INGLEHOPE-PINDALUP POLE THINNING TRIAL

1. Introduction

A pole thinning operation is being considered for parts of Inglehope and Pindalup where there are densely stocked even-aged pole stands.

The area lies within Cell No. 1 which was photographed using 70 mm photography in 1978 and 1979 and interpretation completed by October 1980.

The area to be silviculturally treated is all within dieback free forest:

Logging operations will be confined to dry soil conditions only, using split phase logging, self draining coupes, low profile roads and strategic cleandown points.

2. Land Use Priority

2.1 The Land Use Priority designated in G.W.P. No. 87 for this area is Catchment Protection and Timber Production but is not on a harnessed catchment.

2.2 Incompatible Uses

Any activity which introduces disease, removes native cover without provision for successful regeneration or increases the risk of erosion and pollution.

3. Objective

To maintain or improve the health and productivity of the forest.

This objective is to be achieved by:-

3.1 The selection and protection of future crop trees.

3.2 Removal of saleable poles in excess of future crop tree requirements.

3.3 Application of latest hygiene techniques to prevent the introduction of phytophthora cinnamomi.

4. Hygiene Specifications

4.1 Planning

4.1.1 Logging to be undertaken in the summer during dry soil conditions only.

4.1.2 Dieback free forest only to be logged.

4.1.3 Access roads are low in the profile. Road works have been avoided by using existing roads. Some

log removal will be necessary.

4.1.4 Minimising road access will necessitate long snig distances (up to 1 000m in some cases).

4.1.5. Coupes boundaries are based on drainage patterns so that drainage does not apparently flow across coupes. Each coupe will be split into a number of subcoupes. Each subcoupe will be serviced by one landing and will be a self-draining catchment where possible.

4.1.6 Split phase logging is to be used to avoid contact between snigging and hauling units.

4.2 Operations

4.2.1 Inglehope and Pindalup Block are within the forest quarantine area. Consequently all persons involved will require a permit to operate and will need to follow the conditions laid down in the permit by the Forests Department.

Permits may be issued to:-

1. Specific F.D. staff for supervision.

2. V. Ridolfo and specified employees for supervision and works.

4.2.2 Permit Conditions

1. Access will be restricted to specific and defined roads and at specific times. Access routes will be defined on a map attached to the permit and identified in the field. No other roads or routes may be used.

2. All vehicles, machines, and trucks associated with every phase of the operation will be required to be in a clean condition.

3. Specific cleandown of all vehicles, machines and trucks is required at specified clean-downs points within the trial area. Clean down points will be designed to allow cleandown of all vehicles and trucks at any time entry is required.

4. Skidding units are to be cleaned down prior to entry or departure from each logging sub coupe and coupe.

5. All skidding operations will cease in the event of rain until soil conditions improve and no moist soil is picked up.

6. Access to all vehicles will cease in the event of any rain until road conditions improve and there is no moist soil picked up.

7. Control of access and skidding due to wet conditions will be on a daily basis between Ridolfo representative and nominated F.D. officer.

8. Cleandown includes either washdown with water or under dry soil conditions, a brushdown with a stiff broom or blowing off dust and dry soil with a compressor.

5. Silviculture Prescription - See Appendix I

6. Logging Prescription - See Appendix II

7. Pole Inventory Data

Pole inventory data available is based on a 0.6% sample field assessment and the 1974 assessment by Harvey W.P.O.

Estimated number of available poles per coupe is as follows:

	Coupe No.	Available Poles
Pindalup Block	PD1	1,600
	PD2	800
	PD3	400
	PD4	400
	PD5	200
	Sub Total	3,400
Inglehope Block	IH1	1,100
	IH2	900
	IH3	1,000
	IH4	1,200
	Sub Total	4,200
	TOTAL	7,600

8. Training

8.1 All F.D. personnel involved to have a training session involving the logging plan, permit and access conditions, silviculture prescription and logging prescription.

8.2 All personnel employed by Ridolfo to be trained in the basic biology of Phytophthora cinnamomi, permit and access conditions and the logging prescription.

No entry is to be allowed for personnel not trained.

9. Phytophthora cinnamomi Monitoring

A P. cinnamomi sampling programme will be undertaken as

prescribed in the Amphion/Taree Logging Project.

9.1 During treemarking all recent Indicator Species Deaths will be referred to I & P for checking.

9.2 Sample all access roads prior to access taking place.

9.3 Monitor the access roads during and on completion of the thinning operation.

9.4 Sample snig tracks and landings on completion of each coupe.

9.5 Re-photograph the trial area, remap and compare pre and post logging dieback locations.

PRESCRIPTION FOR SILVICULTURE

INGLEHOPE-PINDALUP POLE THINNING TRIAL

1. GENERAL

Inglehope and Pindalup Block contains densely stocked even aged pole stands which require a silvicultural thinning.

The trial is within the forest quarantine area and consequently all persons involved will need to follow the conditions laid down in the permit.

2. PERMIT CONDITIONS

2.1 Access will be restricted to specific and defined roads and at specific times. Access routes will be defined on a map attached to the permit and identified in the field. No other roads or routes may be used.

2.2 All vehicles, machines, and trucks associated with every phase of the operation will be required to be in a clean condition.

2.3 Specific cleandown of all vehicles, machines and trucks is required at specified cleandown points within the trial area. Cleandown points will be designed to allow cleandown of all vehicles and trucks at any time entry is required.

2.4 Access to all vehicles will cease in the event of any rain until road conditions improve and no moist soil is picked up.

2.5 Control of access and skidding due to wet conditions will be on a daily basis.

2.6 Cleandown includes either washdown with water or under dry soil conditions, a brushdown with a stiff broom or blowing off dust and dry soil with a compressor.

3. SILVICULTURAL OPERATIONS

3.1 AIM

To improve stand structure and individual tree form and growth through a commercial pole thinning which releases from competition retained crop trees.

3.2 THE CROP TREE

A crop tree occurs in or above the general level of the canopy, and is a dominant or co-dominant tree with a healthy crown and straight defect free bole.

It should have the capacity to grow vigorously for many years ie. to be available in the future crop whether that be 5 or 50 years hence.

.../2

3.3 SILVICULTURAL SELECTION

Select and mark for removal all merchantable poles in excess of crop tree requirements. Aim for 250s.p.h. or approximately a 6m x 6m spacing in the residual crop trees.

Dominant trees are to be thinned according to size and vigour to liberate the crowns of crop trees.

Sub-dominant trees are to be removed in preference to dominant trees.

Where poles are overtopped by veteran or larger sawlog trees mark for removal all suppressed merchantable poles.

Poles likely to be damaged during falling in any future sawlog operations will be recovered in any future concurrent second pole thinning.

3.4 Jarrah is the preferred species, but if necessary retain other species.

3.5 Crop trees are to be protected from falling and snigging damage. Major snig tracks are to be selected and identified in the bush during the silvicultural selection process.

4. CROP TREE PROTECTION

Logging debris lying close to retained poles are the responsibility of the pole contractor. Further treatment if required shall be as prescribed by the project officer.

5. BANKSIA CONTROL

Consideration shall be given to undertaking banksia control in conjunction with crop tree release work.

PRESCRIPTION FOR LOGGING

INGLEHOPE-PINDALUP POLE THINNING TRIAL

1. General

Inglehope and Pindalup Block are within the forest quarantine area. Consequently all persons involved will require a permit to operate and will need to follow the conditions laid down in the permit by the Forests Department.

Permits may be issued to:-

1. Specific F.D. staff for supervision.

2. V. Ridolfo and specified employees for supervision and works.

2. Permit Conditions

1. Access will be restricted to specific and defined roads and at specific times. Access routes will be defined on a map attached to the permit and identified in the field. No other roads or routes may be used anywhere within the forest.

2. All vehicles, machines, and trucks associated with every phase of the operation will be required to be in a clean condition.

3. Specific cleandown of all vehicles, machines and trucks is required at specified cleandown points within the trial area. Cleandown points will be designed to allow cleandown of all vehicles and trucks at any time entry is required.

4. Skidding units are to be cleaned down prior to entry or departure from each logging sub coupe and coupe.

5. All skidding operations will cease in the event of any rain until soil conditions improve and no moist soil is picked up.

6. Access to all vehicles will cease in the event of rain until road conditions improve and there is no moist soil picked up.

7. Control of access and skidding due to wet conditions will be on a daily basis between Ridolfo representative and nominated F.D. officer.

8. Cleandown includes either washdown with water or under dry soil conditions a brushdown with a stiff broom or blowing off dust and dry soil with a compressor.

..../2

3. Logging Operations

3.1 Demarcation of Sub-coupes

The company bush supervisor under F.D. direction and assistance will demarcate sub-coupes within logging coupes. Each sub-coupe will be serviced by one landing and will be self-draining catchments where possible. Refer to Divisional specifications for demarcation procedure.

3.2 Landing construction

The siting of each landing within a sub-coupe is to be decided by the project officer in liaison with the bush supervisor, taking into account:-

i) the location of the sub-coupe boundary on the same side of the haul road as the sub-coupe.

ii) must be as low in the profile as possible.

iii) utilization of existing gaps within the forest.

iv) Safety.

The landing will be cleared by a rubber tyred loader, before snigging commences in that sub-coupe. Clearing must be supervised by the company bush supervisor who will ensure that:-

i) landing area is minimal, but sufficient to store the number of poles to be removed from the sub-coupe.

ii) a six metre uncleared strip is left between the haul road and edge of the landing. From this moment, no vehicle or machine may travel from the haul road onto the landing until snigging on that sub-coupe is completed.

iii) overhanging and potentially dangerous trees are felled.

iv) debris is neatly stacked on the edge of the landing, well away from crop trees or regrowth.

3.3 Shunt Construction

A shunt road will be constructed by the loader between the landing and haul road either at the time of landing construction or at time of loading. A physical barrier (E.G. log) wil separate the shunt from the landing. No vehicle or machine may cross this barrier until snigging to the landing is complete.

3.4 Vehicle Parking and Turnaround

Points for parking and turnaround to be selected in advance and demarcated in the field.

.../3

4. Falling

4.1 Falling must not damage retained crop trees or groups of advanced regrowth.

4.2 Falling must be done on a face.

4.3 All trees felled must be marked by an officer of the Department.

5. Snigging

5.1 The company bush supervisor under F.D. direction and assistance will demarcate major snig tracks through the coupe.

5.2 Once within a coupe, the movements of the snigging machine must be strictly controlled. Machinery must work systematically from one landing to another, commencing on a new landing only after

-- the previous landing is completed

-- project officer and company supervisor have completed the sub-coupe inspection and permission given for machine to shift. See 5.3 below.

The machine will travel to the next landing through the bush, avoiding haul roads and shunts. Each snigging machine must be washed down before entering the next sub-coupe or after crossing a haul road.

Landings at "the back" of the coupe will be worked first.

5.3 Approval from the project officer is required before machinery may move to a new sub-coupe following a joint inspection with company bush supervisor of the recently cutover sub-coupe, to check utilization and hygiene. Logging Coupe Inspection Action sheet to be completed jointly.

5.4 Machinery is to use existing snig tracks whenever possible. Logs will be pulled progressively from the rear to the front of the sub-coupe.

5.5 Avoid damage to crop trees, dieback resistant eucalypts, and make use of old snig tracks and natural gaps in the forest.

5.6 Logging debris resulting from falling or snigging which lie close to retained poles will be snigged back into open places.

5.7 Poles on landings may be sorted, heaped and prepared but may not be loaded and hauled out until all operations associated with snigging are completed.

5.8 Close off access from landing to snig tracks before loading commences.

.../4

6. Load and Haul

6.1 This operation commences with the opening of the shunt to the landing by the loader. Loading may only commence when snigging in the sub-coupe is completed.

6.2 The loader may not leave the pole landing or haul road.

7. Landing Rehabilitation

7.1 Following loading, the loader will push log and clearing debris into the centre of the landing, and leave the landing in a well drained condition.

7.2 Block access from the landing to major snig tracks using logs.

8. Environmental Control

8.1 Prevent oil spillages

8.2 Take home or bury litter.

9. Permit Control

The project officer, in liaison with the company bush supervisor, is responsible for the implementation of this prescription.

The project officer is responsible for minimising the number of vehicles used and frequency of use.

The project officer is responsible for implementing all conditions contained in the Pile and Pole License.

10. Damage Assessment

The project officer will undertake an assessment of damage to crop trees where required.