Forestry Corporation

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GDA_1994_MGA_Zone_55

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

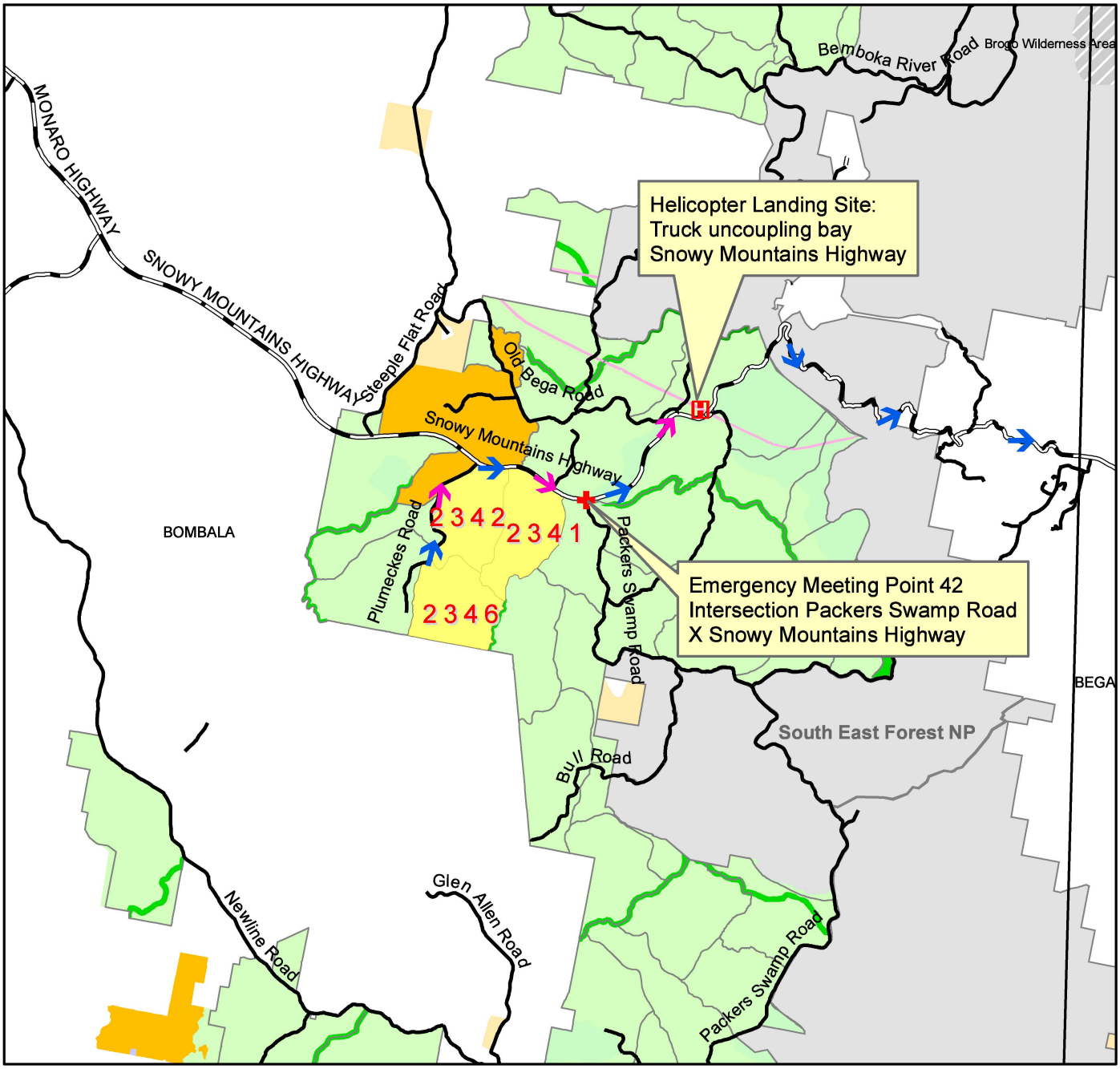
Plan Name: HP_ED_2341_2342_2346_17

Plan No: 56857

GLENBOG State Forest
NO. 149
Cpt No: 2341, 2342, 2346
Management Area: EDEN
Mapsheet: NIMMITABEL(8724-1N);GLEN ALLEN(8724-1S)

VERSION: 1

Date Printed: 4/01/2018



- Map Sheets 100K
- Sealed
- Major Forest Road
- Native Forests selection
- Native Forests
- Special Management (Zone 2)
- Harvesting Exclusion (Zone 3A)
- Special Prescription (Zone 3B)
- General Management (Zone 4)
- Hardwood Plantations (Zone 5)
- Softwood Plantations (Zone 6)
- Non Forestry Use (Zone 7)
- NPWS Declared Wilderness
- National Park Estate
- Vacant Crown Land
- Evacuation Route
- Haulage Route
- Helicopter Landing Site
- Emergency Meeting Point

Kilometres

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Forestry Corporation

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Contour Interval 10m
GDA 1994 MGA Zone 55

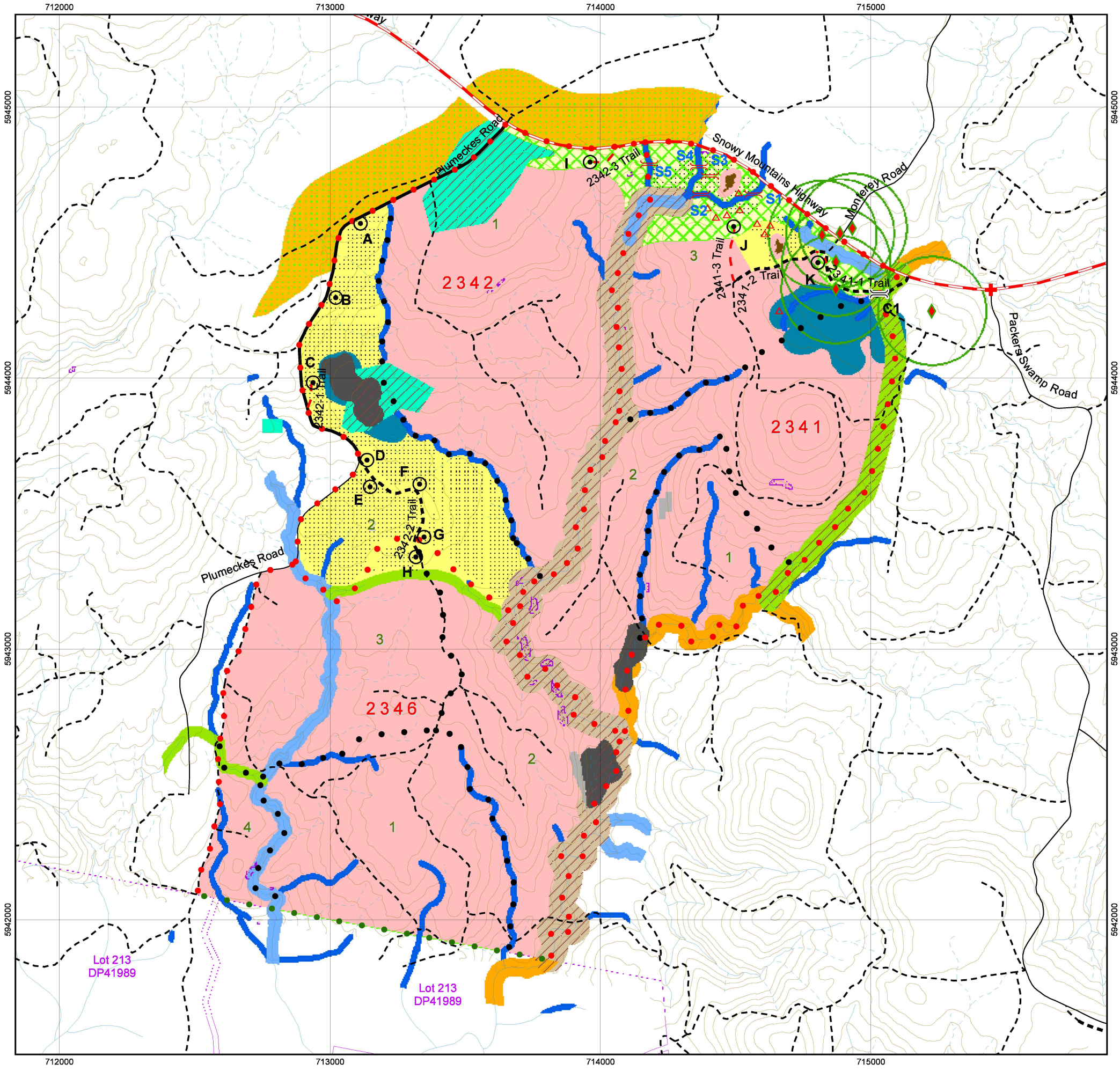
FORESTRY CORPORATION OF NSW, HARDWOOD FORESTS DIVISION

HARVEST PLAN OPERATIONAL MAP

GLENBOG Forest
NO. 149
Cpt No:2341,2342,2346
Management Area:EDEN
Mapsheet:NIMMITABEL(8724-1N);GLEN ALLEN(8724-1S)

Plan Name:HP_ED_2341_2342_2346_17
Plan No:56857

VERSION: 1
Date Printed: 20/06/2018



- Emergency Meeting Point
- Existing Crossing
- New Crossing
- Temporary Dry Weather
- Rocky (Not Field Verified)
- Yellow-bellied Glider (Heard)
- State Forest Boundary
- Compartment Boundary
- Coupe Boundary
- Major Road (EPL Standard)
- Minor Road (EPL Standard)
- Proposed New Road (EPL Standard)
- Minor Road (other)
- Sealed Road (Shire)
- Major Road (other)
- LiDAR Corrected Drainage
- Indicative Unmapped Drainage Features
- YBG-200m Tree Marking Boundary
- Rocky Outcrop
- Rocky Outcrop Buffer 20m
- Mapped IHL4 Exclusion Zone
- LiDAR Slope>30 (<0.25 ha)
- MAF (verified)
- FMZ 4 - MSW
- Excluded Forest
- Owl Landscape
- FMZ 3B - Special Perscription
- Montane Peatlands & Swamps TEC & EZ
- Wetland and Buffer EZ
- FMZ 3A - Harvest Exclusion Zone
- Rare and NC Forest Types
- Ridge and Headwater Habitat EZ (40m & 80m)
- Stream PZ 1st Order (10m)
- Stream PZ 2nd Order (20m)
- Stream PZ 3rd Order (30m)
- Softwood Plantations (FMZ 6)
- Private Property

Prepared By melanie.dyne Date: 16/01/2018

Kilometres
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Forestry Corporation

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Contour Interval 10m
GDA 1994 MGA Zone 55

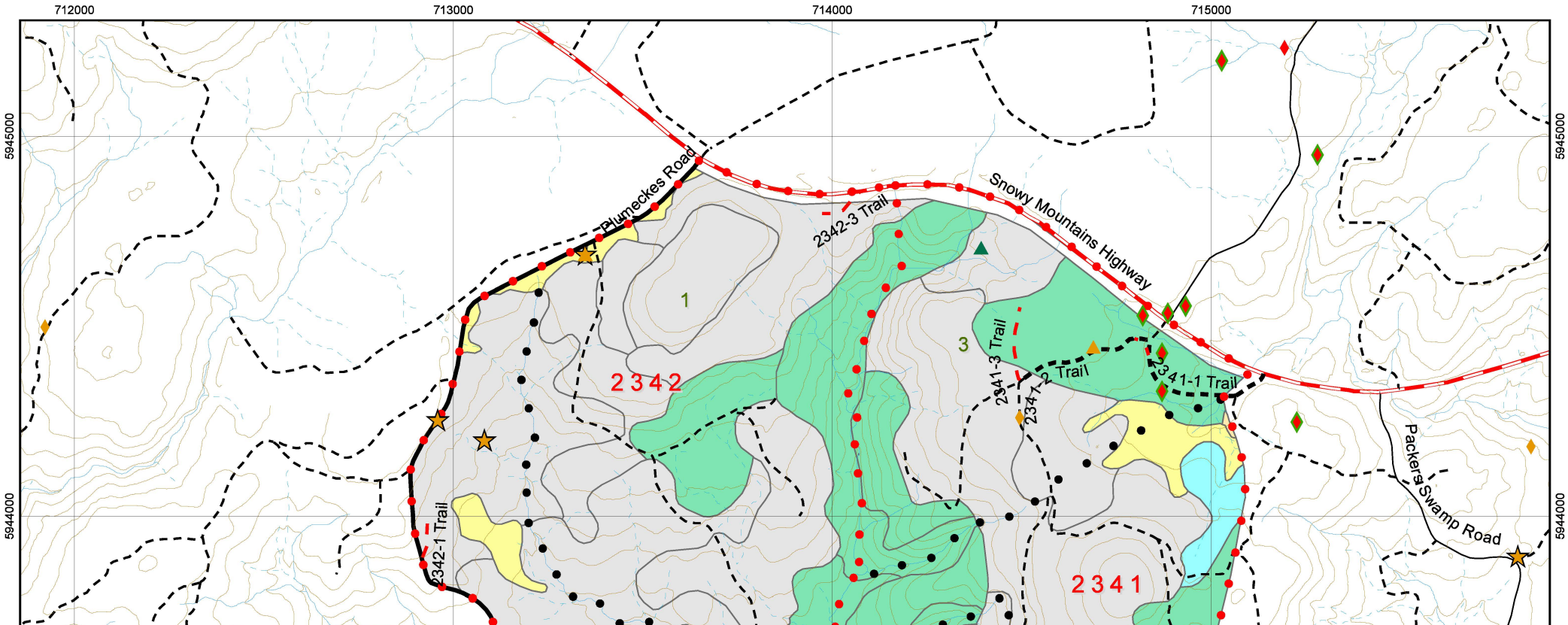
FORESTRY CORPORATION OF NSW, HARDWOOD FORESTS DIVISION

HARVEST PLAN FOREST TYPE MAP

GLENBOG Forest
NO. 149
Cpt No:2341,2342,2346
Management Area:EDEN
Mapsheet:NIMMITABEL(8724-1N);GLEN ALLEN(8724-1S)

Plan Name:HP_ED_2341_2342_2346_17
Plan No:56857

VERSION: 1
Date Printed: 19/06/2018



- Yellow-bellied Glider (Heard)
- Powerful Owl
- Yellow-bellied Glider (Observed)
- Yellow-bellied Glider (Feed Tree)
- Gang-gang Cockatoo
- Greater Glider
- Scarlet Robin
- Flame Robin
- Olive Whistler
- State Forest Boundary
- Compartment Boundary
- Coupe Boundary
- Major Road (EPL Standard)
- Minor Road (EPL Standard)
- Proposed New Road (EPL Standard)
- Minor Road (other)
- Sealed Road (Shire)
- Major Road (other)
- LiDAR Corrected Drainage
- Indicative Unmapped Drainage Features
- 218s - (Softwood Plantation) Pinus radiata - 0.02ha
- 137 - Black Sallee - 2.6ha
- 154 - Brown Barrel 72.9ha
- 155d - Brown Barrel - Gum (Sub Type d) - 19.3ha
- 155v - Brown Barrel - Gum (Veteran) - 14.8ha
- 151 - Brown Barrel - Messmate - 67ha
- 216 - Improved Pasture and Cropland - 2.1ha
- 150 - Messmate 68.7ha
- 152d - Messmate Gum (Sub Type d) - 35.0ha
- 159d - Mountain / Manna Gum (Sub Type d) - 48.8
- 159v - Mountain / Manna Gum (Veteran) - 45.7ha
- 111 - Peppermint - 10.4ha
- 131d - Peppermint - Mountain / Manna Gum (Sub Type d) - 10.4ha
- 131v - Peppermint - Mountain / Manna Gum (Veteran) - 3.9ha
- 218s - Retention - <0.02ha
- 140d - Snow Gum - Mountain / Manna Gum (Sub Type d) - 73.6ha
- 140v - Snow Gum - Mountain / Manna Gum (Veteran) - 8ha
- 231 - Swamp - 6.5ha

Prepared By melanie.dyne Date: 16/01/2018

Kilometres
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WHS Tool / Resource

2.1.3 Site Safety Plan

This site safety plan is for all FCNSW operations of more than one day duration or where an operational plan is in place. Where a contractor is responsible for the work to be undertaken, the contractor must develop their own site safety plan.

A Medical Emergency Evacuation Plan (MEEP) has been developed and is included below

Location	
Forest Name: Glenbog	Specific location details: Compartments 2341, 2342, 2346
Date work commenced:	
Description of Work to be undertaken on site: Forest mark-up, road maintenance and/or construction, harvest supervision, compliance monitoring	

On site communication:		
Radio channel number	VHF	UHF
Other (e.g. mobile phone numbers of other workers on site, hand signals):		

Site Supervisors	
Name:	Contact number:

Site workers including contractors	
Name:	Contact number:

First Aid Kit locations

First Aiders on site

Hazardous chemicals on site	Safety Data sheet location

Mandatory PPE required	Task specific PPE required
Appropriate safety footwear High visibility clothing Long sleeve shirt and trousers	☐ Hearing Protection ☐ Gloves ☐ Eye Protection ☐ Hard hat ☐ Other

A number of hazards are common to all forest sites. All workers should be aware of the following hazards and ensure appropriate control measures are in place.

Common forest and outdoor hazards	Control	Responsibility
Exposure to sun	Long sleeve clothing, sunscreen, work in shade where possible,	All workers
Exposure to heat, rain and cold	Appropriate clothing, adequate water supply, plan work for cooler times of the day where possible	All workers
Overhead hazards/dangerous trees	Identify and remove dangerous trees in work area. Where unable to remove, mark trees. Assessment of work areas prior to commencement and ongoing with changing weather and wind. Wear hard hat	Supervisors, contractors and all workers
Recreational hunting	Recreation hunting is permitted in the planning unit. Exclusion zone signage must be erected prior to commencing all on ground activities	All workers
Bites and stings	Permethrin treated clothing Insect repellent Long sleeved shirt/long trousers	All workers
Slips and trips/uneven ground	Boots worn and maintained in good condition Use of aids- walking poles, carry bags, spikes etc	All workers
Mobile Plant	Safe zones established Traffic management systems in place	Supervisors and workers
Vehicle collision at road intersections and road sides	Warning signs at FCNSW road intersections, implement traffic control plans, 60km/hr speed limit on unsealed forest roads, vehicle headlights on at all time when driving.	All workers
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.	Supervisors and contractors
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.	All workers

The following additional hazards are present at this site: Examples include but are not limited to: other contractors/workers in vicinity, mine shafts, cliffs, underground cables, overhead power lines, mobile plant, traffic, school bus route, log trucks on road, work on or near roads, difficult site access, unauthorised visitors, quarries, asbestos etc

Site Specific Hazards	Control	Responsibility

Safe Work Practices

The following Safe Work practices are relevant for work conducted on this site (site supervisor to document):

SAFETY DIARY

This diary should be used to record daily safety matters such as toolbox talks, safety inspections etc.

Date	Issue	Initials

SITE SAFETY PLAN DEVELOPMENT

Date of of initial plan development	Developed By	Position	Signature
12/2/2018	Melanie Dyne	Senior Planner	

SITE SAFETY REVIEW

The site safety plan must be reviewed by the site supervisor at a minimum of every 3 months and reviews recorded below. Where changes are made to the site safety plan, these must be recorded on the plan. A new plan may need to printed where changes are significant.

Date of review	Changes made? If yes, document changes	Conducted by	Initials

SITE INDUCTION

I have been briefed by the Forestry Corporation supervisor on-site before starting work or entering the worksite. I have noted and understand my safety responsibilities. I have taken note of and understand the site safety plan and the medical emergency evacuation plan and the attached location map.

Name	Company	Activity	Signature	Date

WHS Tool/Resource

3.5.3 Medical Emergency Evacuation Plan

Emergency Meeting points are shown on the attached Locality Map

	Description	MGA; Zone for EMP; and Lat/Long for helicopter landing point
Phone Reception	OK	
Emergency Meeting Point	EMP 42: Intersection of Snowy Mountains Highway x Packers Swamp Road	Lat/Long: -36° 37' 20" / 149 °24' 33" MGA: 715438 E 5944316 N Zone: 55
Helicopter Landing point	Truck uncoupling bay Snowy Mountains Highway	Lat/Long: -36° 36' 34" / 149° 25' 48" MGA: 717337 E 5945690 N Zone: 55

Procedures to obtain ambulance assistance	
1. Dial 000 2. If there is no mobile coverage, dial 112 (which will work on any accessible mobile phone system). 3. If no response on 112: • 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)	The nearest Forestry Corporation of NSW office is: Eden Contact on:- Phone or SF Radio 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?	Ambulance is required Nearest control centre for ambulance: Bombala
2. Suburb?	State Forest name: Glenbog Nearest town or locality: Nimmitabel Nearest ambulance station: Bombala
3. Address?	Glenbog State Forest
4. Nearest road junction/cross street?	Intersection of Packers Swamp Road x Snowy Mountains Highway
5. Local Government Area?	Snowy Monaro Shire Council (western part of compartment). Bega Valley Shire (eastern part of compartment including Emergency Meeting Point)
6. Nature of the problem?	Describe the accident, number, age and condition of casualties. Are they conscious, are they breathing?
7. Where is the accident?	Refer to safety meeting point above
Directions to navigate from nearest ambulance station to the emergency meeting point.	Head north on Monaro Highway for approx. 43.5km. Turn east on the Snowy Mountains Highway. Travel east for approx. 10km until reaching intersection of Packers Swamp Road (Emergency Meeting Point).
8. 4WD ambulance required?	Yes/No UHF radio channel to use: 40
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:	

Forestry Corporation NSW Hardwood Forests Traffic Control Plan 78 & 57: Harvesting within 2 Tree Lengths of Snowy Mountain Hwy in Compartment 2431, 2432, 2346 Glenbog State Forest (modified from RTA Traffic Control at Work Site TCP 78 & 57) Speed limit 100km/hr, ADT <3000)

Forestry Corporation

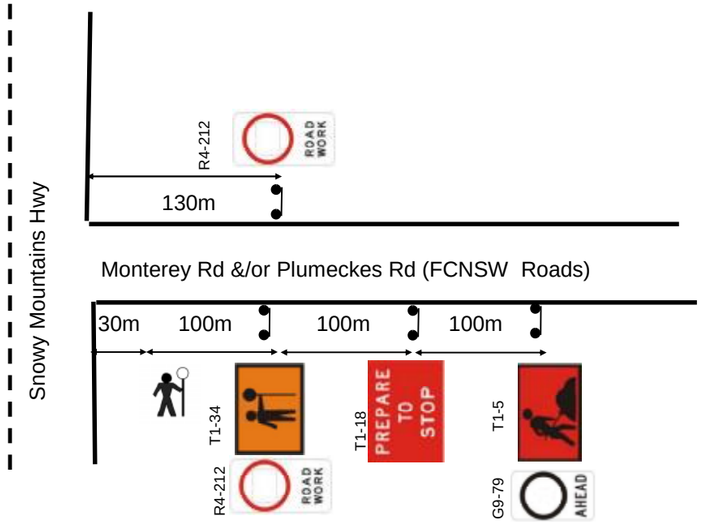
DO NOT IMPLEMENT THIS TCP WITHOUT AN APPROVED ROAD OCCUPANCY LICENCE

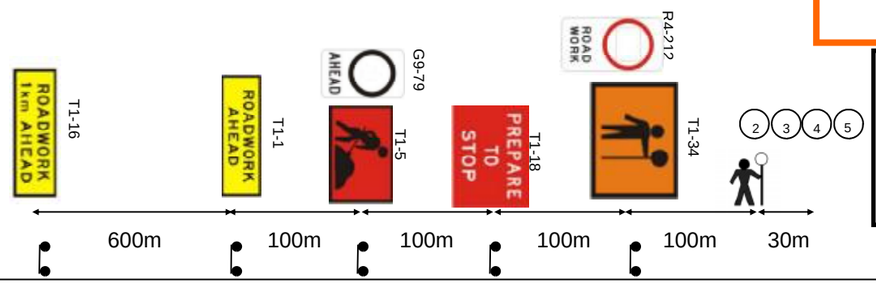
If work site is more than 500m long, RA-212 must be repeated on both sides of the road every 500m beyond this sign.

Inset 1: Third Traffic Controller Monterey Rd &/or Plumeckes Rd

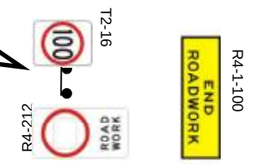
Work Site: harvesting within 2 tree lengths of Snowy Mountains Hwy in Cpt 2341, 2342, 2346:
When Monterey Rd &/or Plumeckes Rd falls within worksite and/or traffic control signs on

Team Leader





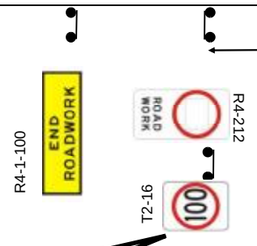
These signs should be placed back to back with the 100km sign visible for vehicles travelling in a easterly direction and the 60 road work sign visible for vehicles travelling in a westerly direction (towards the worksite).



To Bemboka (East)

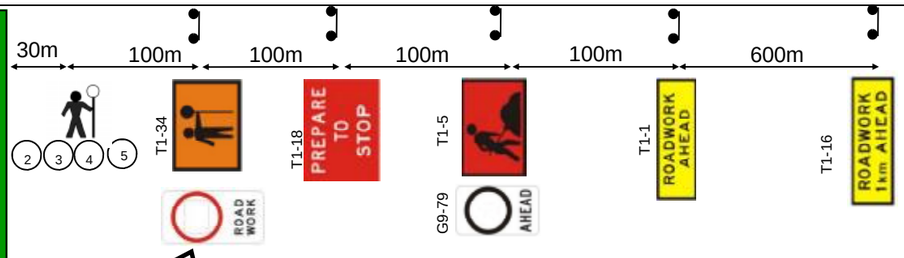
To Nimmitabel (West)

Snowy Mountains Hwy (100km/hr)



Team Leader

Work Site: Harvesting within 2 tree lengths of Snowy Mountains Hwy in Cpt 2341, 2342, 2346 Glenbog State Forest



These signs should be placed back to back with the 100km sign visible for vehicles travelling in a westerly direction and the 60 road work sign visible for vehicles travelling in a easterly direction (towards the worksite).

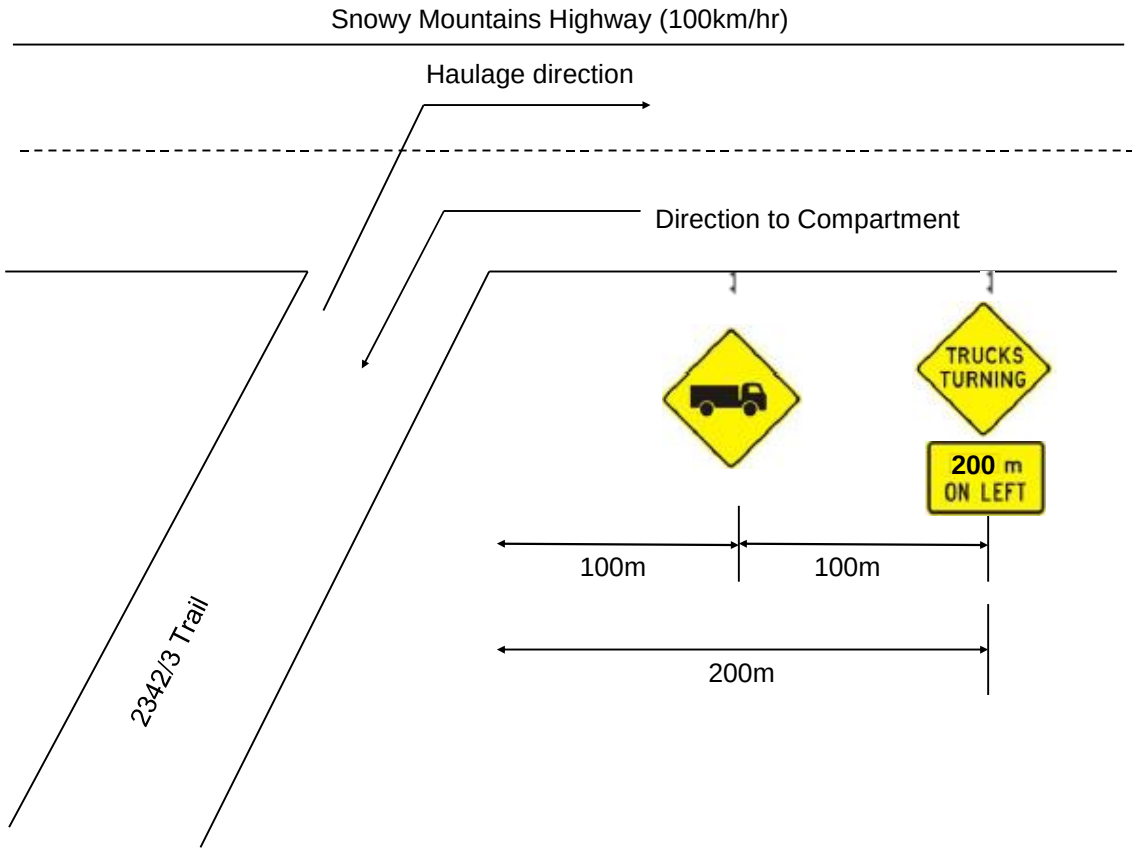
If work site is more than 500m long, RA-212 must be repeated on both sides of the road every 500m beyond this sign.

Notes:

1. Each stoppage must be less than 5 minutes. Stoppages less than 3 minutes is preferable to minimise queue lengths.
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. Note snigging and log processing is permitted whilst traffic is flowing past the worksite.
3. Traffic controllers and tree faller to maintain radio contact so that no tree felling is occurring while traffic is let through.
4. Traffic controller must have sight distance to oncoming traffic of at least 150m.
5. Minimum 1.2m distance required between the Traffic Controller and the traffic. Escape route required for Traffic Controller
6. Roadwork signs are to be covered when not in use (meal breaks and shift breaks).
7. Where possible the worksite must be less than 500m to avoid the need to repeat RA-212 every 500m.
8. Permanent road signs which contradict this TCP must be covered whilst TCP is in operation.
9. If Monterey Road and Snowy Mountains Hwy and/or Plumeckes Rd and Snowy Mountains Hwy intersections falls within the work site and/or traffic control signs, additional traffic controller/s and additional signage is required on Monterey Road and/or Plumeckes Rd as shown in Inset 1.
10. For an ADT of <3000 the queue length issues are not expected, however the site supervisor must monitor queue lengths throughout the shift. If queue lengths are extending beyond the “Prepare to Stop” sign then an additional “Prepare to Stop” sign should be placed in conjunction with each of the “Roadwork Ahead” signs.

SHORT TERM WORK (UP TO 5 MINUTES)
2 LANE/2 WAY ADT < 3000
Prepared by Melanie Dyne 18/05/2018 REVIEW THIS TCP ON 15/05/2019
Qualification: “Prepare Work Zone Traffic Management Plan” Card # 0049031248
Expires: 22/12/2020

Forestry Corporation NSW Southern Region Traffic Control Plan 195: 2342/3 Trail- Snowy Mountains Highway Intersection (modified from RTA Traffic Control at Work Site TCP 195)

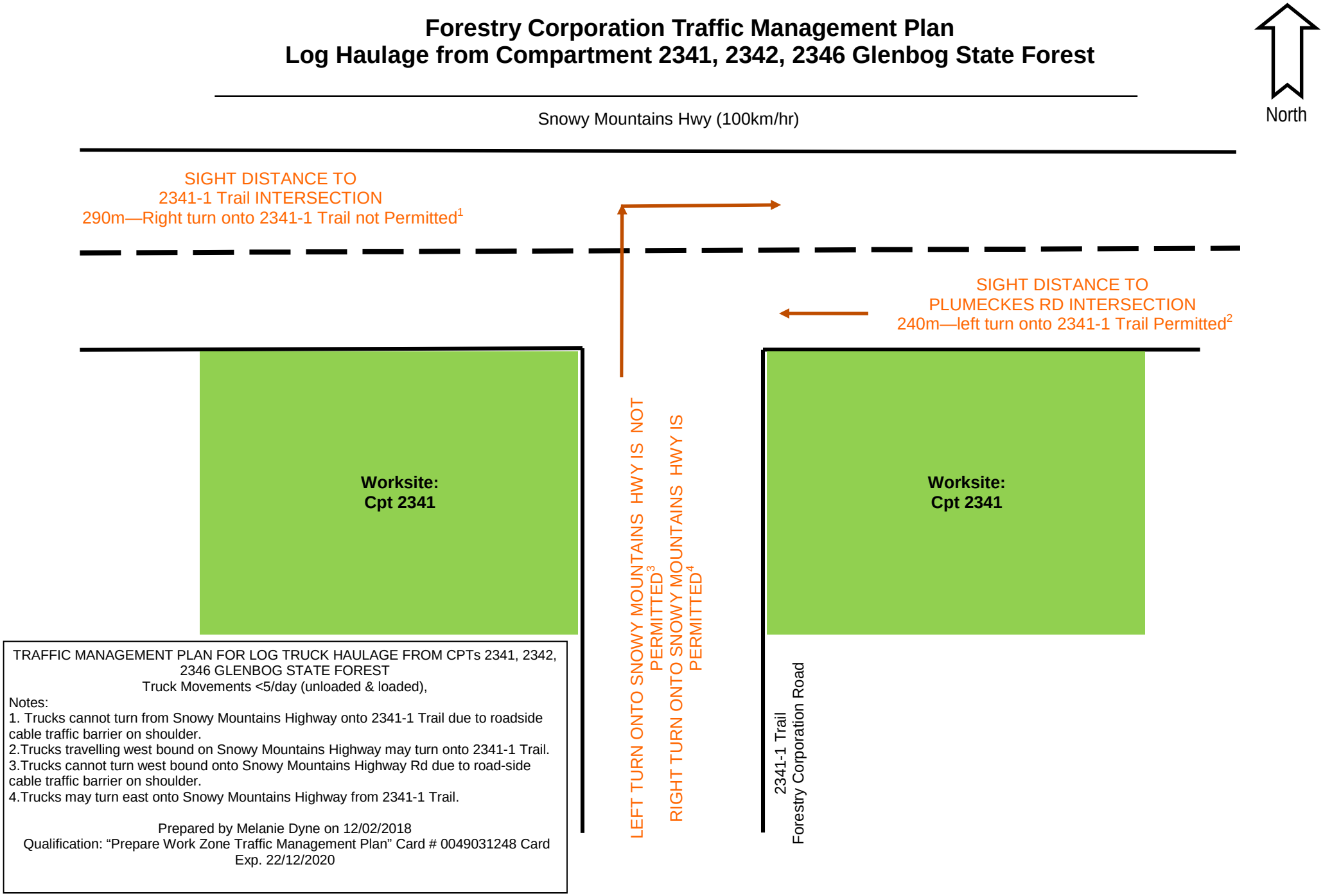


Notes:

① Log Haulage - Intersection of 2342/3 Trail and Snowy Mountains Highway (100km/hr). Sight distance restricted to 200m when travelling in a westerly direction along Snowy Mountains Highway.

LONG TERM USE
ADT > 1500, <20 Truck Movements (to/from compartment), Sight Distance Restricted
Prepared by Melanie Dyne 18/05/2018 REVIEW THIS TCP ON 18/05/2019
Qualification: “Prepare Work Zone Traffic Management Plan” Card # 0049031248
Expires: 22/12/2020

Forestry Corporation Traffic Management Plan
Log Haulage from Compartment 2341, 2342, 2346 Glenbog State Forest

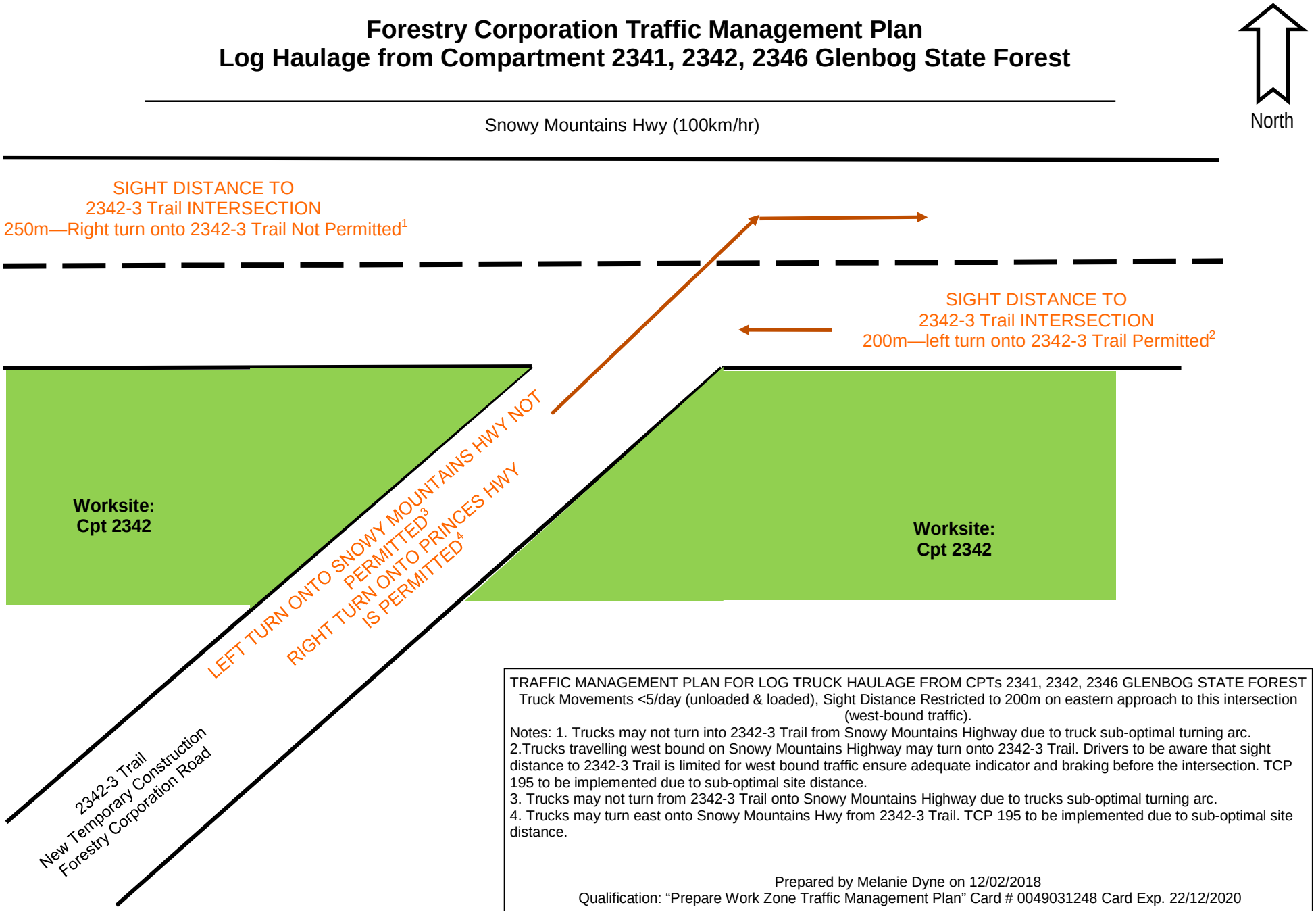


TRAFFIC MANAGEMENT PLAN FOR LOG TRUCK HAULAGE FROM CPTs 2341, 2342, 2346 GLENBOG STATE FOREST
Truck Movements <5/day (unloaded & loaded),

Notes:
1. Trucks cannot turn from Snowy Mountains Highway onto 2341-1 Trail due to roadside cable traffic barrier on shoulder.
2.Trucks travelling west bound on Snowy Mountains Highway may turn onto 2341-1 Trail.
3.Trucks cannot turn west bound onto Snowy Mountains Highway Rd due to road-side cable traffic barrier on shoulder.
4.Trucks may turn east onto Snowy Mountains Highway from 2341-1 Trail.

Prepared by Melanie Dyne on 12/02/2018
Qualification: “Prepare Work Zone Traffic Management Plan” Card # 0049031248 Card Exp. 22/12/2020

Forestry Corporation Traffic Management Plan
Log Haulage from Compartment 2341, 2342, 2346 Glenbog State Forest

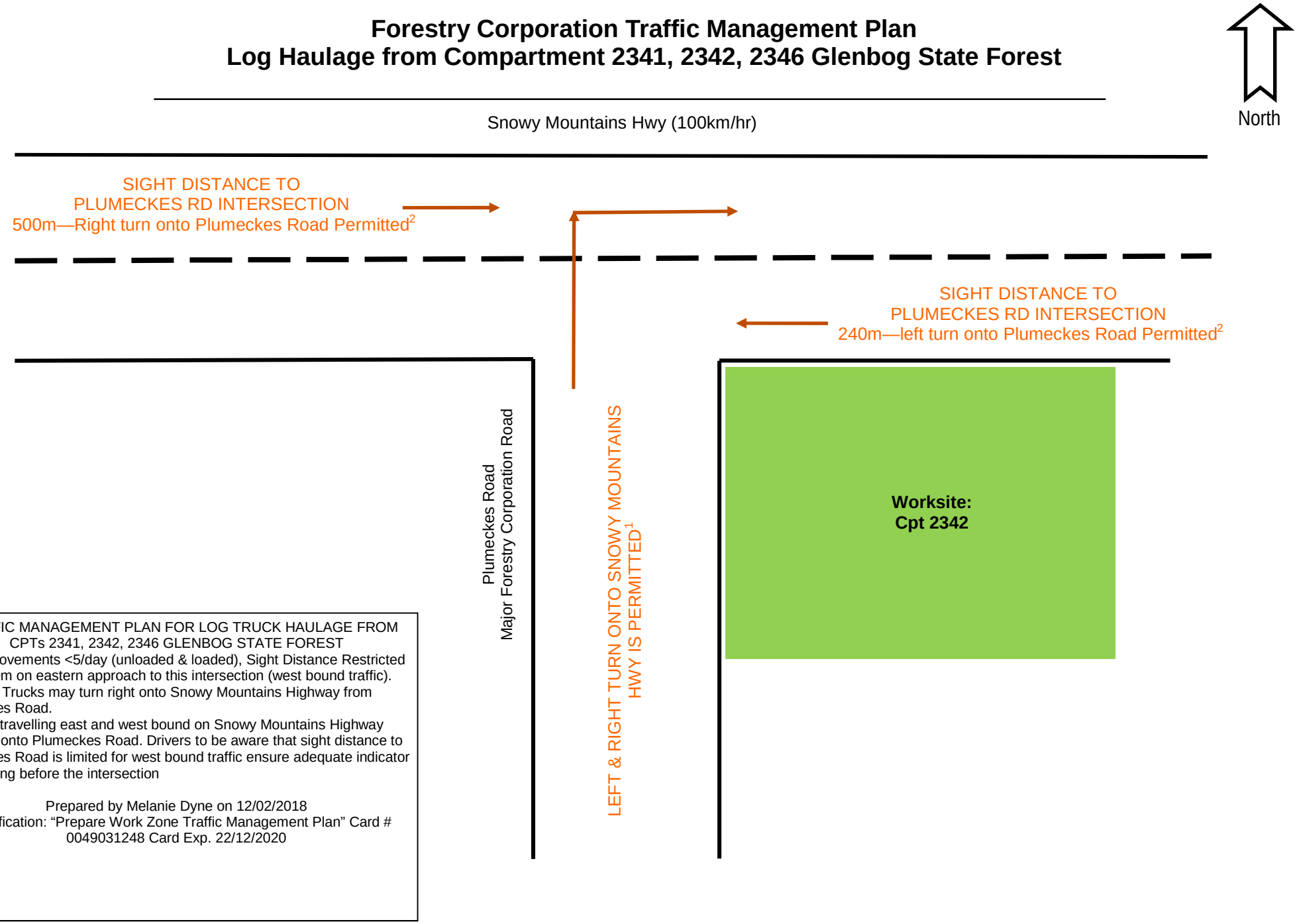


TRAFFIC MANAGEMENT PLAN FOR LOG TRUCK HAULAGE FROM CPTs 2341, 2342, 2346 GLENBOG STATE FOREST
Truck Movements <5/day (unloaded & loaded), Sight Distance Restricted to 200m on eastern approach to this intersection (west-bound traffic).

Notes: 1. Trucks may not turn into 2342-3 Trail from Snowy Mountains Highway due to truck sub-optimal turning arc.
2.Trucks travelling west bound on Snowy Mountains Highway may turn onto 2342-3 Trail. Drivers to be aware that sight distance to 2342-3 Trail is limited for west bound traffic ensure adequate indicator and braking before the intersection. TCP 195 to be implemented due to sub-optimal site distance.
3. Trucks may not turn from 2342-3 Trail onto Snowy Mountains Highway due to trucks sub-optimal turning arc.
4. Trucks may turn east onto Snowy Mountains Hwy from 2342-3 Trail. TCP 195 to be implemented due to sub-optimal site distance.

Prepared by Melanie Dyne on 12/02/2018
Qualification: “Prepare Work Zone Traffic Management Plan” Card # 0049031248 Card Exp. 22/12/2020

Forestry Corporation Traffic Management Plan
Log Haulage from Compartment 2341, 2342, 2346 Glenbog State Forest



TRAFFIC MANAGEMENT PLAN FOR LOG TRUCK HAULAGE FROM CPTs 2341, 2342, 2346 GLENBOG STATE FOREST
Truck Movements <5/day (unloaded & loaded), Sight Distance Restricted to 240m on eastern approach to this intersection (west bound traffic).

Notes: 1. Trucks may turn right onto Snowy Mountains Highway from Plumeckes Road.

2.Trucks travelling east and west bound on Snowy Mountains Highway may turn onto Plumeckes Road. Drivers to be aware that sight distance to Plumeckes Road is limited for west bound traffic ensure adequate indicator and braking before the intersection

Prepared by Melanie Dyne on 12/02/2018
Qualification: “Prepare Work Zone Traffic Management Plan” Card # 0049031248 Card Exp. 22/12/2020

Hardwood Forests Division

Harvest and Haul Plan

State Forest	Glenbog	Compartments	2341, 2342, 2346
Management Area	Eden	IFOA Region	Eden
Harvest Plan No.	56857	Coupes	2341: 3 (part); 2342: 1 (part), 2; 2346: 2 (part); 3 (part)
Legal Conditions	Native Forest Harvesting in accordance with IFOA conditions. Harvesting and Roading activities must have EPL coverage. To implement this plan you must hold a current Contractors License. Standard Harvest Plan Conditions and Operating Procedures apply. Survey expiry date for this plan is 16/01/2028.		
Certification	Timber products removed from the plan area are within the Defined Forest Area covered by Australian Forestry Standard AS4708:2013 Certificate 604224		
Prepared by	Planner Melanie Dyne		Date: 21/06/2018
Approved by	Operation Planning Mgr Shane Clohesy		Date: 25/06/2018
Abbreviations	PA = Production Assistant, PS = Production 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, HPOM = Harvest Plan Operational Map.		

1. Harvest Area Details

	Cpt 2341	Cpt 2342	2346	Total
Plan Compartment ID	126332	126333	126336	N/A
Gross Area (ha)	167.6	162.2	167.9	497.7
Harvest Area (ha)	17	48.5	2.9	68.4
Sawlog Yield/ha	6	6	6	N/A
Estimated Sawlog Yield (m3)	108	290	17	415
Pulp (tonnes/ha)	90	90	90	N/A
Estimated Pulp Yield (tonnes)	1,620	4,350	260	6,230

Slope (% 0-20 degrees)	93.8	98.8	98.8	N/A
Slope (% 20-25 degrees)	5.2	1.2	0.9	N/A
Slope (% 25-30 degrees)	0.7	0	0.2	N/A

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

2. Management Conditions on Boundaries

Boundary	Conditions
Private Property	Private property occurs adjacent to the southern boundary of the compartment 2346, as indicated on the HPOM. Private property owners have been notified of the scheduled harvesting and post-harvest burning. Harvesting operations will not occur adjacent private property and no private property boundary mark-up is required. [redacted]
FMZ	FMZ 4- General Management occurs within compartments 2341, 2342 and 2346 and is shown on the HPOM. FMZ 3A – Harvest Exclusion Zone occurs in compartments 2341, 2342 and 2346. Harvesting is excluded in this area. FMZ 3B (Visual) – A visual protection zone exists parallel to the Snowy Mountains Highway. The PA is not required to mark this boundary but must supervise implementation of modified harvesting prescriptions apply (see table 7). FMZ 3B (Research) – occurs in the compartment 2346. Harvesting is excluded from this area.
Research	FMZ 3B research area (Birds & Arboreal Marsupials) occurs in compartment 2346, coupe 1. No harvesting is to occur in this area.
Cultural Heritage	[redacted]

3. Expected Yields

Product Estimates	Volume
Sawlog	415m^3
Pulp	6,230t
Total	5,728t

Estimated Species	Percentage
E. fastigata	50
E. dalrympleana	25
E. viminalis	25

4. Haulage

Haul Route	North on Plumeckes Road to Snowy Mountains Highway Intersection. East onto Snowy Mountains Highway down Brown Mountain. East on 2341-1 Trail to Snowy Mountains Highway. East onto Snowy Mountains Highway down Brown Mountain. 2342-4 Trail east onto Snowy Mountains Highway down Brown Mountain.
Traffic Control Plan & Traffic Management Plan	Traffic control is required for this event. Two traffic control plans (attached) have been developed: 1) TCP78_57_SnowyMountainsHwy_Cpt2341_2342_2346 (to be used for roading along Snowy Mountains Highway, harvesting within two tree lengths of the Snowy Mountains Highway, and if additional safety provisions are warranted for trucks exiting 2342-3 Trail onto the Snowy Mountains Highway). 2) TCP195_2342-3Trail_SnowyMountainsHwy_2341_2342_2346 (to be used to warn motorists of trucks turning into and out of 2342-3 Trail onto the Snowy Mountains Highway due to site distance of 200m east). Three Traffic Management Plans have been developed for this operation to show truck direction: 1) TMP_PlumeckesRd_SnowyMountainsHwy 2) TMP_2342-3Trail_SnowyMountainsHwy 3) TMP_2341-1Trail_SnowyMountainsHwy Traffic control to be the responsibility of Roading Crew.

5. Community

Issue	Detail	Conditions
Notifications Required	Nil	All relevant notifications have been conducted. A notification list for FCNSW staff is available from the planner.
Neighbours		[redacted]
Pests/Weeds	Myrtle Rust/other weeds/pests	Is known to occur in Bega Valley/Cooma-Monaro Shires. To prevent further spread the crew/haulage operators must ensure all harvesting machinery, equipment and vehicles heading west from Bega Valley/Cooma-Monaro

		Shire or south into Victoria are checked and all infected vegetation removed.
Forest Permits	[redacted]	[redacted]
	[redacted]	[redacted]

6. Infrastructure

Infrastructure	Conditions
Snowy Mountains Highway	Integrity of all infrastructure of the Snowy Mountains Highway (i.e: road verge, wire rope barriers) are to be strictly maintained.

7. Harvesting Conditions

Silviculture Type	Harvesting Objectives and Condition		
FMZ 4 - MSW	The harvest area is predominately *E. fastigata* (Brown Barrel), associated with *E.* viminalis (Manna Gum), *E. dalrympleana* (Mountain Gum) and *E. radiata* (Narrow-leaved Peppermint) in mixed aged stands. The objective is to harvest all commercially available trees to create canopy openings and ensure mechanical disturbance creates a suitable seed bed for regeneration of the stands. Crew to target sawlogs, pulpwood and other miscellaneous products as markets allow. Crew to remove all merchantable stems not marked for retention. The crew is responsible for protecting retained seed trees and retaining patches of advanced regeneration.		
FMZ 3B – Special Prescription	The objective is to harvest commercially available trees to create canopy openings and ensure mechanical disturbance creates a suitable seed bed for regeneration of the stands. Target trees containing a sawlog product for removal. 50% canopy cover to be retained.		
IFOA Limits	MSW - 2431	MSW - 2432	MSW - 2436
Net Harvestable Area (ha)	124.7	129.5	139.8
Harvest Area (ha)	17.0	48.4	2.9
Planned Removal (%)	13.6	37.4	2

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

<table>
<tr><th>Prescription</th><th>Condition/Responsibility</th></tr>
<tr><td colspan="2">Mark-Up – the PA is responsible for marking up the forest ahead of harvesting operations consistent with Forest Mark Up and Tree Retention SOP</td></tr>
<tr><td>Compartment Mark-Up Survey
(5.1, 5.2)</td><td>Compartment mark-up surveys must be conducted at least 100m in advance of operations. The survey must search for threatened and protected species features listed in conditions 5.1 and 5.2 of the TSL.</td></tr>
<tr><td>Hollow-bearing and Recruitment tree retention (H and R)</td><td>Non-Regrowth Zone - 5.6, conditions apply.
Additional H trees for Greater Glider condition does apply.
PA must verify the habitat quality and record on the habitat quality map. PA must select and mark H and R trees as per the habitat quality.
<table>
<tr><td>Habitat Quality</td><td>H Trees/2ha</td><td>R Trees/2ha</td></tr>
<tr><td>High</td><td>12</td><td>12</td></tr>
<tr><td>Moderate</td><td>8</td><td>8</td></tr>
<tr><td>Low</td><td>4</td><td>4</td></tr>
</table></td></tr>
<tr><td>Significant Food Resources
(5.6 k)</td><td>PA 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.
<table>
<tr><td>Species</td><td>Coordinate</td><td>Comments</td></tr>
<tr><td>GBC Feed Tree</td><td>N/A</td><td>Nil</td></tr>
<tr><td>YBG Feed Tree</td><td>N/A</td><td>Nil</td></tr>
</table>
E. viminalis (Manna Gum) and E. dalrympleana (Mountain Gum) are suitable E tree species present in this compartment.</td></tr>
<tr><td colspan="2">Harvesting - crew and PA responsibilities</td></tr>
<tr><td>Protection of Retained Trees (5.6g)</td><td>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 5 m of retained trees. Where debris does accumulate the crew must remove or flatten to < 1m high.
The PA must be notified of any badly damaged retained trees and they must assess and record if a replacement retained tree is required.</td></tr>
<tr><td>Stag Retention (Dead standing trees 5.6e)</td><td>The crew should retain stags where safe to do so.
The crew must record the date, DBH, risk and location of unsafe stags removed</td></tr>
<tr><td>Significant food resources</td><td>The crew should avoid damaging flowering or fruiting banksias or grass trees.</td></tr>
</table>

Impenetrable Understory	In areas mapped by the PA as Impenetrable Understory procedures for harvesting in un-marked forest must be implemented by the PA and Crew.

9. Site-Specific Flora and Fauna

Condition	Boundary Type	Prescription
Riparian Habitat Protection (5.7) (Lidar Corrected)	Pink Tape	Implement filter strip/stream exclusion zone around drainage features as shown on the HPOM. Refer to SOP1. PA must mark the location of all mapped 1st order drainage lines and UMDL. The crew will locate and protect all 2nd order and above streams with GPS.
Ground Habitat (5.17 d)	N/A	Commercial firewood may be produced from standing trees only. No commercial firewood collection of pre-existing fallen material in this compartment due Flame Robin records.
Threatened Ecological Community (TEC)	Pink Tape	Montane Peatlands & Swamps are mapped in the compartment and falls within other harvesting exclusions (Wetland and Buffer, Excluded Forest). PA to mark TEC if harvesting within 50m of exclusion boundary. The crew must protect all areas of marked TEC.
Rare Forest Ecosystems (5.5)	N/A	Rare Forest Ecosystems are mapped in the compartment. The crew must protect all areas of marked Rare Forest Ecosystems.
Ridge & Headwater Habitat (RHH) (5.8)	N/A	RHH is mapped in the compartment. The crew must protect all areas of marked RHH.
Wetlands (5.9)	Pink Tape	Wetlands & 40m buffer are mapped in the compartment. PA to mark as an exclusion the wetlands & 40m buffer. The crew must protect all areas of marked wetland and 40m buffer.
Rocky Outcrops and Cliffs (5.11)	Pink Tape	Rocky Outcrop is mapped in the compartment. The PA must mark as an exclusion the rocky outcrop + relevant exclusion zone as it occurs on the ground. Several areas of Rocky terrain are identified on the HPOM and may contain additional rocky outcrops. The PA is to assess and mark as an exclusion if required. The crew must protect all areas of marked rocky outcrop.
Owl Landscape (6.3.2)	N/A	Owl Landscape is mapped within the compartment as shown on the HPOM. Crew must protect areas of Owl Landscape.

Yellow-bellied Glider (Heard)	Pink Tape and paint	PA must mark trees for retention as per TSL conditions 6.13.
Fish	N/A	Compartment contains Class 2 Aquatic Habitat. All streams, drainage lines, wetlands and other water bodies within the compartment are Class 2 Aquatic Habitat. Only crossings shown on the HPOM can be used.

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

Issue	Assessment	Conditions
EPL Scheduled Activity	No	Non-scheduled forestry activity
Inherent hazard level	1	Nil
Dispersible Soils	No	Nil
Mass Movement / Instability	No	Nil
Seasonality conditions	No	Nil
Historical or existing erosion	No	Nil
Ground cover	>70%	Nil
Seasonal Burning conditions	No	Nil
Log Dumps	SOP 5	PA is responsible for authorising moving the location of a log dump.
Roading management during harvesting	SOP 6	Refer to SOP 6. PA is responsible for monitoring road and crossing drainage during haulage.
Wet Weather and Rutting	SOP 6	Crew is responsible for implementing automatic closures and following notified closures. PA is responsible for ensuring crew notified when notified closure is lifted.
Snigging	SOP 8	Crew is responsible for progressive drainage of snig tracks
Snig Track Crossings	SOP 9	PA is responsible to ensure snig track crossings are approved prior to use and rehabilitated upon completion.

11. Snig Crossing Approvals

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

Crossing	EPA Approval	Conditions
S1, Mapped 1st order DD	N/A	Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document *"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"* (attached to this plan).
S2, Mapped 1st order DL	N/A	Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document *"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"* (attached to this plan).
S3, Unmapped DD	N/A	Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document *"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"* (attached to this plan).
S4, Mapped 1st order DD	N/A	Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document *"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"* (attached to this plan).
S5, Mapped 1st order DD	N/A	Construct temporary slash crossing (expected side cut <0.5m) as per EPL. Crossing must comply with FCNSW document *"Operating Conditions - Temporary Snig/Extraction Track Slash Crossings of Drainage Features in Native Forest Logging Operations"* (attached to this plan).

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	Snigging and Snig Track Crossing
9	Documentation and approvals

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				

15. Roading Plan: Maintenance works not completed by RC 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.

Summary of roading requirements		
Feature	Details	Works Required
Existing roads to be used	3070m / 4	Yes
New roads to be constructed	430m / 3	Yes
Existing crossings used	1	Yes
New crossings to be constructed	0	Yes
Length of road >10°	0m	NA
Borrow pits and gravel pits	0	N/A
Mass movement prescriptions apply	No	NA
Dispersible soil conditions apply	No	NA
Seasonality provisions apply	No	NA

Checklist of works required on roads & crossings				
Road/Crossing Name	Works Required	Date Started	Date Finished	Initials
Plumeckes Road Length = 1730m *FCNSW Responsibility*	Clear & reshape entire length. Clear up to 3m either side where required to facilitate truck movements. Clean out pipe culverts Reinstate existing mitre drains Patch gravelling may be required if operating during wet conditions – RC/PA to monitor. RC/PA Comments:			
2342-1 Trail Length = 90m *Contractor Responsibility*	New Road Construction: clear, construct, shape entire length. Clear up to 3m either side where required to facilitate truck movements. Install drainage as per EPL requirements. RC/PA Comments:			
2342-2 Trail	[redacted]			

Length = 550m *Contractor Responsibility*	Install drainage as per EPL [redacted] RC/PA Comments:			
2342-3 Trail Length = 130m *Contractor Responsibility*	New Road Construction: clear, construct & shape entire length. Clear up to 3m either side where required to facilitate truck movements. Install drainage as per EPL requirements. Assure integrity of RMS infrastructure maintained (including road verge). Road to be closed after use. RC/PA Comments:			
2341-1 Trail Length = 430m *FCNSW Responsibility*	Road: Widen intersection to original width. Build up intersection to marry 2341-1 Trail into Snowy Mountains Highway. Remove road side vegetation on Snowy Mountains Highway to improve site distance. Clear up to 3m either side where required to facilitate truck movements. Reshape road surface. Install drainage as per EPL. Crossing: (C1, existing mapped 2nd order DL) Remove scrub over C1 without disturbing bed and banks. Build up pavement over C1 to remove potholing. Reinstate 5m & 30m drainage at C1.			

	Patch gravelling may be required if operating during wet conditions – RC/PA to monitor. RC/PA Comments:			
2341-2 Trail Length = 360m *Contractor Responsibility*	Realign corner with 2341-1 Trail if required. Clear up to 3m either side where required to facilitate truck movements. Reshape road surface. Install drainage as per EPL. Cut/carry road and/or patch gravel over exposed rocks. RC/PA Comments:			
2341-3 Trail Length = 210m *Contractor Responsibility*	New Road Construction: clear, construct & shape entire length. Clear up to 3m either side where required to facilitate truck movements. Install drainage as per EPL requirements. RC/PA Comments:			

Cpt 2341; Date: 6/2/2018; WAYPOINT # 715031E / 5944318N; photo (yes)

CROSSING NAME: C1 (Mapped DL)

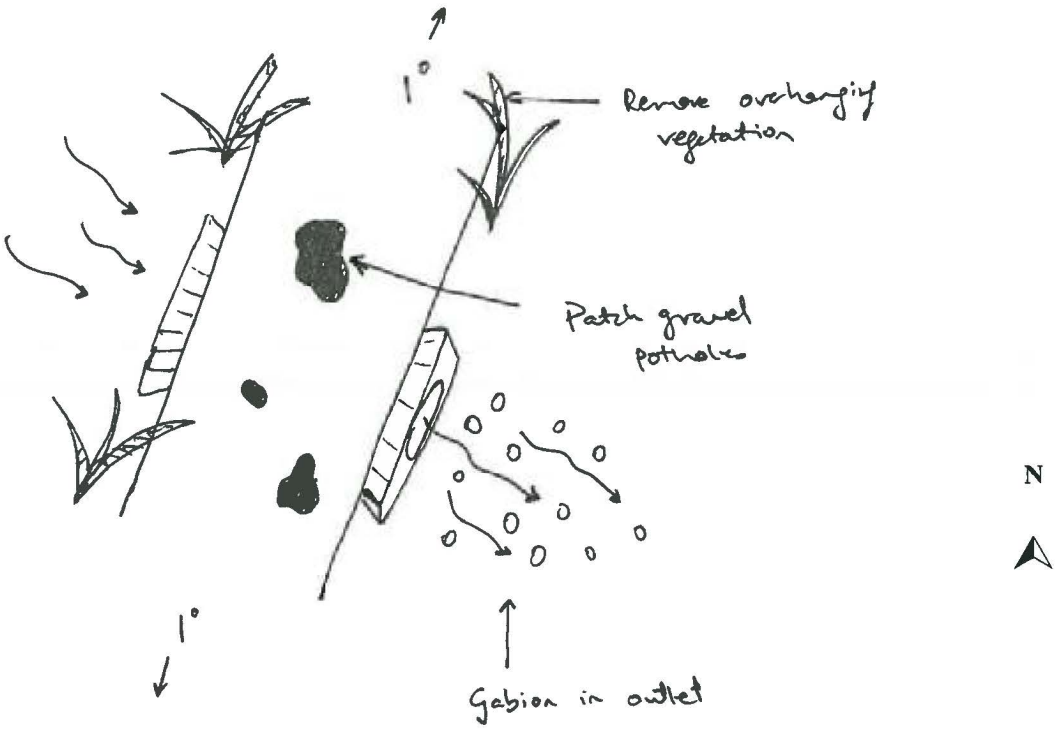
Waterway Classification: Fish Passage Class 3 - minimal fish habitat
Fisheries License Aquatic Habitat: Class 2

Assessors Name: Melanie Dyne **Crossing Type:** Existing Pipe

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Stable at time of assessment.	NA.
Bed and Banks	-Stable at time of assessment. -Scrub on sides of crossing and over-head hangers impacting truck access. Manual removal/pruning required without disturbance to stream bed and banks.	Chainsaw/brush cutters/pole saws
Erosion and Sediment Control	-Minimum GB75 rock to be placed in outlet side to minimise scour. -Smooth out potholing on pavement and/or plug/compact with gravel/rock.	Backhoe; 1m3 GB75+ Backhoe or grader or dozer
Disposal of excess spoil	N/A	
Soil Stabilisation within 20m	NA.	NA.
Road drainage within 5-30m • Type • outlet control • table drain checking devices	Mitres - reinstate	

Date of Assessment: 6/2/2018 Final Crossing Use: Retain

Event	Min. pipe size(mm)	Min. Fill (cm)	Outlet Protection
1:5	900	N/A	75+mm Rock



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
∇	Sediment control
∴	Gravel

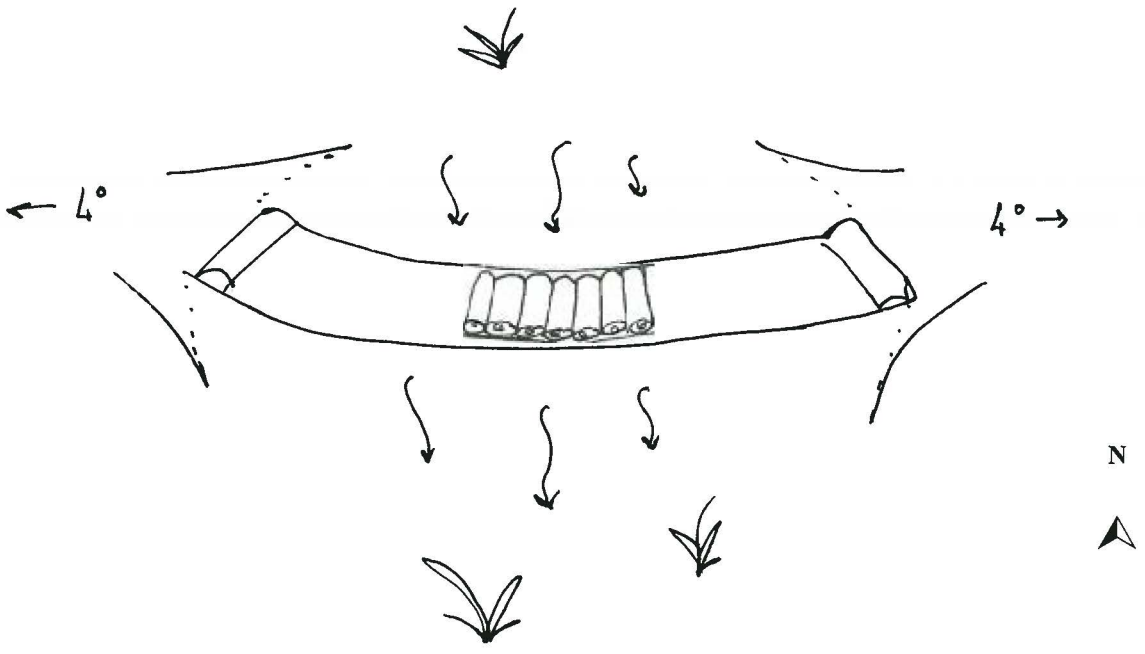
Cpt: 2341 Date: 6/02/2018 WAYPOINT# 714564 / 5944675 Photo: yes
CROSSING NAME: S1 (mapped DD)
Waterway Classification: Fish Passage Class 4- Unlikely fish habitat
Fisheries License Aquatic Habitat: Class 2

Assessors Name: Melanie Dyne **Crossing Type:** New Causeway

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Stable at time of assessment	NA
Bed and Banks	Stable at time of assessment	NA
Erosion and Sediment Control	-Minimise road side clearance and soil disturbance to the greatest extent practicable. -Seed and mulch / utilise slash as required. -Install corduroy/logs in wet conditions/deposition occurring.	Seed and mulch/slash Corduroy site logs if required(dozer/excavator)
Disposal of excess spoil	-All excessive spoil to be removed outside of Stream Exclusion Zone, and spread / consolidated onto crossing approaches or batters.	Dozer/excavator
Soil Stabilisation within 20m	Seed and mulch / slash disturbed areas	Seed and mulch / slash
Road drainage within 5-20m • Type • outlet control • table drain checking devices	-Mitres and outfall drainage to be installed within 5m & 30m of drainage depression during operations. Upon completion of crossing usage, install roll-overs on both approaches. -Install dropdown and dissipaters/slash at outlets of roll overs.	Dozer/excavator

Date of Assessment: 6/2/2018 Final Crossing Use: Temporary

Event	Min. pipe size(mm)	Min. Fill (cm)	Outlet Protection
1:5	N/A	N/A	N/A



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
∇	Sediment control
∴	Gravel

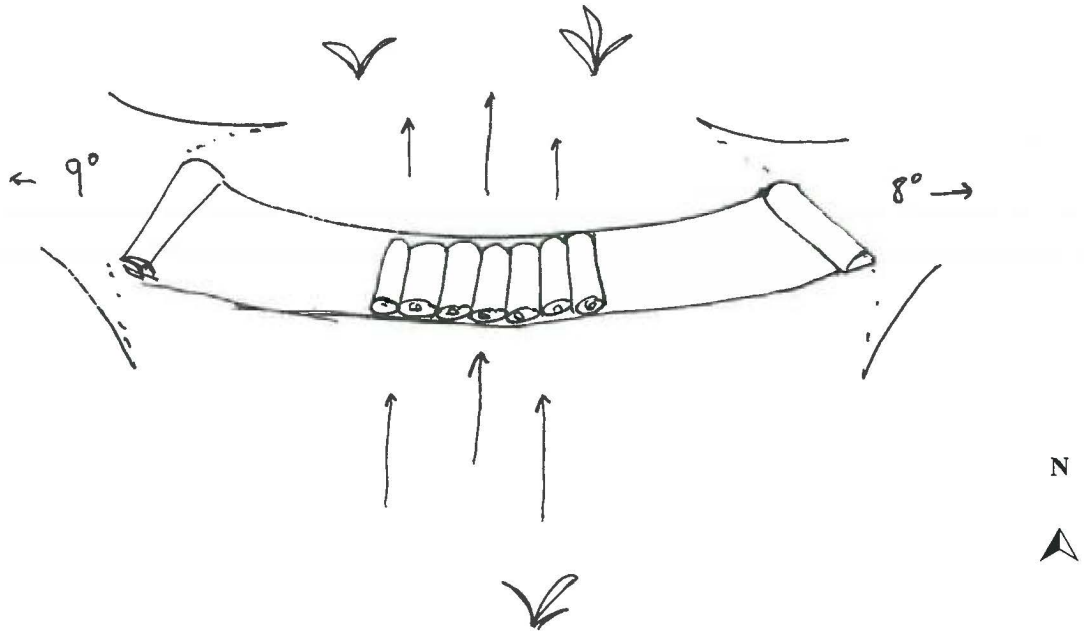
Cpt: 2341 Date: 6/02/2018 WAYPOINT# 714369 / 5944675 Photo: yes
CROSSING NAME: S2 (mapped DL)
Waterway Classification: Fish Passage Class 4- Unlikely fish habitat
Fisheries License Aquatic Habitat: Class 2

Assessors Name: Melanie Dyne **Crossing Type:** New Causeway

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Stable at time of assessment	NA
Bed and Banks	Stable at time of assessment	NA
Erosion and Sediment Control	-Minimise road side clearance and soil disturbance to the greatest extent practicable. -Seed and mulch / utilise slash as required. -Install corduroy/logs in wet conditions or if deposition likely	Seed and mulch/slash Corduroy site logs (dozer/excavator)
Disposal of excess spoil	-All excessive spoil to be removed outside of Stream Exclusion Zone, and spread / consolidated onto crossing approaches or batters.	Dozer/excavator
Soil Stabilisation within 20m	Seed and mulch / slash disturbed areas	Seed and mulch / slash
Road drainage within 5-20m • Type • outlet control • table drain checking devices	-Mitres and outfall drainage to be installed within 5m & 30m of drainage depression during operations. Upon completion of crossing usage, install roll-overs on both approaches. -Install dropdown and dissipaters/slash at outlets of roll overs.	Dozer/excavator

Date of Assessment: 6/2/2018 Final Crossing Use: Temporary

Event	Min. pipe size(mm)	Min. Fill (cm)	Outlet Protection
1:5	N/A	N/A	N/A



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
∇	Sediment control
∴	Gravel

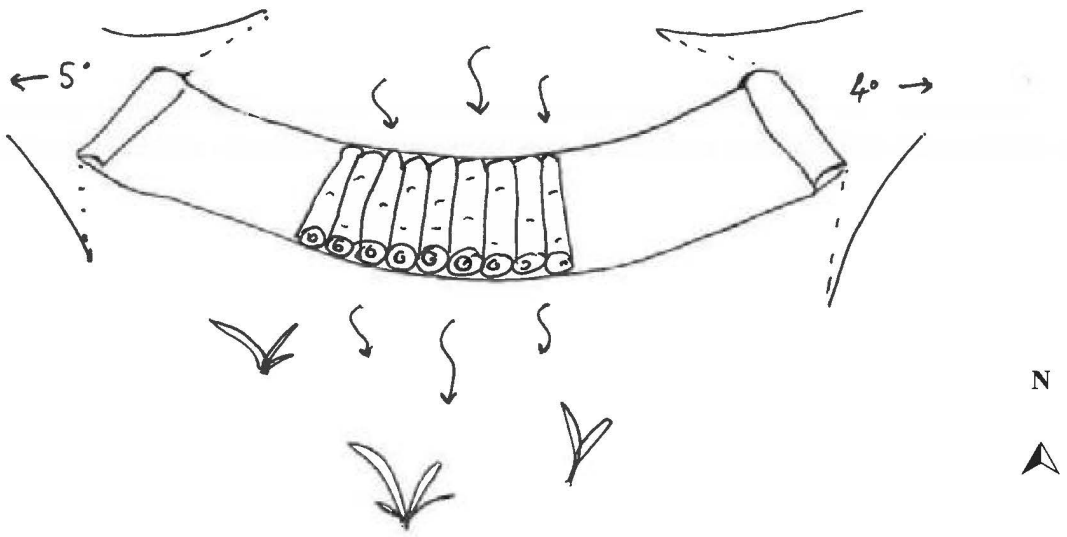
Cpt: 2341 Date: 6/02/2018 WAYPOINT# 714411/ 5944780 Photo: yes
CROSSING NAME: S3 (unmapped DD)
Waterway Classification: Fish Passage Class 4- Unlikely fish habitat
Fisheries License Aquatic Habitat: Class 2

Assessors Name: Melanie Dyne **Crossing Type:** New Causeway

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Stable at time of assessment	NA
Bed and Banks	Stable at time of assessment	NA
Erosion and Sediment Control	-Minimise road side clearance and soil disturbance to the greatest extent practicable. -Seed and mulch / utilise slash as required. -Install corduroy/logs in wet conditions/deposition occurring.	Seed and mulch/slash Corduroy logs if required (dozer/excavator)
Disposal of excess spoil	-All excessive spoil to be removed outside of Stream Exclusion Zone, and spread / consolidated onto crossing approaches or batters.	Dozer/excavator
Soil Stabilisation within 20m	Seed and mulch / slash disturbed areas	Seed and mulch / slash
Road drainage within 5-20m • Type • outlet control • table drain checking devices	-Mitres and outfall drainage to be installed within 5m & 30m of drainage depression during operations. Upon completion of crossing usage, install roll-overs on both approaches. -Install dropdown and dissipaters/slash at outlets of roll overs.	Dozer/excavator

Date of Assessment: 6/2/2018 Final Crossing Use: Temporary

Event	Min. pipe size(mm)	Min. Fill (cm)	Outlet Protection
1:5	N/A	N/A	N/A



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
∇	Sediment control
∴	Gravel

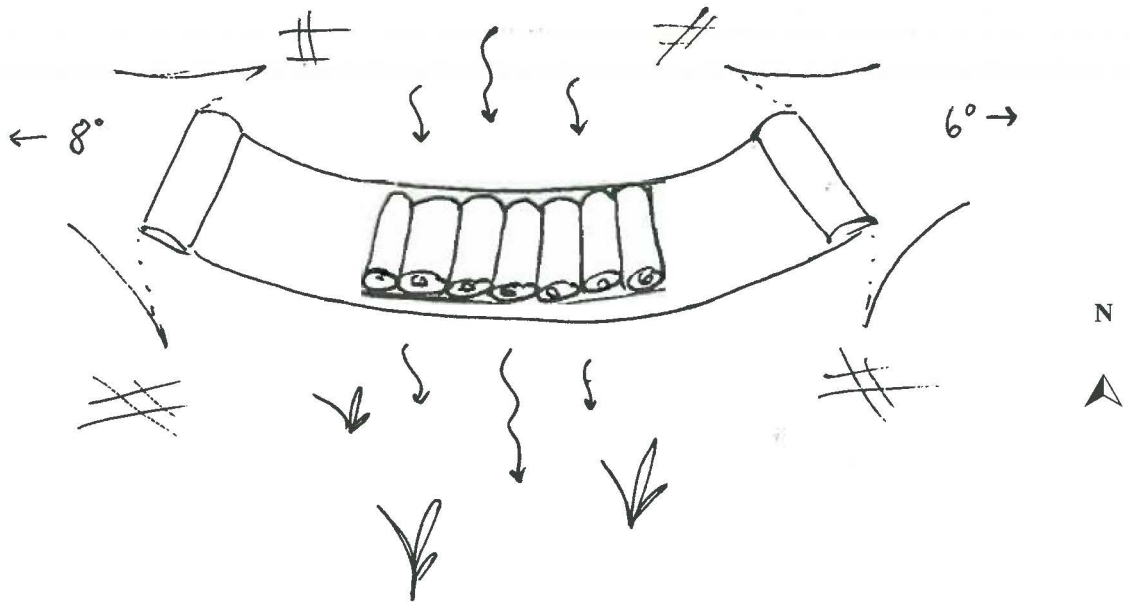
Cpt: 2341 Date: 6/02/2018 WAYPOINT# 714366/ 594479 Photo: yes
CROSSING NAME: S4 (mapped DD)
Waterway Classification: Fish Passage Class 4- Unlikely fish habitat
Fisheries License Aquatic Habitat: Class 2

Assessors Name: Melanie Dyne **Crossing Type:** New Causeway

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Stable at time of assessment	NA
Bed and Banks	Stable at time of assessment	NA
Erosion and Sediment Control	-Minimise road side clearance and soil disturbance to the greatest extent practicable. -Seed and mulch / utilise slash as required. -Install corduroy/logs in wet conditions/deposition occurring.	Seed and mulch/slash Corduroy site logs if required (dozer/excavator)
Disposal of excess spoil	-All excessive spoil to be removed outside of Stream Exclusion Zone, and spread / consolidated onto crossing approaches or batters.	Dozer/excavator
Soil Stabilisation within 20m	Seed and mulch / slash disturbed areas	Seed and mulch / slash
Road drainage within 5-20m • Type • outlet control • table drain checking devices	-Mitres and outfall drainage to be installed within 5m & 30m of drainage depression during operations. Upon completion of crossing usage, install roll-overs on both approaches. -Install dropdown and dissipaters/slash at outlets of roll overs.	Dozer/excavator

Date of Assessment: 6/2/2018 Final Crossing Use: Temporary

Event	Min. pipe size(mm)	Min. Fill (cm)	Outlet Protection
1:5	N/A	N/A	N/A



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
∇	Sediment control
∴	Gravel

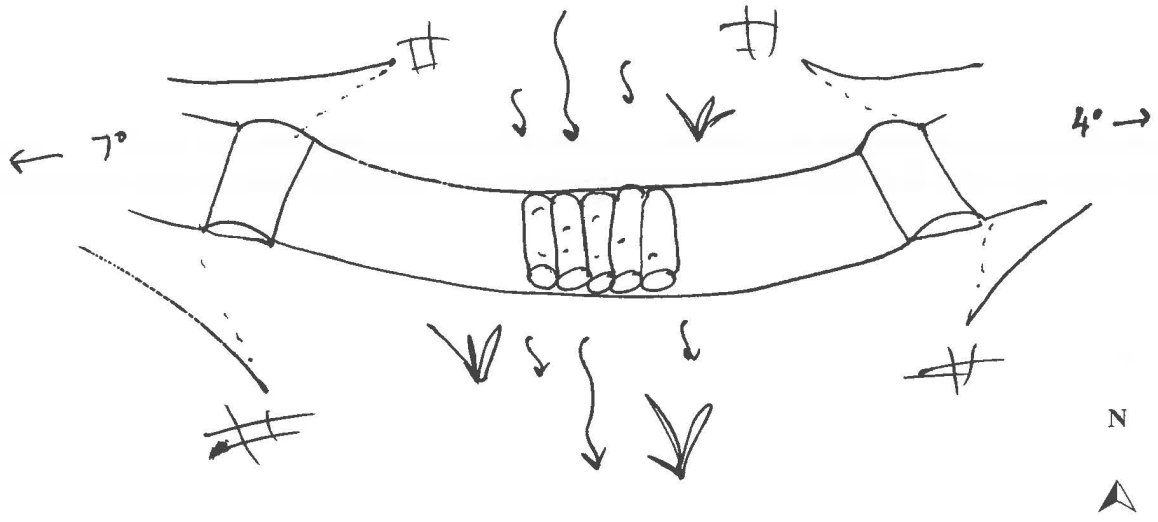
Cpt: 2341-2342 Date: 19/06/2018 WAYPOINT# 714180 / 5944789
Photo: yes
CROSSING NAME: S5 (mapped DD)
Waterway Classification: Fish Passage Class 4- Unlikely fish habitat
Fisheries License Aquatic Habitat: Class 2

Assessors Name: Melanie Dyne **Crossing Type:** New Causeway

Features	Works (As per EPL Schedule 5)	Plant/Materials
Structure	Stable at time of assessment	NA
Bed and Banks	Stable at time of assessment	NA
Erosion and Sediment Control	-Minimise road side clearance and soil disturbance to the greatest extent practicable. -Seed and mulch / utilise slash as required. -Install corduroy/logs in wet conditions/deposition occurring.	Seed and mulch/slash Corduroy site logs if required (dozer/excavator)
Disposal of excess spoil	-All excessive spoil to be removed outside of Stream Exclusion Zone, and spread / consolidated onto crossing approaches or batters.	Dozer/excavator
Soil Stabilisation within 20m	Seed and mulch / slash disturbed areas	Seed and mulch / slash
Road drainage within 5-20m • Type • outlet control • table drain checking devices	-Mitres and outfall drainage to be installed within 5m & 30m of drainage depression during operations. Upon completion of crossing usage, install roll-overs on both approaches. -Install dropdown and dissipaters/slash at outlets of roll overs.	Dozer/excavator

Date of Assessment: 19/06/2018 Final Crossing Use: Temporary

Event	Min. pipe size(mm)	Min. Fill (cm)	Outlet Protection
1:5	N/A	N/A	N/A



Date Work Started: _____

Date Work Finished: _____

Soil stabilisation must be completed within 5 days

Record implementation date here: _____

Key

→Ru	Rubber strip
→M	Mitre drain
xxx	Roadside clearing
→Ro	Rollover drain
ψ	Sill Log
ooooo	Rock
ψ	Seeding
∇	Sediment control
∴	Gravel

Pomaderris parrisiae N.G.Walsh

Family **Rhamnaceae**

Pomaderris parrisiae N.G.Walsh **APNI***

Description: Shrub or small tree to 9 m high; new growth densely covered with appressed silvery simple hairs, often coppery-coloured on new growth, older stems glabrescent.

Leaves elliptic to lanceolate or oblong, mostly 3–10 cm long, 10–25 mm wide, apex acute; upper surface glabrous; lower surface silvery to whitish hairy with simple hairs above a fine stellate-tomentum, hairs wavy and ± appressed towards margins, secondary veins raised above surrounding hair layer, fawn-coloured; stipules lanceolate, c. 5 mm long, caducous.

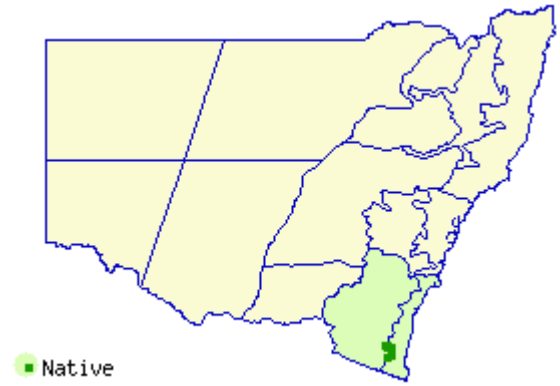
Flowers creamy to pale yellow, in sparse terminal panicles. Petals auriculate, not falling early. Hypanthium and capsule covered with semi-appressed to spreading simple hairs.

Capsule and hypanthium covered with semi-appressed to spreading simple hairs.

Distribution and occurrence: In skeletal sites in tall open forest or rainforest, chiefly on the escarpment ranges, mostly from Kybean to Bemboka area.

In skeletal sites in tall open forest or rainforest.
NSW subdivisions: SC, ST

Threatened species: NSW TSCA: Vulnerable ROTAP: 2VC-



AVH map***

Text by G.J. Harden
Taxon concept: Flora of NSW 1 Suppl. (1999)