"BEEKEEPER USAGE OF THE LAKE MAGENTA WILDLIFE SANCTUARY RESERVE 25113"

(A submission to the Department of Conservation and Land Management)

DIVISION OF ANIMAL PRODUCTION
INTENSIVE INDUSTRIES BRANCH
APICULTURE SECTION

NOVEMBER 1986

WESTERN AUSTRALIAN DEPARTMENT OF AGRICULTURE
INTENSIVE INDUSTRIES BRANCH
APICULTURE SECTION

"BEEKEEPER USAGE OF THE LAKE MAGENTA WILDLIFE SANCTUARY (RESERVE A25113)"

(A submission to the Department of Conservation and Land Management)

Compiled by

R.C. Burking (Technical Officer)

1986

CONTENTS

1. SUMMARY

The loss of spring flowering vegetation adjacent to the West Coast through a series of devastating wildfires during the period January 1984 to February 1986 has severely affected many Western Australian beekeepers. Due to the lack of available areas for the selection of apiary sites, beekeeper usage of specific Nature Reserves and National Parks is essential for the Beekeeping Industry to remain viable for the export market.

The Lake Magenta Nature Reserve in the Shire of Kent in the past was used by beekeepers until a change of policy by the then Department of Fisheries and Wildlife excluded beekeeper entry from a valuable spring-early summer honey and pollen resource.

A description of the reserve is provided and its suitability for beekeeping is discussed.

Recommendation to the Department of Conservation and Land Management are presented for possible usage of the reserve by the Beekeeping Industry.

2. INTRODUCTION

In recent years, the Western Australian Beekeeping Industry has received severe setbacks to honey and pollen production (essential for export markets) through a variety of factors. These losses have attributed to the loss of the natural production resource from native vegetation through wildfires (Burking & Kessell, 1984). Clear felling for woodchipping, "Dieback" quarantine areas, mining exploration, Banksia woodland clearing for softwood production and the exclusion from specific Nature Reserves (Burking, 1984).

Extensive areas of the West Coastal Heath and adjacent Banksia woodland since 1984 have suffered severe damage through wildfires (Burking, 1986) and the beekeeping industry has lost some 180 apiary sites, essential for late winter-early spring hive build up and honey production.

With the remaining areas of natural vegetation remaining (in close proximity to beekeepers range of operations) now being conserved as Reserves or National Parks and in some cases not available to beekeepers, the production resource is limited. To maintain a viable beekeeping industry, apiary sites must be available within an economical travelling distance from the beekeepers operating base. In view of this it is important that remaining areas of natural vegetation be utilised both for conservation and other usages such as beekeeping.

One such reserve is the Lake Magenta Wildlife Sanctuary (Reserve 25113A) which up until the late 1970 was open for use by beekeepers, but has since been withdrawn for the purposes of Conservation of Flora and Fauna.

3. LAKE MAGENTA WILDLIFE SANCTUARY

3.1 Location and Physical Features

The Lake Magenta Reserve (25113) lies within the Shire of Kent some 32 km east of the township of Pingrup and occupies an area of some 94,170 ha (Crook & Burbidge, 1982) and is bounded by agricultural land on its north, west and southern boundaries. To the east is situated the Lake Magenta Wetland Chain after which the reserve was named.

Most of the reserve is low-lying and of gently undulating terrain, being part of an area notable for its lack of rivers and for the presence of salt lakes. The reserve includes all of the southern portion of Lake Magenta, a large salt-pan lake, and part of a chain of salt and ephemoral freshwater lakes to the south of Lake Magenta itself.

Several small soaks exist within the reserve, one of which in the past was developed into a small dam now known as "Government Dam".

3.2 Vegetation

The vegetation of the reserve has been mapped on a broad scale (Beard, 1972) and five (5) differentiated formations occur. Details are as follows:

a) Mallee on lateritic soil (Eucalyptus eremophila, oleosa association).
b) Mallee-heath (Eucalyptus tetragona community).
c) Scrub heath (Mixed Proteaceae - Myrtaceae).
d) Boree Scrub (Melaleuca thyoides community).
e) Woodland (Eucalyptus salmonophloia).

4. SUITABILITY FOR BEEKEEPING

The variable vegetation of the area ranging from sand heath - mallee woodland to transcontinental woodland with a large number of flowering species provides a well balanced production resource (see Appendix 3, for details of documented vegetation information) and are most suitable as a food source for honey bees (Smith, 1969). The normal flowering period occurs in the spring and early summer but may vary according to the seasonal conditions, and in the past has been used by beekeepers. (Litho's indicate that a series of apiary sites existed adjacent to East Road, otherwise known as Halls Track.)

Access to the reserve could be provided by utilising East Road, or via the periferal fire breaks adjacent to the agricultural land.

Geographically, the reserve is situated within an acceptable working distance by beekeepers from their operating bases, the majority of which are within the Perth metropolitan area.

With normal flowering occurring every year (depending on rainfall) the "honey-flow" would support a series of apiary sites for up to a three month flowering period.

5. DISCUSSIONS AND RECOMMENDATIONS

The present policy adopted in 1981 to beekeeping on Western Australian Nature Reserves (Moore et al., 1983) is as follows:-

The placing of hives of bees on nature reserves will be permitted provided

(i) the nature reserve falls within the geographic area of the state where feral bees are already present.

(ii) the nature reserve is greater than 500 ha in size.

(iii) the partiuclar area within the nature reserve has not been specifically excluded from use by the beekeeping industry in accordance with a specific management by the Authority.

(iv) the particular area within the nature reserve is one in which the siting of hives is unlikely to inconvenience or endanger the public.

When considering the Lake Magenta Reserve in relation to the above, there would appear to be no valid reason why beekeeping should not be permitted. The reserve is greater than 500 ha, the existing Management Plan (Crooke & Burbidge, 1982) does not include honey bees in the list for the control of pest animals and plants. In addition to these factors, the lake Magenta Reserve has within its boundaries supplies of fresh water available to the indiginous fauna. In view of this, the water transported into the reserve by beekeepers (for the limited flowering period) would therefore not interfere with the ecological situation which exists. The normal flowering period of the existing vegetation which occurs in the spring-early summer would allow beekeeper usage for up to three months.

Prior to use, beekeepers normally undertake a pre-season inspection to ascertian if the buddding conditions are suitable for the setting up of hives and unless an abundance of nectar and pollen was envisaged, it is unlikely that the sites would be used. If the conditions were found to favourable, then usage may occur and due to the abundance available, no opposition to indigenous fauna would result during the limited flowering period.

It is felt that a number of apiary sites could again be established within Lake Magenta Reserve and the location of these may require careful consideration through consultation with the Departments of Conservation and Land Management and Agriculture with the beekeeping industry. To reduce the threat of dieback infection, beekeepers would be required to thoroughly clean their vehicles prior to entry, and during the period of usage would be restricted to the existing tracks and not be permitted to drive into the body of the reserve.

If entry could be permitted, consideration should be given to those beekeepers who previously rented sites within the area prior to eviction by the Department of Fisheries and Wildlife.

In view of the proposal presented, it is recommended that the Department of Conservation and Land Management investigate the renewed usage of Lake Magenta Reserve.

6. ACKNOWLEDGEMENTS

Appreciation is expressed to the following people who assisted in the preparation of this submission.

Mr A.C. Kessell (Senior Apiculturist) W.A. Department of Agriculture.

Ms J. Maughan (Librarian) W.A. Department of Agriculture.

7. REFERENCES

Beard, J.S. (1972). "Vegetation Survey of Western Australia." Newdegate Sheet No. Sl 50-8. Vegmap Publications, Sydney.

Burking, R.C. (1984). "An evaluation of the suitability of specified nature reserves for beekeeping in Western Australia." W.A. Department of Agriculture.

Burking, R.C. (1986). "The effects of wildfires on the Western Australian Beekeeping Industry." The Australasian Beekeeper 87(12) 255-258.

Burking, R.C. & Kessell, A.C. (1984). "Damage Report of the West Coastal Wildfire (January 16-21, 1984) and its effects on the Western Australian Beekeeping Industry." W.A. Department of Agriculture.

Crook, I.G. & Burbidge, A.A. (1982). "Lake Magenta Nature Reserve." Department of Fisheries and Wildlife, Perth, Western Australia.

Moore, S.A., Williams, A.E. & Crook, I.G. (1983). "Beekeeping on the Nature Reserves of Western Australia." Department of Fisheries and Wildlife, Perth, Western Australia.

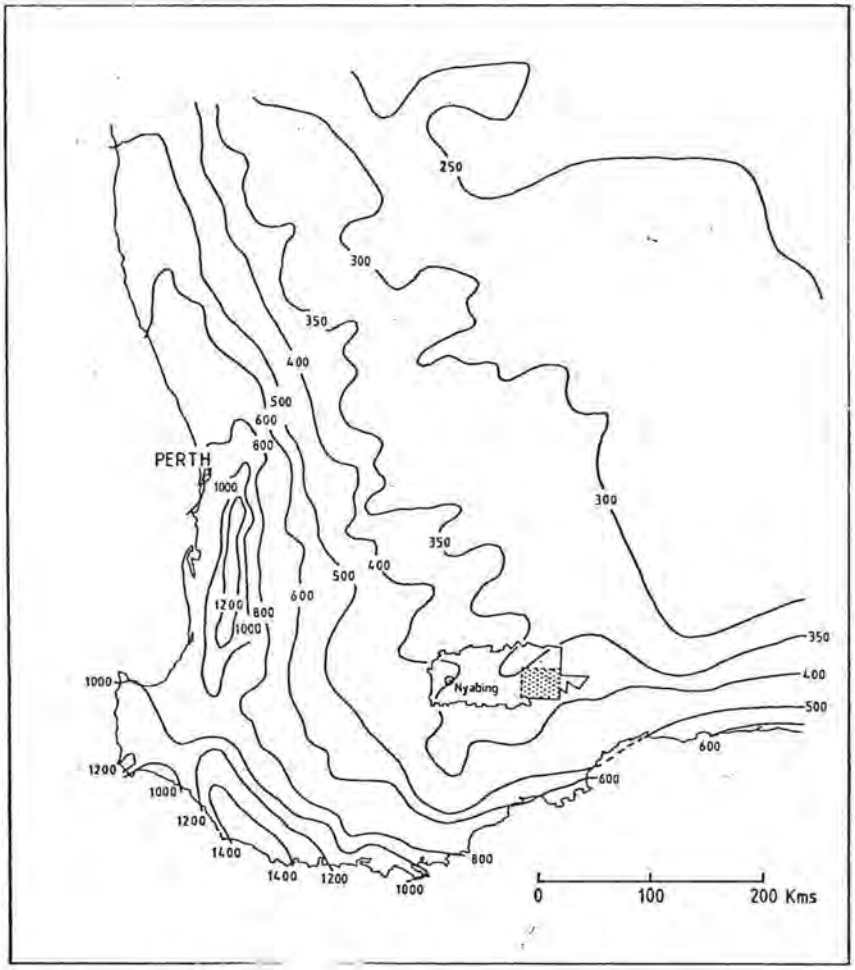
Smith, F.G. (1969). "Honey Plants of Western Australia." W.A. Department of Agriculture, Bulletin 3618.

APPENDICES

1. Location Map.
2. Reserve Access.
3. Vegetation Data.

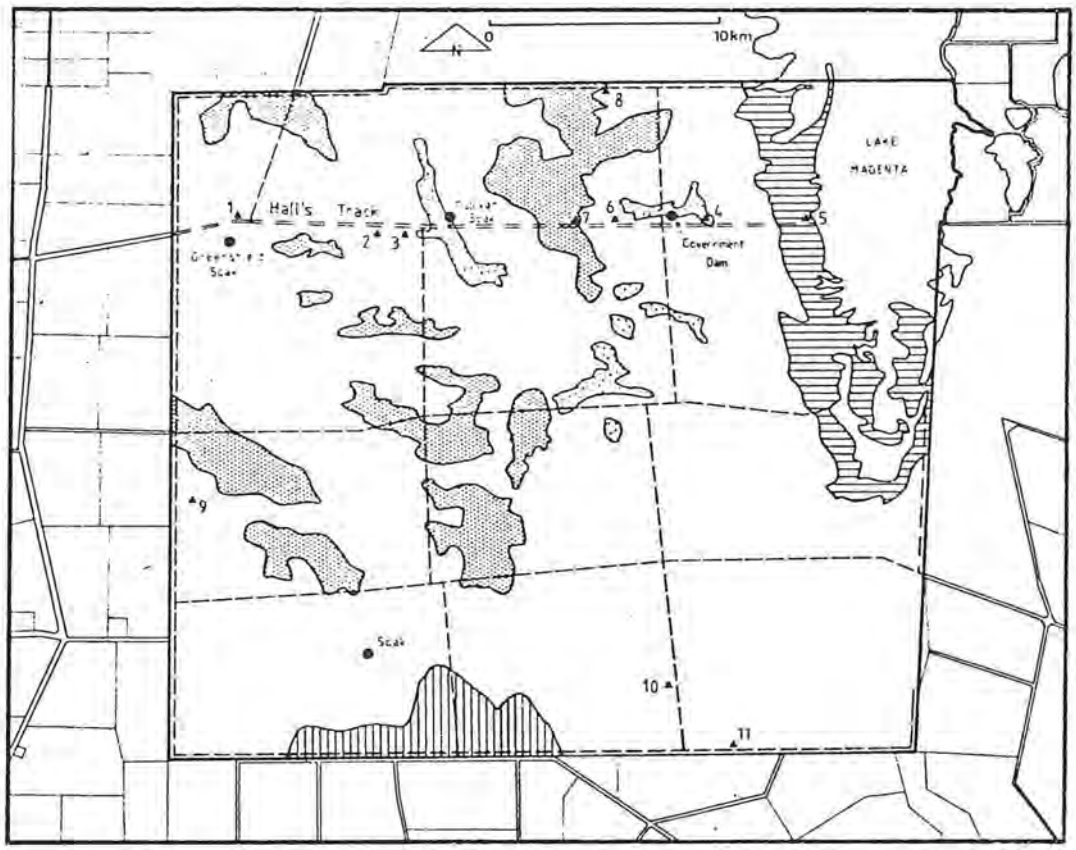
APPENDIX 1

RESERVE LOCATION



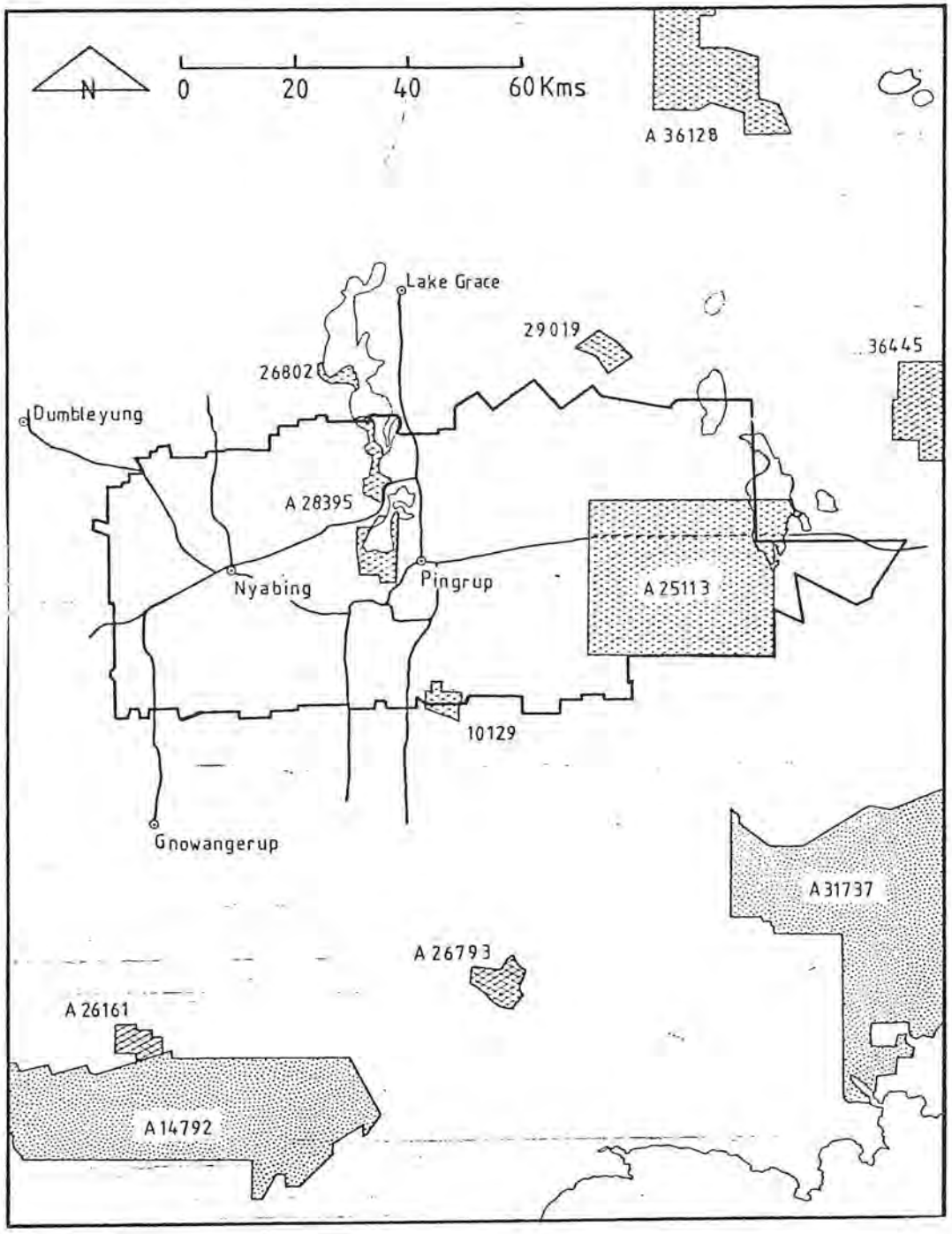
APPENDIX 2

RESERVE ACCESS



APPENDIX 2 continued

RESERVE ACCESS



APPENDIX 3

VEGETATION INFORMATION

LAKE MAGENTA NATURE RESERVE 25113A

1) Mallees, Scrub and Heathlands

a) Mixed open mallee

Eucalyptus eremophila, foecunda.
Melaleuca uncinata, Leucopogan, Acacia, Grevillea spp. Pimela brevifolia, Lechenaultia formosa, Conospermum bracteosum.

b) Mixed mallee - open woodland

Eucalyptus platypus, redunca and eremophila.
Exocarpus aphyllus, Melaleuca uncinata.

c) Closed moort mallee - forest

Eucalyptus platypus.
Exocarpus aphyllis, Melaleuca and Grevillea spp.

d) Open tallerak mallee

Eucalyptus tetragona, foecunda.
Heath spp. Myrtaceous and Proteaceous shrubs.
Hakea multilineata, Verticordia mitchelliana, Banksia baueri.

e) Mixed open shrub mallee - open scrub

Eucalyptus tetragona, foecunda, incrassata.
Hakea multilineata and Santalum murrayanum.

f) Mixed mallee - heath

Eucalyptus eremophila, redunca, foecunda, pileata.
Hakea, Leocopogan, Grevillea and Acacia spp.

g) Salmon Gum Woodland

Eucalyptus salmonophloia.
Understory Exocarpus and Santalum spp.

h) Mixed Eucalypt Forest

Eucalyptus astringens, falcata, gardneri, platypus.
Understory Melaleuca and Hakea spp.

i) Yate Swamp

Eucalyptus occidentalis.
Scattered Melaleuca spp.

j) Eucalyptus spathulata woodland

Eucalyptus spathulata.
Melaleuca thyoides.

k) Samphire low heathlands

Halosarcia and Aizoon spp.