



# LOCALITY MAP Western Region - Harvest Plan



Management Area: BARADINE

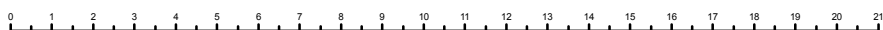
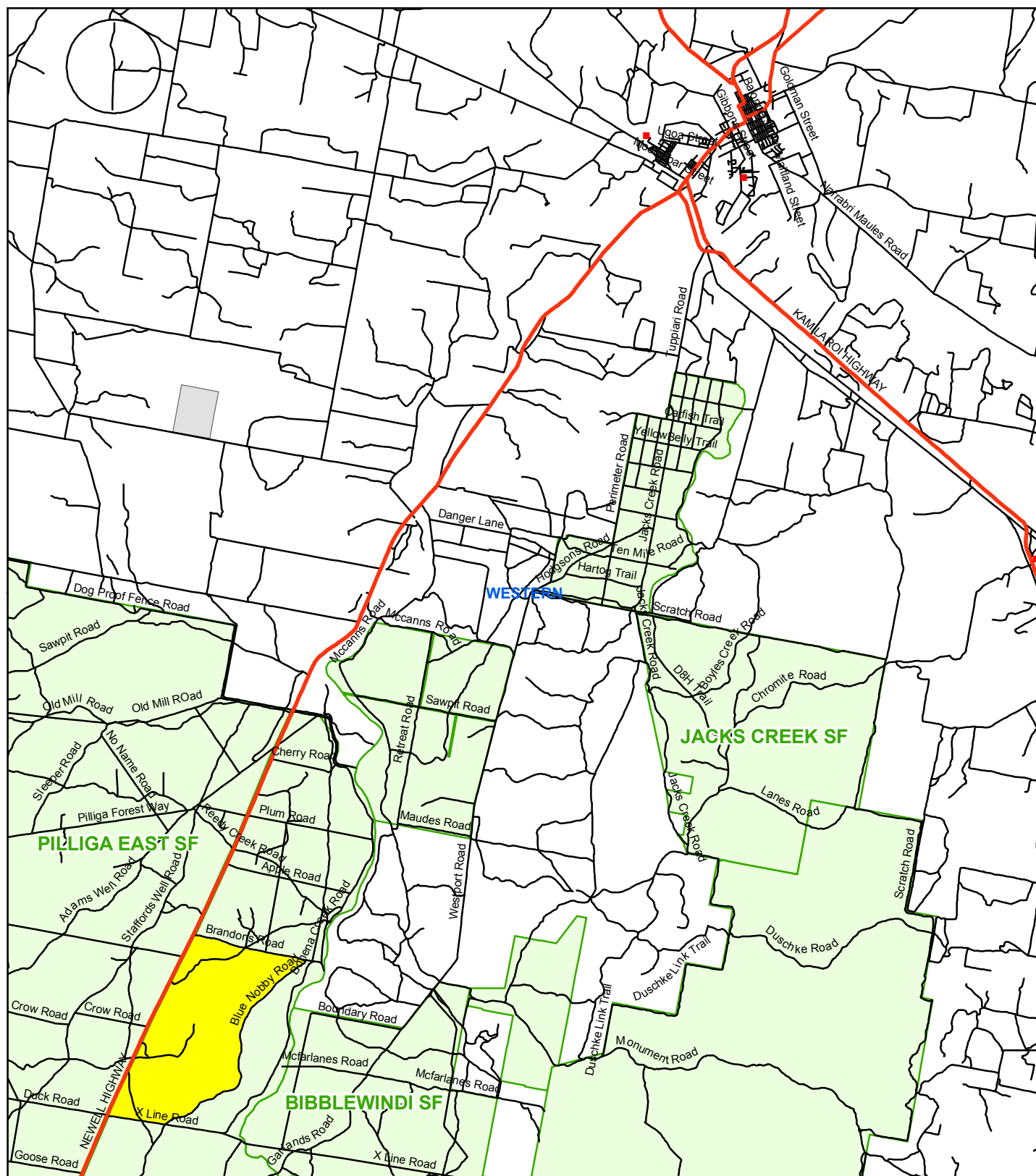
State Forest Name: PILLIGA EAST

State Forest No: 266

Compartment: 717

Scale: 1:183,428

Compartment Area: 1972 ha



Kilometres

- Highway
- Roads
- Major Drainage

- Compartment(s) of interest
- State Forest
- Locality
- Heritage Sites

# HARVEST PLAN OPERATIONAL MAP

Western Region - Harvest Plan WBb 1109

Pilliga East State Forest

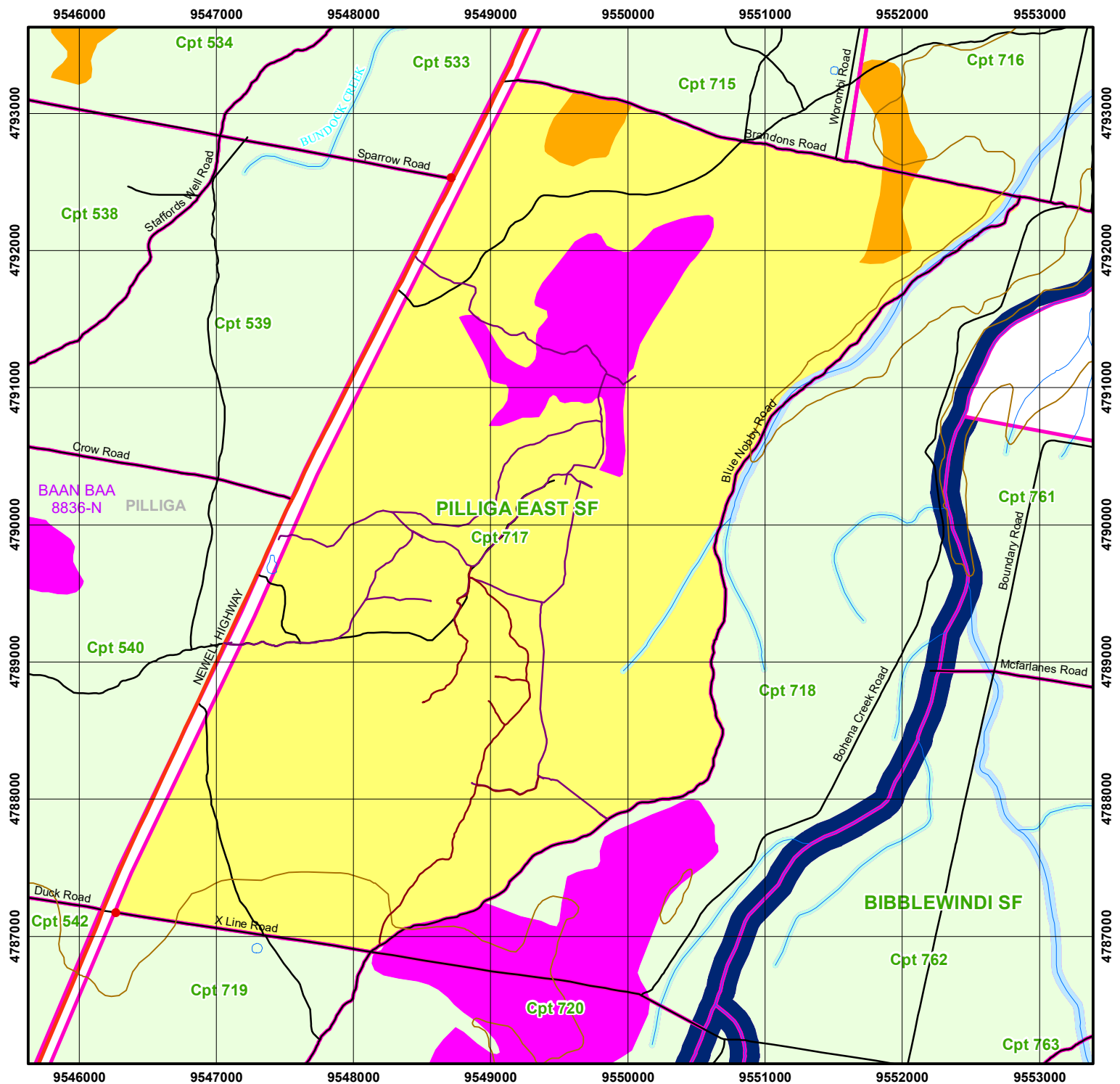
Compartment 717



Date: \_\_\_\_\_

Approved: \_\_\_\_\_

Scale: 1:40,000



## General Features

- Gas Well
- Inventory/Research Plots
- Log Dump (permanent)
- Log Dump (temporary)
- Trig/Repeater Station
- Contour
- Transmission Line
- Railway
- Heritage Points
- Aboriginal Points

## Roads

- Highway
- Road
- Crossing

## Roads Class

- Operation
- Proposed

## Water Features

- Drainage
- Dam

## Boundaries

- Compartment of Interest
- State Forest Boundary

## Drainage Buffers

- 50m Stream Buffer (5th Order)
- 40m Stream Buffer (4th Order)
- 30m Stream Buffer (3rd Order)
- 20m Stream Buffer (2nd Order)
- 10m Stream Buffer (1st Order)

## Other Exclusions

- EEC
- Wetlands
- Heath

## Non-Harvest Area

- Special Protection (FMZ 1)
- Special Management (FMZ 2)
- Harvesting Exclusion (FMZ 3A)
- Flora/Fauna Exclusion Units

## Harvest Area

- Available for Harvesting (FMZ 4)
- Modified Harvest Area (FMZ 3B)

# FORESTS NEW SOUTH WALES - WESTERN REGION

## NATIVE FOREST HARVESTING PLAN

Refer: FPC 2010/01



### Pilliga East State Forest - Compartment 717

#### Certification

This plan has been prepared in accordance with the Integrated Forestry Operations Approval issued under the Forestry and National Park Estate Act 1998. The Standard Harvest Plan Conditions for Native Forest Operations in Western Region – Brigalow Nandewar apply to this operation.

Prepared: Darren Worrell Harvest Planner	Endorsed: Steve Campbell Planning Manager	Approved: Warwick Bratby Regional Manager
Signature	Signature	Signature
Date 14 / 3 / 2011	Date 9 / 3 / 2011	Date 11 / 3 / 2011

Note: Approval includes the Harvest Plan Operational Map (HPOM) with the corresponding approval date displayed on the map, verifying final approved version. Locality and forest type maps are included for information only and do not form a part of this approval.

#### PRE-OPERATIONAL BRIEFING (SUPERVISING FOREST OFFICER ACKNOWLEDGMENT)

I confirm that I have received a copy of the Harvest Plan for the above Compartment. I have been briefed on the conditions of the Plan. I understand the requirements for supervision and operational control as explained to me by the Forest Manager or his/her delegate.

SUPERVISING FOREST OFFICER: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

#### PRE-OPERATIONAL BRIEFING (LICENSEE/CONTRACTOR ACKNOWLEDGMENT)

I confirm that I have received a copy of this Harvest Plan and that:

- ☐ I understand the conditions of the Plan,
- ☐ I will inform all relevant people not present at this briefing, prior to them starting operations, of these aspects of the Plan, as explained to me by a Forests NSW officer.

Signature: \_\_\_\_\_ Name: \_\_\_\_\_ Date: \_\_\_\_\_

Position: \_\_\_\_\_ Licence No: \_\_\_\_\_

Principal licensee/contractor/other (explain)

## Description of Proposal

Broombush (*Melaleuca uncinata*) will be harvested under regulation of the Integrated Forest Operations Approval for Brigalow-Nandewar Region (B-N IFOA).

Brush will be harvested by hand and tied into bundles. Bundles will be carried to the dump using an off-road vehicle or tractor. They will be removed from the forest by truck.

Natural regeneration is planned. No after-harvest burning or planting is proposed.

Attachment 1: Site Safety Plan prescribes the safety requirements and Medical Emergency Evacuation Plan for this harvesting operation.

No construction, reopening or upgrading of roads solely for broombush harvesting is permitted. (242(1))

A bush track may only be constructed, re-opened or up-graded through a stand of broombush if the majority of the shrubs comprising the stand are less than 3 metres high and not senescent. (242(2))

It is not proposed to conduct road works as part of this operation.

## Area Identification and Yield Estimates

State Forest	Compartment/s	Region	Management Area	Harvest Plan ID
Pilliga East	717	Western	Baradine	3715

COMPARTMENT	717
Event ID	14540
Gross Area (ha)	1972
Net Harvest Area (ha)	1845

## Silviculture and Harvesting Prescriptions

The planning area has a long history of hardwood, softwood and more recently broom operations. The hardwood and softwood operations have been mostly concentrated in the northern part of the compartment.

The mature broombush stands within compartment 717 have regenerated following previous cutting operations in some areas in 1992, 2006 and 2009. These stands are scattered throughout the planned area.

The area harvested must be mapped and recorded in the Post-logging information section of this plan.



### Silvicultural Planning

Broombush is to be harvested in accordance with the IFOA as it reaches commercial size. Best quality, hand-packing brush is harvested while stems are thin and straight. Machine-packing can utilise thicker and branchier stems. This operation will produce mainly hand-packing quality brush.

Silviculture prescriptions will be applied during the operation this will encourage natural regeneration throughout the compartment with the next cut in 7-10 years time.

### Harvesting Prescription

Stand type	% of net area	Area (refer to HPOM for details)	Treatment
Fire-regenerated broombush	10%	Throughout comp't 717	<ul style="list-style-type: none"><li>Thin according to specifications below.</li></ul>
Coppice regrowth broombush from last harvest	90% NHA	Throughout comp't 717	<ul style="list-style-type: none"><li>Thin according to specifications below</li></ul>

Broombush (that is, *Melaleuca uncinata*) must not be harvested from a shrub that is more than 3 metres high or less than 0.5 metres high. (237(1))

Broombush must not be harvested from more than 70% of the total number of individual broombush shrubs between 0.5 metres and 3 metres high in the compartment or other tract of land covered by this operational plan. (237(2))

The Supervising Forest Officer will ensure that all relevant retention and silvicultural prescriptions are met during harvesting operations.

The operation must, as far as practicable, not damage individual plants of good form regeneration or sapling size of white cypress or ironbark, especially where there are few others nearby.

### Tree Marking

The area will be tree marked to identify Exclusion zones and ecologically significant areas only. The Supervising Forest Officer will monitor and mark these areas off when needed.

## 4. Special Conditions

### Critical boundaries

The Compartment is bounded by roads on all sides. Refer to the Operational map for more detail. Marking of the compartment boundary is not proposed.

### Research / Inventory Plots

No research plots or trials are known in this compartment.

### Leases/OPs

The area is subject to exploration and production of coal seam methane gas. There is one active well site and a buried gas pipeline present within the planning area (refer to Operational Map). This well site is fenced and the buried pipeline is signposted.

- Fences. No fence may be damaged except at places approved by the Supervising Forest Officer. Any damage to a fence by the Contractor must be immediately reported to the lessee via the Supervising Forest Officer and fixed immediately by the Contractor.
- Gas Pipeline. The Gas pipeline may be crossed by harvesting machinery, however disturbance to ground debris should be minimised as far as is practicable. The pipeline must not be used for haulage extraction unless authorised by the Supervising Forest Officer.
- Active Well Sites. Active Well Sites are generally fenced and signposted; harvesting machinery and personal must not enter these areas.

The area is covered by an Occupation Permit for beekeeping and/or grazing. In particular:

The area is or may be subject to grazing under Grazing Permit. In particular:

- Apiary Sites. A 20m buffer must be applied around each bee hive encountered.

### Transmission Lines/Cables/Pipelines

There is a gas pipeline in the north-eastern side of the compartment from Blue Nobby road to Brandons road (shown on the operational map). This gas line is clearly sign posted. The pipeline easement must not be used for extracting broom unless authorised by the Supervising Forest Officer.

On the eastern side along the Newell highway there is a fibre optic cable pipeline (shown on the operational map). This line is sign posted and harvesting of the broom will be on the eastern side of this pipeline.

## Forest Management Zoning Conditions

FMZ 3A - This zone is in the middle of the northern part of the planning area (shown on the operational map). The supervising forest officer will mark this area off.

FMZ 3B –There are two modified harvesting zones in the north east and north west of the compartment along Brandons road (shown on the operational map) this area is designated FMZ - 3BWGhPgwp/box. . The management aims for both of these areas are to maintain persistence and encourage where possible the development and

persistence of large crowned eucalypts. No specific management will be required during this operation in this area.

FMZ 4 - 'General Management' occurs within the compartment (shown on HPOM). Normal harvesting prescriptions apply in this area.

### Cultural Heritage Conditions

There are two cultural heritage sites in this compartment. These sites will be monitored and marked off by the supervising forest officer when and if the harvesting operation comes close to these sites.

If another site that might be a cultural heritage site is found:

- Its location must be promptly reported to the Forestry Office via Supervising Forest Officer.
- A 20m no-harvest zone must be applied around this site until advised otherwise.

### Flora and Fauna Conditions

The Supervising Forest Officer must search for threatened species and mark-up the block as per the Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Brigalow Nandewar.

### Mark-up Conditions

Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Brigalow Nandewar for prescriptions.

### Tree retention Conditions

Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Brigalow Nandewar for prescriptions.

### Site-Specific Conditions, Exclusion Zones & Modified Harvest Areas

There are no known areas of heath, rocky outcrops, cliffs and/or endangered ecological community (EEC) occurring within the net operational area that need additional harvest exclusions or modified harvesting zones implemented.

The Supervising Forest Officer should watch out for any of these areas that may occur.

Broombush harvest is not permitted in an environmentally significant area and its surrounding protection zone unless the ESA is an area of heath that has been marked on the HPOM and is classified as Forest Management Zone 4. (274 (1), 274(2).

Machinery (such as a truck or 4WD with a trailer) may enter and traverse the area of heath and its surrounding protection zone, if that is necessary to access the broombush that may be harvested or to remove the broombush that has been cut. (274(3))

Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Brigalow Nandewar for prescriptions.

### Species Known or Likely to Occur

There are no known records of Threatened fauna, flora or habitat features present within the planning area that require prescriptions within this plan.

Contractors and supervisory staff must immediately report any sightings of Schedule 1 and 2 species to the Supervising Forester. The Harvesting Plan must then be amended to include additional prescriptions if necessary.

### Fisheries Licence Conditions

Applicable Fisheries Licence conditions are detailed in the Brigalow – Nandewar IFOA. Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Brigalow Nandewar for prescriptions.

### Soil and Water Protection Conditions

Applicable Environmental Protection Licence conditions are detailed in the Brigalow – Nandewar IFOA. Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Brigalow Nandewar for prescriptions.

Site-specific EPL conditions – The following features occur within the planned area. Refer to operational map for more detail.

Elements	Conditions
Unmapped Drainage Lines	5m Drainage Feature Protection Zone
1st order mapped drainage line or mapped drainage depression	10m Drainage Feature Protection Zone
2nd order mapped drainage line or mapped drainage depression	20m Drainage Feature Protection Zone

An operation to harvest broombush must not be carried out in a drainage protection area. (117(2))

It is the responsibility of the Supervising Forest Officer to identify any exclusion areas which will need to be crossed during harvesting. The Supervising Forest Officer should then contact the Planning Forester to obtain the necessary approval.

There are no Road, snig / extraction track drainage line crossings anticipated or approved for use on drainage features within this operation.



## Road Works Conditions

Nil road works permitted

## Legal Conditions

This operation may only proceed while this operational plan, the relevant site safety plan and the Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Brigalow Nandewar are held on site.

This operation must comply with the following:

- ☐ Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Brigalow Nandewar
- ☐ Licence conditions issued by Forests NSW under the Forestry Act (1916).
- ☐ Forest Practices Code, Part 2, Timber Harvesting In Native Forests (4<sup>th</sup> edition 1999).
- ☐ 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:
  - Threatened Species Conservation Licence (TSCL) issued under the Threatened Species Conservation Act 1995
  - Fisheries Management Licence issued under Part 7 (Div 3) Fisheries Management Act 1994
  - Environmental Protection Licence (EPL) issued under the Protection of the Environment Operations Act 1997.

Date of cessation of logging: \_\_\_\_\_

## DUMP USAGE RECORD

- Record the commencement and completion of harvesting at each dump

[illegible]

\* GPS coordinates in MGA 1994 Zone:

\*\* If a downhill extraction track enters a log dump from the uphill side, then at the end of each day on which it is used during a logging operation, a drainage structure must be in place on the extraction track within 40 metres of the log dump, on its uphill side.

Brigalow Nandewar IFOA Bbush Harvest Plan      Ver. 1.0 Jan 2011      Page 8

**Certificate Of Clearance To Move From Current Compartment(s)**

To: \_\_\_\_\_, Supervising Forest Officer.

I request approval to move my logging crew and all associated machinery from Compartment(s) \_\_\_\_\_ in \_\_\_\_\_ State Forest to the next area in accordance with Section 5.5 of the Forest Practices Code Part 2 Timber Harvesting In Native Forests.

I certify that:

- ☐ all permanent roads, trails and mitre drains have been cleared of harvesting debris;
- ☐ butt damage to retained trees has been kept to acceptable limits;
- ☐ all trees marked for removal have been felled;
- ☐ utilisation limits have been satisfactorily met;
- ☐ stump heights conform to requirements;
- ☐ all hanging trees have been brought down;
- ☐ all log dump sites have been satisfactorily restored as required;
- ☐ harvesting debris is not accumulated around retained trees;
- ☐ all accumulated litter has been disposed of properly;
- ☐ all modified harvesting conditions have been complied with;
- ☐ all snig track and road drainage has been installed satisfactorily and other required rehabilitation work has been completed;
- ☐ all necessary repairs to damaged roads, signs, fences and other structures have been carried out.

I believe that I have met all my obligations under the conditions of the Timber Licence that applies to the area just completed and any N&PW Act Licence that applies to the area just completed, as stated in this Harvest Plan.

Signature: \_\_\_\_\_  
\_\_\_\_\_  
Date: \_\_\_\_\_  
Licensee/Contractor

Licence No: \_\_\_\_\_

As a result of inspections of the logging operations carried out in accordance with this Harvest Plan, I am satisfied that, to the best of my knowledge, the harvesting licensee/contractor responsible for this harvesting operation has satisfactorily completed all work. Approval is given for her/him to remove her/his machinery and equipment and leave the area/commence operations in another harvesting plan area, being:

Compartment(s): \_\_\_\_\_, in \_\_\_\_\_ State Forest.

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

Date of last inspection of the area by the Supervising Forest Officer: \_\_\_\_\_

Supervising Forest Officer \_\_\_\_\_  
date: \_\_\_\_\_

Signature

Name

## HARVEST PLAN AMENDMENT RECORD

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Amendment No. & type			Date Prepared	Amendment Details	All Copies Amended	Signature
Number	Major	Minor				
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

**Note:** The purpose of this log is to track amendments to the Harvest Plan from time of first approval. All maps, Harvest Plans etc. are to be clearly identified with a version # and date so that changes to the Plan may be clearly identifiable. The Harvest Planner is responsible for ensuring all amendments are implemented, recorded and filed



### Supervising Forest Officer's Hand-Over Acknowledgment

I confirm that I have received a copy of the Harvest Plan for the above Compartment. I have been briefed on the conditions of the Plan and the progress of the operation. I understand the requirements for supervision and operational control, as explained to me by the current SUPERVISING FOREST OFFICER.

Signature: \_\_\_\_\_  
Position: Incoming Supervising Forest Officer

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Position: Incoming Supervising Forest Officer

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Position: Incoming Supervising Forest Officer

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Position: Incoming Supervising Forest Officer

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Position: Incoming Supervising Forest Officer

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Position: Incoming Supervising Forest Officer

Date: \_\_\_\_\_

- IR form = incidental record form 5. ECO = Regional Ecologist

[illegible]

## Supervising Forest Officer's Post-Harvesting Notes

Record significant circumstances about harvesting this area. Draw or attach an annotated operational scale map.

**ACTUAL AREA HARVESTED** (by silvicultural treatment)

Treatment	code on map	Area (ha) treated	REGEN QUALITY			REGEN DENSITY			COMMENTS
			Good	Fair	Poor	Dense	Fair	sparse	
THINNED	T1								
	T2								
RELEASED	R1								
	R2								
SALVAGE	S1								
	S2								
Not Harvested	NH1								
	NN2								
	NH3								

**POSSIBLE NEXT HARVEST**

C = cypress    H = hardwood

Code on map	Comment	Main product type (put C or H in each relevant cell)		Anticipated volume		
				High	Medium	Low
	<input type="checkbox"/> 0 to 5 years to next harvest	High quality large sawlog				
	<input type="checkbox"/> 5 to 10 years to next harvest	High quality small sawlog				
	<input type="checkbox"/> 10 to 20 years to next harvest	Low quality sawlog				
	<input type="checkbox"/> 20 to 30 years to next harvest	Fencing/posts				
	<input type="checkbox"/> 30 plus years to next harvest	Vineyard posts (cypress)				
		Residue				
		Habitat trees / Non-merchantable				

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

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2. Sites of soil erosion for attention.

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3. Boundary compromised; neighbour issues resulting from logging or haulage.

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

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5. Any other comments – SUPERVISING FOREST OFFICER / FA / Forester

## RECORD OF BASAL AREA SWEEPS OF ALL RETAINED STEMS - 10cm dbh or larger

Date (and GPS grid ref optional)	Before or after harvest	Category	Component			
			All trees	White cypress	Ironbark	Other species
	<input type="checkbox"/> Before	merchantable				
	OR	pre-merch				
	<input type="checkbox"/> After	non-merch				
		total				
trees marked for (circle correct one): retention / removal						
	<input type="checkbox"/> Before	merchantable				
	OR	pre-merch				
	<input type="checkbox"/> After	non-merch				
		total				
trees marked for (circle correct one): retention / removal						
	<input type="checkbox"/> Before	merchantable				
	OR	pre-merch				
	<input type="checkbox"/> After	non-merch				
		total				
trees marked for (circle correct one): retention / removal						
	<input type="checkbox"/> Before	merchantable				
	OR	pre-merch				
	<input type="checkbox"/> After	non-merch				
		total				
trees marked for (circle correct one): retention / removal						
	<input type="checkbox"/> Before	merchantable				
	OR	pre-merch				
	<input type="checkbox"/> After	non-merch				
		total				
trees marked for (circle correct one): retention / removal						
	<input type="checkbox"/> Before	merchantable				
	OR	pre-merch				
	<input type="checkbox"/> After	non-merch				
		total				
trees marked for (circle correct one): retention / removal						
	<input type="checkbox"/> Before	merchantable				
	OR	pre-merch				
	<input type="checkbox"/> After	non-merch				
		total				
trees marked for (circle correct one): retention / removal						

BA is measured at 1.3m above the ground, and does not include stems less than 10cm diameter at that point.

**Operational plan distribution and amendment control sheet ('DACS')**

Date approved by RM		Plan number	See page header	State Forest or Property/County	See page header
Date PM review is required				Compartment or Parish/Portion or Lot/DP	See page header

**Amendment:** Normally the supervising Forester would amend the Office, Forester and SFO copies on explaining the amendment to the SFO, and should annotate the Amendment record (Form 11) in them. The SFO (or Forester as applicable) should amend the bush crew copy/copies when explaining it to the bush operators, and should annotate the Amendment record (Form 11) in it/them.

Plan copy	Name of recipient	Delivery to recipient			Amendment affected in plan copies										Plan recall	
		Method H = hand E = email M = mail	Date done	By (initials)	1		2		3		4		5		Date received	Date destroyed
RO					Date done	By (initials)	Date done	By (initials)	Date done	By (initials)	Date done	By (initials)	Date done	By (initials)		
Ops Centre																
Supervising Forester																
SFO																
Bush crew supervisor																
Contractor																
Customer																



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## CERTIFICATION OF COMPLETION OF THE OPERATION

*This checklist is intended to comprise the top page in the planning documentation folder / wallet*

Region:	see page header	State Forest OR County/parish	see page header
Management Area:	see page header	Compartment OR Portion, lot/DP, property	see page header

Tick when added to set	Documentation	Comment
1. <input type="checkbox"/>	Data search results – flora and fauna	
2. <input type="checkbox"/>	Data search results – indigenous cultural heritage	
3. <input type="checkbox"/>	Data search results – non-indigenous cultural heritage	
4. <input type="checkbox"/>	Copy (if any) of the flora/fauna survey report(s) (Ecologist retains the original survey data sheets)	
5. <input type="checkbox"/>	Copy (if any) of the indigenous cultural heritage survey report(s) and original data	
6. <input type="checkbox"/>	Copy (if any) of the non-indigenous cultural heritage survey report(s) and original data sheets	
7. <input type="checkbox"/>	Records of consultation with regulators, including specific license, consent, concurrence, etc (eg individual s120 TSL, Native Veg Act consent, concurrence from RLPB)	
8. <input type="checkbox"/>	Records of consultation with lessees and/or permittees	
9. <input type="checkbox"/>	Records of consultation with stakeholders and the community	
10. <input type="checkbox"/>	Copies of notifications sent (eg neighbours, Lands)	
11. <input type="checkbox"/>	Environmental impact assessment	
12. <input type="checkbox"/>	Due diligence checklist (form 10.1)	
13. <input type="checkbox"/>	Quality control checklist (form 10.2)	
14. <input type="checkbox"/>	Operational plan with signed approval pages	
15. <input type="checkbox"/>	The Distribution Control Sheet for the plan	
16. <input type="checkbox"/>	The Amendment Control Sheet for the plan	
17. <input type="checkbox"/>	Copies of all revisions of and amendments to the plan	
18. <input type="checkbox"/>	Supervising Forest Officer's copy of the plan, with diary notes (form 4), incidental records (eg forms 5, 20, 22), briefing records, post-harvest notes (form 6), other notes/annotations	
19. <input type="checkbox"/>	Completed clearance certificate (form 7) – only harvesting	

**I certify that:**

- ☐ This file contains all documents associated with planning, implementation and recording for this operation as identified in the table above and is complete for internal/external audit purposes;
- ☐ The relevant information from them has been transferred to the compartment history data set; *and*
- ☐ The Region's geodatabase has been updated for the area completed in this operation.

Position	Signature	Date
Comment		