

THE DWELLINGUP FIRES



JAN 19 – 25 1961

Saturday, 21st January

Fire Hazard Dangerous
T. Max. 101°
R.H. Min. 20 per cent.
Winds Moderate to fresh E.N.E. winds backing N.W. and S.W. during the day, with moderate gusty S.E. winds at night.

These wind changes were associated with the movement eastwards of a trough of low pressure. See Fig. 5.

Sunday, 22nd January

Fire Hazard Severe Summer approaching Dangerous
T. Max. 100°
R.H. Min. 27 per cent.
Winds Moderate S.E. winds veering S.W. during the afternoon and evening.

Winds were still very hot and actually were recurved north easterlies, coming from the trough which had moved inland. Moderate S.E. winds after midnight. The air was more stable, however, and this considerably aided fire suppression action.

Monday, 23rd January

Fire Hazard Severe Summer approaching Dangerous
T. Max. 98°
R.H. Min. 27 per cent.
Winds Moderate east winds which decreased in strength during the afternoon, but increased again during the early evening.

By this time a new trough had formed along the west coast with the axis of the trough extending southwards from the centre of the cyclone. See Fig. 5.

Tuesday, 24th January

Fire Hazard Dangerous
T. Max. 106°
R.H. Min. 13 per cent.
Winds During the early part of the day the winds were moderate N.E., N. backing N.W. The N.W. breeze which commenced about midday showed a marked increase in strength.

A wind velocity of 37 knots was registered at the Perth Weather Bureau at 2 p.m., and although this wind had a westerly component, and as it was largely influenced by the hot northerly gradient wind, did not produce any cooling effect. See Fig. 6.

During the late afternoon a small cell of low pressure formed in the trough to the South-West of Dwellingup and this had the effect of reinforcing the overall gradient winds. The intense temperatures in the fire area must also have had a further marked effect on wind force.

The Perth Anemometer recorded 39 knots at 8 p.m. at about which time Dwellingup was overrun. See Fig. 6. Local officers reported that the wind at this time was of gale force.

The first strong winds which struck Dwellingup were generally from the N.W.-N.N.W. but during the early hours of the 25th January another very strong series of gusts were recorded from the N.N.E. Perth recorded a maximum gust of 44 knots at 12.45 a.m. See Fig. 6.

During this period the small secondary low pressure cell moved south-easterly and filled, and at the same time the intense northern cyclone crossed the coast line near Carnarvon and immediately started to lose intensity.

Wednesday, 25th, was hot (92°) but much more humid with light variable south to south-west winds and thunder clouds forming towards midday.

Some thunder and lightning was in evidence and light rain commenced falling in the fire area in the late afternoon and evening.

This rainfall of about 50 points was general over the area and stopped the running fire.

APPENDIX 7

Major Fires in the Northern Jarrah Forest Region, 19th to 25th January, 1961

Following the severe build up of dangerous fire weather during the first 18 days of January a series of lightning fires through the Northern Jarrah Forest Region gave rise to an extreme fire situation unprecedented in the fire history of the Department, which culminated in the razing of Nanga Brook and the partial destruction of Dwellingup and Holyoake.

The story of the period 19th to 25th January, 1961, is briefly set out below with special emphasis on greater detail of the "Dwellingup fires."

On Thursday, 19th January, 1961, the dry lightning storms resulting from the cyclonic conditions already described struck first in the Harvey Division, where the maximum temperature was 106°, resulting in two fires around 3 p.m.

The storm moved into the Dwellingup Division between 5.30 and 6 p.m. and one of the early strikes put out of action the telephone in the towerman's hut at Mt. Wells resulting in delay of some twenty minutes in the reporting and locating of the strikes.

When connections were restored the towers reported six fires in the Dwellingup Division (fires 1-6 in Fig. 7), and one in the Gleneagle Division to the North.

Gleneagle gangs immediately attacked the fire in their Division and No. 5 in Dwellingup territory while Dwellingup gangs attended the other five.

Mundaring Division, with a maximum temperature of 107° were attending a non-lightning fire so the day ended with the Northern Division holding ten fires, with spread in the Dwellingup Division as shown in Fig. 8. The Mundaring Weir fire was held to under one acre, the Gleneagle fire burnt six acres and the Harvey fires three.

Friday, 20th January

Fire Hazard Dangerous
T. Max. 104°
R.H. Min. 16 per cent.

On Friday 20th, Mt. Wells reported a new fire (No. 7 in Fig. 7) at 5 a.m. and further lightning activity resulted in another fire in the Gleneagle Division at 8 a.m. Collie reported their first strike at 8.30; Mundaring Weir their first at 9 a.m.; Dwellingup's No. 8 was reported at 10 a.m. and Collie reported a second strike at 11.50 followed by a third at 1.30 p.m.

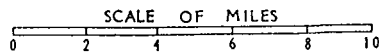
By 2 p.m. Dwellingup had logged fires Nos. 9 and 10.

When fire No. 10 was reported only one officer and one man were available to attend to it, and assistance was called up from Harvey and Mundaring Weir.

THE DWELLINGUP FIRES JAN.19-25 1961

LOCALITY PLAN SHOWING

DAILY SPREAD OF FIRES



LEGEND

Townships	■
Lookout Towers	▲
Spread of Fires to Midnight Friday	20 Jan.	■
.....	Saturday	▨
.....	Sunday	▧
.....	Monday	▩
.....	Tuesday	▪
Final Spread of Fires	Wednesday 25 Jan.	▬

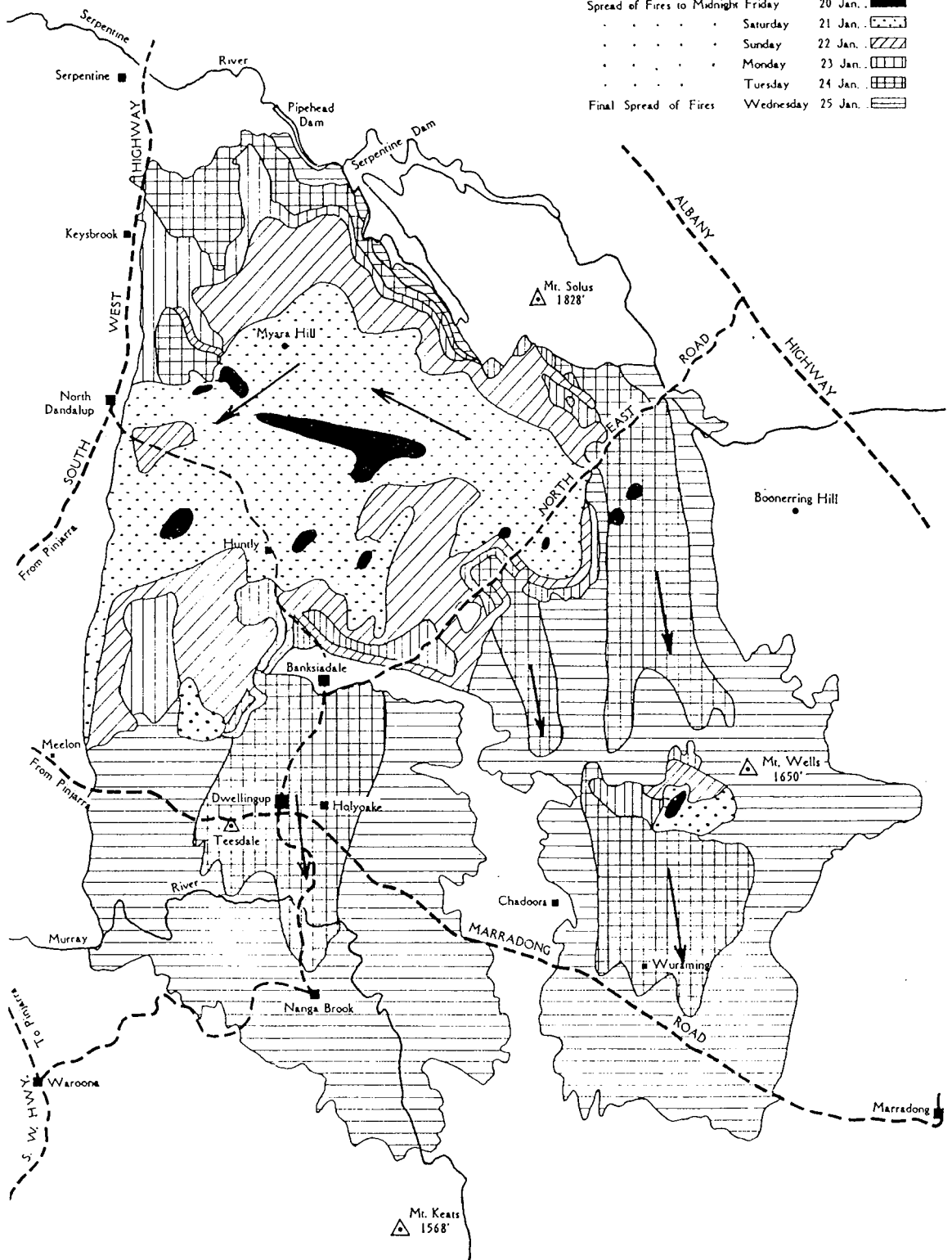
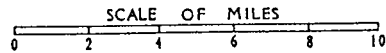


Fig. 7

THE DWELLINGUP FIRES JAN. 19-25 1961

LOCALITY PLAN SHOWING
POINTS OF ORIGIN OF INDIVIDUAL
LIGHTNING FIRES



LEGEND

- Townships ■
- Lookout Towers ▲
- Fire Number 4
- Date, Time Detected 19-1830
- Fires Resulting from :-
 - A) Storm of 19-1-61 at 1800 hrs. ●
 - B) Storm of 20-1-61 at 2000 hrs. ○
 - C) Unknown +

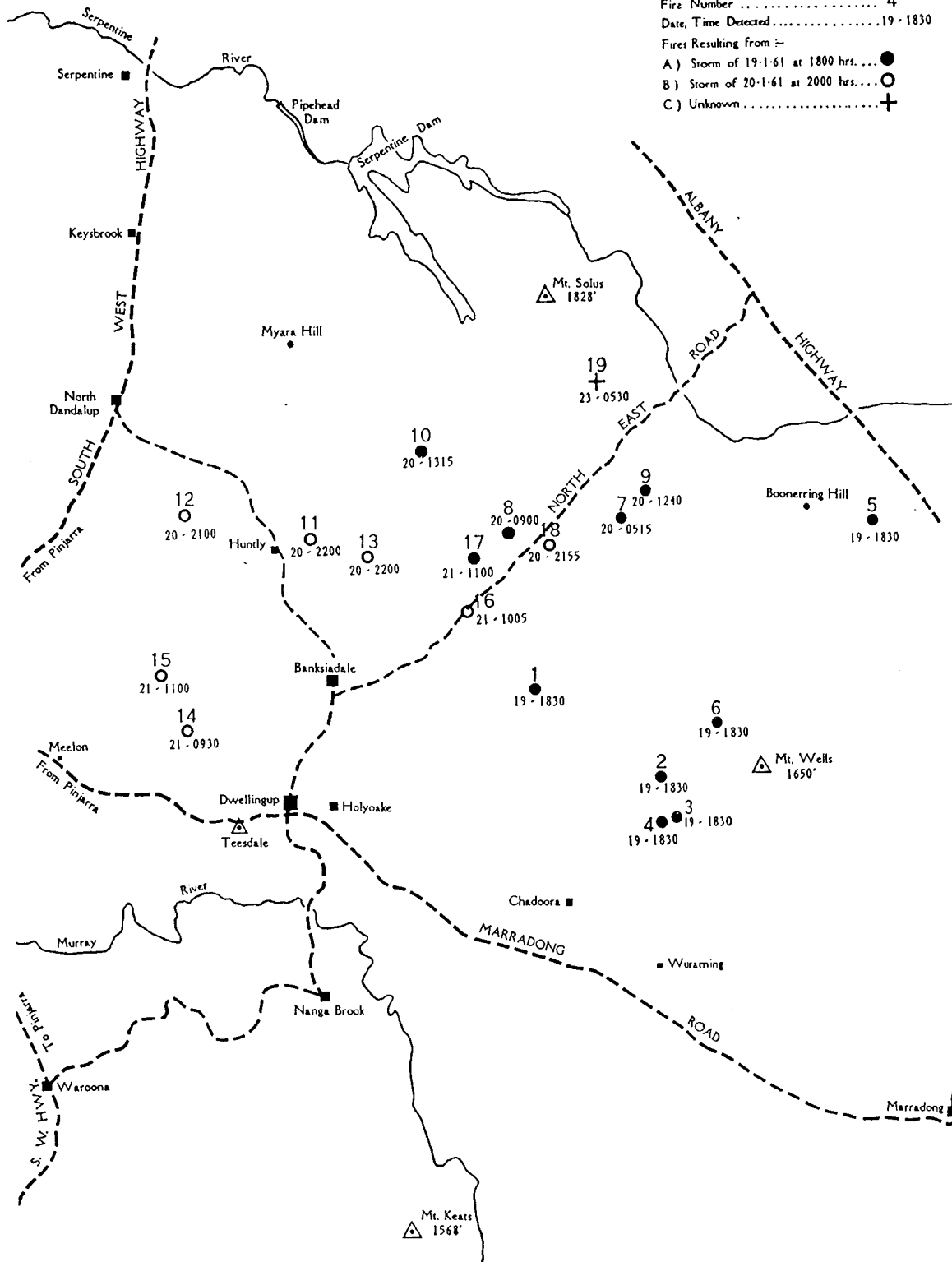


Fig. 2

Between 4 and 5 p.m. further storms resulted in a further fire in the Collie Division and two in the Harvey Division. By 10 p.m. Dwellingup fires Nos. 11, 12 and 13 were reported, and from reports coming in it seemed certain that there had been further lightning strikes along the scarp.

Fire No. 10 had spread rapidly in a W.N.W. direction spotting ahead some six miles from the point of origin of the main fire.

At about 11 p.m. the wind changed to a North Easterly causing both the main fire and spot fire to move in a S.W. direction on a broad face.

Fires Nos. 3, 8 and 9 were requiring the attention of a large number of men although they were still held and all other fires were out.

By midnight the Collie fires had burnt over some 500 acres but were held, the Gleneagle fire was held to less than an acre as was the Mundaring fire.

The extent of the Dwellingup fires is shown in Fig. 8, with not a great area burnt, but with many miles of hot perimeter and fires 10 and 10A still running.

Saturday, 21st January

Fire Hazard Dangerous
T. Max. 101°
R.H. Min. 20 per cent.

At 4 a.m. a tongue of fire was discovered coming over the hills and approaching the South Dandalup River.

This fire may have come from No. 12, but it is possible it originated from new lightning strikes on the scarp during the night.

It was contained by Murray District bush fire brigades.

At 6.30 a.m. Harvey reported a new fire and No. 14 Dwellingup was reported at 9 a.m., but not located in the field until 11.00 by which time Nos. 15, 16 and 17 had also been found. No. 18 was picked up at 12.30 p.m.

These new fires out-flanked and completely nullified all the work done during the night on the Southern flank of No. 10, and all gangs were recalled to Dwellingup for re-grouping.

Visibility from the towers was practically nil and the position of the running fire face had to be ascertained by ground patrol.

The picture that emerged showed that fires 3 and 4 (the Wells fire) had broken away again and could be treated as a separate fire, and there was an extensive area with a series of running fires extending from the South-West to Boonering in the North-East and Myara in the North-West; an area of nearly 250 square miles.

The general strategy envisaged holding the western flank on extensive areas of previously burnt breaks; the northern face could be held by the Serpentine Dam clearing and by gangs from Gleneagle working South-East from this clearing to the North-East Road.

The Southern and South-Eastern faces were regarded as critical with the prevailing winds at the time, and it was planned to hold this face along the North-East Road by back burning at night from Dwellingup to Albany Highway, however, it was found that a spot fire had already jumped this road forming a salient which had to be contained.

During the day Mundaring Weir had two fires, one a lightning strike, and the staff were called out to another major lightning fire coming out of private property into State Forest. This was not stopped until Wednesday, 25th, after burning over 9,000 acres.

Harvey reported two more fires, one being a fresh lightning strike.

By midnight, the Marrinup fire (No. 14) was held on recently burnt country in light litter, and the Wells fire (Nos. 3 and 4) was held but still giving some trouble.

The Western and Northern flanks were quiet, the North-Eastern flank was being held precariously and back burning was proceeding up the North-East Road.

Sunday, 22nd January

Fire Hazard Severe Summer, approaching Dangerous.
T. Max. 100°
R.H. Min. 27 per cent.

By Sunday relief gangs and fresh officers were being drawn from as far north as Wanneroo and as far south as Nannup. Most fire points were being held and consolidation was proceeding satisfactorily although the position was still dangerous.

At 4.15 p.m. Gleneagle had a smoke reported to the South-East but because of smoke haze no cross bearings were possible.

By 6.30 p.m. two large fires were discovered some 10-12 miles South-East of the Settlement which were probably lightning fires lit the previous day.

These fires eventually merged and burnt a large area in the Eastern Catchment area and necessitated all Gleneagle gangs being withdrawn from the Dwellingup fires.

Monday, 23rd January

Fire Hazard Severe Summer, approaching Dangerous.
T. Max. 98°
R.H. Min. 27 per cent.

All points were held, no breakaways had occurred and good progress was being made in mopping up.

By 6 p.m. it was felt that the position was satisfactory and that complete control would be achieved within the next few days although there was a perimeter of over 100 miles, most of it potentially dangerous.

Tuesday, 24th January

Fire Hazard Dangerous.
T. Max. 106°
R.H. Min. 13 per cent.

At dawn a fresh fire, No. 19, was discovered 3½ miles South-East of Mt. Solus, this outflanked the work being done on the South-East face from the dam clearing to the North-East Road, and the Wells fire had broken away again.

The gangs from the South-East face had to be withdrawn to contain the new fire by back burning from the North-East Road and the Wells fire gangs had to be reinforced.

By 11 o'clock the gangs back burning along North-East Road were reporting difficulty in holding their back fire, and between 11.30 and 1 o'clock the freshening North-West wind had taken the fire out of control over the road in several places and all gangs were withdrawn and instructed to report back to Dwellingup or, if this were impossible, to place themselves on safe ground since, in view of the forecast there was grave danger that some of the gangs might get cut off and engulfed by the fire.

It was intended to re-group and begin the fight all over again when the fire and weather pattern became clear.

At about 2 o'clock there was a breakaway from the Eastern flank of the Marrinup fire (No. 14) just north of the South Dandalup River and a head of fire was driven on a strong westerly wind towards Banksiadale to a point just South of the town, where it spotted over the road into country not so far involved in the fire.

Banksiadale was well protected but an officer and extra gangs were sent there as an added precaution and to prevent any back burning at this stage.

The fires south of Banksiadale presented a new threat and every effort was made to contain them but by late afternoon they had made considerable headway and further spot fires made effective control very difficult.

In view of the obvious danger to the settlement at this time, Holyoake was evacuated.

There was still no threat to Dwellingup and settlers on farms throughout the district were advised by telephone and couriers to evacuate their farms and come in to Dwellingup.

The police at Pinjarra were advised of the position and Wells and Teesdale Towers were evacuated.

It was realised that some of the very old mill houses might be ignited by flying embers, but the resources available were considered strong enough to ensure the safety of the town.

All women and children were concentrated in safe positions and the fire fighting gangs were deployed on threatened flanks and throughout the village with pack sprays and power pumps.

By 7.30 p.m. the fire was still some two miles North of the town and everything was in readiness to meet it.

However, around 8 o'clock the tornado struck and the gale force winds, which persisted throughout the night, brought the fire down on the town in four heads.

Burning debris which showered over the town long before the actual fire reached the area started numerous spot fires throughout the settlement and ignited buildings at widely separated points.

The first two heads of fire were warded off but the other two engulfed the town and much heroic work was done in saving what was saved.

It is to the great credit of all personnel that throughout the terrifying experience of the night of January 24th there was no panic and not a single casualty.

Wednesday, 25th January

Shortly after midnight the fire had burned out Nanga Brook, after the majority of residents had been evacuated to Waroona. By first light on Wednesday, 25th, the new Southern and South-Western flanks of the now greatly extended fire were held on a line some 14 miles south of Dwellingup. Steady rain which commenced falling over the whole fire in the late afternoon, stopped the running fires and the long job of mopping up the large perimeter commenced.

Fire Losses.—One hundred and forty-five buildings throughout the district were lost together with heavy damage to orchards, fencing and stock.

Departmental losses included seven houses, two offices, two lookout towers, a sawmill and a number of outbuildings. Nine vehicles were destroyed and a quantity of stores and equipment.

Losses in the forest are difficult to assess as most of the fire damaged timber will be utilised by the sawmills.

The fire covered some 350,000 acres, but a large part of this area was not seriously damaged.

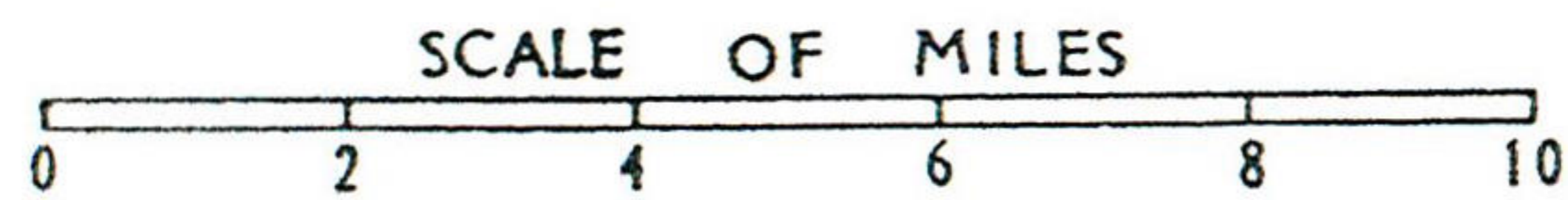
Assessments carried out since the fire show that 30 per cent. of the burnt area was virtually unaffected by the fire, entirely due to previous controlled burning in the past three or four years, 50 per cent. suffered more or less severe damage (depending on the time elapsed since previous controlled burning operations on those areas) and 20 per cent. was severely damaged, the trees being completely defoliated.

Jarrah is, however, a very fire resistant species, and most of the trees will recover, having suffered mainly a set back to growth. Surprisingly few trees of any value were killed by the fires.

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LOCALITY PLAN SHOWING

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