



LOCALITY MAP WESTERN REGION - RESIDUE HARVEST PLAN

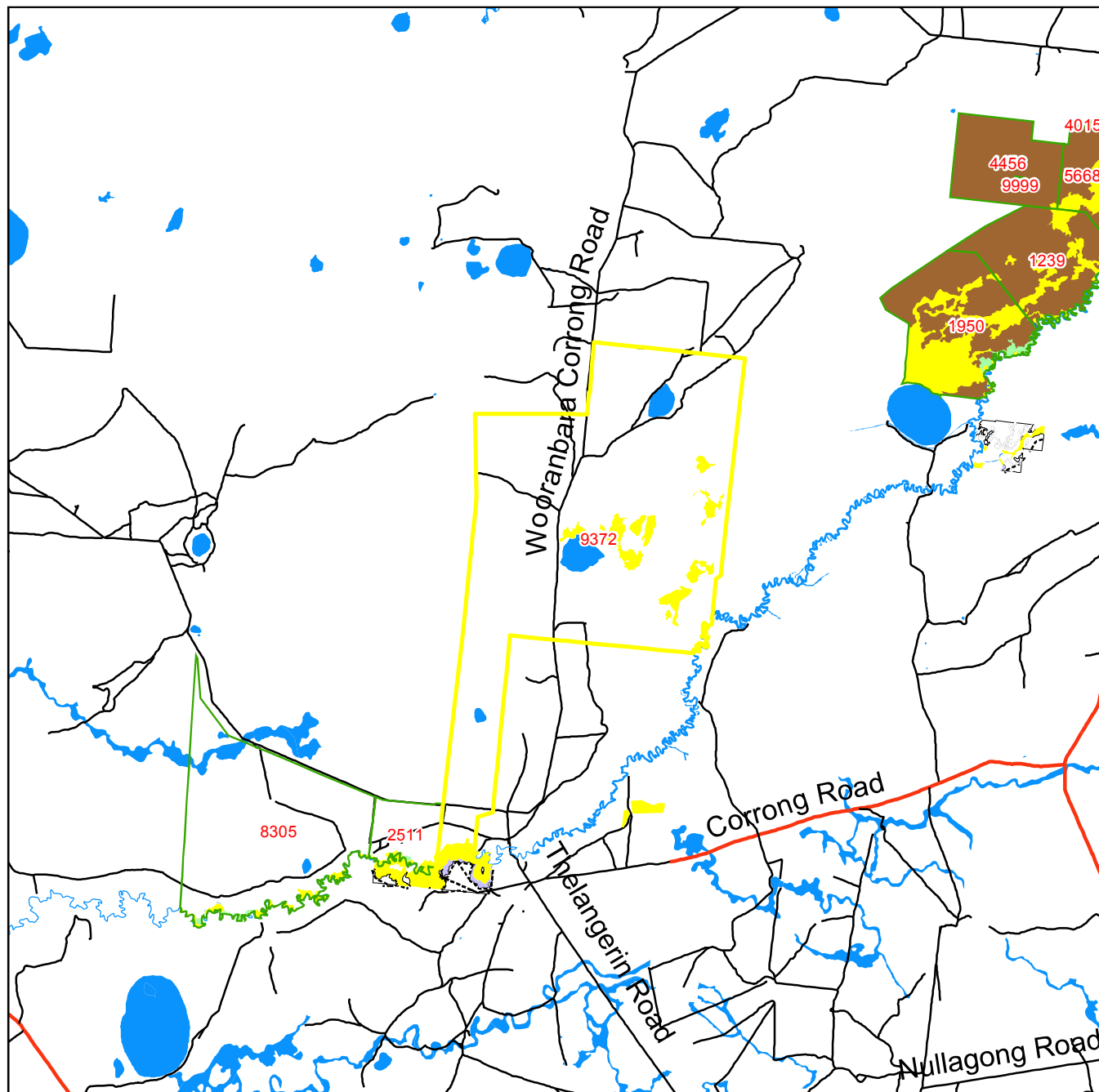


Crown Land Western Land Lease

Compartment: 9372 Noonamah

Management Area: Riverina

Scale: 1:250,000



0 3.5 7 14 Kilometers

- Emergency Evacuation Points
- Roads
- Major Drainage

- Compartment(s) of interest
- State Forest

This map is produced on the Geodetic Datum of Australia 1994 (GDA 94)
Map Grid of Australia (MGA) - Zone 55

In light grey is an indicative grid for Australian Geodetic Datum 1966 Australian Map Grid (AMG) - Zone 55

Monday, December 11, 2006 3:18:56 PM



OPERATIONAL MAP WESTERN REGION - RESIDUE HARVEST PLAN



Crown Land: Western Land Lease
Management Area: Riverina

Compartment: Noonamah 9372

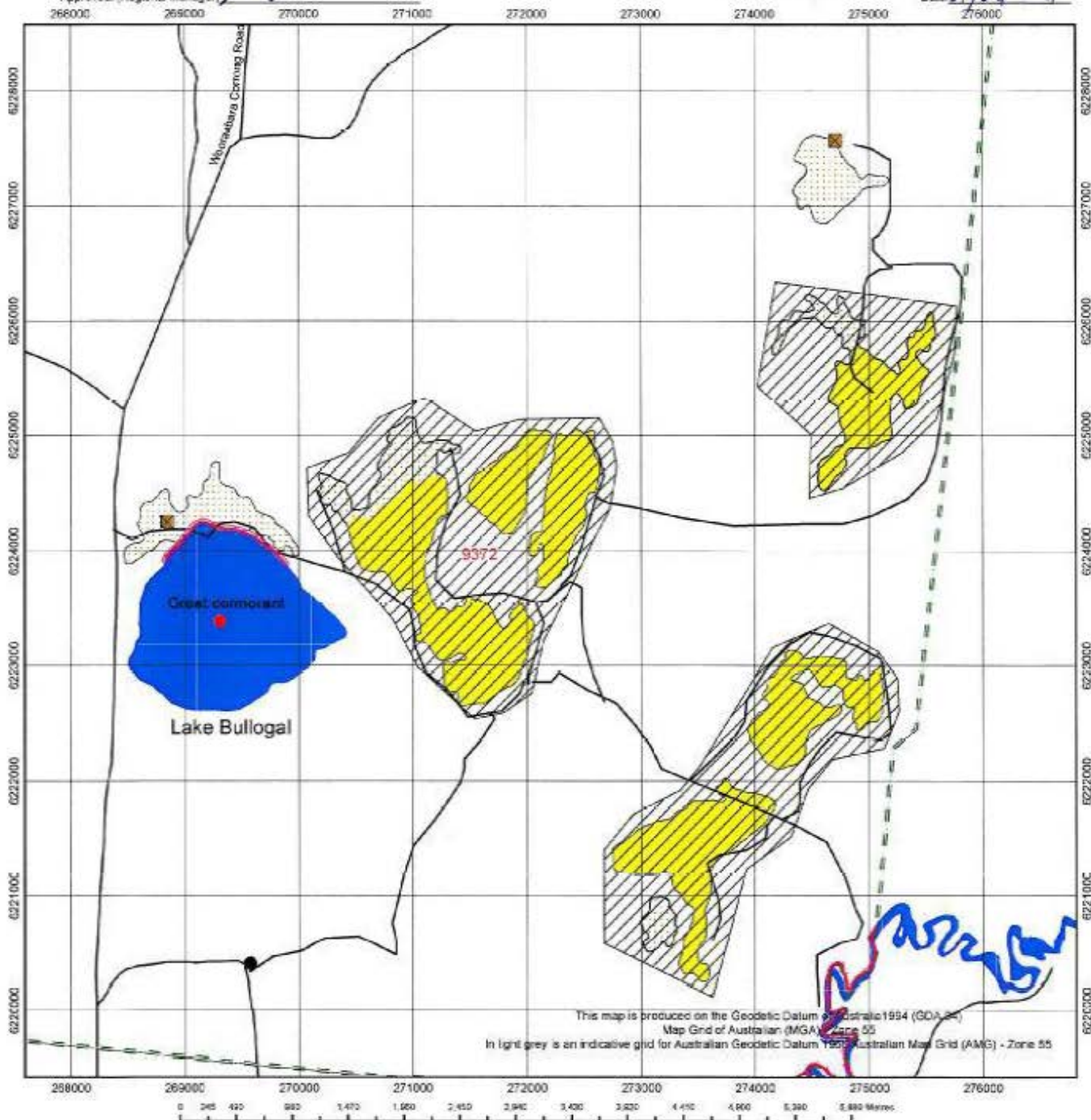
Lease area: 14 375ha, Harvest tract: 568ha

NHA: 568 ha

Scale: 1:50,000

Date: 31/08/2011

Approved: (Regional Manager)



Roads

- Existing - natural surface
- Proposed - natural surface
- Crossings

Water Courses/Drainage Lines

- Drainage
- Debris Free Runnels/Lagoons
- Log Dumps

Harvest Area

- Red Gum SQ1
- Red Gum SQ2
- Red Gum SQ3
- Red Gum/Box

Boundaries

- Compartment Boundary
- State Forest Boundary

Non-Harvest Area

- Special Protection (FMZ 1)
- Special Management (FMZ 2)
- Harvesting Exclusion
- Box
- Open Plain or Swamp

Modified Harvest Area

- Special Prescription (FMZ 3B)
- Habitat Corridor/Duffer

Features

- Biodata
- Atlas Fauna
- Atlas Flora
- Cultural Heritage Points
- Inventory Plot
- Permanent Growth Plot
- Research Plot
- Non-Indigenous Heritage Points

Area not yet available for harvest

FORESTS NEW SOUTH WALES - WESTERN REGION**NATIVE FOREST HARVESTING PLAN WRF1105**

Refer: FPC 2010/01

**Western Lands Lease - Compartment 9372****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 – Riverina Red Gum apply to this operation.

Prepared by: Kelly Williamson	Endorsed by: Steve Campbell	Approved by: Warwick Bratby
Harvest Planner	Planning Manager	Regional Manager
Signature	Signature	Signature
Date 3/10/2011	Date 3/10/2011	Date 3/10/2011

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

Green and dry residue logs and dead/dying thinnings to be utilised as residue logs will be harvested under regulation of the Integrated Forest Operations Approval for Riverina Red Gum (RRG IFOA).

The operation will use mainly mechanical harvesting to produce logs, and clean up residue logs from the forest floor, and forward them to dumps. The products 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.

Maintenance of existing roads will occur on an 'as needs' basis by the operator, in consultation with the Lease Holder.

Area Identification and Yield Estimates

State Forest	Compartment/s	Region	Management Area	Harvest Plan ID
Western Land Lease	9372	Western	Riverina	3802

COMPARTMENT	9372		
Event ID	14722		
Gross Area (ha)	568		
Net Harvest Area (ha)	568		
Estimated Yield Residue and firewood (t)	7,000t		

Silviculture and Harvesting Prescriptions

The area was logged in 2005/2006 producing sawlog. Residues were left on the forest floor for a second residue operation in the future. There has been evidence of past illegal logging through the planning areas.

The tracts of red gum have gone through severe drought stress in the past decade, and as such there is a large amount of dead standing timber, posing both safety and fire hazard concerns for the lease holder.

Silvicultural Planning

It is intended the operation will clear up the residual harvest debris from the previous operation, while also thinning out the amount of dead and dying trees to be utilised and green and dry residue logs.

Harvesting Prescription

Harvest residues are to be removed from the forest floor to designated dumps.

Thinning will occur to remove any dangerous tree, and those as directed by the SFO as either dead or dying, to a minimum basal area of 12 square meters.

Stand type	% of net area (tracts)	Area (refer to HPOM for details)	Treatment
Previously logged redgum with harvest debris and dead standing trees not previously utilised as HQL	100%	Forested tracts within cpt 9372	<p>Refer to <i>Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Riverina Red Gum</i> for more detail.</p> <ul style="list-style-type: none"> • Thinning • Clearing harvest residues

The SFO will ensure that all relevant tree retention and silvicultural prescriptions are met during harvesting operations, and their directions must be followed by the operator.

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

The SFO may deem an area un-necessary to tree mark should there be insufficient surviving trees. Any boundaries required as per the Riverina IFOA are still to be marked and adhered to.

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.

4. Special Conditions

Unavailable harvest area

The Harvest Plan Operational Map includes tracts of Red Gum not yet accessible to harvest crews. These areas are only to be made available to crews following the receiving of completed flora and fauna traverse and report, and the creation and distribution of an amended Harvest Plan Operational Map showing the area as available from the harvest planner.

Critical boundaries

Tree line boundaries form the boundary between the planning area and general farm land. The SFO and Operators are to be aware the Lease area is a working farm privately operated.

All travel within the Lease area should be considerate to existing roads, and directions of the use of the roads by the Lease Holder.

- 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.
- Debris and stumps. Trees must be felled to minimise the level of work required to stack, pile and burn the tree heads on completion of the operation.

Transmission Lines/Cables/Pipelines

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

Forest Management Zoning Conditions

FMZ 3A A wetland feature has been previously identified on the property (Lake Bullogal, see HPOM). An exclusion and buffer are to be applied as per the feature as it is found on the ground.

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

Cultural Heritage Conditions

There are no 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 the Forestry Office via Supervising Forest Officer.
- A 20m no-harvest zone must be applied around this site until advised otherwise
- The SFO must be observant for any possible heritage sites while completing compartment mark up.

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. – Riverina Red Gum.

Mark-up Conditions

Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Riverina Red Gum for prescriptions.

Tree retention Conditions

Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Riverina Red Gum for prescriptions.

Site-Specific Conditions, Exclusion Zones & Modified Harvest Areas

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

The SFO should look out for possible occurrences of EEC or significant species. Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Riverina Red Gum 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.

Threatened species and habitat feature	IFOA Clause	Site-specific prescription / Buffer radius
Superb parrot nest	198	100m
Regent parrot nest	198	100m
Square-tailed kite nest or roost	198	200m
Little eagle nest or roost	198	200m
Any threatened owl nest or roost	198	200m
Spotted harrier nest or roost	198	200m
Bush stone curlew nest	198	100m
Gilbert's Whistler nest	198	20m
Gilbert's Whistler record	210	300m no 'dry' residue harvest
Microchiropteran bat roost tree	199	30m
Koala in tree	200 (1,c)	30m
Koala high-use area	200 (1,b)	100m

Fisheries Licence Conditions

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

Soil and Water Protection Conditions

Applicable Environmental Protection Licence conditions are detailed in the Riverina Red Gum IFOA. Refer to Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Riverina Red Gum 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 depression or wetland depression (>400 m ²)	30 m Buffer Zone

A drainage depression constitutes any channel where natural surface water concentrates and flows, averages 5m width or greater, 0.5m deep and 500m in length, and does not contain any live trees greater than 150mm dbhob within its banks.

A wetland depression constitutes any visible (average 0.5m deep at at least one point compared to general ground level) shallow, open depression of at least 400m² where there are no live trees over 150mm dbhob. They may or may not be connected to other drainage features or fed by a seasonal, permanent or intermittent water table at or slightly above the floor of the depression.

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 Road, snig / extraction track drainage line crossings anticipated or approved for use on drainage features within this operation.

Road Works Conditions

All road works are to be done in cooperation with and at the level approved by the Lease Holder only where deemed necessary. This is to be worked out by the Operator and Lease Holder in consultation with the SFO.

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. – Riverina Red Gum are held on site.

This operation must comply with the following:

- q Standard Harvest Plan Conditions for Native Forest Operations in Western Region. – Riverina Red Gum
- 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
 - o 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:

Supervising Forest Officer's Notes

[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.
- ☐ all machinery has been washed down (if required) to prevent the spread of noxious weeds or pests.

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

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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: _____

- [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

		Main product type (put C or H in each relevant cell)	Anticipated volume		
			High	Medium	Low
Code on map	Comment	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.

.....

.....

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

.....

.....

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 dbh or larger

Date (and GPS grid ref optional)	Before or after harvest	Category	Component			
			Dom/ Codom't	Other cohort	All red gum	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		