



LOCALITY MAP
Western Region - Harvest Plan

Management Area: CONDOBOLIN

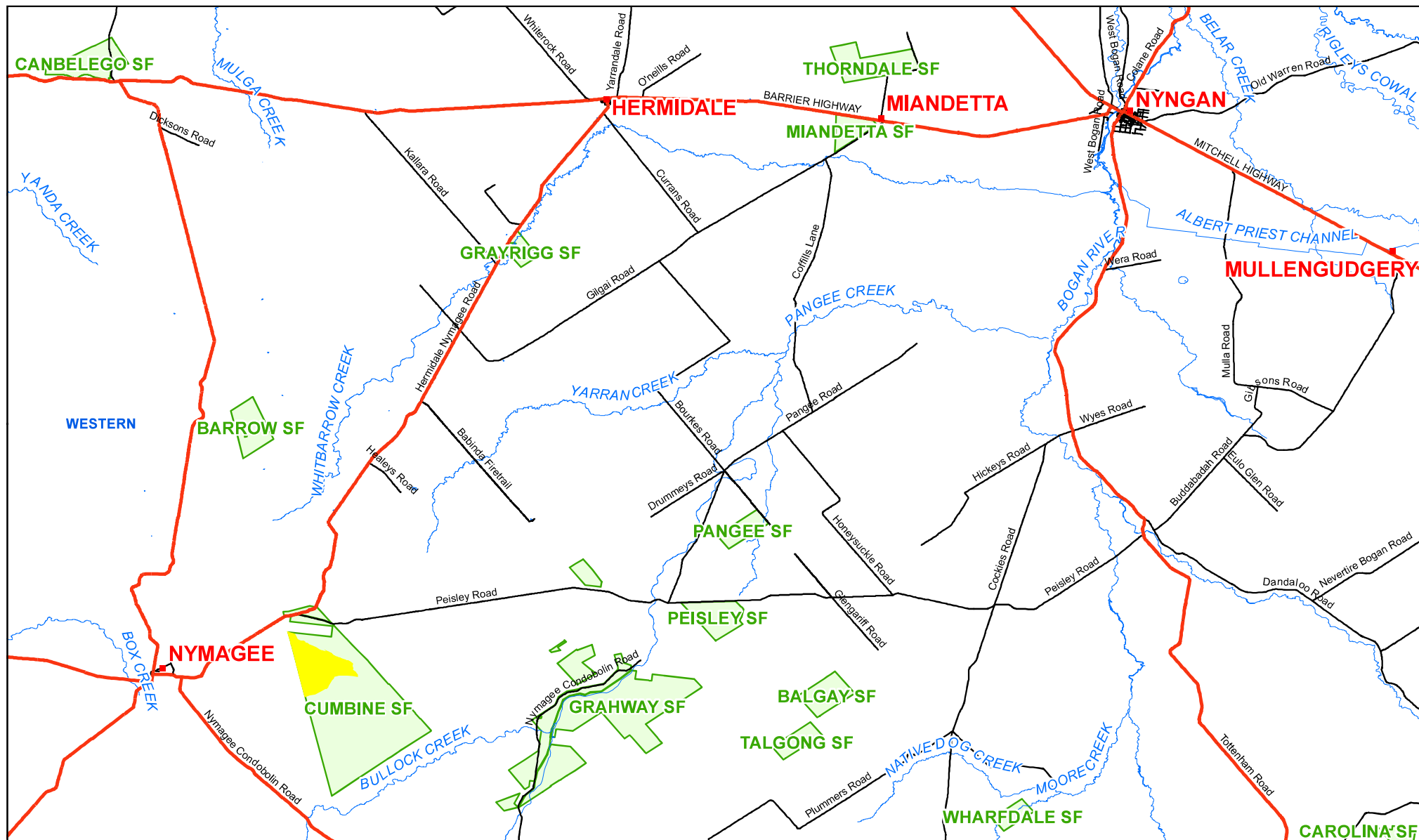
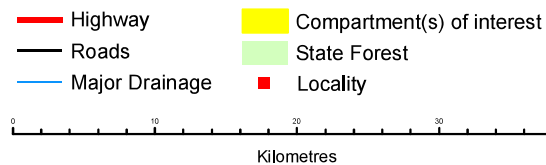
State Forest No: 440

Scale: 1:500,000

State Forest Name: CUMBINE

Compartment: 222

Compartment Area: 1,613 Ha



HARVEST PLAN OPERATIONAL MAP

Western Region - Harvest Plan WCc1117

Cumbyne State Forest

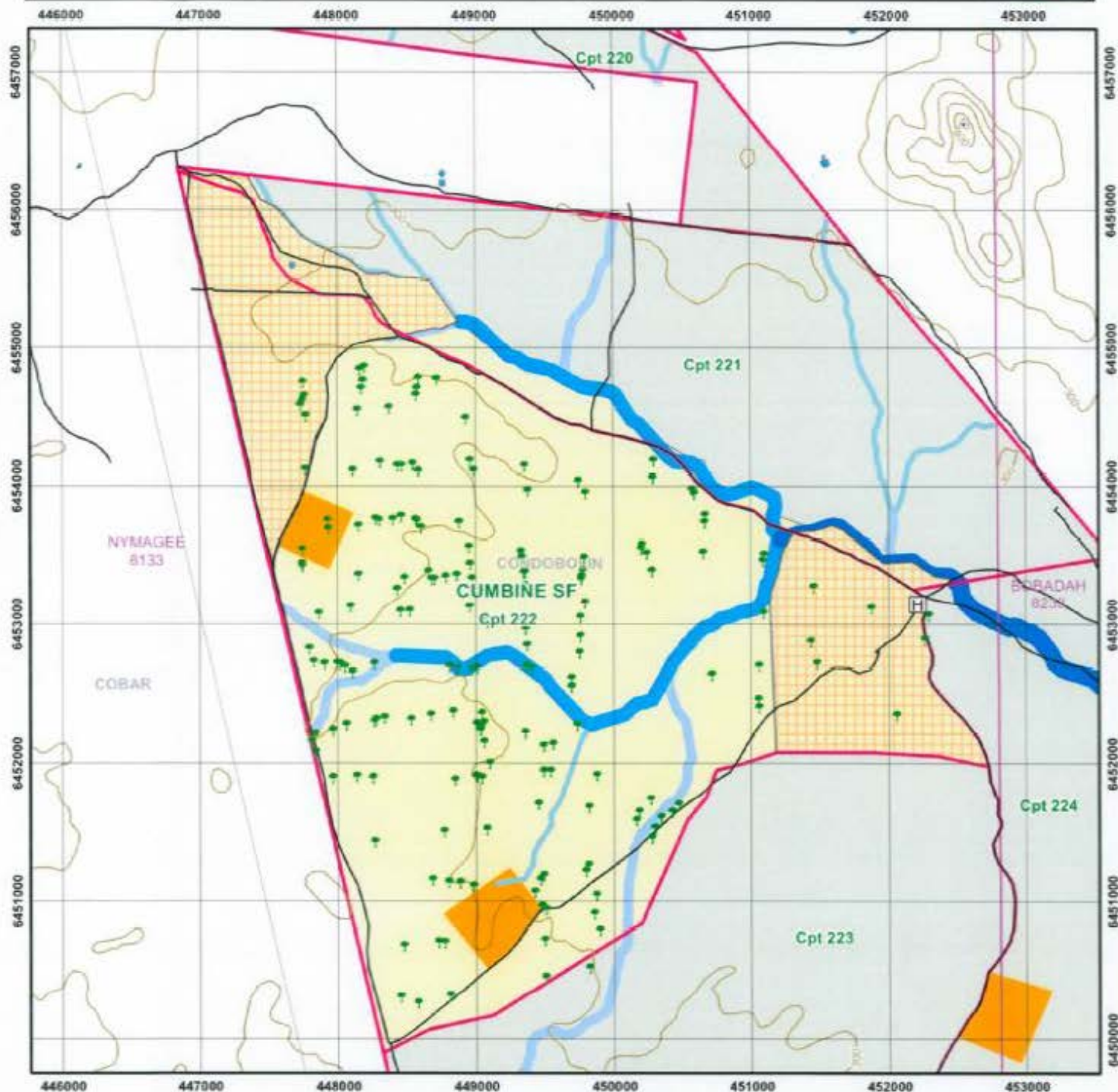
Compartment pt 221, 222

Date: 11/7/2010

Approved: _____



Scale: 1:40,000



General Features

- Trees >=81cm DBHOB (IFOA 244(1)(g1))
- Inventory/Research Plots
- Log Dump (permanent)
- Log Dump (temporary)
- Trg/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
 - NPWS
 - NSW Topo

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 No. WCc1117**

Refer: FPC 2010/01

**Cumbine State Forest – Comp'ts pt 221, 222****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 – South-Western Cypress apply to this operation.

Prepared By: S Gralleis Asst District Manager	Endorsed By: Ross Irvine Environmental & Resource Mgr	Approved By: Warwick Bratby Regional Manager
Signature	Signature	Signature
Date 28/6/2012	Date 11/7/2012	Date 11/7/2012

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

White cypress sawlogs will be harvested under regulation of the Integrated Forest Operations Approval for South-Western Cypress Region (SWC IFOA).

The operation will use mechanical harvesting and processing to produce logs and forward them to dumps. The logs 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 or bush tracks is proposed. Prescriptions for maintenance of existing roads and tracks are specified below.

Area Identification and Yield Estimates

State Forest	Compartment/s	Region	Management Area	HTS Plan ID
Cumbine	Pt 221, 222	Western	Condobolin	3891

COMPARTMENT	Pt 221	222
Event ID	15054	14915
Gross Area (ha)	855	1,613
Net Harvest Area (ha)	123	1290
High Density Area (Y/N)	Y	Y
Estimated Yield Cypress Sawlog (m ³ or t)	200t	2200-2700t

Silviculture and Harvesting Prescriptions

There is no documented history of forest management in this compartment. Field inspections indicate that the mature cypress stands within compartment 222 have had minor timber stand improvement (ring-barking) in the 1960's and scattered attempts at non-commercial thinning (high stumps) of cypress in the late 1970's.

Regeneration has established with variable results, resulting in a range from thick stands of regeneration under mature pine to scattered regeneration among hardwood species.

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

Silvicultural Planning

This harvesting operation is a release operation to allow those areas showing good regeneration growth to develop and encourage growth in poorer regeneration areas by selectively removing part of the mature cypress over-storey, and thinning selected areas to promote forest development.

Once released, it may be up to 20 years before further thinning is required.

Harvesting Prescription

Stand type	% of net area	Area (refer to HPOM for details)	Treatment Refer to <i>Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – South-Western Cypress v. 2</i> for more detail.
Mature Cypress with adequate regeneration.	90%	Comp't 222	<ul style="list-style-type: none"> Release cypress silviculture.
Mature Cypress without regeneration	10% NHA	Comp'ts 222, pt 221	<ul style="list-style-type: none"> Thinning silviculture

The white cypress silviculture guidelines in the *Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – South-Western Cypress v. 2* must be applied. "Thinning" and "Release" options will be applied to the area, being chosen on a patch by patch basis. "Release" only where there is clearly enough established regeneration. Otherwise, or if in doubt, "thin". There are no designated "wet weather" areas.

Only white cypress trees may be harvested. The trees that may be taken will be shown by tree marking as required in the *Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – South-Western Cypress v. 2*.

The SFO will ensure that all relevant tree 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 hardwood, especially where there are few others nearby.

Tree Marking

The area will be tree marked for **retention**. The operation must, as far as practicable:

- For the allowed species, fall each tree not marked for retention, unless it clearly does not meet the product standard, and
- Not fall or damage trees marked for retention, or marked as boundary trees.

Special Conditions

Critical boundaries

The compartment's western boundary forms the boundary of the state forest. Northern and eastern boundaries follow internal roads or topographical features, whereas the southern boundary is indistinct within the forest. Where the compartment boundary cannot be distinctly identified, the harvest area boundary will revert to the nearest formed road or to boundary markings located by GPS survey, as identified by the SFO. Refer to the Operational map for more detail.

Private Property – The SFO is to ensure the western boundary of the compartment is clearly defined to ensure that harvesting does not occur on the adjacent private land.

National Park – nil.

Research / Inventory Plots

No permanent inventory or research plots are located in the compartments. There may be indications of temporary inventory plots, but these can be ignored.

Leases/OPs

The area is subject to grazing under Grazing Permits.

Infrastructure

Contractors are required to pay particular attention to:

- 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.
- Gates and roads. The Contractor must keep the gate(s) on the property as found (open or closed). Existing roads must not be blocked or damaged. Any damage must be repaired immediately.

Transmission Lines/Cables/Pipelines

No electrical transmission lines are present within the compartment. However, contractors are reminded that if they encounter a transmission line then:

- *Harvesting machinery must not operate within 20m of this transmission line.*

Forest Management Zoning Conditions

FMZ 3B - WGHpgbwbx, w/cypress: occurs in compartment 222 (shown on HPOM). The objectives for the management of this area are to maintain persistence of large-crowned trees and promote the condition of grassland.

In this operation – mature cypress trees may be removed as per the Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – South-Western Cypress v. 2.

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

Cultural Heritage Conditions

An old shearing shed and an old dwelling are located within compartment 222. A 20m no-harvest zone must be applied around this site.

There are no other cultural heritage sites (Aboriginal or non-Aboriginal) known in this compartment. If a site that might be a cultural heritage site is found:

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

Flora and Fauna Conditions

The SFO must search for threatened species and mark-up the block as per the Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – South-Western Cypress v. 2.

Mark-up Conditions

Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – South-Western Cypress v. 2 for prescriptions.

Tree retention Conditions

Refer to Treemarking Protocol for Native Forest Operations in Western Region. – South-Western Cypress 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 SFO should watch out for any of these areas that may occur.

Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – South-Western Cypress v. 2 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. – South-Western Cypress v. 2 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. – South-Western Cypress v. 2 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
3rd order mapped drainage line or mapped drainage depression	30m Drainage Feature Protection Zone
4 th order mapped drainage line or mapped drainage depression	40m Drainage Feature Protection Zone
Dams	10m Feature Protection Zone

It is the responsibility of the SFO to identify any exclusion areas which will need to be crossed during harvesting. The SFO should then contact the planning forester to obtain the necessary approval.

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

Road Works Conditions

There are no planned road works in the harvest area. All roads and tracks must comply with the Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – South-Western Cypress v. 2.

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. – South-Western Cypress v. 2 are held on site.

This operation must comply with the following:

- q Standard Harvest Plan Conditions for Native Forest Operations in Western Region – South-Western Cypress v. 2
- q Licence conditions issued by Forests NSW under the Forestry Act (1916).
- q Forest Practices Code, Part 2, Timber Harvesting In Native Forests (4th edition 1999).
- q Forest Practices Code, Part 4, Forest Roads and Fire Trails (1999).
- q 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:
 - o Threatened Species Conservation Licence (TSCL) issued under the Threatened Species Conservation Act 1995
 - o 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.**

[illegible]

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: _____

Licence No: _____

Date: _____

Licensee/Contractor

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

Amendment No.	Date Approved	Amendment Details	Signature of person who amended this plan
1	___/08/2012	Insert declaration of compartments as 'high density areas' (IFOA clause 244A) in Area Identification Amend references to Standard Harvest Plan Conditions to 'v. 2.' Insert reference to 'Treemarking Protocol for LHTs' in Flora and Fauna Conditions.	
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: _____

Date: _____

Position: Incoming Supervising Forest Officer

Signature: _____

Date: _____

Position: Incoming Supervising Forest Officer

Signature: _____

Date: _____

Position: Incoming Supervising Forest Officer

Signature: _____

Date: _____

Position: Incoming Supervising Forest Officer

Signature: _____

Date: _____

Position: Incoming Supervising Forest Officer

Signature: _____

Date: _____

Position: Incoming Supervising Forest Officer

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
		High quality large sawlog			
		High quality small sawlog			
		Low quality sawlog			
		Fencing/posts			
		Vineyard posts (cypress)			
		Residue			
		Habitat trees / Non-merchantable			
	<input type="checkbox"/> 0 to 5 years to next harvest				
	<input type="checkbox"/> 5 to 10 years to next harvest				
	<input type="checkbox"/> 10 to 20 years to next harvest				
	<input type="checkbox"/> 20 to 30 years to next harvest				
	<input type="checkbox"/> 30 plus years to next harvest				

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)

.....

.....

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

.....

.....

RECORD OF BASAL AREA SWEEPS OF ALL RETAINED STEMS - 10cm dbhob 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					
	<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																

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		