

1985 LOGGING PLAN**S.M.P. 773 BUNNINGS**

OBJECTIVE To define a programme for the removal of sawlogs within the specified environmental and other conditions of the Bunnings Working Arrangements.

INDEX

1. RESOURCE
 - 1.1 Land Use Categories
 - 1.2 Dieback Status
 - 1.3 Site-Vegetation Types
 - 1.4 Streams and Rivers
 - 1.5 Recreation and Amenity
 - 1.6 Existing Access
 - 1.7 Timber Volumes
2. PROPOSED LOGGING PROGRAMME
 - 2.1 S.M.P. 773 Operations
 - 2.2 Logging, Milling, Stockpiling calendar
 - 2.3 Hygiene Strategy
 - 2.4 Roding
 - 2.5 Silvicultural Strategy
3. CONCLUSIONS
4. APPENDICES AND MAPS
 - 4.1 7-Way Tests
 - 4.2 Maps

1.

RESOURCE

This section defines the forest characteristics relevant to the logging programme and the Operational Specifications. The area proposed for logging comprise sections of Clare, Carinyah and Randall Blocks. For location see Map 1 Section 4.2.

1.1 LAND USE

BLOCK	COMPARTMENT	1 ^o LAND USE	<u>DRA STATUS</u>
CARINYA	2	WATER PRODUCTION AND CATCHMENT PROTECTION	B
CLARE	2	CATCHMENT PROTECTION	A 3(1)
	3	CATCHMENT PROTECTION	A 3(1)
	4	CATCHMENT PROTECTION	A 3(1)
RANDALL	1	CATCHMENT PROTECTION	A 3(1), A4
	2	CATCHMENT PROTECTION	A 3(1), A4
	3	CATCHMENT PROTECTION	A 3(1), A4
	7	CATCHMENT PROTECTION	A 3(1), A4

1.2 DIEBACK

All areas which are proposed for logging are predominantly dieback free.

(a) Carinyah Block - a diebackfree plan was compiled between June and August 1984 by divisional staff using ground surveying at 60m intervals.

A variety of indicator species were available and as they gave good coverage interpreting was not difficult. The resultant map is Map 2, Section 4.2.

This forest has not been quarantined as there is substantial evidence of public use of the area, recent infections are possible and not likely to be detected.

(b) Clare and Randall Blocks - a diebackfree plan (Cell 3) prepared from aerial photography in June 1980 and June 1981. Interpretation was completed in November 1981 by the Dieback Mapping Group based in Kelmscott. (Map 3, Section 4.2)

365 ha was resurveyed in September 1984 by ground survey. This was an endeavour to check the accuracy of the plan and the spread of the disease since. No significant errors were found. A hygiene map has also been prepared for the area.

1.3 SITE-VEGETATION TYPES

Recent understanding of the importance of site in the rate of disease development has highlighted the need to use site characteristics in hygiene planning. Areas proposed for winter logging were accurately assessed and a sample was taken in proposed summer logging areas.

- (a) Carinyah: A ground survey was carried out at 200m intervals directly across the contours. (Map 4, Section 4.2)

SITE TYPE	AREA (ha)	SUSCEPTIBILITY TO DIEBACK
S	130	MODERATE - high
P/S	54	moderate - HIGH
P	125	HIGH
W	154	HIGH

- (b) Clare/Randall: A small area (365 ha) was surveyed in these areas (Map 5, Section 4.2). The type pattern was much simpler.

SITE TYPE	AREA (ha)	SUSCEPTIBILITY TO DIEBACK
H/Z	70	MODERATE - HIGH
H	230	HIGH
W	65	HIGH - V. HIGH

Landform characteristics were used in the seven-way test (Map 6, Section 4.2).

1.4 STREAM AND RIVERS

Both areas contain streams which must be afforded protection from disturbance. (See Map 12, Section 4.2). Vegetation filters are in good condition as it is 3 years since both Randall and Clare were burnt and 4 years for Carinyah.

1.5 RECREATION AND VISUAL AMENITY

Logging areas in Clare and Randall blocks are remote from public access and therefore road reserves and landscape considerations are unnecessary.

Carinyah block is well used by recreationists, particularly for firewood gathering in winter. To ensure that these practices do not conflict with this hygiene strategy, specific measures are being considered. i.e. ROAD CLOSURE

Road reserves will be maintained along Brookton Highway and Ashendon Road. (Map 7, Section 4.2)

1.6 EXISTING ROADS

(a) Carinyah: The roads proposed for use are in a poor condition due to lack of drainage. Sufficient access is available.

(b) Clare/Randall: These roads have been effectively quarantined, although many quarantine permits have been issued for essential services. Most roads are open with reasonable drainage. The tracks, however, are heavily overgrown and blocked by logs.

1.7 TIMBER VOLUMES

BUNNINGS LOGGING 1985/86 JARRAHDALE

COMPARTMENT	AREA	RESOURCE * m3/ha	VOLUME	REMARKS
1985				
CLARE 2	1,232	7.2 ?	8,870	
CLARE 3	812	8.6 ?	6,980	
CLARE 4	170	= 8.0 ?	1,360	
RANDALL 1	212	=12.0	2,540	
RANDALL 2A	191	22.0	4,200	
RANDALL 2B	242	22.0	5,320	
RANDALL 3A	677	7.8 ?	5,280	
RANDALL 7A	560	12.0	6,720	
CARINYAH 2C	463	=20.0	9,260	
			50,530	40% Above PI or 36,000m3
1986				
RANDALL 3B	940	7.8 ?	7,330	
RANDALL 4	1,555	11.4	17,880	
RANDALL 5	138	14.9	2,060	
RANDALL 7B	38	12.0	455	
COOKE 1	1,711	12.7	21,730	
COOKE 3	348	=10.0	3,480	
COOKE 4	415	=10.0	4,150	
CARINYAH 2D	242	=20.0	4,840	
			61,925	72% Above PI

* This data is based on (1) M.L.I. completed in September 1984
(2) If = R.L.I. from the 1970's

2. PROPOSED LOGGING PROGRAMME Ex BUNNINGS CHRIS HAYE

2.1 S.M.P. 773 Operations

Annual permissible intake (P.I.) = 36,000m³
Average daily intake = 156m³

Volume hauled per day in Summer = 220m³
Volume hauled per day in Winter = 55m³

2.2 LOGGING , MILLING AND STOCKPILING CALENDAR

MONTH	SOURCE	BUSH DAYS	VOL. HAULED	MILL DAYS	VOL m ³ MILLED	VOL m ³ STOCKPILED	STOCKPILE BALANCE m ³	COMMENTS
1984 Dec	CLARE 4 1360m ³ CLARE 2 1940m ³	15	3,300	15	2,340	960	1600 2560	Predominantly Dry Soil
1985 Jan	CLARE 2 5500m ³	25	5,500	16	2,496	3004	5564	Predominantly Dry Soil
Feb	CLARE 2 1430 m ³ CLARE 3 3630m ³	23	5,060	20	3,120	1940	7504	Predominantly Dry Soil
Mar	CLARE 3 3350m ³ RANDALL 7A 2370	26	5,720	20	3,120	2600	10,104	Predominantly Dry Soil
April	RANDALL 7A 3840	24	3,840	19	2,964	876	10,980	Bush Stockpile in Carinyah
May	RANDALL 7A 510 RANDALL 2A 620 CARINYAH 2 1600	21	2,730	23	3,588	NIL	10,122	12 Days Moist Soil Carinya (Carting)
June	CARINYAH 2 825	15	825	19	2,964	NIL	7,983	Predominantly Moist Soil
July	CARINYAH 2 935	17	935	23	3,588	NIL	5,330	Predominantly Moist Soil
August	CARINYAH 2 880	16	880	12	1,872	NIL	4,338	Predominantly Moist Soil
Sept	CARINYAH 2 935	17	935	21	3,276	NIL	1,997	Predominantly Moist Soil
Oct	CARINYAH 2 3520	22	3,520	22	3,432	88	2,085	Predominantly Moist Soil
Nov	RANDALL 3A 3374	24	3,374	21	3,276	98	2,183	Predominantly Dry Soil
Dec	RANDALL 3A 1906 RANDALL 2B 1848	17	3,754	15	2,340	1,414	3,597	Predominantly Dry Soil

STOCKPILE 2000m³ CONTINGENCY FOR ABOVE AVERAGE
RAINFALL

2.3 HYGIENE STRATEGY

(i) Background

All areas proposed for logging are predominantly diebackfree and of moderate to high susceptibility to dieback. The consequences of spreading disease are likely to be very high in areas of intermediate to low rainfall – the zone of high salt risk. This includes both Randall and Clare blocks.

Carinyah block lies on the edge of this zone and is also a forest much used for public recreation.

(ii) Strategy – General (See Seven-Way Test, Section 4.1)

The hygiene strategy subdivides the year into two periods.

- A. SUMMER – lengthy periods of dry soil conditions spanning November 1984 to May 1985. There are very occasional wet periods becoming more frequent in April and May. During the summer period bush operations are very active.
- B. WINTER – prolonged spells of moist soil conditions with some dry spells – particularly late in the period. Bush activity is intermittent and dependant upon dry soil conditions. At other times the sawmill is supplied from stockpiles.
- C. Mill Closure – To reduce the need for sawlogs during winter, the sawmill will close for two weeks during August.

(iii) Summer Strategy

- A. The main operations will be centred on Randall and Clare blocks. Sawlogs gained from this area will be used to feed the mill and to produce a stockpile of about 11,000m³ by the end of April 1985.
- B. During dry soil conditions in April and May a bush stockpile will be established in Carinyah block. These stockpiles will be immediately adjacent to diebackforest to permit moist soil access to this resource.
- C. SPLIT PHASE – To maximise bush productivity during the low risk dry soil period a modified split phase system will be used. trucks may be loaded from a landing which is still being snigged if a fixed barrier (i.e. a log) delimits the landing from the road. The skidder must be the only vehicle on the landing until skidding is completed.
- D. RAINFALL – If, in the event of rainfall, moist soil adheres to vehicle tyres then skidding operations in diebackfree and suspect forest will cease. Skidding may continue in dieback forest.

WINTER STANDARD ROAD
OR DIEBACK

Under the above conditions loading, hauling and carting may continue if access has been suitable prepared and the entire access route traverses dieback forest.

- E. CONTINGENCY (1) If, in the event of the above mentioned conditions, resources cannot be accessed hygienically, then the bush stockpile at Carrinyah block shall be used.

(2) If this stockpile is insufficient, resource may be obtained from areas about to be mines, or Marradong block.

FULL HYGIENE REQUIRED FOR AREAS TO BE MAINTAINED OTHERWISE ALL
HYGIENE IS NEARED.

(iv) Strategy - Winter

- A. All winter operations will be based in Carinyah block.
- B. During dry periods, when soil does not adhere to vehicle tyres, sawlogs in dieback free forest may be skidded to landings. These landings are to be on dieback boundaries to ensure hauling access. This operation will employ a true split phase system.
- C. During periods of moist soil conditions sawlogs can be gained from

1. Roadside stockpiles and landings with access through dieback forest.

2. Dieback forest

3. Mill stockpile

- D. This strategy assumes that there are a number of days of dry soil conditions in winter (See Section 2.2). Due to the variability and uncertainty of these conditions being available, maximum advantage must be taken to ensure success.

The mill stockpile has been created at 2000^{m³} greater than perceived need to cover any such failures.

- E. CONTINGENCY (1) If the above sources are unable to maintain the required supply of resources the only areas able to meet the necessary conditions of moist soil logging are:-
 - (a) Areas of forest programmed for bauxite mining
 - (b) Marradong block, Dwellingup Division
 - (c) Areas of forest of low dieback susceptibility
(None known to be available at present)

2.4 ROADING

(a) Carinyah Block. (See map 8, section 4.2)

Moist soil roading will be confined to dieback forest and will be prepared to a winter standard ^{For minimum} during Summer 1984/85.

Work required - gravelling, form grading, install culverts along 7 km. of existing roads.
- construction of 2 km of new roads.

(b) Clare and Randall Blocks. (See map 9, section 4.2)

Roading inside D.R.A. will be prepared during December 1984 to a summer standard.

Upgrading of several km of existing roads requires patch gravelling, form grading and the installation of several sets of culverts. These roads vary in landscape position and dieback status.

One section of the proposed access is Marginata Road and traverses both the core and buffer areas of Conservation M.P.A. 81 (Eagle Hill). The road in the M.P.A. is low in the profile and passes through dieback forest for the first 750m. The remaining 1000m of road through the M.P.A. is in diebackfree forest. The crossing of that boundary is an obligatory point for vehicle cleanliness and a suitable hygiene station is to be established.

Randall and Edgely Roads, which pass through the southern buffer of Eagle Hill are also proposed for use. Of the 3.7km of Randall Road, 0.9km are diebackfree in 2 sections and 2.8km are dieback and suspect. The entire length of Edgely Road is dieback.

Amendments to the boundary of M.P.A. 8.1 may affect these roading proposals.

Several km of new roading will be constructed. This is largely where existing tracks do not adequately serve the resource.

Exact lengths of road works will be accurately assessed in December 1984 and will adhere to the three major principles:

- (1) Roads to be in dieback forest where possible.
- (2) Roads to minimise crossing of dieback categories.
- (3) Roads to be low in profile.

2.5 SILVICULTURAL STRATEGY

(a) Carinyah Block.

This forest contains quality pole stands classified as JMA, JMB+ (See map 10, section 4.2).

CHECK with Bradshaw
+ MWD 10/10/85

These stands merit intensive silvicultural treatment following logging.

The Forests Department will mark to retain 10^{m2}/ha B.A.O.B. of quality crop trees in accordance with Inspector Bradshaw's draft prescriptions ("Intensive Treatment of Jarrah Forest For Wood Production").

Thinning is to follow at later date in accordance with silvicultural priorities.

(b) Randall and Clare Blocks

The forest in these areas is of diverse quality (See map 11, section 4.2).

Silvicultural treatment must follow a more accurate assessment of a particular stands potential for wood production.

Stands of greatest potential (probably mainly S-types) will be marked for future silvicultural treatment. Other stands of lower wood production potential are to be marked for removal.

3. CONCLUSIONS

The low timber volumes in D.R.A. has served to complicate the development of a mill stockpile. The sparsity of timber resources necessitates an early, concerted effort in stockpile gathering. Any delay in the stockpiling programme will threaten the supply of resource over the winter period.

As a back-up for other contingencies, it is essential that the roadside stockpile in Carinyah block is maximised.

It merits reiteration that alternative sources which can be accessed in moist soil conditions are extremely limited and sparse.

CONTROL. To ensure the rate of stockpile accumulation is on target it must be closely monitored. Any shortfall must be recognised as quickly and rectified. The F.D. will also monitor the progress on a monthly basis (Table 1).

GAVIN BUTCHER
OFFICER IN CHARGE

OPERATION: Bunnings 773

[illegible]

4.1 SEVEN - WAY TESTS

1. ROADING - CARINYAH
2. ROADING - CLARE/RANDALL
3. LOGGING - CARINYAH
4. LOGGING - CLARE/RANDALL

CONSEQUENCES ON BROADER SCALE on catchment, forest ecosystem, landscape

DATE

TYPE AND EXTENT OF THE WORK

CONSEQUENCES OF NOT PROCEEDING WITH THE WORK on economy, employment etc

ENVIRONMENTAL DAMAGE - TURBIDITY

TYPE AND EXTENT OF THE WORK

8 EVALUATION OF 7-WAY TEST Your comments, signature and date

OIC AREA *Simple loading arrangements with all works in dieback recommended*
GW Jukh 5-11-84

REGIONAL SUPERINTENDENT

Approved

OIC PROTECTION

POLICY REVIEW GROUP

ACTING CONSERVATOR

SEVEN-WAY TEST

DIVISION JARRAHDALE

DATE NOV 1984

1 THE WORK PROPOSED

PURPOSE Upgrade roading for logging access.

INITIATED BY Forests Department

LOCATION (block etc) CARINYAH

TYPE AND EXTENT OF THE WORK

Upgrade existing roads and construct new roads within dieback only, to permit log truck access during moist soil conditions. This will involve patch gravelling, culvert installation and form grading so that the roads are self draining.

ARE OTHER OPTIONS AVAILABLE? Specify, including "do nothing"

Do No Upgrading - Trucks could still access the area, however environmental impact would be high. ie Turbidity in streams.

2 HYGIENE MEASURES REQUIRED

Summary of hygiene prescription

CLEAN MACHINERY

Not Necessary - all work in dieback.

DRY SOIL Yes

SUPERVISION

Bunnings day to day supervision.
Forests Dept. to check and maintain standards.

ACCESS ROUTES

See Section 4.2 Map 8

HYGIENE MEASURES, continued

DIEBACK HYGIENE PLANS - specify type	
Ground stripped at 60m centre	
DIEBACK CATEGORIES	
Dieback	
ANY OTHER e.g. split-phase operations, mini-catchments etc.	
WILL INTRODUCTION OF DISEASE AND IMPACT BE MONITORED? NO	
HOW?	
BY WHOM?	

3 RISK OF DIEBACK FUNGUS (high, moderate, low)

RISK OF INTRODUCTION	HIGH	RISK OF SPREAD	Artificial, HIGH Natural, MOD
MULTIPLE INTRODUCTION RISK	HIGH	RISK OF MULTIPLE SPREAD	Artificial, HIGH Natural, MOD
RISK OF SURVIVAL	MOD	WITHIN ACTIVE CATCHMENT?	Yes
COMMENTS		SALINITY ZONE specify using map in GWP 87	

4 LANDFORM AND VEGETATION

Describe according to types used in impact category tables	
Have site types P and W	
These have potential high impact but are already infected.	
IF HYGIENE SUCCESSFUL	
IF HYGIENE FAILS	

5 LIKELY IMPACT ON VEGETATION

Refer to tables of impact

DIEBACK HYGIENE PLANS - specify type	
LOW - ALREADY INFECTED	
DIEBACK CATEGORIES	
Dieback	
ANY OTHER e.g. split-phase operations, mini-catchments etc.	
WILL INTRODUCTION OF DISEASE AND IMPACT BE MONITORED? NO	
HOW?	
BY WHOM?	

3 RISK OF DIEBACK FUNGUS (high, moderate, low)

6 LAND USE	
GWP No. 87	PRIMARY Water Production/Catchment Protection
SECONDARY - Recreation	
RISK OF MULTIPLE SPREAD	
WITHIN DISEASE RISK AREA?	Artificial, HIGH Natural, MOD
Classify A ₁ A ₂ etc or other (see Policy No. 10)	
WITHIN ACTIVE CATCHMENT?	
YES: Canning	
SALINITY ZONE specify using map in GWP 87	
HIGH/INT Rainfall	

4 LANDFORM AND VEGETATION

Describe according to types used in impact category tables	
7 CONSEQUENCES ON LAND USE Refer to tables of consequences	
IF HYGIENE SUCCESSFUL	
NIL	
IF HYGIENE FAILS	
NIL	

CONSEQUENCES ON BROADER SCALE on catchment, forest ecosystem, landscape

JARRAHDALE

CONSEQUENCES OF NOT PROCEEDING WITH THE WORK on economy, employment etc

ENVIRONMENTAL DAMAGE - Turbidity, Erosion.

8 EVALUATION OF 7-WAY TEST Your comments, signature and date

OIC AREA

Major loss of land use values if hygiene fails necessitates these actions to be done with maximum hygiene standards.

REGIONAL SUPERINTENDENT approved - ensure Marginta + Randall Roads are not used when free water lies on the road surface

OIC PROTECTION

POLICY REVIEW GROUP

ACTING CONSERVATOR

SEVEN-WAY TEST

DIVISION

JARRAHDALE

DATE

OCT 1984

1 THE WORK PROPOSED

PURPOSE Upgrade existing roads and construct new roads for logging access.

INITIATED BY Forests Dept.

LOCATION (block etc) Clare, Randall and Ashendon Blocks

TYPE AND EXTENT OF THE WORK

Upgrade existing roads and construct new roads to permit log truck and other vehicle access during dry soil conditions. This will involve patch gravelling, culvert installation and form grading of existing roads - these roads very in dieback status and landscape position.

New roads will be low in the landscape and in dieback where possible.

ARE OTHER OPTIONS AVAILABLE? Specify, including "do nothing"

Do no upgrading - trucks would still access the area, however environmental impact would be high ie. turbidity, erosion, risk of infection.

2 HYGIENE MEASURES REQUIRED Summary of hygiene prescription

CLEAN MACHINERY

Yes - Machinery to be cleaned down before moving from dieback to dieback free.

DRY SOIL Yes.

SUPERVISION

Bunnings and Forests Dept day to day.

ACCESS ROUTES

See Section 4.2 Map 9

HYGIENE MEASURES continued

DIEBACK HYGIENE PLANS - specify type

Cell 3 Dieback Free Plan (1981)

DIEBACK CATEGORIES

Dieback
Dieback Free
Suspect
Uninterpretable

ANY OTHER e.g. split-phase operations, mini-catchments etc.

Roads to be pegged for dieback.

Gravel to be diebackfree if used diebackfree forest.

3 RISK OF DIEBACK FUNGUS (high, moderate, low)

RISK OF INTRODUCTION LOW

RISK OF SPREAD

Artificial LOW Natural LOW

MULTIPLE INTRODUCTION RISK LOW

RISK OF MULTIPLE SPREAD

Artificial LOW Natural LOW

RISK OF SURVIVAL LOW

COMMENTS

4 LANDFORM AND VEGETATION

Describe according to types used in impact category tables

	OVERSTORY	IMPACT	UNDERSTORY
DWELLINGUP (Low Rainfall)	LOW		LOW
(High Rainfall)	MOD TO HIGH		MOD TO HIGH
COOKE	LOW TO HIGH		LOW TO V. HIGH
YARRAGIL	LOW TO V. HIGH		MOD TO V. HIGH
MURRAY	LOW		LOW TO MOD

5 LIKELY IMPACT ON VEGETATION Refer to tables of impact

See 4

WILL INTRODUCTION OF DISEASE AND IMPACT BE MONITORED? NO
Unless area is remapped in future.

HOW?

BY WHOM?

6 LAND USE

GWP No. 87

Catchment Protection, FFL MPA

WITHIN DISEASE RISK AREA? YES

Classify A1, A2 etc or other (see Policy No. 10) A1, A3, A4

WITHIN ACTIVE CATCHMENT?

YES

Canning

SALINITY ZONE specify using map in GWP 87

INT/LOW Rainfall Zone

7 CONSEQUENCES ON LAND USE Refer to tables of consequences

IF HYGIENE SUCCESSFUL

LOW

(Low Rainfall)

NIL

(High Rainfall)

IF HYGIENE FAILS

CATCHMENT PROTECTION

FFL MPA

MURRAY
DWELLINGUP
COOKE
YARRAGIL

LOW
LOW
HIGH
V. HIGH

MOD/LOW
MOD/HIGH
V. HIGH
V. HIGH

CONSEQUENCES ON BROADER SCALE on catchment, forest ecosystem, landscape
Level of salting effects on catchment depend on level of stored salt.

CONSEQUENCES OF NOT PROCEEDING WITH THE WORK on economy, employment etc

1. Find alternative supply of sawlog resource.

2. Close sawmill.

8 EVALUATION OF 7-WAY TEST - Your comments, signature and date

OIC AREA

VALUABLE AREA OF QUALITY FOREST NEAR PERTH - IT SHOULD BE TREATED ACCORDINGLY.

with hygiene of a high standard

REGIONAL SUPERINTENDENT *Acceptability of risk in P type is marginal. Log P type for stockpiles under safe conditions possible under the circumstances. Approved only on basis of lack of suitable alternative for mill supply*

OIC PROTECTION

POLICY REVIEW GROUP

ACTING CONSERVATOR

SEVEN-WAY TEST

DIVISION

JARRAHDALE

DATE NOV 1984

1 THE WORK PROPOSED

PURPOSE REMOVAL OF FOREST PRODUCE - SAWLOGS

INITIATED BY FORESTS DEPARTMENT

LOCATION (block etc) CARINYAH

TYPE AND EXTENT OF THE WORK

1. Falling of sawlogs - selectively marked Jan '85 - Dec '85
2. Snigging and loading of logs April '85 - October '85

ARE OTHER OPTIONS AVAILABLE? Specify, including "do nothing"

1. Close sawmill (Deny access to Forest Produce)
2. Operate inside DRA for entire PI (Clare/Randall Blocks)
3. Operate outside Jarrahdale Division (Marradong Block Dwellingup)

2 HYGIENE MEASURES REQUIRED Summary of hygiene prescription

CLEAN MACHINERY Snigging machines to be cleaned down between sub coupes
Other vehicles to remain in Dieback Category

DRY SOIL Snigging in Dry Soil conditions, other operations in Moist Soil

SUPERVISION Bunnings day to day supervision
Forests Department to check and maintain standards.

ACCESS ROUTES Within dieback serviced by Ashendon Road and Brookton Highway.

HYGIENE MEASURES continued

DIEBACK HYGIENE PLANS - specify type

Ground stripped at 60m centres

DIEBACK CATEGORIES

Dieback
Dieback Free
Suspect

ANY OTHER e.g. split-phase operations, mini-catchments etc.

1. Split Phase within subcoups.
2. Bush stockpiles to be produced during dry soil, certed during moist conditions.
3. Some moist soil snigging in dieback, S or P/S vegetation types should an unusually wet winter occur, or summer rains stop DRA Operations.

3 RISK OF DIEBACK FUNGUS (high, moderate, low)

RISK OF INTRODUCTION LOW-MOD

RISK OF SPREAD

Artificial LOW-HIGH

Natural MOD

MULTIPLE INTRODUCTION RISK LOW-MOD

RISK OF MULTIPLE SPREAD

Artificial LOW

Natural LOW

RISK OF SURVIVAL

HIGH

COMMENTS

4 LANDFORM AND VEGETATION

Describe according to types used in impact category tables

HAVEL'S SITE VEGETATION TYPES

	IMPACT IF INFECTED
S	MODERATE - HIGH
P/S	MODERATE - HIGH
P	HIGH
W	HIGH - V. HIGH

5 LIKELY IMPACT ON VEGETATION Refer to tables of impact

SEE 4

WILL INTRODUCTION OF DISEASE AND IMPACT BE MONITORED? NO

HOW?

BY WHOM?

6 LAND USE

GWP No: 87

WITHIN DISEASE RISK AREA?

Classify A₁ A₂ etc or other (see Policy No. 10)

NO.

WITHIN ACTIVE CATCHMENT?

YES: Canning, Kangaroo Gully

SALINITY ZONE specify using map in GWP 87

HIGH/INT Rainfall Zones

7 CONSEQUENCES ON LAND USE Refer to tables of consequences

IF HYGIENE SUCCESSFUL

NIL, VISUAL DISTURBANCE FOR RECREATION

question, this in view of location

IF HYGIENE FAILS

Water Production

DWELLINGUP

YARRAGAL

MURRAY

LOW

LOW

LOW

Catchment Protection

HIGH

V. HIGH

LOW

Recreation

HIGH

HIGH

LOW

CONSEQUENCES continued

CONSEQUENCES ON BROADER SCALE on catchment, forest ecosystem, landscape

Major impacts on land uses if hygiene fails

1. In Catchment Protection - May result in salting of water.
2. In Conservation - May result in loss of ecosystem values.

CONSEQUENCES OF NOT PROCEEDING WITH THE WORK on economy, employment etc

1. Find alternative supply in sawlog resource
2. Close sawmill

8 EVALUATION OF 7-WAY TEST Your comments, signature and date

OIC AREA

Recommended only under hygiene conditions as specified,
 i.e. During periods of lowest risk of spreading disease.

Mike Spiller 15-11-84

REGIONAL SUPERINTENDENT Vehicle access into unsuitable area does not conform with intent of dislodge policies, delete these areas from the programme.
 Logic of accessing very high risk area for low volume is questionable, but needs policy review for future planning
Approved

OIC PROTECTION

POLICY REVIEW GROUP

ACTING CONSERVATOR

SEVEN-WAY TEST

DIVISION JARRAHDALE

DATE NOV 1984

1 THE WORK PROPOSED

PURPOSE REMOVAL OF FOREST PRODUCE - SAWLOGS

INITIATED BY FORESTS DEPARTMENT

LOCATION (block etc) CLARE & RANDALL BLOCKS

TYPE AND EXTENT OF THE WORK

1. Falling of sawlogs - selectively marked November '84 - May '85
 November '85 - December '85
2. Snigging and loading of logs December '84 - May '85
 November '85 - December '85

ARE OTHER OPTIONS AVAILABLE? Specify, including "do nothing"

1. Close sawmill (Deny access to forest produce)
2. Operate outside DRA for entire R.I. (Carinyah Block)
3. Operate outside Jarrahdale Division (Marradong Block Dwellingup)

2 HYGIENE MEASURES REQUIRED

Summary of hygiene prescription

CLEAN MACHINERY

Snigging machines to be cleaned down between sub-coups

DRY SOIL Yes - Soil not to be moved during snigging operation or hauling

SUPERVISION Bunnings day to day supervision
Forests Department to check and maintain standards.ACCESS ROUTES

1. Marginata/Rutherglen Roads off Kinsella Road
2. Randall Road off Albany Highway

Road access through conservation M.P.A.'s to be dry at all times.

HYGIENE MEASURES continued

DIEBACK HYGIENE PLANS - specify type

CELL 3 DIEBACK FREE PLAN (1981) FIELD CHECKED FOR ACCURACY SEPTEMBER '84

DIEBACK CATEGORIES

Dieback
Dieback Free
Suspect

Uninterpretable - no access - does not fit dieback policy

ANY OTHER e.g. split-phase operations, mini-catchments etc.

1. Modified split phase system (Load over a barrier) in dieback free conventional system in dieback.
2. Sub Coupes
3. Conform to "Draft Working Arrangements for Bunning's Logging Operations" except as discussed in attached logging proposal.

3 RISK OF DIEBACK FUNGUS (high, moderate, low)

RISK OF INTRODUCTION LOW

RISK OF SPREAD

LOW

Artificial LOW Natural LOW

MULTIPLE INTRODUCTION RISK LOW

RISK OF SURVIVAL LOW-MOD

RISK OF MULTIPLE SPREAD

Artificial Natural

COMMENTS

Chance of showers in late spring, early summer, increase possibility of fungus survival. Check fungal activity with DWP Research before starting

4 LANDFORM AND VEGETATION

Describe according to types used in impact category tables

IMPACT

OVERSTORY

UNDERSTORY

DWELLINGUP (Low Rainfall)
(High Rainfall)

LOW

LOW

MOD to HIGH

MOD to HIGH

COOKE
YARRAGIL
MURRAYLOW to HIGH
LOW to V. HIGH
LOWLOW to V. HIGH
MOD to V. HIGH
LOW to MOD

5 LIKELY IMPACT ON VEGETATION

Refer to tables of impact

SEE 4

WILL INTRODUCTION OF DISEASE AND IMPACT BE MONITORED? *All logging in DHA will require monitoring. Should be flown in 3 years.*

HOW? *ONLY IN A REMAPPING EXERCISE or appropriate time*

BY WHOM?

6 LAND USE

GWP No. 87

CATCHMENT PROTECTION

WITHIN DISEASE RISK AREA? YES

Classify A1 A2 etc or other (see Policy No. 10)

ACCESS VIA A1, A4

LOGGING IN A3, (1)

WITHIN ACTIVE CATCHMENT?

YES - Canning

SALINITY ZONE specify using map in GWP 87

INT/LOW RAINFALL ZONES

7 CONSEQUENCES ON LAND USE Refer to tables of consequences

IF HYGIENE SUCCESSFUL

YES

IF HYGIENE FAILS

Variable impact dependant on Site and Time