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**CONSULTATIVE ENVIRONMENTAL REVIEW**

**PROPOSED CLEARING OF 197HA OF LAND FOR AGRICULTURE,  
WILLIAMS LOCATION 13895 NORTH KUKERIN, SHIRE OF  
DUMBLEYUNG (Matthew King) (774)**

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**PROPOSED CLEARING OF 197 HA OF LAND FOR AGRICULTURE,  
WILIAMS LOCATION 13895 NORTH KUKERIN, SHIRE OF  
DUMBLEYUNG.**

<b>Area Owned</b>	<b>1921 HA</b>
<b>Area cleared for farming</b>	<b>1537</b>
<b>Area uncleared on farm</b>	<b>384</b>
<b>Area proposed for clearing</b>	<b>197</b>

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**HISTORY**

Back in 1987 I applied for a clearing application to clear 600 acres through the Department of Agriculture. On the 4th September 1987 it was approved and it was agreed that it could be cleared over a number of years.

My plan was to clear 150 acres a year. The first year, clean it up, get it into production and when properly done, clear another 150 acres and so on. To do this my way it was going to take approx 6 years, thus leaving plenty of bush and all ridges.

With two families living off 3600 acres of cleared land, the need for more land is necessary, but hard to find close by. This is the reason we would like to clear our bush. We have 4 children and the eldest goes away to boarding school in Perth in 1994, schooling fees have to be met and then we have a child going away every 2 years after that.

**PRESENT LAND USES**

On the more productive land to maximise our profits we have a rotation program of wheat, lupins, wheat, followed by pasture. On the poorer soils such as the grey clay we are using barley, then putting in clover that is recommended by the Department of Agriculture.

We are currently running 2800 sheep which feed on lupins, wheat and barley stubble and also the clover which has been sown. With the current wool prices we are budgeting on \$2.00 per kg greasy in the bank, which does not cover the cost of feeding or shearing them.

**ALTERNATIVES CONSIDERED**

Back in the mid 70's 2000 acres came up for sale next door. We thought about buying it but decided that because we had 1000 acres of our own land paid for and uncleared we would let it pass and not go into debt for \$400,000.

If we do not get clearance to clear the bush we will have to look into buying more land which would mean travelling great distances and borrowing money that we would have great difficulty paying back. Our farm as it is, is not big enough to support 3 boys if they decide to come home and farm and support us as we retire in later years. We would like to clear it properly so that there won't be any degradation to the land, so it will be viable for when our sons take over.

**PROPOSED LAND USE**

It is proposed that the land to be cleared be used for agricultural production in line with the farms present cropping practices. The areas to be cleared have been chosen for their productive capacity and their ability to produce high returns such as through lupin/wheat rotations.

Areas of bush have been strategically left to protect possible degradation areas and to preserve the diversity of vegetation types, particularly those that are not common in the proposed area.

## **FARM PLAN**

A farm plan has been produced with the assistance of the Department of Agriculture in September 1991. In this farm plan we were asked to design the farm the way we would like it to look in 20 years time. This included both the proposed land clearing and that part of the farm already in production. (See Map - Appendix 1)

## **PRESENT FARM**

The plan has been designed to protect those areas that are potential hazards and to rectify areas that have become degraded. To this end, ridgelines have been fenced off and creeklines are progressively being replanted and fenced off. To date we have planted 2000 trees/year with about 10,000 plants all told. Unfortunately we lost 2000 through grasshoppers in 1991. All our plantings are 4 rows wide to try and create vegetation belts and corridors through the farm. The types of trees that we have planted are Red River Gums, Salt River Gums, Dwarf Sugar Gums and Flat Top Yates. We have also gone third shares in a tree planter so that they can be planted in the correct way.

Our long term aim is to have unprotected areas fenced off, and our fencelines have been redesigned to allow for this. We also have consolidated paddocks so we can farm to this soil type. We realise that for long term productivity and sustainability this is most important.

## **NATIVE VEGETATION PRESENT ON FARM**

The CALM Report lists all native vegetation on the farm. (See Appendix 2)

## **PROPOSED CLEARING**

The farm plan for this section of the farm had taken into account the recommendations of the Department of Agriculture so that ridgelines and creeklines remain protected and high risk areas such as shallow ironstone and potential recharge areas are uncleared to reduce runoff and recharge the ground water supplies.

In the recommendations of CALM, 5 main vegetation types were identified. The vegetation type most affected by the proposed clearing in the Mallee scrub complex which covers 75% of the area. The soil types identified in this area are some of the most productive, being suitable for lupin/wheat rotations and addresses the requirements of farming to soil types.

We believe that the areas to be left uncleared maintain the biological diversity of the 5 main vegetation types. It does not isolate any vegetation type and provides access and corridors for wildlife. Sixty metres of bush will also be left around each paddock for shelter and windbreak purposes.

It is proposed that all vegetation will be fenced before stock is introduced to the area to protect the existing bush. It is envisaged this would be between 3 and 5 years after the first crop. The proposed area covers 3 sub catchments as identified on the farm plan. No clearing will be done in catchment 1 as 85% of the area is already cleared. In the other 2 catchments 64% and 62% of the areas are properly cleared. The proposed clearing increases the cleared areas to 78% and 79% respectively for each catchment, which is within the guidelines.

After the clearing is done we will put in dams where necessary. Contours will also be put in to control any excess runoff that may occur.

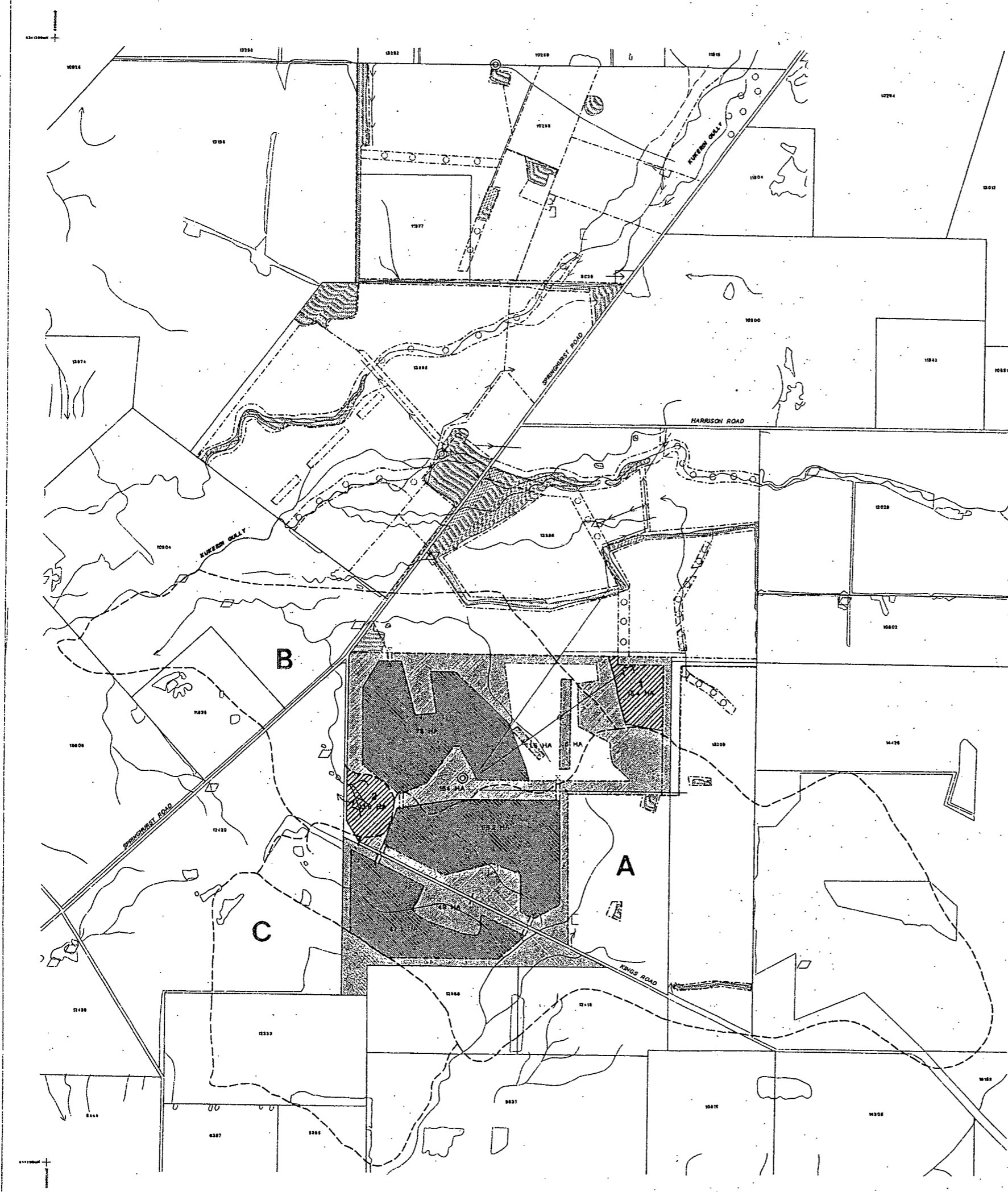
Appendix 3 contains a Report from the Department of Agriculture on the Ecological Significance of the on-Farm Bushland Remnant Vegetation.

Appendix 4 contains letters of support for the clearing proposal.

Appendix 5 contains reports on appeals which were lodged against the informal level of assessment proposed for this proposal.

**APPENDIX 1**

**FARM PLAN MAP**



# FARM PLAN

APPLICANT:  
M. KING

DESCRIPTION OF AREA:  
WILLIAMS LOC: 13895, 10265, 11977  
9028, 15209

LEGEND:

- Vegetation 102.4 ha
- Area to be cleared 107 ha
- Area to be retained as native vegetation 193.5 ha
- Tree plantings
- Fencing
- Surveyed boundaries
- Roads
- Waterways
- Drainage lines
- Proposed Dam
- Dam
- Tank
- Gate
- Grade bank
- Catchment Boundary

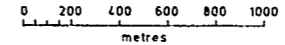
Area of location - 1364.8 ha  
 Area of remaining vegetation - 278 ha, 20.5 %  
 Area of cleared vegetation - 1076.5 ha, 78.5 %

CATCHMENT AREAS -

- A** Total Area = 796.4 ha  
Area cleared at present - 507.5 ha, 63.7 %
- B** Total Area = 440.5 ha  
Area cleared at present - 273.8 ha, 62.1 %
- C** Total Area = 244.6 ha  
Area cleared at present - 207.4 ha, 84.8 %

PROPOSED ROADED AREAS -

- 1 15.4 ha
- 2 13.6 ha



NOTE:  
 1. All measurements and areas are only approximate and subject to on-site verification by a Land Conservation Officer from the Department of Agriculture.  
 2. Digitizer set up - Average error 0.25 % - aerial photo (7 grid) 0.47 % - aerial photo (8 grid)  
 3. Capture scale of absolute 1:50 000  
 4. AMG Zone 40 884547mE, 8328533mS

Scale 1:15 000  
 Signature of CAD Operator *John Gorman*  
 Date 17. 11.92  
 Checked by: *Initials*

**APPENDIX 2**

**CALM VEGETATION SURVEY**

09-3868011

WILLIAMS LOCATION 13895 (Part Only)

RESULTS OF A BRIEF VEGETATION, FLORA AND FAUNA SURVEY

1. SURVEY DATE/TIME

1100 - 1700 hours, 26 October 1992.

2. PERSONNEL

M Graham and D Mitchell.

3. METHOD

3.1 Main vegetation types identified based on a single monochrome aerial photograph (1984) borrowed from the land-holders (Figure 1).

3.2 Main vegetation types described at sample sites and associated species listed or collected for identification.

3.3 Additional flora species listed opportunistically.

3.4 Fauna data collected opportunistically.

4. RESULTS

4.1 Site vegetation descriptions and associated species lists are given at Appendix 1.

4.2 A plant species summary is given at Appendix II.

4.3 Fauna data is given at Appendix III.

5. DISCUSSION ON VEGETATION TYPES

5.1 Variation within main vegetation types was noted, e.g.:

- (i) Morrel (*Eucalyptus longicornis*) is present in OTW (Open Tall Woodland) near the north boundary, but was not recorded at Site 7.
- (ii) The association MSC (Mallee Scrub Complex) is very variable in understorey density throughout.
- (iii) Blue mallet (*Eucalyptus gardneri*) is evident in LFT (Low Forest/Thicket) associations along Kings Road, but was not recorded at Site 4.
- (iv) Kwongan (OMH) associations are typically variable, possibly in response to soil type variation and depths. This association near the bend in Kings Road may differ further due to more lateritic type soils.

  
M GRAHAM  
SENIOR RESERVES OFFICER

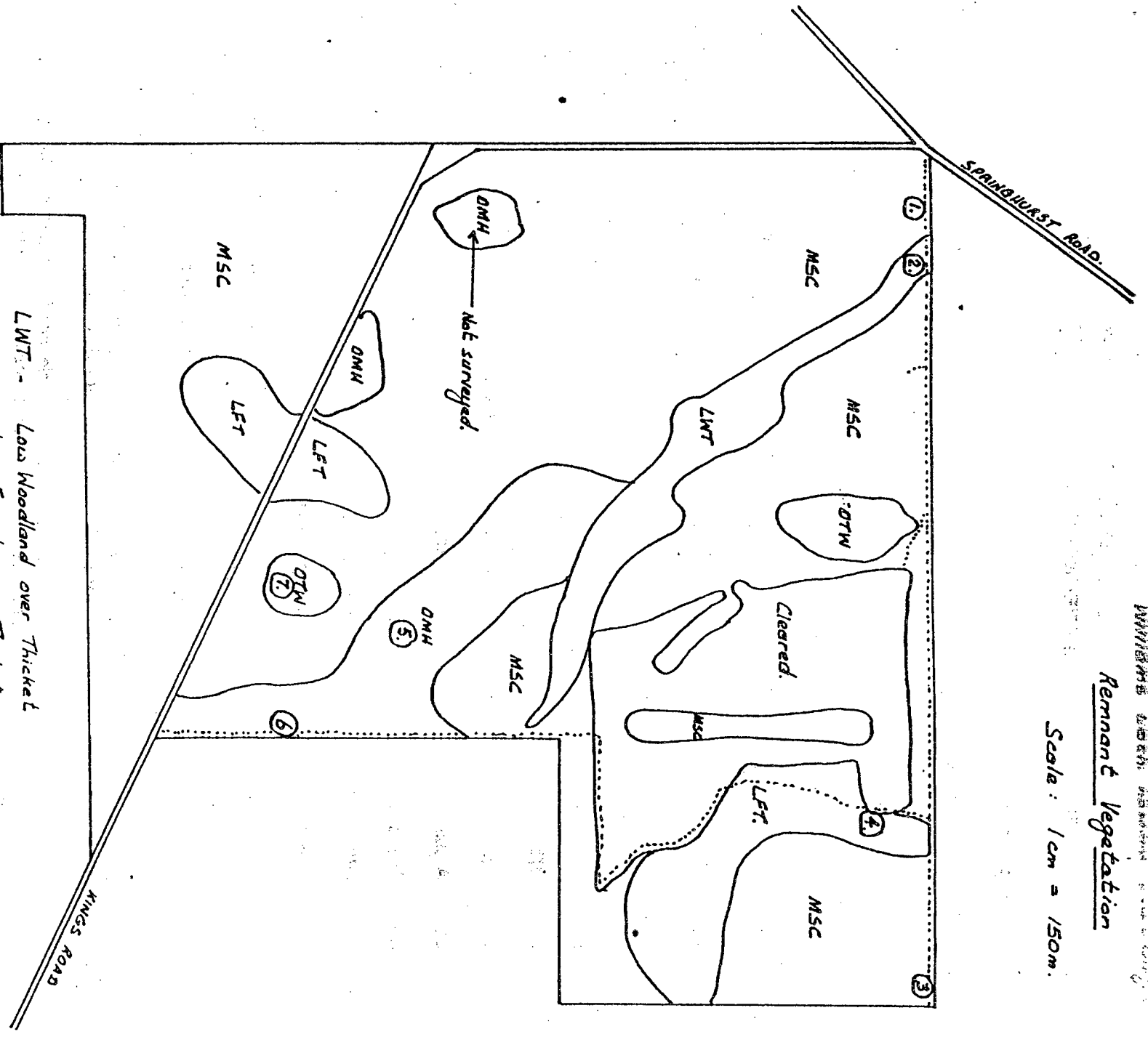
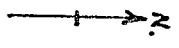
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# Remnant Vegetation

Scale: 1cm = 150m.



- LWT - Low Woodland over Thicket
  - LFT - Low Forest over Thicket
  - MSC - Mallee/Scrub complex
  - OTW - Open Tall Woodland
  - OMH - Open Mallee Heath (kuongan)
- ① ② etc - Sample Sites
- ..... Vehicle Access Tracks

**APPENDIX I**  
**WILLIAMS LOCATION 13895 - VEGETATION DESCRIPTIONS**

**SITE 1**      Open Low Woodland A to 15 metres of *Eucalyptus longicornis*, over Open Shrub Mallee to 12 metres of *Eucalyptus cylindriflora* and *Eucalyptus calycogona*, over Thicket of *Melaleuca* spp., over Open Dwarf Scrub D.

**Soils**            Brown sandy-loam.

**Associated Species**

<p>Acacia trinalis 'ms' (Maslin) Acacia erinacea Stipa ?compressa Dodonaea bursariifolia Melaleuca uncinata * Hypochaeris glabra Grevillea huegelii Phebalium tuberculosum ssp. tuberculosum Hakea lissocarpha Leptospermum erubescens Callitris roei Hibbertia ?gracilis Neurachne alopecuroidea</p>	<p>* Lolium sp. Melaleuca acuminata Melaleuca cuneata Melaleuca adnata Baeckea preissiana Westringia cephalantha Prostanthera serpyllifolia ssp. microphylla Acacia pulchella var. subsessilis Ptilotus spathulatus Leucopogon crassifolius Olearia muelleri Beyeria brevifolia Cassytha pomiformis</p>
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**SITE 2**      Open Low Woodland A to 8 metres of *Eucalyptus wandoo*, over Thicket of *Leptospermum erubescens*, over Low Scrub B, over Dwarf Scrub D.

**Soils**            Brown, gravelly loam.

**Associated Species**

<p>Stackhousia monogyna Neurachne alopecuroidea Waitzia paniculata Thysanotus patersonii Verticordia chrysantha Acacia ?ixiophylla Hakea cygna Isopogon teretifolius Persoonia aff. longifolia Stylidium spp. Drosera spp. Melaleuca uncinata Allocasuarina campestris unident Sedges Stylidium repens Acacia chrysocephala Grevillea aff. hookeriana Dryandra armata Cassytha pomiformis</p>	<p>* Ursinia anthemoides Petrophile ?seminuda Eucalyptus phaenophylla Beaufortia bracteosa Waitzia acuminata Phebalium filifolium Hakea scoparia Hakea meisneriana Loxocarya cinerea Guichenotia sarotes Nemcia decussata 'ms' Crisp (MSG 408) Baeckea preissiana Baeckea ?leptophylla Boronia crassifolia Melaleuca ?laxiflora Verticordia picta Verticordia roei Beyeria brevifolia</p>
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**SITE 3** Open Shrub Mallee to 6 metres of *Eucalyptus calycogona* var. *calycogona* and *Eucalyptus eremophila* ssp. *eremophila* with emergent *Eucalyptus astringens*, over Open Scrub to 2.5 metres of *Melaleuca acuminata*, over Heath B of *Melaleuca* spp.

**Soils** Red-brown, clay loam with gravel and quartz variable throughout to sand over laterite.

**Associated Species**

Melaleuca uncinata	Dodonaea bursariifolia
Melaleuca platycalyx	Hakea lissocarpha
Melaleuca ?cuticularis	Grevillea huegelii
Melaleuca cardiophylla	Astroloma ?compactum
Melaleuca cuneata	Phebalium tuberculosum ssp. tuberculosum
Melaleuca aff. undulata	Santalum acuminatum
Melaleuca aff. lateriflora	Allocasuarina campestris
Melaleuca laxiflora (pink form)	Pittosporum phylliraeoides
Melaleuca polycephala (MSG 409)	Hakea meisneriana
Persoonia teretifolia	Westringia cephalantha
Phebalium filifolium	Calytrix fraseri (MSG 410)
Stylidium repens	Exocarpos aphyllus

**SITE 4** Low Forest A to 15 metres of *Eucalyptus astringens* and *Eucalyptus argyphaea*, over Heath A of *Melaleuca uncinata*, over Open Dwarf Scrub D.

**Soils** Brown, sandy-loam over laterite.

**Associated Species**

Exocarpos aphylla	Pterostylis vittata
Hybanthus floribundus	Santalum acuminatum
Stylidium spp.	Hakea corymbosa
Santalum murrayanum	Acacia erinacea
Phebalium filifolium	Hakea nitida
Leptospermum erubescens	Persoonia teretifolia
Phebalium tuberculosum ssp. tuberculosum	Hakea multilineata
Nematolepis phebalioides	

Very Open Shrub Mallee to 4 metres of *Eucalyptus phaenophylla*, over Open Scrub of *Callitris roei*, *Callitris verrucosa* and *Hakea crassifolia*, over Heath B of *Banksia sphaerocarpa* var. *caesia* and *Dryandra* spp., over mixed Dwarf Scrub C and Open Low Sedges and Herbs.

Grey-white sands with variable concentrations of gravel.

### Species

a armata	Phebalium filifolium
ca pungens	Phebalium tuberosum ssp. tuberosum
ya cinerea	Lysinema ciliatum
tia micrantha	Stylidium repens
rhoa aff. nana	Dodonaea bursariifolia
ca ?alata	Hibbertia sp.
i pomiformis	Leptomeria preissiana
a aff. gracilis	Calytrix leschenaultii
ca ?pentagona	Thomasia sp. indet (MSG 411)
dia chrysantha	Beaufortia micrantha ssp. puberula
paniculata	Dryandra vestita
ermum erubescens	Dryandra erythrocephala
n teretifolius	Dryandra aff. ferruginea
ermum spinescens	Astartea sp.
coparia	Petrophile media
ne alopecuroidea	Calothamnus planifolius
pbium spinescens	Conostylis petrophiloides (MSG 412)
dia roei	Verticordia acerosa
?subhirtella	Verticordia insignis
cardiophylla	Verticordia picta
arina campestris	Petrophile phyllicoides (MSG 413)
ucium megalopetalum	

Very Open Shrub Mallee to 8 metres of *Eucalyptus phaenophylla*, over Scrub of *Hakea* spp., over mixed Low Heath C, over Dwarf Scrub D of *Verticordia* spp., over Open Low Sedges.

Gravelly loam.

### Species

erma scoparia	Glischrocaryon aureum var. angustifolium
ra sp.	Ptilotus spathulatus
i sp.	Baeckea preissiana
a aff. hookeriana	Chorizema uncinatum (MSG 414)
decussata 'ms' (Crisp)	Logania callosa (MSC 416)
reisneriana	Verticordia roei
ultilineata	Grevillea integrifolia
hrysocephala	Synaphea petiolaris

**SITE 7** Open Woodland to 30 metres of *Eucalyptus salmonophloia*, over Open Scrub of *Melaleuca* spp., over Low Scrub B of *Melaleuca* spp., and *Exocarpos aphyllus*, over mixed Open Dwarf Scrub D.

**Soils** Brown, clay-loam with gravel.

**Associated Species**

*Eucalyptus anceps* 'ms'  
*Acacia erinacea*  
*Melaleuca uncinata*  
*Melaleuca acuminata*  
*Melaleuca adnata*  
*Daviesia benthamii*

*Acacia trinalis* 'ms' (Maslin)  
*Grevillea huegelii*  
*Eucalyptus* ?*scyphocalyx*  
*Olearia* sp.  
*Dodonaea viscosa*

APPENDIX II  
WILLIAMS LOCATION 13895 (Part) - SUMMARISED PLANT SPECIES LIST

- |                                       |  |
|---------------------------------------|--|
| Acacia chrysocephala                  | Exocarpos aphyllus                       |
| Acacia erinacea                       | Gastrolobium crassifolium                |
| Acacia ?ixiophylla                    | Gastrolobium spinosum                    |
| Acacia pulchella var. subsessilis     | Glischrocaryon aureum var. angustifolium |
| Acacia trinalis 'ms' (Maslin)         | Grevillea huegelii                       |
| Allocasuarina campestris              | Grevillea aff. hookeriana                |
| Astartea sp.                          | Grevillea insignis                       |
| Astroloma ?compactum                  | Grevillea integrifolia                   |
| Baeckea ?leptophylla                  | Guichenotia sarotes                      |
| Baeckea preissiana                    | Hakea corymbosa                          |
| Banksia sphaerocarpa var. caesia      | Hakea crassifolia                        |
| Beaufortia bracteosa                  | Hakea cygna                              |
| Beaufortia micrantha                  | Hakea laurina                            |
| Beaufortia micrantha ssp. puberula    | Hakea lissocarpha                        |
| Beyeria brevifolia                    | Hakea meisneriana                        |
| Boronia crassifolia                   | Hakea multilineata                       |
| Callitris roei                        | Hakea nitida                             |
| Callitris verrucosa                   | Hakea scoparia                           |
| Calothamnus planifolius               | Halgania sp.                             |
| Calytrix fraseri (MSG 410)            | Hibbertia aff. gracilis                  |
| Calytrix leschenaultii                | Hibbertia sp.                            |
| Cassutha melantha                     | Hybanthus floribundus                    |
| Cassutha pomiformis                   | * Hypochoeris glabra                     |
| Chamelaucium megalopetalum            | Isopogon buxifolius                      |
| Choretrum glomeratum                  | Isopogon teretifolius                    |
| Chorizema uncinatum (MSG 414)         | Leptomeria preissiana                    |
| Conostylis petrophiloides (MSG 412)   | Leptospermum erubescens                  |
| Comesperma scoparia                   | Leptospermum spinescens                  |
| Dampiera ?alata                       | Leucopogon crassifolius                  |
| Dampiera lavandulacea                 | Leucopogon dielsianus                    |
| Daviesia benthamii                    | Logania callosa (MSG 416)                |
| Daviesia cardiophylla                 | * Lolium sp.                             |
| Dodonaea bursariifolia                | Lomandra sp.                             |
| Dodonaea viscosa                      | Loxocarya cinerea                        |
| Drosera ?subhirtella                  | Lysinema ciliatum                        |
| Drosera spp.                          | Melaleuca acuminata                      |
| Dryandra armata                       | Melaleuca adnata                         |
| Dryandra erythrocephala               | Melaleuca cardiophylla                   |
| Dryandra aff. ferruginea              | Melaleuca cuneata                        |
| Dryandra vestita                      | Melaleuca ?cuticularis                   |
| Eucalyptus anceps 'ms'                | Melaleuca aff. lateriflora               |
| Eucalyptus arguphea                   | Melaleuca laxiflora (pink form)          |
| Eucalyptus astringens                 | Melaleuca ?pentagona                     |
| Eucalyptus calycogona var. calycogona | Melaleuca platycalyx                     |
| Eucalyptus cylindriflora              | Melaleuca polycephala (MSG 409)          |
| Eucalyptus eremophila ssp. eremophila | Melaleuca pungens                        |
| Eucalyptus longicornis                | Melaleuca uncinata                       |
| Eucalyptus phaenophylla               | Melaleuca aff. undulata                  |
| Eucalyptus salmonophloia              | Nematolepis phebaloides                  |
| Eucalyptus ?scyphocalyx               | Nemcia decussata 'ms' Crisp (MSG 408)    |
| Eucalyptus wandoo                     | Neurachne alopecuroidea                  |

*Olearia muelleri*  
*Olearia* sp.  
*Persoonia* aff. *longifolia*  
*Persoonia striata*  
*Persoonia teretifolia*  
*Petrophile media*  
*Petrophile phyllicoides* (MSG 413)  
*Petrophile* ?*seminuda*  
*Phebalium filifolium*  
*Phebalium tuberculosum* ssp.  
*tuberculosum*  
*Pittosporum phylliraeoides*  
*Prostanthera serpyllifolia* ssp. *microphylla*  
*Pterostylis vittata*  
*Ptilotus spathulatus*  
*Santalum acuminatum*  
*Santalum murrayanum*  
*Stackhousia monogyna*

*Stylidium repens*  
*Stylidium* spp.  
*Stipa* ?*compressa*  
*Stipa elegantissima*  
*Synaphea petiolaris*  
*Thomasia* sp. indet. (MSG 411)  
*Thysanotus patersonii*  
 \* *Ursinia anthemoides*  
*Verticordia acerosa*  
*Verticordia chrysantha*  
*Verticordia insignis*  
*Verticordia picta*  
*Verticordia roei*  
*Waitzia acuminata*  
*Waitzia paniculata*  
*Westringia cephalantha*  
*Xanthorrhoea* aff. *nana*

NOTES:

- (i) \* denotes introduced species
- (ii) Collection numbers (eg MSG 411) denote specimens retained for confirmation of identification.

REMNANT 53 SPECIES NOT RECORDED DURING THE CURRENT SURVEY:-

*Astroloma microphyllum*  
*Cassutha pubescens* (NSW only)  
*Beaufortia schaueri*  
*Eucalyptus flocktoniae*  
*Melaleuca conferta*  
*Melaleuca leptospermoides*  
*Melaleuca spicigera*  
*Gastrolobium rigidum*

*Nemcia carinata* (possibly = *Nemcia decussata* 'ms')  
*Stipa scabra*  
*Isopogon drummondii*  
*Petrophile trifida*  
*Eriostemon* (?) *thryptomenoides*  
*Dodonaea stenozyga*

**APPENDIX III**  
**WILLIAMS LOCATION 13895 (Part) - FAUNA OBSERVATIONS**

**1. Mammals**

Kangaroo (*Macropus* sp.) - track and scats  
Echidna (*Tachyglassus aculeatus*) - digging and a broken quill  
Possum (?*Trichosurus vulpecula*) - scats and tree scratches  
Rabbit (*Oryctolagus cuniculus*) - scats and warrens  
Fox (*Vulpes vulpes*) - scats

**2. Reptiles**

Rosenbergs Goanna (*Varanus rosenbergi*) - sighted

**3. Birds Sighted**

Wedge-tailed Eagle - old nests present  
Port Lincoln Ringneck  
Common Bronzewing  
Striated Pardalote  
Grey Shrike-thrush  
Rainbow Bee-eater  
Australian Magpie  
Crested Pigeon  
Galah - nesting  
White-browed Babbler  
Western Yellow Robin  
Grey Butcherbird  
Brown Falcon  
Southern Scrub Robin  
Australian Raven  
Blue-breasted Fairy-wren  
Brown-headed Honeyeater  
Yellow-rumped Thornbill  
Grey Currawong  
Red Wattlebird



**APPENDIX 3**

**REPORT ON ECOLOGICAL SIGNIFICANCE OF THE ON-FARM  
BUSHLAND REMNANT ON KING ROAD, DUMBLEYUNG SHIRE,  
WESTERN AUSTRALIA (REMNANT 53)**

ECOLOGICAL SIGNIFICANCE  
OF THE ON-FARM BUSHLAND REMNANT  
ON KING ROAD, DUMBLEYUNG SHIRE,  
WESTERN AUSTRALIA  
(REMNANT 53)

F. Mollemans

Division of Resource Management  
Western Australian Department of Agriculture

Results of a Project Funded by the 'Save the Bush' Program

July 1992

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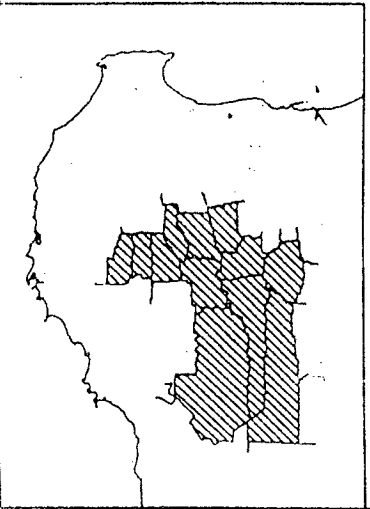
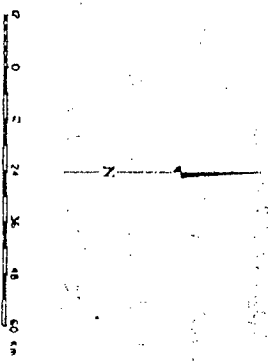
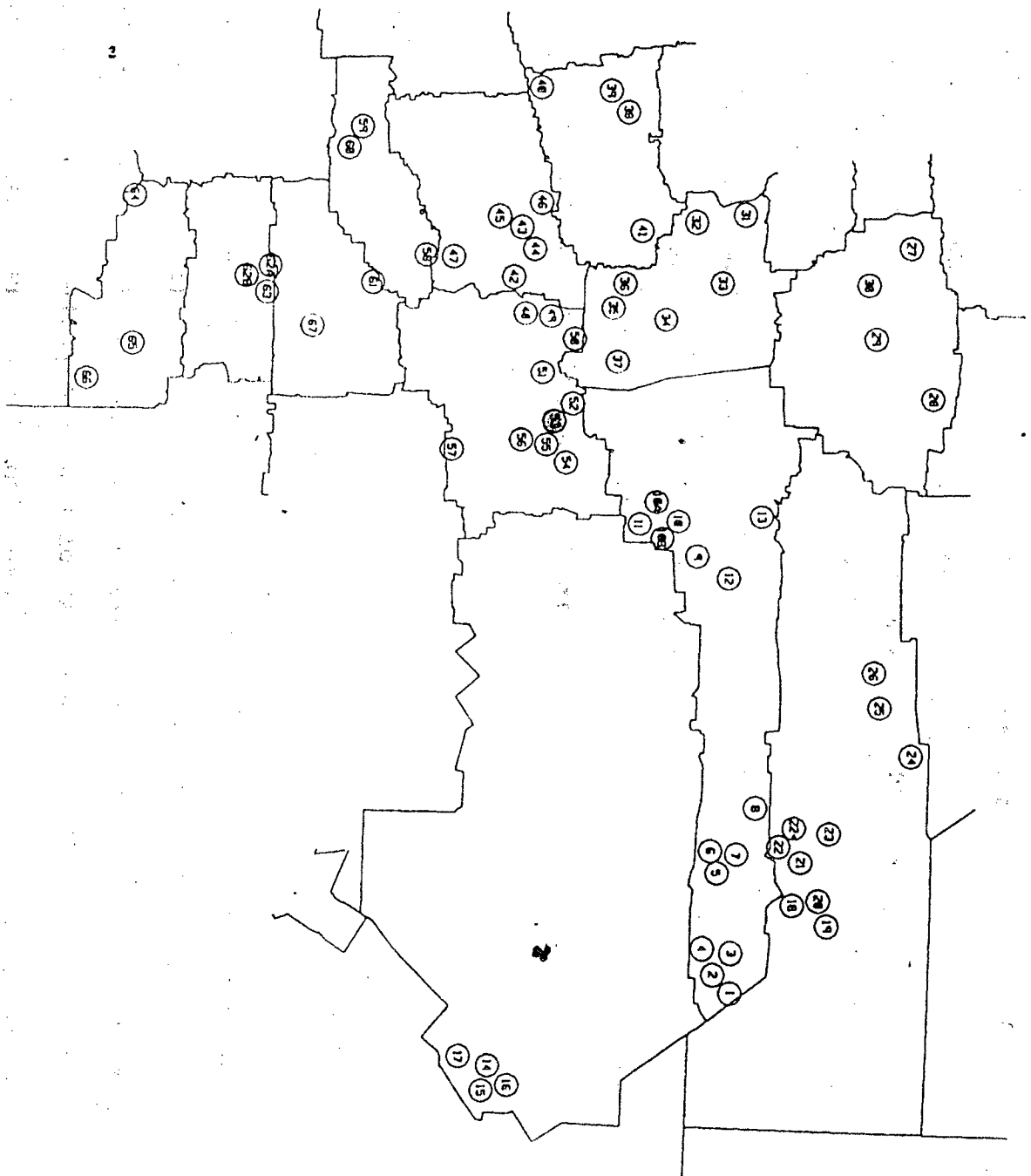
## 1.0 Survey Details

The on-farm bushland remnant on King Road, Dumbleyung Shire, W.A. (referred to as REMNANT 53 - Figures 1 & 2), was surveyed by rapid survey manner on 11/12.11.91. The survey of this remnant comprised part of the Southern Wheatbelt Region Remnant Vegetation Survey funded by the Save the Bush program, and aimed at surveying pieces of on-farm remnant vegetation in 11 shires of the "Great Southern" of Western Australia, namely: BROOMEHILL, CORRIGIN, DUMBLEYUNG, KATANNING, KONDININ, KULIN, NARROGIN, TAMBELLUP, WAGIN, WICKEPIN, and WOODANILLING.

The major part of the survey was conducted from the south-west corner of the remnant and proceeded in an easterly direction therefrom. Available tracks were traversed to provide additional observational details regarding the composition of the vegetation within the remnant.

## 2.0 Results

The area has three main communities, a mallee scrub community (a), a mallee over *Melaleuca* spp. scrub/thicket (b), and a mallet woodland on an approximately N-S ridgeline (c), with the two former communities in somewhat of a mosaic pattern about the third which tends to divide the remnant from its central position. Part of the area comprising two small approximately rectangular blocks in the NE of the remnant are already cleared. Figure 3 is a copy of the field survey sheet completed during the survey. In the hand drawn figure in the allotted position on the front side of



the sheet ascertained vegetation detail is shown, along with a cross-section at the bottom which depicts the altitudinal change from west to east through the remnant.

Figure 4 and 5 are photographs of communities 53b (mallee over *Melaleuca* spp. scrub/thicket), and 53c (mallet woodland on an approximately N-S ridgeline), respectively. The photograph in Figure 4 is taken of the view found in an ENE direction from the major bend in King Road situated in the south-west part of the remnant. Figure 5 is of the mallet community on the top of the ridge about half way along the southern part of the remnant and this photograph is of the view seen south of the road (a similar view is apparent to the north of the road).

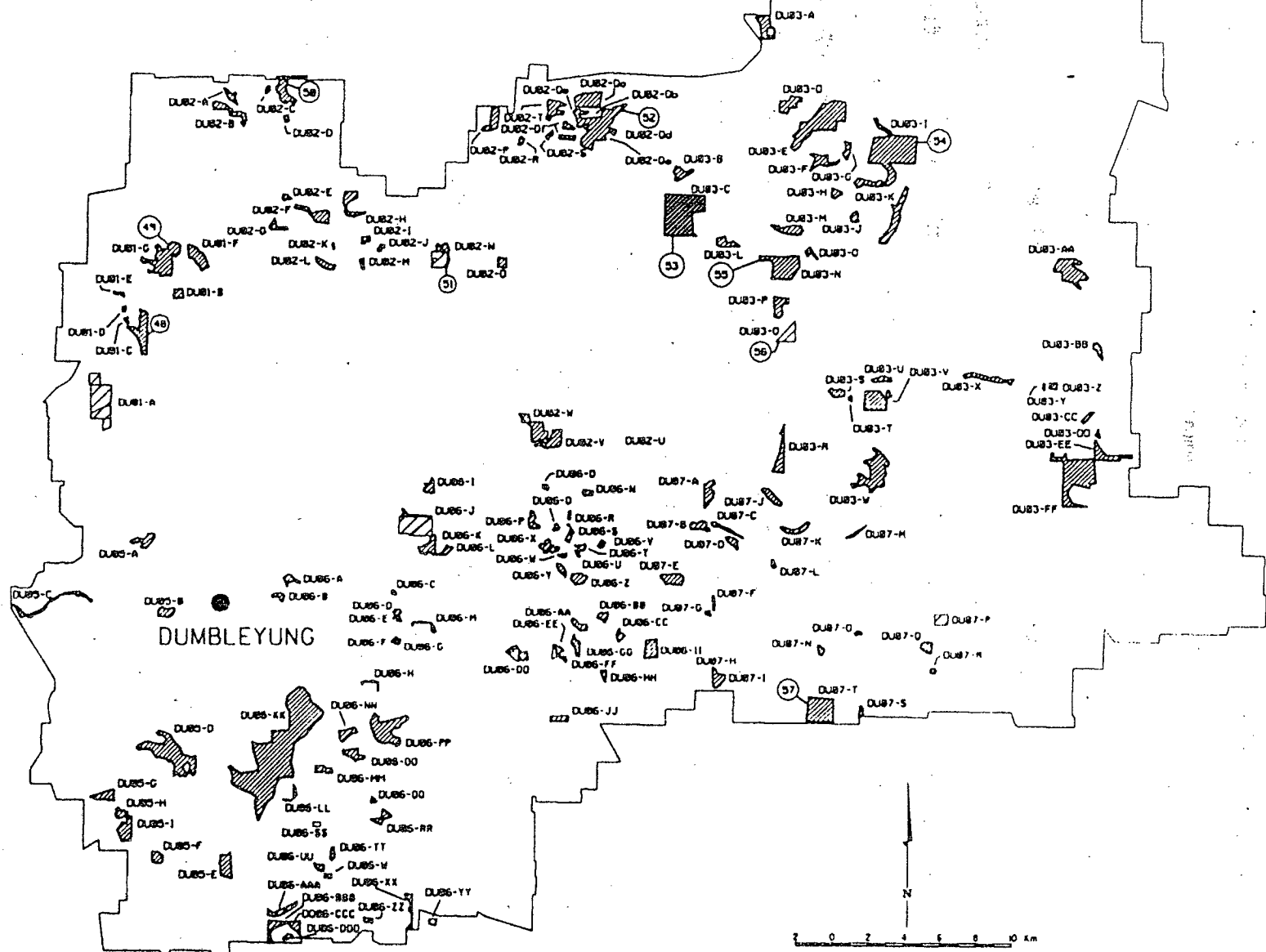
Appendix 1 provides details including plant communities and species composition for Remnant Piece of Bush 53. Appendix 2 is a transcript of the field notes from the remnant with identified plants and other observations indicated. Appendix 3 contains additional botanical identifications made by R. Cranfield, and subsequently rechecked to add to and finalise the plant list for the King Road remnant (Remnant 53).

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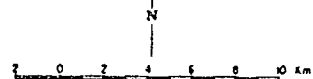
Figure 1. Locality Plan of Remnant 53

# SHIRE OF DUMBLEYUNG

551000 mE  
 X 6349000 mN



DUMBLEYUNG



X 627000 mE  
 6298000 mN

### 3.0 Discussion

#### Plant Species Records

Of the recorded plant species, Priority 2 Species *Gastrolobium rigidum*, known from CALM's Wheatbelt and South Coast Regions, at the following localities Mt Gibbs, Mt Madden, Lake King, and Frank Hann N.P., was recorded in the mallee scrub community (53a). Priority 2 species *Astroloma microphyllum*, also known from CALM's South Coast Region at Twertup, was found in the same community. A possible new species of *Daviesia* (*Daviesia* sp.) was recorded in both 53a and 53b and recorded no where else during the survey of the 11 shires, and there is no apparent record of this taxon in the herbarium, so it may only (nowadays) occur in Remnant 53. A net-veined leaf, pea-flowered species *Nemcia carinata* (rare) was only recorded in the mallee scrub community (53a) and nowhere else during surveys conducted during 1991. A probable new subspecies of blister plant *Phebalium* aff. *filifolium* sp. B was found in the mallee scrub community (53a) and may also occur in the mallet community (53c). It was also recorded from near Wedin, but was seen nowhere else during the 1991 survey; it has previously been recorded from "Kukerin" based on a relatively old herbarium record. A particularly large fruited mallee with similarities to *Eucalyptus platycorys* (*Eucalyptus* aff. *platycorys*) was found in the mallee scrub community (53a) and not recorded elsewhere.

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Figure 2. Location of Remnant 53 within Dumbleyung Shire



## Fauna Observations

The only apparently significant fauna observation was in the mallee scrub community (53a), where a population of Blue Wrens was heard and observed; wrens were seen nowhere else during my surveys of remnant bush areas in the 11 shires dealt with during 1991.

## 4.0 Acknowledgements

I wish to acknowledge with thanks Ray Cranfield's assistance with plant identifications.

# SOUTHERN WHEATBELT REGION REMNANT VEGETATION SURVEY

LCDC Name: Dumbleyung District: \_\_\_\_\_ Shire: \_\_\_\_\_  
 Remnant No: (53) Map Ref: \_\_\_\_\_  
 Locality: \_\_\_\_\_

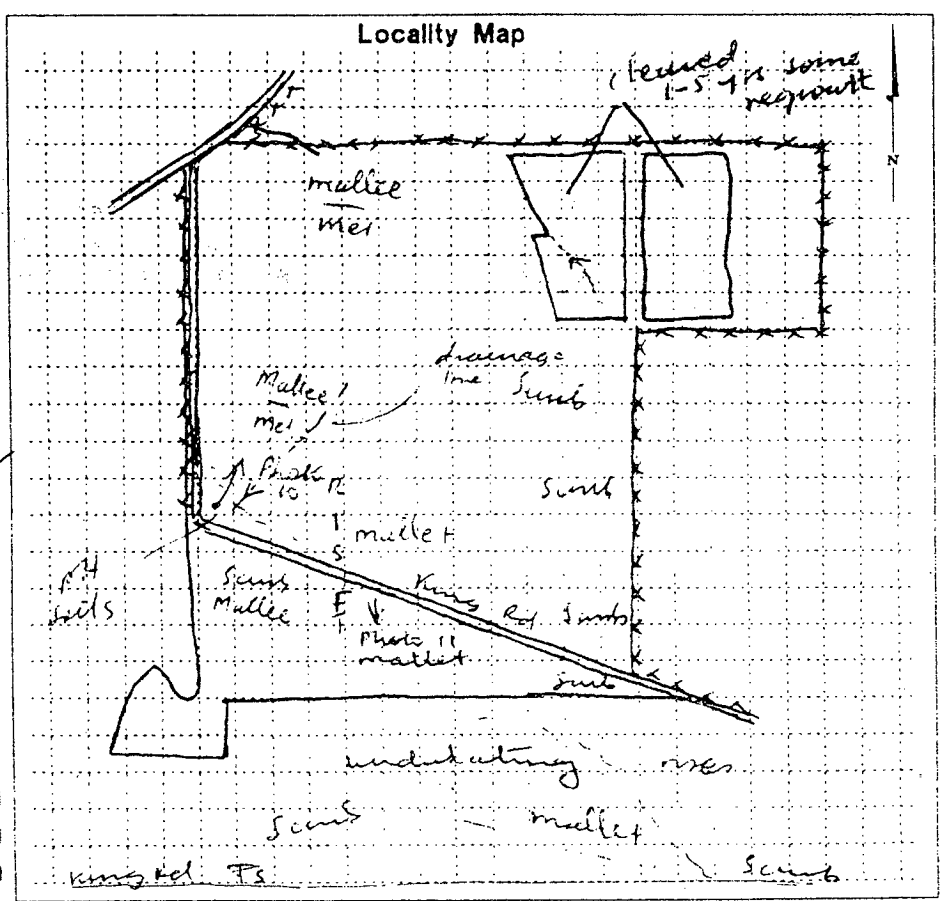
Lat: \_\_\_\_\_ ° Long: \_\_\_\_\_ ° Alt: \_\_\_\_\_ m Aspect: \_\_\_\_\_ Slope: \_\_\_\_\_ °

**Land Status:** Gravel Res. MRD  Gravel Res. Shire  National Park  Nature Res.   
 Private  Railway Res.  Rd Verge MRD  Rd Verge Shire  Shire Res.   
 State Forest  VCL  Water Res.  Other

Landholder/Authority Name (if known): King

**Landform:** Breakaway  Claypan  Cliff  Crest   
 Drainage Line  Firebreak  Flat  Gully  Hilltop   
 Lake Edge  Low Plain  Lunette  Outcrop  Ridge   
 Rise  Riverbank  Sand Dune  Slope  Swamp   
 Other: \_\_\_\_\_

- Geology**
- Adamellite
  - Alluvium
  - Diorite
  - Dolerite
  - Eolian Deposits
  - (Sandplain/dune)
  - Gneiss
  - Granite
  - Granodiorite
  - Greenstone
  - Lacustrine (clay./silt)
  - Laterite
  - Limestone
  - Quartzite
- Rock Form:**
- Layered
  - Irregular
  - Amorphous
- Soil:**
- Particle Nature
  - Angular
  - Rounded
  - Friable
  - Texture



Clay (> 256 mm)  Silt (1/256-1/16 mm)  Loam  Fine Sand  Fine Sand (1/8-1/4 mm)   
 Med Sand (1/4-1/2 mm)  Coarse Sand (1/2-1 mm)  V Coarse Sand (> 2 mm)  Gravel (2-4 mm)  Pebble (4-64mm)   
 Cobble (64-256 mm)  Boulder (> 256 mm)  Depth: > 1 m Profile Description: soil / laterite / parent  
 Salinity: Nil evident pH trend: 6 Colour: Black  Brown   
 Red-Brown  Red  Orange  Yellow-Brown  Yellow   
 Green  Grey  White  Murret: V/C 100% 6 / 6  
 V/C Rating: 5 Organic Content: High  Medium  Low   
 Vegetation Type: Mallee / mel - Mallee / scrub and mallee

Photo 10-11

4. Photograph of plant community 53b - mallee over *Melaleuca* spp. scrub/thicket - of the view found in an ENE direction from the major bend in King Road situated in the south-west part of the remnant

5. Photograph of plant community 53c - mallet woodland - on the approximately N-S ridgeline about half way along the southern part of the remnant and this photograph is of the view seen south of the road (a similar view is apparent to the north of the road)

## Appendix 1

## Remnant Piece of Bush Number 53

Dumbleyung Shire [DU03] Dumbleyung SI50-07 1:250 000; Kukerin  
2531-IV 1:50 000; M.E. & T.M. King.

Surveyed 11/12.11.91

Location: 33 km NE of Dumbleyung, and 11.25 km NW of Kukerin;  
33°06'36"S, 118°00'32"E; c. 320 m.

- a - Mallee scrub community
- b - Mallee over *Melaleuca* spp. scrub/thicket
- c - Mallet woodland on an approximately N-S ridgeline

Notes

Has *Leptospermum* scrub on the west margin road edge (east verge)  
of section of road along the west side of the remnant and some (2)  
borrow pits in the same area.

## Plant Species Recorded in Community 53a, a mallee scrub community

Asteraceae

*Ursinia anthemoides*  
*Waitzia paniculata*

Casuarinaceae

*Allocasuarina campestris*  
*Allocasuarina corniculata*

Cupressaceae

*Callitris roei*

Cyperaceae

*Lepidosperma* (?) *effusum*  
*Lepidosperma* sp. (x2)

Dilleniaceae

*Hibbertia exasperata*  
*Hibbertia gracilipes*

Epacridaceae

*Astroloma microphyllum*  
*Leucopogon crassifolius*  
*Leucopogon dielsianus*  
*Leucopogon* sp.  
*Lysiana ciliatum* var. *ericoides*  
 Unidentified epacrid

Euphorbiaceae

Unidentified euphorbiaceae species = *Beyeria* sp.

Lamiaceae

*Westringia cephalantha*

Lauraceae

*Cassytha pubescens*

Liliaceae

*Thysanotus patersonii*

Mimosaceae

*Acacia chrysocephala*  
*Acacia pulchella*  
*Acacia* sp.

Myrtaceae

*Baeckea preissiana*  
*Baeckea* sp.  
*Beaufortia micrantha* var. *puberula*  
*Beaufortia schaueri*  
*Calytrix* sp.  
*Eucalyptus phaenophylla*  
*Eucalyptus* aff. *platycorys*  
*Leptospermum erubescens*  
*Melaleuca conferta*  
*Melaleuca laxiflora*  
*Melaleuca leptospermoides*  
*Melaleuca platycalyx*  
*Melaleuca pungens*  
*Melaleuca spicigera*  
*Melaleuca uncinata*  
*Melaleuca* sp. (x3)  
*Verticordia acerosa* var. *priessii*  
*Verticordia chrysantha*  
*Verticordia insignis* ssp. *compta*  
*Verticordia picta*  
*Verticordia roei*  
*Verticordia* sp.

Papilionaceae

*Bossiaea peduncularis*  
*Daviesia benthamii*  
*Daviesia* sp. to herb (also in 53b\*)  
*Gastrolobium rigidum*  
*Gastrolobium spinosum* var. *spinosum* forma *typica*  
*Nemcia carinata* (rare)  
 Unidentified papilionaceae

Pittosporaceae

*Billardiera* sp.

Poaceae

*Neurachne alopecuroidea*  
*Stipa elegantissima*  
*Stipa scabra*

Polygalaceae

*Comesperma scoparium*

Proteaceae

*Banksia sphaerocarpa*  
*Dryandra armata*  
*Dryandra* aff. *horrida*  
*Dryandra vestita*  
*Grevillea hookerana*  
*Grevillea eriostachya*  
*Hakea erecta*  
*Hakea scoparia*  
*Hakea subsulcata*  
*Hakea* sp.  
*Isopogon drummondii*  
*Isopogon teretifolius*  
*Petrophile trifida*

Rutaceae

*Boronia crassifolia*  
*Eriostemon thryptomenoides*  
*Phebalium* (?) *filifolium*  
*Phebalium* aff. *filifolium* sp. B.  
*Phebalium tuberculosum* ssp. *tuberculosum*  
*Phebalium* sp.

Santalaceae

*Exocarpus aphyllus*  
*Santalum acuminatum*

Sapindaceae

*Dodonaea bursariifolia*

Stylidiaceae

*Stylidium caricifolium*  
*Stylidium dichotomum*  
*Stylidium repens*

Fauna

## Birds:

53a Bellbird  
 53a Blue Wren  
 53a Willie Wagtail  
 53a Babblers (heard)

## Others:

53a Orb Spider  
 53a Rock coloured grasshopper  
 53a Honey bees  
 53a Termite mound

53a Native bee

Soils

53a Chocolate brown clay loam ± gibber fragments, pH 6

Plant Species Recorded in Community 53b, comprised of mallee over  
*Melaleuca* spp. scrub/thicket

Asteraceae

*Olearia muelleri*

Lauraceae

*Cassytha melantha*

Liliaceae

*Thysanotus patersonii*

Mimosaceae

*Acacia brachyclada*

*Acacia pulchella*

Myrtaceae

*Eucalyptus flocktoniae*

*Eucalyptus phaenophylla*

*Eucalyptus salmonophloia*

*Eucalyptus transcontinentalis*

*Melaleuca acuminata*

*Melaleuca adnata*

*Melaleuca laxiflora*

*Melaleuca sheathiana*

*Melaleuca uncinata*

*Melaleuca undulata*

Papilionaceae

*Daviesia* sp. to herb(\*)

Poaceae

*Stipa elegantissima*

Proteaceae

*Grevillea huegellii*

Santalaceae

*Exocarpus aphyllus*

Sapindaceae

*Dodonaea bursariifolia*

*Dodonaea stenozyga*

Fauna

Birds:

53b Babbler

Others:

53b Termites present.

Soils

53b Medium brown clay loam + gibber fragments, chocolate brown at  
depth as observed from an ant hole.

Plant Species Recorded in Community 53c, comprised of mallet  
woodland on an approximately N-S ridgeline

Cupressaceae

*Callitris roei*

Cyperaceae

*Lepidosperma* sp.

Dilleniaceae

*Hibbertia enervia*

Haloragaceae

*Glischrocaryon aureum*

Goodeniaceae

*Dampiera* sp.

*Scaevola scapigera*

Lamiaceae

*Westringia cephalantha*

Liliaceae

*Thysanotus patersonii*

Mimosaceae

*Acacia chrysocephala*

*Acacia lasiocalyx*

Myrtaceae

*Baeckea* sp. (as in 53a)

*Eucalyptus astringens*

*Eucalyptus* sp. J.

*Melaleuca adnata*

*Melaleuca laxiflora*

*Melaleuca pungens*

*Melaleuca uncinata*

Papilionaceae

*Bossiaea pulchella*

*Gastrolobium spinosum* var. *spinosum* forma *typica*

Poaceae

*Stipa scabra*

Proteaceae

*Banksia sphaerocarpa*

*Dryandra armata*

*Dryandra ferruginea*

*Grevillea insignis*

*Hakea multilineata*

Rhamnaceae

*Cryptandra pungens*

Rutaceae

*Phebalium* (?) *filifolium*

*Phebalium tuberculosum* ssp. *tuberculosum*

*Phebalium* sp.

Santalaceae

*Exocarpus aphyllus*

*Exocarpus sparteus*

*Santalum acuminatum*

Sapindaceae

*Dodonaea bursariifolia*

Fauna

53c Echidna digs

53c Sleepy or bobtail lizard widespread

53c Blue tongue occasional



Soils

From 50c: yellow sand over laterite ± boulder laterite outcrop

## Appendix 2

Transcript of Field Notes Relating to Plant Species, Fauna and Soils Details Recorded in Remnant Piece of Bush Number 53

- 53a Eucalyptus sp (1) platycorys (Drawing of fruit in notes) = *Eucalyptus* aff. *platycorys*
- 53a Eucalyptus sp (Drawing of fruit in notes) = *Eucalyptus phaenophylla*
- 53a *Leptospermum erubescens*
- 53a *Allocasuarina campestris*
- 53a *Baeckea* sp.
- 53a *Banksia sphaerocarpa*
- 53a *Gastrolobium spines* var. *spines* forma *typica* (Drawing of leaf shape in notes)
- 53a Slender dodder = *Cassytha pubescens*
- 53a *Phebalium* (short thick leaf) (Drawing of leaf in notes) = *Phebalium* sp.
- 53a *Verticordia* yellow orange flower hook tip leaves = *Verticordia acerosa* var. *priessii*
- 53a *Comesperma scoparium*
- 53a Quandong *Santalum acuminatum*
- 53a *Lysiana ciliatum* var. *ericoides*
- 53a Hairy grass = *Neurachne alopecuroidea*
- 53a *Phebalium filifolium* type 1 = *Phebalium* (?) *filifolium*
- 53a *Phebalium filifolium* type 1 with verrucose glandular leaves (verrucose glands less evident in older leaves) leaves more silvery than type 1 = *Phebalium filifolium* sp. B
- 53a Euphorbiaceae shrub to 2 m tall x 1.5 m (Drawing of fruit in notes) = Unidentified euphorbiaceae species = *Beyeria* sp.
- 53a *Baeckea* (Drawing of leaf/stem arrangement in notes) = *Baeckea preissiana*
- 53a Pink flower decussate Mel. = *Beaufortia schaueri*
- 53a *Verticordia* yellow flower short leaf = *Verticordia chrysantha*
- 53a *Acacia* terete hooked tip phyll to c. 2 cm long, shrub 1 m tall x 2 m = *Acacia* sp.
- 53a Poison with spear shaped leaf (Drawing of leaf in notes) = *Gastrolobium rigidum*
- 53a Decussate *Leucopogon* = *Leucopogon crassifolius*
- 53a Tiny leaved ?*Eriostemon* (Drawing of leaf in notes) = *Eriostemon thryptomenoides*
- 53a *Hakea sulcata* group = *Hakea scoparia*
- 53a *Lepidosperma* hairy leaf edge viscid base (viscidum) flat curved 5 mm wide (Drawing of stem T.S. in notes) = *Lepidosperma* (?) *effusum*
- 53a *Hibbertia* 9 mm pungent = *Hibbertia exasperata*
- 53a Yellow flower terete pungent Mel = *Melaleuca pungens*
- 53a *Dryandra serrata* = *Dryandra armata*
- 53a My grass - *Stipa elegantissima*
- 53a 1.5 m short terete leaved Mel. = *Melaleuca* sp.
- 53a Common hairy decussate leaved Mel = *Beaufortia micrantha* var. *puberula*
- 53a *Melaleuca uncinata*
- 53a *Leucopogon dielsianus* (Drawing of leaf arrangement in notes)
- 53a *Stylidium caricifolium*
- 53a *Callitris* exserted spine = *Callitris roei*
- 53a 90 cm 9 mm wide flat sedge = *Lepidosperma* sp.
- 53a *Verticordia* pink flower; flowers dried = *Verticordia picta*

- 53a Short decussate Leucopogon (Drawing of leaf in notes) =  
*Leucopogon* sp.
- 53a Multi-flower head Hemigenia (Drawing of flower head in notes)  
= *Westringia cephalantha*
- 53a Spiny Acacia = *Acacia pulchella*
- 53a *Calytrix* sp.
- 53a Acacia deltoid phyllode (Drawing of phyllode in notes) =  
*Acacia chrysocephala*
- 53a Purple Billardiera = *Billardiera* sp.
- 53a Pink Vert 2 = *Verticordia insignis* ssp. *compta*
- 53a 3-4 mm leaved Hibbertia = *Hibbertia gracilipes*
- 53a Stylidium ground mat (Drawing of 5 mm wide pink dotted flower  
in notes) = *Stylidium repens*
- 53a *Verticordia* glossy leaf (Drawing of leaf in notes) =  
*Verticordia* sp.
- 53a Epacrid (Drawing of fruit in notes) = *Astroloma microphyllum*
- 53a White Vert = *Verticordia roei*
- 53a *Hakea erecta*
- 53a *Exocarpus aphyllus*
- 53a Terete leaved Hakea = *Hakea subsulcata*
- 53a *Dryandra* aff *horrida*
- 53a Leafy Stylidium (Drawing of basal leaf arrangement in notes) =  
*Stylidium dichotomum*
- 53a Dark green brown appressed leaf epacrid = Unidentified epacrid
- 53a Asteraceae white flower (Drawing of flower in notes) = *Waitzia  
paniculata*
- 53a Toothbrush Grevillea = *Grevillea hookerana*
- 53a Red stem loose floret daisy = *Ursinia anthemoides*
- 53a Boronia divided flat leaf (Drawing of flower and flat leaves  
in notes) = *Boronia crassifolia*
- 53a Pink flower lance leaf Melaleuca c. 2 m tall (Drawing of leaf  
in notes) = *Melaleuca* sp.
- 53a Small Yellow pea flower = Unidentified papilionaceae
- 53a Larger leaf pink flower lance leaf Melaleuca c. 2 m tall =  
*Melaleuca laxiflora*
- 53a 1+ m Melaleuca holosericea pink flower yellow tip = *Melaleuca  
leptospermoides*
- 53a Epacrid leaved pea egg & bacon flower dried off = *Daviesia* sp.  
to herb (also in 53b)
- 53a Pungent terete leaved Isopogon = *Isopogon drummondii*
- 53a *Grevillea eriostachya*
- 53a Short leaved round fruit Melaleuca like Hibbertia ± prostrate  
habit = *Melaleuca conferta*
- 53a Dried *Thysanotus patersonii*
- 53a Isopogon teretifolium = *Isopogon teretifolius*
- 53a 5cm curved terete leaved Hakea = *Hakea* sp.
- 53a *Thysanotus patersonii* (5 + 1 flower = 5 stamens + 1 53a  
ovary/style)
- 53a Fruit unusually large *Allocasuarina corniculata*
- 53a *Melaleuca platycalyx*
- 53a Curved leaf sedge flat double convex T.S. (Drawing of leaf  
shape and stem T.S. in notes) = *Lepidosperma* sp.
- 53a *Melaleuca* sp.
- 53a ?Spiny leaved Acacia lasiocarpa erect = *Bossiaea peduncularis*

Additions to Plant List from Collections

- 53a *Daviesia benthamii*
- 53a *Nemcia carinata* (rare)

- 53a *Stipa scabra*  
 53a *Dryandra vestita*  
 53a *Petrophile trifida*  
 53a *Phebalium tuberculosum* ssp. *tuberculosum*  
 53a *Dodonaea bursariifolia*

Fauna

Birds:

- 53a Bellbird  
 53a Blue Wren  
 53a Willie Wagtail  
 53a Babblers (heard)

Others:

- 53a Orb Spider  
 53a Rock coloured grasshopper  
 53a Honey bees  
 53a Termite mound  
 53a Native bee

Soils

- 53a Chocolate brown clay loam + gibber fragments, pH 6

- 
- 53b Melaleuca pointy leaf abundant forming thicket = *Melaleuca undulata*  
 53b Tall grey bark mallee (Drawing of fruit in notes) = *Eucalyptus flocktoniae*  
 53b *Exocarpus aphyllus*  
 53b Mel side fruit = *Melaleuca adnata*  
 53b *Melaleuca uncinata*  
 53b Dodonaea nr prostate (Drawing of leaf in notes) = *Dodonaea bursariifolia*  
 53b Thick dodder = *Cassytha melantha*  
 53b Pink flower large lance leaved Mel = *Melaleuca laxiflora*  
 53b *Olearia muelleri*  
 53b Acacia lasiocarpa prostrate = *Acacia pulchella*  
 53b Rare Salmon gums = *Eucalyptus salmonophloia*  
 53b *Acacia brachyclada*  
 53b Flat terete pointy Mel = *Melaleuca sheathiana*  
 53b *Thysanotus patersonii*  
 53b *Dodonaea stenozyga*  
 53b My grass (Drawing of leaf/stems in notes) = *Stipa elegantissima*  
 53b Mallee (Drawing of fruit in notes) = *Eucalyptus phaenophylla*  
 53b Mallee (Drawing of fruit in notes) = *Eucalyptus transcontinentalis*  
 53b Grevillea red flower divided flat leaves as in Salmon gum areas but under Melaleuca spiny = *Grevillea huegellii*

Additions to Plant List from Collections

- 53b Melaleuca = *Melaleuca acuminata*

Fauna

Birds:

- 53b Babbler

Others:

- 53b Termites present

Soils

53b Medium brown clay loam + gibber fragments, chocolate brown at depth as observed from an ant hole.

53b Photo 10 of this area

-----

53c Mallet area same species as Mallet area 50(c) but more closed in density terms i.e. Brown mallet = *Eucalyptus astringens*, Silver mallet = *Eucalyptus* sp. J.

53c *Exocarpus aphyllus*

53c *Exocarpus sparteus*

53c Dodonaea (Drawing of leaf in notes) = *Dodonaea bursariifolia*

53c Quandong *Santalum acuminatum*

53c Shrub and ground Hemigenia sp. = *Westringia cephalantha*

53c Mel spp. present = *Melaleuca* spp.

53c Same Phebaliums as 53a =

53c Same Callitris as 53a = *Callitris roei*

53c *Cryptandra pungens* Rhamnaceae white flower = *Cryptandra pungens*

53c *Baeckea* (Drawing of flower in notes) = *Baeckea* sp. (as in 53a)

53c *Melaleuca uncinata*

53c *Melaleuca* spiny terete leaved yellow flower = *Melaleuca pungens*

53c Holly leaved *Grevillea* = *Grevillea insignis*

53c *Hakea multilineata* grooved fruit = *Hakea multilineata*

53c Spear grass = *Stipa scabra*

53c *Dryandra serra* = = *Dryandra armata*

53c *Acacia* triangle phyllode (Drawing of phyllode in notes) = *Acacia chrysocephala*

53c 1 m flat sedge 8 mm wide = *Lepidosperma* sp.

53c *Glischrocaryon aureum*

53c *Thysanotus patersonii*

53c White flower *Scaevola* = *Scaevola* sp.

53c *Dampiera* small purple (7 mm wide) flower (Drawing of flower in notes) = *Dampiera* sp.

53c *Gastrolobium spinosum* var. *spinosum* forma *typica* (Drawing of leaf shape in notes)

53c *Acacia lasiocalyx*

53c *Banksia sphaerocarpa*

53c *Melaleuca* side fruit at fringe = *Melaleuca adnata*

53c *Melaleuca* decussate short pungent flat leaves at fringe (Drawing of leaf shape in notes, with sample stuck in under magic tape) = *Melaleuca* sp.

Additions to Plant List from Collections

53c *Dryandra ferruginea*

Fauna

53c Echidna digs

53c Sleepy or bobtail lizard widespread

53c Blue tongue occasional

Soils

From 50c: yellow sand over laterite ± boulder laterite outcrop

## Appendix 3

Additional Identifications

R. Cranfield 22.7.92.

- 53a *Hibbertia exasperata*  
 53a *Hibbertia gracilipes*  
 53a *Lepidosperma* (?) *effusum*  
 53a ~~Leucopogon~~-sp.: *Leucopogon crassifolius*  
 53a ~~Stylidium~~-sp.: *Stylidium dichotomum*  
 53a *Stylidium repens*  
 53a *Leptospermum erubescens*  
 53a ~~Eucalyptus~~-~~spathulata~~: *Eucalyptus* aff. *platycorys* (fruits far too large)  
 53a ~~Eucalyptus~~-sp.: *Eucalyptus phaenophylla*  
 53a *Hakea scoparia*  
 53a *Bossiaea peduncularis*  
 53a *Grevillea hookerana*  
 53a *Myrtaceae*: *Baeckea* sp.  
 53a ~~Cassytha~~-~~racemosa~~: *Cassytha pubescens* (stems pubescent)  
 53a *Calytrix* sp.  
 53a sedge: *Lepidosperma* sp.  
 53a *Acacia* sp.  
 53a *Leucopogon* sp.  
 53a *Beyeria leschenaultii*  
 53a *Daviesia* sp. to herb (also in 53b\*)  
 53a *Melaleuca laxiflora*  
 53a ~~Baeckea~~-sp.---Shew-M-E-F.: *Eriostemon thryptomenoides*  
 53a *Beyeria* sp.  
 53a *Hakea subsulcata*  
 53a *Melaleuca laxiflora*  
 53a ~~Leucopogon~~-sp.: *Leucopogon crassifolius*  
 53a *Melaleuca* sp.  
 53b *Melaleuca undulata*  
 53b *Acacia brachyclada*  
 53b Unknown: *Daviesia* sp. to herb (\*)  
 53b *Melaleuca laxiflora*  
 53b *Melaleuca sheathiana*  
 53c *Melaleuca laxiflora*  
 53c ~~Spyridium~~-sp.: *Cryptandra pungens*  
 53c *Dampiera* sp.  
 53c *Goodenia scapigera*  
 53c *Bossiaea pulchella*  
 53c *Hibbertia enervia*
- -----

**APPENDIX 4**

**LETTERS OF SUPPORT**

TELEPHONE  
(KUKERIN NORTH) 64 7897  
098

Corinthian Park,  
Kukerin, W.A. 6352

10<sup>th</sup> February 1993.

To Matthew & Therese.

Having seen your map (plan) to clear approximately half of your bush, I have no objection to you doing so. Its a pity that no other farms in the district have been cleared with as much foresight and respect for the native flora and fauna that you have shown in your plan.

I realize you are under pressure from various government departments to keep your bush in its present state, however I feel you are being asked to pay for all our mistakes in the past of over clearing

Regards

Michael Mitchell



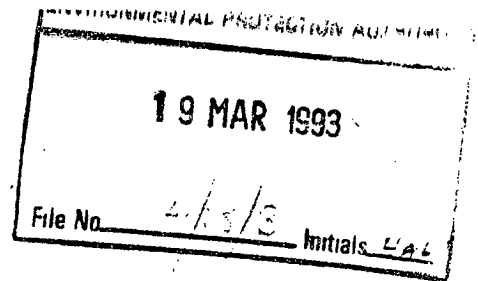
G. J. Smith  
"Donside"  
Kubervin, 6352.

To whom it may concern,

Re. Matthew Kings clearing of the bush.  
I George Smith a neighbour to the Kings  
property and within 1 kilometre of the bush,  
and in catchment A. Have no objection in  
Matthew clearing this bush as per plan's drawn  
up by him and the Ag. department.

G. J. Smith

MR MATTHEW KING  
P.O. BOX 18  
KUKERIN, W.A. 6352.

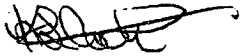


DEAR MATTHEW,

RE :- APPLICATION TO PARTIALLY CLEAR LOCATION 13895

WE AS NEIGHBOURS HAVE VIEWED YOUR PROPOSED PLAN TO CLEAR SOME LAND AND BELIEVE THAT YOU HAVE BEEN VERY ENVIRONMENTALLY CONSCIOUS IN YOUR INTENTIONS AND THAT YOU WILL FOLLOW THROUGH WITH ALL THE REQUIRED CARE IN THE BEST INTERESTS FOR ALL CONCERNED.

YOURS FAITHFULLY,



JOHN AND KAYE COOK  
P.O. BOX 19  
KUKERIN, 6352

LOCATION 9405



DUMBLEYUNG LAND CONSERVATION COMMITTEE

MAYFIELD  
PO BOX 46  
DUMBLEYUNG 6350  
26.2.1993

MR. MATTHEW KING  
PO BOX 18  
KUKERIN 6352.

Dear Matthew.

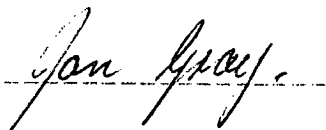
Re: Clearing Location 13593 Nbn Kukerin.

I have been instructed by the Dumbleyung LCDC to convey the Committee's support of your application to clear 197 hectares of bush, situated at the above location, as outlined in the proposed guidelines.

This support is forthcoming because of the manner in which the application has been prepared, the history of excellent land conservation and farm practices in your family, and because recharge areas have been identified.

The Committee's responsibilities require them to encourage the monitoring of water table levels throughout the Dumbleyung LCD and would suggest you take advantage of the newly acquired drilling rig to install a monitoring system on your farm.

Yours faithfully,



Jan Gray Secretary.

# Dumbleyung Shire Council

HARVEY STREET, DUMBLEYUNG



TELEPHONE: DUMBLEYUNG 63 4012

STD Area Code 098

FAX: (098) 63 4146

All correspondence to be addressed to the Shire Clerk, Box 99, Dumbleyung, W.A. 6350

Your Ref: .....  
CJP.AMM:

Our Ref: .....

Mr Matthew King  
PO Box 18  
KUKERIN WA 6352

Dear Matthew,

## APPLICATION TO PARTIALLY CLEAR LOCATION 13895

Council supports this well planned and environmentally conscience clearing of your land for production purposes.

Yours faithfully,

Chris Pepper  
SHIRE CLERK

24th February, 1993

**APPENDIX 5**

**APPEALS ON LEVEL OF ASSESSMENT**



WESTERN AUSTRALIA  
MINISTER FOR THE ENVIRONMENT

Mr M King  
PO Box 18  
KUKERIN WA 6352

Dear Mr King

**PROPOSED CLEARING OF 324HA OF LAND FOR AGRICULTURE - WILLIAMS  
LOC 13895 NORTH KUKERIN SHIRE OF DUMBLEYUNG**

Eleven appeals were lodged in objection to the level of assessment set for the above proposal.

Regulation 9 of the Environmental Protection Regulations requires that the proponent be advised of the outcome of the Minister's decision on any appeals.

To satisfy that requirement, I have enclosed a copy of the summary papers for appeal numbers 92/214, 92/215, 92/216, 92/217, 92/218, 92/219, 92/221, 92/223, 92/224, 92/225 and 92/226, copies of which will also be available to the public in the Environmental Protection Authority's library.

Yours sincerely

Jim McGinty MLA  
MINISTER FOR THE ENVIRONMENT

22 DEC 1992

enc.

APPEAL DECISION SUMMARY

APPEAL NO: 92/215

APPELLANT: H LACEY

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

GROUNDINGS OF APPEAL:

- 1 Because clearing of the diminishing and threatened native vegetation resource is continuing in the State, formal EPA assessment is necessary
  - a. to protect:
    - species and habitats thereby preventing losses and extinctions
    - cultural and heritage values
  - b. to prevent land degradation caused by rising water tables and salinity
  - c. to enable the Land Conservation District Committee's views to be considered.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

## APPEAL DECISION SUMMARY

APPEAL NO: 92/216

APPELLANT: J FRITH

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

### NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

### GROUNDS OF APPEAL:

- 1 The potential for further salinisation in an overcleared and salinised landscape, in the face of Government and civic group efforts to restore it.
- 2 Important nature conservation values may be lost.
- 3 The public advertisement and informal assessment do not give adequate public information or access to expert opinion.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992



## APPEAL DECISION SUMMARY

APPEAL NO: 92/217

APPELLANT: DENMARK ENVIRONMENT CENTRE

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

### NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

### GROUNDINGS OF APPEAL:

- 1 The very high conservation values of the site.
- 2 Further clearing would add to the problems of land degradation.
- 3 Proper public environmental impact assessment is needed because of the great importance many South West residents are placing on remnant bushland conservation.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

## APPEAL DECISION SUMMARY

APPEAL NO: 92/218

APPELLANT: CONSERVATION COUNCIL OF WA

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

### NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

### GROUNDINGS OF APPEAL:

- 1 The Department of Agriculture does not assess
  - nature conservation or biodiversity value, or
  - off-site land degradation threatswhen assessing land for clearing.
- 2 The size of the site and the extent of clearing of native vegetation make this area significant in the preservation of regional biodiversity.
- 3 Formal assessment is necessary to give the public the opportunity to comment on the large-scale clearing that has been occurring in WA.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

APPEAL DECISION SUMMARY

APPEAL NO: 92/219

APPELLANT: S MCNEE

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

GROUNDINGS OF APPEAL:

- 1 There is a need for the role of natural vegetation in
  - hydrology and soil conservation and
  - conservation of flora and faunato be considered within the regional context in assessing clearing.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

## APPEAL DECISION SUMMARY

APPEAL NO: 92/221

APPELLANT: S SCOUGALL

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

### NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

### GROUNDINGS OF APPEAL:

- 1 Areas subject to clearing proposals require assessment of their nature conservation values. This site is likely to have significant nature conservation and other values such as aesthetic and educational.
- 2 All parties with an interest in native vegetation should be provided with ample opportunity to comment on proposals to clear land.

DECISION OF THE MINISTER: UPHeld - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

APPEAL DECISION SUMMARY

APPEAL NO: 92/223

APPELLANT: WILDFLOWER SOCIETY OF WA

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

GROUNDINGS OF APPEAL:

- 1 No further bushland should be cleared for agricultural purposes within this Shire because
- the remnants are very important to both Flora and Fauna;
  - groundwater quality and salinity may occur.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

## APPEAL DECISION SUMMARY

APPEAL NO: 92/224

APPELLANT: THE NATIONAL TRUST

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN SHIRE OF DUMBLEYUNG

### NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

### GROUND OF APPEAL:

1. The proposal affects a relatively large area of bushland in a Shire which has, at most, only 12.8% native vegetation remaining.
2. Nature conservation and landscape values are not assessed in the clearing controls under the Soil and Land Conservation Act; CALM advice is not sought; the site has considerable conservation value.
3. The proposal will create further land degradation and salinity in the Blackwood River Catchment, which is undesirable and costly to the community in the long term.
4. The level of concern within the community at the continuing loss of native vegetation and of our natural heritage.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

APPEAL DECISION SUMMARY

APPEAL NO: 92/225

APPELLANT: R LAMBECK

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

GROUNDS OF APPEAL:

- 1 The size of the site and the extent of clearing of native vegetation make this patch significant in the preservation of regional biodiversity.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

APPEAL DECISION SUMMARY

APPEAL NO: 92/226

APPELLANT: NATIONAL THREATENED SPECIES NETWORK

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR  
AGRICULTURE - WILLIAMS LOC 13895 NORTH KUKERIN  
SHIRE OF DUMBLEYUNG

NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

GROUNDINGS OF APPEAL:

1 Formal assessment is required to enable further studies to assess the local and regional significance of the block for

- land conservation
- nature conservation.

DECISION OF THE MINISTER: UPHELD to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992



APPEAL DECISION SUMMARY

APPEAL NO: 92/214

APPELLANT: AUSTRALIAN CONSERVATION FOUNDATION

PROPONENT: MR M KING

PROPOSAL: PROPOSED CLEARING OF 324HA OF LAND FOR AGRICULTURE  
- WILLIAMS LOC 13895 NORTH KUKERIN SHIRE OF DUMBLEYUNG

NATURE OF APPEAL:

The appeal is lodged in objection to the level of assessment as set at informal by the Environmental Protection Authority for the above proposal.

GROUND OF APPEAL:

1 The public must have the right to informed comment on clearing proposals of this scale and significance.

2 Current assessment procedures under the NOI process as administered by the Commissioner of Soil and Land Conservation are seriously inadequate to deal with the range of environmental factors, including nature conservation and off-site effects, which need to be considered in proposals to clear native vegetation.

DECISION OF THE MINISTER: UPHELD - to Consultative Environmental Review

DATE OF DECISION: 22 DEC 1992

LIBRARY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WESTRALIA SQUARE  
141 ST. GEORGE'S TERRACE, PERTH

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