FORESTS NEW SOUTH WALES CENTRAL REGION

NATIVE FOREST HARVESTING PLAN

Bulahdelah State Forest – Compartments 140, 141, 142, 143

1. Certification

This plan has been prepared in accordance with the Integrated Forestry Operations Approval issued under the Forestry and National Park Estate Act 1998.

Prepared by: Paul McBain Harvest Planner	Reviewed by: Brent Bailey Harvest Planning Team Leader	Approved by: Kathy Jones Regional Manager
Signature:	Signature:	Signature:
Date: 24/3/13	Date: 16/5/13	Date: 11/11/13

Note: Approval encompasses the Harvest Plan Operational Map (HPOM) with the corresponding approval date displayed on the map, verifying final approved version.

2. Description of Proposal

Native forest timber harvesting, plantation thinning and associated road maintenance work.

Attachment 1: Site Safety Plan – describes safety requirements and MEEP for this harvesting operation.

Attachment 2: Operational Road Works Plan – outlines roading requirements for this harvesting operation.(NOT ATTACHED - PREPARED SEPARATELY)

Attachment 3: Standard Harvest Plan Conditions for Native Forest Operations Under the IFOA: Central Region

3. Area Identification and Yield Estimates

State Forest	Compartments	Region	Management Area	Price Zone	Harvest Plan ID
Bulahdelah	140, 141, 142, 143	Central	Bulahdelah	Bulahdelah	10375 (FRED)

	Cpt 140	Cpt 141	Cpt 142	Cpt 143
Plan Cpt ID (old event ID)	20235	20236	20237	20238
Gross Area	413 ha	396 ha	409 ha	264 ha
Net Harvest Area	66 ha	312 ha	286 ha	73 ha
Treatment Area	66 ha	312 ha	286 ha	73 ha
Estimated Yield	1583m^3	4416m^3	4152m^3	1750m^3
% NHA > 15°	50 %	27 %	40 %	32 %

4. Silviculture and Harvesting Prescriptions

Compartment History and Stand Condition

These compartments have been harvested a number of times through history, with the most recent operations occurring across the compartments from the mid 1960's through to the mid 1990's.

The stands within the compartments are primarily at stand end-point with the intention of this harvest event being to regenerate the stand.

Harvesting Prescription

Stand type	% of net area	Example	Treatment (STS, AGS, or THIN) and Prescription
Blue Gum/ Tallowwood and Mixed Hardwood stands at end point	50%	Areas adjacent to riparian buffers east of Dump 19, cpt 141.	STS heavy. Harvest intensively to remove poor quality stems and stand end point stems. Retain good quality seed trees[1] of preferred species at 30 - 40m spacing. Treat areas between seed trees to aid regeneration[2].
Poor areas where harvesting will most likely not occur. (especially with no export pulp market)	50%	South west areas of Compartment 142.	STS light if products can be obtained. Provide openings around trees removed to stimulate regeneration.

Notes:

1. Retained seed trees must be mature, have good form and large, healthy crowns. Do not retain suppressed trees as seed trees.
2. Areas between seed trees should be treated to aid regeneration, including removal of shade-tolerant stems as far as practicable under the conditions of the IFOA and as market conditions allow.

IFOA Limits

STS BA limit (40%)	Due to the range of vegetation types and stages of forest growth, sections of native forest will be naturally retained unlogged within the NHA to ensure BA limits are not reached. The Harvest Planning Forester must be contacted if changes to this plan are proposed.

5. Special Conditions

Critical Boundaries

Private Property (PP) – Private property adjoins the Western boundary of compartments 141 and 142. The contractor is to ensure that logging debris is not left within 5m of existing fencing, where practicable.

If the boundary is unclear in the field, contact should be made with the harvest planner such that the neighbor can be consulted on agreed boundaries.

If a fence is damaged, as a result of logging then the contractor will repair as soon as possible.

Dust and Noise

The western sections of compartments 141 and 142 are located close to rural housing. Restrictions on all forest operations will apply according to the EPA regulations on neighbourhood noise.

When working on or around areas close to residential properties (within 100m), machinery (including chainsaws) operating hours will be limited to between 7am and 8pm Monday to Saturday, and 8am to 8pm on Sundays and Public Holidays.

Log trucks may enter or exit the site (if operating within 100m of residential property) between 7am and 8pm Monday to Friday, and 8am to 8pm on Weekends and Public Holidays.

The Supervising Forest Officer (SFO) will monitor noise and dust resulting from the operation and take the appropriate action to minimize the effect on surrounding property owners.

6. Forest Management Zoning

Zone	Management
FMZ 2	Special management. Mostly wildlife corridors.
FMZ 3A	Harvesting Exclusion • Mostly underneath Rainforest, Rare Non-commercial Forest Type exclusions on HPOM.
FMZ 3B	Special Management • Historical visual strips. Currently managed as per FMZ 4 (available for harvesting).
FMZ 4	General harvest area.
FMZ 8	Areas for further assessment • Mostly unmapped drainage lines or slope > 30°. • Displayed as same colour as FMZ 4 on HPOM. • Managed under similar conditions to FMZ 4.

7. Cultural Heritage

Investigations were conducted during 2013 by the Region's Aboriginal Cultural Heritage Officer (ACHO).

If any sites are identified in the course of harvesting operations, the **Harvesting Forester** must determine an appropriate interim exclusion zone pending an investigation by the ACHO.

8. Modified Harvesting Area

Modified harvesting zone(s) have been clearly marked in the field.

9. Flora and Fauna

Refer to the Threatened Species Licence (TSL) Booklet for Conditions.

General TSL Prescriptions

- **SFO Mark Up Searches** – Conditions 5.1(h), 5.2 and 5.13 (general, koala and bird roost and nest searches) must be implemented. Koala star search triggers identified during pre-harvest surveys have been conducted – high use and intermediate use prescriptions required to be implemented in compartments.
- **Tree Retention** – Regrowth Zone. Conditions 5.6 (d), (e) and (f), must be applied - Glossy Black Cockatoo feed trees.
- **Riparian Habitat Protection** – Condition 5.7 must be applied.
- **Ground Habitat protection** – Condition 5.17. No commercial firewood collection permitted in these compartments.

Site-Specific Conditions, Exclusion Zones & Modified Harvest Areas
Mapped exclusion areas occur for the following. Site-specific conditions must be implemented

Boundary Type	TSL Condition Number	Prescription Name	Prescription Summary
1, Solid	5.12	Dams and waterbodies	10m buffer on dams
1, Solid		Endangered Ecological Community	Mapped exclusion - Sub-tropical Coastal Floodplain identified on Myall Forest Rd. Wetland also present-wetland buffer will protect both EEC locations. Mapped wetland extent is an approximation and will require field verification. Also coincides with Rare non-commercial forest types.
2, Accidental	5.04	Rainforest	Mapped Exclusion
2, Accidental	5.09	Wetlands	Mapped Exclusion - see approximate extent on layer file provided
3, Machinery	5.13	White-breated Seagle	Mapped Exclusion 100m on nest site if detected
3, Machinery	6.03	Giant-barred or Stuttering Frog	Mapped exclusion, 30 m buffer on mapped streams within 200 m of a records and no UMDL within 200m of a record. Revert to 10m UMDL EPL protection
4, Limited	5.05	Rare non-commercial Forests	Mapped Exclusion
4, Limited	5.08	Ridge and Headwater Habitat	Mapped Exclusion
4, Limited	5.11	Rocky Outcrop	20 m buffer on outcrops > 0.1 ha or cliffs > 3m high
4, Limited	6.09	Owl Landscapes	Mapped exclusion - Bulahdelah Planning Unit
4, Limited	6.14	Koala High-use Area	Mapped Exclusion in cpt 141
5, Modified	6.14	Koala Intermediate Use	Tree retention requirements in areas outside of High-use Area. All cpts
5, Modified	6.17i	Yellow-bellied Glider Tree Retention	Tree retention requirements, sap feed tree detection
5, Modified	6.17ii	Yellow-bellied Glider Tree Retention	Tree retention requirements, heard call detection

10. Potential EEC

Subtropical coastal floodplain and River-flat eucalypt forest EECs have the potential to be in this compartment. The Wetland areas (with buffers) depicted on the HPOM will protect known EEC locations.

If further potential EEC areas are detected during the course of mark-up, these areas MUST be assessed by the Regional Ecologist or suitably qualified personnel prior to any activities occurring in those areas.

11. Soils and Water Protection

Refer to Environmental Protection Licence (EPL) Booklet & Standard Plan Conditions

***Site-Specific EPL conditions* Element**	**Conditions**
Unmapped Drainage Lines	Best Management Practices for Unmapped Drainage Lines apply.
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	2
Dispersible Soils	No
Mass Movement	No
Seasonal Harvesting Exclusions	Nil
Seasonal Burning Exclusions	Nil
Log Dumps	Refer relevant conditions for IHL 2: Conditions 26, 27, 28, 30, 31 and 33 of EPL. Max. allowed soil disturbance for log dumps: rut depth 25cm, length 10m. (Forest Practices Circular 2008/4)
Roads	See schedule 5 of EPL Booklet

Element	**Schedule 4 EPL Conditions**
Technique	Conditions 38-40 Schedule 4 EPL
Drainage	Conditions 70-80 Schedule 4 EPL
Crossings	Conditions 42-68 Schedule 4 EPL Condition 5.7 TSL
Downhill Snigging	Condition 82 Schedule 4 EPL
Wet Weather	Condition 81 Schedule 4 EPL
Grade	Max grade must not exceed 25° except for short sections under certain circumstances. Refer to Condition 41 Schedule 4 EPL
Rutting	Max allowed soil disturbance limits for snig / extraction tracks: rut depth 20cm, length 10m. (Forest Practices Circular 2008/4)

12. Legal Conditions

This operation must comply with:

- Licence Conditions issued by Forests NSW under the Forestry Act (1916)
- State Forests of NSW Forest Practices Code - Part 2 Timber Harvesting in Native Forests 1999 and Forest Practices Code Part 4 Forest Roads and Fire Trails (1999).
- Integrated Forestry Operations Approval issued under part 4 of the Forestry and National Parks Estate Act 1998 (IFOA) as amended May 2003 including associated licences for Lower North East Region.
    - Threatened Species Conservation Licence (TSCL) issued under the Threatened Species Conservation Act (1995) as amended May 2003

- Part 7 (Div 3) Fisheries Management Act (1994) as amended May 2003

- This operation is a non-scheduled operation under the Environment Protection Licence issued under section 55 of the Protection of the Environment Act 1997. This Harvesting operation including the roads and trails associated with harvesting are not licensed. All EPL conditions will be applied to harvesting operations, except for schedule 4 condition 6 relating to filter strips on unmapped drainage lines. The Best Management Practices detailed in Standard Harvest Plan Condition for Native Forest Operations in Central Region are to be applied to unmapped drainage lines.

13. Pre-Operational Briefing

I acknowledge that I have received a copy of the Harvesting Plan for Compartments 140, 141, 142, 143 in Bulahdelah State Forest and that I have been briefed on the conditions of the Plan and understand the supervision and operational control requirements as explained to me by the Forest Planner or his/her delegate.

Position	Name	Signature	Date
L-Tech	Andrew Goodman		11-6-14

11/6/14

Appendix 1: SFO Forms – SFO NOTES

<u>LOCATION</u> SF: ______________________ CPT NO: ________

- This diary should record general daily events, SFO movements, Operations visited which are not otherwise recorded in detail elsewhere.

Date	Event	Initial

SFO Post Logging NOTES

LOCATION SF: _____ CPT NO: _____

Record any circumstances of significance relating to the harvesting of this compartment.
Please draw or include any annotations on an attached operation scale map.
Actual area harvested (record on map)
Give reasons for harvestable areas that were not harvested (e.g. Too steep, defective timber). Make reference to map.

Silvicultural treatment undertaken;

Treatment	Area Treated	Number of AGS gaps	Comments
Australian Group Selection			
Single Tree Selection			
Thinning			

Possible next cut (tick appropriate boxes)

Main product type	Anticipated volume		
	H	M	L
High quality large sawlog			
High quality small sawlog			
Low Value			
Poles/piles/girders			
Veneer			
Pulpwood/chipwood			
Habitat			
Non-merchantable			

Time to next harvest
0 to 5 years
5 to 10 years
10 to 20 years
20 to 30 years
30 plus years

Noxious or environmental weed problems; high levels of feral animal use.

Sites of soil erosion for attention.

Boundary compromised; neighbour issues resulting from logging or haulage.

Operation map errors for attention (e.g. forest type; roads) of appropriate staff i.e. GIS, Planner etc.