

NEERABUP LAKE AND ADJACENT BUSHLAND, NEERABUP

Boundary Definition: protected area boundary (Areas of bushland within the boundaries of the Site are not accurately mapped.)

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 384

Area (ha): bushland 242.4 (Site also includes open water.)

Map no. 20

Map sheet series ref. no. 2034-I SW, 2034-IV SE

Other Names: Submission Area 293

Local Authorities (Suburb): Shire of Wanneroo (Neerabup)

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Spearwood Dunes

Sands derived from Tamala Limestone (Qts: S7)

Tamala Limestone (Qtl: LS1, LS2)

Wetlands (within the Spearwood Dunes)

Holocene Swamp Deposits (Qhw: Cps)

VEGETATION AND FLORA

Vegetation Complexes

Spearwood Dunes

Cottesloe Complex — Central and South

Wetlands

Herdsmen Complex

Floristic Community Types: *not sampled, types inferred

Supergroup 2: Seasonal Wetlands

*S7 Northern woodlands to forests over tall sedgeland alongside permanent wetlands

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

*24 Northern Spearwood shrublands and woodlands

*28 Spearwood *Banksia attenuata* or *B. attenuata* — *Eucalyptus* woodlands

WETLANDS

Wetland Types: sumpland, creek

Natural Wetland Groups

Spearwood Dunes

Yanchep (S.1)

Wetland Management Objectives: Conservation (1153.8m), Resource Enhancement

Swan Coastal Plain Lakes EPP: 91.2ha

THREATENED ECOLOGICAL COMMUNITIES

Not assessed, Not determined

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: limestone ridge, open water, vegetated wetland, creek, vegetated uplands

Vegetation and Flora: limited survey (DEP 1998, DEP 1999, EPA and WAWA 1990, McArthur and Mattiske 1985, WAWA 1995)

Structural Units: mapping (EPA and WAWA 1990, McArthur and Mattiske 1985)

Uplands — Sands derived from Tamala Limestone: *Eucalyptus gomphocephala* Open Forest to Open Woodland

Uplands — Tamala Limestone: mixed Closed Heath to Closed Low Heath; *Dryandra sessilis* var. *cygnorum* Heath

Wetlands: *Eucalyptus rudis* Closed Forest to Open Woodland; *Melaleuca raphiophylla* Low Closed Forest to Low Open Forest; *Acacia saligna* Low Open Forest to Woodland, *Typha* species Open to Closed Sedgeland; *Baumea articulata* Closed Sedgeland to Sedgeland

Scattered Native Plants: *Eucalyptus gomphocephala* and *E. marginata*

Vegetation Condition: <50% Very Good, >% Good to Degraded, with areas of severe localised disturbance

Total Flora: not known

Significant Flora: none recorded

Fauna: not known

Linkage: adjacent bushland to the north, south, east (Site 293) and west; part of Greenway 2 (Tingay, Alan & Associates 1998a); part of a regionally significant contiguous bushland/wetland linkage (Part A, Map 7)

Other Special Attributes: part Site recommended for protection in the study of City of Wanneroo bushland (Trudgen 1996); contains karst features including Orchestra Shell Cave (Submission No. 176g; Bastian, 1998); aboriginal heritage place (Submission No. 176g)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Maintaining ecological processes or natural systems, General criteria for the protection of wetland, streamline and estuarine fringing and coastal vegetation, Criteria not relevant to determination of regional significance, but which may be applied when evaluating areas having similar values

Recommendation: Site with Some Existing Protection; it is already reserved for Parks and Recreation in the MRS – should be made a reserve with a conservation purpose (see Table 3, Volume 1).

NEERABUP LAKE AND ADJACENT BUSHLAND, NEERABUP

Boundary Definition: protected area boundary (Areas of bushland within the boundaries of the Bushplan Site are not accurately mapped.)

SECTION 1: CADASTRAL INFORMATION

(Lots, locations and derived information to be updated in the public submission period)

Bushplan Site no. 384 **Map no.** 25, 26, 32 **Map sheet series ref. no.** 2034-I SW, 2034-IV SE

Other Names

Submission Area 293

Local Authorities (Suburb)

Shire of Wanneroo (Neerabup)

Ownership Categories

Private (including commercial organisation), State Government

Area (ha): total 400.3 (includes open water); bushland 242.4

Zoning

MRS: Parks and Recreation

TPS: Rural

Lot/Location/Reserve numbers (Purpose),

Street name

1, 10, 16, 17, 18, 19, 20, 21, 22, 23, 27, 36, 37, 38, 40, 41, 43, 44, 46, 47, 1221, 9804, 12227 Wanneroo Rd; 105 Flynn Dr; 6, 10824 Lake Rd; 1, 12, 43, 10214, 10601 Wattle Ave
Crown Reserve

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LANDFORMS AND SOILS

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Floristic Community Types: *not sampled, type inferred

Supergroup 2: Seasonal Wetlands

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Baumea articulata Closed Sedgeland to Sedgeland

Scattered Native Plants: *Eucalyptus gomphocephala* and *E. marginata*

Vegetation Condition: <50% Very Good, >% Good to Degraded, with areas of severe localised disturbance

NOT shown on map.



Total Flora: not known

Significant Flora: none recorded

Fauna: no known information

Linkage: adjacent bushland to the north, south, east (BS293) and west; part of proposed Greenway 2 (Tingay, Alan & Associates 1997a); part of a regionally significant contiguous bushland/wetland linkage (Volume 2A, Map 8)

Other Special Attributes: part Bushplan Site recommended for protection in the study of City of Wanneroo bushland (Trudgen 1996); contains karst features including Orchestra Shell Cave (Submission No. 176g; Bastian 1998); aboriginal heritage place (Submission No. 176g)

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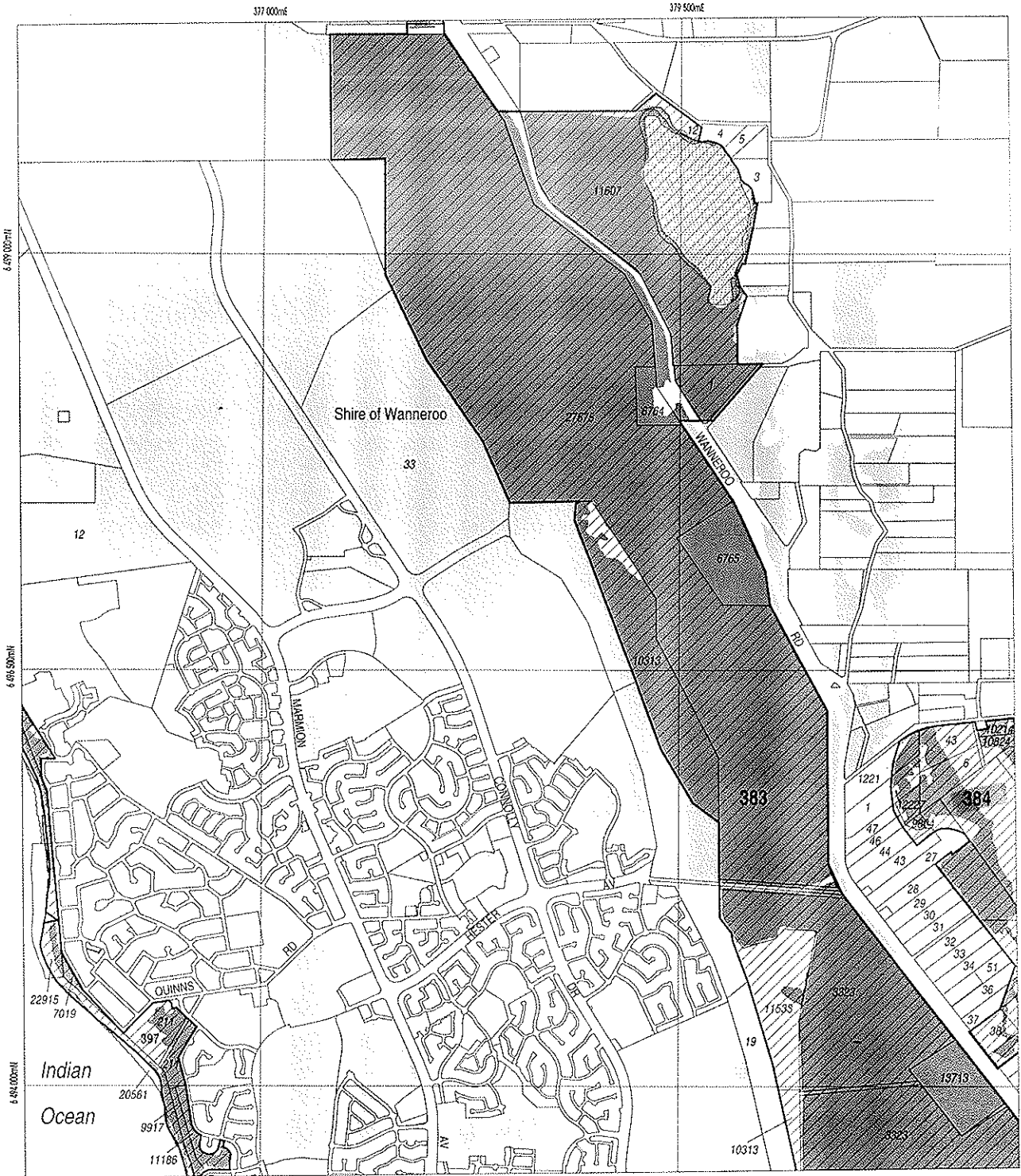
Opportunities and/or Constraints

Opportunities: Bushplan Site/part Bushplan Site subject to Swan Coastal Plain Lakes EPP; location of conservation category wetland; under MRS Parks and Recreation Reservation, Crown Reserve

Constraints: private land; Priority and General Mineral Resource Area (limestone)

Recommendation: The most appropriate mechanism for the protection of the remainder of this Bushplan Site be considered through the public comment period in consultation with the land owner(s). This Bushplan Site is already reserved for Parks and Recreation in the Metropolitan Region Scheme — it should be made a reserve with a conservation purpose.





LEGEND

- Bushplan Sites With Regionally Significant Bushland
- Other Native Vegetation
- Conservation Category Wetlands
- Bushplan Sites With Some Existing Protection
- Lot Number, Location Number
- Channel Wetlands
- Local Government Boundary

2034 - IV SE

NW	NE	
IV	SE	I
2034		
III		II

1 : 25 000 AMG Reference Grid showing Perth's Bushplan Map Sheet Breakdown

PERTH'S BUSHPLAN MAP INDEX

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
101	102	103	104	105	106

SCALE

0 500 1000

Metres

Produced by Project Mapping Section
Land Information Branch, Ministry for
Planning, Perth W.A. November 1998
ntw-map11/environ/bushplan:bushv2_25.dgn






Cadastral Data supplied by Department
of Land Administration, W.A.

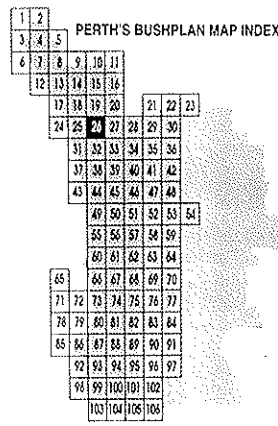
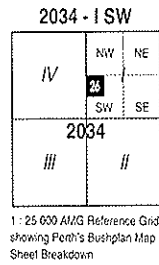
Wetlands Data supplied by
Water and Rivers Commission

Native Vegetation Extent for Study Area
supplied by Agriculture Western Australia

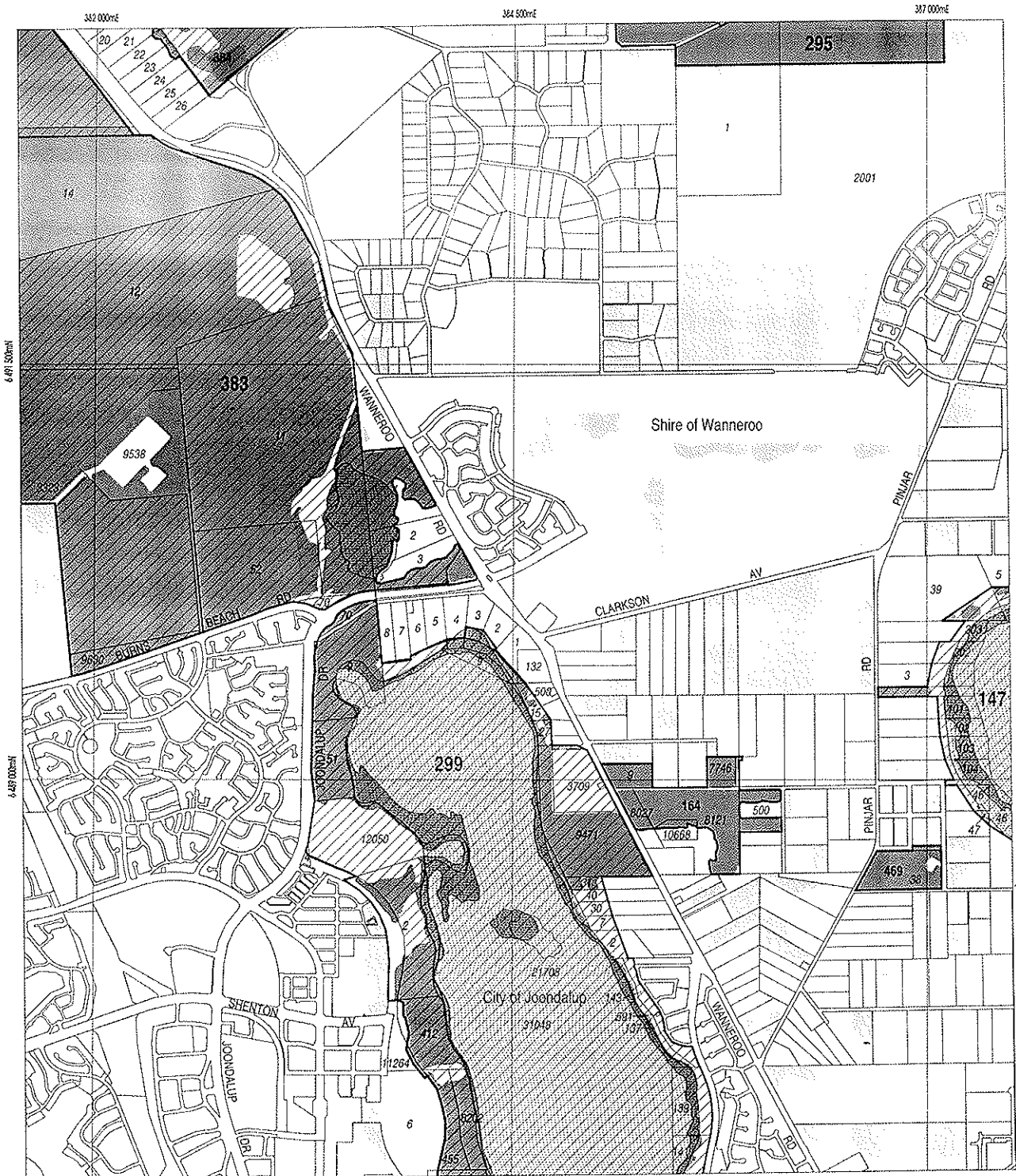


LEGEND

-  Bushplan Sites With Regionally Significant Bushland
-  Other Native Vegetation
-  Conservation Category Wetlands
-  Bushplan Sites With Some Existing Protection
-  Lot Number, Location Number
-  Channel Wetlands
-  Local Government Boundary

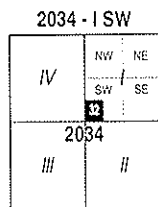


Produced by Project Mapping Section
 Land Information Branch, Ministry for
 Planning, Perth W.A. November 1996
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 Cadastral Data supplied by Department
 of Land Administration, W.A.
 Wetlands Data supplied by
 Water and Rivers Commission
 Native Vegetation Extent for Study Area
 supplied by Agriculture Western Australia



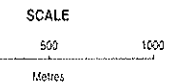
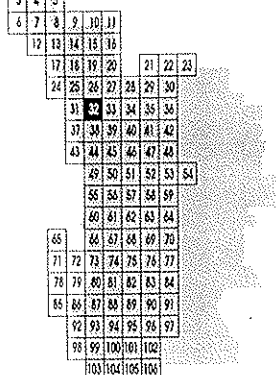
LEGEND

- 472 Bushplan Sites With Regionally Significant Bushland
- Other Native Vegetation
- Conservation Category Wetlands
- Bushplan Sites With Some Existing Protection
- Lot Number, Location Number
- Channel Wetlands
- Local Government Boundary

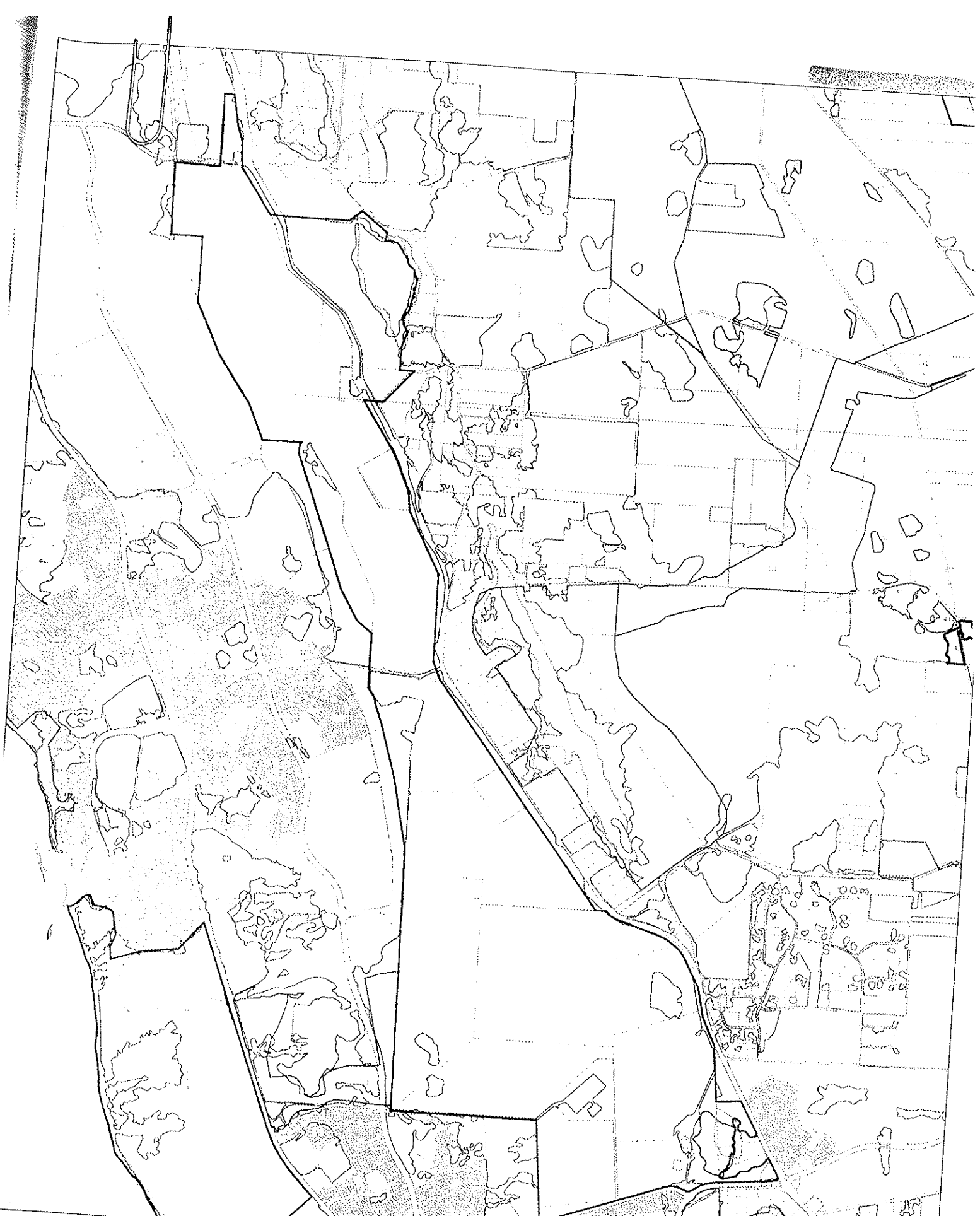


1: 25 000 AMG Reference Grid showing Perth's Bushplan Map Sheet Breakdown

PERTH'S BUSHPLAN MAP INDEX



Produced by Project Mapping Section
 Land Information Branch, Ministry for
 Planning, Perth W.A. November 1998
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 Cadastral Data supplied by Department
 of Land Administration, W.A.
 Wetlands Data supplied by
 Water and Rivers Commission
 Native Vegetation Extent for Study Area
 supplied by Agriculture Western Australia



382

BUSHPLAN SITES CORRECTED

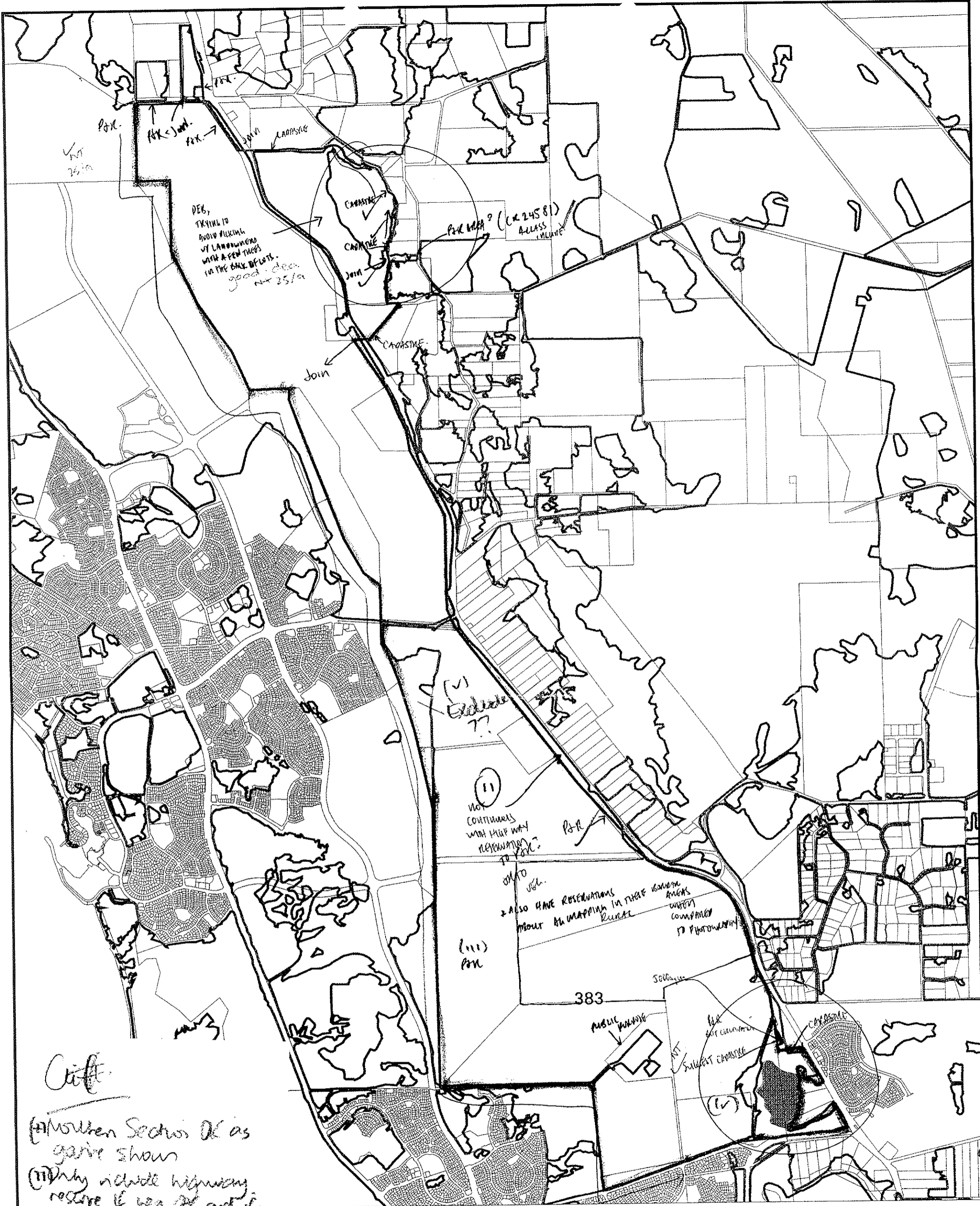


WESTERN
AUSTRALIAN
PLANNING
COMMISSION



B 76/88 22/10/98





Cliff

- (i) Southern Section of as garve shown
- (ii) Why include highway reserve if veg of and if BK specifying asis.
- (iii) Follow P&R
- (iv) As shown follow Veg
- (v) Exclude ??

Map Ident: plot980604_1	DATE: 04 JUN 98
Prepared By: Andrea Zappacosta	Prepared For:
Scale 1:AUTO	MFP INTERNAL USE ONLY

- AG VEG 1998 BOUNDARY THEME
- Cadastre
- Bushplan sites refno 1-500 SCP BOUNDARY THEME
- cons category wetlands

NT/EX 25/9
 (i) to exclude would be inconsistent with other P&R
 (iii) agree follow P&R
 (iv) ✓ agree
 however eastern boundary follow veg not P&R as KB + CL have suggested



BUSHPLAN SITES CORRECTED



WESTERN
AUSTRALIAN
PLANNING
COMMISSION



B BKTG 22/10/98



Ag WA 384
 Lake/veg boundaries
 inconsistent, note
 open water areas
 1992 photo OK

BJK
 WOTE
 WETLAND
 NOT MAPPED
 IS A VEG BY ALI

P&K

P&K
 ← Boundary




← PREVIOUS
 BUSHLAND
 BOUNDARY

HERE
 STOP
 BOUNDARY
 @ 200M
 @ 100M
 PICKING UP BOUNDARY
 WITH NEW - 100M
 VEGETATION BOUNDARY

384

CHOKSTONE
 NW

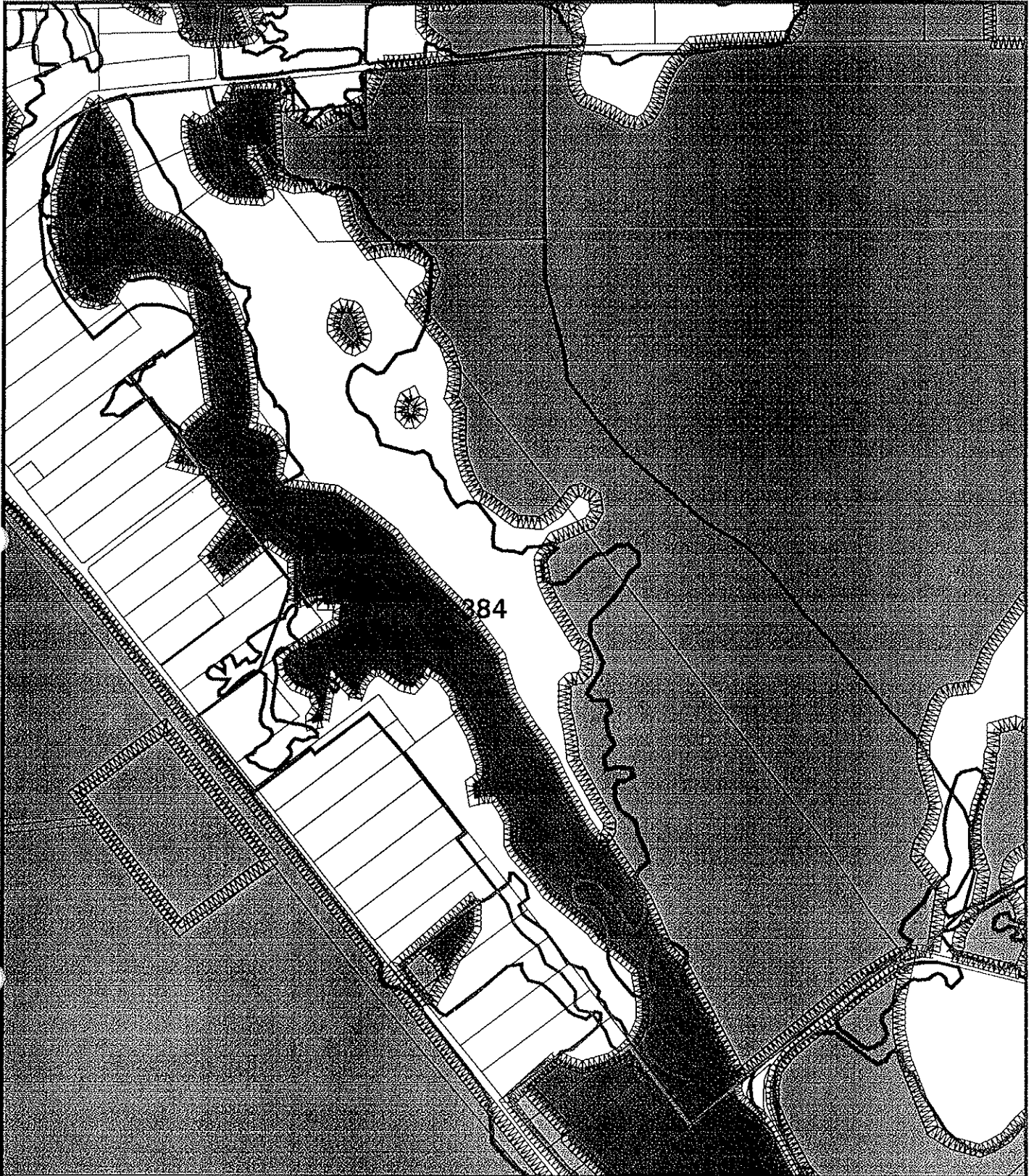
bp site 384

-  AG VEG 1998 BOUNDARY THEME
-  Cadastre
-  BUSHPLAN sites refno 1-500 SCP BOUNDARY THEME






MFP INTERNAL USE ONLY
 Prepared By: Andrea Zappacosta
 Prepared For:
 Map Ident: plot980604_1
 Date: 04 Jun 98
 Scale 1:15352

P&K ALL ROUND

P&K boundary OK BJK 23/6
 Needs Ag WA veg changes



bp site 384

-  AG VEG 1998 - BOUNDARIES SCP
-  Bushplan sites refno 1-500 SCP BOUNDARY THEME
-  Cadastre
-  Cottosloe Complex-Central And South
-  Herdsman Complex

MFP INTERNAL USE ONLY
 Prepared By: Andrea Zappacosta
 Prepared For:
 Map Ident: plot980916_1
 Date: 16 Sep 98
 Scale 1:16168

COCKBURN CEMENT

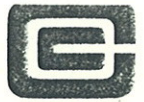
25 March, 1999

The Bush Land Coordinator
Perth's Bushplan
Ministry for Planning
Albert Facey House
469 Wellington Street
PERTH WA 6000

BS 384

PB183

104



COCKBURN CEMENT LIMITED
A.C.N. 008 673 470
LOT 242, RUSSELL ROAD EAST
MUNSTER
POST OFFICE BOX 38
HAMILTON HILL
WESTERN AUSTRALIA 6163
TELEPHONE: (08) 9411 1000
FACSIMILE: (08) 9411 1150

Dear Sir or Madam

NEERABUP LAKE AND ADJACENT BUSH LAND, NEERABUP - (SITE No. 384)

Cockburn Cement Limited is the owner of most of the land included in Site No. 384 and presents this submission in that capacity.

Cockburn Cement is Western Australia's leading producer of cement and lime and has an investment in plant and equipment in the state of some \$264 Million as at the end of Dec 98 (over \$500 Million in today's terms). In order to substantiate the investment, the company must have available to it a long term supply of basic raw materials, hence the decision more than 20 years ago to purchase the substantial land holding in Neerabup that contains the limestone resource that we will require.

This long term basic raw material is still required for our future production of cement and lime and the limestone that is not suitable for that purpose will be used for road base and other appropriate uses. As a result, whilst we have not objected to the rezoning of the majority of our property to Industrial under the provisions of the Metropolitan Region Scheme and the reservation of the balance as a Parks and Recreation reserve, we have continued to propose the removal of the limestone.

The company contributed to the preparation of the Flynn Drive Industrial Area District Structure Plan by Richard Pawluk & Associates but emphasised its long term intentions for the properties. In that structure plan, which is currently being reviewed by the Shire of Wanneroo, it was noted that the eastern boundary of the Neerabup Lake reservation needs to be reviewed, as the Metropolitan Region Scheme boundary is different to that proposed in the North-West Corridor Structure Plan and also different to that proposed in other studies. This review should continue and adjustments made to the Metropolitan Region Scheme as required.

Cockburn Cement would have preferred the removal of the high grade limestone from the lake area and surrounds but accepts that this will not be possible in view of the Parks and Recreation reservation. Therefore, the company will have no objection to Bushplan providing the affected land is the same as the final MRS Parks and Recreation reservation and the land is acquired by the WAPC in the normal manner for such reservations.

SUBMISSION NO. 3913

Yours faithfully

A O Dobbs
Finance and Corporate Services Manager

S:exec:aod:Neerabup Lake.doc

MINISTRY FOR
PLANNING
30 MAR 1999
805-2-1-32pt1a
FILE



G. Whin
7/12

NEERABUP LAKE AND ADJACENT BUSHLAND, NEERABUP

Bushplan Site no. 384

Map no. 25, 26, 32

Site Comments/Adjustment

Bushplan Site 384 was discussed by the Shire of Wanneroo with Bronwen Keighery (DEP) and Valerie Thompson (MfP) on 6/8/99.

A suggested reduction in P&R Reserve shown in draft local structure planning is not supported (requested background information from Shire of Wanneroo). The boundaries proposed appear to follow the boundary of the limestone resource rather than the boundary of the P&R as currently mapped in Bushplan.

NOTE - Conservation Category Wetland described BUT not mapped.

THIS
Spearwoods

RELATES TO BPS 384

Subm 293

same as
186 but
rows larger
area

190e

**SYSTEM 6 BUSHLAND SUBMISSION FORM
FOR CONSIDERATION IN THE UPDATE PROGRAMME**

LAKE NEERABUP AND ADJACENT BUSHLAND

LOCATION, OWNERSHIP AND ZONING OF THE AREA

1. Location

- a) Bordering Roads: Wanneroo Road and north of Wattle Ave, Neerabup
- b) Nearest Corner: Flynn Dve and Wanneroo Rd, north of Wattle Ave and Wanneroo Rd.
- c) Lot Number: Lot 10, part 21, 105 and various others.
- d) Suburb/Location: Neerabup
- e) Local Council: City of Wanneroo
- f) Site Name: Lake Neerabup and adjoining bushland
- g) Approximate size of area (ha): estimated area size 680 ha
- h) Location on map: please see attached copy of aerial photo
- i) Map: Streetsmart Street Directory, 1996
- j) Map no.: 12 and 15
- k) Grid Ref.: Map 12: 7A (top left) to 7C (top right)
Map 15: 4C (bottom left) to 3E (bottom right)
- l) Other information to find location: please see attached copy of aerial photo.
- m) Aware of any development proposals that are likely to affect the area?
No, some of area is proposed Parks and Recreation under MRS although proposed industrial area off Flynn Dve may affect the submitted area.

2. Who owns the area? Various owners

3. If you own the land? not applicable

4. What is the area zoned? Currently Rural and proposed Parks and Recreation under MRS

PHYSICAL CHARACTERISTICS

5. Why do you consider this area important? Lake Neerabup is part of a north-south chain of wetlands in the Spearwood dune system, it is adjacent to and links with (near Flynn Drive) Neerabup National Park. The submitted area

includes Tuart woodland and an extensive area of limestone heathland. The lake includes sedgeland.

6. What are the soil type/s and colours? Yellow sands of the Cottesloe soil types and black sands of the Herdsman soil type.

7. Any special features such as unusual landforms/landscapes? Yes, a limestone ridge on the east side of the wetland with natural vegetation.

8. Is the area a wetland or does it include a wetland? Yes, Lake Neerabup is a mix of wetland type including lake and swamp.

a) Lake

d) Swamp

9. What percentage of the wetland is open water in summer? approximately 10%

VEGETATION / FAUNA

10. What percentage of the area is indigenous vegetation? 75%

11. If the area includes regions of cleared native bushland please indicate reasons for the inclusion. Some cleared land is included in the submitted area, it is required for protection of the wetland as it occurs in the catchment and would provide a buffer to development. The area includes mature Tuart trees.

12. Has any previous flora or fauna work been done on the area? Not aware of any.

13. The condition of the native bushland? Some areas are degraded, other areas are excellent to very good.

14. Disturbances affecting the area?

a) Partial clearing; for agriculture

f) Weed invasion

m) Grazing; some grazing

15. Plant species of interest in the area? not aware of any

16. Do you know of any animals that use the area? Not aware of any

17. Is the area used by any native animals of special interest? Not aware of any

SURROUNDING AREA

18. Are there any bushland areas (including wetlands) near this area? The submitted area is east of Neerabup National Park and is part of remnant bushland which extends further north of Wattle Ave.

19. Does the submitted area link other bushland areas? Yes, as above.

Lake Neerabup and
adjacent bushland



5312 WA3490 (C) METRO REGIONAL AREA RUN 7 (5244-5328) 1: 20000 06.01.95 940900



5171 WA3490 (C)

METRO REGIONAL AREA

RUN 6 (5158-5242) 1: 20000 06.01.95 940900





5173 WA3490 (C)

METRO REGIONAL AREA

RUN 6 (5158-5242) 1:20000 06.01.95 940900



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