

AREA INFORMATION

System 6 Area (C or M) or Update Area (Update) *Carburnup River*

Conservation Area	
Nature Reserve	
Reserve No	
National Park	
Reserve No	
Local Government	<i>Shire of Busselton</i>
Reserve No	<i>38582 (Parks + Recreation)</i>
Other	
Proposed Conservation Areas	
Local Government	
Reserve No	
Other	<i>DOLA yet unnumbered</i>

Conservation Area

Nature Reserve	
Reserve No	
National Park	
Reserve No	
Local Government	
Reserve No	
Other	

TOTAL AREA

Bushland Area	<i>45</i>	hectares
Completely Degraded		

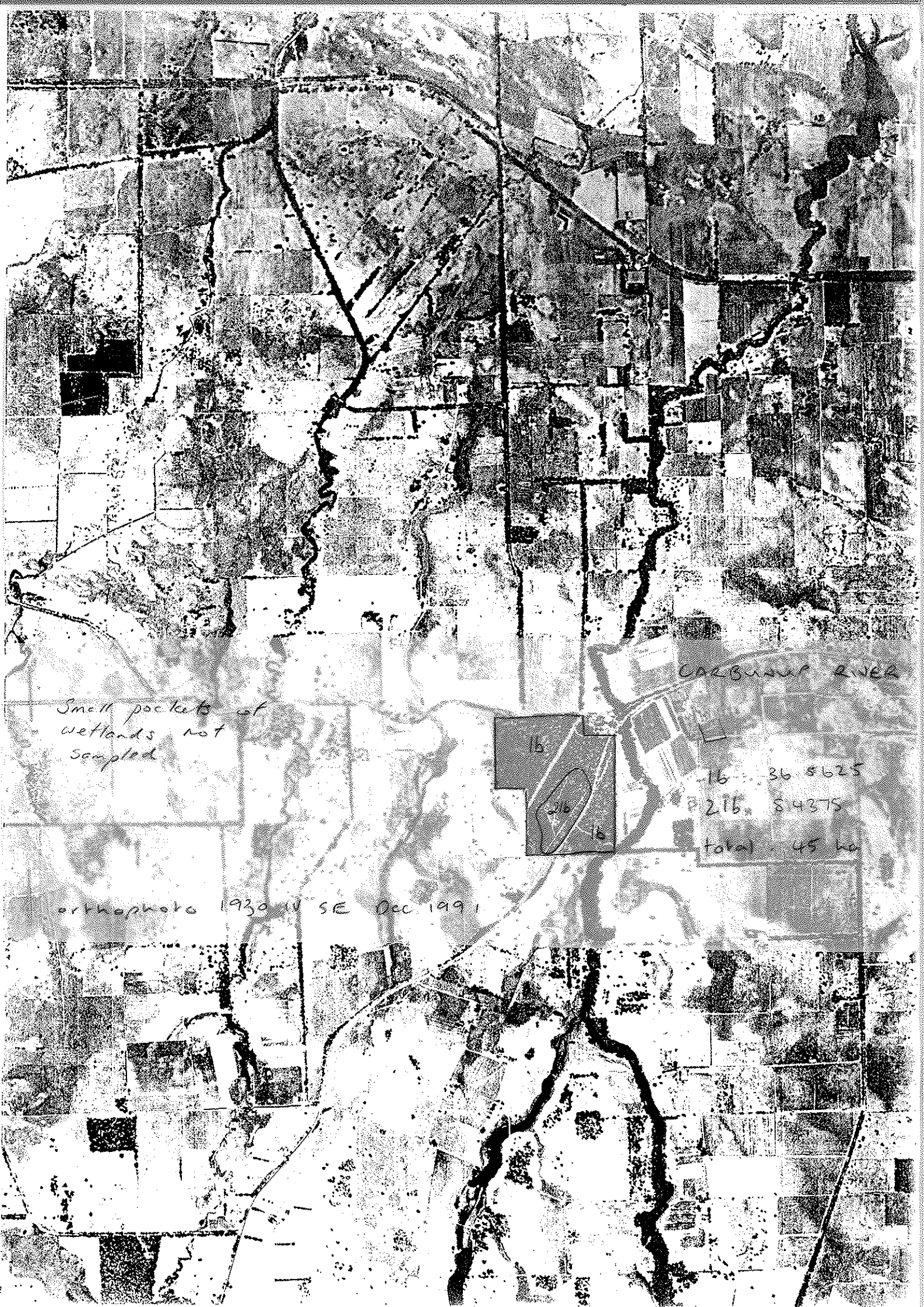
AREA MAPPED FLORISTIC UNITS

Units	Site (Condition)	Code	G: CARB	Bound	Area (ha)
<i>1b</i>	<i>01</i>	<i>02</i>	<i>04</i>	<i>B</i>	<i>36565</i>
<i>21b</i>	<i>03</i>			<i>B</i>	<i>84375</i>
	<i>NB small packets of wetlands not sampled</i>				

Boundaries determined by use of

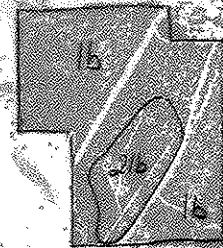
aerial photograph	<i>Swan Coastal Plain run 4 5027 28/11/90</i>
orthophoto	<i>1930 IV SE Dec 1991</i>
vegetation map	
soil map	

CALM map Busselton



CARBONATE RIVER

Small pockets of wetlands not sampled



16	36	5625
216		54375
Total		45 ha

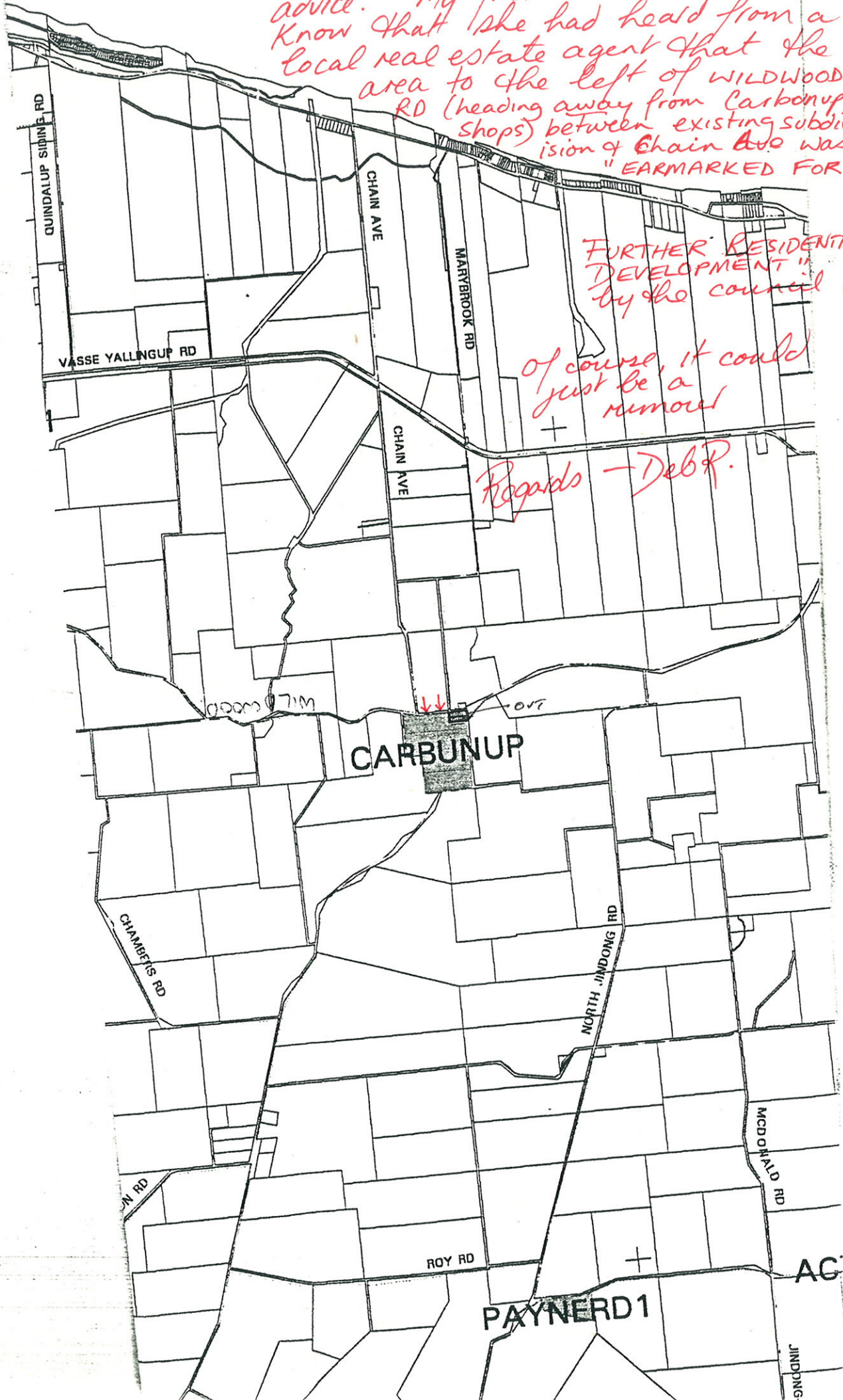
orthophoto 1930 W SE Dec 1991

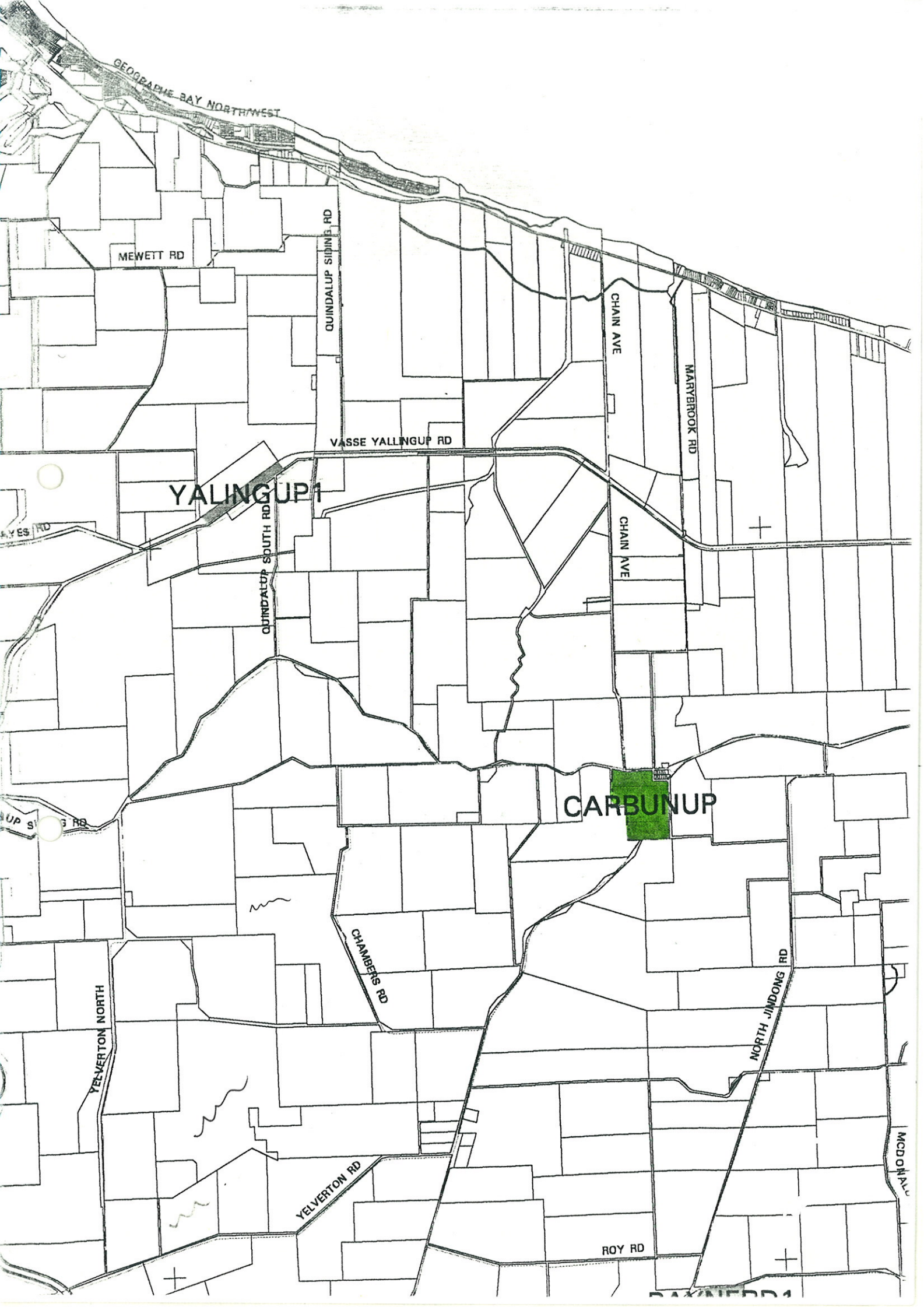
Bronwen Many thanks for your advice. My friend wanted you to know that she had heard from a local real estate agent that the area to the left of WILDWOOD RD (heading away from Carbonup shops) between existing subdivision of Chain Ave was "EARMARKED FOR

FURTHER RESIDENTIAL DEVELOPMENT" by the council.

of course, it could just be a rumour

Regards - Deb P.





GEOGRAPHIC BAY NORTHWEST

MEWETT RD

QUINDALUP SIDINGS RD

VASSE YALLINGUP RD

CHAIN AVE

MARYBROOK RD

YALINGUP 1

QUINDALUP SOUTH RD

CHAIN AVE

CARBUNUP

CHAMBERS RD

NORTH JINDONG RD

YELVERTON NORTH

YELVERTON RD

ROY RD

MCDONALD RD

YALINGUP 1

CONTACT DR N. GIBSON CALM WOODVALE for further information.

Flora list for Carburnup River (extracted from Swan Coastal Plain database, Carb sites 1-4, 3/5/1995).

Department of Environmental Protection System 6 Update: Site Based Flora List Carburnup river

(extracted from the CALM Swan Coastal Plain database, Carb1-4, 3/5/95)

Amaranthaceae

Ptilotus manglesii

Anthericaceae

Agrostocrinum scabrum
Caesia micrantha
Caesia occidentalis
Chamaescilla corymbosa
Johnsonia lupulina
Sowerbaea laxiflora
Thysanotus manglesianus
Thysanotus multiflorus
Thysanotus patersonii
Thysanotus sparteus
Tricoryne elatior
Tricoryne tenella

Apiaceae

Pentapeltis peltigera
Platysace tenuissima
Trachymene pilosa
Xanthosia candida
Xanthosia huegelii

Asteraceae

* *Conyza albida*
* *Hypochaeris glabra*
Lagenifera huegelii
Trichocline spathulata

Casuarinaceae

Allocasuarina fraseriana

Colchicaceae

Burchardia multiflora
Burchardia umbellata

Cyperaceae

Lepidosperma angustatum
Lepidosperma eastern terete scps (BJK&NG 232)
Mesomelaena tetragona
Tetraria octandra

Dasypogonaceae

Dasypogon bromeliifolius
Dasypogon hookeri
Kingia australis
Lomandra caespitosa
Lomandra hermaphrodita
Lomandra integra
Lomandra nigricans
Lomandra preissii
Lomandra purpurea

Lomandra sericea

Dilleniaceae

Hibbertia cunninghamii
Hibbertia hypericoides
Hibbertia racemosa
Hibbertia rhadinopoda
Hibbertia serrata

Droseraceae

Drosera menziesii
Drosera menziesii subsp. penicillaris

Epacridaceae

Astroloma ciliatum
Astroloma pallidum
Conostephium pendulum
Leucopogon aff. revolutus scps
Leucopogon propinquus

Euphorbiaceae

Amperea ericoides
Monotaxis occidentalis
Poranthera microphylla

Goodeniaceae

Dampiera linearis
Scaevola calliptera
Scaevola glandulifera
Scaevola phlebopetala

Haemodoraceae

Anigozanthos flavidus
Conostylis aculeata
Conostylis laxiflora
Conostylis setigera
Haemodorum laxum
Phlebocarya ciliata

Iridaceae

Patersonia juncea
Patersonia umbrosa var. xanthina

Lauraceae

Cassytha racemosa

Lindsaeaceae

Lindsaea linearis

Mimosaceae

Acacia "tetragona" adj sand Carb-1 scps
Acacia browniana
Acacia divergens
Acacia extensa
Acacia mooreana
Acacia myrtifolia
Acacia nervosa

CONTACT DR N. GIBSON CALM WOODVALE for further information.

Flora list for Carburnup River (extracted from Swan Coastal Plain database, Carb sites 1-4, 3/5/1995).

Acacia pulchella
Acacia semitrullata
Acacia stenoptera
Acacia willdenowiana

Myrtaceae

Agonis flexuosa
Calytrix flavescens
Eucalyptus calophylla
Eucalyptus marginata
Hypocalymma angustifolium
Hypocalymma robustum
Kunzea aff. micrantha "purple" scps (BJK&NG 040)
Melaleuca thymoides
Pericalymma ellipticum

Orchidaceae

Caladenia flava
Caladenia sp. scps
Elythranthera sp. scps
Eriochilus dilatatus warr subsp. multiflorus
Leporella fimbriata
* Monadenia bracteata
Prasophyllum parvifolium
Pterostylis vittata
Thelymitra sp. scps

Orobanchaceae

* Orobanche minor

Papilionaceae

Bossiaea ornata
Bossiaea rufa
Brachysema praemorsum
Daviesia cordata
Daviesia decurrens
Daviesia incrassata
Daviesia preissii
Gompholobium knightianum
Gompholobium marginatum
Gompholobium polymorphum
Gompholobium tomentosum
Hovea trisperma var. trisperma
Jacksonia sp. Busselton (G.J. Keighery 4482) PN
Kennedia carinata
Kennedia coccinea
Mirbelia dilatata
Pultenaea reticulata
Sphaerolobium medium
Viminaria juncea

Pittosporaceae

Billardiera variifolia
Pronaya fraseri

Poaceae

Agrostis avenacea

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Flora list for Carburnup River (extracted from Swan Coastal Plain database, Carb sites 1-4, 3/5/1995).

- * *Aira caryophyllea*
- Amphipogon debilis*
- Amphipogon turbinatus*
- * *Briza maxima*
- * *Briza minor*
- Danthonia setacea*
- Danthonia sp. scps*
- Stipa campylachne*
- Tetrarrhena laevis*

Podocarpaceae

- Podocarpus drouynianus*

Polygalaceae

- Comesperma sp. scps*
- Comesperma virgatum*

Proteaceae

- Adenanthos intermedius scps*
- Adenanthos meisneri*
- Adenanthos obovatus*
- Banksia attenuata*
- Banksia grandis*
- Conospermum capitatum*
- Grevillea manglesioides*
- Grevillea quercifolia*
- Hakea amplexicaulis*
- Hakea ruscifolia*
- Persoonia graminea*
- Persoonia longifolia*
- Persoonia saccata*
- Petrophile linearis*
- Stirlingia latifolia*
- Synaphea gracillima*
- Xylomelum occidentale*

Restionaceae

- Hypolaena exsulca*
- Hypolaena fastigiata*
- Lepyrodia glauca*
- Loxocarya cinerea*
- Loxocarya fasciculata*
- Loxocarya flexuosa*
- Lyginia barbata*
- Pseudoloxocarya grossa ms sthst*

Rhamnaceae

- Trymalium ledifolium*

Rubiaceae

- Opercularia apiciflora*
- Opercularia hispidula*
- Opercularia spermacocea*
- Opercularia vaginata*

Rutaceae

- Eriostemon spicatus*

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Flora list for Caribunup River (extracted from Swan Coastal Plain database, Carb sites 1-4, 3/5/1995).

Stackhousiaceae

Stackhousia monogyna
Tripterococcus brunonis

Stylidiaceae

Levenhookia pusilla
Stylidium amoenum
Stylidium calcaratum
Stylidium carnosum
Stylidium scandens
Stylidium schoenoides

Thymelaeaceae

Pimelea preissii

Violaceae

Hybanthus floribundus

Xanthorrhoeaceae

Xanthorrhoea gracilis
Xanthorrhoea preissii

Zamiaceae

Macrozamia riedlei



CARBUNUP RIVER
CARBUNUP I.P.A.







← CARBUNUP



↑
← ADJACENT
TO
CARBUNUP

193/95
160/95

attached to letter to Bush Fires Board
Busseton, 12 March 1997

FLORISTICS of RESERVES and BUSHLAND AREAS

in the

BUSSELTON REGION (SYSTEM 1) PARTS 1 - IV

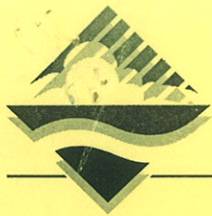
**Full document
available
on request**

by

Keighery, B.J.¹, Keighery, G.J.² and Gibson, N.²

NOVEMBER 1996

1. 224 Hamersley Road SUBIACO WA 6008
2. Department of Conservation and Land Management PO Box 51 WANNEROO WA 6065



Head Office:
8th Floor, Westralia Square
141 St Georges Terrace
Perth, Western Australia 6000
Tel (09) 222 7000 Fax (09) 322 1598

Regional Offices:
Bunbury • Geraldton • Kalgoorlie
Karratha • Kwinana

Bush Fires Board
Regional Fire Safety Officer
Attn: Percy Wild
South West Region Headquarters
PO Box 1288
BUSSELTON WA 6231

Your Ref 629
Our Ref 193/95, 160/95
Enquiries **Gary Whisson**

Dear Percy

VCL- FIRE PROTECTION FOR CARBUNUP RIVER TOWN SITE BUSSELTON

Thank you for the opportunity to comment on the proposed fire plan for the Caribunup Bushland. As part of the System 6/1 Update of the Swan Coastal Plain the EPA recognised that the Caribunup Bushland contained "threatened and poorly reserved community types". While we are yet to produce the draft report summarising the values of the area and making final recommendations we are confident that this area will be recommended for re-vesting as a Nature Reserve. However, the flora conservation values are clearly outlined in a recent publication on the Bushland (see enclosed). This publication also describes the current condition of the reserve as well as listing the native and introduced flora. From our perusal of the plan (as detailed on the map provided to us) and some discussions with yourself and Greg Boyd we understand that the plan has been designed to protect the Caribunup town site while recognising the conservation values of the area.

Having recognised the significant conservation values of the Bushland the Department has an interest in the area being managed for its conservation values. The fire plan, as a stand alone document, not as part of a management plan, for the Bushland raises series of issues relevant to all isolated remnants on the Plain (and elsewhere). These are:

- Caribunup Bushland is an island of bushland, isolated from other natural areas in relation to re-establishment of native species after fire.
- Caribunup Bushland has been subject to a series of past disturbances including the proliferation of tracks, the trisection of the area by the transmission line and Bussel Highway, rubbish dumping, timber collection and too frequent fire. Such disturbances create opportunities for weeds to become established in the bushland in the presence of repeated disturbance.
- There are areas of dieback infection in the Bushland. If not carefully managed fire has the potential to encourage recolonisation of these areas by weeds rather than native species.

There is a mounting level of evidence in reference to the management of small bushland areas that the best option to maintain the conservation values of an area is for no planned burning. Other methods such as sprinkler lines in the bushland adjacent to buildings, mowing to reduce fuel load and requiring buildings adjacent to bushland to be designed to withstand adjacent bushland fires should be investigated to protect property in the longer term.

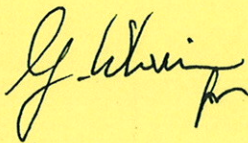
In consideration of our concerns for the long term preservation of the Bushland's natural values and the immediate protection of the town site we make the following comments:



1. The proposed mosaic burning be modified to increase the no burn area on the south east of Bussel Highway as shown on the enclosed map
2. The autumn burns be carried out when the moisture content of the vegetation is sufficient to ensure a cool burn.
3. The new firebreak be constructed with reference to dieback, restricted flora and weed invasion and managed in a manner that does not encourage its use as a track.
4. Appropriate weed control in area 1 (the town site buffer) be practised after each burn. This is necessary both to prevent increased fuel load caused by annual grasses and to prevent this area becoming a node for weed invasion of the surrounding bushland.

Also, in the longer term, the fire plan should be part of a management plan for the bushland that pays particular attention to signage, restriction of vehicular access by the closure tracks and fencing adjacent to the town site and weed control in the entire bushland area.

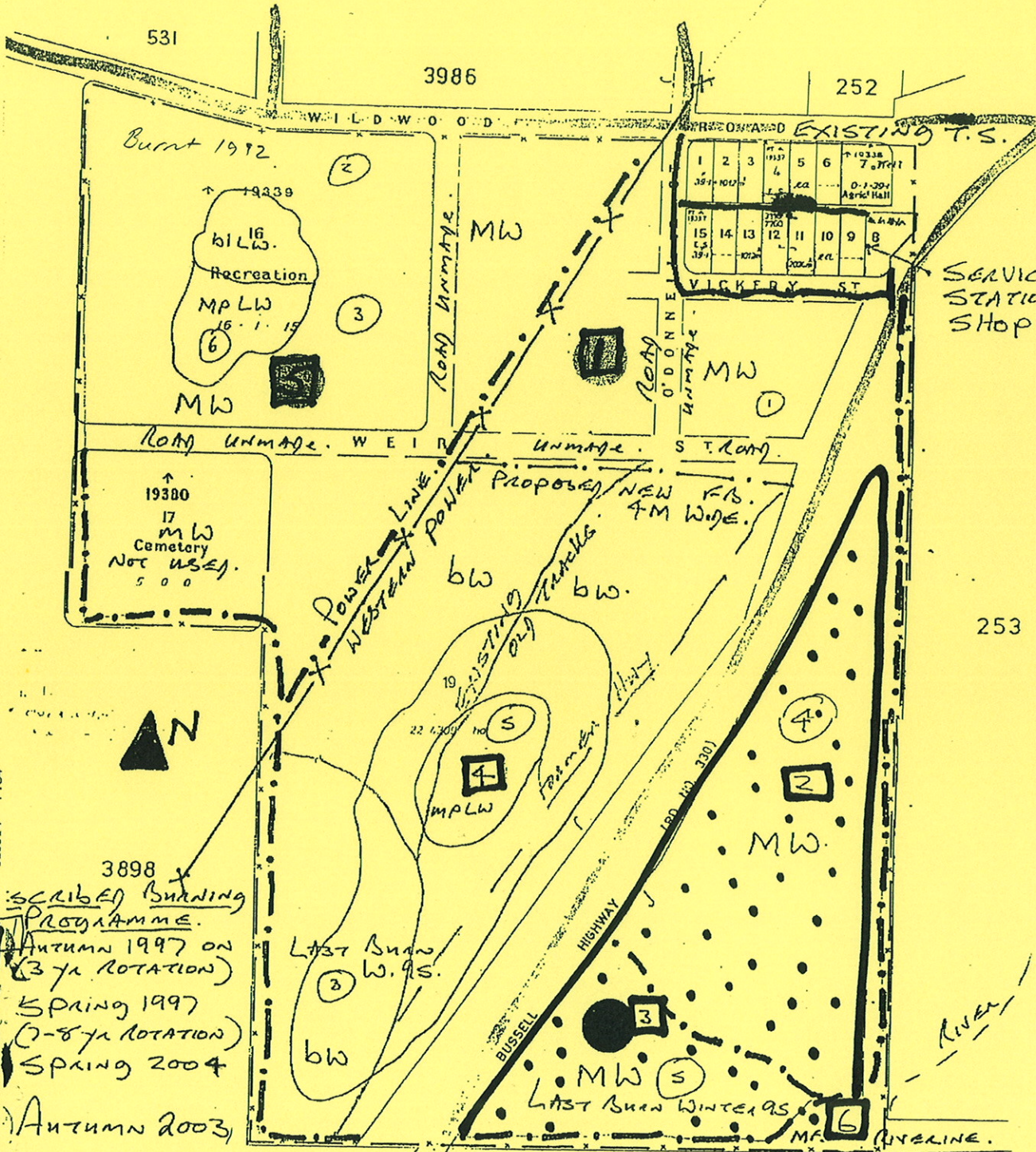
Yours sincerely



R.A.D. Sippe
DIRECTOR
POLICY COORDINATION DIVISION

12th March 1997

cc Mr C. Bishop, Department of Environmental Protection, Bunbury
Mr G. Voight, Department of Conservation and Land Management, Bunbury
Dr N. Gibson, Department of Conservation and Land Management, Woodvale



- 3898
- SCRIBED BURNING PROGRAMME.**
- 1 Autumn 1997 ON (3 yr ROTATION)
 - 2 Spring 1997 (2-8 yr ROTATION)
 - 3 Spring 2004
 - 4 Autumn 2003
 - 5 Autumn 1998, 2001

6) NO Burn.

EXISTING 4M FIS.

ROADS IN T.S. DEVELOPMENT.

CARBUNUP RIVER

SUSSEX DISTRICT
3 Chains to an Inch
01/12/12

KEY

MW - MARR WOODLAND. (same)

MPLW - MELALEUCA PRAISSIAN LOW WOODLAND.

BW - BANKSIA WOODLAND. (bl = Low Woodland)

① = 3 yr ROTATION ② ④ = 2-8 yr

L & S REVISION

915514 P.04

21-FEB-97 11:11



19380
17
MW
Cemetery
NOT USED.
500

Burnt 1992

19339

bl LW.
Recreation
MPLW
16.1.15

MW

EXISTING T.S.

1	2	3	4	5	6	7	8
3911	1012		1937	ea		10338	7
						0-1-201	Agrial Hall
15	14	13	12	11	10	9	8
1937			2758				
15			7700				
15							

253

3987

3988

FLORISTICS of RESERVES and BUSHLAND AREAS
in the
BUSSELTON REGION (SYSTEM 1) PARTS 1 - IV

by

Keighery, B.J.¹, Keighery, G.J.² and Gibson, N.²

NOVEMBER 1996

1. 224 Hamersley Road SUBIACO WA 6008

2. Department of Conservation and Land Management PO Box 51 WANNEROO WA 6065

FLORISTICS OF RESERVES AND BUSHLAND AREAS
IN THE BUSSELTON REGION (SYSTEM 1)
PART I: FLORISTICS OF THE CARBUNUP BUSHLAND

G.J. Keighery, B.J. Keighery and N. Gibson.

ABSTRACT

The Caribunup Bushland is one of the largest remaining areas of the southern Marri and *Banksia* Woodlands and is the only known area where these woodlands are associated with intact fringing riverine vegetation. Four principal plant communities are present in the area: Marri (*Eucalyptus calophylla*) Woodland, *Banksia* Woodland, *Melaleuca preissiana* Low Open Woodland and Riverine Marri Forest. Three regional floristic community types are represented in the Bushland: type 1b (Southern Marri woodlands on heavy soils), type 4 (*Melaleuca preissiana* damplands) and type 21b (Southern *Banksia attenuata* woodlands). The Bushland contains a vascular flora of 337 taxa; 324 are natives and 13 weeds. Four of these taxa are non-flowering vascular plants, 124 are monocotyledons (116 natives and 8 weeds) and 209 are dicotyledons (204 native and 5 weeds). Four rare taxa are found in the Reserve. Thirty five taxa are characteristic of the heavier soils of the southern side (or eastern side of the Plain north of Capel) of the Swan Coastal Plain and at least twelve taxa that are only recorded on the Plain south of Capel. These plant communities, and their associated flora, are now rare on the Plain. The Marri Woodlands are the most species rich woodlands found on the Swan Coastal Plain.

INTRODUCTION

The Caribunup Bushland (Map 1) straddles one of the most well travelled tourist roads near Busselton and is familiar to many as the bushland near the Caribunup River Bridge between Busselton and Margaret River. However like many of our bushland areas on the Swan Coastal Plain the bushland appears to have rarely been visited by botanists. Of the 32 collections from the Caribunup River bushland in the WA Herbarium (April 1996) most were collected by G.J. Keighery as part of a regional survey of the Swan Coastal Plain (Gibson *et al.* 1994).

While areas of remnant bushland on the Plain in the Busselton area are very restricted the areas that are left are under increasing pressure for development. In 1994 a portion of the Caribunup Bushland area was subdivided and cleared without any reference to its natural values. It is important for conservation our State's unique and diverse flora that the flora values of our bushland be documented before such irreversible land use decisions are made.





SURVEY METHOD

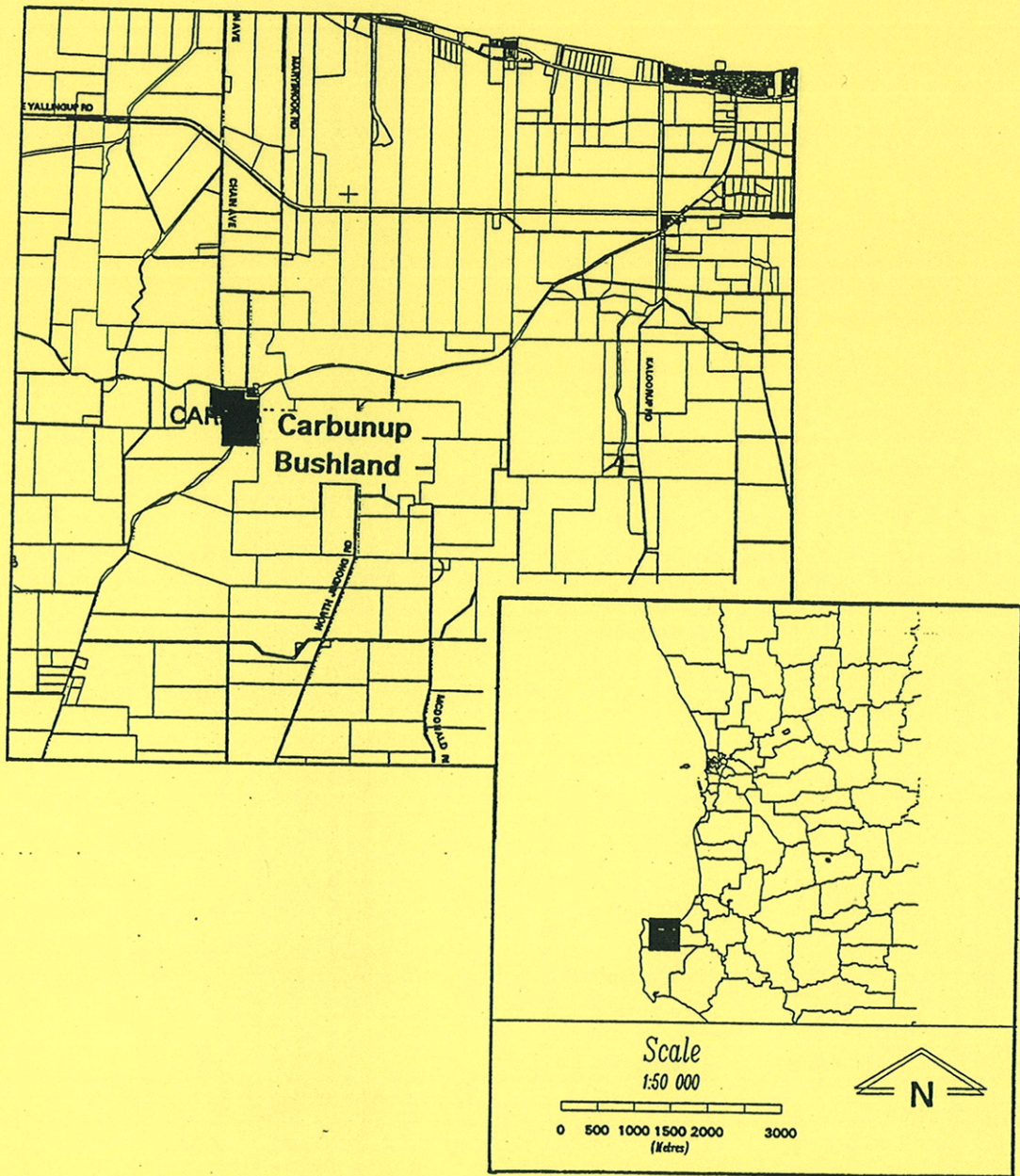
Survey work in the Caribunup Bushland was performed over three flowering seasons in 1992 to 1995 in conjunction with field work for the Swan Coastal Plain.

Eight sites were located and described (Map 2, Appendix 1) to sample the range of plant communities identified using aerial photographs and field interpretation. Four are permanently located 100m² study sites used in the regional floristic survey of the Swan Coastal Plain (Gibson

Map 1: Caribunup Bushland Location.

Key

-  Areas of bushland identified by the Department of Environmental Protection (1994 - ongoing) as being "...threatened and poorly reserved community types requiring interim protection.."
-  Cadastre
-  Drainage lines
-  Major and secondary roads



Map 2: Vegetation Map

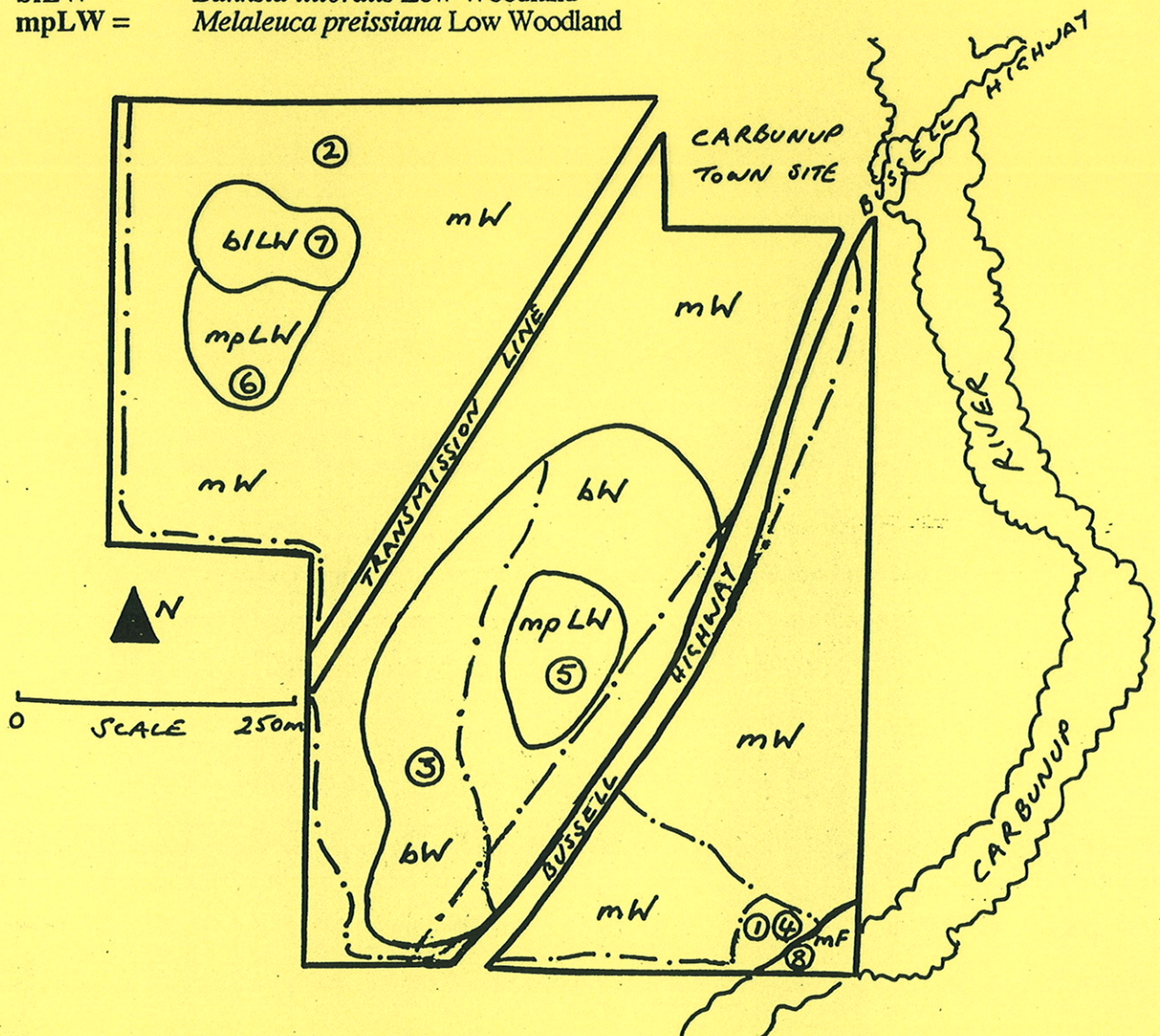
Key

- Carburnup Bushland boundary
- - - Tracks
- Plant community boundary
- ② Site location

Remnant vegetation along the Carburnup River

Plant Communities

- mW = Marri Woodland
 - J = found in areas also dominated by Jarrah
 - (J) = Jarrah is also present
- bLW = *Banksia* Woodland
- mF = Riverine (R, Appendix 2)
- bLW = *Banksia littoralis* Low Woodland
- mpLW = *Melaleuca preissiana* Low Woodland

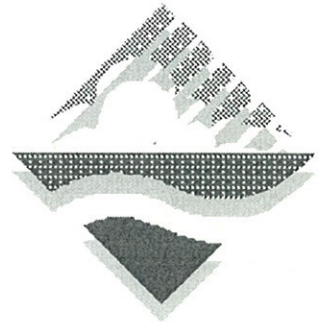


193/95

Department Of Environmental Protection
Westralia Square , 141, St Georges Terrace Perth, Western Australia, 6000.
Facsimile: (08) 9322 1598 Telephone: (08) 9222 7000

FACSIMILE

TO: Kirrily White
AT: Shire of Busselton
CC: Greg Voigt
FAX NO: 9752 4958
FROM: Nick Woolfrey (direct phone 9222 7002)
DATE: 31 October, 2000
SUBJECT: Carbanup Reserve
OUR REF:
NUMBER OF PAGES (inc cover): 1



Unintended Recipients: Please destroy this message and the accompanying copies of documents and advise the author as soon as possible by telephone

Further to my previous faxed message of 7 December re the proposed fenceline clearing at Carbanup Reserve. Please disregard that earlier message .

I am now advised that the subject reserve is not registered as containing a Threatened Ecological Community (TEC) , but rather, contains a Threatened or Poorly Reserved Plant Community identified by the DEP's Conservation Branch.

The DEP understands from advice provided by you and Mr Greg Voigt of CALM, that:

- the vegetation directly impacted by the proposed fenceline clearing comprises a strip of degraded vegetation a few metres wide
- the area of permitted disturbance has been checked by CALM and does not contain DRF of priority listed plant species; and
- the improvement of the fence line will benefit future management of the reserve.

I therefore advise that the proposal is not of a level of significance warranting referral to the EPA. However I recommend that the Shire consult with the Conservation Branch of the DEP before granting final approval for the clearing (Bronwen Keighery 9222 7028) and that following approval, Council audit the implementation of the proposal and ensure compliance with the advice provided by CALM.

Nick Woolfrey
Environmental Officer
Land Use Development Branch
Evaluation Division
Email: nick-woolfrey@environ.wa.gov.au

MULTI COMMUNICATION REPORT

13-DEC-00 10:30

REF. NAME :

PAGES : 01

1. SUCCESSFUL

FAX NUMBER	NAME
97524958	
97521432	

2. UNSUCCESSFUL

FAX NUMBER	NAME
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3. MULTI COMMUNICATION JOURNAL

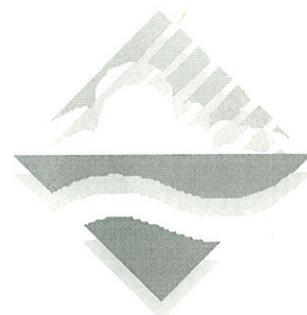
NO.	FAX NUMBER	START TIME	TIME	MODE	PAGE	RESULTS
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091	97521432	13-12 10:29	00'25"	ECM BC	01/01	OK

faxed 7/12/00

Department Of Environmental Protection
Westralia Square , 141, St Georges Terrace Perth, Western Australia, 6000.
Facsimile: (08) 9322 1598 Telephone: (08) 9222 7000

FACSIMILE

TO: Kirrily White
AT: Shire of Busselton
CC: Greg Voigt @ CALM (9752 1432)
FAX NO: 9752 4958
FROM: Nick Woolfrey (direct phone 9222 7002)
DATE: December 7, 2000
SUBJECT: Carbanup Reserve
OUR REF:
NUMBER OF PAGES (inc cover):



Unintended Recipients: Please destroy this message and the accompanying copies of documents and advise the author as soon as possible by telephone

Dear Kirrily

Thankyou for your fax of 6 December.

There is no legal mechanism called an Interim Protection Order under the WA Environmental Protection Act. However the DEP is aware that bushland in the vicinity of the Carbanup Reserve contains a Threatened Ecological Community (TEC). TEC's are understood to have legal protection under the Commonwealth Environmental Protection and Biodiversity Conservation Act (the EPBC Act).

To facilitate the effective environmental consideration of the proposal referred to in your fax by the DEP, you are advised to contact Dr Bronwen Keighery of the DEP's Conservation Branch in the first instance (08 9222 7028). Following your discussion / consideration of this proposal with Dr Keighery, the DEP will be in a position to advise whether this proposal requires referral to the EPA for potential consideration via environmental assessment.

You may also wish to advise the proponent (ie the adjoining landholder) of their obligations to discuss proposals with potential to impact on TEC's with Environment Australia (1800 803 772), having regard to the penalties under that legislation for non referral of actions likely to have a significant effect on a matter of national environmental significance.

Regards

Nick Woolfrey

Environmental Officer, Land Use Development Branch, Evaluation Division



Shire of Busselton FACSIMILE

Locked Bag No. 1
BUSSELTON WA 6280

Telephone: (08) 9781 0444 Facsimile: (08) 9752 4958

To: Department of Environmental Protection	From: Kirrily White
Attention: Nick Woolfrey	Date: Wednesday, 6 December 2000
Fax No: (08) 9322 1598	Pages (including cover): 3
Your Ref:	Our Ref: 15282
Subject: Proposed Boundary Clearing – Carhunup Reserve / Interim Protection Order	

Please tick box if this facsimile is to be delivered immediately.

Nick,

Officers from CALM, Busselton have advised that Reserve 38582 Bussell Highway, Carhunup River (Carhunup Reserve) is covered by an Interim Protection Order administered by the Department of Environmental Protection.

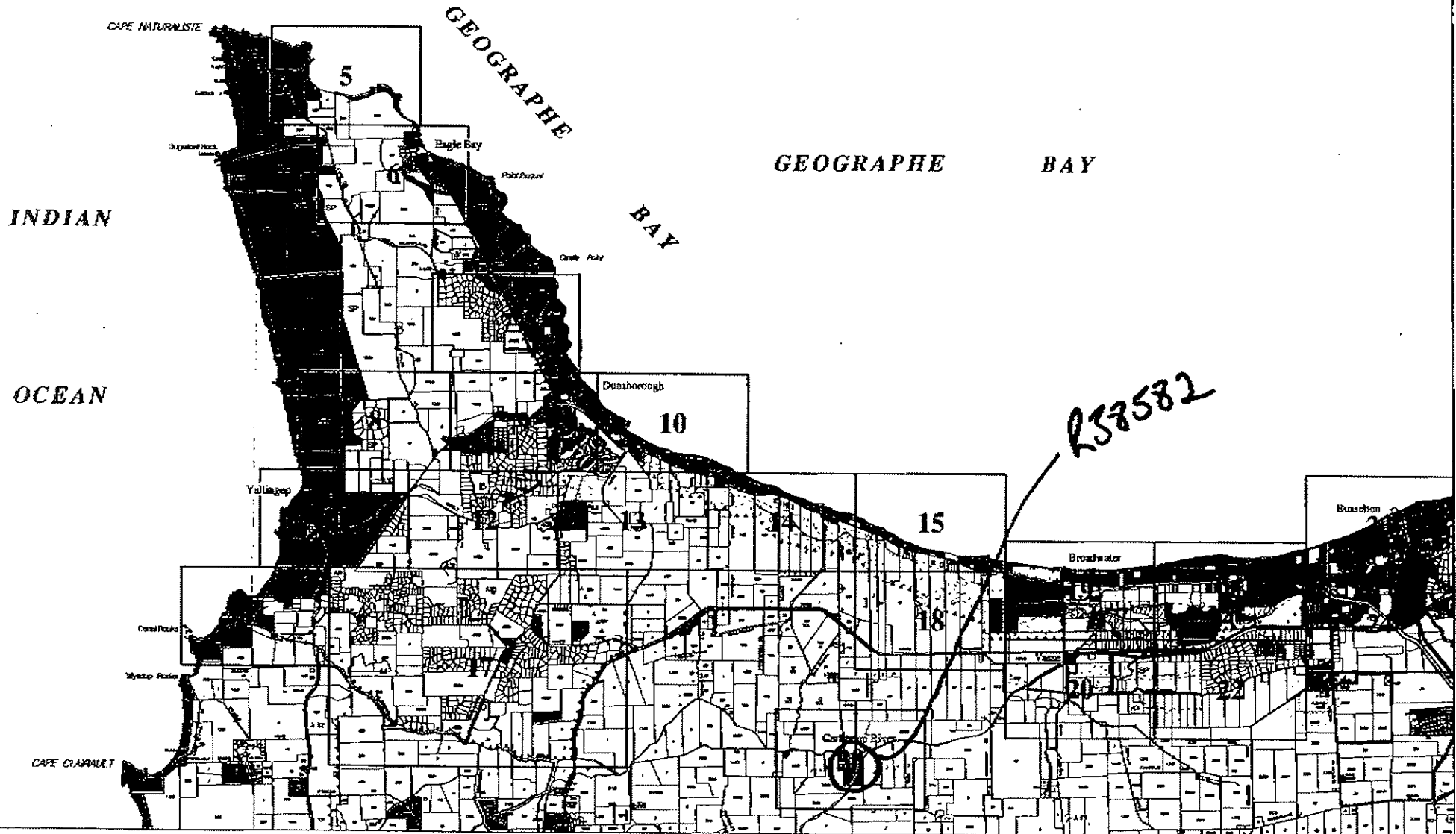
Council has received a request from an adjoining landowner for selective clearing of a boundary fence area to enable the fence to be upgraded. A CALM officer has visited the Reserve with me to ensure that no declared rare or priority flora will be removed as part of the proposed clearing. Council and CALM have no objections to the selective clearing, though it was suggested that the DEP should be advised.

I have attached a location map and letter from the Busselton CALM office regarding this issue. The landowner wishes to undertake the selective clearing within the next week. If you believe the proposal will contravene the requirements of the Interim Protection Order, please contact the undersigned prior to Friday 8th December on 9781 0464.

Yours Sincerely,

KIRRILY WHITE
ENVIRONMENTAL OFFICER

call with 4-40
6/12/00



SHIRE OF BUSSELTON
TOWN PLANNING
SCHEME
No 20

NOTES
 Approved by the Council of the Shire of Busselton on the 12th day of December 1999.
 Approved by the Council of the Shire of Busselton on the 12th day of December 1999.
 Approved by the Council of the Shire of Busselton on the 12th day of December 1999.

THIS APPENDIX
 Approved by the Council of the Shire of Busselton on the 12th day of December 1999.
 Approved by the Council of the Shire of Busselton on the 12th day of December 1999.
 Approved by the Council of the Shire of Busselton on the 12th day of December 1999.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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LEGEND

SCALE 1:100000

SHEET No. 1

SOUTH WEST CAPES
DISTRICT
14 Queen Street
BUSSELTON WA 6280

PH (08) 9752 1677
Fax (08) 9752 1432

 DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

FOLIO NO. 26	
SH 5282 BUSSELTON	
FILE 52125013	58397
5 - DEC 2000	
Off KWH	Date 6/12/00
Copy To	Ans (NR) R

Your Ref:
Our Ref: 37:05
Enquiries: Greg Voigt

**Chief Executive Officer
Shire of Busselton
Locked Bag 1
BUSSELTON 6280**

Att: Kirrily White

Dear Kirrily,

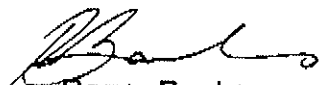
RE: Fence Line Clearing - Carhunup, Location 2

I refer to our inspection this day of the proposed fence line clearing by Mr. Robert Credaro.

This office has no objections to the proposal provided that only the areas marked in the field are removed and that all debris is heaped on Mr. Credaro's property, not on the reserve.

The field inspection and a desktop check have shown that no rare flora will be affected by this proposal and that the resultant firebreak will be an advantage for the protection of the private property and the reserve.

As this reserve has an 'Interim Protection Order' placed over it from the Department of Environmental Protection I recommend that they be advised of this proposed activity.



Roger Banks
District Manager
1st December 2000

C:\My Documents\Greg's Files\Credaro.doc

Postal Address:
14 Queen Street
BUSSELTON WA 6280
email buss.dis@calm.wa.gov.au



South West Region Headquarters
North Boyanup Road, Bunbury WA 6230

Postal Address:
Regional Manager
South West Region Headquarters
PO Box 1288
BUNBURY WA 6231
Telephone – (097) 801 900
Facsimile – (097) 254 230

Your Ref: 193/95 160/95
Our Ref: G29
Enquiries: Percy Wild

**DIRECTOR POLICY CO ORDINATION DIVISION
DEPT OF ENVIRONMENTAL PROTECTION
8TH FLOOR WESTRALIA SQUARE
141 ST GEORGE'S TERRACE
PERTH WA 6000**

ATTENTION: GARY WHISSON

ENVIRONMENTAL PROTECTION
25 MAR 1997
File No 1 193/95
File No 2 160/95 ?
GWH ⁹

CRoss K.

Dear Gary,

RE: FIRE PROTECTION FOR CARBUNUP RIVER TOWN SITE - BUSSELTON

Thank you for your letter and comments detail 12 March 1997, which have been noted. However, regarding your comment in paragraph 1. " Re: Conservation/Values". Unfortunately your publication on the bush land was not enclosed.

While recognising management for conservation values, Local Government and the Bush Fires Board must take into account public safety as part of our core business. DOLA have recently opened up one sub division south of Wildwood Road and there is a possibility of more development in the future.

Over past years infrequent cool autumn/winter mosaic burning of this bush land has been carried out by the Local Fire Control Officer, in accordance with the Shire of Busselton Fire Protection Plan, endorsed by Council in 1981 and revised in 1984. There has been little damage done to nature species by fire.

Fire breaks have been maintained by the Bush Fires Board on behalf of DOLA as per the Fire Protection Plan. I do not know of any rubbish dumping in the reserve or timber collection in recent times.

A no planned burning policy is not possible when one has bush land carrying a fuel load in excess of 8 TPH (tonnes per hectare) along side a residential development, such as Caribunup. Sprinkler lines are not feasible where there is no scheme water and in any case, they are not a practical option for various reasons. Mowing of understorey nature bush land is also not a practical option.

Building construction to withstand bush fires in conjunction with fuel reduction, is a limited option, but as yet, CSIRO have not been able to come up with recommended agreed standards. In any case, with respect to Caribunup, this would not apply, as buildings are already established.

The Bush Fires Board and CALM are rather puzzled by your recommendation to increase the "No Burn" area to the South East of Bussell Highway as shown on the map, as the Northern section of this land is just across the highway from the shops and service station.

Autumn burning will be carried out in liaison with CALM on an appropriate SDI (soil and dryness index) and SMC (surface moisture content).

The proposed new firebreak will be constructed in liaison with CALM to acceptable environmental standards.

Yours sincerely



P.T. WILD
REGIONAL FIRE SAFETY OFFICER
FOR CHIEF EXECUTIVE OFFICER

21 March, 1997

c: CALM Busselton - (Attn: Greg Voigt)

c: CEO - Busselton Shire (Attn: C. Howes)

SOUTH WEST CAPES
DISTRICT
14 Queen Street
BUSSELTON WA 6280

PH (08) 9752 1677
Fax (08) 9752 1432

Your Ref: 193/95, 160/95
Our Ref: 37:05
Enquiries: Greg Voigt

**Dept of Environmental Protection
8th Floor Westralia Square
141 St Georges Terrace
PERTH 6000**

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

22 NOV 2000

(B Hyde/G...)

File No 1	193/95	Name	G Whisson
File No 2		Name	
File No 3		Name	

Att: Gary Whisson

Dear Gary,

**RE: VCL – Fire Protection For Carburnup River Townsite –
Busselton**

In 1997 a fire management plan was developed for the Threatened Ecological Community (TEC) land around the Carburnup River townsite with the aim of protecting the town as well as promoting a healthy vegetation Community. This forested area contains significant conservation values and has, I understand, an Interim Protection Order placed on it via your department.

As you may recall the fire management plan was designed to allow protection for the townsite as well as maintaining a healthy ecosystem by not burning too frequently. The original plan as proposed allowed for infrequent burning of the whole reserve area, however it was modified by your department to allow a 'no planned burn' area to the east of the highway and this modification is the subject of this letter.

The southern portion of this reserve, east of the highway contains a population of the critically endangered orchid species *Caladenia*

C:\My Documents\DEPCarburnup.doc

Postal Address:
14 Queen Street
BUSSELTON WA 6280
email buss.dis@calm.wa.gov.au

busselliana, which is only known from two locations, despite intensive searching of surrounding areas. Monitoring of orchid numbers in this area over several years has shown that the orchid is in decline. In fact in both 1998, '99 and 2000 no plants were observed in the reserve. This is a serious situation which causes CALM some considerable concern as this species could be facing extinction on this site.

In your reply dated 12th March 1997 you stated that in many instances too frequent fire events could lead to degradation due to weed invasion at the expense of native species. Conversely it is also now known that no burning can also lead to site degradation, as is occurring with *Caladenia busselliana*, but not allowing the natural regeneration processes to take place.

This view is also shared by Andrew Brown and Val English from CALM's Threatened Species and Communities Unit (see attached letter) who suggest that burning should take place in this area on a 10 – 15 year rotation between the period November to April so as to promote orchid regeneration.

Could you review the 'no planned burn' status of the eastern side of the reserve and amend the plan to allow burning on a rotational basis every 10 – 15 years. I further suggest that the eastern area be divided into cells using existing tracks and burnt at different times so as to preserve scenic quality and to allow variation for burn frequency and season. (See attached plan)

The Shire of Busselton has also asked that the 'no planned burn' status of this area be changed so as to provide greater protection for the adjacent property in the Carburnup townsite. (See attached letter)

Should you have any queries please contact Greg Voigt on the above number.



Roger Banks
District Manager
20th November 2000

SHIRE OF BUSSELTON

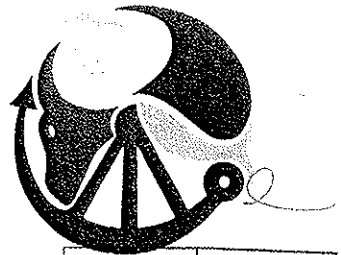
SOUTHERN DRIVE, BUSSELTON WESTERN AUSTRALIA

Telephone: (08) 9781 0444 Facsimile (08) 9752 4958

Office Hours: Monday to Friday, 8.30am to 4.30pm

All communications to the Chief Executive Officer

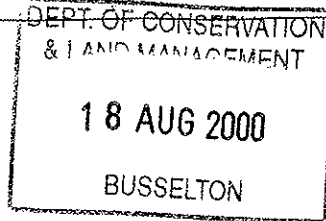
Locked Bag 1, BUSSELTON W.A. 6280



Our Ref: Fir3/bsnfpp

Your Ref: Percy Wild

Enquiries:



NOTE	ACTION
JL/GK	GV
MS	
RECORD 25372	
No. 9418	
FILE	
No. 0108A	

**THE DISTRICT MANAGER
THE DEPARTMENT OF CONSERVATION LAND MANAGEMENT
QUEEN STREET
BUSSELTON WA 6280**

ATTENTION: Greg Voight

Dear Greg,

**RE: CARBUNUP TOWNSITE UNALLOCATED CROWN LAND (UCL)
Shire of Busselton (Draft) Fire Management Plan 2000-2005**

As discussed, we wish to seek permission to carry out a prescribed burn on this Crown Land Reserve in spring 2000 to remove hazards in accordance with the requirements of the Shire (Draft) Fire Management Plan.

It should be noted that this Jarrah/Marri woodland area is the portion of the reserve to the east of the Bussell Highway.

The southern portion of this land has not been burnt since the winter of 1995, while the northern portion was last burnt in 1989/90. As such, the overall fuel loading is well in excess of 10 Tonnes per Ha. and is a direct threat to the service station, commercial buildings and established housing development on the western side of the highway.

It would therefore be appreciated if your department could please liaise with the EPA in order that we may arrange with your department and BFS to carry out a prescribed burn in November 2000.

Yours sincerely,

DRF/TEC?

**PERCY WILD
FIRE MANAGEMENT OFFICER
SHIRES OF AUGUSTA-MARGARET RIVER/BUSSELTON.**

16 August 2000

cc. Mr. Tony Moran, Bush Fire Service, P.O. Box 1288, Bunbury WA 6230 (For information only)



Department of Conservation and Land Management
Western Australian Threatened Species and Communities Unit



W.A. Wildlife Research Centre
Ocean Reef Road, Woodvale
PO Box 51 Wanneroo,
Western Australia, 6065
Telephone 9 405 5169, fax 9 306 1641

Greg Voight
Dept of CALM
South West Capes District

Dear Greg,

Andrew Brown and I have just been reviewing the Fire Management Strategy for Carbanup Townsite reserve and provide the following comments.

The whole reserve area is considered habitat or potential habitat for a critically endangered orchid – *Caladenia busselliana* ms; another significant orchid species only known from two sites - *Caladenia procera* ms; and a threatened ecological community. Fire management of native vegetation in the reserve should, wherever possible, be consistent with enhancing or maintaining the habitat.

Orchids are generally killed by spring burns, and do not regenerate well in areas burnt in spring. Fires that occur whilst orchids are dormant (November to April) generally enhance numbers and flowering. Therefore burns should occur in autumn on a rotation of 10-15 years if possible, with a minimum of 8 years, to enhance the populations of the orchids. If necessary to protect buildings etc, small areas adjacent to such sites could be burnt more frequently.

In addition, both of the abovementioned orchids in the Carbanup Reserve are likely to require occasional Summer-early Autumn fire to stimulate flowering and enhance seed production. No planned burn is therefore not a suitable management regime for areas in which these particular orchids occur.

In addition to orchids that are of very high conservation significance, a vulnerable ecological community (southern *Eucalyptus calophylla* woodlands on heavy soils) also occurs in the Carbanup reserve. This community is likely to require occasional fire, preferably in autumn, to enhance germination of some component species.

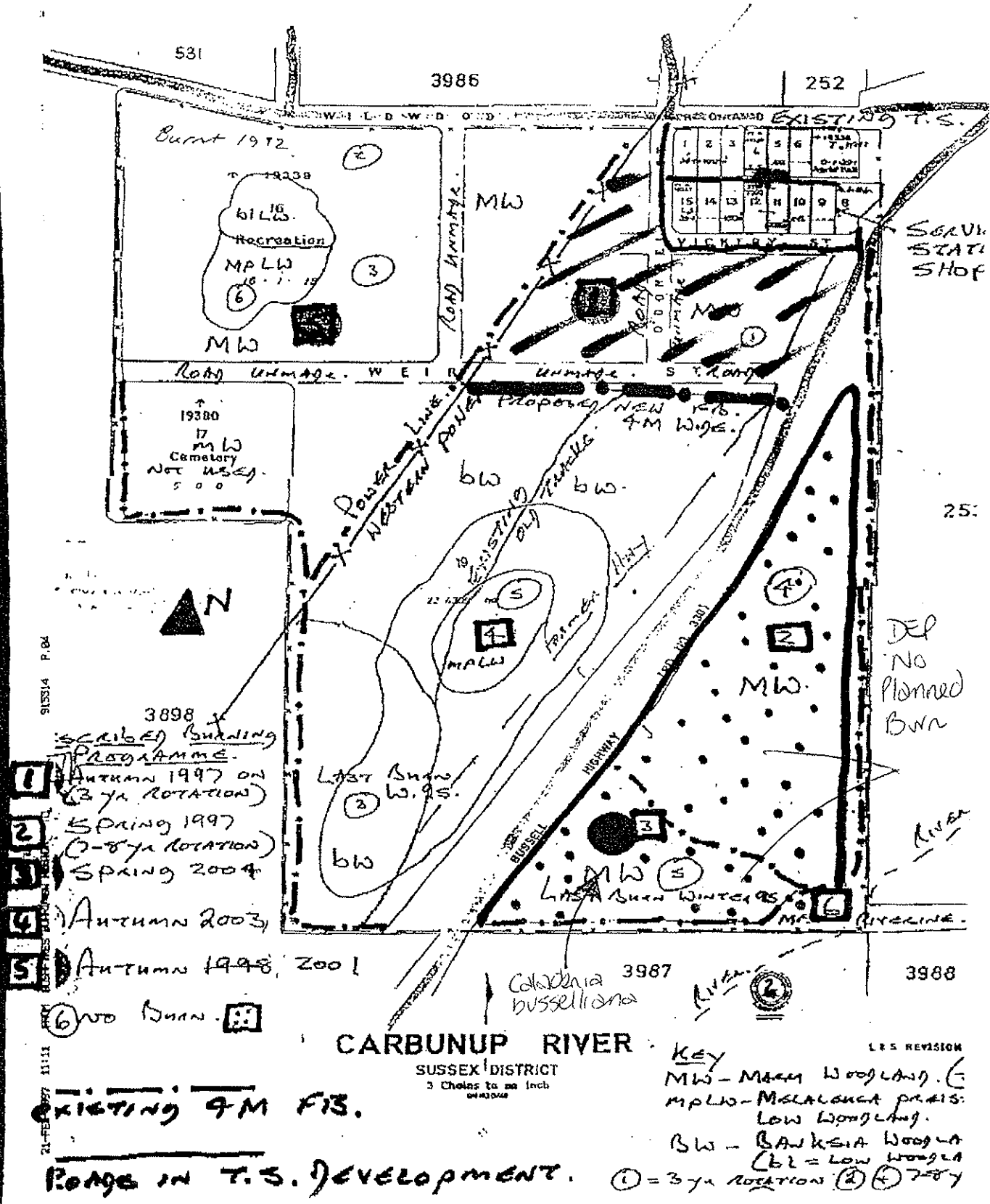
In summary, to conserve rare and significant orchids and habitat, and the threatened ecological community, the Carbanup reserve should be burnt in appropriate sections in autumn on a rotation of no less than 8 years, and preferably 10-15 years.

Yours sincerely

Val English and Andrew Brown
Threatened Species and Communities Unit
28 February 2000

cc Mr P Wild Mr J Wetherby.
Mr H White Mr J Hards Celen

SORRY FOR THE QUALITY.



915514 P.04

- 3898
- SCRIBED BURNING PROGRAMME.
- 1 Autumn 1997 on (3 yr rotation)
 - 2 Spring 1997 (0-8 yr rotation)
 - 3 Spring 2004
 - 4 Autumn 2003
 - 5 Autumn 1998, 2001
 - 6 No Burn.

21-FEB-97 11:11

EXISTING 9M FIS.

ROADS IN T.S. DEVELOPMENT.

CARBUNUP RIVER

SUSSEX DISTRICT
3 Chains to an Inch
64431048

KEY

MW - MARR WOODLAND (C)

Mplw - MELALEUCA PRAIS: LOW WOODLAND.

Bw - BANKSIA WOODLAND (bl = low woodla)

① = 3yr rotation ② = 7-8yr

LES REVISION

Aut - Apr - Nov - No burn

Record of Telephone Call

Call from BRONWEN K	Call to VAL ENGLISH GREG VOISEY	Folio No.
Dept DEP	Dept CALM	File No.
Subject CARBON UP BUSHLAND 'No Planned burn' area ☹️	Date 2 / 1 / 2001 4 / 1 / 2001	Time

Details

VAL: Not aware of The previous burn in area in 1995 Winter.

GREG:

Friends group to formed

Fire break work inappropriate (Shire works)

Fire plan = diagram

Carly White: Environment Officer with Shire

Orchids: damaged hope by burning Nov to April will come back (Orchid has been fenced and given a small burn)

Neil McCarthy left MRD now with Consultants (still does work)

CALM only interested in SE corner

Action taken/Recommendation(s) (where applicable)

Greg will speak to Val/Andrew
Then get back to DEP

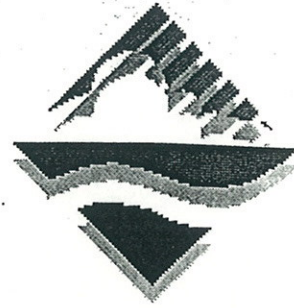
Approval (if required)



Department of Environmental Protection

Westralia Square, 8th Floor, 141 St Georges Terrace, Perth WA 6000

Facsimile Message



Department of Environmental Protection

Westralia Square, 141, St Georges Terrace, Perth, Western Australia, 6000.

Facsimile: (08) 9322 1598 Telephone: (08) 9222 7000

ATTENTION:

Val English

ORGANISATION:

CALM - WATSLU

FROM:

Bronwen Keighery

DATE:

4/1/2001

TELEPHONE:

(08) 9222 7028 Fax. (08) 9485 1187

PAGES:

7 including this sheet

SUBJECT:

Carbanup River Bushland

MESSAGE:

Val

*Further to our discussions
yesterday I am sending you
a copy of our comments in
regards to the Five Plan we
saw in 1997.*

Cheers Bronwen



Head Office:
8th Floor, Westralia Square
141 St Georges Terrace
Perth, Western Australia 6000
Tel (09) 222 7000 Fax (09) 322 1598

Regional Offices:
Bunbury • Geraldton • Kalgoorlie
Karratha • Kwinana

Bush Fires Board
Regional Fire Safety Officer
Attn: Percy Wild
South West Region Headquarters
PO Box 1288
BUSSELTON WA 6231

Your Ref 629
Our Ref 193/95, 160/95
Enquiries **Gary Whisson**

Dear Percy

VCL- FIRE PROTECTION FOR CARBUNUP RIVER TOWN SITE BUSSELTON

Thank you for the opportunity to comment on the proposed fire plan for the Carburnup Bushland. As part of the System 6/1 Update of the Swan Coastal Plain the EPA recognised that the Carburnup Bushland contained "threatened and poorly reserved community types". While we are yet to produce the draft report summarising the values of the area and making final recommendations we are confident that this area will be recommended for re-vesting as a Nature Reserve. However, the flora conservation values are clearly outlined in a recent publication on the Bushland (see enclosed). This publication also describes the current condition of the reserve as well as listing the native and introduced flora. From our perusal of the plan (as detailed on the map provided to us) and some discussions with yourself and Greg Boyd we understand that the plan has been designed to protect the Carburnup town site while recognising the conservation values of the area.

Having recognised the significant conservation values of the Bushland the Department has an interest in the area being managed for its conservation values. The fire plan, as a stand alone document, not as part of a management plan, for the Bushland raises series of issues relevant to all isolated remnants on the Plain (and elsewhere). These are:

- Carburnup Bushland is an island of bushland, isolated from other natural areas in relation to re-establishment of native species after fire.
- Carburnup Bushland has been subject to a series of past disturbances including the proliferation of tracks, the trisection of the area by the transmission line and Bussel Highway, rubbish dumping, timber collection and too frequent fire. Such disturbances create opportunities for weeds to become established in the bushland in the presence of repeated disturbance.
- There are areas of dieback infection in the Bushland. If not carefully managed fire has the potential to encourage recolonisation of these areas by weeds rather than native species.

There is a mounting level of evidence in reference to the management of small bushland areas that the best option to maintain the conservation values of an area is for no planned burning. Other methods such as sprinkler lines in the bushland adjacent to buildings, mowing to reduce fuel load and requiring buildings adjacent to bushland to be designed to withstand adjacent bushland fires should be investigated to protect property in the longer term.

In consideration of our concerns for the long term preservation of the Bushland's natural values and the immediate protection of the town site we make the following comments:



1. The proposed mosaic burning be modified to increase the no burn area on the south east of Bussel Highway as shown on the enclosed map
2. The autumn burns be carried out when the moisture content of the vegetation is sufficient to ensure a cool burn.
3. The new firebreak be constructed with reference to dieback, restricted flora and weed invasion and managed in a manner that does not encourage its use as a track.
4. Appropriate weed control in area 1 (the town site buffer) be practised after each burn. This is necessary both to prevent increased fuel load caused by annual grasses and to prevent this area becoming a node for weed invasion of the surrounding bushland.

Also, in the longer term, the fire plan should be part of a management plan for the bushland that pays particular attention to signage, restriction of vehicular access by the closure tracks and fencing adjacent to the town site and weed control in the entire bushland area.

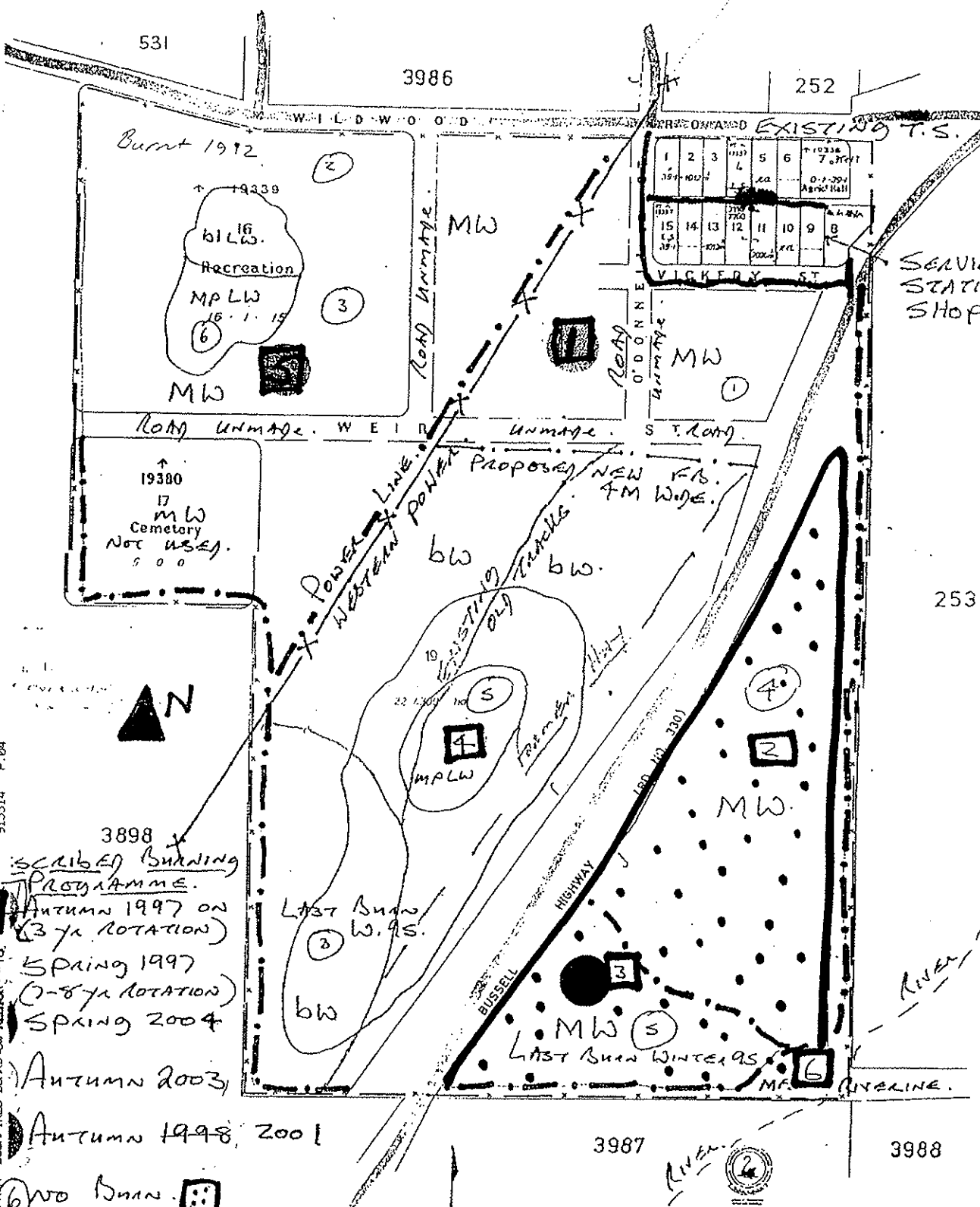
Yours sincerely



R.A.D. Sippe
DIRECTOR
POLICY COORDINATION DIVISION

12th March 1997

- cc Mr C. Bishop, Department of Environmental Protection, Bunbury
Mr G. Voight, Department of Conservation and Land Management, Bunbury
Dr N. Gibson, Department of Conservation and Land Management, Woodvale



915514 P.04
 21-FEB-97 11:11
 SUSSEX DISTRICT

- 3898
- SCRIBED BURNING PROGRAMME.**
- 1 Autumn 1997 ON (3yr ROTATION)
 - 2 Spring 1997 (2-8yr ROTATION)
 - 3 Spring 2004
 - 4 Autumn 2003
 - 5 Autumn 1998, 2001
 - 6 No Burn.

EXISTING 4M F.B.

Range in T.S. DEVELOPMENT.

CARBUNUP RIVER

SUSSEX DISTRICT
3 Chains to an Inch
ON A B.S. 2500

KEY

MW - MACH WOODLAND (same)

MPLW - MELALEUCA PRAISSIAN LOW WOODLAND.

BW - BANKSIA WOODLAND. (bl = LOW WOODLAND)

① = 3yr ROTATION ② ④ = 2-8yr

L.E.S. REVISION

253

3987

3988

531

3986

252

19380
17
M.W.
Cemetery
NOT USED.
500



1	2	3	4	5	6
1971	1972	1973	1974	1975	1976
15	14	13	12	11	10
9	8	7	6	5	4

FLORISTICS of RESERVES and BUSHLAND AREAS
in the
BUSSELTON REGION (SYSTEM 1) PARTS 1 - IV

by

Keighery, B.J.¹, Keighery, G.J.² and Gibson, N.²

NOVEMBER 1996

1. 224 Hamersley Road SUBIACO WA 6008

2. Department of Conservation and Land Management PO Box 51 WANNEROO WA 6065

**FLORISTICS OF RESERVES AND BUSHLAND AREAS
IN THE BUSSELTON REGION (SYSTEM 1)
PART I: FLORISTICS OF THE CARBUNUP BUSHLAND**

G.J. Keighery, B.J. Keighery and N. Gibson.

ABSTRACT

The Caribunup Bushland is one of the largest remaining area of the southern Marri and *Banksia* Woodlands and is the only known area where these woodlands are associated with intact fringing riverine vegetation. Four principal plant communities are present in the area: Marri (*Eucalyptus calophylla*) Woodland, *Banksia* Woodland, *Melaleuca preissiana* Low Open Woodland and Riverine Marri Forest. Three regional floristic community types are represented in the Bushland: type 1b (Southern Marri woodlands on heavy soils), type 4 (*Melaleuca preissiana* damplands) and type 21b (Southern *Banksia attenuata* woodlands). The Bushland contains a vascular flora of 337 taxa; 324 are natives and 13 weeds. Four of these taxa are non-flowering vascular plants, 124 are monocotyledons (116 natives and 8 weeds) and 209 are dicotyledons (204 native and 5 weeds). Four rare taxa are found in the Reserve. Thirty five taxa are characteristic of the heavier soils of the southern side (or eastern side of the Plain north of Capel) of the Swan Coastal Plain and at least twelve taxa that are only recorded on the Plain south of Capel. These plant communities, and their associated flora, are now rare on the Plain. The Marri Woodlands are the most species rich woodlands found on the Swan Coastal Plain.

INTRODUCTION

The Caribunup Bushland (Map 1) straddles one of the most well travelled tourist roads near Busselton and is familiar to many as the bushland near the Caribunup River Bridge between Busselton and Margaret River. However like many of our bushland areas on the Swan Coastal Plain the bushland appears to have rarely been visited by botanists. Of the 32 collections from the Caribunup River bushland in the WA Herbarium (April 1996) most were collected by G.J. Keighery as part of a regional survey of the Swan Coastal Plain (Gibson *et al.* 1994).

While areas of remnant bushland on the Plain in the Busselton area are very restricted the areas that are left are under increasing pressure for development. In 1994 a portion of the Caribunup Bushland area was subdivided and cleared without any reference to its natural values. It is important for conservation our State's unique and diverse flora that the flora values of our bushland be documented before such irreversible land use decisions are made.





SURVEY METHOD

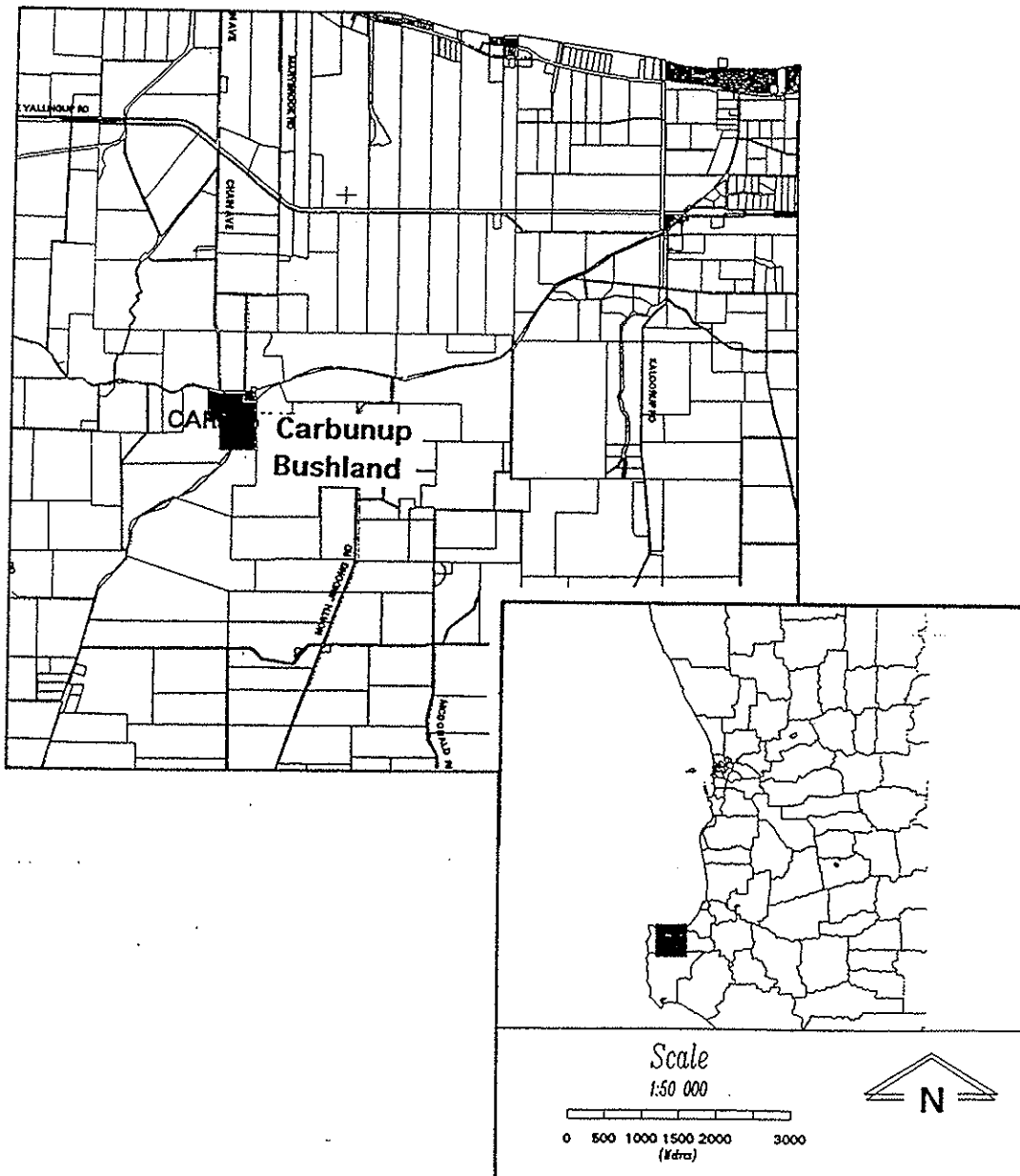
Survey work in the Caribunup Bushland was performed over three flowering seasons in 1992 to 1995 in conjunction with field work for the Swan Coastal Plain.

Eight sites were located and described (Map 2, Appendix 1) to sample the range of plant communities identified using aerial photographs and field interpretation. Four are permanently located 100m² study sites used in the regional floristic survey of the Swan Coastal Plain (Gibson

Map 1: Carburnup Bushland Location.

Key

-  Areas of bushland identified by the Department of Environmental Protection (1994 - ongoing) as being "...threatened and poorly reserved community types requiring interim protection.."
-  Cadastre
-  Drainage lines
-  Major and secondary roads



Map 2: Vegetation Map

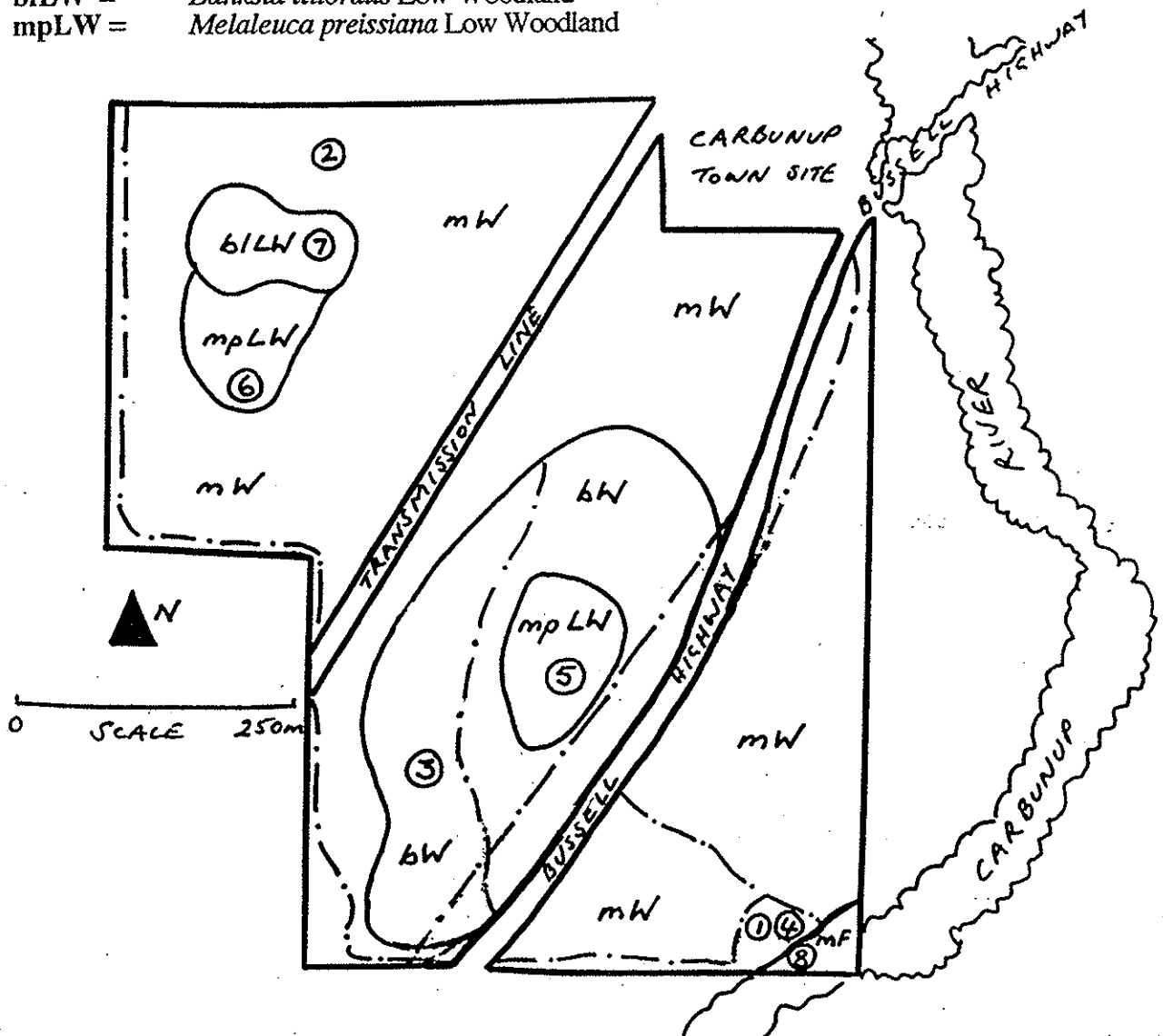
Key

- Carburnup Bushland boundary
- - - Tracks
- Plant community boundary
- ② Site location

Remnant vegetation along the Carburnup River

Plant Communities

- mW = Marri Woodland
 - J = found in areas also dominated by Jarrah
 - (J) = Jarrah is also present
- bLW = *Banksia* Woodland
- mF = Riverine (R, Appendix 2)
- bLW = *Banksia littoralis* Low Woodland
- mpLW = *Melaleuca preissiana* Low Woodland



ff_____

NOTE TO FILE

FILE # ___ / ___

TO: Gary Whisson
FROM: Chris Bishop
DATE: Fri, 21 Feb 1997
SUBJECT: CARBANUP RIVER TOWN RESERVE
CC:

As discussed, find following info forwarded to this office with regard to a proposed Fire Management Plan for the above crown reserve. The proponent, in the Bush Fires Board (BFB), has spoken and written to CALM, and will adopt the recommendations in CALMS letter of 19/2/97. In fact Greg Voigt (CALM) and Percy Wild (BFB) are going out next week to peg the agreed line for a firebreak. I understand nothing further than this will occur until a response is received from the DEP.

I have let Mr Wild know that I am forwarding this to your branch and that some response will be forthcoming in the next couple of weeks, as well as outlining why the DEP is interested.

Percy Wilds direct phone is 097/801903.



Postal Address
Regional Manager
South West Region Headquarters
PO Box 1288
BUSSELTON WA 6280
Telephone - (097) 801 900
Facsimile - (097) 254 230

South West Region Headquarters
Next to Kalamup Road, Busselton WA 6280

Your Ref:
Our Ref: **G29**
Empathic: **Percy Wild**

**CONSERVATION & LAND MANAGEMENT
BUSSELTON DISTRICT OFFICE
QUEEN STREET
BUSSELTON WA 6280**

ATTENTION: GREG VOIGT

Dear Greg

RE: VCL - FIRE PROTECTION FOR CARBUNUP RIVER TOWN SITE BUSSELTON

As discussed on the 7 February 1997, please find enclosed a plan showing a proposed burning programme for the above area.

In autumn this year we wish to install the 4 metre wide fire break to the south of the existing shop and housing development (as shown in green on the plan), and carry out an autumn burn. Thereafter, a prescribed burning rotation programme will be carried out as shown on the plan in consultation with CALM.

Please advise if this is acceptable so that we may write to the D.E.P. for permission to carry out the work. Please also find attached a record of previous prescribed burning from 1983 - 1995.

Yours sincerely

**P.T. WILD
REGIONAL FIRE SAFETY OFFICER
FOR CHIEF EXECUTIVE OFFICER**

10 February, 1997

encs.

c:\pw\g29.doc.ls

SOUTH WEST REGION HEADQUARTERS

NTH BOYANUP RD
BUNBURY WA 6230



PO BOX 1288
BUNBURY WA 6231

(097) 801 900

Fax: (097) 254 230

FACSIMILE TRANSMISSION

TO: Dept. of Environment & Protection ATTENTION: Chris Ristow.

YOUR FAX NO: 915514 FROM (ORIGINATOR): Percy Wong.

DATE: 21/2/97

1030 Hrs

(Inclusive) 10

SUBJECT: Carbury River Town Site,
Busselton Stone.

Fire Management Plan for Crown Land.

As discussed, herewith copies of correspondence, for favour of your approval for stage 1 of the fire management plan (see our letter to CARM dated 10/2/97).

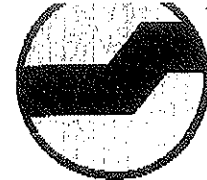
Regards.
Percy Wong

Please call the above originator on (097) 801 900 if your copies were illegible or incomplete.

Thank You

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

Please address all enquiries to:



pw

District Manager
14 Queen Street
BUSSELTON WA 6280

Telephone: (097) 521 677
Fax: (097) 521 432

628

Your Ref: *G29*
Our Ref: *0107*
Enquiries: *G. Voigt*

┌ Bush Fires Board
Regional Manager
South West Region Headquarters
PO Box 1288
└ BUNBURY W.A. 6231 ─┘

RECEIVED
21 FEB 1997
BUSH FIRES BOARD
SOUTH WEST REGION

Att. Mr Percy Wild

Dear Percy,

VCL - Fire Protection For Carburnup River Town Site Busselton

Thankyou for the plan showing the proposed burning rotation for this reserve.

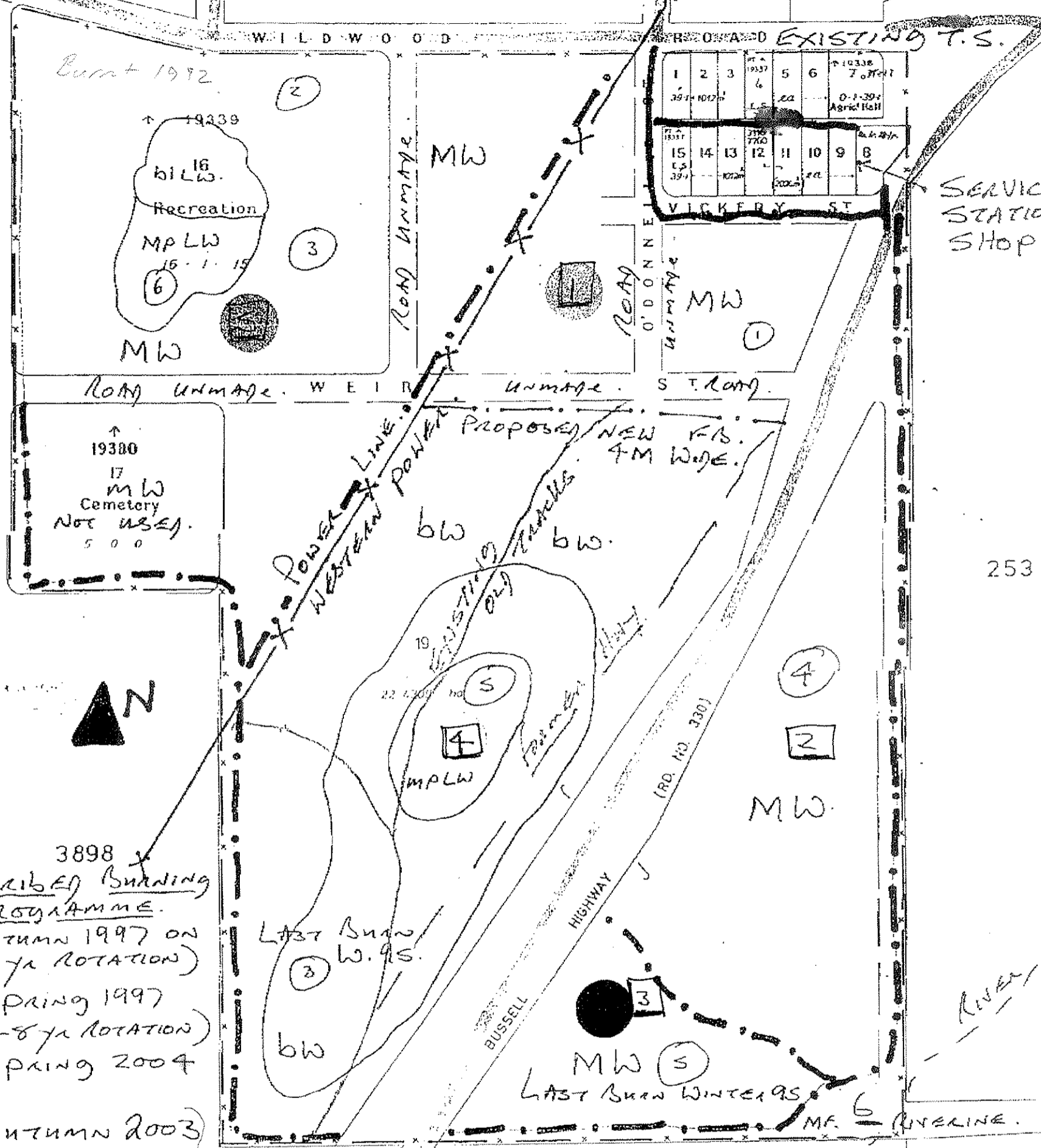
CALM endorses the plan on condition that:

- i) for cell number five (5) the next planned burn is in autumn 2001, not in autumn 1998 as currently shown on the plan.
- ii) a CALM officer be present, and assist in choosing the alignment for the proposed 4m fire break south of the shop.

I understand that you will now approach Dept. of Environmental Protection and seek their approval. Should you or the D.E.P. have any queries please contact Mr Greg Voigt at this office.

R Banks
Roger Banks
District Manager
19-2-97

Busselton
ES. WITTENBERG EC.
214814
Chris Bishop
P.O. 814/57
915514



Burnt 1992
 19339
 16
 bilw.
 Recreation
 MPLW
 15-1-15
 6
 MW

1	2	3	4	5	6	7
19337	19338	19339	19340	19341	19342	19343
15	14	13	12	11	10	9
19344	19345	19346	19347	19348	19349	19350

19380
 17
 MW
 Cemetery
 NOT USED.
 500



3898
 DESCRIBED BURNING PROGRAMME.
 Autumn 1997 ON (3 yr ROTATION)
 25 Spring 1997 (7-8 yr ROTATION)
 Spring 2004
 Autumn 2003
 Autumn 1998 2001
 6 NO Burn.

CARBUNUP RIVER

SUSSEX DISTRICT
 3 Chains to an Inch
 08/13/02

KEY
 MW - MAMM WOODLAND (JAMAH)
 MPLW - MELALEUCA PREISSIANA LOW WOODLAND.
 BW - BANKSIA WOODLAND (bl = LOW WOODLAND)
 1 = 3 yr ROTATION 2 4 7-8 yr

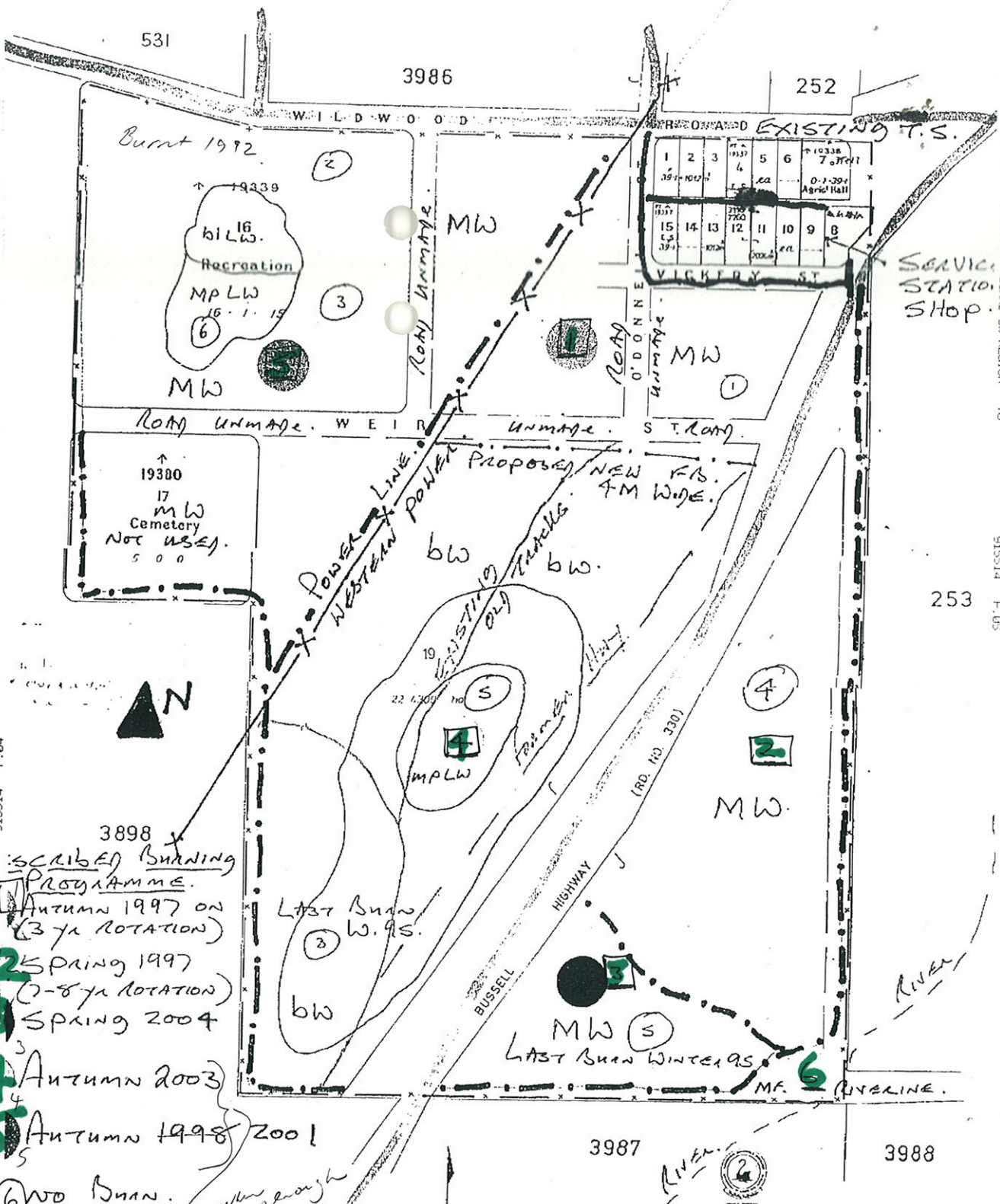
EXISTING 4M FIS.

WORKS IN T.S. DEVELOPMENT.

Perry Wilds

6/3/97

- Late Autumn Burn
- Fire break. to protect Townsite
- Botanist to look at break.
-
- Circled nos = location of restricted flora as supplied by CALM (



915514 P.04
 21-FEB-1997 11:11
 FROM BUSHY SWAMP ON

- 3898 x
- SCRIBED BURNING PROGRAMME.**
- 1 Autumn 1997 on (3 yr ROTATION)
 - 2 Spring 1997 (2-8 yr ROTATION)
 - 3 Spring 2004
 - 4 Autumn 2003
 - 5 Autumn 1998 2001
 - 6 WOOD BURN. *Down rough deep*

CARBUNUP RIVER
 SUSSEX DISTRICT
 3 Chains to an Inch
 ON 4130/42

KEY

MW - MANN WOODLAND (SARAH)
 MPLW - MELALEUCA PRESSIONA LOW WOODLAND
 BW - BANKSIA WOODLAND (bl = LOW WOODLAND)

① = 3 yr ROTATION ② ④ = 2-8 yr

EXISTING 4M FIS.

ROADS IN T.S. DEVELOPMENT.

5074 P15515 4-05