

SOMERVILLE PLANTATION FIRE - 7TH FEBRUARY, 1965.

A serious fire occurred in the Somerville Pines on February, 7th, 1965, and the following is an outline of its history.

Time and Point of Origin.

12.33 hrs.

The fire was reported by Somerville Tower (Bill White) at 1233 hours, whilst the Collier Towerman was down to lunch, and in the absence of a crossing bearing was placed provisionally in either Compt. 48, 51 or 50. Somerville gang was called out and, with F/G Foot, proceeded to the fire, arriving at approximately 1248 hrs. The fire was found to be along the Northern fringe of the swamp in Compt. 45 and was burning on a front of about 5 chains.

Cause.

It is believed that the fire was lit by school children who often swim in a pool at this swamp, and who are thought to have had matches and cigarettes. The police have two names, and their investigations are proceeding.

1248 hrs.

Fire Attack.

The Somerville gang with light duty unit (WAG.3345) and Heavy Duty (WAG.1332) commenced their attack on the fire at 1245 hrs. but the fire, helped by a fresh South Westerly wind, was already spotting into Cpt. 44. Both tankers ran out of water, and hand tools proved unable to maintain the line while the tanks went away to refill.

1310 hrs.  
(O/S Feast)  
H/Duty

The Collier Heavy Duty with 2 men arrived and tried to hold the fire, which was then being fought in Compt. 44. Extensive spotting was occurring due to the hot fire and fresh South-Westerly breeze; this operation eventually proved to be unsuccessful with the forces then available.

1315 hrs.

S.F.C.F. ashcroft arrived at the S.W. corner of Cpt. 30. leaving his vehicle at this point and commenced to walk into the fire. He was closely followed by A/F Gorringe (1318 hrs.), who also walked in. Mr. Ashcroft arrived at fire at 1330 hrs, and assumed control of the still small work force - seven men, two pumpers and one light duty unit. Spotting was occurring in Cpt. 42 and the Collier pumper was directed to deal with these. Almost immediately spot fires appeared in Cpt. 38, and these were widespread by 1345 hrs.

1345 hrs  
Soltoggio  
Scoop.

Soltoggio's (Cat. 966A) Scoop arrived and started work on Western edge. He was re-directed to scrape the firebreaks along the North and East side of Compt. 38, where an attempt was then made with two pumpers, and the small gang to contain the fire in Copt. 38. This was not successful due to spotting in Compt. 36, and especially Compt. 37, where a spot fire was going well at 1400 hrs. when Mr. Meachem arrived.

1350 hrs.  
(Mr. O'Grady)  
H/Duty)

1400 hrs.  
(Mr. Meachem)

The troops were then withdrawn to the S.E. corner of Cpt. 21 shortly after Mr. van Noort arrived at 1415.

1415 hrs.  
(Mr. v Noort)

A Control Centre was established at this S.E. corner of Cpt. 21 and fire fighters were dispersed into Cpts. 21 and 22 to handle spot fires, while Mr. Garringe and a small gang remained at the S.E. coner of Cpt. 35 to handle spot fires, there. Soltoggio's scoop was at work cleaning up access tracks along the Northend of the Western Flank, having been used on this work since its arrival at 1345 hrs.

1430 hrs.  
(Wanneroo  
gang, D. Keene  
& H.D.)

A Wanneroo gang with A.D.F.O. Keene and a Heavy Duty unit arrived at 1430, closely followed by Hewett and Robley, T. Ashcroft plus 2 men from Gleneagle, and 4 men from Mundaring.

1450 hrs.  
(Hewett, Robley  
T. Ashcroft)

Note: 4 x 4 H/Duty from Mundaring had arrived at Collier 1445.

1455 hrs.  
(Mdg. Gang)

1500 hrs.  
(Conservator)

Helpful advice was received at this stage from Mr. Harris, who had been cruising and investigating the Western Flank of the fire in Cpts. 36 and 38.

1500 hrs.  
(W.A. Fire  
Brigade)

The additional men arriving up to 1500 were deployed into Cpt. 21 and 22 to handle spot fires, and the W.A. Fire Brigade tender was stationed near the Control Point.

1500 hrs.  
(Gnangara  
Gang)

The Gnangara Gang arrived at 1500 hrs., followed by a second group from Gleneagle and from Mundaring. These men were put to work with hand tools along tracks on the Western flank, to be aided by tracked machines when they arrived.

1515 hrs.  
Gleneagle  
Gang.

1545 hrs.  
Mundaring  
Gang.

The South West wind dropped in strength at 1600 hrs. and a weak South Easterly drift caused several "flare-ups" on the Western flank, but few serious spot fires resulted, due to the raking work and the work of Soltoggio's scoop.

1600 hrs.  
Wind change.

1615 hrs.  
Houlahan  
TD18.

A TD18 bulldozer (Houlahan) arrived at 1615, 2 gangs and ten men (10) from Dwellingup at 1630 and a D4, D6, and Ferguson 35 Tractor arrived at 1700. All were utilised for cleaning tracks and pushing trees along the perimeter of the fire, working down the Western, Southern and Eastern flanks in that sequence.

1630 hrs.  
Dwellingup  
2 H.D.,  
2 gangs.

1700 hrs.  
D4, D6,  
Fergie 35.

1700 hrs.  
Mundaring  
6 x 6.

A 6 x 6 heavy duty and 3 men arrived from Mundaring at 1700 hrs., and the Carinyah gang was held in Reserve at Collier Headquarters.

1800 hrs.

A running fire was fully held by 1800 hours and arrangements were then made for releasing surplus men and equipment, and rostering gangs for duty on Monday 8th February.

1830 hrs.

1930 hrs.

Dozers etc. 3 Crawler dozers and Soltoggio's scoop were stood down by 1930. The Ferguson 35 was retained for use after dawn on Monday 8th.

Night Watch.

2000 hrs.

- 1) All gangs not required had been despatched by 2000 hours.
- 2) Night Patrol and Mop-up crew were as follows:-  
Controller - P.N. Hewett  
Fire Boss - A. Ashcroft  
Sector Boss - T. Ashcroft and Gleneagle 9  
Sector Boss - F.M. Law and Dwellingup 10  
Five (5) Heavy Duty Units.

2000 hrs.

Hewett left.

8.2.65 0130.

Sector Bosses left in control.

8.2.65 0600.

S.F.C.F. Ashcroft and Wanneroo gang arrived.

0605 hrs.

A.J. Ashcroft to pick up Mr. Foot and pump fittings at Somerville H.Qs.

0615 hrs.

Somerville gang, E. Foot and A. Ashcroft returned.

0800 hrs.

VanNoort, Hewett, Robley and Mundaring Gang and Wanneroo gang arrived to relieve O/night teams.

0830 hrs.

O/Night teams returned to base.

Miscellaneous Assistance.

1. South Canning Volunteer Bushfire Brigade assisted on a voluntary basis. 5 men in S.W.B. Jeep assisted throughout the afternoon, until 1945 hrs.

Miscellaneous Assistance. Cont'd.

2. Melville Fire Brigade assisted from 1400 to 1700 hours.
3. Mr. Milesi arranged for hiring of dozers
  - Atkinson D4 1700 - 1930
  - Bell Bros. D6 1700 - 1930
  - Houahan TD18 1615 - 1930Also use of Shell Tanker was water supply.
4. Soltoggio Bros: engaged the use of their Caterpillar 4 wheel scoop from approx. 1345 to 1830 hrs.
5. Police control of private vehicles entering the plantation from High Road greatly assisted the movement of plant and equipment along this access route.

Personnel (estimated)

	Officers	O/S	Men
Somerville	1	1	5
Collier	2	1	1
Gnangara	1	1	5
Wanneroo	2	1	6
Gleneagle	1	1	7
Carinyah	-	1	4
Dwellingup	1	2	7
Mundaring	2	2	9

Equipment Used.

Gang Transport

- 1 Willys 1 ton
- 2 Inter. 4 x 4
- 5 Gang Trucks
- 4 Landrovers etc.

Heavy Duty Units:

- 1 6 x 6 HD WAG.4853 Mdg.
- 4 x 4 HD WAG.1333 Como.
- 4 x 4 1332 Somerville.
- 4 x 4 to Collier 4549 Mdg.
- 4 x 4 5403 Como
- 4 x 4 1267 Wanneroo

Not Used:

- 2 4 x 2 HD ex Dwellingup.

Officers Attending:

Conservator of Forests (Mr. Harris)	
J.C. Meachem	Reg. Inspector
A.J. Ashcroft	S.F.C.F.
E. Foot	F.G.
L.D. O'Grady	A.F.
A.C. van Noort	D.F.O.
D.L. Keene	A.D.F.O.
F. Gorringer	A.F.
J.A.W. Robley	A.D.F.O.
P.N. Hewett	D.F.O.
T. Ashcroft	F.G.
F.M. Law	F.G.
G. Reynolds	F.G.

Overseers:

J. Moore  
A. Warren  
J.R. Thompson  
R. Parkinson  
R. Linley  
D. Walton  
J. Feast  
F. Postens  
(W. Saunder) at Como

Areas Burnt.

	(Planted Pine) Visual est.	Dot Grid.
Cpt. 45	2 acres	2 acres
44	13 "	13 "
42	22 "	22 "
38	19 "	19 "
39	12 "	12 "
36	7 "	7 "
37	29 "	29 "
	<u>104</u> "	<u>104</u> "

Recommendations:

1. Dwellingup fire hazard forecast for 7.2.65 was Moderate Summer, E.M.T. 75°, E.M.R.H. 50%. Even though allowance should be made for higher temperatures North of Dwellingup, it is clear that the key to fire control difficulties in pine plantations is wind strength. It is suggested that wind strength forecast, as well as

Recommendations cont'd.

fire hazard, should form the basis for standby determinations in Metropolitan plantations.

2. The number of men on stand-by at Collier and Somerville is too small for effective control on days when a strong breeze exists. (Somerville gang were at the fire within 15 minutes of the report from Somerville tower).

Three possible alternatives could be considered:

- a) Maintain O/S plus 4 men plus Heavy Duty unit at a central point (Collier) at overtime rates and ready to move at a moment's notice.
- b) Maintain similar group at Mundaring or Wanneroo on shift work basis.
- c) Increase standby complement at all centres plus 6 men (Wanneroo, Mundaring, Metro).

The relevant costs per week for these three alternatives are:

- a) \$120 per week.
- b) \$120 per centre per week.
- c) \$48 per centre per week.

The third alternative is cheaper by \$72 per centre per week, but is less efficient insofar as the stand-by men are not immediately available. However, I recommend that alternative (c) be applied at both Mundaring and Wanneroo for all weekends when fire hazard is Average Summer or above, or where predicted wind strength is 15 m.p.h. or greater at hazards above Moderate Summer.

3. Considerable delay occurred at this fire because of infrequent and misleading reports at the early stages. The Mundaring and Wanneroo gangs were delayed for more than 1 hour because of this. These additional men must be despatched (in radio equipped transport) immediately the pine fire is reported.

In addition, it is essential that a field control point, complete with operator (signals) and at least one messenger, be established at the earliest possible stage. Valuable man hours were lost in this fire when men and vehicles milled round at the Control Point. This can be effectively countered by the early elucidation of chain

of command and clear directions through an informed and organised field control.

It is essential that Large and Serious Fire Organisation receive more attention, by discussion and training schedules.

Chain of Command in the field to be clearly defined, at least down to Sector Bosses.

A full scale (training) alert should be carried out as far as embarking gangs and vehicles from distant centres to the placing of local gangs in the field and the setting up of a Field Control Point. Sectors arranged and command allocated.

Back-up assistance such as plant maintenance and repair (mechanics and fuel) - Communication (Radio Technician and spares). General supplies including messing arrangements (storeman etc.) should be arranged or catered for in this exercise.

It is suggested that any weaknesses in organisation would be revealed, as well as giving staff the opportunity of making themselves familiar with the routine.

Regular Fire Control meetings or conferences should take place between officers likely to be implicated in these fires (e.g. two monthly intervals during the fire season, i.e. October - December - February - April).

Discussion to take place on such topics as Tactics and Fire Behaviour in Pines - Reports on training and equipment.

#### 4. Plant and Equipment.

(a) After an unsuccessful initial attack on a fire in a pine stand, there appears to be a lack of mobility with the Heavy Duty 4 x 4 vehicles in coping with the resultant numerous spot fires that occur. It is suggested that a number of International 4 x 4 light duty type vehicles, backed up by the Heavy Duty Pumper, as a tanker, would give more mobility to this type of suppression.

(b) Suitable wind meters to be fitted to major towers in Coastal Plain Plantations.

4. Plant and Equipment cont'd.

(c) Radio from Somerville gang truck to be placed in F/G Foot's landrover, when he is on duty at weekends and public holidays.

(d) Collier Landrover to be wired for V.H.F. (already arranged) and to be taken to a fire at Somerville from Collier by Duty Officer.

(e) The use of Soltoggio's Caterpillar 966A Scoop at this fire, proved to be an efficient fast and mobile unit. This and similar machines to be located and arrangements be made for possible hiring for subsequent pine fires.

(f) The procuring of suitable type and numbers of the portable citizen band transceivers, for use in field control at fires in plantations.

(g) Supplying of helmet lamps to Heavy Duty Units for use by the hose men in Pine Fire Night Mopping up operations.

5. Consideration to be given to the following suggestions:-

(a) Increasing the width of the narrow compartment firebreaks at Somerville, by removal of one or more rows of pines.

(b) Provide frequent gravelled or marl bays, to allow the turning of passing of vehicles along all roads improved for conventional vehicles.

(c) Sign posting of roads named and classified for use of vehicle type.

(d) Truncation of intersections of access tracks in compartments, by removal of trees.

This will facilitate travel of the heavy 4 x 4 vehicles with a wide turning lock.

Note:

This has been modified slightly from my original report due to correction of some times and compartment numbers.

In addition, the summary has been extended following discussion with S.F.C.F. Ashcroft.

P.N. HEWETT.  
D.F.O.



SOMMERVILLE PLANTATION FIRE  
OF 7th FEBRUARY, 1965.

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Report on the Sommerville Plantation  
Fire of 7th February 1965.

1. Summary.

Sommerville Tower reported a fire in the plantation at 1233 hours on 7th February 1965.

The Sommerville gang was dispatched within 7 minutes of detection, and found the fire burning in a swamp in Compt. 45. An attack was mounted on the headfire, which was 3 to 4 chains in width and progressing in a north east direction, but heavy spotting prevented success and the fire moved into Compt. 44.

A control centre had been established at Como and fire fighting units from Collier, Wanneroo and Mundaring dispatched to the fire. Support units had been requested from both Gleneagle and Dwellingup.

Despite attacks on the headfire by both Collie and Sommerville units intense spotting for distances of up to 25 chains prevented control of the headfire, which finally burnt out on the eastern flank of the plantation.

The Wanneroo and Mundaring units commenced to arrive shortly after 1400 hours and the attack was concentrated on the northern and western flanks. These units held these flanks until support units from Dwellingup and Gleneagle arrived. The fire was finally contained at 1830 hours. At this time there were seven Forests Dept. gangs, two local Brigades, nine heavy duty pumpers and five tractors, working on the fire edge.

The area burnt was approximately 112 acres of P.pinaster aged between 26 and 30 years, and included 90 acres of SQ4 and 22 acres of SQ3.

The quantity of ground needle fuel approximated 20 tons to the acre, to which must be added a considerable volume of fuel in slash heaps.

The day was of moderate fire hazard and the wind SSW with an average open velocity of 20 m.p.h.

The average rate of forward spread of the headfire was 31 chains per hour, and its flame height varied between 4 and 60 feet.

From the experiences of this fire the Gngara Fire of January 1962 a dispatch table has been compiled, and the possibility of fuel reduction has been discussed.

2. Cause.

Children are suspected of causing the fire while playing in the swamp in Compt. 45.

3. Detection and Subsequent Action.

The fire was detected at 1233 hours by Sommersville Tower, and the Sommersville gang dispatched by 1240 hours.

Following this action messages were sent to Mr. Milesi, Mr. Meacham, Mr. Ashcroft, Wanneroo and Mundaring Forests Depts., Como and Fremantle Fire Brigades, and the Hilton Park Police, advising them of the fire.

At 1310 hours a control centre had been established at Como, Collier units at or dispatched to the fire. Mundaring and Wanneroo units were dispatched, at 1351 and assistance had been requested from Dwellingup and Gleneagle.

The first of these additional units, from Wanneroo, arrived at the fire at 1415 hours.

4. Action to Suppress the Running Fire.

The Sommersville gang found the fire near the northern boundary of Compt. 45. The headfire was 3 to 4 chains in width, progressing in a NE direction, driven by a SSW wind. The fire was held along the northern break for a short period but finally spotted heavily in Compt. 44.

Despite a sustained attack by both Collier and Sommersville units, under the direction of Ashcroft, these spot fires developed quickly and the fire again spotted ahead into Compt. 38, and then into 37. The headfire burnt out on the eastern flank of the plantation at 1500 hours.

During this period supporting units were arriving and the forces were regrouped and concentrated on the north and north western flanks. As further forces arrived the south east flank was attacked.

The distribution of forces in the various sectors is shown on map 1. This force contained the flanks until additional support arrived and the fire was controlled. The units at each sector are listed below.

Sector 1. (Northern flank).

Two F.D. gangs and two heavy duty pumpers.

Sector 2. (North western flank.)

Three F.D. gangs, one Fire Brigade unit), three H.D. pumpers two bulldozers and one earth moving scoop.

Sector 3. (South eastern flank).

One F.D. gang and one bulldozer.

Additional units were arriving from Wanneroo, Mundaring, Gleneagle and Dwellingup, and by 1700 hours a comparatively large force had arrived under the direction of van Noort, Hewett and Ashcroft. Control of the fire was obtained by 1800 hours and was achieved by a force of seven F.D. gangs equipped with fast attack vehicles, two local brigades i.e. one Bushfire Brigade (South Canning) and one Fire Brigade, which totalled approximately 64 men excluding F.D. officers. In addition there were nine heavy duty pumpers, three bulldozers (TD18, D6 and D4) a Michigan earth moving scoop, and a wheel tractor fitted with scraper blade, at the fire.

The sequence of arrival of these various units is listed in the Diary of Events at the end of this report.

#### 4. Mopping up.

Mop up of the fire area continued throughout the night of the 7th and 8th February, under the direction of Hewett and Ashcroft, and throughout the 8th February under the direction of van Noort and Ashcroft.

During the night three F.D. gangs (two Dwellingup and one Gleneagle), and five heavy duty pumpers were used on mopping up. 0810 hours on 8th Feb. this crew was relieved by three fresh gangs (one each from Sommerville, Wanneroo and Mundaring.)

#### 5. Organization of Assistance.

Initial organization of fire fighting was carried out by Sommerville Tower and Mr. Foote. These duties were later taken over by the Como Control Centre,

Collier units were immediately dispatched followed by Wanneroo and Mundaring. Calls were made to Dwellingup and Gleneagle for further assistance, two local brigades were active at the fire, and the police assisted in control of the public. Units from the Mechanical and Radio Branches were present to assist with breakdowns.

#### 6. Area Burnt.

Approximately 112 acres of 26 to 30 year-old P.pinaster was burnt by the fire, in Compts. 36, 37, 38, 39, 42, 44 and 45. The area comprised 90 acres of SQ4 and 22 acres of SQ3.

It was estimated that 3,800 loads of timber were killed, which is valued at an average royalty of 15/- per load and an average sale value of 81/6 per load.

### 7. Fuel Type.

As is common in the older P.pinaster plantations there was a heavy accumulation of needles and twigs in the ground fuel layer, and heaps of thinning slash 2 to 3 feet in height.

From previous sampling in this plantation the volume of ground needle and twig fuel has been estimated at 20 tons per acre. There is probably an additional 10 tons per acre of fine fuels in the slash heaps.

### 8. Weather Conditions

Weather data taken at the Perth Met. Bureau was obtained for the 7th February. The maximum temperature was 79.5°F the minimum relative humidity 52%, while the fire hazard was moderate (5.3.) Weather data for Perth on 7th Feb. is shown on Table 1.

Table 1. Weather Data - Perth - 7th Feb. '54.

Time	Temp. °F	RH%	D.P.	Wind Direction	Wind Strength
0900	69.2	80	62	SSW	10
1200	75.6	62	61	"	22
1500	77.0	57	61	"	20
1800	74.3	60	59	"	18

### 9. Fire Behaviour.

#### (a). General.

The headfire was intense and burnt all available fuel leaving the ground bare and the trees with fully browned and in some patches defoliated crowns. The height of bark blackening varies between 15 and 25 feet.

Fire intensity in the unpruned unthinned area (part of SQ4) was considerably greater than in the treated area. The fire crowned at several points and the tendency to crown appeared to be pronounced near the edges of major fire breaks.

#### (b) Rate of Forward Spread.

A rate of spread plan is shown on map 2 giving the approximate position of the fire at 1235, 1415 and 1500 hours. Rates of forward spread, from this plan, are shown on table 2.

Table 2. Rates of Forward Spread.

Time	Total Forward Spread chains	Average forward spread chains/hour
1235 to 1340	20	18
1340 to 1415	25	43
1415 to 1500	23	31

Average 31 chains/hour

(c). Flame Height.

Reports from fire fighters indicate gusty wind conditions and the flame height of the headfire varied between 4 feet to 60 feet when the fire crowned. The average flame height of the headfire was 8 to 10 feet and the average flank fire flame height was 4 feet.

(d) Spotting.

The pattern of spot fire development was similar to previous pinaster fires, except that the maximum spot distance was greater than recorded in the last Sommerville and Gngangara fires.

Spotting was intense within five chains of the headfire and intensity decreased markedly at distances greater than five chains. Spots did however develop 25 chains in front of the headfire, which was a greater distance than experienced at either the Gngangara 1962 fire or the Sommerville 1964 fire. The long spot distance is probably due to a higher wind velocity than was experienced at the previous fires.

10. Dispatch Table.

Combining the experiences of the Gngangara Fire of 22/1/'62 and this fire a dispatch table has been drawn up for two points in the fire danger range.

The dispatch table was drawn up as follows:-

(a). As mentioned earlier the force that finally controlled this fire comprised.

Nine gangs (including two brigade units.)

Nine heavy duty pumpers.

Five tractors (taken as the equivalent of bulldozers.)

At this time the headfire had burnt out of the plantation but a smaller force held the flanks until support arrived. It has been assumed that the final force would hold and control a fire of the proportions shown at 1500 hours on map 2.

(b). The fire perimeter at 1235 hrs. was approx. 30 chains  
at 1340 " " " 70 "  
at 1415 " " " 150 "  
at 1500 " " " 200 "

(c). The length of fire line controlled by gangs, heavy duties and bulldozers is:-

1 gang to 22 chains of fire line

1 H.S. pumper to 22 chains of fire line

1 bulldozer to 40 chains of fire line

The dispatch table was compiled by combining the perimeter spread and the suppression force achievement shown inc.

This table can be compared with a similar table which was compiled for the Gnangara Fire which occurred on a day of Severe S fire hazard.

The purpose of these tables is to provide a guide to dispatchers when determining the number of gangs, H.D. pumpers and bulldozers, which they should aim to have at the fire within certain specified periods from detection.

Dispatch Table for Coastal P.pinaster Plantation Fires.

(a). Moderate Fire Hazard with a 20 m.p.h. Wind = Blue Fire Danger

Dispatch to arrive within * of detection	Number of Gangs	Number of H.S. Pumpers	Number of Bulldozers
* 10 minutes	1	2	-
* 1 hour	3	3	2
* 1½ hours	7	7	4
* 2 hours	9	9	5

(b). Severe S. day with 13 m.p.h. wind = Brown Fire Danger

* 10 minutes	3	3	1
* 1 hour	11	8	3
* 1½ hours	16	12	4
* 2 hours	22	16	6

11. Discussion.

It is probable that fuel conditions in the older P.pinaster plantations are approaching the conditions that occurred in the jarrah forest prior to the era of area controlled burning i.e., the accumulation of fuel has reached such proportions that even heavy expenditure on the fire fighting organization will fail to control fires under severe weather conditions.

Significant indications of this fuel accumulation have occurred during the last three major plantation fires i.e. the headfire was only controlled on one of these fires.

Under the rotational burning regime the maximum fuel quantity retained over the bulk of the jarrah forest area is barely 1/7 of the fuel accumulation in the P.pinaster plantations. In high risk areas, such as Sommerville and Collier, it is considered imperative to reduce this fuel if fires are to be controlled quickly.

On present indications the only economically feasible method of fuel reduction is through controlled burning, and research has commenced on this project. Experience at Grimwade, Gngangara and Scadden indicates that burning under pines has an excellent chance of success, providing sufficient attention is paid to selection of correct weather and burning techniques. Despite a general lack of wide experience of burning under pines I am of the opinion that it may be advisable to burn a buffer strip through the centre of Sommerville Plantation, and extend the burnt area as the practise and information develops.

Such burning could be safely based on the weather conditions selected for the Gngangara experimental fires i.e.:-

- (a). Burn in August to early September.
- (b). Immediately after  $1\frac{1}{2}$  to 2 inches of rain.
- (c). With a max. temp. range of 60 to 68°F.
- (d). With a min. RH range of 55 to 65°F.
- (e). With an open wind velocity of 5 to 10 m.p.h.

To minimise the risk of smouldering, logs and stumps should be raked. The area should be edged as soon as possible after the rain, and the burn extended into the buffer when the flash surface fuel is dry enough to ignite. Under these conditions the duff layer and heavy wood will not burn, and it may be advisable to repeat burn in order to get the maximum benefit.

The present figures from the Grimwade and Gngangara growth trials indicate that mild burning has had little significant effect on rate of girth growth of 20 y.o. *P.radiata* or 15 y.o. *P.pinaster*.

Photos taken by the "West Australian" reporters have been ordered and will be forwarded when they arrive for appending to this report.

G.B. PEET.  
A.D.F.O.



12. Diary of Events.

Sommerville Plantation Fire of 7th February 1965.

(Time indicates time of arrival at the fire unless otherwise stated.)

Time	Event.
1233 hrs	Sommerville Tower reported a fire in the plantation thought to be in Compt. 48.
1240 "	Somm. gang (8 men) with H.D. pumper and fast attack unit dispatched with Mr. Foote.
1235 to 1255	The following personnel were advised:- Mr. Milesi. Mr. Meacham. Mr. Ashcroft. Forests Dept. Wanneroo Forests Dept. Mundaring Como and Fremantle Fire Brigades Hilton Park Police
1255 "	Como H.D. pumper and 2 men at the fire.
1300 "	Control centre established at Como by Milesi, Meacham and Watson.
1310 "	Assistance requested from Wanneroo and Mundaring.
1325 "	Ashcroft and Gorrindge arrived.
1326 "	Request to Soltoggio for earth moving equipment.
1350 "	Second Como H.D. Pumper with O'Grady arrived.
1351 "	Major alert by Ashcroft - assistance requested from Dwellingup and Gleneagle.
1415 "	van Noort and gang (4 men) and H.D. arrived.
1428 "	Dwellingup and Gleneagle gangs dispatched.
1450 "	Hewett with Mundaring crew (3 men) arrived.
1450 "	Michigan scoop from Soltoggie arrived.
1451 "	South Canning Bushfire Brigade advised that they were sending 12 men with truck and hand tools.
1452 "	Tower spotted a hopover in Compt. 37.
1455 "	Mundaring gang (4 men) with H.D. arrived.
1500 "	Gnangara gang (7 men) with H.D. arrived.
1505 "	Mundaring second H.D. held at Como as an emergency Unit.
1530 "	Gleneagle gange (6 men) arrived.
1545 "	Second Mundaring gang (7 men) arrived.
1600 "	Carinyah gang held on stand-by at Como.
1615 "	Two Dwellingup gangs (10 men) plus 2 H.D.'s arrived.
1620 "	TD18 bulldozer arrived.

1700 hrs D4 and D6 bulldozers arrived.  
Ferguson and scraper arrived.  
Mundaring 6 x 6 H.D. (3 men) arrived.

1830 " Running fire stopped and break established around  
the fire - Michigan scoop stood down.

1930 " Three other dozers stood down also the S.Canning  
Brigade.

2000 " Four gangs stood down i.e. two Mundaring, Wanneroo  
and Gnangara.

2030 " Collier and Sommerville gangs stood down.

2030 - Dwellingup and Gleneagle gangs mopping up with 5  
0810 8th H.D.'s Supervised by Hewett and Ashcroft plus two  
Forest rangers.

0810 on 8th Night shift crew relieved by gangs from Sommerville,  
Wanneroo and Mundaring (3 gangs) van Noort, and  
Ashcroft supervising.

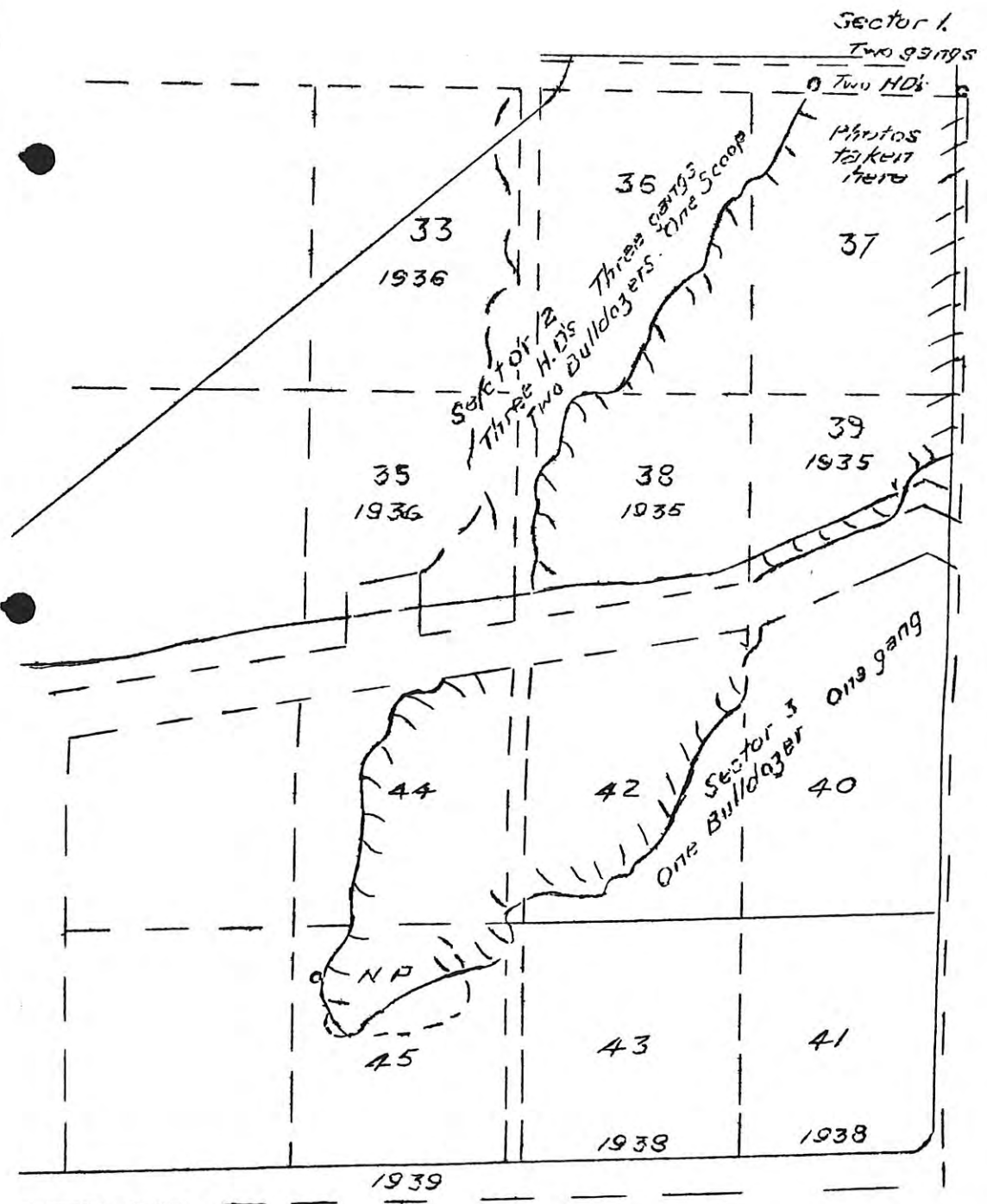
# Somerville Fire of 7/2/65

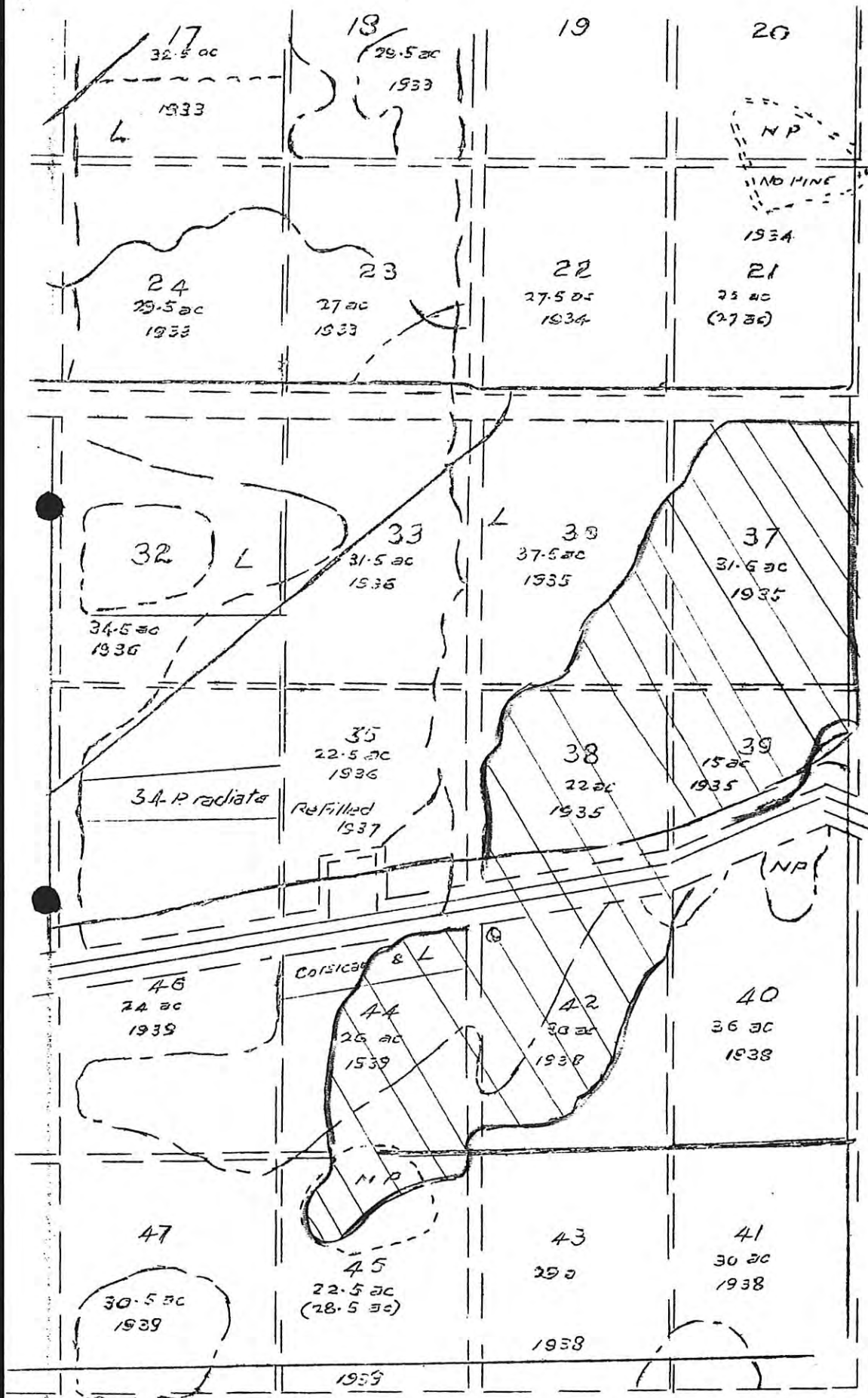
Map 1

Scale: 10 chains = 1 inch

## Distribution of Suppression Forces.

(---) shows the fire edge







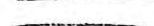

Plan of Somerville Fire of 7/2/65  
 \ \ \ = Burnt Area

# Somerville Fire of 7/2/65

Map 2

Scale: 100ft = 1 inch

## Rate of Spread Plan

	Fire position at 1235 hrs.
	" " " 1340 "
	" " " 1415 "
	" " " 1500 "

