

ASHTON ROAD BUSHLAND, BULLSBROOK

Boundary Definition: bushland (part taken to cadastre)/bushland group boundary

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 88 **Area (ha):** bushland 20.4

Map no. 25

Map sheet series ref. no. 2134-IV SW

Other Names: Pearce 4; Submission Area 314; Location 103 (Keighery, BJ, and Trudgen 1992)

Local Authorities (Suburb): Shire of Swan (Bullsbrook)

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Dandaragan Plateau/Gingin Scarp

Osborne Formation (Ko: ST2)

Foothills

Colluvial Deposits (Qc: S5)

Colluvial Sand (Qs: S6)

VEGETATION AND FLORA

Vegetation Complexes

Scarps

Reagan Complex (Dandaragan Plateau, one of two most southern occurrences)

Pinjarra Plain

Guildford Complex (in area of most northern location)

Floristic Community Types: *not sampled, types inferred

Supergroup 1: Foothills/Pinjarra Plain

*S8 *Eucalyptus wandoo* woodlands (Scarp)

Supergroup 3: Uplands centred on Bassendean Dunes and Dandaragan Plateau

*23a Central *Banksia attenuata* — *B. menziesii* woodlands

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

*28 Spearwood *Banksia attenuata* or *B. attenuata* — *Eucalyptus* woodlands (eastern representation of this community type)

WETLANDS

No wetlands mapped

THREATENED ECOLOGICAL COMMUNITIES

Not determined, Not assessed

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: vegetated uplands

Vegetation and Flora: limited survey (DEP 1996, Keighery, BJ, and Trudgen 1992)

Structural Units: mapping (Keighery, BJ, and Trudgen 1992)

Uplands: *Eucalyptus calophylla* and *E. marginata* Open Woodland; *Eucalyptus calophylla* and *E. wandoo* Woodland to Open Forest; *Eucalyptus marginata* Woodland; scattered *Eucalyptus calophylla* over *Banksia attenuata* and *B. menziesii* Low Woodland; mixed Open Low Heath

Scattered Native Plants: not assessed

Vegetation Condition: >60% Very Good to Excellent, <40 % Good to Degraded, with areas of severe localised disturbance

Total Flora: 56 native taxa (estimated >50% expected flora)

Significant Flora: *Astroloma macrocalyx*

Fauna: not known

Linkage: no adjacent bushland

Other Special Attributes: part of the Bullsbrook bushland area recommended for inclusion in a regional park (Keighery, BJ, and Trudgen 1992); Threatened or Poorly Reserved Plant Community (EPA 1994 GIS); contains plant communities representative of the eastern side of the Swan Coastal Plain

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Diversity

Bush Forever Site Description (from *Bush Forever Volume 2 Government of WA 2000*), for the Maps see Volume 1

Recommendation: Part A: Local Reserve Mechanism. Part B: Other Government Land Mechanism. Part C: Rural Complementary Mechanism (see Table 3, Volume 1).

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SECTION 1: CADASTRAL INFORMATION

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

Bushplan Site no. 88 **Map no.** 30 **Map sheet series ref. no.** 2134-IV SW

Other Names

Pearce 4; Submission Area 314 ; Location 103
(Keighery, BJ, and Trudgen 1992)

Local Authorities (Suburb)

Shire of Swan (Bullsbrook)

Area (ha): total 21.7; bushland 20.4

Zoning

MRS: Rural, Public Purpose-Commonwealth Government, Urban Deferred

TPS: Rural, General Rural, Public Purposes

Lot/Location/Reserve numbers (Purpose),

Street name

1, 26, 8652, 8655, 11322 Chittering Rd; 12883 street not identified

Crown Reserve

Ownership Categories

Commonwealth Government, Private, Not identified

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Dandaragan Plateau/Gingin Scarp

Osborne Formation (Ko: ST2)

Foothills

Colluvial Deposits (Qc: S5)

Colluvial Sand (Qs: S6)

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SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

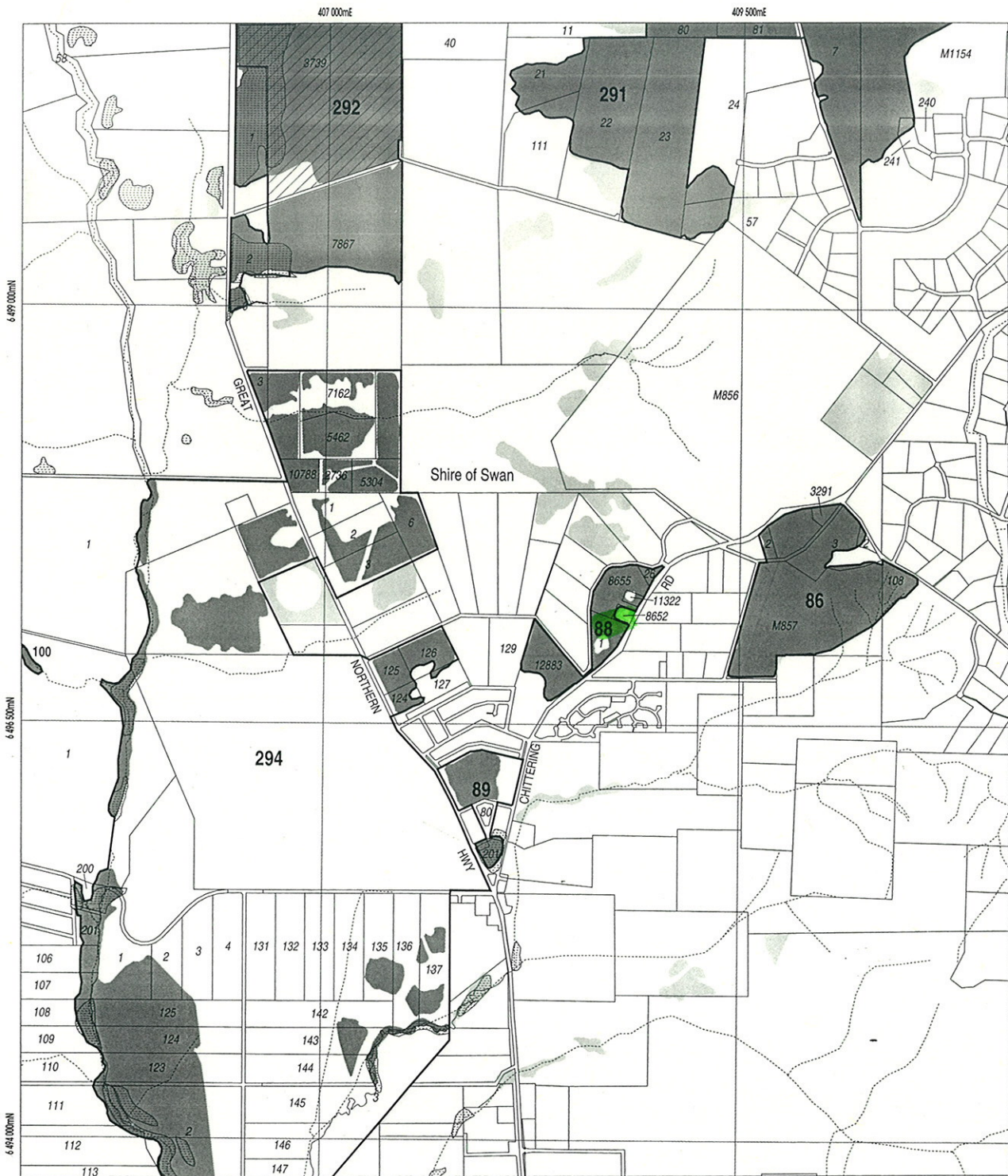
Criteria: Representation of ecological communities, Diversity

Opportunities and/or Constraints

Opportunities: Bushplan Site/part Bushplan Site subject to Swan and Canning Rivers EPP; under Crown Reserve

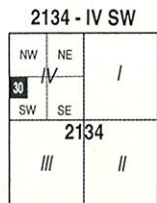
Constraints: private land; under MRS Urban Deferred Zoning, General Mineral Resource Area (clay)

Recommendation: The Bushplan Site be reserved for Parks and Recreation in the Metropolitan Region Scheme and be purchased for Nature Reserve.

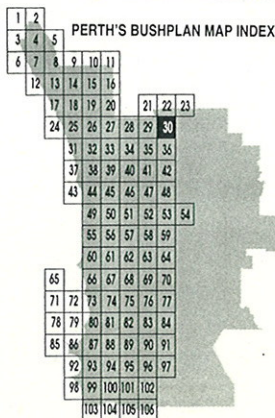


LEGEND

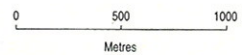
- 472 Bushplan Sites With Regionally Significant Bushland
- Other Native Vegetation
- Conservation Category Wetlands
- Bushplan Sites With Some Existing Protection
- 696 Lot Number, Location Number
- Channel Wetlands
- Local Government Boundary



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



SCALE

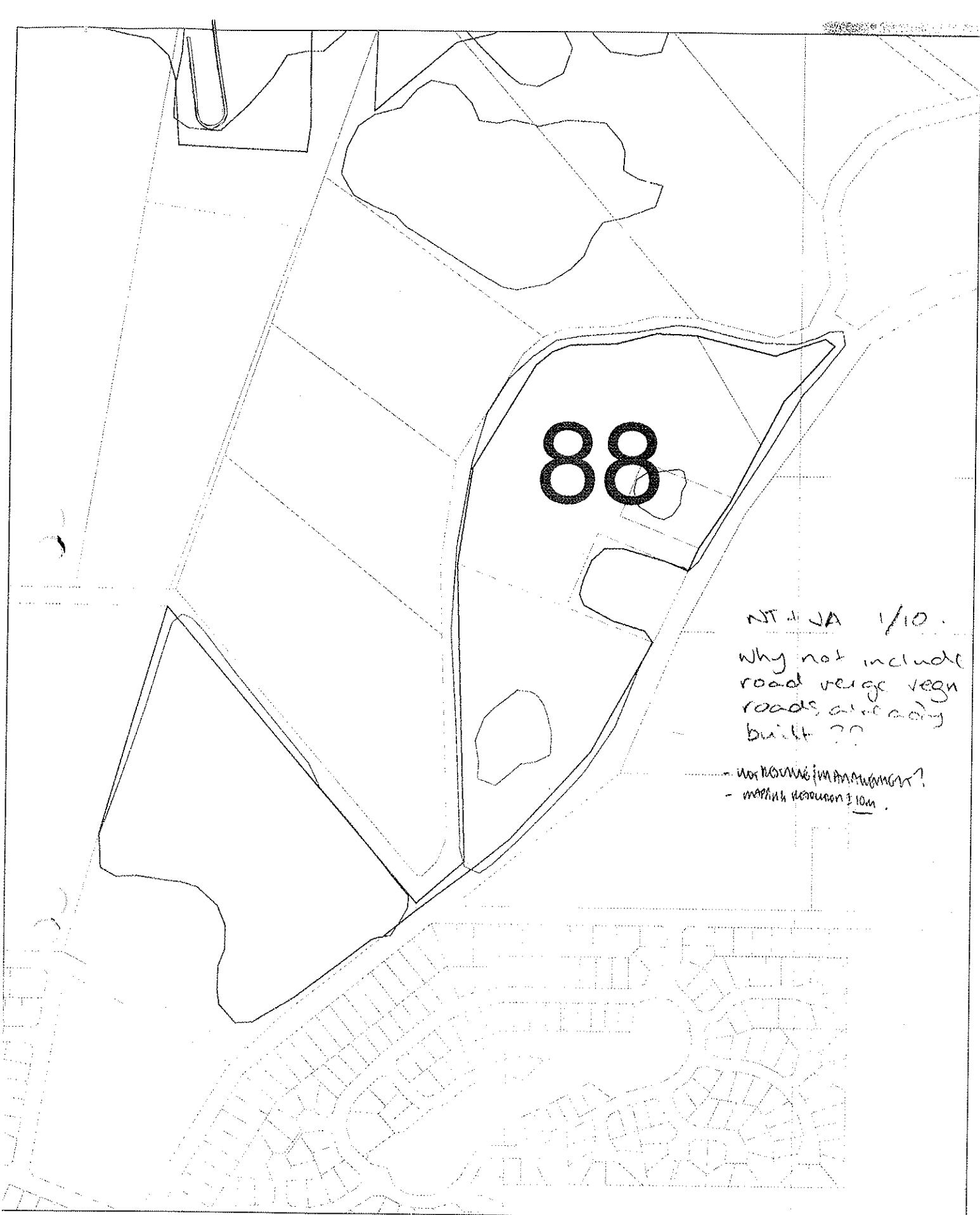


Produced by Project Mapping Section
Land Information Branch, Ministry for
Planning, Perth W.A. November 1998
ntw-map11/environ/bushplan/bushv2_30.dgn

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



88

NT & JA 1/10.
 Why not include
 road verge vegn
 roads already
 built ??

- not some management?
- marshy vegetation 10m.

BUSHPLAN SITES CORRECTED

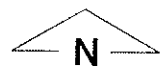


WESTERN
 AUSTRALIAN
 PLANNING
 COMMISSION



CUSTOMER
 FOCUS
 WESTERN AUSTRALIA

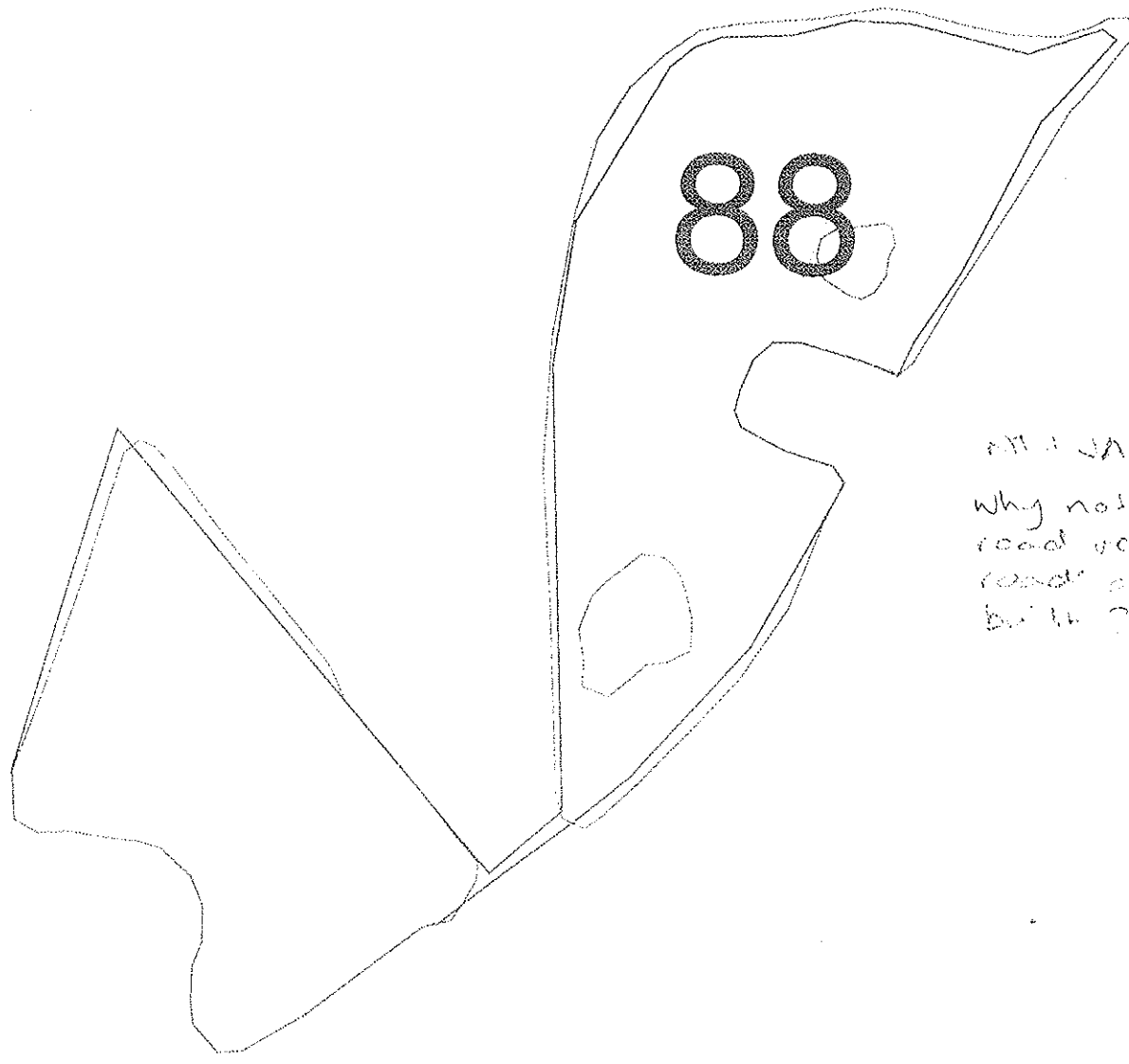
B Bk/TG 22/10/98



SCALE 1:2500



Metres



ATT: JA 1/10.
Why not include
road verge vegn
road already
built??

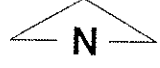
BUSHPLAN SITES CORRECTED



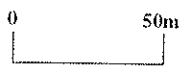
WESTERN
AUSTRALIAN
PLANNING
COMMISSION



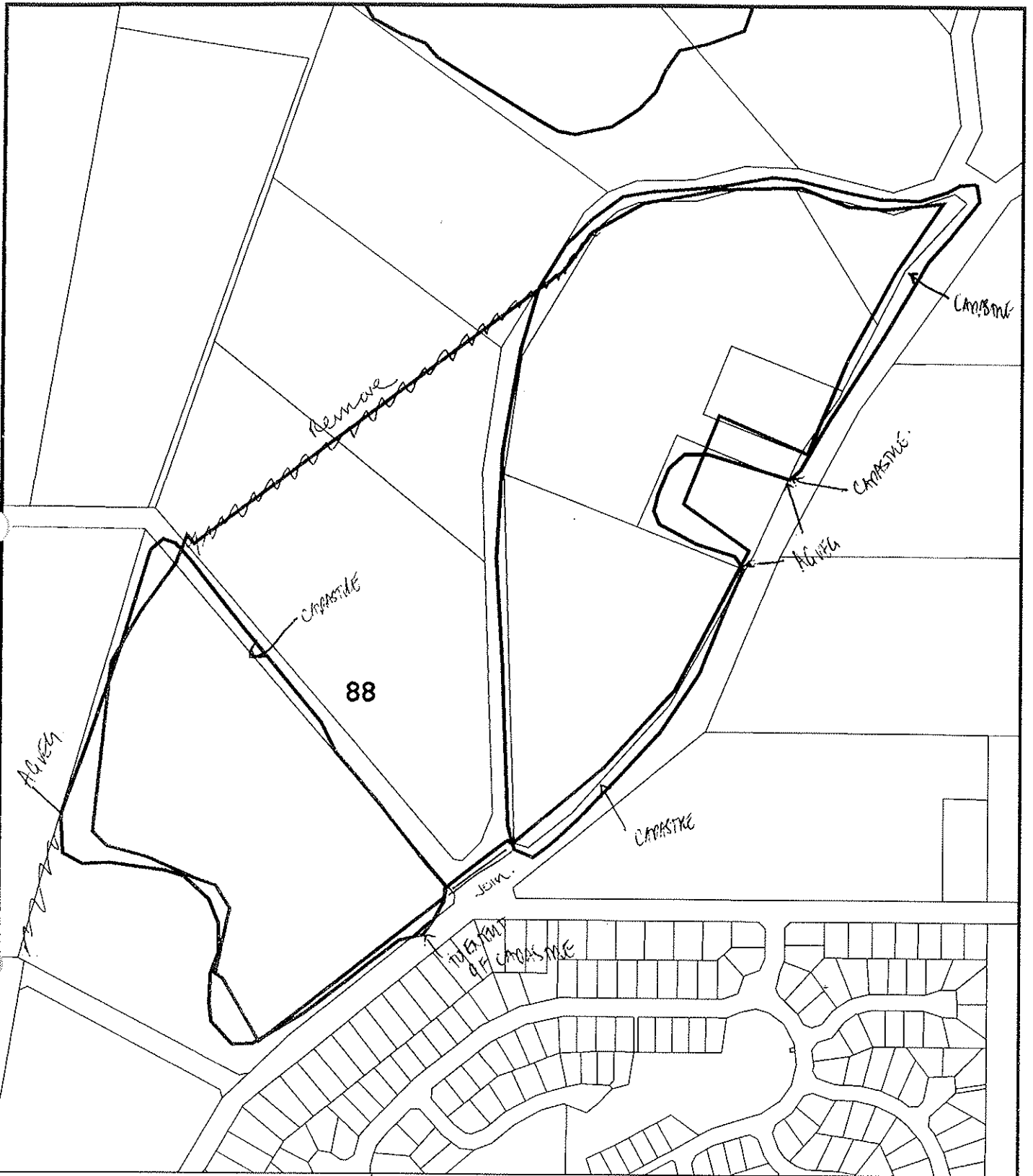
CUSTOMER
FOCUS
VEATCH AUSTRALIA






SCALE 1:2500



Metres



bp site 88

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

REMOVE CADASTRE

MFP INTERNAL USE ONLY

Prepared By: Andrea Zappacosta

Prepared For:

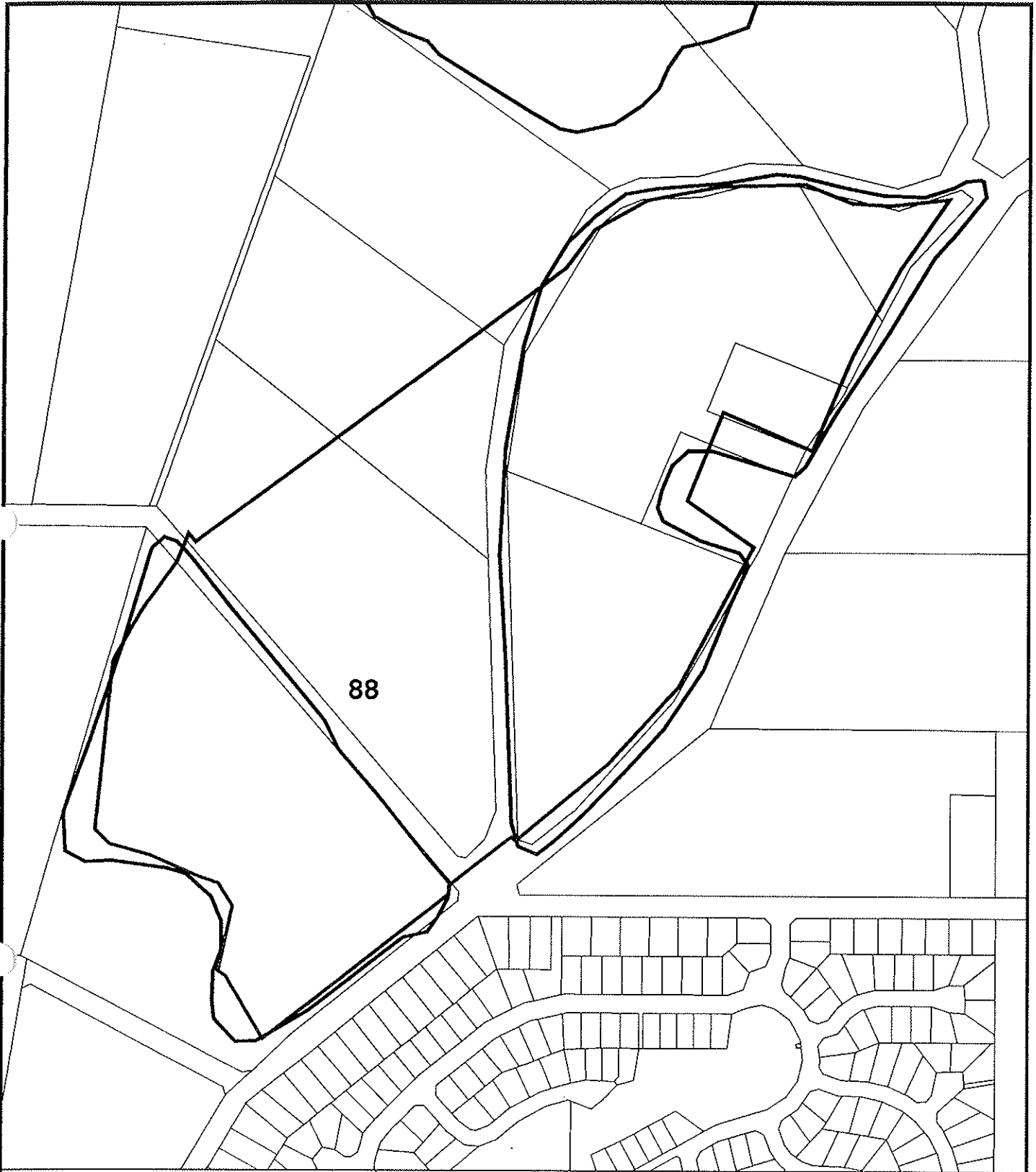
Map Ident: plot980525_1

Date: 25 May 98

Scale 1:5188

Remove vegetation from intersection

*This is a road verge issue
again BJR 6/7*



88

bp site 88

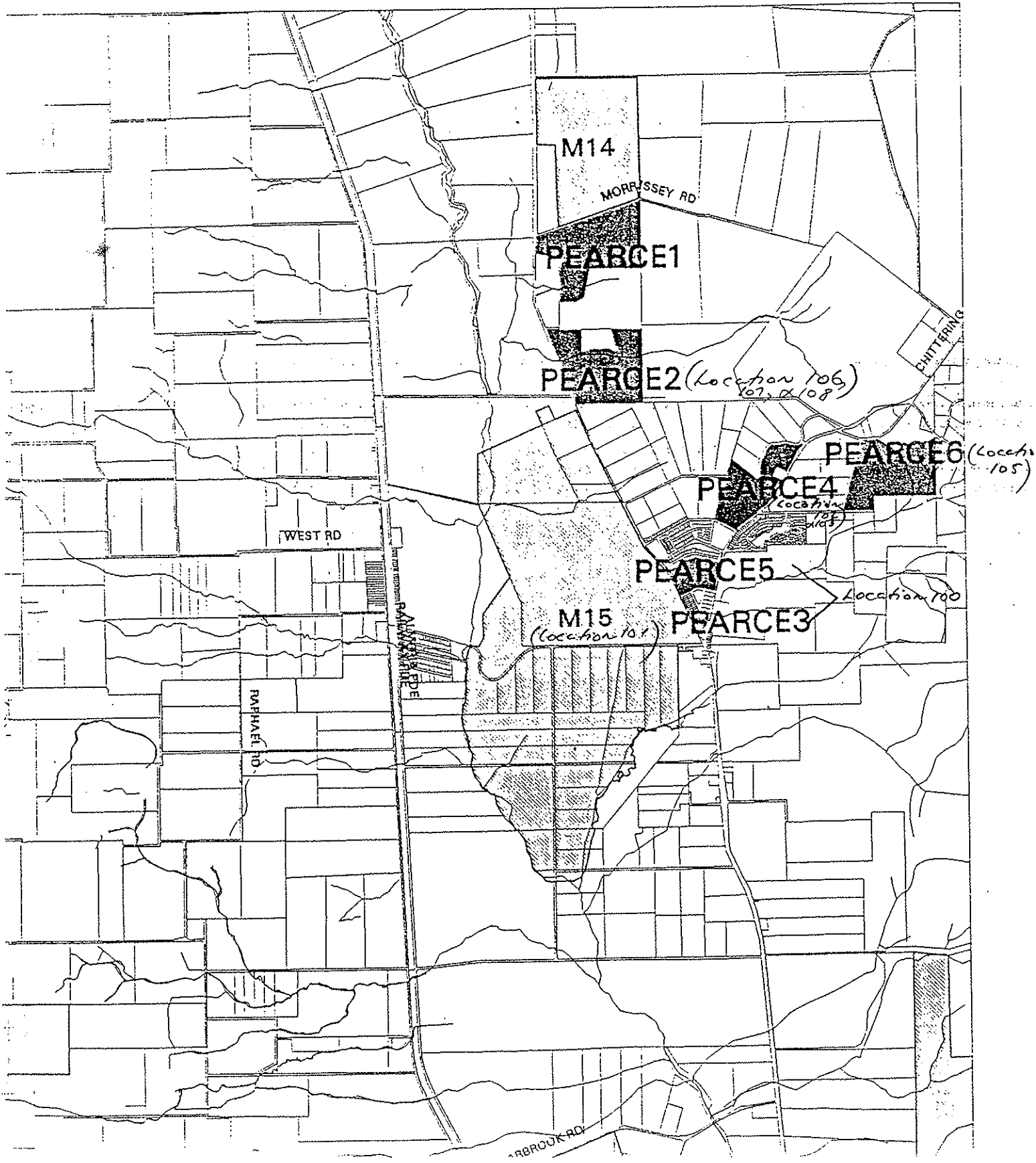
- AG VEG 1998 BOUNDARY THEME
- Cadastre
- Bushplan sites refno 1-500 SCP BOUNDARY THEME

Handwritten note: keep map & boundaries

MFP INTERNAL USE ONLY
 Prepared By: Andrea Zappacosta
 Prepared For:
 Map Ident: plot980525_1
 Date: 25 May 98
 Scale 1:5188

Handwritten notes:
 Location of road verge issue
 This is a road verge issue
 again BJR 6/7

MAP 1: Pearce Interim Protected Areas



AREA INFORMATION

System 6 Area (C or M) or Update Area (Update) PEARCE 4

Conservation Area
Nature Reserve
Reserve No
National Park
Reserve No
Local Government
Reserve No
Other
Proposed Conservation Areas
Local Government
Reserve No 31067 (Caravel) DOLA
Other PRIVATE location 1352 lot 14, 26

C/w/ith LTO diagram 12480 lot 1, location 8652

Conservation Area

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

TOTAL AREA

Bushland Area	hectares
Completely Degraded	

AREA MAPPED FLORISTIC UNITS

Units	Site (Condition)	Code	Bound	Area (ha)
	NO SITES			

Boundaries determined by use of

aerial photograph
orthophoto
vegetation map
soil map

PEARCE4 INTERIM PROTECTION AREA

extracted from Keighery, B.J. and Trudgen, M. (1992) Remnant Vegetation on the Alluvial Soils of the Eastern Side of the Swan Coastal Plain

Location 102- Bushland blocks (including Bullsbrook District High Reserve 31478), NW Chittering Rd, S Ashton St, Bullsbrook. Location Map 3&4. Vegetation Map Area 11b, p89.

Veg: jm OW **Cond: Good to Poor**
Marri and Jarrah Open Woodland over mixed Low Shrubland

Condition

Rating: Good to Poor

Comments: Apparently partially cleared and selectively logged, invaded by **Ehrharta calycina* and other exotic grasses.

Aerial Photo GG GW: 29S 5131

Soils: pale yellow sand, Re 1, Re7(King and Wells, 1990)(Churchward and McArthur, 1980)

Drainage: Good

Location 103- Bushland between Ashton Rd and Chittering Rd, Bullsbrook. Location Map 3&4. Vegetation Map Area 11b, p89.

Veg: mw W/OF, j W **Cond: Very Good with severe localised disturbance**

GENERAL COMMENTS

This Location of approx 12 ha is predominantly Wandoo and Marri Woodland to Open Forest with a small section of Jarrah Woodland in the in the southern corner. At times there are small areas of pure Wandoo and pure Marri but the understorey is similar in both areas. The condition of the Location is variable. Much of the Wandoo and Marri Woodland is in Very Good Condition but there are areas of severe localised disturbance associated with the old gravel mine, the water tanks and the numerous tracks. The Jarrah Woodland is in Poor Condition probably associated with a communication installation located here.

Site

m OF **Marri Open Forest over *Gastrolobium spinosum*, *Hakea trifurcata* and *Xanthorrhoea preissii* High Shrubland over *Phyllanthus calycinus* Low Open Heath**

Trees: *Eucalyptus calophylla*

Adjacent: 4#*Eucalyptus wandoo*

Shrubs: 4#*Gastrolobium spinosum*, 4#*Hakea trifurcata*, *Xanthorrhoea preissii*, *Phyllanthus calycinus*, 4#*Hakea lissocarpha*, *Acacia pulchella*, 4#*Calothamnus sanguineus*, 4#*Hibbertia commutata*, *Dillwynia aff cinerascens*

Adjacent: *Hypocalymma angustifolium*, 4#*Isopogon dubius*, 4#*Isopogon asper*, *Dryandra nivea*

Grasses: 4#*Neurachne alopecuroidea*

Herbs: *Stylidium piliferum*, **Gladiolus caryophyllaceus*

Adjacent: 4#*Stypandra glauca*, 3,4#*Gonocarpus pithyoides*, *Kennedia coccinea*, *Scaevola phlebopetala*

Sedges: *Loxocarya cinerea*

CONDITION

Rating Very Good to Good
Comments:

Aerial Photo: Run 29S 5131

Soil: Re 3(King and Wells, 1990)

Drainage: well

Aspect: gentle to steep, NW

Adjacent to Site

j W Jarrah Woodland over *Dryandra sessilis* Open Scrub

Condition

Rating: Poor to Very Poor

Comments: Disturbance associated with the communication installation and roadworks, probably cleared, as indicated by the *Dryandra sessilis* density and the presence of various weeds such as **Ehrharta calycina*, **Watsonia* sp and **Cytisus proliferus*.

Aerial Photo GG GW: 29S 5131

Soils: red brown sand, Re 1(King and Wells, 1990)

Drainage: Good

Description of the Vegetation of part Pearce 4 - Area to the N & S of Kimberley Street.

September 1995

Introduction

Interim Protected Area Pearce 4 (Map 1) is part of a series of interim protected areas which were recommended for inclusion in a Bullsbrook Bushland Regional Park by Keighery and Trudgen 1992 (Map 2). This recommendation recognised that the area had considerable conservation value as

... it includes the suite of vegetation associations found on the flats of the northern Pinjarra Plain from Flooded Gum and *Melaleuca raphiophylla* Forest along Ellen Brook in the west through the Wandoo Woodland, Marri and Wandoo Woodlands, *Casuarina obesa* Woodlands, Wetland Mosaic Associations on the flats of the Pinjarra Plain and the Banksia Low Woodlands, Marri Woodlands, Jarrah Woodlands, Heaths and the Wandoo and Powderbark Wandoo Woodland of the foothills of the Dandaragan Plateau. This area is of greater significance because of its location adjacent to where the Dandaragan Plateau and the Ridge Hill Shelf meet. All vegetation associations are in Very Good to Good Condition. The condition of the Flooded Gum and *Melaleuca raphiophylla* Forest along Ellen Brook in the Pearce Aerodrome was not assessed. The *Casuarina obesa* Woodlands assessed are in a Completely Degraded Condition.

Significant species: > 25, 5 Priority species: 4#*Synaphea acutiloba*, 3,6#*Restio stenostachyus*, 3,6#*Stylidium utricularioides* and 3,6#*Eryngium pinnatifida* ssp. 'palustris'.

Eighteen floristic sites have been located in public lands in the area (Table 1) as part of regional studies of the floristic variation of plant communities on the Swan Coastal Plain (Gibson et al. 1994 and the System 6 Update programme). Twelve floristic community types were identified from these sites, nine being described in Gibson et al. (1994) and an additional 2 preliminary types that have been identified in the System 6 Update. The System 6 update has been sampling areas that were not included in the Gibson et al. study (for example the Dandaragan Plateau and the margins of permanent wetlands) and with the addition of these site two of the Bullsbrook sites (Bull 9 & 12) have showed greater affinities with some of these preliminary community types.

Table 1: Floristic Community Types recorded in the Bullsbrook Bushland area

Bushland section (site)	Floristic Community Type
Commonwealth Land (Pearce, part System 6 area)	
Pearce 1 (Gibson et al.)	6
Pearce 2 (Gibson et al.)	3
XPearce 1 (System 6 Update)	8
XPearce 2 (System 6 Update)	8
XPearce 3 (System 6 Update)	J
XPearce 4 (System 6 Update)	H
XPearce 5 (System 6 Update)	15
Bullsbrook Nature Reserve (System 6 area M14)	
Bull 1 (Gibson et al.)	28
Bull 3 (Gibson et al.)	23a
Bull 4 (Gibson et al.)	28
Bull 5 (Gibson et al.)	5
Bull 6 (Gibson et al.)	7
Bull 7 (Gibson et al.)	5
Bull 8 (Gibson et al.)	7
Bull 9 (Gibson et al.)	28
(floristically allied with type C identified in the System 6 Update)	
Bull 10 (Gibson et al.)	28
Bull 11 (Gibson et al.)	28
Bull 12 (Gibson et al.)	11
(floristically allied with type B identified in the System 6 Update)	

The identification of a diversity of floristic community types in the areas of the Bullsbrook Bushland that have been able to be sampled supports the recognition of the area by Keighery and Trudgen. It would be expected that sites in similar habitats within the unsampled area would support similar communities.

Mapping by Heddle (1983) of vegetation complexes also indicated that the area was an important transitional area containing representation of vegetation in the Reagan (Dandaragan Plateau), Guildford (Swan Coastal Plain) and Beermullah (Swan Coastal Plain) complexes. Mapping of the distribution of the vegetation complexes (Dixon et al. 1994) has these complexes as having 76%, 95% and 94% (respectively) of their areas cleared. The Reagan Complex is essentially the foothills of the Dandaragan Plateau, a similar unit to the Forrestfield Complex (foothills of the Darling Plateau) which is 92% cleared according to this mapping.

The Bullsbrook Bushland and some additional areas of bushland have been nominated for listing on the Register of the National Estate.

The Interim Protected Area Pearce 4 is divided in three parts by roads. This report refers predominantly to the areas to the north and south of Kimberley Street (see Map 2). The area to the north of Kimberley outside the fenced area has been recently cleared.

Vegetation

Vegetation Associations

Pearce 4 contains three vegetation associations. In the southern section of the area south of Kimberley Street on more low lying sands Marri Woodland (Appendix 1, Site 2) occurs. As the depth of sand increases the Marri occurs as an overstorey over *Banksia* forming a Marri Woodland over *Banksia attenuata* and *B. menziesii* Low Open Woodland (Appendix 1, Site 1). The Marri Woodland over *Banksia attenuata* and *B. menziesii* Low Open Woodland extends across Ashdon Road. This unit then merges into Marri and Wandoo Woodland (Location 103, Appendix 2) on soils with an increasing percentages of laterite.

It was not possible to describe the vegetation of the cleared section of the area north of Kimberley Street but the remnants remaining indicate that it was probably similar to Site 1 from the south of Kimberley Street.

Floristic Community Types (Gibson et al. 1994)

There are no floristic sites within Pearce 4 but the areas in the Bullsbrook Nature Reserve with similar soils and floristics classify as floristic community types 28. Floristic community type 28 is predominantly found on Spearwood Dunes and its only representation on the eastern side of the Swan Coastal Plain is in this area. There is no unit in the Bullsbrook Nature Reserve on laterites with similar floristics to the NE section of Pearce 4 (Appendix 3, Site 105d).

That is Pearce 4 contains a series of vegetation units that illustrate the transition from the sandy foothills of the Dandaragan Plateau through to the lateritic soils of the Dandaragan Plateau.

Vegetation Condition

It is likely that the area north of Kimberley Street was in a similar condition to that of the area to the south of Kimberley Street except that the area north of Kimberley Street was burnt in summer 1993/94. The burnt area appears to have been recovering well as there were many resprouted and reseeded plants in the area north of Kimberley Street. That is before the fire and subsequent clearing the area was in Excellent to Very Good condition with areas in localised disturbance associated with the road verges. Although the clearing has destroyed most of the vegetation except some trees and a few patches of understorey it is likely that the area would regenerate well from seeds, rhizomes etc. (perennating organs) remaining in the soil. Regeneration would be augmented by spreading the mounds of cleared vegetation and some weed control introduced to prevent invasion from the verges.

Conclusion

The area north of Kimberley Street forms part of a larger area, the Bullsbrook Bushland, and the condition and nature of the vegetation indicates that it should remain as part of this broader recommendation.

Flora

Appendix 1 lists the flowering plant taxa observed in the area north of Kimberley Street. This is not a complete list but is sufficient to indicate that there is a diversity of flora remaining in the area and indicates the floristic affinities of the area.

Appendix 1: Vegetation Descriptions

Site 1

Marri Woodland over *Banksia attenuata* and *B. menziesii* Low Open Woodland over patches of *Daviesia divaricata*, *Adenanthos cygnorum* and *Dryandra sessilis* Tall Open Shrubland to Tall Open Scrub over *Xanthorrhoea preissii* Open Shrubland over Mixed Open Low Heath over *Mesomelaena pseudostygia* Sedgeland and *Amphipogon turbinatus* Very Open Grassland.

Trees: *Eucalyptus calophylla*, *Eucalyptus todtiana*, *Banksia attenuata*, *Banksia menziesii*
Shrubs: *Daviesia divaricata*, *Adenanthos cygnorum*, *Dryandra sessilis* (Hills Form), *Lepidosperma erubescens*, *Hibbertia hypericoides*, *Daviesia triflora*, *D. physodes*, *Stirlingia latifolia*, *Calothamnus sanguineus*, *Grevillea pilulifera*, *Andersonia lehmaniana*
Grasses: *Amphipogon turbinatus*, *Neurachne alopecuroidea*
Herbs: *Patersonia occidentalis*, *Conostylis setigera*, *Phlebocarya ciliata*, *Phlebocarya filifolia*, *Burchardia congesta*, *Anigozanthos humilis*, *A. manglesii*
Sedges: *Mesomelaena pseudostygia*, *Alexgeorgea nitens*, *Tetraria octandra*

CONDITION (Keighery 1994)

Rating: Excellent to Very Good (Very Good to Good, Trudgen)

Comments: Edges of the area adjacent to road are impacted by invasion of weeds, in particular **Eragrostis curvula* and **Ehrharta calycina*

Soil: Pale brown sand over yellow sand (King and Wells, 1990)

Drainage: Good

Aspect: gentle, SW

Site 2

Marri Woodland over Open Heath to Tall Open Scrub over Low Shrubland over *Mesomelaena pseudostygia* and *Lyginia barbata* Sedgeland.

Patches of Tall Open Scrub include areas dominated by *Calytrix flavescens*, *Dryandra sessilis* (Hills Form, often greater than 2m), *Hakea trifurcata* and *Conospermum stoechadis*.

CONDITION (Keighery 1994)

Rating: Excellent to Very Good (Very Good to Good, Trudgen)

Soil: Pale brown sand over yellow sand (King and Wells, 1990)

Drainage: Moderate

Aspect: gentle, SW

Appendix 2: Flora

Key

*	non-native taxa
Significant taxa	of interest
P	Plateau taxa
U	uncommon taxa

Angiosperms

Significant Taxa

Anthericaceae

Sowerbaea laxiflora 1

Apiaceae

Trachymene pilosa 2

Asteraceae

*Hypochaeris glabra 3

*Ursinia anthemoides

Podolepis gracilis 3

Podotrochea sp. 4

Colchicaceae

Burchardia congesta 5

Cyperaceae

Mesomelaena pseudostygia 6

Tetraria octandra 7

Dasypogonaceae

Dasypogon bromeliifolius 8

Lomandra caespitosa 9

Dilleniaceae

Hibbertia huegelii 10

Hibbertia hypericoides 11

Droseraceae

Drosera erythrorhiza 12

Drosera micrantha 13

Epacridaceae

Andersonia lehmanniana 14

Astroloma macrocalyx 15

Conostephium pendulum 16

Leucopogon conostephioides 17

U

Fabaceae (Papilionaceae)

Bossiaea eriocarpa 18

Daviesia divaricata 19

Daviesia triflora 20

Gastrolobium spinosum 21

Kennedia prostrata 22

P

Goodeniaceae

Scaevola canescens 23

Haemodoraceae

Anigozanthos humilis 24

Conostylis acculeata 25

Conostylis setigera 26
Haemodorum spicatum 27
Phlebocarya ciliata 26

Iridaceae

29 Patersonia juncea
30 Patersonia occidentalis
*Gladiolus caryophyllaceus
*Watsonia ?bulbilifera

Mimosaceae

1 Acacia pulchella
2 Acacia applanata

Myrtaceae

3 Eucalyptus calophylla
4 Hypocalymma angustifolium

Poaceae

5 Amphipogon turbinatus
*Ehrharta calycina
*Eragrostis curvula
6 Neurachne alopecuroidea

Proteaceae

7 Adenanthos cygnorum
8 Banksia attenuata
9 Banksia menziesii
10 Dryandra aff. nivea
11 Dryandra sessilis (Hill Form) P
12 Grevillea pilulifera P
13 Hakea prostrata
14 Hakea ruscifolia
15 Persoonia saccata
16 Petrophile linearis
17 Stirlingia latifolia

Restionaceae

18 Alexgeorgia nitens
19 Hypolaena exsulca
20 Lepidobolus chaetocephalus
21 Loxocarya flexuosa
22 Lyginia barbata

Rutaceae

23 Phyllanthus calycinus

Stylidiaceae

24 Stylidium ?piliferum

Thymelaeaceae

25 Pimelea spectabilis P

Xanthorrhoeaceae

26 Xanthorrhoea preissii

56 taxa

Appendix 3 :

Locations 100-109 are grouped as the Bullsbrook Bushland, Area 11 of Recommendation 4. All the Locations included in this Area are shown on Location Map 3.

PEARCE 3 & 5.

Location 100 - Bushland in Pearce spanning area between Great Northern Hwy and Chittering Rd. Location Map 3&4. Vegetation Map Area 11b, p89.

GENERAL COMMENTS

This Location of 11 ha and the smaller block to the south of 2 ha are the only areas of Wandoo Woodland and associated Shrublands on the Guildford Formation in Good Condition available for survey (see Location 101) in the whole study area. The condition of the Location is remarkably good considering its location in the middle of a town and that it may have been partially cleared and selectively logged in the past. After being surveyed from the east a sign was observed on the west indicating it was Commonwealth land associated with the Airforce Base and trespassing was forbidden. This may account for the reduced disturbance such as rubbish dumping.

Veg: w OW, Sh, LSh

Cond: Very Good to Very Poor

Site 100a

Sh *Hakea prostrata*, *Jacksonia sternbergiana*, *Daviesia horrida* and *Xanthorrhoea preissii* Shrubland over *Hypocalymma angustifolium* and *Hakea lissocarpa* Low Shrubland over *Mesomelaena tetragona* and *Cyathochaeta avenacea* Sedgeland.

Shrubs: *Hakea prostrata*, *Jacksonia sternbergiana*, 4#*Daviesia horrida* *Xanthorrhoea preissii*, *Hypocalymma angustifolium*, 4#*Hakea lissocarpa*, 3#*Daviesia physodes*, *Dryandra nivea*, 4#*Kunzea recurva*, 4#*Petrophile seminuda*, *Hibbertia hypericoides*, *Daviesia* sp, *Hibbertia hypericoides*, 4#*Gompholobium marginatum*, *Phyllanthus calycinus*, 4#*Pimelea imbricata*

Adjacent: *Verticordia densiflora*, 4#*Templetonia biloba*

Similar vegetation association: *Viminaria juncea*, 4#*Calothamnus sanguineus*

Grasses: 4#*Neurachne alopecuroidea*

Adjacent: **Briza maxima*, **Avena fatua*

Herbs: *Borya scirpoidea*, *Haemodorum simplex*, *Haemodorum spicatum*, *Dianella divaricata*, 4#*Ptilotus declinatus*, **Hesperanthera falcata*, 4#*Philydrella drummondii*, 4#*Stylidium divaricatum*, **Romulea rosea*

Adjacent: **Watsonia* sp, *Ptilotus marginata*, *Tribonanthes ? longipetala*

Sedges: 4#*Mesomelaena tetragona*, 5#*Cyathochaeta avenacea*, *Lepidosperma* sp, *Tetraria octandra*

CONDITION

Rating Good

Comments: Substantial invasion by **Hesperanthera falcata* and adjacent areas subject to frequent tracks, and soil disturbance and dumping.

Aerial Photo: GG GW Run 29S 5131

Soil: dark brown clayey sand over clay, Gf 4(King and Wells, 1990)

Drainage: poor

Aspect: flat

Site 100b

w W Wandoo Open Woodland over *Acacia lasiocarpa* and *Hakea lissocarpa* Low Open Heath over **Hesperanthera falcata* and **Romulea rosea* Herbland

Trees: 4#*Eucalyptus wandoo*

Shrubs: *Acacia lasiocarpa*, 4#*Hakea lissocarpa*, 4#*Kunzea recurva*, *Hakea prostrata*, *Xanthorrhoea preissii*, *Hypocalymma angustifolium*

Grasses: 4#*Neurachne aleopecuroidea*, **Briza maxima*

Herbs: **Hesperanthera falcata*, **Romulea rosea*, 4#*Dampiera coronata*, *Dianella divaricata*, **Parentucellia viscosa*, 4#*Trichocline spathulata*

CONDITION

Rating Poor

Comments: The location has apparently been partially cleared, burnt, traversed by numerous tracks and soil movement and dumping has occurred.

Aerial Photo GG GW: Run 29S 5131

Soil: dark brown loam over clay, Gf 4(King and Wells, 1990)

Drainage: poor

Aspect: flat

MIS

Location 101- Pearce Aerodrome. Location Map 3&4.

Veg: jwm OF & OW, w W,r/mr W, al OF, mr CSc, c OF

Cond: ?

GENERAL COMMENTS

This area is closed to the public and aerial photographs are not available. The System 6 Report(p180) describes the vegetation associations:

'The area carries open forest of marri, wandoo and jarrah, with woodland of wandoo, some flooded gum and and swamp paperbark(*Melaleuca preissiana*). In the southern and eastern sections there is a mixture of low open forest of sheoak(*Allocasuarina fraseriana*) and open woodland of marri, wandoo and jarrah with a closed scrub of paperbark(?*Melaleuca raphiophylla*). The western section includes a low open forest of swamp sheoak and closed scrub of paperbark '

It could be assumed that the Wandoo Woodland is similar to that at Location 100.

The Condition of the vegetation is not known.

Soils: Yanga, Beermullah and Guildford formations(CHurchward and McArthur, 1980).

PEARCE DX

Location 102- Bushland blocks (including Bullsbrook District High Reserve 31478), NW Chittering Rd, S Ashton St, Bullsbrook. Location Map 3&4. Vegetation Map Area 11b, p89.

Veg: jm OW

Cond: Good to Poor

Marri and Jarrah Open Woodland over mixed Low Shrubland

Condition

Rating: Good to Poor

Comments: Apparently partially cleared and selectively logged, invaded by **Ehrharta calycina* and other exotic grasses.

Aerial Photo GG GW: 29S 5131

Soils: pale yellow sand, Re 1, Re7(King and Wells, 1990)(Churchward and McArthur, 1980)

Drainage: Good

PEARCE DX

Location 103- Bushland between Ashton Rd and Chittering Rd, Bullsbrook. Location Map 3&4. Vegetation Map Area 11b, p89.

Veg: mw W/OF, j W

Cond: Very Good with severe localised

disturbance

GENERAL COMMENTS

This Location of approx 12 ha is predominantly Wandoo and Marri Woodland to Open Forest with a small section of Jarrah Woodland in the in the southern corner. At times there are small areas of pure Wandoo and pure Marri but the understorey is similar in both areas. The condition of the Location is variable. Much of the Wandoo and Marri Woodland is in Very Good Condition but there are areas of severe localised disturbance associated with the old gravel mine, the water tanks and the numerous tracks. The Jarrah Woodland is in Poor Condition probably associated with a communication installation located here.

Site

m OF Marri Open Forest over *Gastrolobium spinosum*, *Hakea trifurcata* and *Xanthorrhoea preissii* High Shrubland over *Phyllanthus calycinus* Low Open Heath

Trees: *Eucalyptus calophylla*
Adjacent: 4#*Eucalyptus wandoo*
Shrubs: 4#*Gastrolobium spinosum*, 4#*Hakea trifurcata*, *Xanthorrhoea preissii*, *Phyllanthus calycinus*, 4#*Hakea lissocarpha*, *Acacia pulchella*, 4#*Calothamnus sanguineus*, 4#*Hibbertia commutata*, *Dillwynia aff cinerascens*
Adjacent: *Hypocalymma angustifolium*, 4#*Isopogon dubius*, 4#*Isopogon asper*, *Dryandra nivea*
Grasses: 4#*Neurachne alopecuroidea*
Herbs: *Stylidium piliferum*, **Gladiolus caryophyllaceus*
Adjacent: 4#*Stypandra glauca*, 3,4#*Gonocarpus pithyoides*, *Kennedia coccinea*, *Scaevola phlebopetala*
Sedges: *Loxocarya cinerea*

CONDITION

Rating Very Good to Good

Comments:

Aerial Photo: Run 29S 5131

Soil: Re 3(King and Wells, 1990)

Drainage: well

Aspect: gentle to steep, NW

Adjacent to Site

j W Jarrah Woodland over *Dryandra sessilis* Open Scrub

Condition

Rating: Poor to Very Poor

Comments: Disturbance associated with the communication installation and roadworks, probably cleared, as indicated by the *Dryandra sessilis* density and the presence of various weeds such as **Ehrharta calycina*, **Watsonia* sp and **Cytisus proliferus*.

Aerial Photo GG GW: 29S 5131

Soils: red brown sand, Re 1(King and Wells, 1990)

Drainage: Good

There is no Location 104 .

~~PEACE 06~~

Location 105- Burley Park. Location Map 3&4. Vegetation Map Area 11a, p88.

Veg: pw W, w W, SH, mj LW/LF, rm W Cond: Very Good to Poor

GENERAL COMMENTS

This Location of 43 ha is a local government reserve generally in Very Good to Good Condition. The eastern side is a steeply sloped and clothed in Powderbark Wandoo, Marri and Jarrah Open Forest, the Powderbark Wandoo being replaced by Wandoo towards the base of the slope and Jarrah becoming more frequent towards the top of the slope. The western side of the Location is Marri and Jarrah Low Woodland to Low Open Forest and a small area of *Allocasuarina humilis* and *Calytrix angulata* Open Heath lies between the two associations.

Site 105a

Comments

The percentage of Jarrah increases markedly towards the top of the ridge to form a Jarrah Woodland over Low Open Heath and the Powderbark Wandoo is replaced by Wandoo on the lower slopes of the ridge.

pw W Powderbark Wandoo, Marri and Jarrah Open Forest to Woodland over *Hakea undulata* and *Hakea lasianthoides* Open Scrub over *Xanthorrhoea preissii* Open Shrubland over *Dryandra armata*, *Brachysema praemorsum*, *Astroloma microdonta* and *Daviesia cordata* Open Heath

Trees: *Eucalyptus accedens*, *Eucalyptus calophylla*, *Eucalyptus marginata*
Shrubs: 4#*Hakea undulata*, 4#*Hakea lasianthoides*, *Acacia pulchella*, *Xanthorrhoea preissii*, 4#*Dryandra armata*, 4#*Brachysema praemorsum*, *Astroloma microdonta*, 4#*Daviesia cordata*, 4#*Gompholobium polymorphum*, 4#*Boronia ovata*, *Hibbertia hypericoides*, 4#*Lasiopetalum floribundum*, 4#*Lambertia multiflora*
Adjacent: 4#*Hakea lissocarpha*, 4#*Gastrolobium spinosum*

Herbs: *Burchardia multiflora*, 2#*Stylidium amoenum* ?var *caulescens*, 4#*Conostylis setosa*, *Cassytha* sp
Sedges: *Lepidosperma* sp

CONDITION

Rating Very Good to Good

Comments: The density of *Hakea undulata*, *Hakea lasianthoides*, *Daviesia cordata* and *Gastrolobium spinosum* reaches >70% in patches indicating that the area has been burnt regularly (Site d), perhaps too regularly as many of the Powderbark Wandoo are low and multitrunked.

Aerial Photo: Run 29S 5131

Soil: pale brown clay over siltstone, Re 8(King and Wells, 1990)

Drainage: moderate to good

Aspect: steep, SE

Site 105b

Ht *Allocasuarina humilis* and *Calytrix angulata* Open Heath over *Hibbertia hypericoides*, *Hibbertia spicata* and *Dryandra nivea* Low Shrubland

Trees: Adjacent: *Eucalyptus calophylla*, *Nuytsia floribunda*
Shrubs: *Allocasuarina humilis*, *Calytrix angulata*, *Hibbertia hypericoides*, *Hibbertia spicata*, *Dryandra nivea*, *Acacia huegelii*, *Andersonia lehmanniana*, *Conostephium preissii*, *Conostephium pendulum*, *Astroloma macrocalyx*, *Bossiaea eriocarpa*, *Acacia pulchella*, *Daviesia trifurcata*, *Xanthorrhoea preissii*
Adjacent: *Persoonia saccata*, *Hakea ruscifolia*, *Petrophile linearis*
Grasses: *Stipa* sp, *Danthonia* sp, **Briza maxima*
Herbs: *Laxmannia squarrosa*, *Haemodorum laxum*, *Scaevola canescens*, *Conostylis aculeata*, *Stylidium diuroides*, *Cassytha* sp, **Ursinia anthemoides*, **Hypochaeris glabra*, *Anigozanthos humilis*, *Waitzia suaveolens*
Sedges: *Mesomelaena pseudostygia*, *Alexgeorgea nitens*, *Lyginia barbata*, *Lepidobolus preissianus*

CONDITION

Rating Very Good to Good

Comments: Young Marri trees in the area indicates that it may have been partially cleared.

Aerial Photo GG GW: Run 29S 5131

Soil: grey sand over pale yellow sand, Re1(King and Wells, 1990)

Drainage: good

Aspect: gentle, N

Site 105c

mj LW/LF Marri and Jarrah Low Woodland to Low Open Forest over *Lepidosperma erubescens* and *Gastrolobium spinosum* Open Shrubland with scattered patches *Hakea undulata* Open Heath

over *Xanthorrhoea preissii* and *Hibbertia hypericoides* Low
Shrubland

Trees: *Eucalyptus marginata*, *Eucalyptus calophylla*
Shrubs: *Lepidosperma erubescens*, 4#*Gastrolobium spinosum*, 4#*Hakea undulata*,
Xanthorrhoea preissii, *Hibbertia hypericoides*, 4#*Dryandra bipinnatifida*, 4#*Hakea*
lissocarpha, *Daviesia triflora*, 4#*Grevillea synaphaea*, *Bossiaea eriocarpa*, 4#*Styphelia*
tenuifolia, *Sphaerolobium macranthum*, 4#*Baeckea camphorosmae*, *Isopogon*, *Petrophile*
striata, *Acacia nervosa*, 4#*Gompholobium marginata*, *Acacia pulchella*
Herbs: *Conostylis setosa*, *Thysanotus*, *Ptilotus marginata*, *Lobelia tenuior*,
2#*Stylidium amoenum* ?var *caulescens*, 3,4#*Gonocarpus pithyoides*, *Lomandra sericea*
Sedges: *Tetraria octandra*, *Loxocarya fasciculata*, *Lepidosperma* sp

CONDITION

Rating Very Good to Good

Comments:

Aerial Photo GG GW: Run 29S 5131

Soil: Re 1(King and Wells, 1990)

Drainage: Good

Aspect: gentle, SE

Site 105d

j W Jarrah and Powderbark Wandoo Woodland over *Hakea undulata* and
Acacia pulchella Closed to Open Low Heath over *Kennedia coccinea*
Closed Herbland

CONDITION

Rating Good

Comments: Adjacent to a gravel mine and immediately adjacent to a firebreak, recently burnt.

Aerial Photo GG GW: Run 29S 5131

Soil: Re8(King and Wells, 1990)

Drainage: good

Aspect: gentle, N

Site 105e

Adjacent Creekline

rm W Flooded Gum and Marri Woodland to Open Forest over exotics

CONDITION

Rating Very Poor to Completely Degraded

Comments: Outside the actual Location in a paddock.

Aerial Photo GG GW: Run 29S 5131

Soil: F5(King and Wells, 1990)

Drainage: moderate

Aspect: NA

PEARCE 02

Location 106- SE corner of Great Northern Hwy and Sounness Rd. Location Map 3&4.

Vegetation Map Area 11c, p90.

Veg: b LW

Cond: Good

GENERAL COMMENTS

Apparently similar to the Banksia Woodland in Location 108. Weed infestations around the margins, predominantly **Ehrharta calycina*.

Aerial Photo GG GW: 28 5141

Soils: grey sand, Re 7(King and Wells, 1990)

Drainage: Good

LEAKE 02

Location 107- Bullsbrook Recreation Reserve, S Sounness Rd, eastern boundary tip. Location Map 3&4. Vegetation Map Area 11c, p90.

Veg: m OW

Cond: Very Good

GENERAL COMMENTS

This Location is Very Good Condition and contains a Marri Open Woodland and a creekline.

Site 107a

m OW

Marri Open Woodland over *Daviesia physodes*, *Allocasuarina humilis*, *Conospermum stoechadis* and *Acacia pulchella* Open Shrubland over *Stirlingia latifolia*, *Hibbertia hypericoides* and *Gompholobium aristatum* Low Open Heath

Trees: *Eucalyptus calophylla*, *Banksia menziesii*, *Banksia grandis*, *Nuytsia floribunda*, *Banksia attenuata*

Shrubs: 3#*Daviesia physodes*, *Allocasuarina humilis*, *Conospermum stoechadis*, *Acacia pulchella*, *Stirlingia latifolia*, *Hibbertia hypericoides*, 4#*Gompholobium aristatum*, *Jacksonia sternbergiana*, 4#*Calothamnus sanguineus*, *Acacia huegelii*, *Eriostemon spicatus*, *Daviesia triflora*, *Calytrix flavescens*, *Petrophile linearis*, *Acacia wildenowiana*

Grasses: *Stipa* sp, *Amphipogon turbinatus*, **Briza maxima*

Adjacent: **Ehrharta calycina*

Herbs: *Patersonia occidentalis*, *Dasyogon bromeliifolius*, *Anigozanthos manglesii*, *Conostylis setigera*, **Gladiolus caryophyllaceus*

Adjacent: *Lechenaultia biloba*

Sedges: 4#*Mesomelaena tetragona*, *Mesomelaena pseudostygia*, *Tetraria octandra*, 5#*Caustis dioica*, *Tetraria octandra*, *Lyginia barbata*, *Alexgeorgea nitens*, *Lepidosperma* sp

CONDITION

Rating Very Good

Comments:

Aerial Photo GG GW: Run 28 5141

Soil: cream sand over yellow sand, Re 1(King and Wells, 1990)

Drainage: good

Aspect: very gentle slope, W

Site 107b

m OW

Marri Open Woodland over *Hakea trifurcata*, *Allocasuarina humilis* and *Xanthorrhoea preissii* Shrubland over *Hibbertia hypericoides* and *Gompholobium aristatum* Low Shrubland over *Mesomelaena tetragona* Open Sedgeland

Trees: *Eucalyptus calophylla*, *Acacia saligna*

Shrubs: 4#*Hakea trifurcata*, *Allocasuarina humilis*, *Xanthorrhoea preissii*, *Hibbertia hypericoides*, 4#*Gompholobium aristatum*, 4#*Isopogon asper*, 4#*Isopogon dubius*, 4#*Pimelea imbricata*, *Daviesia preissii*, 3,4#*Synaphaea acutiloba*, 3#*Daviesia physodes*, 4#*Baeckea camphorosmae*, *Verticordia densiflora*, *Dryandra nivea*

Grasses: *Stipa* sp, *Neurachne alopecuroidea*, *Briza maxima*

Herbs: *Scaevola phlebopetala*, *Opercularia vaginata*, *Tricoryne elatior*, *Borya scirpoidea*, **Ursinia anthemoides*

Sedges: 4#*Mesomelaena tetragona*, *Tetraria octandra*, *Lepidosperma* sp, 5#*Caustis dioica*

CONDITION

Rating Very Good

Aerial Photo GG GW: Run 28 5141

Soil: brown sandy clay, Re 5(King and Wells, 1990)

Drainage: moderate, seasonally waterlogged
Aspect: gentle to steep towards creekbed, N

'Site' 107c

This association is not mapped as it forms in a narrow band along the creekline.

S Scattered *Acacia saligna*, *Xanthorrhoea preissii* and *Viminaria juncea* over *Leptocarpus coangustus* Closed Sedgeland

Trees: *Acacia saligna*
Shrubs: *Xanthorrhoea preissii*, *Viminaria juncea*
Grasses: **Eragrostis curvula*
Herbs: *Patersonia ? aff umbrosa*
Adjacent: 3,6#*Stylidium utricularioides*, *Brachycome pusilla*
Sedges: *Leptocarpus coangustus*

CONDITION

Rating Very Good

Comments:

Aerial Photo GG GW: Run 28 5141

Soil: Re 5(King and Wells, 1990)

Drainage: poor

Aspect: NA

PEARCE 2

Location 108- Wetland to the south of Location 106. Location Map 3&4. Vegetation Map Area 11c, p90.

Veg: WM (S, H, me Sh, s Sh)

Cond: Very Poor

GENERAL COMMENTS

This Location has been grossly disturbed as a result of mining for gravel. The vegetation is regenerating but the drainage and soils have been grossly affected by the soil removal. The vegetation associations are not described in detail but the species observed in the area are listed below and the expected associations listed above. To the south of this Location are lands with similar vegetation associations apparently often in Good Condition but these are areas of restricted access being part of the Pearce Airforce Base Lands

Shrubs: *Jacksonia sternbergiana*, *Melaleuca raphiophylla*, *Melaleuca viminea*, *Hypocalymma angustifolium*, *Pericalymma ellipticum*, *Hibbertia stellaris* 'yellow', *Verticordia densiflora*

Herbs: *Drosera gigantea*, *Drosera leucoblata*, 4#*Stylidium dichotomum*, *Goodenia filiformis*, *Stylidium brunonianum*

Sedges: *Leptocarpus canus*, *Lyginia barbata*, *Hypolaena exsulca*, 4#*Mesomelaena tetragona*

CONDITION

Rating Very Poor

Comments: see General Comments

Aerial Photo GG GW: 28 5141

Soils: brown clay, Ya1(King and Wells, 1990)

Drainage: poor

Aspect: flat

M14

Location 109- System 6 Reserve M14, Reserve C1654, approx 4km N Bullisbrook on the Great Northern Hwy. Location Map 3. Vegetation Map Area 11d, p91.

Veg: WM (H, S, me Sh, ac me Ht), b LW, jm W

Cond: Very Good

GENERAL COMMENTS

The substantial area bushland, approx. 117 ha. at Location 109 contains a variety of vegetation

associations from the Jarrah and Marri Woodland and Banksia Woodland on the sandier rises to the east to the extensive ephemeral wetlands to the west. Most of the reserve is in Very Good Condition but there is some disturbance associated with rubbish dumping, fire, partial clearing in the north eastern corner and weed invasion along the road, dump and private property margins. The road verge between Great Northern Hwy and the private land is in Very Good Condition to Good Condition and contains wetlands similar to those in the reserve.

There are further local government lands to the south, through to Location 107 (FIG)and this whole area except for the Golf Course and the Completely Degraded sections of the land south of Souness Rd could be incorporated in the reserve. This area would then include the extensive area of Banksia Woodland predominantly in Very Good Condition immediately south of Location 109 and Location 107 and adjacent areas of bushland.

Site 109a

jm W Jarrah and Marri Woodland over *Xanthorrhoea preissii* Shrubland over *Hibbertia hypericoides* and *Daviesia nudiflora* Low Open Heath over *Mesomelaena tetragona* and *Mesomelaena pseudostygia* Open Sedgeland.

Trees: *Eucalyptus calophylla*, *Eucalyptus marginata*
 Shrubs: *Xanthorrhoea preissii*, *Hibbertia hypericoides*, *Daviesia nudiflora*, *Eriostemon spicatus*, *Acacia pulchella*, 4#*Grevillea pilulifera*, *Leucopogon australis*, 3#*Daviesia physodes*, *Nemcia capitatum*, 4#*Gompholobium preissii*, 4#*Hibbertia commutata*
 Grasses: *Poa drummondiana*
 Herbs: *Drosera erythrorhiza*, *Thysanotus patersonii*, 4#*Patersonia juncea*, *Lagenifera huegellii*, 4#*Ptilotus manglesii*, *Scaevola canescens*, *Haemodorum laxum*, *Conostylis aculeata*, *Conostylis setigera*, **Gladiolus caryophyllaceus*
 Sedges: *Mesomelaena pseudostygia*, 4#*Mesomelaena tetragona*

CONDITION

Rating Very Good

Comments:

Aerial Photo GG GW: 28 5141

Soils: brown sand over yellow sand, Re 2(King and Wells, 1990)

Drainage: good

Aspect: gentle, W

Site 109b

b LW Scattered *Eucalyptus todtiana* over *Banksia attenuata* and *Banksia menziesii* Open Forest over *Stirlingia latifolia* and *Allocasuarina humilis* Shrubland over *Eremaea pauciflora* , *Hibbertia hypericoides* and *Synaphaea spinulosa* Low Shrubland

COMMENTS

Beside the road there is an understorey layer of *Adenanthos cygnorum* Open Scrub in response to disturbance. Towards the wetlands *Banksia illicifolia* becomes common.

Trees: *Eucalyptus todtiana*, *Banksia attenuata*, *Banksia menziesii*
 Shrubs: *Stirlingia latifolia*, *Allocasuarina humilis*, *Eremaea pauciflora* , *Hibbertia hypericoides*, *Synaphaea spinulosa*, *Hovea trisperma* 'large', *Hibbertia acerosa*, *Eriostemon spicatus*, *Daviesia nudiflora*, *Leucopogon conostephioides*, *Bossiaea eriocarpa*, *Petrophile linearis*, *Hibbertia aurea*, *Calytrix strigosa*, *Hemiandra pungens*
 Grasses: *Danthonia* sp, *Amphipogon turbinatus*, *Stipa compressa*
 Herbs: *Patersonia occidentalis*, *Johnsonia pubescens*, *Drosera erythrorhiza*, *Drosera macrantha*, *Dasyopogon bromeliifolius*, *Conostylis juncea*, *Conostylis setigera*, *Phlebocarya ciliata*, *Phlebocarya filifolia*, *Burchardia umbellata*, *Anigozanthos humilis*
 Sedges: *Lyginia barbata*, *Schoenus curvifolius*, *Hypolaena exsulca*, *Alexgeorgea nitens*, *Mesomelaena pseudostygia*

CONDITION

Rating Very Good

Comments:

Aerial Photo GG GW: 28 5141

Soils: grey sand over white sand, Re 7(King and Wells, 1990)

Drainage: good

Aspect: gentle, W

Wetland Mosaic

Site 109c- Inundated shallow basin

Melaleuca raphiophylla, *Melaleuca viminea* and *Melaleuca uncinata* High Shrubland over *Astartea fascicularis* and *Hypocalymma angustifolium* Shrubland over *Restio stenostachyus* Sedgeland

Trees: Adjacent: *Melaleuca preissii*

Shrubs: *Melaleuca raphiophylla*, *Melaleuca viminea*, 4#*Melaleuca uncinata*, *Astartea fascicularis*, *Hypocalymma angustifolium*

Adjacent : 4#*Melaleuca lateriflora*

Herbs: *Tribonanthes australis*, *Brachycome pusilla*, *Stylidium petiolare*, *Drosera gigantea*

Adjacent: +3,6#*Eryngium pinnatifidum* ssp.'palustris'

Sedges: +3,6#*Restio stenostachyus*

CONDITION

Rating Very Good

Comments: Adjacent to the road this vegetation association has been substantially disturbed and the herb and sedges are replaced with exotics.

Aerial Photo GG GW:

Soils: black humus rich sand, Ya 4 (King and Wells, 1990)

Drainage: poor, water to 2 cm

Aspect: flat

Site 109d - Sandy Rise

me/ac Ht *Melaleuca uncinata* and *Actinostrobus pyramidalis* Open Heath to Shrubland over *Eriostemon spicatus* Low Open Heath over *Restio stenostachyus* Sedgeland

Trees: Adjacent : *Eucalyptus rudis*, *Melaleuca preissii*, *Acacia saligna*

Shrubs: *Eriostemon spicatus*, *Hypocalymma angustifolium*, 4#*Kunzea recurva*, *Dryandra nivea*

Adjacent : 6#*Grevillea obtusifolia*, *Melaleuca scabra*

Herbs: *Drosera macrantha*, 4#*Stylidium dichotomum*, 4#*Scaevola lanceolata*, *Stylidium brunonianum*, *Burchardia umbellata*

Sedges: 3,6#*Restio stenostachyus*

CONDITION

Rating Very Good

Comments:

Aerial Photo GG GW:

Soils: grey sandy clay, Ya 2(King and Wells, 1990)

Drainage: poor

Aspect: NA

'Site' 109e- Sedgeland and Herblands

S, H Open Sedgeland to Sedgeland and Herbland

Herbs: *Samolus juncea*, *Thelymitra antennifera*, *Tribonanthes australis*, *Brachycome pusilla*, 4#*Philydrella pygmaea*, *Anigozanthos viridis*, 3,6#*Eryngium pinnatifidum* ssp 'paluastis', 6#*Burchardia bairdii*

Sedges: *Leptocarpus canus*, *Leptocarpus coangustus*, 3,6#*Restio stenostachyus*,
Baumea acuta, *Triglochin muellerii*, *Triglochin calcitrapa*, *Aphelia cyperoides*, *Centrolepis*
aristata, *Hypolaena exsulca*

CONDITION

Rating Good to Very Good

Comments: Many annual grasses and herbs associated with these areas, the cover is not large but potential exists. **Ursinia anthemoides*, **Hypochaeris glabra* , **Briza maxima*, **Briza minor*, **Sonchus oleraceus* and **Anagalis arvensis*

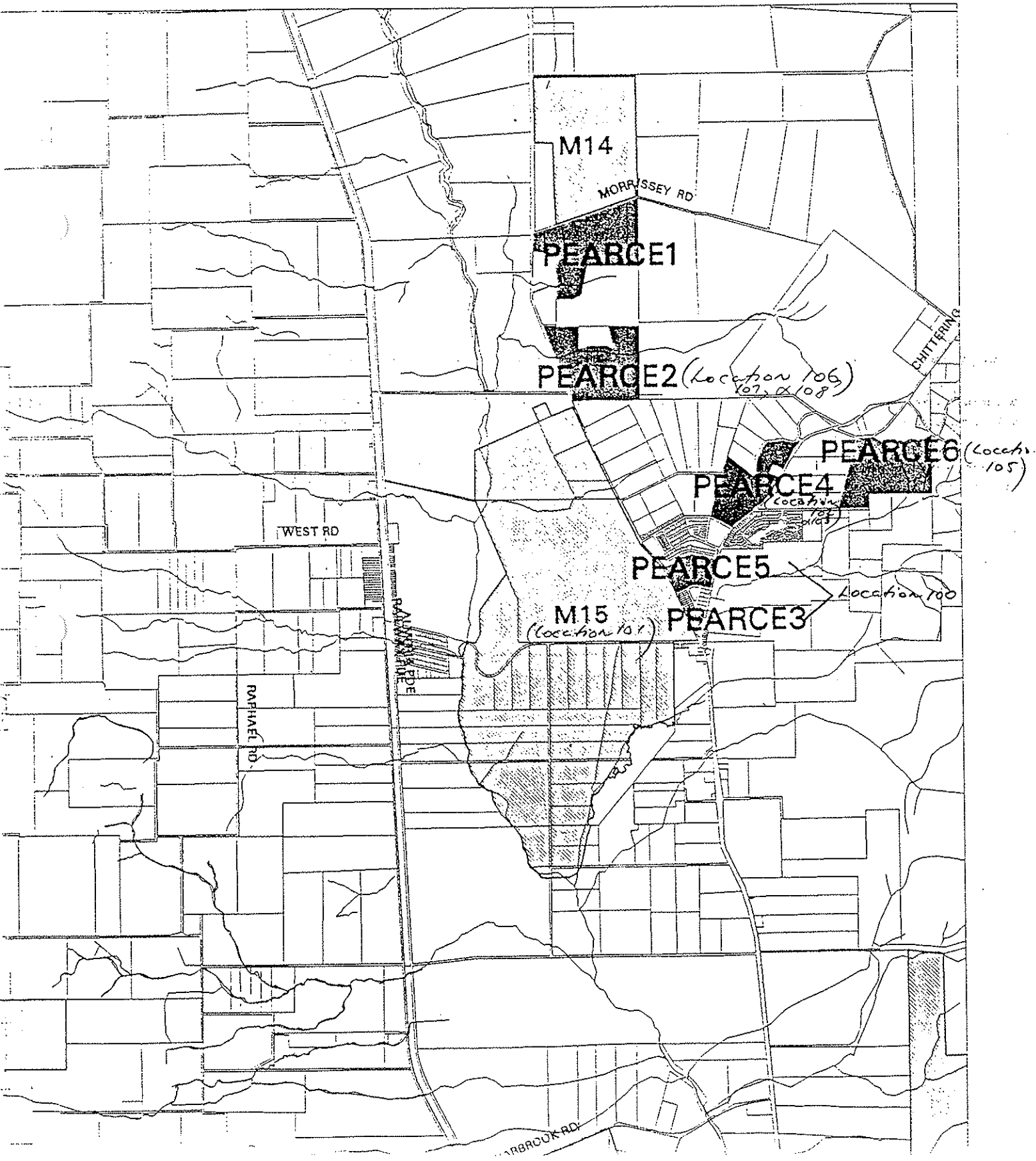
Aerial Photo: Run

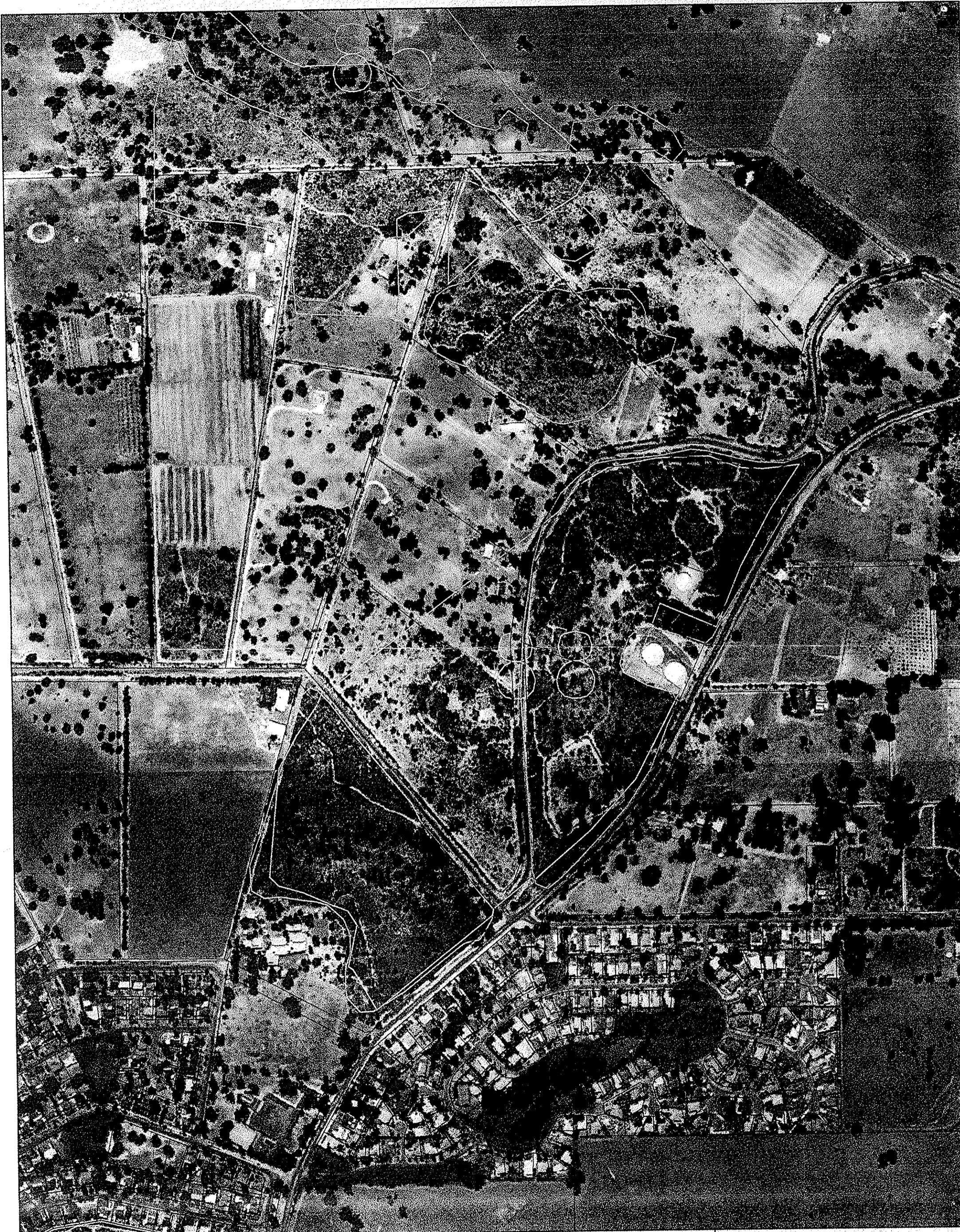
Soil: Ya 2 (King and Wells, 1990)

Drainage: poor, water to 5cm

Aspect: flat

MAP 1: Pearce Interim Protected Areas

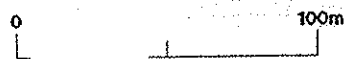




LEGEND



SCALE 1:5000



BP SITE 4188

AERIAL PHOTOGRAPHY - ORTHO-RECTIFIED

ORIGINAL PHOTOGRAPHY - JANUARY 1997 SCALE 1:2000

POSITIONAL ACCURACY + or - 10 metres



PLANNING
Ministry for Planning



DEPARTMENT OF
ENVIRONMENT AND
HERITAGE

BUSH SITE 88: ASHTON ROAD BUSHLAND, BULLSBROOK
PEARCE 4 'Interim Protection Area'
- School Reserve

4/7/95



BUSH SITE 88: ASHTON ROAD BUSHLAND, BULLSBROOK
PEARCE 4 'Interim Protection Area'
- School Reserve

4/7/95



Pearce 4 I.P.A

5-7-95





Pearce 4 I.P.A
5-7-95





clearing at Pearce 4 Interim
Protection Area 23-8-95





Pearce 4 I.P.A.

23-8-95

