

FORESTS DEPARTMENT

RESEARCH OFFICE

MANJIMUP

INDUCTION INFORMATION BOOKLET

INDEX

1. INTRODUCTION
2. ABBREVIATIONS
3. DEPARTMENTAL ORGANISATION
4. SOUTHERN REGION ORGANISATION
5. MANJIMUP DIVISIONAL ORGANISATION
6. MANJIMUP INVENTORY AND PLANNING ORGANISATION
7. MANJIMUP RESEARCH ORGANISATION
8. MANJIMUP RESEARCH LIST OF STAFF AND EMPLOYEES
9. MANJIMUP RESEARCH STAFF DESK LOCATION
10. MANJIMUP H.Q. BUILDING LOCATION PLAN
11. CONDITIONS OF EMPLOYMENT - OFFICERS
12. CONDITIONS OF EMPLOYMENT - WAGES EMPLOYEES
13. DEPT. SAFETY POLICY
14. SAFETY EQUIPMENT
15. SAFETY PROCEDURES
16. SAFETY MEETINGS
17. ACCIDENT INVESTIGATION
18. ACCIDENTS/INCIDENTS LIKELY TO INVOLVE LEGAL ACTION
19. LOSS OR DAMAGE TO CLOTHING/PERSONAL EFFECTS
20. CLOTHING - OFFICERS
21. CLOTHING - WAGES EMPLOYEES
22. VEHICLES, USE OF
23. VEHICLES, KANGAROO DAMAGE
24. WORKSHOP
25. RESEARCH WORKING PLANS
26. JOB PRESCRIPTIONS
27. PLOT REGISTER
28. ESTIMATES
29. LIBRARY
30. MAIL AND FILING
31. BRING UP SYSTEM
32. TELEPHONES
33. MAPS
34. SECURITY
35. TEA SERVICE
36. STORES
37. ANNUAL PERFORMANCE APPRAISAL
38. QUARANTINE
39. MILEAGE CLAIMS
40. EXPENSES REIMBURSEMENT
41. RADIOS - V.H.F.
42. DEPARTMENTAL HOUSING

1. INTRODUCTION

Welcome to the Manjimup Research Office. The following information has been prepared to introduce you to your new position and to be a source of referral during your first few weeks.

The notes in this booklet are of necessity very brief and you will need to add the detail as and when you have the opportunity. Please consult your "buddy", your section O.I.C. or the Assistant Forester (Admin) should you require assistance on any matter.

O.I.C.

2. ABBREVIATIONS

The following are a translation of some of the abbreviations you are likely to hear over the next few months. You should also refer to Technical Paper No. 1 Forestry Terminology in W.A. for the meaning of words.

D.F.O.	=	DISTRICT FOREST OFFICER
A.D.F.O.	=	ASSISTANT DISTRICT FOREST OFFICER
D.F.	=	DISTRICT FORESTER
FOR.	=	FORESTER
A/F	=	ASSISTANT FORESTER
F/R	=	FOREST RANGER
H.Q.	=	HEAD QUARTERS
S.H.Q.	=	STATE HEAD QUARTERS (LOCATED AT COMO)
I & P	=	INVENTORY AND PLANNING
A.P.&I.	=	AERIAL PHOTOGRAPHY AND INTERPRETATION
L.F.O.	=	LARGE FIRE ORGANISATION
H.O.C.S.	=	HARDWOOD OPERATIONS CONTROL SYSTEM
P.O.C.S.	=	PINE OPERATIONS CONTROL SYSTEM
F.M.I.S.	=	FOREST MANAGEMENT INFORMATION SYSTEM

Titles of field staff officers engaged in divisional work usually have the name (Operations) after their title.

Titles of field staff officers engaged in Research and I & P usually have the name (Technical) after their title.

Field staff officers engaged in clerical/administrative work usually have the name (Admin) after their title.

3. DEPARTMENTAL ORGANISATION

This Department manages an area of 2 million hectares in W.A. This area stretches from the Moore River (near Lancelin) in the north, to Walpole in the south and Narrogin in the east. (See Figure 1)

The senior officer of the Department is the Conservator of Forests who is located at the State Head Quarters at Como.

Regional offices (Northern, Central, Southern) are located at Como, Bunbury and Manjimup.

Divisional offices are located at Wanneroo, Mundaring Weir, Jarrahdale, Dwellingup, Harvey, Collie, Kirup, Nannup, Busselton, Manjimup, Pemberton and Walpole.

Research offices are located at Wanneroo, Como, Dwellingup, Busselton and Manjimup.

Offices have also been established at Kalgoorlie, Karratha, Broome and Kununurra.

4. SOUTHERN REGIONAL ORGANISATION

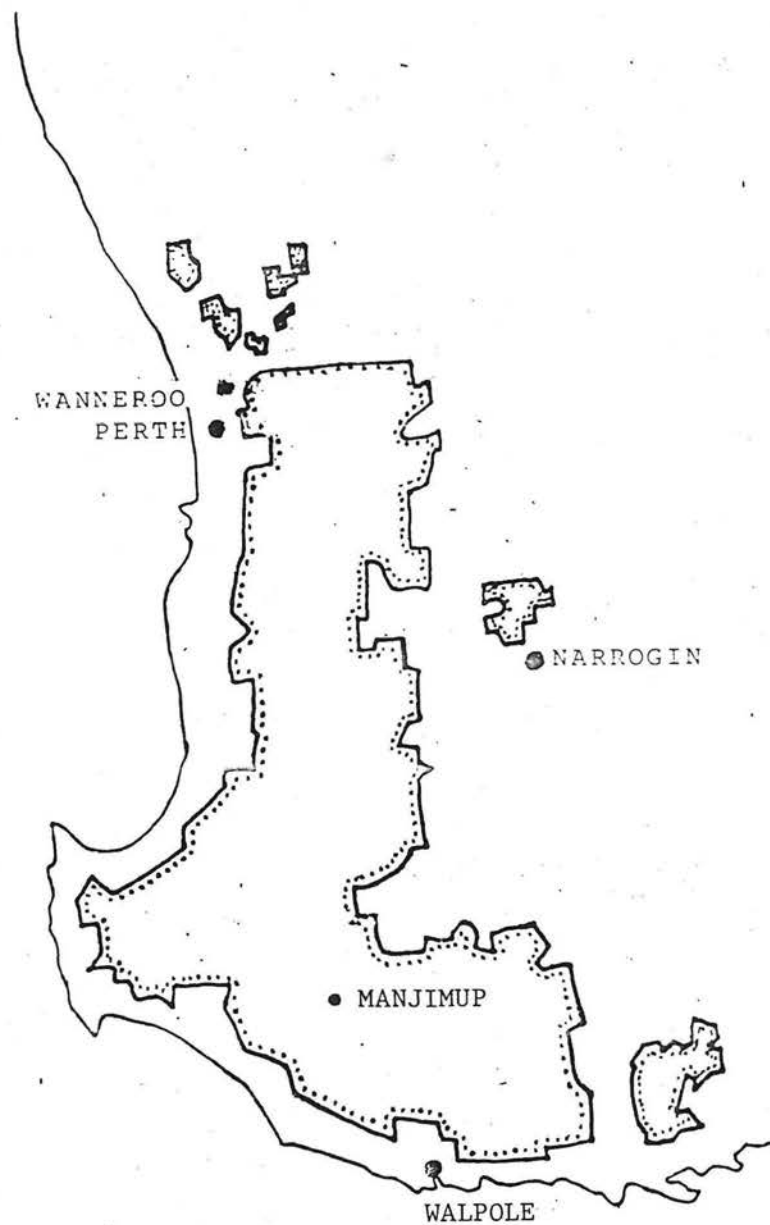
The Southern Region comprises the Manjimup, Pemberton and Walpole divisional areas.

The senior regional officer is the Superintendent who is based in the Regional Office at Manjimup.

Other regional officers are involved in the areas of planning, industry control, operations and administration. Their role is chiefly that of consultants to the divisional officers in charge.

FIGURE 1

LOCATION OF STATE FOREST



5. MANJIMUP DIVISIONAL ORGANISATION

The local Division is headed by a D.F.O. (District Forest Officer). Under him are an Assistant D.F.O., a District Forester, a number of Foresters, Assistant Foresters and Forest Rangers.

Divisional officers control such activities as the timber industry, fire protection, disease protection, roading, workshops, housing, wage preparation, nursery etc. They also supervise the wages employees who are organised into gangs, each with its own Overseer. The carpenters and storeman are also under divisional control.

A divisional officer is designated Safety Officer with overall responsibility for safety within the divisional area.

6. MANJIMUP INVENTORY AND PLANNING ORGANISATION

The local I & P office headed by a D.F.O. carries out work such as timber assessment, resource projections, land use management plans, H.O.C.S., P.O.C.S. and F.M.I.S.

7. MANJIMUP RESEARCH ORGANISATION

The staff organisation of the research office is outlined in Figure 2. Insp. P. Christensen's duties cover both the Manjimup and Busselton Research offices. He is also heavily involved with the Shannon Planning Group and the South Coast National Park Advisory Committee.

D.F.O. Burrows is responsible for the day by day administration of this office.

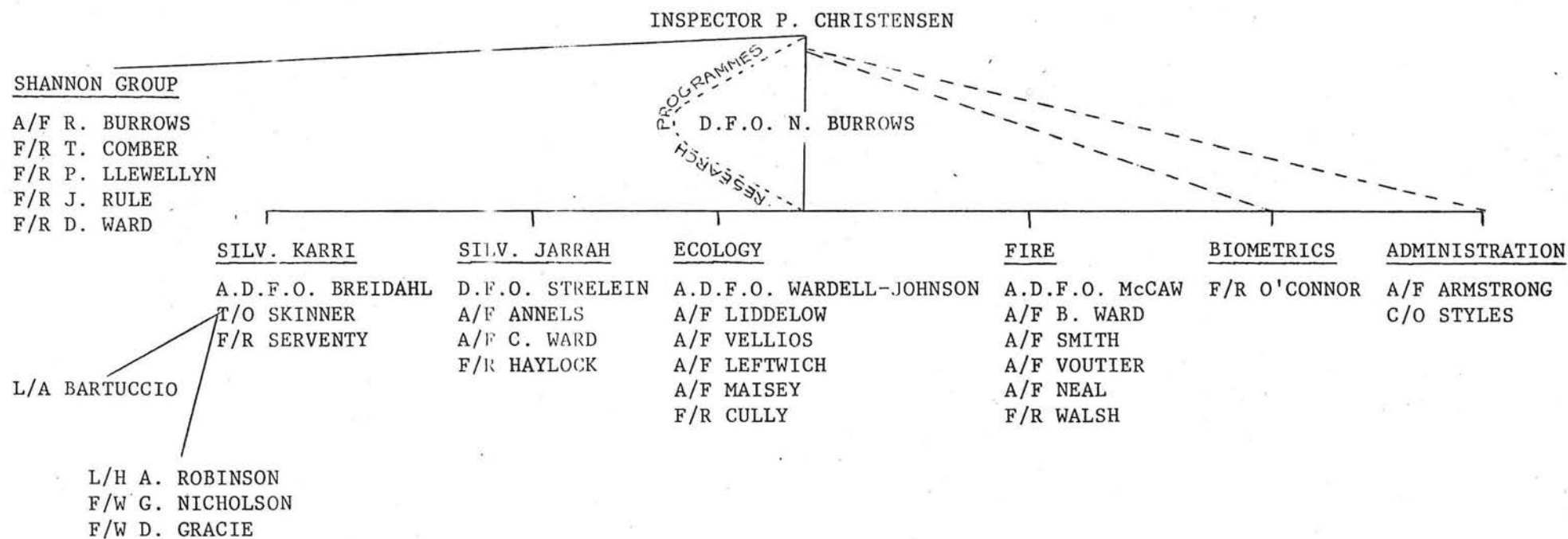


FIGURE 2

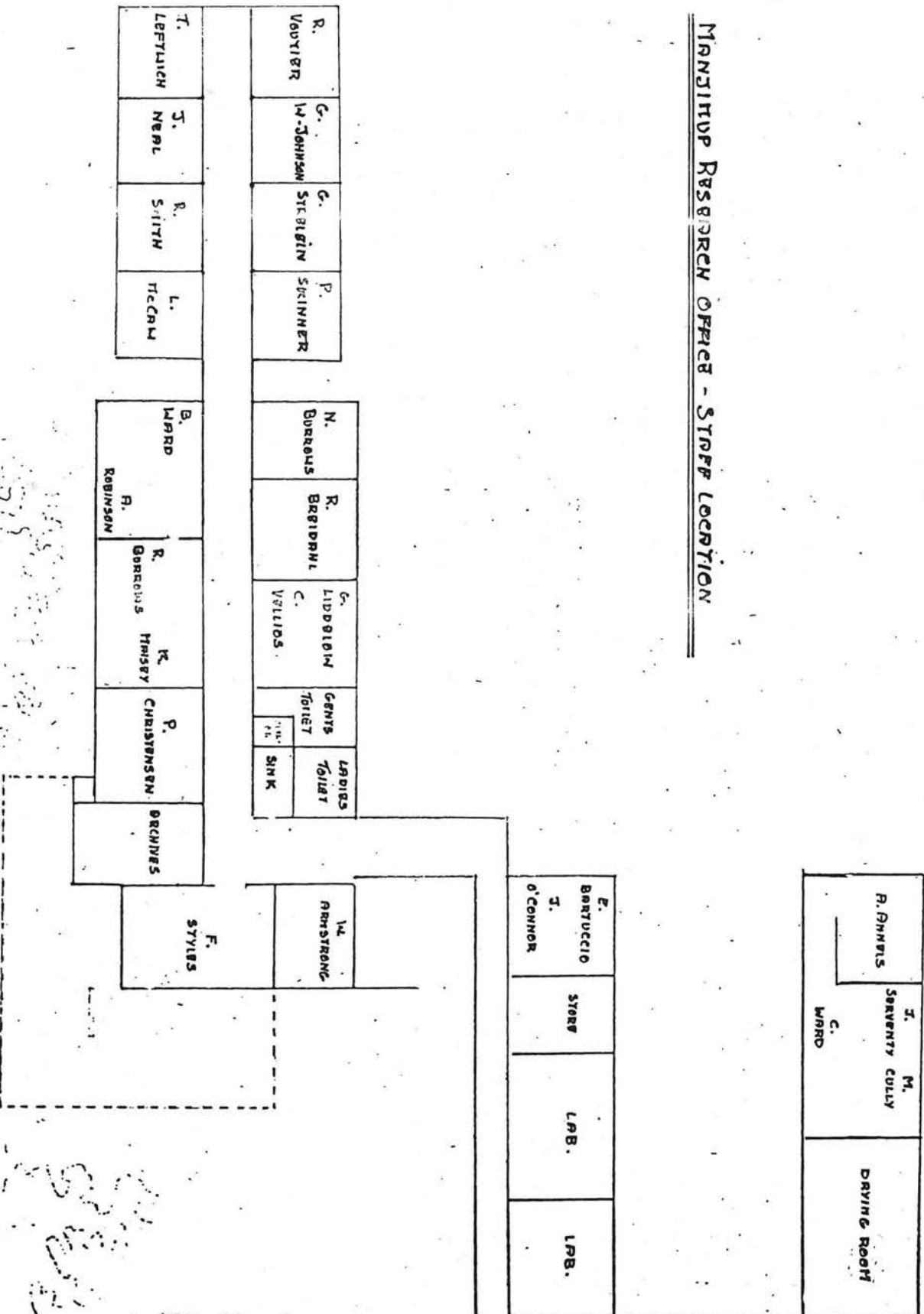
8. MANJIMUP RESEARCH STAFF AND LIST OF EMPLOYEES AS AT JANUARY 1984

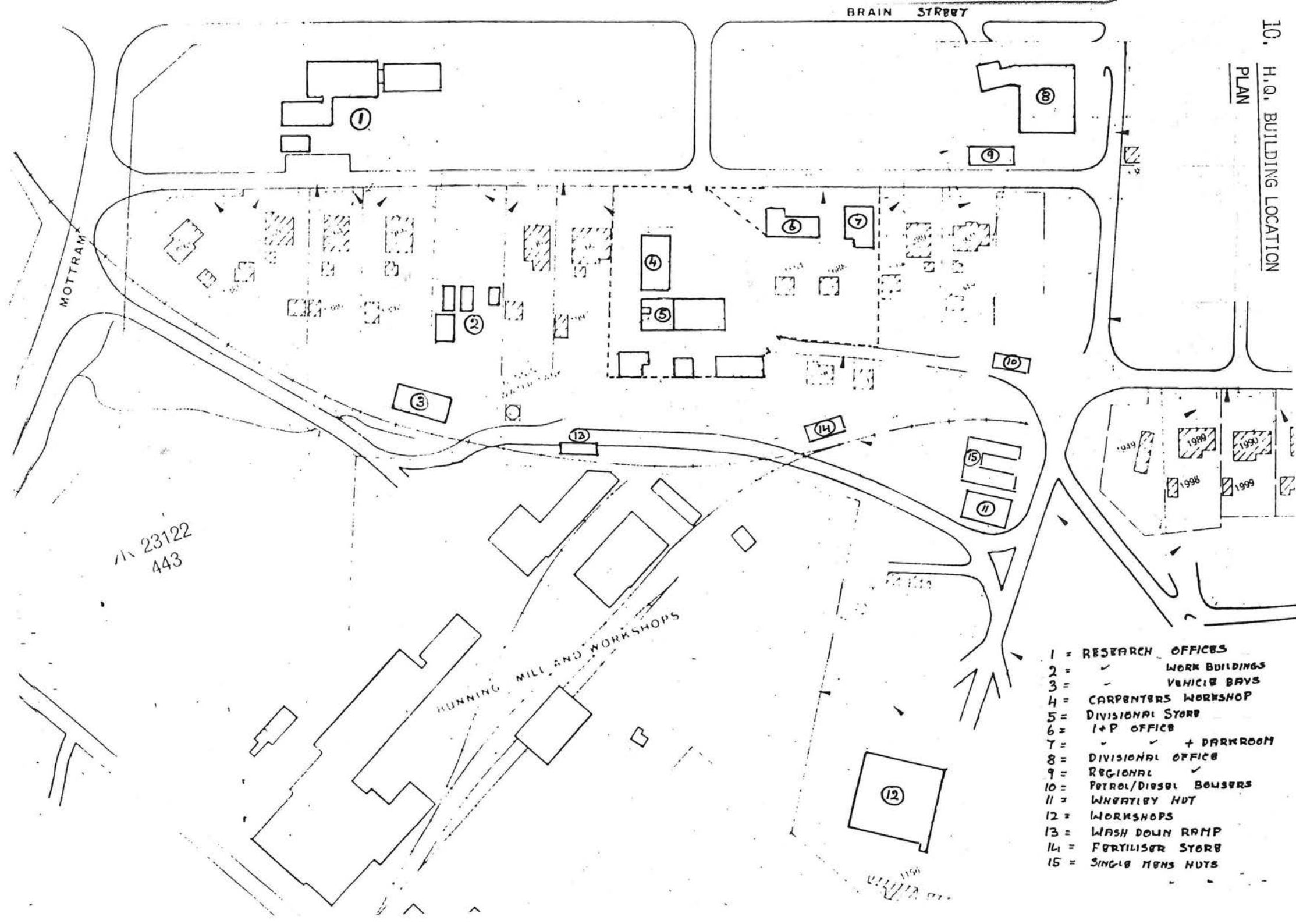
ANNELS A. (TONY)	A/F TECH	SILVICULTURE
ARMSTRONG W. (BILL)	A/F ADMIN	ADMIN/CLERICAL
BARTUCCIO E. (LIZ)	L.A.	LABORATORY/HOCS
BOWRA T. (TIM)	F/R OPS	
BREIDAHL R. (RICHARD)	A.D.F.O.	SILVICULTURE (KARRI)
BURROWS N. (NEIL)	D.F.O.	FIRE RESEARCH
BURROWS R. (RAE)	FOR.TECH	EXTENSIONS
CHRISTENSEN P. (PER)	INSPECTOR	O.I.C.
COMBER T. (TIM)	F/R TECH	SHANNON
CULLY M. (MIKE)	F/R OPS	ECOLOGY
LEFTWICH T. (TOM)	A/F TECH	ECOLOGY
LIDDELOW G. (GRAEME)	A/F TECH	ECOLOGY
LLEWELLYN P. (PAUL)	F/R TECH	SHANNON
MAISEY K. (KARAN)	F/R TECH	ECOLOGY
MITCHELL T. (TIM)	F/R OPS	
McCAW L. (LACHLAN)	A.D.F.O.	FIRE RESEARCH
NEAL J. (JOHN)	A/F TECH	FIRE RESEARCH
O'CONNOR J. (JULIE)	F/R TECH	DATA PROCESSING
ROBINSON A. (ALEX)	LEADING HAND	FIRE RESEARCH
RULE J. (JASON)	F/R TECH	SHANNON
SERVENTY J. (JOHN)	F/R TECH	SILVICULTURE
SKINNER P. (PETER)	FOR.TECH	SILVICULTURE
SMITH R. (BOB)	A/F TECH	FIRE RESEARCH
STRELEIN G. (GREG)	D.F.O.	SILVICULTURE (JARRAH)
STYLES F. (FIONA)	C/O	CLERICAL
VELLIOS C. (CHRIS)	A/F TECH	ECOLOGY
VOUTIER R. (BOB)	A/F TECH	FIRE RESEARCH
WARDELL-JOHNSON G. (GRANT)	A.D.F.O.	ECOLOGY
WARD B. (BRUCE)	A/F TECH	FIRE RESEARCH
WARD C. (COLIN)	A/F TECH	SILVICULTURE & HYDROLOGY
WARD D. (DIANE)	F/R TECH	SHANNON
WALSH P. (PETER)	F/R OPS	FIRE RESEARCH

S.E.R.P.A. EMPLOYEES

GRACIE D. (DES)	F/W
NICHOLSON G. (GERRY)	F/W

MANITOWAP RESEARCH OFFICE - STAFF LOCATION





11. CONDITIONS OF EMPLOYMENT - OFFICERS

Officers are employed under two categories.

PROFESSIONAL OFFICERS (usually those who have graduated in forestry from A.N.U.) are employed under the Public Service Act. Officers in this category hold positions such as District Forest Officer, Inspector etc.

FIELD STAFF OFFICERS, those employed under the Forest Act Field Staff Agreement. Officers in this category hold positions such as Forest Ranger, Assistant Forester, Forester and District Forester.

You are encouraged to become familiar with the Public Service Act and Regulations as well as the Forest Act Field Staff Agreement. These can be borrowed from your Assistant Forester (Admin).

Officers are paid fortnightly either by direct deposit to a bank account or by cheque through the post.

The procedures to be followed for expenses claims, leave applications, etc. can be explained by your A/F (Admin).

Hours of work are 8.00 a.m. to 12.00 and 1.00 p.m. to 4.30 p.m.

If off work through sickness you are required to advise this office as soon as possible giving an expected date of return. Conditions relating to leave etc. are covered by the P.S. Act and Regulations.

12. CONDITIONS OF EMPLOYMENT - WAGES EMPLOYEES

Wages employees (i.e. those paid by the local Divisional office) are employed under the Australian Workers Union (A.W.U.) Forestry Workers Award.

A copy of this award is available from your A/F (Admin).

Employees under this award are paid fortnightly by cheque from the local Divisional office.

The procedure to be followed regarding annual leave, sick leave etc. will be explained by your O.I.C.

Hours of work are 8.00 a.m. to 12.00 and 1.00 p.m. to 5.00 p.m. During the winter months a $\frac{1}{2}$ hour lunch period may be taken with a 4.30 p.m. knock off.

Morning and afternoon tea - $7\frac{1}{2}$ minutes.

Annual leave is 4 weeks per year.

Sick leave entitlement accrues at a rate of $\frac{1}{6}$ of a week for each completed month of service. Satisfactory proof of all claims for sick leave is required. Details of restrictions and conditions are covered by clause 17 of the A.W.U. Award.

If you are off sick you should advise this office as soon as possible and give an expected date for return to work.

Your times at work will be recorded on a Wages Time Sheet. A copy of this document provides you with a wages advice sheet.

13. DEPARTMENTAL SAFETY POLICY

Your safety and health is of prime importance to this department. Attachment 1 states the Departmental Safety Policy.

The Department will do everything reasonable within its power to ensure that you work safely at all times. However this does not in any way reduce your responsibility to yourself and your work mates to ensure that you do everything possible to minimise danger and accidents at work.

14. SAFETY EQUIPMENT

Most safety equipment is on free personal issue. You are responsible for such equipment and in the event of failure to fulfill your responsibilities you may be required to reimburse the Department.

14.1 SAFETY BOOTS (LEATHER AND RUBBER) AND RAINWEAR. Professional

officers and Field Staff officers refer to Circulars 8/79 and 3/81.
(Attachments 2 & 3)

14,2 SAFETY HELMETS. These are on free personal issue. Circular 10/79 (Attachment 5) outlines procedure for their care and maintenance.

14,3 EYE, EAR AND HAND PROTECTION. Appropriate equipment is available on free personal issue.

14,4 OVERALLS. These are available (colour white) from the Divisional store and are to be worn when handling poisons. After use or contamination they are to be returned to the Divisional store for cleaning.

14,5 PRESCRIPTION EYE PROTECTION. Refer to Circular 2/81 (Attachment 6) for details of how to receive a refund for lens hardening.

14,6 You are required to wear long trousers and long sleeved shirts of a non flammable material when engaged in fire control work.

14,7 SAFETY EQUIPMENT. Safety hard hats and safety footwear must be worn at all times in the bush. Other equipment as follows is available as and when required.

Goggles, glasses (clear), glasses (shaded), ear muffs, ear plugs, respirators, gloves (canvas, leather and rubber), leg chaps for chainsaw work.

Remember check that you have everything to do the job before you leave H.Q.

15. SAFETY PROCEDURES

15.1 REPORTING ACCIDENTS

All accidents and "near miss" incidents are to be reported to your immediate superior and recorded on a "First Aid Treatment Slip". Completed First Aid Treatment Slips are submitted to the research Safety Officer.

15.2 FIRST AID KITS

First Aid kits are carried by every vehicle and are for treatment until the patient can receive professional medical attention. Replacement contents for First Aid kits are available from the research Safety Officer.

15.3 LIGHT DUTIES

Light duties forms are available for completion by doctors and indicate the light duties available and thus provide an alternative to time off work.

15.4 JOB SAFETY

Before carrying out any job or task consider its safety aspects. If in doubt discuss with your O.I.C. Job Prescriptions are prepared for major tasks and all tasks involving the use of chainsaws and scrubcutters. A Job Prescription should detail all safety requirements. In certain cases a Job Safety Analysis may be warranted.

15.5 CHAINSAW USE

You may not use a F.D. chainsaw unless you have received formal F.D. training in its use.

15.6 HAZARD REPORTS

Any situation or condition likely to contribute to an accident that can't be corrected immediately is to be reported on a Hazard Report Form (Attachment 7).

15.7 WORK INJURY CATEGORIES

Work injuries are divided into three categories for statistical recording/statistical purposes.

Lost-time injury - a work injury which results in death or inability to work for at least one full day or shift any time after the day or shift on which the injury occurred.

Medical treatment injury - a work injury requiring treatment by a medical practitioner and which is beyond the scope of normal first-aid.

Minor injury - a work injury which does not involve lost time or treatment by a medical practitioner. It may or may not involve first-aid treatment.

Near miss accident - any work incident which could have involved injury to persons or damage to property. (Hernias and back injuries are subject to special assessment procedures - refer to Safety Officer.)

16. SAFETY MEETINGS

Safety meetings are held monthly. They comprise officers and employees from all sections within the Manjimup divisional area. You will be required to attend on occasions.

All matters relating to safety are discussed at these meetings. If you have any matters you wish raised, advise the research Safety Officer.

Progress in the elimination of work injuries is expressed in terms of a Frequency Rate. This is based on the number of Lost-time injuries and is calculated as follows:-

$$\frac{\text{number of lost-time injuries} \times 1 \text{ million}}{\text{manhours exposure}}$$

(e.g. Manjimup wages and salaried employees spend a total of approx. 20,000 hours at work each month. In other words we take 50 months or 4.2 years to work 1 million hours. If the frequency rate is 4, then according to the statistics we have suffered 4 lost time accidents in the past 50 months, or 1 L.T.A. every 12½ months.)

17. ACCIDENT INVESTIGATION

All accidents are subject to investigation. The "systems approach" is used in such investigations. (Attachment 8)

The basic purpose of such an investigation is to determine the causes of accidents and hopefully prevent reoccurrences.

In addition to the above a number of forms have to be completed immediately after the accident for insurance purposes.

18. ACCIDENTS/INCIDENTS LIKELY TO INVOLVE LEGAL ACTION

Against/by third parties, refer to Circular 15/83 (Attachment 9).

19. LOSS OR DAMAGE TO CLOTHING OR PERSONAL EFFECTS

Refer to Head Office letter July 28, 1980. H.O. file 350/44.
(Attachment 10).

20. CLOTHING - OFFICERS

Professional officers refer to Circulars 18/82 and 17/80 (Attachment 11)
for details.

Field staff officers refer to Forest Act. Field Staff Agreement No 25
of 1983, Clause 19. (Attachment 12).

Overalls (khaki) are available on personal issue to those officers
requiring them due to the type of work they are involved in. (Refer also
to overalls under Safety Equipment).

Details of shirts, trousers etc. are advised to your A/F (Admin) who
will arrange for them to be ordered.

21. CLOTHING - WAGES EMPLOYEES

Refer to Circular 13/83 (Attachment 4). Details of requirements are
advised to the Divisional Storeman.

Refer also to overalls under Safety Equipment.

22. VEHICLES, USE OF

Research vehicles are allocated to individual officers for the purpose
of ensuring that they are well looked after and fuel/milages are accounted for.
Refer Circular 11/72. (Attachment 13).

Departmental vehicles may only be used for purposed connected with the
work of the Department.

Vehicles may only be taken home overnight when you return to H.Q.
too late to park it in the usual place or it is required for an early start
the following morning.

All damage to vehicles must be reported immediately to the research Safety Officer. He will advise on the report forms to be completed.

It is the responsibility of the driver to check oil, water, tyre pressure, fuel, presence of jack, spare wheel, first aid kit, etc. before he uses the vehicle each day.

Usage of vehicles and fuel received is recorded in a Vehicle Running Book. There is a book in each vehicle. These returns are submitted on the Wednesday of each pay week to the A/F Admin. He will give you detailed instruction on how to complete this return.

23. VEHICLES, KANGAROO DAMAGE

In the past three years (1980 - 83) there have been approximately ten kangaroo accidents per year involving Southern Region vehicles. Research vehicles have featured in a large number of these due to our vehicles being on the road early in the morning and late evening. You will need to exercise great care and drive at reduced speed at such peak danger times.

24. WORKSHOP

All F.D. vehicles are supplied by Engineering Branch at Como. We pay a hire charge based on km travelled and a monthly "on site" hire charge. Maintenance on these vehicles is carried out in the local F.D. workshops. All work required must first be discussed with the mechanic in charge or the divisional officer in charge of workshop.

25. RESEARCH WORKING PLANS

Before a research project can be undertaken a Research Working Plan is to be proposed and approved. (Attachment 14).

26. JOB PRESCRIPTIONS

For any job not classified as a routine task a Job Prescription must be completed (Attachment 15). A copy of the Job Prescription is given to the person supervising the job. The original is given to the C/O for filing. The Section O.I.C. decides which jobs require a Job Prescription.

27. PLOT REGISTER

A register exists of all research plots. This register provides ready

access to information on all plots which are also shown on HOCS/POCS sheets. Plots established in state forest by other organisations will in time be also incorporated into this system.

(Refer Attachment 20 and "System for control of Research Plots" available from the A/F (Admin)).

28. ESTIMATES

Estimates are prepared in two sections, CAPITAL and C.R.F. (Consolidated Revenue Funds). Capital estimates which cover such items as building construction, road construction etc. are prepared in Jan/Feb each year. C.R.F. estimates are prepared in Feb/March each year and comprise the general operating areas. Further details on estimates are available from the A/F (Admin).

Due to delays in payment for items obtained through Gov. stores all major items should be ordered prior to Christmas each year. Also the bulk of approved finance should be committed prior to March. If it is likely that all approved funds will not or need not be spent within the financial year, details must be given to the A/F Admin as soon as possible.

29. LIBRARY

A limited library exists in the research building. If the required material is not available the Clerical Officer will provide details. This also involves the request being adopted when requesting photocopies of copyright material.

30. MAIL AND FILING

Outward correspondence is prepared in readable handwritten draft and submitted to the C/O for typing. All outward correspondence is typed in a set format under the O.I.C.'s name. The O.I.C. Research must sign all outward correspondence. The C/O will explain the system in force for file copies etc.

Inward correspondence is opened by the C/O and directed to the A/F Admin and O.I.C. Each officer is provided with a photocopy of the inward mail book and is expected to keep himself fully briefed by reading material of interest

on file. Original correspondence relating to F.D. matters may not be held on personal files.

31. BRING UP

The A/F (Admin) operates a bring up planning board for routine activities and a bring up diary as a reminder system for non repetitive work. You are encouraged to make use of this system.

32. TELEPHONES

Work telephones are part of a P.A.B.X. (Private automatic branch exchange) located in the Divisional Office. Attachment 16 is a listing of all local internal extensions. To ring an extension just dial the number.

Local external numbers are obtained by dialing 0 and then the number required.

Trunk calls are obtained by dialing 9 for switchboard operator and giving her the details. You hold on and she will connect you.

The switchboard operator must be informed if the truck call is not for work purposes. You will receive an account at a later date.

33. MAPS

A full range of F.D. maps 1:50 000 maps is held in this office. These maps for specific purposes are available. Refer to the A/F (Admin) for details.

34. SECURITY

Should you have need for access to the research office outside normal working hours a key can be issued for the back door.

It is important that you look after all departmental property and equipment. All losses or damage to be reported immediately to the A/F (Admin). (Refer Attachment 17).

35. TEA SERVICE

Research staff are required to pay for all consumables. Provision is made for visitors. The C/O will give you details of how the system of payment operates.

36. STORES

Ordering of all stores is carried out by the A/F (Admin).

Facilities exist for obtaining urgently required items from local sources. The bulk of our requirements must be ordered through Government Stores and this involves a lead time of at least four weeks. ⁵ some items such as batteries and paint are subject to Gov. Stores contracts.

Office and most scientific equipment has to receive the approval of the Mechanical Appliances Committee and this can involve considerable delays.

37. ANNUAL PERFORMANCE APPRAISAL

Each year you will be subject to a performance appraisal and career development interview by your O.I.C. Details of the format of this appraisal are available from the A/F (Admin).

38. QUARANTINE

Information sheets 4 & 35 Attachments 18 & 19 give the background on jarrah dieback and forest quarantine.

On the local level you will need to ensure that any proposed entry into quarantine is covered by a permit issued by the Divisional Office. All conditions pertaining to that permit must be fully observed. If in doubt -

39. MILAGE CLAIMS (PRIVATE CAR)

Special permission is required for payment ^{for} of use of private vehicles on departmental business. Written applications are subject to head office approval and it must be clearly shown that a departmental vehicle is not available.

40. EXPENSE REIMBURSEMENT

Details of expenses that may be claimed are listed in the Public Service Miscellaneous Allowances Award 1982. A copy may be borrowed from the A/F (Admin).

Prior approval of the local research O.I.C. is required for visits to

other locations involving an overnight stay.

41. RADIOS

A limited number of V.H.F. radios are available for research use. The base set is located in the Divisional office. You will receive instruction of the operating procedures.

42. HOUSING

All local F.D. housing is under control of the Divisional O.I.C. Any queries should be made to the Divisional A/F (Admin),

RESEARCH INDUCTION BOOKLET

INDEX OF ATTACHMENTS

1. Departmental Safety Policy
2. Circular 8/79 Safety Footwear Subsidy
3. Circular 3/81 Forest Act Field Staff Agreement - provision of clothing and wet weather rubber boots
4. Circular 13/83 A.W.U. Award - provision of work clothes and safety footwear
5. Circular 10/79 - Safety Helmets
6. Circular 2/81 - Subsidy to wearers of safety prescription spectacles
7. Hazard Report
8. Checklist for accident investigation systems approach
9. Circular 15/83 - Accidents/incidents likely to involve legal action against/by third parties
10. Loss or damage to clothing or personal effects
11. Circular 18/82 - Staff uniforms
12. Provision of uniforms - Forest Act Field Staff
13. Circular 11/72 - Standards of cleanliness and maintenance of motor vehicles
14. Research Working Plan (F.D. 470)
15. Research Job Prescription
16. Telephone Extensions
17. Security Note
18. Jarrah Dieback Information Sheet No. 4
19. Quarantine in Native Forest Information Sheet No. 35
20. Research Plot Control System.

DEPARTMENTAL SAFETY POLICY

1. The Department recognises the importance of the safety and health of its employees.
2. The Department will provide safe working conditions by seeing that every effort is made to avoid, remove and remedy the causes of industrial accidents.
3. Safety will be included on the agenda of all formal Departmental meetings where applicable.
4. Management (officers of all ranks) will provide effective leadership and example.
5. All officers, overseers and employees will receive safety training.
6. Safety rules will be formulated and put into practice.
7. Officers will be expected to account for all accidents in their districts.
8. Personal safety practice, example to others and efforts towards job safety improvement will be considered, together with forestry skill, directing ability, organising capacity and other qualities when assessing the efficiency of an officer.
9. Every accident resulting in loss of time will be investigated and an accident investigation report completed. Any non-lost-time accident which is repetitive or has a serious potential may, at the discretion of the officer-in-charge, be investigated and report form completed.
10. Employee safety suggestion and safety induction programmes
11. The Department will provide adequate first aid equipment.
12. Each Division shall form a Divisional Safety Committee consisting of representatives from all gangs, workshops, other work groups, staff, specialist branches, etc. and the Officer in Charge. Regular, periodic meetings shall take place at least every four months.

CIRC 8/79

R. & I. BANK BUILDING
54 BARRACK STREET,
PERTH W.A. 6000

Ref: 480/72 AK:CL
Mr. Kesners.

14th May, 1979.

ATTACHMENT 2

FORESTS DEPARTMENT

SAFETY FOOTWEAR SUBSIDY

It is advised for general information that the above subsidy will be increased from \$12.00 to the full price of the boots with a maximum of \$25.00 as from the 1st July 1979.

This decision has been made as a practical means of emphasising the importance of wearing safety footwear as an accident prevention measure.

The following conditions will apply.

1. This subsidy is available to all officers and employees who require to wear safety footwear in the course of their work. Eligibility in each case will be determined by the O.I.C. of the Division, or, in the case of regional staff, by the Regional Leader (Safety). The Secretary will be responsible for approving this subsidy for those Head Office staff who are engaged in field work.
2. This subsidy applies only to footwear which is fitted with a steel toe cap.
3. The type of safety footwear, source of purchase and price paid will remain a matter for individual choice. The subsidy will be paid to a person after he has made his purchase.
4. Each individual will be entitled to this assistance for one pair of safety boots each year. In genuine cases, where safety boots which were purchased less than 12 months ago are damaged beyond use, and the applicant is able to produce evidence to this effect, Officers in Charge of Divisions are authorised to approve payment of the subsidy for a second time, if they are satisfied of the bona fides of the application.
5. In cases where a pair of safety rubber boots with steel caps is purchased for winter use, a second payment in the one year will also be approved.
6. Officers in Charge of Divisions will be responsible for approving these payments and will be required to sight evidence of purchase. Payment will be made locally using a Form 10, following presentation of a purchase docket and receipt by the purchaser. The Form 10 is to show the name of the firm from which the safety footwear was bought, and the type of footwear purchased, i.e. safety boots, rubber boots, desert boots or shoes.

7. Payments are to be charged to Item 00-17-542-01E and a copy of the Form 10 is to be forwarded to the Safety Officer, at Head Office.
8. The following personnel are entitled to this subsidy:-
 - All permanent staff and employees. /
 - All permanent casual employees. /
 - Part time employees after two months of employment.
9. The date after which personnel are entitled to another subsidy is to be taken 12 months from the time when the last pair of safety footwear was purchased and not from the beginning of the fiscal year.
10. A record of payments is to be maintained locally to indicate frequency of purchase by individuals. This record is to show the name, date of purchase, type of footwear and the amount paid. A copy of this record is to be forwarded to Head Office each year covering the period 1st July to 30th June.

Please bring this circular to the notice of all personnel in your section.

B. J. Beggs
CONSERVATOR OF FORESTS

DISTRIBUTION

AS PER LIST "A"

AM 22/5

All staff to note
AM 22/5

P 29/5

CIRCULAR NO. 3/81

FORESTS DEPARTMENT
R. & I. BANK BUILDING
54 BARRACK STREET,
PERTH W.A. 6000

Ref: 80/80 BEB:CL
Mr. Brody

10th March, 1981.

INSPECTOR
H.P.S. CHRISTENSEN
FORESTS DEPT
PERTH W.A.

Circulate

FOREST ACT FIELD STAFF AGREEMENT
PROVISION OF CLOTHING AND WET WEATHER RUBBER BOOTS

This circular supersedes Circular 24/80 of December 30th 1980. By a letter of agreement with the Civil Service Association the Department shall provide to officers employed under the above agreement a waterproof full length coat or a 3/4 length jacket and trousers plus rubber safety boots whose duties involve:

- (a) the inspection of timber;
- (b) assessment within the forest on a frequent basis;
- (c) permit control, provided that such officers spend a majority of their time on such duties

or in such other cases and circumstances that the Conservator considers necessary.

1. Eligibility in each case will be determined by the O.I.C. of the Division, or in the case of regional staff, by the Regional Leader (Safety). The Secretary will be responsible for approving the Head Office staff who are on duty.
2. Replacement will require proof of unavoidable damage or fair wear and tear to the satisfaction of the approving officer.
3. Once an officer has been issued with waterproof clothing and/or wet weather safety rubber boots, he shall wear these items on the job at all times when and where necessary unless special approval is obtained from the Conservator.
4. The cost of maintenance of the waterproof clothing and/or wet weather safety rubber boots is the responsibility of the officer.
5. Safety helmets already provided shall be regarded as waterproof head gear.

The following procedure is to be followed for the purchase of footwear and waterproof clothing:

Wet Weather Safety Rubber Boots

1. The footwear must be fitted with steel toe caps. The source of purchase and price paid will be a matter of individual choice and to be purchased locally.
2. Officers responsible for approving these payments will be required to sight evident of purchase. Payment will be made locally using a Form 10, following presentation of a purchase docket and receipt by the purchaser. The Form 10 is to show the name of the firm from which the footwear was bought.
3. If an officer resigns for any reason within four (4) working weeks of the date of issue of wet weather safety rubber boots, the cost of the footwear shall be deducted from the salary due to that officer.

Waterproof Clothing

The following Jaylon waterproof clothing will be provided by forwarding a requisition to Chief of Division Personnel for his approval.

Full length coat - colour safety yellow

<u>Size</u>	<u>Catalogue Number</u>
S	FW 1700
M	FW 1701
L	FW 1702
XL	FW 1703

3/4 length jacket - colour safety yellow

<u>Size</u>	<u>Catalogue Number</u>
S	FW 1704
M	FW 1705
XL	FW 1707

Trousers - colour safety yellow

<u>Size</u>	<u>Catalogue Number</u>
S	FW 1716
M	FW 1717
L	FW 1718
XL	FW 1719

Trousers will not be provided with the full length coat. However, the 3/4 length jacket can be ordered on its own or with trousers.

A more detailed description of the above items is attached.

A record of payments is to be maintained locally to indicate frequency of purchase by individuals. This record is to show the name, date of purchase, type of footwear and the amount paid. A copy of this record is to be forwarded to Head Office each year covering the period July 1 to June 30th.

All purchases to be charged to item 00-17542-05G.

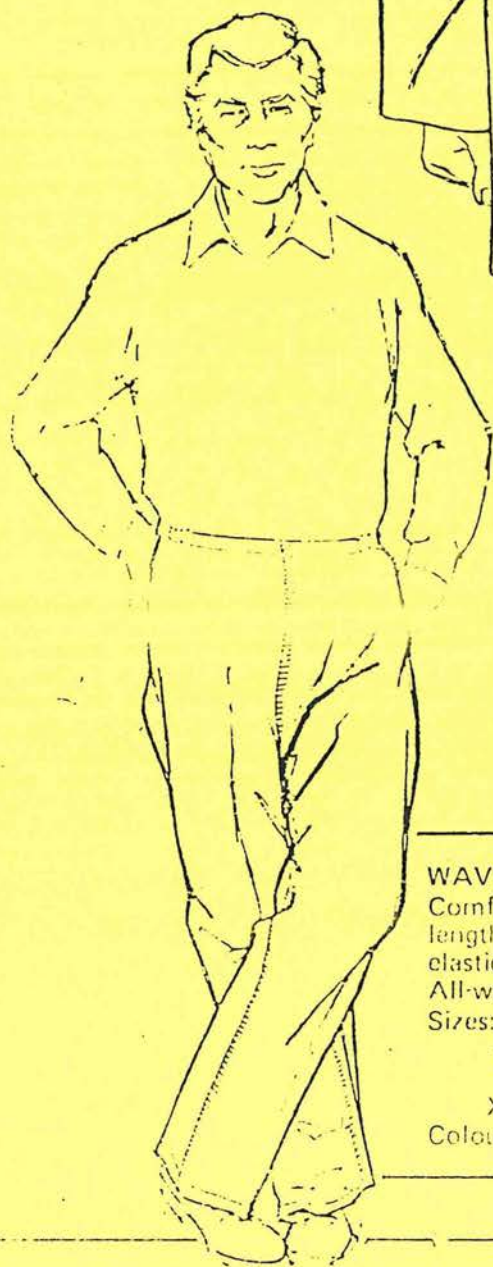
S. J. Seggs
CONSERVATOR OF FORESTS
SJS

DISTRIBUTION

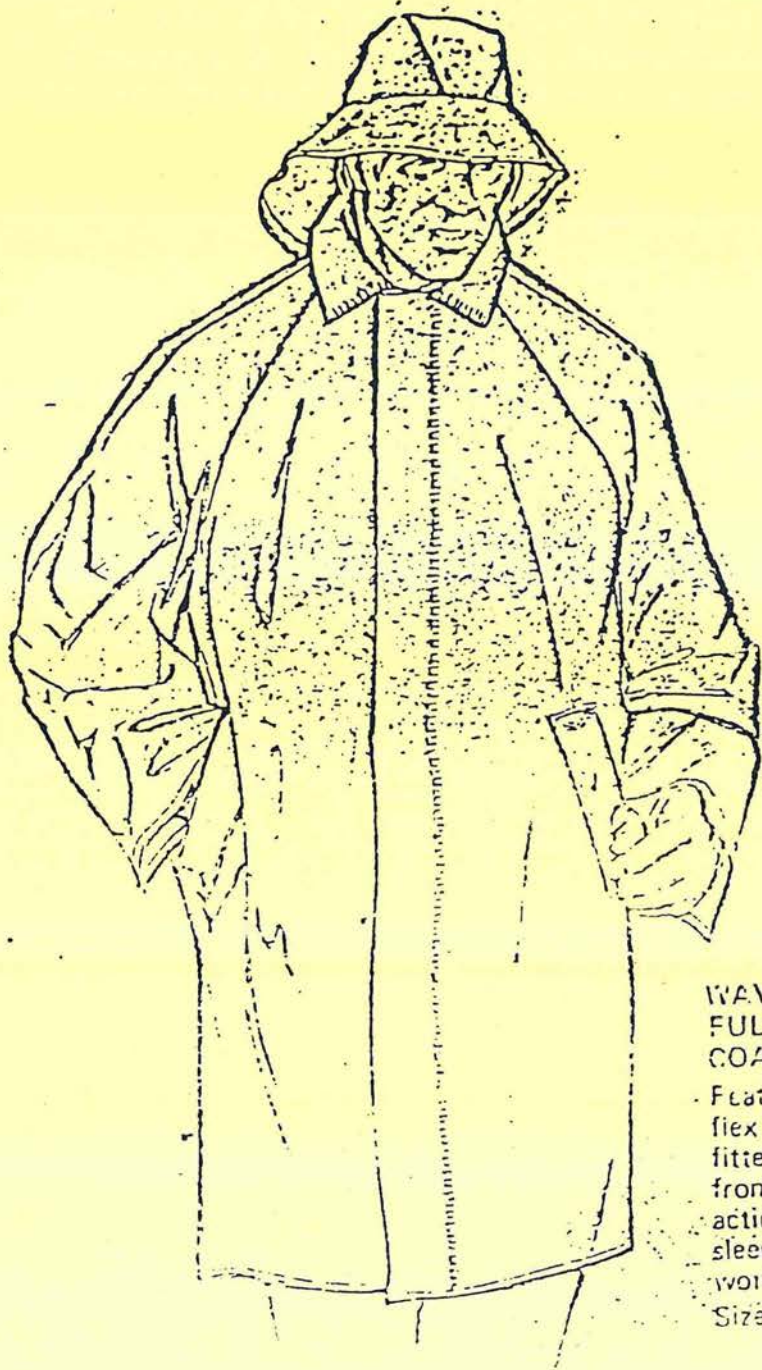
LIST "B"



WAVELOCK
¾ LENGTH JACKET
 100% waterproof with
 double storm front fastening
 and non-corrosive flex head
 stud closures.
 Sizes: S – FW 1704
 M – FW 1705
 L – FW 1706
 XL – FW 1707
 Colour: Safety yellow.



WAVELOCK TROUSERS
 Comfortable, roomy, full
 length trousers with an
 elasticised waist.
 All-welded seams.
 Sizes: S – FW 1716
 M – FW 1717
 L – FW 1718
 XL – FW 1719
 Colour: Safety yellow.



**WAVELOCK
FULL-LENGTH
COAT**

Features non-corrosive
flex head stud closures
fitted to a double storm
front. Single press stud
action, free raglan
sleeves for complete
working comfort.

Sizes: S — FW 1700

M — FW 1701

L — FW 1702

FW 1703

Color — Safety yellow

FORESTS DEPARTMENT
50 HAYMAN ROAD
COMO W.A. 6152

INSPECTOR
DR P.E.S. CHRISTENSEN
FORESTS DEPT
MANJIMUP RESEARCH

1

REF: 135/83 AK:jd
Mr. Kesners

October 19, 1983

FORESTS DEPARTMENT

PROVISION OF WORK CLOTHES AND SAFETY FOOTWEAR - A.W.U. AWARD

An agreement has been reached with the Australian Workers Union whereby the Department will provide work clothing and safety footwear to all personnel employed under the A.W.U. (Government) Forestry Award 1965. This agreement is to take effect immediately.

Employees covered by the Engineering Trades (Government) Award are not subject to this agreement. The issue of overalls and dustcoats to these employees was introduced as per my letter dated 1st November, 1982 (ref. 267/82). Payment of the \$25.00 safety footwear subsidy to these employees will continue as at present.

Each person employed under the A.W.U. (Government) Forestry Award will receive the following items free of charge subject to conditions set out hereunder:

ITEM	CONDITIONS OF ISSUE
	eligibility commencing on the anniversary of the last issue under the subsidy scheme. Replacement of safety footwear damaged at work at the discretion of the O.I.C.
1 pair trousers or skirt 1 long sleeved shirt or blouse with F.D. logo	one free issue each 12 months. In order to receive the free trousers and shirt (or skirt and blouse), employees must purchase at their own expense at least 1 pair of trousers and 1 shirt (or skirt and blouse) at cost price (to be ordered at the same time as the free issue).

ITEM	CONDITIONS OF ISSUE
<u>RAINGEAR</u>	
1 raincoat, full length OR 1 trouser suit (3/4 jackets and trousers)	only to those employees who in the opinion of their OIC require these items at work;
1 pair of rubber safety boots, knee height	these items are not expected to be an annual issue, and replacement to be on proof of fair wear and tear.

Details of the particular items that will be on issue are appended hereto as follows:

Appendix 1	-	Safety Footwear (Male)
" 2	-	Shirts
" 3	-	Trousers
" 4	-	Wet Weather Clothing
" 5	-	Rubber Safety Footwear
" 6	-	Skirts and Blouses and Safety Footwear (Female)

These items (except for Appendix 6) have been accepted by the State Tender Board of W.A. and will remain on the list of approved items until the current tenders expire. As tender schedules change so will these items. You will be advised of changes by Amendments to the Appendices.

The free issue arrangements herein are limited to those items in the Appendices only. However, any particular problems in relation to types of articles available can be brought to the attention of the Inspector (Personnel).

ORDERING PROCEDURE

None of this apparel is to be held in stock in Divisional Stores, and all requirements must be requisitioned as and when needed. Requisitions must clearly show the required quantity, size, colour and catalogue number (if any). The provision of shirts and trousers free of charge is subject to the employee purchasing at least one item. It is necessary to obtain procurement orders from employees in order that the cost can be deducted from their wages. Procurement orders must be signed when the order is placed. Alternatively orders may be made by payment of cash in advance.

The following expenditure item numbers are to be used when requisitioning:

Safety footwear, including rubber safety boots: 00-17-842-02X
Do - for SERPA employees 12-12-217-107

Free issues of trousers, shirts and raingear : 00-17-705-03J
Do - for SERPA employees 16-18-925-02D

Employee purchases of trousers, shirts,
blouses and skirts (including SERPA employees): 16-37-155-01C

Wages Sheet deductions for purchases of trousers, and shirts must be brought to account on Debit Return FD 587 in the usual way. Should an employee, however, prefer to pay in cash, this must be done when placing the order, and a receipt must be issued and endorsed "Employee clothing purchase" - Item 00-82-902-00E.

Freight costs will be borne by the Department. However, Divisions that have regular transport to Como, should ask for delivery to S.H.Q. Como.

The cost of purchasing and attaching logos on shirts also will be borne by the Forests Department. Men's shirts will be supplied with the logo attached, but these will not be supplied to women's outfits because of differing supply arrangements. However, a logo will be supplied with those outfits for attaching by the employee.

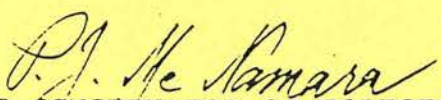
To avoid exchanges, it is important that care is taken to establish the correct size before ordering. It is suggested that footwear in particular should be ordered half a size larger than normally required.

ADMINISTRATION

At local level the OIC of the Division or Specialist Branch will have the authority to determine the eligibility of recipients as well as the fair wear and tear of items that are put up for replacement. He will be personally required to sign all requisitions. He will also ensure that adequate local records are kept for all issues, showing date of issue, name of the recipient, type of garment, regular issue or replacement, and whether it is a free issue or a purchase. A summary of this record is to be prepared at the end of each financial year and forwarded to S.H.Q., for attention OIC Stores. Information regarding supplies to Specialist Branches is also to be included on the local Divisional return.

The authority to requisition of the above items for wages employees at S.H.Q. will be held by A/F R. Jambu.

The routine administration of this scheme will be with the OIC Stores Branch, S.H.Q. This will include the handling of all orders, exchanges and amendments of the Appendices in regard to changes in accepted tenders and prices. Any disputes or policy queries are to be referred to the Inspector (Personnel).


ACTING CONSERVATOR OF FORESTS

DISTRIBUTION:

LIST "A"

SAFETY FOOTWEAR

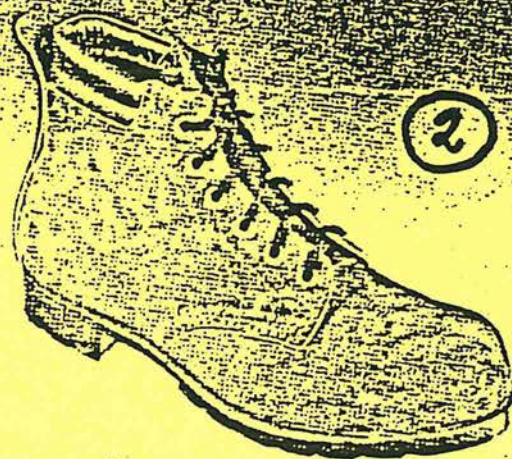
Employees will have the choice to receive one of the following items, manufactured by "Comfortwear".

Men

1. Tan or black leather ankle boot, moulded nitrile rubber soles. Full and half sizes 5 to 13. Cat. No. 249001.
2. Brown water resistant sueded leather ankle boot with cushion topline, moulded nitrile rubber soles. Full and half sizes 5 to 13. Cat. No. 249308.
3. Tan high leg lace up calf leather boot, moulded nitrile rubber soles. Full and half sizes 5 to 13. Cat. No. 249020.
4. Brown high leg sueded leather, 3D Ring. moulded nitrile rubber soles. Full and half sizes 5 to 13. Cat. No. 249249.
5. Black leather elastic sided boot, moulded nitrile rubber soles. Full and half sizes 5 to 13. Cat. No. 249011.
6. Black leather Derby shoe, lace, moulded nitrile rubber soles. Full and half sizes 5 to 13. Cat. No. 249423. (This will be supplied only with the specific approval of the OIC for workers not requiring boots i.e. office work).
7. Special safety footwear for specific work (i.e. spiked loggers boots) will be considered for supply on the recommendation of the OIC.



• 2 4 9001 Tan or Black leather ankle boot.
Moulded nitrile rubber soles.
Full and half sizes. 5 to 13



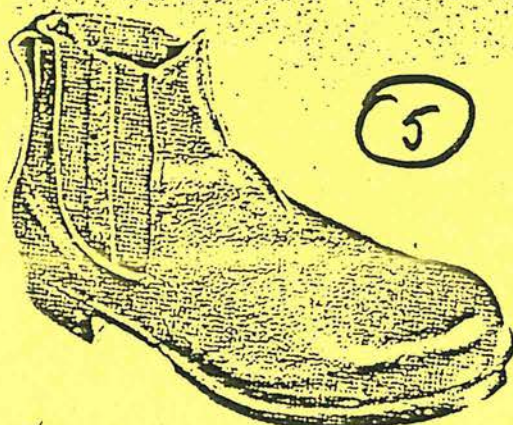
• 2 4 9308 Brown Water resistant suede leather
ankle boot with cushion topline.
Moulded nitrile rubber soles.
Full and half sizes. 5 to 13



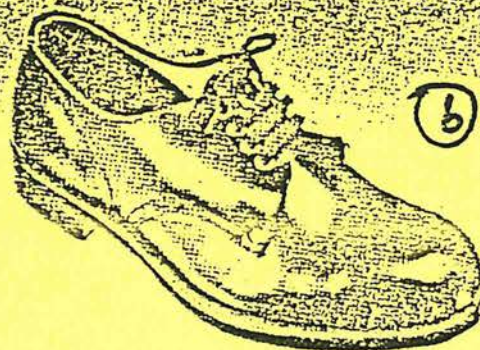
2 4 9020 Tan rawhide leather hi-leg geologist
boot.
Moulded nitrile rubber soles.
Full and half sizes. 5 to 13



• 2 4 9249 Brown suede leather, 3 D Ring
hi-leg boot.
Moulded nitrile rubber soles.
Full and half sizes. 5 to 13



• 2 4 9011 Black leather elastic sided boot.
Moulded nitrile rubber soles.
Full and half sizes. 5 to 13



• ~~2 4 9040~~ 2 4 9423 Black smooth leather Derby shoe.
Moulded nitrile rubber soles.
Full and half sizes. 5 to 13
3 eyelets

SHIRTS

Two choices will be available:

1. Polyester/cotton:50/50, "King Gee" make, surf colour, long sleeve, Cat. No. 0404. Price \$8.34.

or:

2. Cotton drill, "Yakka" make, green, long sleeve, Cat. No. 7500. Price \$8.25.

All shirts will be supplied with a small logo.

Sizes:	SM	M	OS	XOS	XXOS	XXXOS
Neck - cm inches	36/37 14-14½	38/39 15-15½	41/42 16-16½	43/44 17-17½	45/46 18-18½	48/49 19-19½

TROUSERS

Two choices will be available:

1. Polyester/cotton 65/35, I.P.P. make, olive colour, Cat. No. 210. Price \$16.37.

or:

2. Cotton drill, I.P.P. make, green. Cat. No. 200. Price \$12.23.

Available in the following sizes:

<u>REGULAR - CODE "R"</u>									
METRIC SIZE:	66	71	76	81	86	92	97	102	107
IMPERIAL SIZE:	1	2	3	4	5	6	7	8	9
Waist - cm	66	71	76	81	86	92	97	102	107
- inches	26	28	30	32	34	36	38	40	42
Inside Leg - cm	69	72	74	76	79	81	83	84	88
- inches	27½	28½	29	30	31	32	32½	33	33½

<u>STOUT - CODE "ST"</u>										
METRIC SIZE:	86	92	97	102	107	112	117	122	127	132
IMPERIAL SIZE:	3½	4½	5½	6½	7½	8½	9½	10½	11½	12½
Waist - cm	86	92	97	102	107	112	117	122	127	132
- inches	34	36	38	40	42	44	46	48	50	52
Inside Leg - cm	69	71	74	76	79	79	81	81	81	81
- inches	27	28	29	30	31	31	32	32	32	32

<u>LONG - CODE "L"</u>					
METRIC SIZE:	74	79	84	89	94
IMPERIAL SIZE:	3½	4½	5½	6½	7½
Waist - cm	74	79	84	89	94
- inches	29	31	33	35	37
Inside Leg - cm	77	80	83	85	88
- inches	30½	31½	32½	33½	34½

WET WEATHER CLOTHING

A choice of the following is available:

Coats - Full length, M.S.A. make, waterproof, PVC coated yellow, raglan sleeves, storm front, with press studs, studded vents under arms, 40cm vent in back of coat, no pocket. Sizes: SM, M, OS, XOS, XXOS.

OR:

Trouser suits - "Jaylon" make, consisting of:

Jacket - 3/4 length, waterproof, PVC coated, yellow, raglan sleeve, storm front with press studs fastening, studded vents under arms, no pockets. Sizes: SM, M, OS, XOS, XXOS,

and

Trousers - waterproof, PVC coated, yellow, elastic waist, ankle length, finished bottoms. Sizes: SM, M, OS, XOS, XXOS.

Jacket and trousers can be in different sizes if required.

RUBBER SAFETY BOOTS

Knee boots, "Bata" make, supplied by Protector, PVC and rubber injection moulded, cleated sole and heel, height of leg 40cm, with steel toe caps. Sizes 6 to 12. No half sizes. Item No. 5.

WOMENS' FOOTWEAR AND CLOTHING

FOOTWEAR

1. Brown leather derby shoe with corded vamp. Polyurethane unit soles. Full and half fractional sizes 4 to 10. Cat. No. 799056.
2. Tobacco sueded leather derby shoe. Polyurethane unit soles. Full and half fractional sizes 4 to 10. Cat. No. 799252.
3. Brown sueded leather 3D ring high leg boot. Polyurethane unit soles. Full and half fractional sizes 4 to 10. Cat. No. 799259.

BLOUSES AND SKIRTS

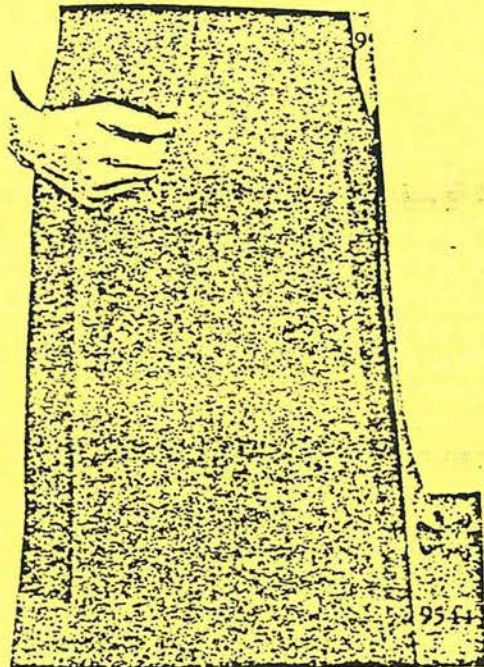
1. Blouse, short sleeved, polyester cotton, pale blue, sizes 8 to 16, style 9556. Price \$29.95.
2. Skirt, gaberdine, navy, sizes 8 to 16 style 9544. Price \$26.95.
- OR
3. Skirt (culotte), navy, sizes 8 to 16, style 4740. Price \$32.45.

Stock size chart

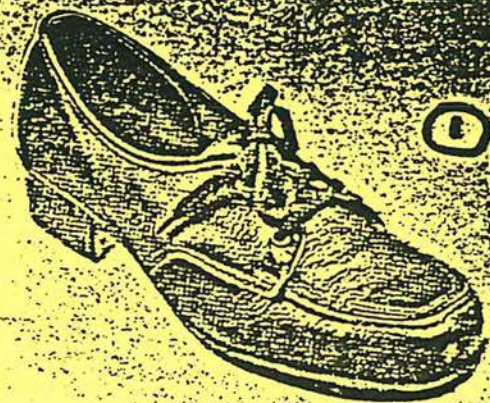
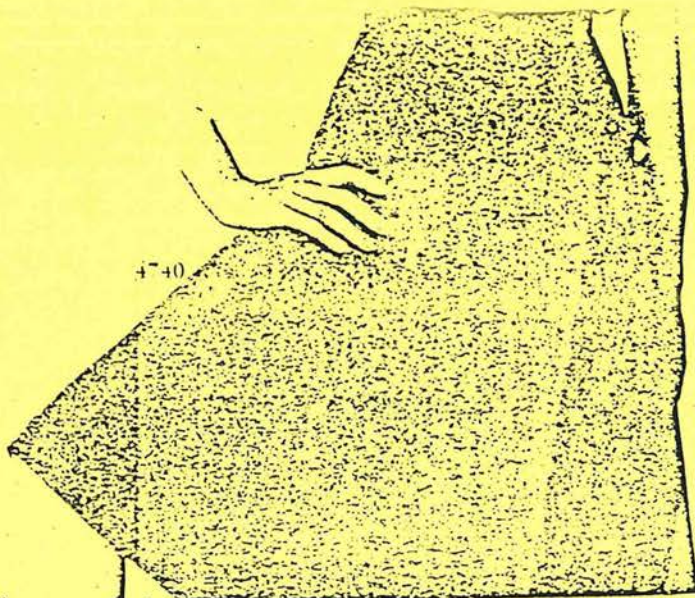
Size	8	10	12	14	16	18	20	
Chest/Bust	30	32	34	36	38	40	42	inches
	75	81	86	91	97	102	107	centimetres

① *

9556

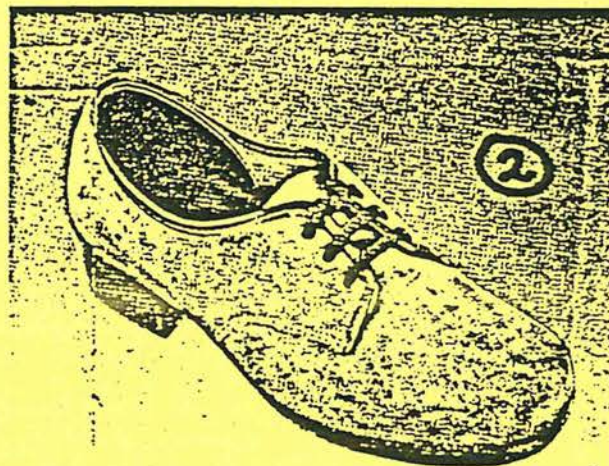


4-40



7 9 9056

Brown soft leather womens derby shoe with corded vamp. Steel Caps. Polyurethane unit soles. Full and half fractional sizes. 4 to 10



7 9 9252

Tobacco sueded leather women derby shoe. Steel Caps. Polyurethane unit soles. Full and half fractional sizes. 4 to 10



7 9 9259

Brown sueded leather, 3 D Ring detail Womens boot. Steel Caps. Polyurethane unit soles. Full and half fractional sizes. 4 to 10

CIRCULAR NO. 10/73.
FORESTS DEPARTMENT
54 BARRACK STREET
PERTH W.A. 6000

Ref: 76/73 AK:BM

May 16, 1979

FORESTS DEPARTMENT

ATTACHMENT 5

SAFETY HELMETS

In order to determine the useful life of safety helmets, arrangements were made with the W.A. Institute of Technology to carry out a series of tests on safety helmets that had been worn by Forests Department personnel for 5 to 9 years.

The objective of the test was to determine whether there is a relationship in the ability of the helmets to withstand stress and penetration and the age of the helmets. The tests, which were carried out in accordance with the provisions of Australian Standards 1801-1975, have indicated that safety helmets that have been worn more or less full time retain their protective quality up to and including 5 years of outdoor use.

In the light of this result the following rules will apply in future:

1. All safety helmets that have been constantly worn for five years (or the estimated equivalent to it) or more must be replaced.
2. All new helmets issued must be indelibly marked with the date of issue to the wearer.
3. All helmets kept in store must be kept out of light.
4. All helmets that have been condemned because of age must be physically destroyed in order to prevent re-issue or accidental use.

5. Care and maintenance of Safety Helmets:

5.1 Cleaning: It is recommended that safety helmets be cleaned regularly. Warm water and soap or household detergent is adequate. Solvents, very hot water or harsh abrasives are not to be used. Solvents can be absorbed in plastics components and reduce their strength.

5.2 Periodic Inspection: All components, shells and harnesses, headbands and accessories must be visually inspected on a regular basis for signs of dents, cracks, penetration or other damage due to impact, rough treatment or unauthorised alterations which may reduce the degree of safety originally provided. Any helmet which requires replacement either wholly or because of any damaged, worn or defective part must be immediately withdrawn from service.

Shells with splitting or cracking of the material must be discarded. Excessive fading of the shell colour or weathering of the surface may indicate a loss of

5.3 Re-issue of Safety Helmets: No safety helmet must be re-issued unless the helmet has been thoroughly cleaned and any damaged, worn or defective part renewed. When a helmet is being re-issued to a different person a new sweatband must be fitted.

Harnesses from one design and make must not be interchanged with any other design or make of helmet.

5.4 Sunlight is the main factor contribution towards deterioration of helmets, and it is important that helmets carried in vehicles be kept away from direct sunlight, i.e. window ledges.

5.5 Oil base paints are not to be used for demarcation of rank. Either water base paints or coloured adhesive strips must be used for this purpose.

6. Please arrange to bring the contents of this circular to the notice of all personnel in your section and for discussion at Safety Committee meetings.

B. J. Beggs

CONSERVATOR OF FORESTS

CSA

DISTRIBUTION:

LIST "A"

*Rev 3/5 - East office to
copy*

Photocopies for

*Bob Jones - please implement
o/s P. Radomski*

o/s A. Miles

o/s J. Marshall

o/s R. Maxwell

*please
discuss
with gang*

*W
1/6*

T

FORESTS DEPARTMENT
54 BARRACK STREET
PERTH W.A. 6000

Ref: 480/72 AK:sh
Mr. Kesners

February 10 1981

FORESTS DEPARTMENT

SUBSIDY TO WEARERS OF SAFETY PRESCRIPTION SPECTACLES

Circular No. 12/79 is hereby cancelled and now is reissued as follows:

1. All Forests Department personnel (Public Service, Forests Field Staff and wages employees) who are required to wear safety prescription spectacles during working hours, will, as an accident prevention measure, be paid the full cost of having their optical glasses hardened.
2. This applies to the treatment of existing optical glasses as well as the purchase of a new set of glasses. In the latter case, the optometrist will be required to itemise his account showing the cost of hardening separately from the cost of the spectacles and eye testing.
3. Subsidy is subject to a certification by an optometrist that the standard of hardening complies with the Australian Standard for Industrial Eye Protection, AS 1337-1974.
4. Approval for payment of the subsidy shall only be made after sighted evidence of purchase by the Officer in Charge of the Division or Specialist sections, Regional Leader (Safety) for regional staff and the Secretary for Head Office staff.
5. Payment to be made locally using a form 10 and charged to Item 00-17-542-01E (Safety equipment employees subsidy). Copy of the form 10 to be forwarded to the Safety Officer, Head Office.
6. A record of payments is to be maintained locally to control frequency of purchases by individuals.
7. // The Safety Officer at Head Office has a list of opticians in Perth who have promised to give discounted service to Forests Department personnel and is available by request.

Does this mean it can only be done in Perth?

8. // Please inform all personnel under your control of this change and arrange to have it brought to the notice of all local safety committees. //

P.I.L. to fix, please

B. J. Beggs
CONSERVATOR OF FORESTS

BMB
21/2.

DISTRIBUTION:

LIST "A"

gas
22/2

First Issued: June 19 1979
Amended: February 9 1981

All Staff to Sec

BMB
21/2

pl

AB *by 2/2*

JB 23/2

HAZARD REPORT

TO O.I.C.

Date

..... Division/Branch

The following hazard has been noted and a request is made to have it corrected:

Location:

Hazard:

.....

.....

Signed by

Received by O.I.C. on (date)

Comment by O.I.C. regarding proposed corrective action:

.....

.....

.....

Signed (O.I.C)

This form returned to person making this report on (date)

Copy to: (Officer responsible for
(Rank) (Name) corrective action)

Please take action as follows:

.....

Signed (O.I.C)

To O.I.C.

Action completed as follows

.....

Signed Date

BRING UP ON (date)

O.I.C.

CHECKLIST FOR ACCIDENT INVESTIGATION SYSTEMS APPROACH

1. Who should be involved in the investigation.
2. Date and time of accident.
3. Weather conditions.
4. Work method employed.
5. Adequacy of training given and testing of training effectiveness.
6. Adequacy of job instruction ("prescribing the task, reach agreement about the result and monitor of progress").
7. Personal factors (e.g. pressure, distraction, fatigue etc.)
8. Environment.
9. Safety equipment (was it supplied, being used, suitable for the hazard?)
10. History of similar accidents.
11. History of injured worker.
12. Management of injured worker.
13. Proposals for (or summary of) remedial action taken.
14. Deadline and bring-up for follow up of remedial action.

Forests Department,
50 Hayman Road,
COMO. W.A. 6152

Ref: 372/83 DEG:EW
Mr. Grace

31st October 1983

ACCIDENTS/INCIDENTS LIKELY TO INVOLVE LEGAL ACTION AGAINST/
BY THIRD PARTIES

Staff and employees are not to make statements which can be construed as an admission of or inferring negligence or malpractice regarding incidents or accidents involving third parties.

In particular, they must not :

- discuss circumstances of a fire or accident with the plaintiff or any other member of the public;
- surmise, or in any way indicate to the plaintiff or other member of the public, that procedures or precautions were not fully observed. These judgements remain the prerogative of the Conservator and the State Government Insurance Office.

Negligence or malpractice is unlikely to be demonstrated if accepted practices (such as those set out in the Foresters Manual on Fire Control) have been implemented in a reasonable and responsible manner.

In the event of accidents/incidents concerning fire control, the procedures to be followed are as set out in the Foresters Manual 9.012* and in accordance with the principles set out below.

For other accidents/incidents, the following principles are to be recognised, understood and practiced.

The DO principles :

- DO recognise accidents/events which could lead to claims against this Department.
- DO carry out an investigation promptly.
- DO state the facts.

* Being Revised.

2.

- DO describe the scene and the truth as you perceive them to be and not as reported to you by the third party.

Support your evidence with relevant maps showing what took place. Add details and those indications which lead to clarification of what did or might have happened.

- DO use photographs to support meaningful evidence wherever possible.
- DO obtain statements from the people at the scene.
- DO state action or evidence which reveals the extent of recognised practices undertaken by the Department.
- DO record the differences between the scene and facts at the time of the accident/event and when the scene is re-assessed for report purposes.

DO NOT principles :

- DO NOT admit or infer liability to anyone.
- DO NOT make statements on liability.
- DO NOT talk about liability.
- DO NOT placate initially (the "Oh! I am sure the Department will fix it up" comment)
- DO NOT accept medical or other accounts in respect to the event.
- DO NOT forward medical or other accounts to the SGIO in respect to the event.

Events which lead to a claim against the Department should be dealt with quickly at all levels to avoid protracted delays which can create bad feelings and sometimes a loss of opportunity in clarifying essential evidence.

TIME REQUIREMENTS

To minimise time losses in dealing with accidents or events likely to lead to claims, the following procedures are to be followed :

(A) Serious Situations

- A.1 Immediate verbal advice to Region, to appropriate COD, to Conservator, to SGIO within 5-10 minutes (SGIO has branches in Bunbury, Albany and Karratha.)

3.

A.2 Immediate investigation by Divisional and Regional staff. (Interim written report to be at Chief level, 0-2 days.)

A.3 Detailed written report at Chief level, 0-5 days.

A.4 Detailed written report to SGIO, 0-7 days.

In all instances, the most experienced and senior officer is to conduct the investigation on site and to prepare the written report. When considered necessary, the SGIO will send out an assessor forthwith to examine the situation.

(B) Other Situations - as for 'A' but times extended.

A.1 1 day
A.2 0-5 days
A.3 0-10 days
A.4 0-15 days.

P. J. Mc Namara
ACTING CONSERVATOR OF FORESTS
m. J. J.

FORESTS DEPARTMENT
R & I BANK BUILDING
54 BARRACK STREET
PERTH WA 6000

Ref: 350/44 BEB:sh
Mr. Brody

July 28 1980

FOREST ASSISTANT GRADE 1 001
MR W.D. ARMSTRONG
FORESTS DEPARTMENT
DWELLINGUP

LOSS OR DAMAGE TO CLOTHING OR PERSONAL EFFECTS

I set out below for your information details of Treasury Circular No. 747:

Circular 461, issued in July 1947, refers to the question of claims received by the Treasury from officers who have suffered loss or damage to their personal belongings while in the course of duty.

2. Although current Treasury Circulars were reissued in a bound form in December 1979, it would appear that there is some lack of knowledge of the existence of Circular 461 and also inconsistency in its interpretation and application in departments.
3. Accordingly, the following is provided for the information of officers generally and as a guide to departments in their assessment of claims received..
4. Payment for the loss or damage to clothing or personal effects will only be considered if the loss or damage has occurred:
 - (a) in the course of an officer's official duties, and
 - (b) as a result of some defect or fault on the part of the Government.
5. Officers who leave their personal belongings on government premises do so at their own risk. A claim for loss or damage in these circumstances will not be considered.
6. Departments, in forwarding claims to Treasury should give consideration to:
 - (a) Any contributing negligence on the part of the claimant.
 - (b) The purchase price and current value of the article.
 - (c) The cost of the repairs to the article.
 - (d) Whether the claimant could reasonably have been expected to insure against the loss or damage in the circumstances in which the loss or damage occurred.

Officers in Charge of Divisional District Regional and Specialist Section Offices are to ensure that this circular letter is sighted and initialled by all officers, irrespective of rank.

B. J. Beggo

CONSERVATOR OF FORESTS

B.B.

DISTRIBUTION:

List "N"

FORESTS DEPARTMENT,
50 HAYMAN ROAD,
COMO, W.A. 6152

REF: 194/80 IJF:DH
MR. FRAME

October 25, 1982

FORESTS DEPARTMENT
MANAGEMENT OFFICE

1

STAFF UNIFORMS

Further to Circular 17/80 the procedure to be adopted when ordering staff uniforms has been amended slightly to allow better accounting controls to be implemented.

The new procedure is as follows:-

1. When placing the order a deposit of 50% is to be paid. A receipt for this deposit will be issued and endorsed "staff uniforms - deposit".
2. When the requisition is forwarded to Stores Branch, it must contain details of the deposit including the amount and receipt number.
3. No uniform will be issued by Stores Branch to either S.H.Q. or Divisional Personnel without the information relating to the deposit being supplied with the requisition.
4. When advice is received from Government Stores as to the final cost the Accounts Branch will issue an invoice which should be paid within 30 days.

For your information approximate costs as at September 1 1982 are:-

Trousers	\$19.30				
Shirts - Long Sleeve	\$12.10		Short Sleeve	\$11.15	
Belts	\$ 4.95				
Ties	\$ 4.50				
Short Trousers	\$15.65				
Walk Socks	\$ 1.15				
Jackets Mens	\$17.90	Large	\$19.90	Extra Large	\$21.90

B. J. Beggs
CONSERVATOR OF FORESTS

DISTRIBUTION:

LIST B.

ACTION	NOTE
BRING UP	

27 OCT 1992

FORESTS DEPARTMENT
54 BARRACK STREET
PERTH WA 6000

Ref: 194/80 AK:sh
Mr. Kesners

REGIONAL LEADER SOUTHERN
RESEARCH
FORESTS DEPARTMENT
MANJIMUP

001

August 15 1980

*P. Skinner
Please get orders
from everyone and
send for them.
P.S.*

UNIFORMS FOR FORESTS DEPARTMENT STAFF

In recognition of the Department's increasing contact with the general public, and to assist in law enforcement activities, it has been decided to introduce uniforms for Forests Department officers for wearing on a voluntary basis.

The introduction will be carried out in two stages. Initially, long sleeved uniform shirts and trousers with matching belts and ties will be available for all male staff who wish to wear them. At a later stage, additional items will be made available, i.e. jackets, cardigans, short sleeve shirts and short trousers with matching socks as well as uniforms for female staff.

The colour scheme will be light beige shirts and dark brown trousers.

All uniform items will be obtained through the Government Stores Department and the cost will be recouped from officers placing orders. It is expected that this will result in a considerable saving to officers as the purchase price of the garments will be approximately 40% to 50% below the retail price. There will be no limit on the number of outfits that can be purchased by each officer.

*P.S. give
this job
to someone
else to
do, perhaps
B. Wood?
15/9
Already consulting*

The following conditions will apply in regard to the ordering of uniforms:

1. Each Division is to prepare the total initial order for male staff working in the Division, including all specialist staff, i.e. I & P, Research and other technical staff, and forward a covering requisition in the usual manner to Stores Branch, Como by October 1 1980. The fund and item number to be shown on the requisition will be 16-37-230-01.
2. This order is to show the quantities for each size. A list is to be attached to the requisition showing the names of the officers ordering and the quantity for each officer. A metric size chart also giving the imperial equivalents for shirts, trousers and belts is attached hereto. It will be important for each officer to ascertain his correct sizes before placing the order because exchanges will not be possible.

3. Depending on the current market price, the actual cost of the uniform items may vary from time to time. At present the approximate cost would be:

Trousers	\$14.20
Shirts	8.60
Belts	4.00
Ties	3.70

4. When placing the order, the officer will lodge a \$15.00 deposit for each complete uniform outfit, or \$8 for a pair of trousers and \$5 for a shirt. A receipt will be issued and endorsed "staff uniforms, deposit".
5. On receipt of the uniform the balance will be collected and receipted, and marked "staff uniforms, final payment".
6. A sleeve to slip on to the shoulder epaulette of the shirt will be supplied free of charge to each officer purchasing uniforms. This will be worn on the left shoulder. It can be removed when the shirt is laundered.
7. The initial order may take several months to be supplied. Subsequent orders will be summarised and placed three times each year, to reach Stores Branch on:

February 1
June 1
October 1

It is expected that the subsequent orders will take only a matter of weeks to be supplied.

8. Uniforms will not be supplied to:

8.1 Public Service Act staff other than professional forest and research officers.

8.2 Forest Field Cadets until their appointment as Forest Guards.

P. J. Mc Namara
ACTING CONSERVATOR OF FORESTS

DISTRIBUTION:

As per List "B"

METRIC SIZE CHART GIVING IMPERIAL EQUIVALENTS

TROUSERS REGULAR = R

Size	70	75	80	85	90	95	100	105	110
Waist Cm	71	76	81	86	91	96	101	106	111
Waist Inches	28	30	32	34	36	38	40	42	44
Inside Leg Cm	73	76	78	81	82	83	83	83	83
Inside Leg In.	29	30	31	32	32½	33	33	33	33
Old Size	2	3	4	5	6	7	8	9	10

TROUSERS STOUT = ST

Size	85	90	95	100	105	110	115	120	125	130
Waist Cm	86	91	96	101	106	111	116	121	127	132
Waist Inches	34	36	38	40	42	44	46	48	50	52
Inside Leg Cm	72	72	73	76	78	78	81	81	81	81
Inside Leg In.	28½	28½	29	30	31	31	32	32	32	32
Old Size	3¼	4¼	5¼	6¼	7¼	8¼	9¼	10¼	11¼	12¼

TROUSERS LONG = L

Size	73	78	83	88	93
Waist Cm	73	78	83	88	94
Waist Inches	29	31	33	35	37
Inside Leg Cm	78	80	82	85	87
Inside Leg In.	31	31½	32½	33½	34½
Old Size	3½	4½	5½	6½	7½

SHIRTS

Size	36	39	41	44	46	49
Old Size	SM	M	OS	XOS	XXOS	XXXOS
	14-14½	15-15½	16-16½	17-17½	18-18½	19-19½

BELTS

Size:

Cm	76	81	86	91	96	101	106	111
Inches	30	32	34	36	38	40	42	44

19. PROVISIONS OF UNIFORMS

All permanent officers covered by this Agreement who so desire shall be issued with a uniform approved by the Conservator.

- (a) Upon receiving the officers written application for the following uniform issue, the Conservator shall supply the officer with the following items at the rate of one set per annum.

1 pair long or short trousers or skirt
1 long or short sleeve shirt
1 belt
1 tie
1 pair walk socks if short trousers are elected.

Provided that at the time of this issue the officer shall purchase at his own expense one (or more) similar set(s) of clothing through the Departmental store. Such purchase will be at cost price to the Forests Department.

- (b) Within any twelve month period an officer may have any part of the uniform replaced free of charge where proven accidental damage while at work has rendered the article unserviceable.
- (c) A uniform, or parts of a uniform, will not be replaced within the twelve monthly period for normal fair wear and tear.
- (d) Should the officer terminate his employment, or his services are terminated by the Conservator because of misconduct or unsatisfactory service, within six months of the date employment commences, the pro-rata cost of that issue of uniform may be deducted from any payment due to the officer at the day of termination.

20. STATUS

An officer covered by this Agreement shall not lose status except for incompetence, inefficiency or misdemeanour.

21. MAINTENANCE OF SALARIES

Nothing in this Agreement shall lower the rate of salary any officer was in receipt of at the coming into force of this Agreement.

22. COPIES OF AGREEMENT

Every officer shall be entitled to have access to a copy of this Agreement. Sufficient copies shall be available in each out-station for this purpose.

30th August, 1972.

9/10

OFFICER IN CHARGE

FORESTS DEPARTMENT

MANJIMUP

ATTACHMENT 13

STANDARDS OF CLEANLINESS AND
MAINTENANCE OF MOTOR VEHICLES.

With the impending move by State Tender Board to purchase motor vehicles under contract and this Department's desire to follow this method of purchase especially for passenger vehicles and light commercials, it is essential that the level of vehicle cleanliness is raised throughout. Under this proposed agreement, vehicles at trade in time must be in a clean undamaged, tidy condition. In addition it is desired to greatly improve driver attitudes to vehicle cleanliness and maintenance and particularly those involved in supervision.

The Department's record of safety in vehicle operations is far from satisfactory and it is intended that this greater attention to the cleanliness of vehicles brings about a greater safety awareness in vehicles.

The following standards are henceforth to be observed :-

1. External surfaces of cabs and bodies to be washed down at reasonable intervals, to maintain fair appearance, and chassis and engine compartments to be steam cleaned where deemed necessary.
2. Interior of cabs to be regularly brushed out, and cushions, interior trim, facias etc., to be cleaned using damp cloth etc.
3. No dogs, other items of livestock, or any obnoxious materials are to be carried in the cabs or other personnel seating space of any vehicle.
4. No guns, rifles, ammunition, explosives etc. to be carried in any vehicles without Head Office approval.
5. Rear trays of Utility type vehicles are to be kept free of litter, other waste, or unnecessary equipment, and where such vehicles were originally fitted with tonneau covers, these covers are to be maintained in waterproof condition and fitted at all possible times.
6. The only occasions during which tonneau covers may be wholly or partly removed, are during the carriage of goods which render it impossible to attach the cover. The other exception being the required removal of combustible covers during attendance at fire operations.

Departmental decals are to be attached in the proper manner and in the appropriate positions on the doors and maintained in good appearance.

8. External attachments in the form of water bag carriers, protective bars, trailer tow hitches etc., are to be fitted only following general Head Office approval through the local Divisional office, and must be constructed to a satisfactory standard of design by workshop tradesmen, under supervision by Plant Inspector.
9. All superficial damage to vehicles is to be reported by driver or officer to the District or Divisional office at the end of each day.
10. The officers in immediate control of vehicles are to inspect the untis regularly and identify cause of damage, and the driver responsible.
11. All incidents (without exception) of driver neglect or damage with regard to these instructions are to be reported by Plant Inspectors on Forms F.D. 454.


CONSERVATOR OF FORESTS

JBC:BF

DISTRIBUTION:

List B

Copy filed on file 13/11

PM 5/9

16/10

TITLE OF INVESTIGATION: _____

BACKGROUND: _____

AIM: (STATE PRECISELY THE QUESTIONS YOU WISH TO ANSWER) _____

ORIGINATING OFFICE/ORGANISATION: _____

OFFICER IN CHARGE OF INVESTIGATION: _____

ASSOCIATED OFFICERS: _____

ASSOCIATED INSTITUTIONS: _____

LOCATION (DESCRIBE LOCATION, TOPOGRAPHY, SOIL AND OTHER DETAILS, ATTACH MAP IF NECESSARY AND SHOW PLOT BOUNDARIES ON H.O.C.S/P.O.C.S. SHEET): _____

PROPOSED FIELD LAYOUT (ATTACH A SKETCH SHOWING DIMENSIONS, BUFFERS, RANDOMISATION, REPLICATION AND CONTROLS): _____

EXPERIMENTAL DESIGN (LIST VARIABLES TO BE COUNTED OR MEASURED AND OUTLINE THE INTENDED STATISTICAL TECHNIQUE): _____

12

EXPECTED DURATION OF STUDY:

13

INITIAL ACTION (DESCRIBE TREATMENTS NECESSARY TO ESTABLISH THE STUDY):

14

SUBSEQUENT ACTION (DESCRIBE PRESCRIPTIONS TO OPERATE FOR STUDY LIFE):

15

REMEASUREMENT DATES:

16

PROPOSED DATES FOR: INITIAL REPORT _____ PROGRESS REPORT _____
FINAL REPORT _____

17

COMO FILE NUMBER

LOCAL OFFICE FILE NUMBER

18

RESEARCH LOCAL OFFICE O.I.C. ENDORSEMENT:

19

DIVISIONAL O.I.C. ENDORSEMENT: (COMMENT ON SECURITY AND PRACTICALITY OF STUDY AREA)

20

STATISTICIAN ENDORSEMENT:

21

RESEARCH INSPECTOR ENDORSEMENT:

22

RESEARCH SUPERINTENDENT APPROVAL:

23

NAME OFFICER SUBMITTING

DATE

JOB TITLE:

JOB NUMBER:

FUNDS AVAILABLE:

M

W

P

LOCATION:

OFFICER RESPONSIBLE:

LABOUR REQUIRED:

PLANT REQUIRED:

MATERIALS REQUIRED:

WORK COMMENCE BY:

WORK COMPLETE BY:

DIVISION ADVISED DATE:

DIVISIONAL CONTACT OFFICER:

REASON FOR DOING JOB:

DESCRIPTION OF JOB AND HOW TO DO IT:

SAFETY REQUIREMENTS AND EQUIPMENT:

DIEBACK HYGIENE PERMIT REQUIRED:

OFFICER PRESCRIBING:

DATE:

PRESCRIPTION APPROVED O.I.C.:

A JOB PRESCRIPTION MUST BE COMPLETED FOR ALL JOBS INVOLVING THE USE OF POISONS AND EQUIPMENT SUCH AS CHAINSAWS, BRUSHCUTTERS ETC. OTHER JOBS AT THE DISCRETION OF THE SECTIONAL O.I.C.

TELEPHONE EXTENSIONS AS AT JANUARY 1984

ATTACHMENT 16

OFFICE HOURS: 711 988

DIVISIONAL OFFICE

Switchboard (Veronica Della Franca) 9
 Beer (Brian) 206
 Bennett (Jeff) 207
 Brealey (John) 225
 Cicchini (Carl) 204
 Colyer (Frank) 202
 Commins (Brad) 209
 Gardner (Graeme) 209
 Grasso (Steve) 302
 Herington (Humph) 303
 Hordacre (Alan) 238
 Liddelow (Paul) 232
 Maher (Terry) 223
 Mair (Greg) 210
 Moss (Brian) 209
 Muir (Christine) 228
 Muller (Chris) 231
 Peos (John) 226
 Scott (Alan) 203
 Sercombe (Nigel) 207
 Simmonds (Fred) 235
 Simpson (Greg) 206
 Wilson (Don) 205
 Winfield (Harry) 208

 Deadman (Marty) 266
 Pedretti (Peter) 301

 Jackson (Darryl) 269
 Martin (John) 269

 Conference Room 234
 Computer Room 237
 Plan Room 222
 Radio Room (Voca) 254
 (Direct Line) 711 367

STORE 259

WORKSHOP
 Betti (Mario) 264
 Lawson (Matt) 291
 Trevorrow (Ron) 291

INVENTORY & PLANNING OFFICE

Allen (Kim) 218
 Armstrong (Roger) 284
 Austin (Ruth) 282
 Blankendaal (Peter) 287
 Blechynden (Danny) 285
 Hall (Jeff) 236
 Hooper (Colin) 281
 Meinema (Mike) 281
 Phillips-Jones (Kim) 290
 Ridley (Jamie) 287
 Stirling (Peter) 279
 Webb (John) 236
 Wilson (Don) 261

 Terminal Room 280

RESEARCH OFFICE
 Annels (Tony) 298
 Armstrong (Bill) 292
 Bartuccio (Liz) 289
 Breidahl (Richard) 293
 Burrows (Neil) 294
 Burrows (Rae) 297
 Christensen (Per) 288
 Cully (Mike) 298
 Haylock (Kevin) 292
 Leftwich (Tom) 224
 Liddelow (Graeme) 296
 Low (Keith) 230
 Maisey (Karan) 297
 Neil (John) 224
 O'Connor (Julie) 289
 Robinson (Alex) 295
 Serventy (John) 298
 Skinner (Peter) 239
 Smith (Bob) 230
 Strelein (Greg) 239
 Styles (Fiona) 286

RESEARCH CONT....

Vellios (Chris) 296
 Voutier (Bob) 211
 Walsh (Peter) 295
 Ward (Bruce) 295
 Ward (Colin) 298
 Wardell Johnson (Grant) 211

SHANNON GROUP
 Comber (Tim) 262
 Llewellyn (Paul) 262
 Rule (Jason) 262
 Ward (Diane) 262

REGIONAL OFFICE
 Bradshaw (Jack) 269
 Buchanan (Bill) 214
 Heberle (Greg) 219
 Jones (Paul) 217
 Keene (Don) 213
 Lush (Alan) 212
 Pessotto (Caterina) 220
 Walker (Alan) 216

HOUSES
 Armstrong (R) 271
 Beer (B) 265
 Benson (C) 260
 Bradshaw (J) 243
 Breidahl (R) 251
 Burrows (N) 246
 Cicchini (C) 272
 Colyer (F) 253
 Commins (B) 257
 Gardner (G) 278
 Heberle (G) 247
 Hordacre (A) 252
 Jones (P) 242
 Keene (D) 244
 Liddelow (P) 273
 Low (K) 221
 Lush (A) 240

HOUSES CONT....

Maher (T) _____
 Mair () _____
 Marshall (I) _____
 Martin (J) _____
 Maxwell (A) _____
 Moss () _____
 Muller (C) _____
 Pollar (A) _____
 Radomijac (P) _____
 Ridley (J) _____
 Scott (A) _____
 Simpson (G) _____
 Stirling (P) _____
 Strelein (G) _____
 Trevorrow (R) _____
 Walker (A) _____
 Wilson (D) _____
 Winfield (H) _____

AFTER HOURS
 Beer _____ 711 1
 Bradshaw _____ 711 0
 Deadman _____ 711 10
 Jones _____ 711 6
 Keene _____ 711 4
 Lush _____ 711 7
 Maher _____ 711 3
 Heberle _____ 711 25
 Muller _____ 711 76
 Walker _____ 711 87
 Wilson _____ 711 98
 Line 17 _____ 711 30
 Spare _____ 711 36

SINGLE MENS QUARTERS 245
CADET SCHOOL 721 30
NURSERY 721 20

TO ALL RESEARCH STAFF

Your co-operation is once again sought in improving the security of this office and associated work buildings. It is still a frequent occurrence to find the office back door left open on weekends and on occasions the potting shed and vehicle bays also wide open.

Associated with this is a continuous loss of tools, equipment and supplies such as plastic cups and even rolls of toilet paper. It is disturbing to be losing such items especially when you consider the amount of very valuable equipment in our offices and buildings.

Each of us has a responsibility in this regard and I therefore request that in future the following security precautions be observed by all.

1. Ensure that the office is locked each day after work. If you come back late and/or at weekends ensure that the doors are kept locked.
2. Lights and heaters to be switched off at end of work daily.
3. Those using the drying room ensure that it also is locked after hours.
4. If you use the potting shed/shade house - lock it after you.
5. Put tools back in workbench and lock, after use.
6. Lock vehicle bay when you take out your vehicle and when you return it.
7. Lock your vehicle when it is parked in the bays or yard.
8. Minimise the amount of equipment left in vehicles parked after hours.
9. In accordance with H.O. letter 12 Dec. (copy on noticeboard) F.D. vehicles may only be taken home when they are required for an early start (i.e. before 0800) or on the occasion of a late return from the field.
10. Return vehicle keys to the office when vehicles parked in yard or bays.

11. Record all equipment/materials taken from stores in the book in the Fire Store. This includes items taken from the room in the Divisional Store.

12. Report immediately any loss of materials/equipment.

N. Burrows
20/12/83

INFORMATION SHEET

REVISED 1975



JARRAH DIEBACK A threat to W.A.'s unique jarrah forest

Dr. S. R. SHEA

Its rugged, resilient appearance and apparent never-ending capacity to supply timber has perhaps caused many Western Australians to be complacent about the jarrah forest. This forest, however, is now being attacked by a microscopic soil-borne fungus which has the potential to destroy it.

Phytophthora cinnamomi the organism which causes jarrah dieback, can kill not only jarrah trees but the majority of species which grow in the forest. It is this almost total destruction that has led many plant pathologists throughout the world to recognise jarrah dieback as the worst plant disease ever recorded.

There is much evidence to suggest that the jarrah forest is one of the world's most unique forest eco-systems. Jarrah trees may attain a height of 56 metres and in some virgin forest areas, on one hectare, there is enough merchantable timber to provide wood for 29 average suburban homes or enough railway sleepers to build 2 kilometres of railway line.

Jarrah, however, is only one component of the eco-system. Within an area smaller than the size of most suburban gardens it is not unusual to find over 40 different plant species from the delicate spider orchid to the bizarre blackboy. The forest provides a habitat for a variety of animals—many of which are unique to Western Australia—and in preliminary surveys near Dwellingup over 40 species of birds have been recorded (see *Forest Focus* No. 7).

The productivity and diversity of the forest is all the more remarkable because it occurs in a very harsh environment. The laterite soils on which jarrah grows are infertile, and dense, cemented sheet cap rock often occurs a few centimetres below the soil surface. These harsh soil conditions are not compensated by a favourable climate. Desert-like conditions prevail from December through to March. Fire is a natural factor of the environment with which the vegetation must contend, and the frequency and intensity at which it occurs would destroy many other types of forest. The jarrah forest is adapted to withstand severe fire and in fact some species, including jarrah, are stimulated by fire.

To survive and attain high productivity many of the components of the forest have evolved peculiar adaptations. Jarrah trees have adapted to the harsh, dry conditions by evolving a remarkable root system which penetrates the cap rock layer and extends often more than 15 metres to tap the water table deep in the soil profile. Banksia trees cope with the infertile soil by developing a special root to trap nutrients which are normally unavailable to plants.

The forest abounds with structures which have been developed to cope with fire. For example, jarrah trees commence their life in the form of a shrub which sprouts

from a bulb-like fire-resistant structure called a lignotuber.

All these adaptations are evidence that the jarrah forest is a specialised and finely balanced eco-system. Unfortunately, its unique character, which results from its adaptation to this harsh environment, has made it extremely vulnerable to a new factor of the environment—*Phytophthora cinnamomi*.

The Disease

The first evidence of jarrah dieback is the death of members of the understory and shrub layer. Bull banksia (*Banksia grandis*) is one of the first trees to succumb. The leaves of banksia which have been killed by the fungus turn yellow, contrasting markedly with the dark green forest vegetation. Deaths occur predominantly in autumn and to a lesser degree in late spring. Many other shrub and tree species such as zamia palm and blackboy are killed by the disease. In some diseased areas, however, susceptible species may persist for long periods after the fungus has been introduced.

Jarrah trees may not show disease symptoms for some months or even years after understory symptoms have been observed. The first symptom in jarrah is crown thinning. The trees "die back" from the branch tips, although death of branches is merely an indication of a damaged root system and does not indicate that the pathogen is present in the above ground part of the tree.

Some tree and shrub species are resistant to the disease. For example, marri, blackbutt and bullich have demonstrated their capacity to survive in diseased areas for many years and in some diseased areas marri has formed a woodland-type forest with a scattered shrub layer composed of resistant species. However, introduction of the fungus to a jarrah forest area will, on most sites, eventually result in the irreversible destruction of all but a few resistant species in that area.

In the latter stages of disease development jarrah dieback is easily recognised, but in the initial stages identification of infected areas may be difficult. Poor jarrah crowns or a single mortality in the shrub understory do not necessarily indicate that the fungus is present. However, patch dying in the understory layer particularly if banksias, zamia palms or blackboys are affected, usually indicates its presence.

The disease is not restricted to jarrah forest occurring on the Darling Ranges nor to the jarrah vegetation type. Poorer quality jarrah growing on the coastal plain is highly susceptible. Karri and wandoo forests, and the vegetation growing on the coastal limestones appear resistant. But banksia woodlands, a major vegetation type on the coastal plain, are highly susceptible to the

if the amount of wood cut each year is equal to that produced by the forest. As the area of forest affected by dieback increases and more forest becomes unproductive the size of this "allowable cut" will become less, forcing many mills to reduce in size, or even close down.

Conservation

The effect of jarrah dieback on forest flora and fauna has not been widely appreciated. Many trees and shrubs of the forest which are renowned for their beautiful flowers are affected. Susceptible plants include species of *Banksia*, *Persoonia*, *Adenanthos*, *Podocarpus*, *Leucopogon*, *Dryandra*, *Xanthorrhoea* and *Casuarina*. Certain vegetation types, particularly those occurring in lowland areas such as the *Banksia littoralis* dominant understory type, are in danger of extinction. The loss of individual plant species extends beyond that species because in an eco-system, living organisms are dependant on one another. For example, Forest Research Officer Per Christensen (*Forest Focus* No. 10) has documented the role of *Banksias*, one of the trees most susceptible to *P. cinnamomi*, in providing food and shelter for many of the small animals and birds inhabiting the forest.

"For example, the red wattle bird, the little wattle bird, the yellow-winged or new holland honeyeater, together with the closely allied white-cheeked honeyeater, the western spinebill, the tawny-crowned honeyeater, the white-naped honeyeater, and the brown honeyeater are some of the honeyeaters commonly associated with banksia flowers, particularly on the south coast. Other birds, such as the silvereye and the black cockatoos, also feed on the nectar of the banksia flowers. The latter also frequents the banksia belts at a later date when the seed ripens. Birds come not only to seek nectar but also for the numerous wasps, moths, butterflies, beetles and ants attracted to the flowers. At night boobook owls and bats feast on moths attracted to the nectar. At this time another small creature, the tiny noolbenger or honey possum, emerges to feed on the pollen and nectar of the flowers. This animal is almost entirely adapted to a diet of nectar and banksias are one of the main species it frequents.

"The equally tiny dormouse or pigmy possum also frequents the banksia groves at flowering time. They live mainly on an insect diet and have been observed to breed at the time of the banksia flowering on the south coast. Their tiny nests and those of the noolbenger are often found inside rotted out hollows in the trunks of the banksia."

Recreation

Apart from its water, timber and conservation values the jarrah forest is being increasingly used for outdoor recreation. During a forest recreation survey it was found that on one weekend 750 people visited one picnic site located near Dwellingup. Much of the appeal of the forest to those who visit it is destroyed by jarrah dieback.

Research

Jarrah dieback was first described prior to World War II but it was very restricted in area and the small areas of dead forest were assumed to be caused by fire. After 1945, following the large-scale introduction of mechanical earth-moving equipment, the disease became more widespread and a number of investigations were carried out in an attempt to find a cause. It was not until 1965, however, that Mr. Frank Podger of the Commonwealth Forest Research Institute, identified *Phytophthora cinnamomi* as the causing agent.

Research is currently being carried out by a variety of organisations. An intensive programme is carried out by

the W.A. Forests Department at its Dwellingup Research Station and the department also provides funds for research scholarships at the Western Australian and Australian National Universities. The Commonwealth's Forest Research Institute is maintaining a research station at Kelmscott which is primarily involved in jarrah dieback research and more recently the C.S.I.R.O. has initiated an investigation into the disease. The research programme being carried out in W.A. is only part of world-wide research into the fungus.

The development of methods to control the disease is hindered by its widespread nature in a forest which has a relatively low value per unit of area. In the horticultural situation it is possible, although expensive, to reduce the impact of the fungus by the use of fungicides and other intensive cultural treatments. In a forest such methods are impractical. Hence, research has been directed to evolving techniques to prevent the introduction of the fungus into uninfected areas, and changing the environmental conditions in the natural forest to make it resistant to the disease rather than attempting to eradicate the fungus.

Although *P. cinnamomi* can cause destruction of the forest on most sites, susceptibility varies markedly. *Recognition of this variation and the identification of the factors responsible for it have provided some hope that the disease may be controlled in the short term by forest hygiene techniques and in the long term by manipulation of the forest vegetation.*

Detailed measurements of the soil environment on various sites within the forest have shown that lowland sites are highly susceptible because they are water gaining, but on the freely drained upland sites where jarrah grows best, the soil environment is only marginally suitable for the fungus. Over a period of eight years measurements of the spread have shown that provided contaminated soil is not carried on to upland sites the natural extension of the disease from the lowlands is very slow. Current research indicates that it may be possible to increase the resistance of the upland sites by promoting a dense understory vegetation. Marked changes in the understory and shrub layer of the forest can be achieved relatively cheaply by altering the frequency and intensity of prescribed burning.

New lines of research are constantly being explored. On some jarrah forest sites the fungus is unable to become active because it is being attacked by other micro-organisms. *It is possible that with further research these natural antagonists may be used to achieve biological control of the disease.*

In areas where the fungus has already destroyed the forest there is little hope that the natural forest will ever be re-established. For these areas trials are being carried out with alternative tree species. Over 50 tree species with known commercial potential have been tested in the field and laboratory for resistance to *P. cinnamomi*. Three species of pine and at least eight eucalypts have been able to survive in the presence of the fungus and also grow on jarrah forest sites.

Trials are continuing and over 250 hectares of dieback-affected forest are being planted each year. In salt-prone catchment areas which are affected by jarrah dieback it will be necessary to replant with trees which have a deep root system so that the discharge of salt into reservoirs can be prevented.

Control of Jarrah Dieback by Forest Hygiene and Quarantine in State Forest

The major means by which *P. cinnamomi* is spread through the forest results from the activities of man. Unaided movement of the fungus uphill or on a flat

if the amount of wood cut each year is equal to that produced by the forest. As the area of forest affected by dieback increases and more forest becomes unproductive the size of this "allowable cut" will become less, forcing many mills to reduce in size, or even close down.

Conservation

The effect of jarrah dieback on forest flora and fauna has not been widely appreciated. Many trees and shrubs of the forest which are renowned for their beautiful flowers are affected. Susceptible plants include species of *Banksia*, *Persoonia*, *Adenanthos*, *Podocarpus*, *Leucopogon*, *Dryandra*, *Xanthorrhoea* and *Casuarina*. Certain vegetation types, particularly those occurring in lowland areas such as the *Banksia littoralis* dominant understory type, are in danger of extinction. The loss of individual plant species extends beyond that species because in an eco-system, living organisms are dependant on one another. For example, Forest Research Officer Per Christensen (*Forest Focus* No. 10) has documented the role of *Banksias*, one of the trees most susceptible to *P. cinnamomi*, in providing food and shelter for many of the small animals and birds inhabiting the forest.

"For example, the red wattle bird, the little wattle bird, the yellow-winged or new holland honeyeater, together with the closely allied white-cheeked honeyeater, the western spinebill, the tawny-crowned honeyeater, the white-naped honeyeater, and the brown honeyeater are some of the honeyeaters commonly associated with banksia flowers, particularly on the south coast. Other birds, such as the silvereeye and the black cockatoos, also feed on the nectar of the banksia flowers. The latter also frequents the banksia belts at a later date when the seed ripens. Birds come not only to seek nectar but also for the numerous wasps, moths, butterflies, beetles and ants attracted to the flowers. At night boobook owls and bats feast on moths attracted to the nectar. At this time another small creature, the tiny noolbenger or honey possum, emerges to feed on the pollen and nectar of the flowers. This animal is almost entirely adapted to a diet of nectar and banksias are one of the main species it frequents.

"The equally tiny dormouse or pigmy possum also frequents the banksia groves at flowering time. They live mainly on an insect diet and have been observed to breed at the time of the banksia flowering on the south coast. Their tiny nests and those of the noolbenger are often found inside rotted out hollows in the trunks of the banksia."

Recreation

Apart from its water, timber and conservation values the jarrah forest is being increasingly used for outdoor recreation. During a forest recreation survey it was found that on one weekend 750 people visited one picnic site located near Dwellingup. Much of the appeal of the forest to those who visit it is destroyed by jarrah dieback.

Research

Jarrah dieback was first described prior to World War II but it was very restricted in area and the small areas of dead forest were assumed to be caused by fire. After 1945, following the large-scale introduction of mechanical earth-moving equipment, the disease became more widespread and a number of investigations were carried out in an attempt to find a cause. It was not until 1965, however, that Mr. Frank Podger of the Commonwealth Forest Research Institute, identified *Phytophthora cinnamomi* as the causing agent.

Research is currently being carried out by a variety of organisations. An intensive programme is carried out by

the W.A. Forests Department at its Dwellingup Research Station and the department also provides funds for research scholarships at the Western Australian and Australian National Universities. The Commonwealth's Forest Research Institute is maintaining a research station at Kelmscott which is primarily involved in jarrah dieback research and more recently the C.S.I.R.O. has initiated an investigation into the disease. The research programme being carried out in W.A. is only part of world-wide research into the fungus.

The development of methods to control the disease is hindered by its widespread nature in a forest which has a relatively low value per unit of area. In the horticultural situation it is possible, although expensive, to reduce the impact of the fungus by the use of fungicides and other intensive cultural treatments. In a forest such methods are impractical. Hence, research has been directed to evolving techniques to prevent the introduction of the fungus into uninfected areas, and changing the environmental conditions in the natural forest to make it resistant to the disease rather than attempting to eradicate the fungus.

Although *P. cinnamomi* can cause destruction of the forest on most sites, susceptibility varies markedly. *Recognition of this variation and the identification of the factors responsible for it have provided some hope that the disease may be controlled in the short term by forest hygiene techniques and in the long term by manipulation of the forest vegetation.*

Detailed measurements of the soil environment on various sites within the forest have shown that lowland sites are highly susceptible because they are water gaining, but on the freely drained upland sites where jarrah grows best, the soil environment is only marginally suitable for the fungus. Over a period of eight years measurements of the spread have shown that provided contaminated soil is not carried on to upland sites the natural extension of the disease from the lowlands is very slow. Current research indicates that it may be possible to increase the resistance of the upland sites by promoting a dense understory vegetation. Marked changes in the understory and shrub layer of the forest can be achieved relatively cheaply by altering the frequency and intensity of prescribed burning.

New lines of research are constantly being explored. On some jarrah forest sites the fungus is unable to become active because it is being attacked by other micro-organisms. *It is possible that with further research these natural antagonists may be used to achieve biological control of the disease.*

In areas where the fungus has already destroyed the forest there is little hope that the natural forest will ever be re-established. For these areas trials are being carried out with alternative tree species. Over 50 tree species with known commercial potential have been tested in the field and laboratory for resistance to *P. cinnamomi*. Three species of pine and at least eight eucalypts have been able to survive in the presence of the fungus and also grow on jarrah forest sites.

Trials are continuing and over 250 hectares of dieback-affected forest are being planted each year. In salt-prone catchment areas which are affected by jarrah dieback it will be necessary to replant with trees which have a deep root system so that the discharge of salt into reservoirs can be prevented.

Control of Jarrah Dieback by Forest Hygiene and Quarantine in State Forest

The major means by which *P. cinnamomi* is spread through the forest results from the activities of man. Unaided movement of the fungus uphill or on a flat

surface is less than a few centimetres a year. The fungus can survive and may be carried in less than one gram of moist soil and this amount of infected soil is sufficient to initiate a new diseased area. Any activity in the forest which involves movement of soil can cause the disease to be spread distances measured in terms of kilometres in one day.

Once new infections are established on uphill sites, disease spread downslope is rapid and over a period of years most vegetation downslope of the new infection will be destroyed. *Therefore prevention of artificial spread is the greatest single step which can be taken to control jarrah dieback.*

Reduction of artificial spread by forest hygiene techniques, although difficult, is not impossible despite the insidious nature of the fungus. *P. cinnamomi* cannot be transmitted in the atmosphere and although it will survive in moist soil for long periods it is rapidly killed when the soil is dried. Although only small quantities of infected soil are required to initiate new dieback areas in the field situation, the probability of this happening with small quantities of soil is low. Most of the spread in the forest has resulted from moving large quantities of soil like that adhering to bulldozers or moved in road building operations.

During the summer months the soil on all but the low-lying swampy sites is too dry for the fungus to survive and the chance of spreading during this period is low. Artificial spread of the disease can be markedly reduced by restricting activity in healthy forests to the summer months and washing down vehicles whenever they move from diseased to healthy forest.

Distribution of the disease within the forest was considered when implementing the hygiene programme. A large proportion of the diseased forest occurs within a distance of 8-12 km of the Darling Scarp. Another large area of high quality northern jarrah forest having a much lower level of infection lies to the east of the badly diseased area, and has been declared a quarantine zone by amendment to the Forests Act.

For a minimum period of three years entry to this quarantined area will be permitted only in special circumstances and a permit will be required. The legislation provides heavy penalties for infringements to the Act. Almost all forest activities involving vehicular movement, such as logging, will be restricted to the western edge of the forest which is badly affected by dieback.

The stringent quarantine will:

- Permit the identification of affected areas in the high quality forest zone;
- Provide time in which to introduce a logical basis for implementing hygiene measures;
- Provide time to develop work methods so that multiple-use management may be continued;
- Effectively curtail artificial spread in not yet hopelessly infected susceptible forests where disease is a threat to management objectives.

The co-operation of everybody who uses the forest, whether for work or recreation, is essential if jarrah dieback is to be controlled.

Information on forest hygiene and quarantine procedures can be obtained at any Divisional Office.

Control of Jarrah Dieback Outside State Forest

Control of the disease in national parks and reserves, crown lands, farmland and golf courses, can only be achieved by reducing artificial spread. In home gardens fungicides may give some control. On the deep sands on which most homes in suburban Perth are located infections generally remain localised. Therefore the best method of control is prevention of the spread of contaminated soil.

In badly affected areas the aesthetic value of the destroyed natural vegetation may be at least partially recovered by planting resistant trees and shrubs.

Conclusions

P. cinnamomi is a new and devastating factor of the environment in the south of Western Australia. Unchecked, the disease could eventually result in the irreversible destruction of the majority of the jarrah forest and many other vegetation types occurring in the area. It is a complex problem but there is some hope that a method of controlling the disease will be discovered. Control by hygiene and quarantine, however, is the only method in the short term which will ensure that the priceless value of the forest will be conserved for future generations.



INFORMATION SHEET



QUARANTINE IN NATIVE FORESTS

F. E. BATINI

Jarrah dieback, a disease caused by the fungus *Phytophthora cinnamomi*, is a grave threat to the forest and woodland communities in the south-west of Western Australia.

Already some 9 per cent of state forests and timber reserves (172000 ha) has been affected by this disease, which is also known to occur on other Crown land, national parks and private property. The *estimated* total area affected by dieback at 30 June 1974 was 282000 hectares.

In Western Australia, the fungus may kill a wide variety of native plants. It is also widespread throughout the world, and has caused serious problems in forests, plantations, orchards, domestic gardens and nurseries.

**NO ENTRY
WITHOUT FORESTS
DEPARTMENT PERMIT
FOREST DISEASES REGS.**

The illustrations shown on this information sheet are examples of the sign-posting used in association with forest quarantine.

If allowed to proceed unchecked, most forest values will be adversely affected. The loss of jarrah trees will reduce the volume of timber suitable for milling, and will threaten the long-term existence of sawmills. Extensive areas of dying forest could increase the salinity of the streams which feed the water supply reservoirs. Forest eco-systems are in peril, and some species (such as *Banksia littoralis*) are in danger of extinction. Birds and animals will suffer through the loss of vegetation. The recreational and aesthetic appeal of forests will diminish.

One of the major means by which the fungus is spread through the forest area results from the activities of man. New infections are often caused by the movement of diseased soil on vehicles and heavy machinery. Diseased areas are diagnosed primarily from the visible symptoms

**ROAD
CLOSED**

FOREST DISEASES REGS.

in the susceptible vegetation (e.g. *Banksia grandis*), and the Forests Department's hygiene programme has been based on these visible symptoms. This technique has limitations because of the time lag between infection and the expression of visible symptoms. Because of this, it has become apparent that infected soil can still be spread unwittingly from areas that appear to be disease free.

To overcome this problem, it has become necessary to quarantine apparently healthy areas from sources of infection, so as to allow sufficient time for visible symptoms to develop. It should then be possible to map the diseased areas and their perimeter accurately, and subsequently to limit the artificial spread of diseased soil by appropriate hygiene measures. The quarantine will involve restriction of vehicles moving between diseased and healthy areas. Washing down facilities will be provided to clean vehicles carrying mud and soil from infected areas. A quarantine period of three years has been nominated as a safe interval on which to base future planning.

**FOREST
QUARANTINE
AREA
CONSERVATOR OF FORESTS**

Following Cabinet approval, detailed quarantine proposals were prepared, and the Forest Act Amendment Act (No. 77 of 1974) was passed and proclaimed. A large portion of state forest has been quarantined. Within the quarantined area, unrestricted vehicular access is limited to the main public highways and entry to private property. Very limited vehicle access, under permit and along specified routes, will be available for essential services. Access on foot will not be restricted. All forest operations (sawmilling, pole and pile, firewood, etc.) have been relocated outside the quarantine areas for the period of three years.



These proposals have been considered and accepted by the timber industry, established mining companies, other government departments and instrumentalities and the Department of Environment and Conservation.

The impact of quarantine on the recreating public should not be too severe. The areas of forest which will not be quarantined will remain accessible to the public. Vehicular access along the main highways will be available and access on foot is permitted within the quarantined zone. Access to the established picnic areas (such as Mt. Dale, Lesley, Sullivan Rock, etc.) will be maintained. However, vehicular access (motor car, trail-bike, horse, etc.) into the quarantine area is prohibited. The area will be signposted and patrolled to ensure an understanding and compliance with the regulations, which carry severe penalties for deliberate breaches.

AUTHORISED WASH DOWN STATION

For further information on dieback, inquiries may be directed to Forests Department offices at:

	Telephone No.
PERTH	25 8077
COMO	67 6333
BUSSELTON	Busselton 52 1677
COLLIE	Collie 34 1988
DWELLINGUP	Dwellingup 30 9078
HARVEY	Harvey 55
KALGOORLIE	Kalgoorlie 21 2095
KELMSCOTT	Perth 97 5516
KIRUP	Kirup 31 6232
MANJIMUP	Manjimup 71 1988
MUNDARING	Perth 95 1117
NANNUP	Nannup 44
NARROGIN	Narrogin 81 1444
PEMBERTON	Pemberton 7
WALPOLE	Walpole 40 1034
WANNEROO	Wanneroo 91 1222

FURTHER READING

- Shea, S. R. (1975). "Focus on jarrah dieback—a threat to W.A.'s unique jarrah forest", *Forest Focus* No. 14, April 1975.
- Shea, S. R. (1975). "Jarrah dieback." Information Sheet No. 4.
- Shea, S. R. (1975). "Environmental factors of the northern jarrah forest in relation to pathogenicity and survival of *Phytophthora cinnamomi*." Bulletin 85.
- Batini, F. E. (1973). "Jarrah dieback. A disease of the jarrah forest of Western Australia." Bulletin 84.
- Batini, F. E. (1974). "Some aspects of logging hygiene." Research Paper No. 3.

WESTERN AUSTRALIA

FOREST AREAS OF THE SOUTH WEST



LEGEND

State Forest and Timber Reserves (Forest Act)



Divisional Offices



District Offices



Major Towns



Other Towns



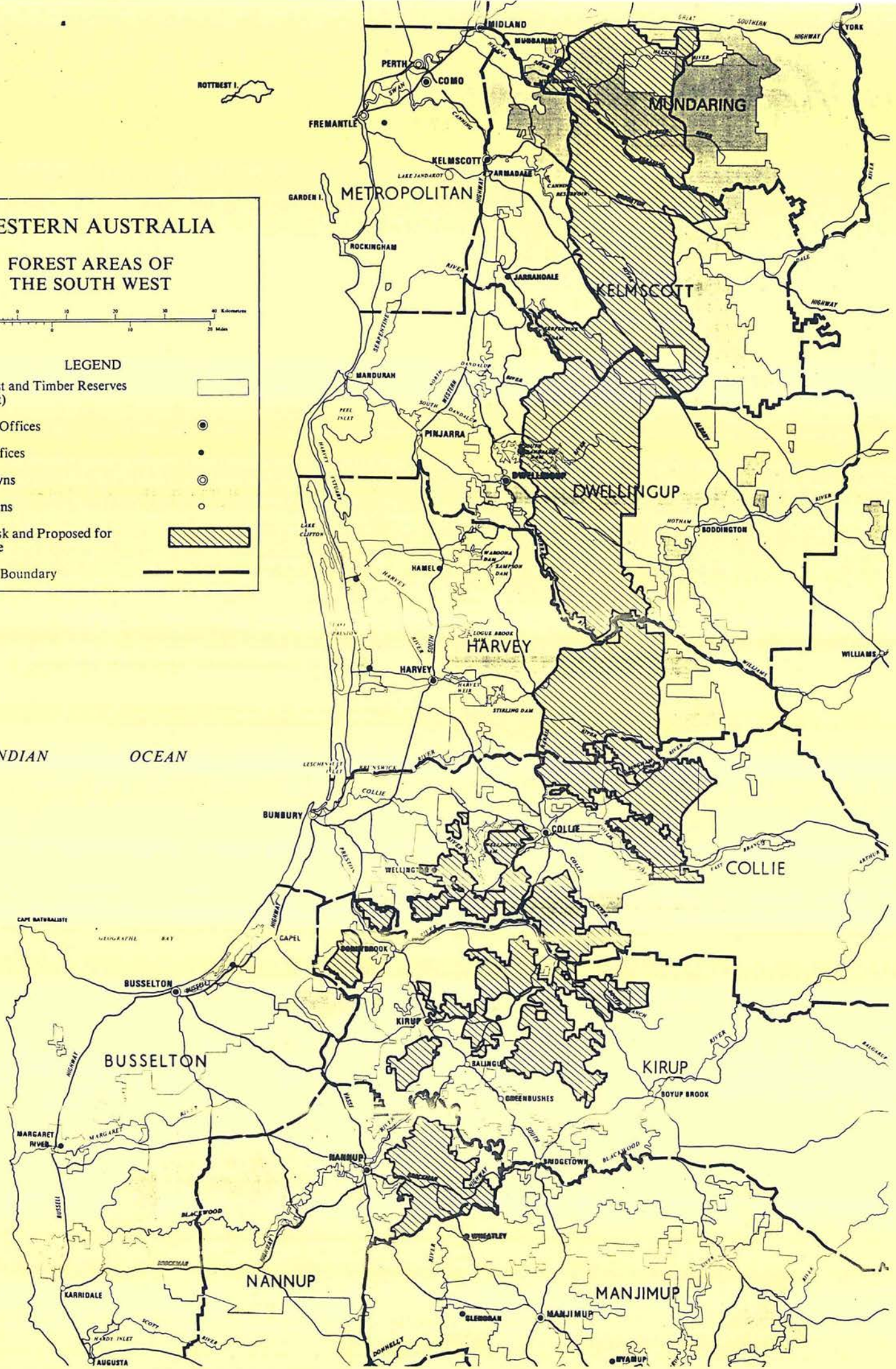
Area at Risk and Proposed for Quarantine



Divisional Boundary



INDIAN OCEAN

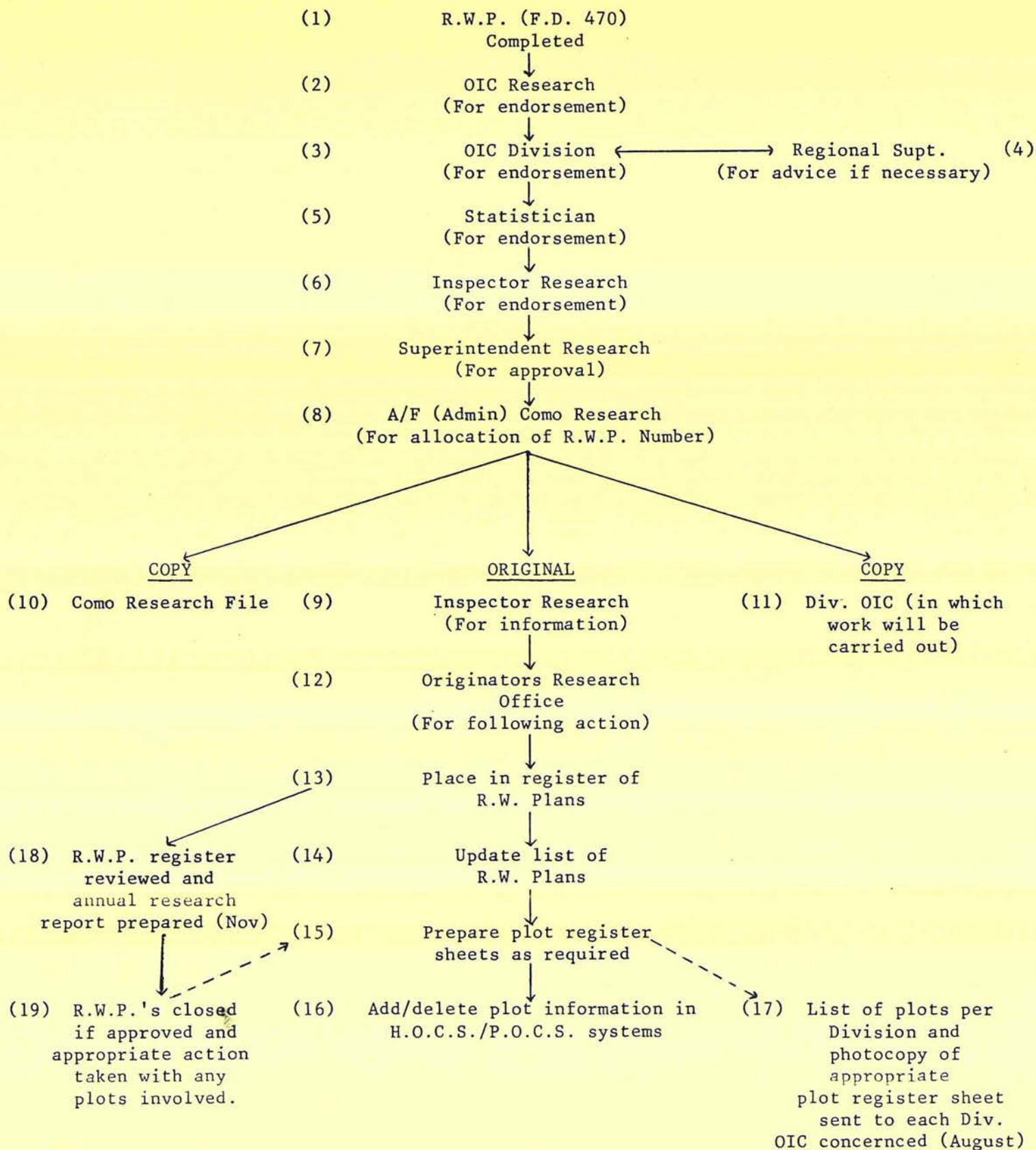


A proposed system to control the establishment of research (F.D. and Non F.D.) plots on land under the control of the Conservator of Forests, and their subsequent protection. It is recommended that the system outlined be used for plots in both hardwood and softwood forest.

Non F.D. organisations such as C.S.I.R.O., Alcoa etc. establishing plots in areas under our control should incorporate their plots into this system. This can be done by them submitting completed Research Plot Register forms to the local F.D. research office. It may even be desirable for them to submit a completed Research Working Plan (F.D. 470) at the same time.

I acknowledge the willing assistance given by research officers at Manjimup, Busselton, Dwellingup, Wanneroo and Como in the preparation of this report.

OUTLINE OF RESEARCH PLOT CONTROL SYSTEM



NOTES RELATING TO OUTLINE OF RESEARCH PLOT CONTROL SYSTEM

- (1) Research Working Plan completed by Officer in Charge of the particular project. His name is given under item 5 on the R.W.P. When writing the title of a R.W.P. it should be preceded by or commence with a key word that will help in the grouping of such plans. (e.g. Silviculture - Jarrah. A study of growth patterns after thinning to 50 trees per ha.)
- (2) The O.I.C. of the particular research office endorses the R.W.P.
- (3)&(4) The O.I.C. of the Division in which the work will be carried out is consulted as to his opinions concerning the location of the study area and any likely protection difficulties. He may need to consult with Regional officers before giving his endorsement.
- (5) Research Officer D. Ward to confirm that the statistical design of the R.W.P. is of a required standard.
- (6)&(7) The Inspector and Superintendent Research check the R.W.P. against departmental policy, research priorities and availability of personnel and finance.
- (8) The R.W.P. number is allocated by the A/F (Admin) Como. A photocopy (10) is placed on Como files and a photocopy (11) forwarded direct to the O.I.C. of the Division in which the work will be carried out.
- (9) The original is forwarded to the originator's office via the Research Inspector for the area concerned. (i.e. Inspector Research North or South).
- (12) The original R.W.P. on arrival at the originator's office is placed in the Register of R.W.P.'s.

(14) The list of R.W.P.'s is updated. This list shows R.W.P. number, title, active or closed and officer responsible. The information on this list is used as a check list of R.W.P.'s when compiling the Annual Report of Research Activities each November.

(15) If the R.W.P. involves the creation of plots in forest/plantation areas a "Research Plot Register" sheet is completed for each plot or group of plots. These sheets make up a register of all research plots which is used when discussing plot protection requirements with divisional officers. They can also prove useful for providing basic information about plots.

(16) Getting plot information on to or off H.O.C.S./P.O.C.S. sheets varies as follows.

Southern Region

H.O.C.S. Plot information on to a Sheet 2 and forward annually to the Manjimup I & P office. They will update their master copy and send photocopies to the Southern Region Divisional office involved.

P.O.C.S. Necessary to visit the Divisional office concerned and ensure that their Planting Year Print for the area is updated.

Northern and Central Regions

H.O.C.S. & P.O.C.S. Necessary to visit the Divisional office concerned and ensure that their H.O.C.S. Sheet 2 or P.O.C.S. Planting Year Print for the area is updated.

(17) Each August prepare lists of research plots in each Division under the headings R.W.P. No. / MAP REF. / BLOCK NAME OR COMPARTMENT / RESEARCH CONTACT OFFICER / FIRE PROTECTION SENSITIVITY. Attach photocopies of Plot Register sheets to each list and

bring/send to each Divisional O.I.C. This is a good opportunity to discuss your plots and any protection requirements with the Divisional Protection Officer.

- (18) In November research O.I.C.'s to go through the Register of R.W. Plans and comment on each. This forms the basis for an "Annual Report of Research Activity" from individual research offices. (Refer to report submitted by Manjimup Research for December '82/November '83.) Recommendations on R.W.P.'s can be made in this report (e.g. Discontinue).
- (19) Following advice back from Supt. Research on recommendations contained in the Annual Report appropriate action can be taken.

Closing a R.W.P.

Regardless of whether a R.W.P. has reached a satisfactory conclusion or not a recommendation to close must form part of an official report.

Such reports to be submitted for approval along the same channels as a R.W.P. The subject matter of such a report is to consist of:

- R.W.P. title
- work carried out
- problems encountered
- results achieved
- reports/articles written and published
- suggestions for future work in this area
- reasons for closing the R.W.P.

REGISTER OF RESEARCH WORKING PLANS

[illegible]

A complete listing of all R.W.P.'s raised by your local office. This listing is used as a check list when preparing the Annual Report of Research Activities each November. Also useful as an index of R.W. Plans.

NOTES ON USE OF RESEARCH PLOTS REGISTER FORM

1. RESEARCH WORKING PLAN NUMBER. Assumes that in future, plots will not be established without the backing of an approved R.W.P.

H.O.C.S./P.O.C.S. PLOT NUMBER. All plots shown on H.O.C.S. Print 2 and P.O.C.S. planting year prints to be identified by a plot number (e.g. MF10 = MANJIMUP FIRE RESEARCH PLOT 10, BS24 = BUSSELTON SILVICULTURE PLOT 24). This will assist in identifying individual plots and the originating office.

The first letter identifies the controlling office/organisation.

M = MANJIMUP RESEARCH

B = BUSSELTON RESEARCH

D = DWELLINGUP RESEARCH

W = WANNEROO RESEARCH

C = COMO RESEARCH

A = ALOCA

S = C.S.I.R.O.

ETC.

The second letter to identify the type of plot.

F = FIRE RESEARCH

S = SILVICULTURE RESEARCH

E = ECOLOGY

H = HYDROLOGY

R = REHABILITATION

ETC.

The number is allocated by the local office and can be a separate numerical sequence for each type of plot (e.g. SILVICULTURE) or one numerical sequence for all plots established by that office.

2. R.W.P. Title as per the R.W.P.
3. PLOT NAME. Only if there is a specific name for the plots.
4. FOREST BLOCK AND DIVISION. For softwood plots the plantation name can be given instead.
5. PLOT LOCATION AND AREA. If possible a 6 figure map reference or plantation compartment number. Plot area to be shown in HA. If

there is a group of plots at the one location they can be all shown on the one register form.

6. FIRE PROTECTION SENSITIVITY. This should be used to indicate the degree of protection from fire required.

S = SEVERE would be the equivalent of a Red Action Area in Divisional Fire Control Working Plans. It is important to be realistic about the allocation of such a high value.

M = MEDIUM would indicate something more involved than that applying to the surrounding forest.

L = LOW would indicate that no special fire protection is required and that the plot may be treated as part of the surrounding forest.

Specific details of the special protection indicated by a SEVERE or MEDIUM rating must be given in section 7.

7. PROTECTION REQUIREMENTS. Details of all special protection. Suggest that the Protection Officer for the Division concerned be consulted to ensure that the requirement is practical.
8. SPECIAL PROTECTION. Any additional protection agreed with the Protection Officer that will have to be financed by research funds.
9. HISTORY AND PURPOSE. Written in terms that can be understood by non technical officers.
10. SIGNIFICANCE TO DEPARTMENT. Once again say in easily understood terms.
11. WORDING FOR PLOT SIGN. It is important that all significant plots be adequately marked and identified in the forest.
12. PLOT ESTABLISHED/PLOT CLOSED. Show dates.

12.

13. OFFICER RESPONSIBLE. The name of the officer to contact in connection with any matters relating to the plot.