

TUTANNING FIRE HISTORY FROM 1967

Late winter 1967.

Three fires were lit, two to remove a congestion of bulldozed trash along the edge of Echidna road and one to reduce the fire hazard near the Research Station; from the bottom of the dam wall to Echidna road. The results of all fires were satisfactory.

Spring 1968

One fire was lit along Kangaroo road to remove a further congestion of bulldozed trash and some fuel beds that were causing Mr. A. Herneman concern.

Burning was also carried out along Tutanning road on the northern edge of compartment (10) ten. Again the results of all fires were satisfactory.

Spring 1969

Burning commenced along Tutanning road on the southern edge of compartment (5) five, the drought factor was obviously high (no records were kept). The precaution had been taken to do only night burning, any flames climbing up trunks of dead Casuarinas were soon extinguished. On the second night a dramatic increase in wind caused any further burning to be cancelled.

Spring 1970

Four sites over widely spread situation were selected to study the re-establishment of vegetation. In two areas the Casuarina was just pushed over or cleared off. On two the Casuarina was pushed over and burnt, due to the unseasonable conditions that have prevailed since no conclusions have been reached.

The remainder of the reserve along Tutanning road north of compartments (6) six and (7) seven were burnt.

Lastly (3) three blocks were selected along Jarrah road with ^{Casuarina} ~~Casuarina~~ nivea and Eucalyptus drummondii as dominant species.

Block one was burnt at a temperature of 54F but no wind resulting in a very patchy burn.

Block three was burnt at the same temperature and a wind speed (forecasted) of 5.10 m.p.h.

A rate of spread was experienced of 12 feet per minute, removing completely all foliage and fuel.

Spring 1971

With the co-operation of the forestry department and with the assistance of Mr. Arthur Ashcroft of that Department we were for the first time able to compile data relating to fires and compare fire danger tables compiled for Jarrah forests.

On two separate trips of four days (27) twenty seven experimental fires were lit, culminating in the burning along the northern edge of compartments (16) sixteen and (17) seventeen. Completing the burning along Tutanning road south of compartment (3) three. And finally an attempt was made to burn the whole compartment (12) twelve of some 103 acres. This however was not a complete success due to a sharp decline in fire conditions, possibly only a 40% removal of fuel.

Spring 1972

With experience and data collected from the previous years it was decided to carry out two prescribed burning programmes. One on compartment (9) nine of 222 acres and one on compartment (3) three of 215 acres.

The results of these fires are attached although one fire was a success the failure of the second highlights the short period of time available to carry out prescribed burning and the importance of preparatory work required before any burning programme is carried out.

Also attached are specimen copies of information sheets handed to or posted to land holders adjoining our more important reserves on who and where to ring in case of fire. The results of these notices have been particularly pleasing this year.

CONTROL BURNING 1972

TUTANNING RES. NO. 25555

Spring burn.

Date 11th & 12th October 1972.

Compartment No. 9

Perimeter Roads : Nuytsia, Eagle, Wattle, White gum
and Mistletoe Roads.

Previous preparation : Nil

Time of Burning : 11.10.72 1800 -2200 hrs
12.10.72 1530 -1930 hrs

Wind : S.E. 1.6 - 1.9 m.p.h. at 4 feet.

Number of Men : 3 (Three)

Method :

Day (1) Perimeter roads Eagle and Wattle roads were edge
burnt.

A.F.H.	1425 hrs	1.38
	1455 hrs	1.5
	1520 hrs	1.5
	1605 hrs	1.4

At 1530 hrs it was evident that the fire hazard
was falling, the chief factor being the wind speed.
A reduction had been noted on each reading.

Burning commenced.

This area burnt slowly with a flame height of approx.
15" under Casuarina and Eucalypts.

At 2200 hrs it was decided to discontinue any
further burning. A.F.H. now reading 0.36.

Day (2) At 1400 hrs re-ignition of burnt area occurred
amongst the rocks. A.F.H. being 1.7, flame height
now approx. 2 feet. This fire was allowed to burn
as it was relatively safe.
After taking regular half hourly readings it was
decided to continue burning by 2 chain spot fires
diagonally across and against the wind. When the first
2 lines and spots had joined all personnel were
employed in lighting until the compartment was
completed by 1930 hrs.

Compartment No. 9 (cont'd)

Inspection : 17.10.72

Scorch height : 15-20 feet mainly under Wandoo and Mallet.

Approx. 80% of total area burnt.

Note Only minimal damage to vegetation, kangaroos observed
feeding in area and fresh diggings observed. This is
a recommended type of burn.

CONTROL BURNING 1972
TUTANNING RES NO. 25555

Spring Burn. Date. 17th October 1972.
Compartment No. 3
Perimeter Roads : Quail, Jam, Rosella and Chat Roads.
Previous Preparation : Nil.
Times of Burning : 17.10.72 1900 hours
18.10.72 1715 hours
19.10.72 1930 hours
Wind : Speeds from N.W. - S.W. 6.2 to 1.6 m.p.h. at 4 feet.
Number of Men : 4 (Four)
Method :

Day (1) As soon as the fire hazard had dropped to approx. the A.F.H. (1.5) of previous successful burn, it was decided to light the South east edge of the compartment in a westerly direction approx. 400 yards were ignited in this fashion the fire jumping the break once. The back burning was or had all the desirable requirements. At 2015 hrs the wind shifted from N.W. to S.W. and freshened slightly. Due to the heavy concentration of fuel in this compartment the fire followed the heaviest line of fuel, and soon became a head fire. No practical application had been made to determine the fuel quantity yet it was visually obvious that the quantity was more than double that of compartment 9. (Ref :-leaflet 80 by A.G. McArthur). (As rate of spread is directly proportional to fuel quantity, it follows from the use of a formula that as the fuel quantity doubles, the fire intensity will increase four fold). With this in view at 2100 hrs it was decided to suppress the fire completely. This work was completed at 0100 hrs
Day (2).

Day (2) At 0500 hrs the wind had freshened or increased to 20 - 25 m.p.h. (tower strength) still from the S.W. and continued all day. At 1715 hrs with the wind still S.W. at 4.4 miles (tower strength) and with a low A.F.H. of 0.9 it was decided to burn all dryandra along the eastern edge, on Chat and part of Rosella Roads. This area was successfully burnt. An increase in wind speed

(not recorded) caused any further burning to be discontinued. Work finished 2300 hrs.

Day (3)

The wind had moved further around and was now blowing from the South, completely in the wrong direction required.

Fire hazard readings were commenced at 1345 hrs the A.F.H. continued to rise until 1700 hrs. It had been decided to burn the western edge up to a depth of 3 chain as the northern edge of this area was safe even with a southerly wind. This would also box the fire in should any attempt be made with a N.E. wind.

At 1700 hrs the fire was lit first on the Northern edge and when this had back burnt 1 chain, 2 chain strips were lit against the wind over the next 8 chains.

A.F.H. 1.4 at 1700hrs

0.99 at 1730 hrs

This was a success ful burn again in regard to predictions from tables however heavy fuel concentrations makes lighting such areas a hazard where no preparation work has been done.

Dear Sir,

Fire Control on Boyagin Reserves
Nos. 19128 & 20610

These reserves for the Conservation of Flora and Fauna are vested in the Western Australian Wild Life Authority and administered by this Department.

Over the past decade considerable research work has been carried out on these reserves, and on the Tutanning Reserve east of Pingelly, into the needs of the wildlife occurring there and on the effects of fire on the native fauna. We now believe that we are in a position to take more positive steps to carry out fire prevention on the reserves. Control burning commenced during Spring of 1971 and was carried out by the Forests Department who are most experienced in this type of work and who possess the necessary equipment and man power. Costs are met by the Department of Fisheries and Fauna.

Due to unseasonable conditions prevailing, this year's program of prescribed burning was not carried out, and will be added to next year's program.

There is of course the possibility of uncontrolled bush fires occurring on these reserves. While the program of controlled burning will assist considerably in keeping such fires to a minimum it will be several years before the whole of the reserves are burned. The Department of Fisheries & Fauna does not possess much fire fighting equipment and has few staff it can allocate to fire fighting. However, the Forests Department has now agreed to assist in the control of wild fires on these reserves.

Because of the distance of the reserves from fire towers in State Forest it is likely that the first reports of a fire will come from local farmers. If a fire does break out on the reserves would you please immediately get in touch with one of the following :

Department of Fisheries and Fauna

Pingelly : telephone	273 or 277
Perth : office hours	25 6495
	25 3483
	25 5988
after hours	60 5694

Forests Department

Duty Officer - Narrogin	811444 - all hours
" " Kelmscott	975516 - " "
or Jarrahdale	(095) 25 5177
	(095) 25 5004

This Department will be pleased to reimburse the costs of telephone calls.

Effective fire suppression depends on an early start and a long delay between the outbreak of the fire and the arrival of fire fighting units and personnel may allow a fire to grow to an uncontrollable size so immediate notification is of the greatest importance. Your co-operation would be greatly appreciated.

Yours faithfully,

DIRECTOR