FORESTS NEW SOUTH WALES CENTRAL REGION

NATIVE FOREST HARVESTING PLAN

Enfield State Forest – Compartments 311, 312, 314 and 292

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: Ken Drew Harvest Planner	Reviewed by: Brent Bailey Harvest Planning Team Leader	Approved by: Kathy Jones Regional Manager
Signature:	Signature:	Signature:
Date: 26/03/12	Date: 23/7/12	Date: 23/7/12.

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

Description of Proposal

This native forest timber harvesting plan aims to:

1. Provide the means by which native forest timber can be efficiently and effectively harvested in accordance with the requirements of the Integrated Forestry Operations Approval (IFOA).
2. Describe the silviculture objectives and constraints that will apply to this operation to ensure appropriate treatment of the forest to achieve object number 1 and to provide for the regeneration of the forest where required.
3. Outline the critical boundaries and modified harvest practices that are to apply to safeguard environmental values, neighbouring properties, State forest or other tenures.
4. Provide a succinct summary of the key features of all aspects of the harvesting operation so as to inform and guide harvest contractors and Forest NSW personnel during the undertaking of forestry activities.

Environment Protection Licence (EPL)

This operation will not be licenced under the EPL, therefore:

1. Unmapped Drainage Line harvesting is permitted. However, as best practice all conditions of the EPL will be applied to this operation with the exception of Schedule 4 Condition 6 relating to filter strips on unmapped drainage lines.
2. Commencement and cessation notifications under the EPL are not required.

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

***Attachment 2*:** A separate road works plan outlines roading requirements for this harvesting operation.

Attachment 3: Central Region Standard Operating Conditions for Native Forests Operations under the IFOA

Area identification and yield estimates

State Forest	Compartments	Region	Management Area	Price Zone	Harvest Plan ID
Enfield	311,312,314 & 292	Central	Wingham	Wingham	3978

	Cpt 311	Cpt 312	Cpt 314	Cpt 292	Total
Event ID	15090	15091	15092	15093	
Gross Area	138 Ha	164 Ha	84 Ha	14 Ha	400 ha
Net Harvest Area	115 Ha	80 Ha	46 Ha	12 Ha	253 ha
Estimated Yield	3800m^3	2800m^3	1020m^3	220m^3	7620m^3

Special Conditions

Critical boundaries

Cottan-Bimbang National Park joins western boundaries of compartment 311 and eastern boundary of compartment 292. These boundaries have no defining borders. Boundaries will be identified and marked in the field by means of using GPS this will be carried out before harvesting commences in these areas.

Cottan-Bimbang National Park also joins southern boundaries of compartments 312 and 314 these boundaries are bordered by rainforest.

Harvesting will not impact on National Park areas.

Southern boundary of compartment 292 joins private property. This boundary is fenced.

Damage to fence lines caused by harvesting operation shall be repaired immediately by the contractor. Debris must not be left within five metres of fence lines.

All other boundaries bounding these compartments are bordered by State Forest.

Oxley Highway Road Reserve

The Oxley Highway is a Crown Road, with a 50 m road reserve either side. The cadastral boundaries reflect this 100m wide road reserve, however, it is not located in the true location of the road. For the purposes of this harvesting operation, the HPOM shows the compartments being off the southern edge of the Oxley Highway. Approval form the Walcha Council as the consent authority has been granted to undertake roadworks and harvesting within the road reserve.

Telstra Underground Cable

An underground cable runs along the northern side of the Oxley Highway. It also crosses Highway at "Sherwood" Private Property entrence (MJ Cook). Cable than continues along southern side of highway as well as northen side. Markers are present in the field and the approximate location is shown on the HPOM. Heavy vehicle traffic (over 3 tonnes) should not be driven over the Telstra ducts or plant with less than 600mm cover. Roading maintenance will ensure that enough gravel / road fill is in place. Tree removal is not permitted within 1 metre of the actual location of the cable.

Research / Inventory Plots

A search of the regional Research, PGP and Plus Tree GIS databases found no sites in these compartments. If any elite trees or research plots are identified during markup the SFO must get approval from the planner or resources officer before harvesting commences in those areas.

Hunting Declared within State Forest
Enfield State Forest has been declared as a hunting area under the conservation hunting on Public Land initiative managed by the NSW Game Council. Only accredited, licensed hunters may apply for permission to hunt certain species of introduced game and feral animals on declared State forests and Crown Lands. Harvesting compartments are no longer excluded for areas available for hunting, so signs should be considered for use as a control as required.

SFO Notes
A revised SFO notes page has been incorporated into this plan. This page should be used in recording operations under unmapped drainage line prescriptions

Silviculture and harvesting prescriptions

Compartment History
Limited compartment history records only refer to early selective logging for quota occurred several times throughout these compartments from early 1970's through to the early 1990's, with only a occasional follow up salvage logging occurring across sections of all four compartments. Compartment histories indicate that <40cm DBHOB growers were required to be retained during these harvesting events. This reflects in the current stand with a good scattering of Quota quality stems with larger mature over-mature stems of only Salvage quality.
There is reference within compartment 314 history of a wildfire occurring in this compartment in 1991 but this mainly took place in the now National Park. There is no reference of wild fire or prescribed burning ever taken place within these other compartments. Evidences in field indicate that fire has occurred possible >20 years ago resulting in some stand damage. Burn scars and a high level of defect in older trees also point to a history of fire.

Stand Condition
These compartments are covered in regrowth forest comprising of *E. Obliqua* (Messmate Stringybark), *E. viminalis* (Manna Gum), *E. andrewsii* (New England Blackbutt), *E. laevopinea* (Silvertop Stringybark) *E. saligna* (Sydney Blue Gum) and *E. fastigata* (Brown Barrel).
Some good quality larger diameter sawlogs can be found scattered throughout the planned area. Some areas have not successfully regenerated potentially due to the a number of factors including frost heave, snow grass competition, infrequent seeding habits, inadequate fire regimes or browsing pressures (from feral and native animals). A lack of regeneration is especially prominent in *E. viminalis* (Manna Gum) forest types.
As a result of previous harvesting regime the age of trees vary from below 15 years to in excess of 100 years. Size classes are highly variable, from below 30cm DBH to > 80 cm DBH. There is some pre-merchantable regrowth and merchantable regrowth stems scattered throughout compartments in patches. In other areas there is a minimal regrowth component. Many of the larger overmature retained stems are defective and senescing and there is a high occurrence of hollows.

Silvicultural Planning

Number of harvesting operations remaining in the WSA period (excluding this event)	1
Next anticipated harvesting operation	2022
Enrichment Planting	No

Stand type	% of net area	Example	Treatment (%STS,AGS,THIN)
Messmate, Manna Gum, New England Blackbutt, Silvertop Stringybark	70%	Mainly all compartments	**Single Tree Selection** (STS) Removal of merchantable over-mature and mature stems & poorer quality merchantable stems >40cm DBHOB. Remove poorer quality stems <40cm DBHOB. In order to encourage growth on good quality retained stems.
Manna Gum, New England Blackbutt	30%	Mostly northern section of compartment 311	**Single Tree Selection** (STS) Removal of merchantable over-mature and mature stems & poorer quality merchantable stems >40cm DBHOB. Remove poorer quality stems <40cm DBHOB. In order to encourage growth on good quality retained stems.

Max. number of AGS openings	Nil
Thinning BA limit (60%)	N/A
STS BA limit (40%)	Will not be reached due to retained growers within the stand, and area's of non merchantable sections throughout all compartments

Future Treatment

Another harvesting event within these compartments is anticipated within the WSA period.

Forest Management Zoning

Forest Management Zoning and Approvals

These compartments contain the following FMZ's;

Zone	Management
FMZ 2 (Informal Reserve)	Which is Rainforest and Old Growth. Harvesting is excluded from these areas
FMZ 3A (Harvest Exclusion Zone)	Which is mainly Rainforest. Harvesting is excluded from these areas
FMZ 3B (Visual)	which is to be treated the same as FMZ 4- *not displayed on HPOM*
FMZ 4 (General Harvesting Prescription)	Which is available for harvesting. Normal prescriptions apply
FMZ 8 (Further Investigation)	The FMZ 8 areas occur as modelled stream exclusion zones and can be harvested and managed under normal harvesting prescriptions and EPL prescriptions *not displayed on HPOM*

Cultural heritage

An Aboriginal site survey was performed by Forests NSW Aboriginal Cultural Heritage officer in June 2010. There are no known sites of European heritage within these compartments.

Flora and Fauna – Refer to TSL Booklet for Conditions

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. No Koala star search triggers identified during pre-logging surveys.
- **Tree Retention** – Non-regrowth Zone. Conditions 5.6 (c), (d), (e), (f) and (g), 6.9 (d) Greater Glidertree retention 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		Endangered Ecological Community	Mapped exclusion - Ribbon Gum-Mountain Gum-Snow Gum Grassy Forest Woodland of the New England Tableland, indicative layer provided. Indicative layer must be used as exclusion boundary unless field assessment is undertaken.
2, Accidental	5.04	Rainforest	Mapped Exclusion
2, Accidental	5.09	Wetlands	Mapped Exclusion, 20m buffer on 0.7 ha wetland
3, Machinery	6.04	Sphagnum Frog	Mapped exclusion, 50 m buffer on records
3, Machinery	6.25	Threatened Flora	Mapped exclusion, 20 m buffer on 90% of individuals: *Euphrasia ciliolata*
3, Machinery	6.21 / 7b)xv	Large-footed Myotis	30m buffer on dams and permanent water bodies
4, Limited	5.05	Rare non-commercial Forests	Mapped Exclusion
4, Limited	6.09	Owl Landscapes	Mapped exclusion - Enfield-Brassey Planning Unit
4, Limited	6.15	Spotted-tailed Quoll	Records present, search for dens / latrines as part of mark up.
5, Modified	6.17	Yellow-bellied Glider Tree Retention	Tree retention requirements, sap feed tree detection

Soils and Water Protection – Refer to EPL Booklet & Standard Plan Conditions.

Site-specific EPL conditions

Element	Conditions
Unmapped Drainage Lines	Best Management Practices for Umapped Drainage Lines apply
Drainage Feature Protection	See HPOM for widths
Inherent Hazard Class	IHL 1
Dispersible Soils	No
Mass Movement	No
Seasonal Harvesting Exclusions	Nil
Seasonal Burning Exclusions	Nil
Log Dumps	Refer relevant conditions for IHL 1: Conditions 26, 27, 30 and 33.
Roads	See schedule 5 of EPL Booklet

Snig and Extraction Tracks

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 Snig/Extraction tracks = depth 20cm / Length 10m (Forest Practices Circular 2008/4)

Legal Conditions

This operation must comply with:

- Standard Harvest Plan Condition for Native Forest Operations in Central Region
- 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.

Pre-Operational Briefing

I acknowledge that I have received a copy of the Harvesting Plan for Compartments 311, 312, 314 and 292 in Enfield 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