stems from below, particularly targeting suppressed stems suitable for poles, while retaining sufficient growers for the next harvest in 25 to 30 years. The crew is responsible for retaining patches of advanced regeneration and must avoid damage to retained growers. HC to monitor retention & damage of retained trees. In areas where there is a concentration of commercially mature trees, the Crew must retain seed trees approximately one tree length apart. In areas of existing poor stocking, mechanical disturbance and enrichment planting may be required. FT and HC to map and identify areas for further treatment during mark-up and harvest.
Monitoring	HC must monitor basal area removal to ensure that it is consistent with the planned removal outlined below. Any changes to the silvicultural treatment needs to be endorsed by the planning supervisor.

IFOA Limits	STS Medium
STS Tract (ha)	551
Pre-harvest BA (m2/ha)	27
Post harvest BA (m2/ha)	17
Planned Removal (m2/ha)	37%

Note: AVG post-harvest BA in STS tract likely to be higher due to difficult to access areas.

8. Tree Retention - refer to TSL booklet for full conditions

Prescription	Condition/Responsibility
Mark-Up – the FT is responsible for marking up the forest ahead of harvesting operations consistent with SOP 2 Exclusion Zone Boundary Mark Up - and SOP 3 - Forest Mark Up	
Compartment Mark-Up Survey (5.1, 5.2, 5.13)	Compartment mark-up surveys must be conducted at least 300m in advance of operations. The survey must search for threatened and protected species features listed in conditions 5.1, 5.2 & 5.13 (general, koala and bird roost and nest searches) of the TSL. *No Koala star search triggers were identified during pre- harvest surveys.*
Hollow-bearing and Recruitment tree retention (H and R)	**Regrowth Zone** - 5.6 d), e) and f) conditions apply. FT must select and mark 5 H trees/ha where available and one R for each H retained. Additional H trees for Greater Glider condition does not apply.
Significant Food Resources (5.6 g)	FT must mark for retention – 6 Eucalypt feed trees/2 ha where they occur, glider sap feed trees, stands of forest oak and forest oak feed trees. White Mahogany, Bloodwood and Ironbark are suitable E tree species present in these compartments. Where there is evidence of Glossy Black Cockatoos feeding on Forest Oak trees, such as chewed cones at the base of a tree, the tree must be retained and protected from specified forestry activities. These trees are identified by a black square on the HPOM.
Swift Parrot and Regent Honeyeater (7(b)(viii))	Mark for retention 10 E feed trees per 2 Ha. These trees can be used as H & R trees, where they meet the requirements. Any tree where a Swift Parrot or Regent Honeyeater is observed must be retained.
Harvesting - Crew and HC responsibilities	
Protection of Retained Trees (5.6h)	Trees marked or selected for retention must not be felled. The crew must minimise damage to H, R and E trees by using directional felling. Harvesting debris should not accumulate within 5m of retained trees. Where debris does accumulate the crew must remove or flatten to < 1m high. The HC must be notified of any badly damaged retained trees and they must assess and record if a replacement retained tree is required.
Stag Retention (Dead standing trees 5.6f)	The crew should retain stags where safe to do so. The crew must record the date, DBH, risk and location of unsafe stags removed
Significant food resources	The crew should avoid damaging flowering or fruiting banksias or grass trees.
Impenetrable Understory	Areas identified as Impenetrable Understory by the FT must be managed as per the requirements of SOP3.

9. Site-Specific Flora and Fauna (see SOP 1, 2 and 3)

Condition	Boundary Type	Prescription
Riparian Habitat Protection (5.7) (Lidar Corrected)	2, Accidental (2 bars)	Implement filter strip (hard) and protection zone (soft) around drainage features as shown on the HPOM. Refer to SOP1. The FT will mark unmapped drainage lines & 1st order protection zone boundary with two bars. The crew will locate and protect all 2nd order and above streams with GPS.
Giant Barred Frog (6.03)/Golden tipped Bat (6.20)	3, Machinery (3 bars, 2 dots)	Mapped exclusion zones to located by GPS in harvester. Please note that all Golden-tipped Bat records are located within National Park.
Stephens' Banded Snake (6.06)	3, Machinery	Mark and retain all hollow bearing trees with DBHOB of >60cm within 100m of record. Damage to these trees must be avoided. 1 previous record exists near the gravel site off Tallowwood Road.
HCVOG (5.03)	4, Limited	Crew to identify and implement mapped exclusion zone using GPS.
Ridge & Headwater Habitat (5.08)	Limited	Crew to identify and implement mapped exclusion zone using GPS.
FMZ 2 & 3A	Limited	Crew to identify and implement mapped exclusion zone using GPS.
Yellow-bellied Glider (6.17) & (7b) xii)	5, Modified Harvest	• Mark and retain all observed feed trees & 15 trees within 100m of sap feed trees, • mark and retain 15 trees within 100m of an observation, & • mark and retain 15 trees within 200m of a call detection.
Ground Habitat (5.17)	N/A	Commercial firewood collection in these compartments **is not permitted.**
Fish	N/A	The compartments contain Aquatic Habitat Class 2 for Eastern Freshwater Cod. Fisheries licence conditions apply. • Condition 7 (General Aquatic Habitat Protection Conditions) of the Fisheries Licence applies. • Condition 7.9 of the Fisheries Licence applies to snig track crossings of mapped and unmapped drainage lines. • Crossings must be approved and marked in the field prior to use. • Crossings may only be used where it is not reasonably practicable to use another route or site. • Conditions 8.3 and 8.4 of the Fisheries Licence apply to crossings.

		An aquatic habitat assessment of the site of each proposed crossing where in-stream maintenance is required must be completed prior to use. Consultation with the harvest planner is required prior to construction and use of such crossings. Crossings approved for use are shown on the HPOM.

10. Soil & Water – Refer to EPL Booklet for full conditions

Issue	Assessment	Conditions
EPL Scheduled Activity	No	
EPL Licenced	Yes	Harvesting Supervisor and Roading Supervisor must update IFOA Report for commencement, suspension and completion of operations.
Unmapped drainage Line harvesting	Not permitted	Apply EPL.
Inherent hazard level	1 & 2	Cpt 187 IHL=1, all other Cpts IHL=2, Refer SOP 1
Harvesting Slope Limits	30 degrees	EPL – Sch 4 Condition 3.
Dispersible Soils	No	
Mass Movement / Instability	No	Nil
Acid Sulphate Soils	No	Nil
Seasonality Conditions	No	Nil
Historical or existing erosion	No	Nil
Ground cover	>70%	Nil
Burning conditions	No	Nil
Log Dumps		**Refer to SOP 5** HC is responsible for authorising moving the location of a log dump.
Roading management during harvesting		**Refer to SOP 6.** HC is responsible for monitoring road and crossing drainage during haulage.
Wet Weather and Rutting		**Refer to SOP 6.** Crew is responsible for implementing automatic closures and following notified closures. HC is responsible for ensuring crew notified when notified closure is lifted.
Snigging		**Refer to SOP 8** Crew is responsible for progressive drainage of snig tracks
Snig Track Crossings		**Refer to SOP 8** HC is responsible to ensure snig track crossings are approved prior to use and rehabilitated upon completion.

11. Crossing Approvals

All crossing approvals are shown on the operational map – any other feature crossings must be assessed, recorded below and approved by the Planning Supervisor before use.

Crossing	EPA Approval	Conditions
Xing X, construction of snig track crossings across two mapped 1st order streams & one UDL to access dump 20.	EPA copy	Minimise size of snig track, remove debris out of exclusion zone and drain to EPL upon completion of snigging. Corduroy xings (as appropriate) & do not use if water flowing in drainage lines, refer to attached Fisheries Approval. Ensure that 70% coverage is attained upon completion of operations, seed with grasses.
Xing Y, snigging across mapped HCVOG, along existing snig track, to access dump 26.	EPA copy	Minimise size of snig track, remove debris out of exclusion zones and drain to EPL upon completion of snigging.
Xing Z, snigging across mapped HCVOG, along existing snig track, to access dump 24.	EPA copy	Minimise size of snig track, remove debris out of exclusion zones and drain to EPL upon completion of snigging. ignore
RHH, snigging across RHH exclusion along 232/1 Rd.	N/A	Snig along 232/1 Rd.

12. Operational Plan Briefing: A briefing of this operational plan was conducted by

Person	Role	Nature of Briefing	Date

13. Acknowledgement of Briefing: I acknowledge that I have received a copy of the plan documents and that I have been briefed on the conditions of the Plan. I understand the operational control requirements as outlined in the plan and take responsibility for the implementation of plan conditions relevant to my responsibilities

Name	Role	Signature	Date

14. Standard Operating Procedures: The following SOP's apply to this plan. FCNSW staff and the crew must hold a copy on site whilst operating and comply with the conditions set out in each SOP.

Procedure Number	**Title**
1	Drainage Feature Protection
2	Exclusion Zone Boundary Management
3	Forest Mark-Up
4	Operating in Inherent Hazard Level 3 Areas
5	Log Dump Operation and Use
6	Road and Crossing Management and Wet Weather Controls
7	Safety Requirements
8	Snig Tracks and Extraction Tracks
9	Tree Felling and Servicing Logs
10	Fire Precautions and miscellaneous requirements

Operational Diary:

Date	Issue	Action Required	Action Completed	Initials
Record: Daily activities (eg tree marking, dump 2); Condition 5.2 of TSL items - EEC locations, rocky outcrops, koala scats, feed tree identification etc), discussions with stakeholders/neighbours/ site visitors; areas of impenetrable understorey; unviable areas not marked, non-conformances; harvesting issues identified, twice weekly road and crossing drainage checks				

FORESTRY CORPORATION OF NSW

ROADWORKS PLAN

Sheas Nob State Forest; Compartments 186, 187, 188, 221 & 232

ASSOCIATED HARVEST PLAN NO. HP_48799

Certification

Prepared by:

Senior Planner	SIGNATURE ON FILE	Date: 12/12/2018
Philip McKenzie		

Approved by:

Planning Supervisor	SIGNATURE ON FILE	Date: 18/12/2018
Matt Kinny		

Road Works and Operational Expenditure Approved by:

Roading Manager	SIGNATURE ON FILE	Date: 13/12/2018
Craig Busby		

Duration of Approval:

The above approval is valid until 12 months from date of signature.

Contents

1. Cover Page
2. Operational Map
3. Costings
4. Roadworks Plan Text/Prescriptions/Road and crossings work sheets
5. Locality Map
6. Safety Plan HAMEEP
7. Harvesting Plan
8. Harvesting Notification List (Operations Team Leader and Roading Supervisor Only)

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1. Objectives

1. Roadworks are required to service Native Forest harvesting operations within the above compartments. These compartments are scheduled for harvest in early 2019.
2. The operational map shows the location of the proposed works.
3. **Attachments:** Financial Analysis Spreadsheet gives full details of costs, benefits, material & plant requirements.

2. Specifications and Legal Conditions

This operation must comply with:

- FCNSW Standard Operating Procedures.
- Licence Conditions issued by Forestry Corporation of NSW under the Forestry Act (2012).
- State Forest of NSW Forest Practices Code, Part 4 Forest Roads & Fire Trails (February 1999).
- Integrated Forestry Operations Approval issued under part 5B of the Forestry Act 2012 (IFOA) including the associated licences:
  - Threatened Species Licence issued under the Threatened Species Conservation Act (1995).
  - Fisheries Licence issued under section 220ZW of the Fisheries Management Act 1994.
  - Environment Protection Licence No. 4017 (UNE) issued under section 55 of the Protection of the Environment Operations Act 1997.
- Technical Guidance Notes for Roadworks.
- FCNSW Standard Operating Procedures 1 and 2.

3. Special Conditions

Feature	*Conditions*
Threatened Species	See harvesting plan. Minimise disturbance within protection & exclusion zones.
National Park	The boundary with Chaelundi National Park is formed by a 20m offset from the centreline of Blackbutt Rd, from the intersection with Pine Rd. The boundary with Nimboi-Binderay NP is formed by a 20m offset from the centreline of Tallowwood Rd. Roadworks must not impact on the National Park. Inform Dorrigo Office prior to commencement of roading activities.
Quarries and Gravel Pits	The pit along Tallowwood Rd is partially within National Park & is not available for use.
Clarence Valley Council (CVC)	No works to commence on Armidale Road (vegetation control at intersection with Tallowwood Road) until CVC provides official approval for proposed works. Written confirmation to be supplied to Roading Coordinator, by Harvest Planner.
Safety Issues (includes hazards, public use of roads)	Fairweather Creek Rd forms access to Private Property to the North, the road is likely to be used by local traffic. A traffic management plan must be implemented to maintain local access (e.g. detour along Tallowwood Rd). See Hazard Assessment in the Site Safety Pack.

3.1. EPL Licencing

- This operation is licensed under the EPL.
- The Roading Supervisor/Harvesting Supervisor is responsible for licensing the activity
- The Roading Coordinator/Harvesting Cordinator must notify the Roading Supervisor/Harvesting Supervisor when operations have commenced and ceased.

4. General Conditions

- Tree removal should be undertaken mechanically where possible. Refer to Safety Procedures 4.25 “Manual Tree Felling” and 4.26 “Management of Hazardous Trees & Overhead Hazards”.
- Remove vegetation within 3m of the road prism only where required to maintain safe sight distance and passage of trucks.
- Note: Clearing is generally permitted within 3m of the road prism for all roads. Ground disturbance and tree debris may impact outside this 3m either side of the road prism as is required to effect clearing within 3m of the road prism. Conditions 5, 6 and 47 Schedule 5 of the EPL must apply.

5. Works Schedule

Road Name: Fairweather Creek Rd **Road Category**: Permanent

Location: From Armidale Road to 232/1 Rd (Dump 1) **Road Length:** 2500 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening	☐	
	Minor Realignment	☐	
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☑	Clean & maintain culverts.
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☑	2x
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Road Name: Hortons Creek Rd **Road Category**: Permanent

Location: From Fairweather Creek Road to Dump 9 **Road Length:** 2550 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening	☑	Minor widening on some corners as required for safe truck passage.
	Minor Realignment	☐	
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☑	A relief culvert from Fairweather Creek Road empties just above Hortons Creek Road. This section of road requires armouring (approximately half a load), to protect the road during wet conditions.
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☑	Clean & maintain culverts.
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☑	3x
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Blackbutt Road forms boundary with Chaelundi National Park (20m offset from centerline of the Road). Roadworks must not impact on National Park.

Road Name: Blackbutt Rd **Road Category**: Permanent

Location: From Fairweather Creek Road to Dump 23 **Road Length:** 3500 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening	☐	
	Minor Realignment	☐	
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☑	Clean & maintain culverts.
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☑	3x
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Tallowwood Road forms boundary with Chaelundi National Park (20m offset from centerline of the Road). Roadworks must not impact on National Park.

Road Name: Tallowwood Rd **Road Category**: Permanent

Location: From Armidale Rd to Blackbutt Rd **Road Length:** 1900 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening	☐	
	Minor Realignment	☐	
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism. The intersection with Armidale Rd will require vegetation control along the edge of Armidale Rd, to enable appropriate sight distance. Use wheeled excavator with mulching head to remove vegetation obstructing the view of Armidale Rd. ***Traffic control will be required on Armidale Rd for the duration of this work. TCP on file.***
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☑	Clean & maintain culverts.
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☑	7x
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Road Name: Link Rd **Road Category**: Temporary

Location: From Blackbutt Road to Dump 27 **Road Length:** 500 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening		
	Minor Realignment	☐	
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☑	Clean & maintain culverts.
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☐	
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Road Name: Link Rd **Road Category**: Temporary

Location: From Tallowwood Road to Dump 19 **Road Length:** 500 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening		
	Minor Realignment	☐	
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☑	Clean & maintain culverts.
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☐	
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Road Name: 188/1 Rd **Road Category**: Temporary

Location: From Fairweather Creek Road to Dump 14 **Road Length:** 400 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening	☑	As required for safe truck passage.
	Minor Realignment	☐	
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☑	Clean & maintain culverts.
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☐	
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Road Name: 188/4 Rd **Road Category**: Temporary

Location: From Link Road to Dump 20 **Road Length:** 350 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening	☑	As required for safe truck passage.
	Minor Realignment	☑	Minor realignment to reduce grade, to reduce curve.
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☐	
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid “tailing out mitres” close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☑	Install 1x rubber flap, as required.
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Road Name: 232/1 Rd **Road Category**: Temporary

Location: From Fairweather Ck Rd to Dump 1 **Road Length** 150 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening		
	Minor Realignment	☐	
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☐	
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☐	
	Drop Downs	☐	
	Silt Trapping	☐	

Start Date: Finish Date:

Date	Event	Initial

Road Name: 187/1 Rd **Road Category**: Temporary

Location: From Fairweather Creek Road to Dump 12 **Road Length** 500 m

	WORKS	REQUIRED	INSTRUCTIONS/SITE SPECIFIC CONDITIONS
Site Info	Works on >30° slopes	☐	
	Mass movement conditions	☐	
	Dispersible Soils Conditions	☐	
Pavement	Widening		
	Minor Realignment	☑	Some trees with DBH > 20cm will need to be removed, to straighten road alignment for truck passage.
	Re-opening	☐	
	Remove vegetation / debris	☑	Remove woody weeds and debris (fallen trees/branches) from the road prism.
	Repair surface	☑	Repair rutted running surfaces and table drains.
	Crown / Crossfall	☑	As required to ensure appropriate drainage of road surface.
	Gravel	☐	
Roadside & Batters	Remove trees >20 cm dbhob	☑	Remove dangerous trees/stags only, as required for truck safety.
	Remove trees <20 cm dbhob	☑	Remove dangerous trees only, as required for truck safety.
	Repair/upgrade of Batters	☐	
Drainage	Culverts	☐	
	Mitre Drains	☑	Remove blockages, maintain vegetation where possible and avoid 'tailing out mitres' close to drainage features. Install additional mitres as required.
	ROD / Spoon	☑	Maintain and/or install as per EPL spacing.
	Belts/Channels	☐	
	Drop Downs	☐	
	Silt Trapping	☐	

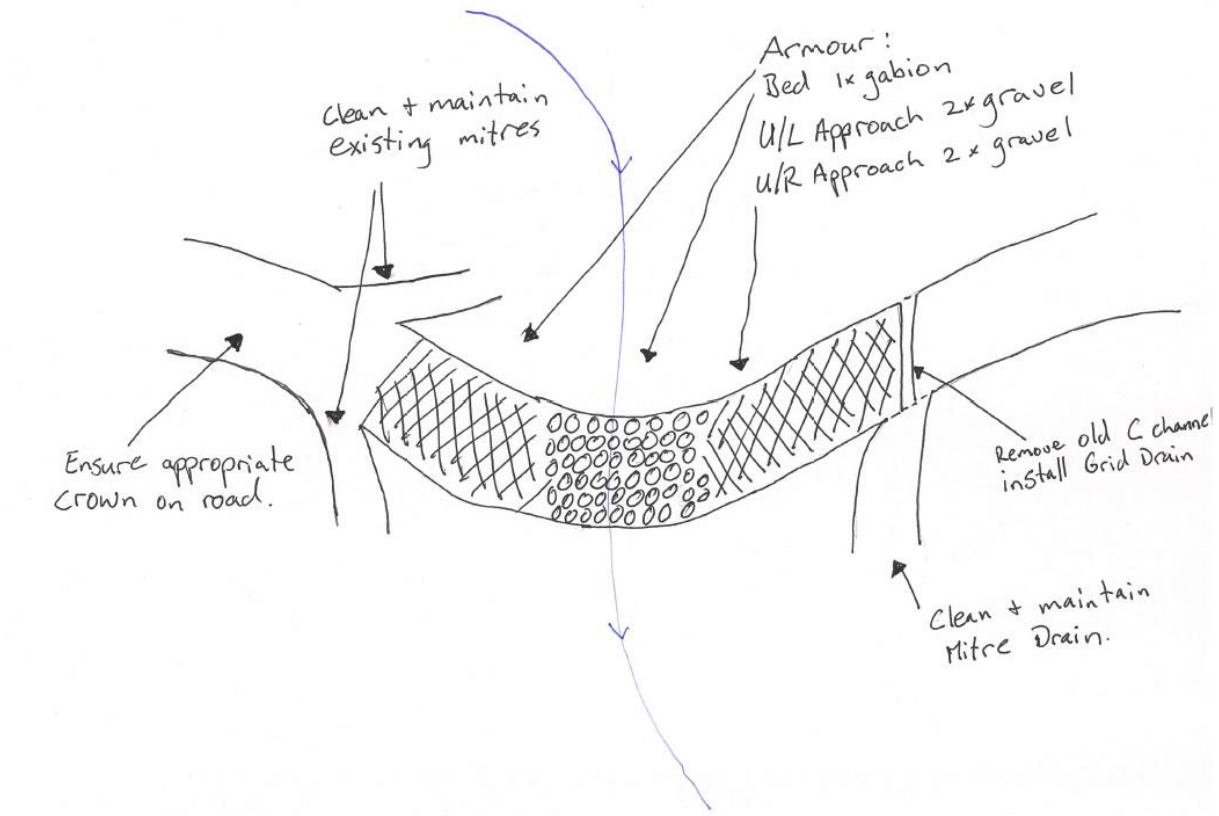
Start Date: Finish Date:

Date	Event	Initial

Crossing Name: A – Fairweather Creek Road.

Crossing Type	Existing	Future of Crossing	Drainage Feature Type	Stream Permanency
Bedlevel causeway	Existing - maintainence	Permanent	3rd Order DL	Permanent

Crossing		Approaches & Road Drainage	
Reshaping Bed & Banks	Nil works required.	Approach Works	Reinstate crown & gravel.
Pavement/structure	Natural surface. Armour bed with 1x load clean gabion.	5-30m Upstream left	UL approach clean & maintain existing mitres.
Disposal of spoil	NA	5-30m Upstream right	UR approach: remove old C channel, install grid drain & clean existing mitre.
Inlet/Outlet	Nil works required	Practices where no 5-30m	NA
Soil Stabilisation within 20m	Seed disturbed soil, if required.	Outlet control	Existing vegetation.
Soil erosion/sediment control	Existing vegetation.	Table drain silt control	Eco logs if required



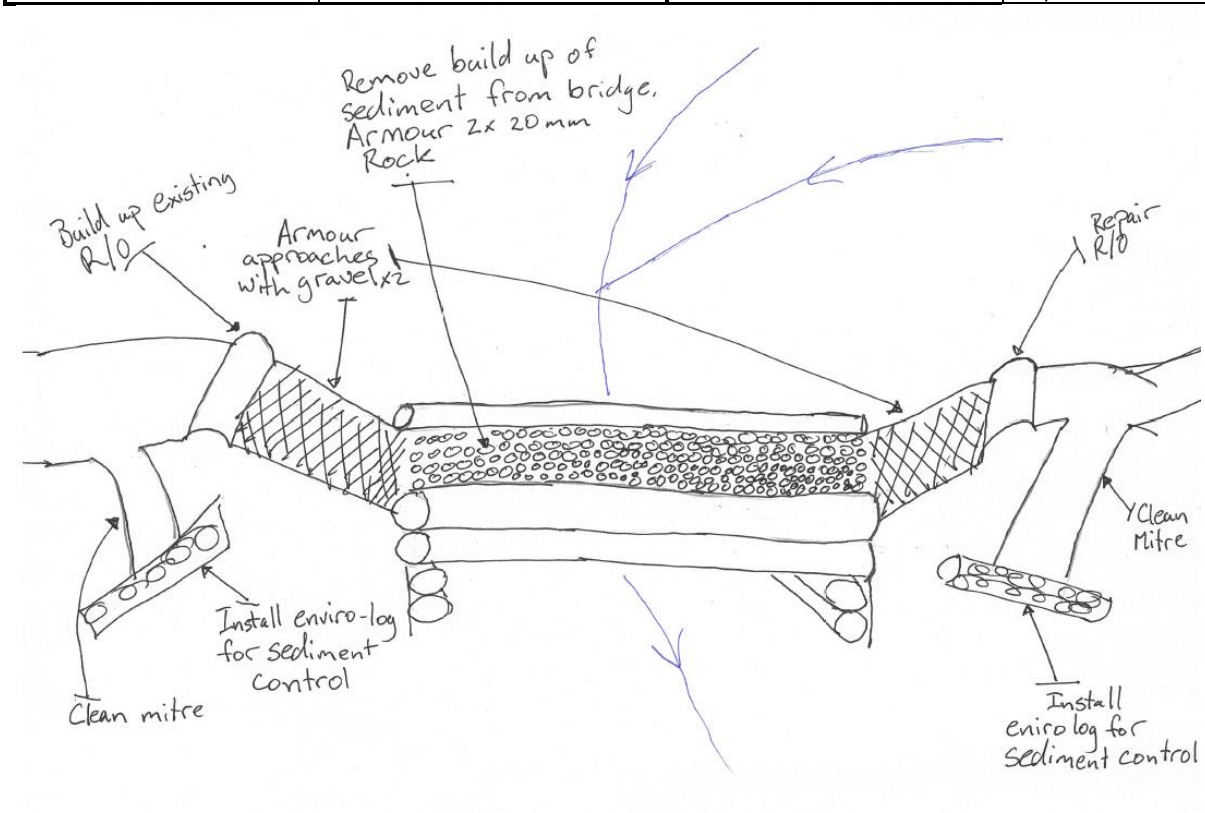
Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

Crossing Name: B – Fairweather Creek Road.

Crossing Type	Existing	Future of Crossing	Drainage Feature Type	Stream Permanency
Wooden Bridge	Existing - maintainence	Permanent	2nd Order DL	Intermittent

Crossing		Approaches & Road Drainage	
Reshaping Bed & Banks	Nil works required.	Approach Works	Reinstate crown & gravel.
Pavement/structure	Natural surface on top of wooden bridge. Remove build-up of sediment on stringers. Armour bridge with 2x loads 20mm rock.	5-30m Upstream left	UL approach build-up existing R/O & clean & maintain existing mitre drain.
Disposal of spoil	Incorporate into pavement	5-30m Upstream right	UR approach repair existing R/O & clean & maintain existing mitre.
Inlet/Outlet	Nil works required	Practices where no 5-30m	NA
Soil Stabilisation within 20m	Seed disturbed soil, if required.	Outlet control	Install enviro-logs if required.
Soil erosion/sediment control	Existing vegetation.	Table drain silt control	Install enviro-logs if required.



Start Date: Finish Date: Soil Stabilisation Date (must be within 5 days):

Date	Event	Initial

6. Operational Control

Roading Supervisor to sign here

I acknowledge that I have received a copy of the plan documents and that I have been briefed on the conditions of the Plan. I understand the operational control requirements as outlined in the plan and take responsibility for the implementation of plan conditions as the principle controller of the operation.

I will brief any other operators not present at this briefing prior to them starting any work on site and ensure that risk assessment for the Safety Management Plan is completed for this area prior to operations commencing

Name:		Signature:		
Position:		Date:	From	
Company:			To	

Name:		Signature:		
Position:		Date:	From	
Company:			To	

Name:		Signature:		
Position:		Date:	From	
Company:			To	

Name:		Signature:		
Position:		Date:	From	
Company:			To	

Name:		Signature:		
Position:		Date:	From	
Company:			To	

7. Handover Briefing

I acknowledge that I have received a copy of the plan documents and that I have been briefed on the conditions of the Plan. I understand the operational control requirements as outlined in the plan.

Position - Company	*Name*	*Signature*	*Date*