

WANDI NATURE RESERVE AND ANKETELL ROAD BUSHLAND, WANDI/OAKFORD

Boundary Definition: protected area/bushland/conservation wetland boundary

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 347

Area (ha): bushland 412.3 (Site also includes open water.)

Map no. 65, 66

Map sheet series ref. no. 2033-I SE, 2033-I SW

Other Names: Magenup Swamp, Part Submission Area 13, part of Jandakot Regional Park

Local Authorities (Suburb): Town of Kwinana (Wandi, Oakford), Shire of Serpentine-Jarrahdale (Oakford)

Includes CALM Managed Land: Reserve 36110 (Conservation of Flora and Fauna and Water)

System 6 (1983): M97 area of bushland goes beyond System area boundaries, all bushland described

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Pinjarra Plain

Guildford Formation (Qpa: Sc)

Bassendean Dunes

Bassendean Sands (Qpb: S8)

Bassendean Dunes/Pinjarra Plain

Bassendean Sands over Guildford Formation (Qpb/Qpa: S10)

Wetlands (within the Bassendean Dunes/Pinjarra Plain)

Holocene Swamp Deposits (Qrw: Sp1, Sp2)

VEGETATION AND FLORA

Vegetation Complexes

Bassendean Dunes

Bassendean Complex — Central and South

Floristic Community Types: *not sampled, types inferred

Supergroup 2: Seasonal Wetlands

*4 *Melaleuca preissiana* damplands

*5 Mixed shrub damplands

*12 *Melaleuca teretifolia* and/or *Astartea* aff. *fascicularis* shrublands

Supergroup 3: Uplands centred on Bassendean Dunes and Dandaragan Plateau

*22 *Banksia ilicifolia* woodlands

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

WETLANDS

Wetland Types: sumpland, dampland, artificial channel

Natural Wetland Groups

Bassendean Dunes

Jandakot (B.3)

Wetland Management Objectives: Conservation (42.4ha), Resource Enhancement, Multiple Use

Swan Coastal Plain Lakes EPP: 12.4ha + 0.7ha + 3.7ha + 2.2ha = 19ha (total)

THREATENED ECOLOGICAL COMMUNITIES

Not assessed

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: open water, vegetated wetland, vegetated uplands

Vegetation and Flora: limited survey (DEP 1999, Gibson *et al.* 1994 (Wand 01), Trudgen 1990); detailed survey (part Site — Keighery, GJ, 1992c, Keighery, GJ, and Keighery 1993b (Wandi NR), Weston 1989b (Lots 106 & 107))

Structural Units: mapping (Trudgen 1990, Weston 1989b (Lots 106 & 107))

Uplands: *Banksia attenuata*, *B. menziesii*, *B. ilicifolia*, *Allocasuarina fraseriana* and *Eucalyptus tottiana* Low Woodland; *Banksia attenuata*, *B. menziesii* and *B. ilicifolia* Low Woodland

Wetlands: *Melaleuca preissiana* Woodland; *Melaleuca raphiophylla* Forest; *Pericalymma ellipticum* Closed Heath; *Astartea* aff. *fascicularis* Closed Heath; Sedgeland of *Dielsia stenostachya* and *Lepidosperma longitudinale*

Scattered Native Plants: scattered trees and clumps of *Eucalyptus calophylla* and *Melaleuca preissiana*

Vegetation Condition: >75% Excellent to Very Good, <25% Very Good to Degraded (mapping Trudgen 1990)

Total Flora: 158 native taxa (part Site — Keighery, GJ, and Keighery 1993b (Wandi Nature Reserve)) (estimated >90% expected flora for *Banksia* Woodland)

Significant Flora: Keighery, GJ, and Keighery 1993b — *Eucalyptus todtiana* (southernmost in a reserve), *Brachyloma preissii*; Weston 1989b — *Dielsia stenostachya*, *Cyrtostylis* sp. (an uncommon genus in Bassendean Sands)

Fauna: limited survey for birds (AHC 2000 D). Significant bird species: Scarlet Robin, Grey Shrike-thrush, Western Thornbill, Splendid Fairy Wren and Grey Currawong (AHC 2000 D); Significant mammal species: Quenda (Friend 1996 D)

Linkage: adjacent bushland to the north, south and west; part of Greenway 97 (Tingay, Alan & Associates 1998a); part of a regionally significant fragmented bushland/wetland linkage (Part A, Map 7)

Other Special Attributes: majority of Site included in Jandakot Botanic Park Proposal (MfP 1995)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Entered in the Register of the National Estate (Wandi Nature Reserve)

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Rarity, Scientific or evolutionary importance, General criteria for the protection of wetland, streamline and estuarine fringing vegetation and coastal vegetation

Recommendation: Part A: Site with Some Existing Protection; the care, control and management of this portion of Site for conservation purposes within Jandakot Regional Park is endorsed. Part B: Rural Complementary Mechanism (see Table 3, Volume 1).

WANDI NATURE RESERVE AND ANKETELL ROAD BUSHLAND, WANDI/OAKFORD

Boundary Definition: protected area/bushland/conservation wetland boundary

SECTION 1: CADASTRAL INFORMATION

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

Bushplan Site no. 347 **Map no.** 81, 82 **Map sheet series ref. no.** 2033-I SE, 2033-I SW
System 6 (1983): M97 area of bushland goes beyond System area boundaries, all bushland described

Other Names

Magenup Swamp, Part Submission Area 13

Local Authorities (Suburb)

Town of Kwinana (Wandi, Oakford), Shire of Serpentine-Jarrahdale (Oakford)

Ownership Categories

Private (including commercial organisation), State Government, Local Government, Not identified

Area (ha): total 558.1 (includes open water); bushland 412.3

Zoning

MRS: Parks and Recreation, Rural-Water Protection

TPS: Special Rural, Rural, Landscape

Lot/Location/Reserve numbers (Purpose),

Street name

1, 5, 30, 31, 102, 154, 202 Anketell Rd; 106 Nicholson Rd; 116, 1333 De Haer Rd; 107 Thomas Rd; 48, 1354

Leslie Rd; 8, 700 street not identified

Crown Reserve

Reserve 36110 (Conservation of Flora and Fauna and Water)

CALM Managed Land

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Natural Wetland Groups

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Jandakot (B.3)

Wetland Management Objectives: Conservation (37.7ha), Resource Enhancement, Multiple Use

Swan Coastal Plain Lakes EPP: 12.4ha + 0.7ha + 3.7ha + 2.2ha = 19ha (total)

THREATENED ECOLOGICAL COMMUNITIES

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Landscape Features: open water, vegetated wetland, vegetated uplands

Vegetation and Flora: detailed survey (part Bushplan Site — Keighery, GJ, 1992c, Keighery, GJ, and Keighery 1993b (Wandi NR), Weston 1989b (Lots 106 & 107)); limited survey (Gibson *et al.* 1994 (Wand 01), Trudgen 1990)

Structural Units: mapping (Trudgen 1990, Weston 1989b (Lots 106 & 107))

Uplands: *Banksia attenuata*, *B. menziesii*, *B. ilicifolia*, *Allocasuarina fraseriana* and *Eucalyptus todtiana* Low Woodland; *Banksia attenuata*, *B. menziesii* and *B. ilicifolia* Low Woodland

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Significant Flora: Keighery, GJ, and Keighery 1993b — *Eucalyptus todtiana* (southernmost in a reserve), *Brachyloma preissii*; Weston 1989b — *Restio stenostachyus*, *Cyrtostylis* sp. (an uncommon species in Bassendean Sands)

Fauna: no systematic survey. Significant mammal species: Quenda (Friend 1996 D)

Linkage: adjacent bushland to the north, south, east and west; part of proposed Greenway 110 (Tingay, Alan & Associates 1997a); part of a regionally significant fragmented bushland/wetland linkage (Volume 2A, Map 8)

Other Special Attributes: majority of Bushplan Site included in Jandakot Botanic Park Proposal (MFP 1995)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Listed on the Register of the National Estate (Wandi Nature Reserve)

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Rarity, Scientific or evolutionary importance, General criteria for the protection of wetland, streamline and estuarine fringing and coastal vegetation

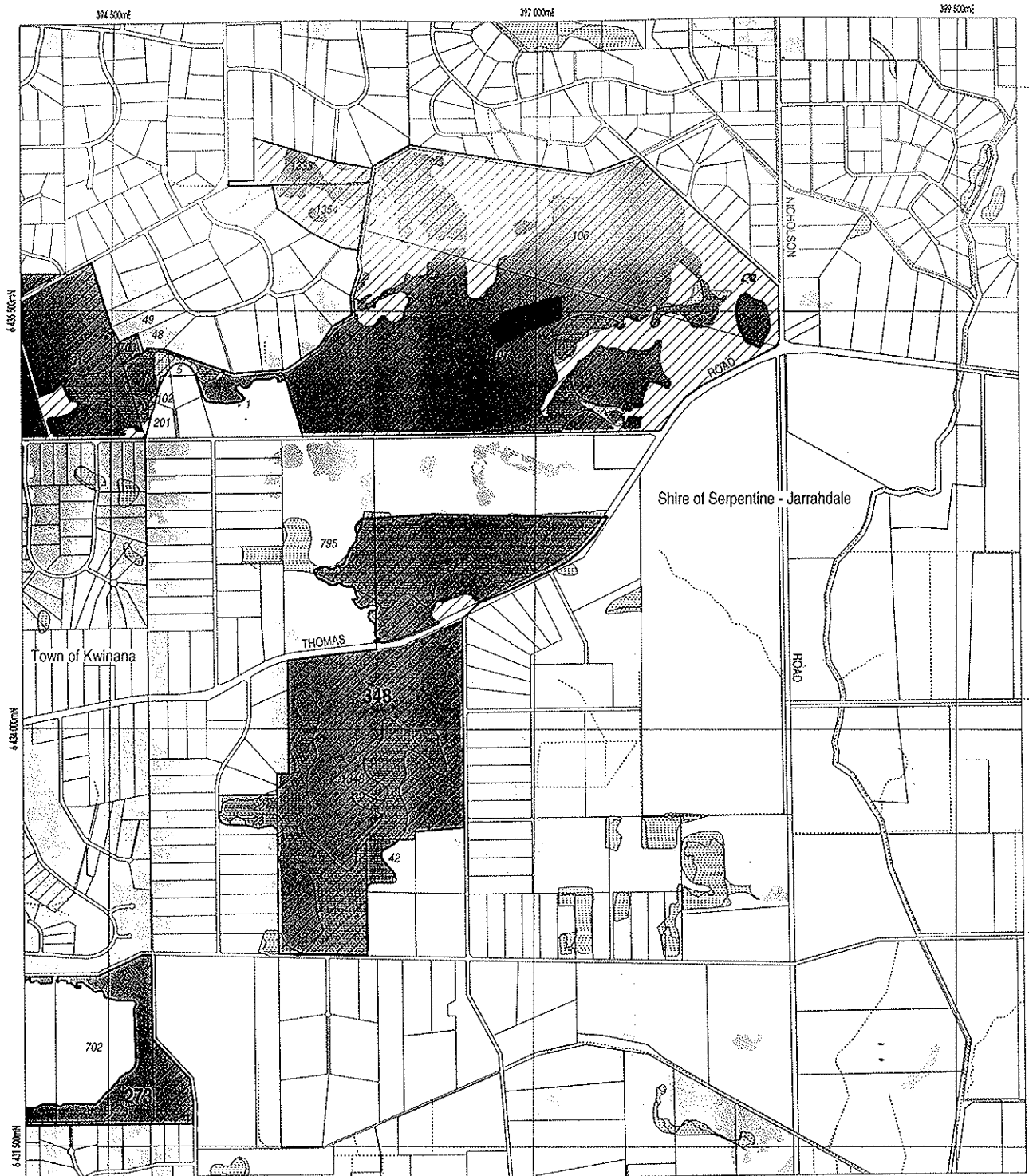
Opportunities and/or Constraints

Opportunities: Bushplan Site/part Bushplan Site subject to Swan Coastal Plain Lakes EPP, Peel-Harvey Estuary EPP/SPP; location of conservation category wetlands; under MRS Parks and Recreation Reservation and TPS Landscape Zoning, Crown Reserve


Constraints: private land; under General Mineral Resource Area (sand, clay)


Recommendation: The care, control and management of part of this Bushplan Site (Reserve 36110) for conservation purposes within Jandakot Regional Park is endorsed. 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).







LEGEND

 Bushplan Sites With Regionally Significant Bushland

 Other Native Vegetation

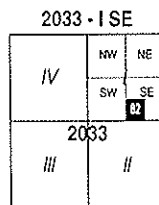
 Conservation Category Wetlands

 Bushplan Sites With Some Existing Protection

 Lot Number, Location Number

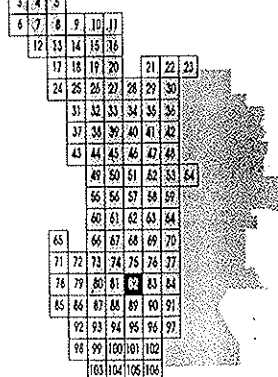
 Channel Wetlands

 Local Government Boundary

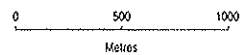


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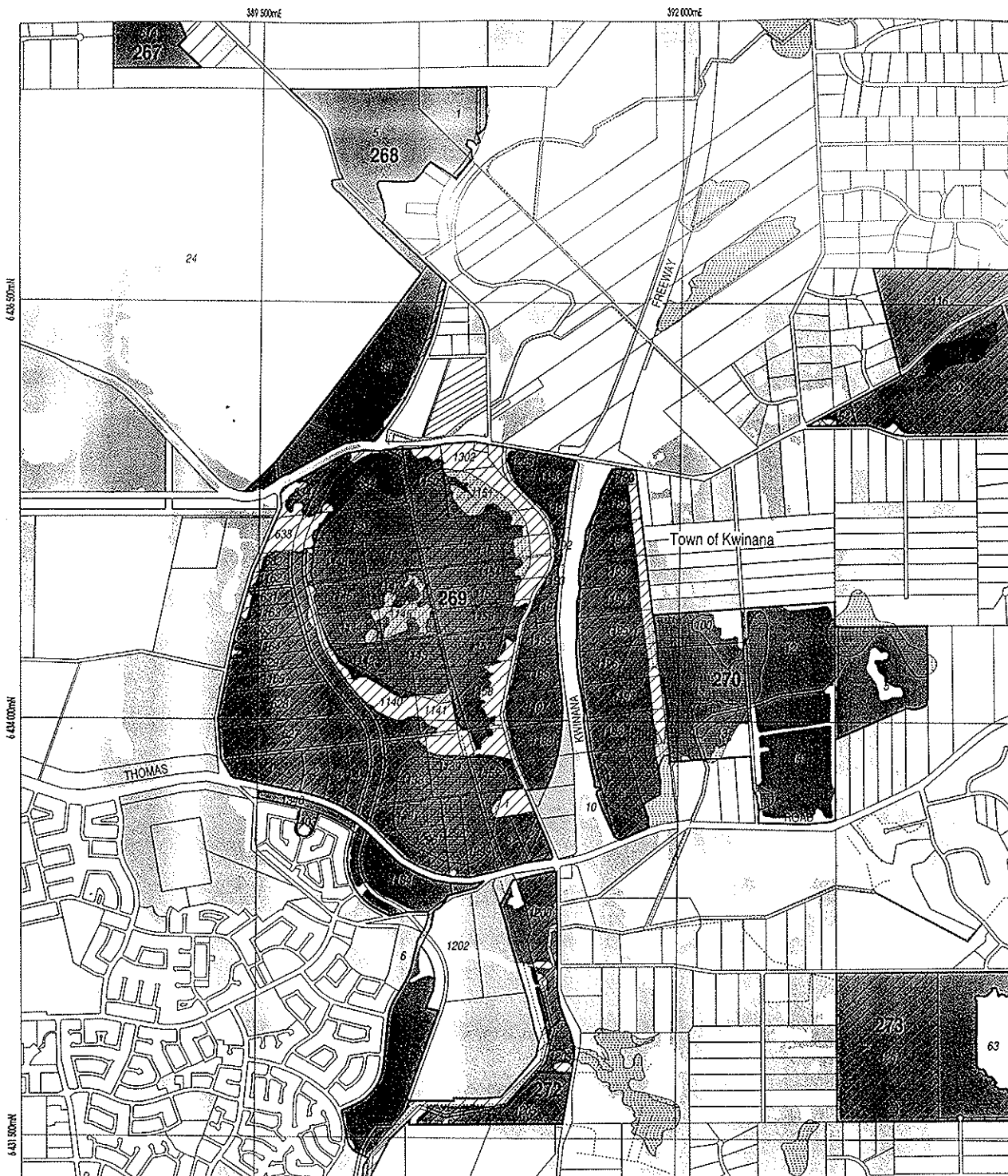
PERTH'S BUSHPLAN MAP INDEX










SCALE



Produced by Project Mapping Section
Land Information Branch, Ministry for
Planning, Perth W.A. November 1998
nlw-map9/environ/bushplan/bushv2_82.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

2033 - I SW

IV	NW	NE
	SW	SE

2033

III	II
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1 : 25 000 AMG Reference Grid
Showing Perth's Bushplan Map
Sheet Breakdown

PERTH'S BUSHPLAN MAP INDEX

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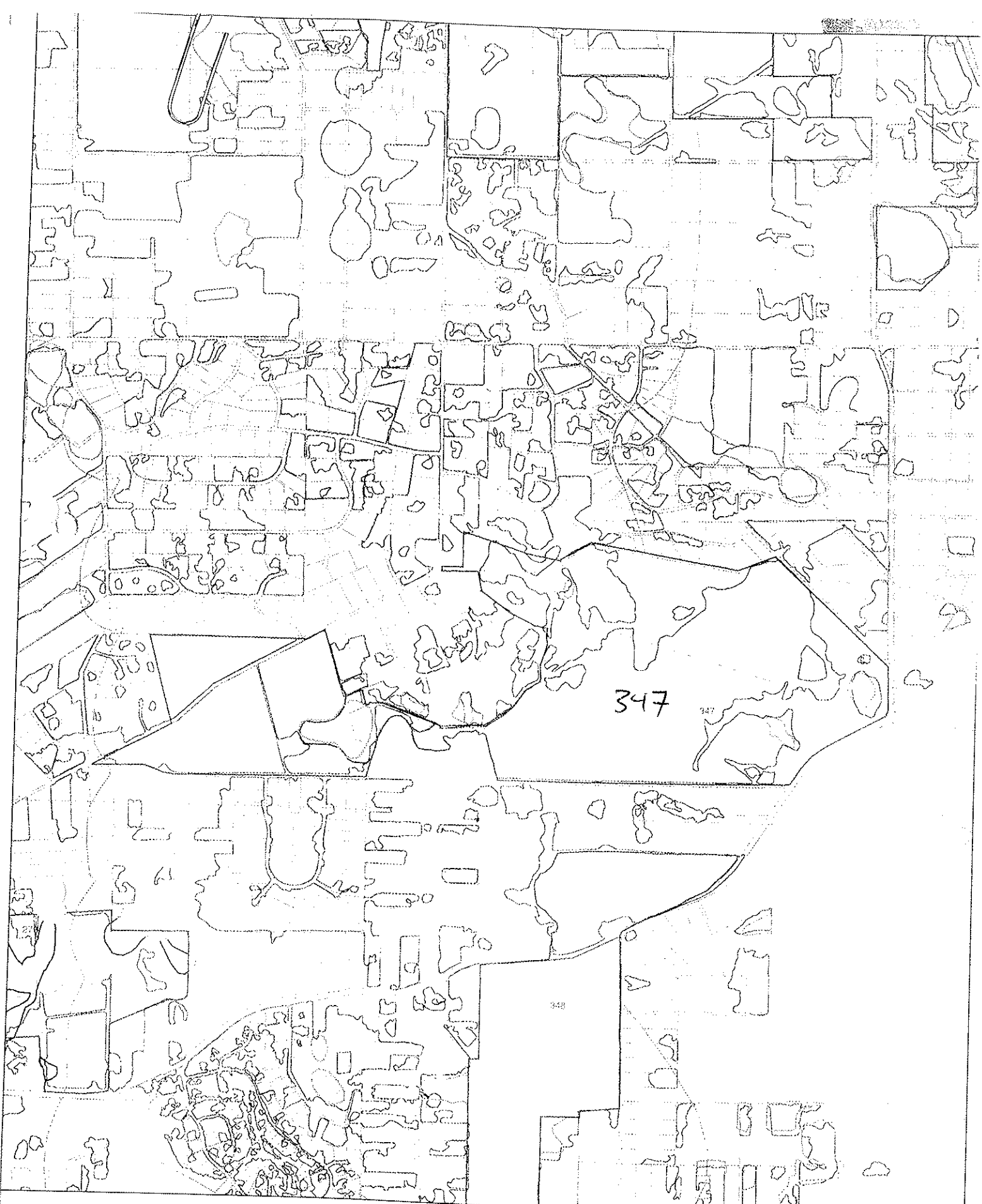
N

SCALE

0 500 1000

Metres

Produced by Project Mapping Section
Land Information Branch, Ministry for
Planning, Perth W.A. November 1998
ntw-map9\environ\bushplan\bushv2_81.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



BUSHPLAN SITES CORRECTED



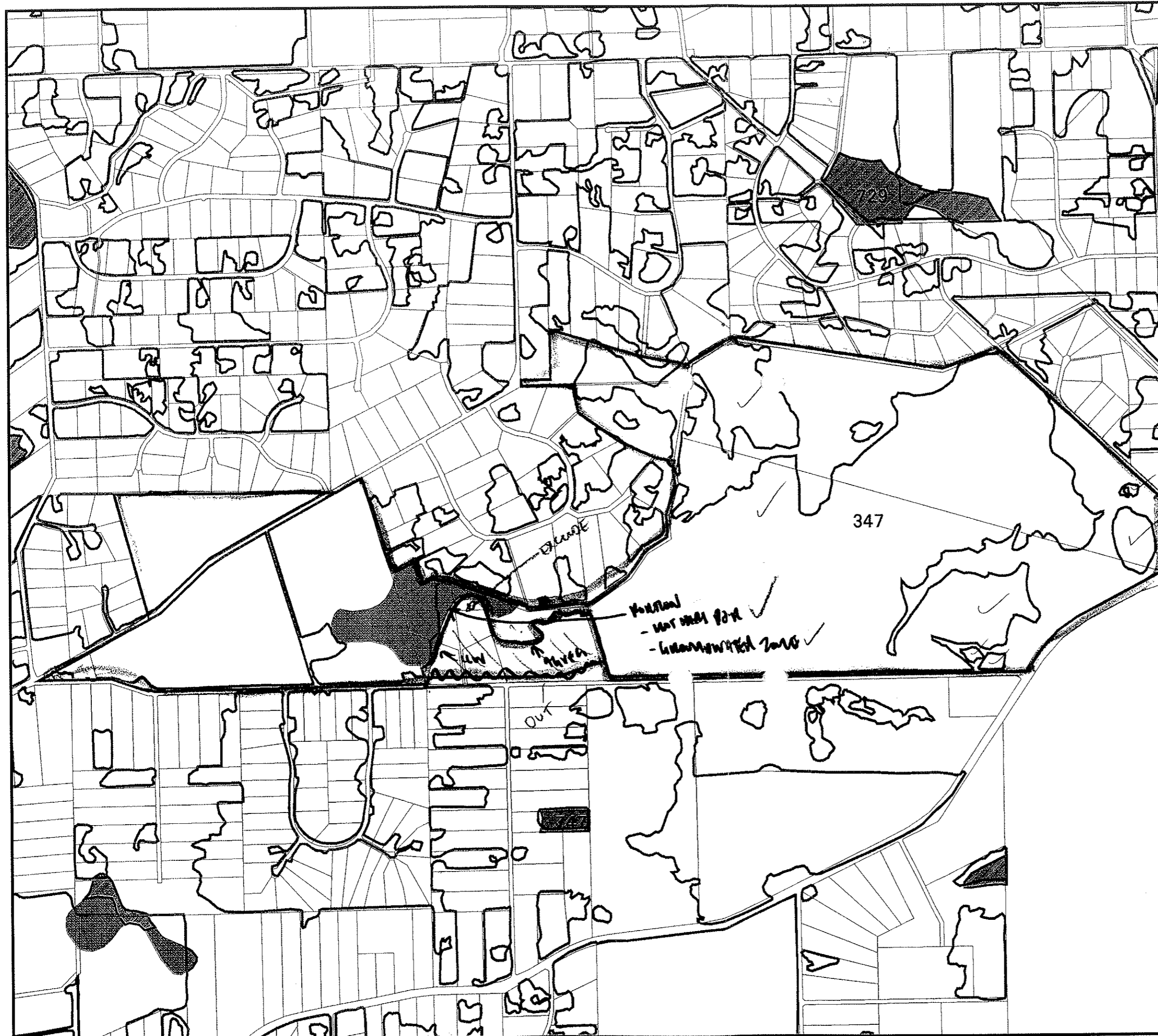
WESTERN
AUSTRALIAN
PLANNING
COMMISSION








CUSTOMER
FOCUS
WESTERN AUSTRALIA



B BCL 28/10/96

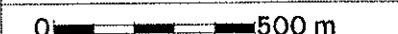


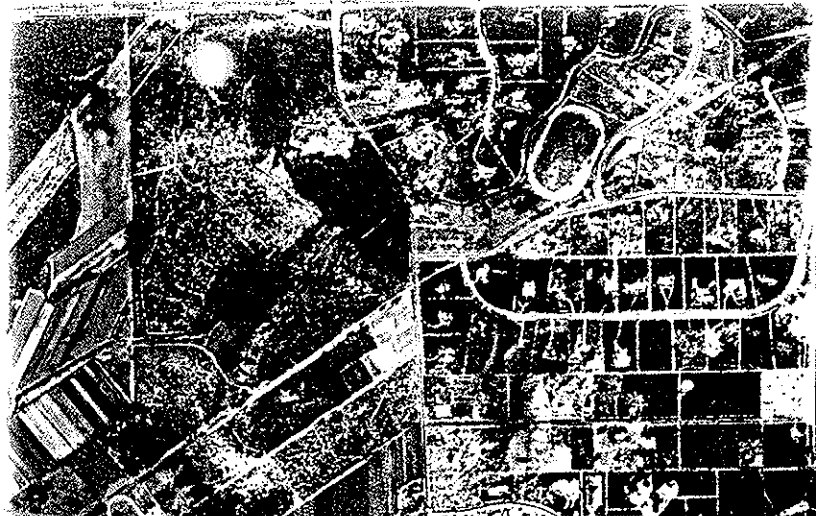
-  AG VEG 1998 BOUNDARY THEME
-  Cadastre
-  Bushplan sites refno 1-500 SCP BOUNDARY TH
-  cons category wetlands
-  Verified CCWs

Out
 X INCLUDE CCW / PoR
 X FOLLOW AGRI VEG
 BOUNDARY

*Partial
 - not used for
 - management zone*

*6/16 25/9
 Agree with
 above.*

Map Ident: plot980602_1
 Prepared By: Andrea Zappacosta
 Prepared For:
 Date: 02 Jun 98
 Scale 1:18771

 MFP INTERNAL USE ONLY



091

MPT RESERVE C36110, WANDI

total area - 30.59 ha
community type 23a
- 30.59 ha

02/06/2005 2035 51135 1991



AREA INFORMATION

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

Conservation Area
Nature Reserve
Reserve No
National Park
Reserve No
Local Government <i>M97 WANDI → Town of Kwinana</i>
Reserve No <i>23610</i>
Other
Proposed Conservation Areas
Local Government
Reserve No
Other

Conservation Area

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

TOTAL AREA

Bushland Area	<i>30.59</i>	hectares
Completely Degraded		

AREA MAPPED FLORISTIC UNITS

Units	Site (Condition)	Code <i>A - WANDI</i>	Bound	Area (ha)
<i>23a</i>	<i>Ø1 (2)</i>		<i>B.</i>	<i>30.59</i>

Boundaries determined by use of

aerial photograph	<i>Melba Street Directory run 10</i>	<i>5/1/91</i>
orthophoto	<i>2033 1 SW, SE</i>	<i>Aug 1991</i>
vegetation map		
soil map		

MRPA map 7

- to incorporating this area in the Shire's Conservation Zone Policy Area, through the Rural Strategy Review process. (Area 33.2 ha)
- xiii. Serpentine National Park & adjacent bushland Site 468 Vol 2 115-116 CALM managed land. Major need for weed control in National Park and adjacent state government lands.
- xiv. Kingsbury Drive Bushland Site 76 Vol 2 Pg 117 Council notes the importance of this vegetation and believes that protection and management of the site's vegetation is best achieved by working directly with the affected landowners. Consideration may be given to incorporating this area in the Shire's Conservation Zone Policy Area, through the Rural Strategy Review process. (Area 40.6 ha). One-to-one consultation with landowners is required.
- xv. Myara Brook Bushland Site 126 Vol 2 pg 118 -119, known locally as the Myara Brook Reserve; currently undergoing vesting change to be vested with Local Authority for the purposes of protection of Indigenous Flora and Fauna. Active management by local authority and community with support of federal and state government grants. Council supports retention of reserve, with assistance from State Government to fund management.
- xvi. Anketell Road Bushland Site 347, Vol 2 Pg 213-214; Shire supports inclusion of land within Jandakot Botanical Park, except for cleared areas which should be assessed for alternative or complementary uses. Council proposes to site the Oakford voluntary Fire Brigade and a small meeting place on a 4000 m2 lot on the Pony Way frontage. This site is surrounded by a clearing of over 20 ha. Usage of this small portion of the clearing for community uses is complementary to the protection of the remaining 558.1 ha.
- xvii. Modong Nature Reserve and adjacent bushland Site 348 Vol 2 pg 219 - Council notes the importance of this vegetation and the inclusion of private property.
- xviii. Duckpond Bushland Site 3 Vol 2 pg 222. Council notes the importance of this vegetation. Council believes that protection and management of the site's vegetation is best achieved by working directly with the affected landowners. Consideration may be given to incorporating this area in the Shire's Conservation Zone Policy Area, through the Rural Strategy Review process (area: 23.5 ha). One-to-one consultation with landowners is required.
- xix. Banksia Road Nature Reserve Site 353 Vol 2 pg 223-224. CALM estate.
- xx. Lowlands Bushland Site 368 & Site 372 Vol 2 pg 224-227. Council notes the inclusion of this site in Perth's Bushplan. These sites are two of three properties currently before the Ministry for Planning for rezoning to Conservation. It is important that the rezonings be finalized as a matter of priority, so that an example is set for the Perth Metropolitan Area.
- xxi. Henderson Road Bushland Site 378 Vol 2 pg 229-230. Council notes the importance of this vegetation. Assistance needs to be given to landowners to fence off vegetation from stock. Council believes that protection and management of the site's vegetation is best achieved by working directly with the affected landowners. Consideration may be given to incorporating this area in the Shire's Conservation Zone Policy Area, through the Rural Strategy Review process. One-to-one consultation with landowners is required.
- xxii. Yangedi Swamp and adjacent Bushland, Site 377, pg 230-231, Council notes the importance of this vegetation. Assistance needs to be given to landowners to fence off vegetation from stock. Consideration will be given to incorporating this area in the Shire's Conservation Zone Policy Area, through the Rural Strategy Review process. One-to-one consultation with landowners is required. The site also includes one property currently before the Ministry for Planning for rezoning to Conservation. It is important that the rezoning be finalized as a matter of priority, so that an example is set for the Perth Metropolitan Area and other landowners. One-to-one consultation with landowners is required.
- xxiii. Wungong Brook Site 266 Vol 2 pg 402-403 Council notes the importance of this vegetation. Protection of the vegetation should be achieved through its inclusion in the proposed public reserve.



M97 Reserve C36110, Wandii

Friends Advocate Management

Other Names:

Specific Study/studies Miscellaneous studies

Flora

Vegetation Map	1	2	3	<i>area descriptions</i>
Flora list	<u>1</u>	2	3	4
Significant Taxa		<u>done</u>	suitable / doubtful	

Fauna

Mammals	1	2	
Birds	1	2	RAOU
Reptiles and Amphibia	1	2	
Invertebrates	1	2	

Vegetation Condition Map Sites Comment

Disturbance Factors Comment Management

Swan Coastal Plain Floristic Survey

AHC: National Estate Listed Interim / Nominated Notified NT (WA): Heritage Classification
Not yet *adj.*

Notes

M97 Reserve C36110, Wandi

M97.1 Purpose of Reserve C36110 be amended to Conservation of Flora and Fauna, and Water and Reserve be vested in NPNC A for a limited period of 10 years and managed under a published management plan.

Implemented

The reserve was vested in the NPNC A for conservation of flora, fauna and water in 1985. The 10 year period referred to is no longer relevant under current Government policy on mining in national parks. CALM is required under its legislation to prepare a management plan for the area. DPUD proposes that the area be included in the Jandakot Botanic Park which was proposed as a regional park in Metroplan.

M97.2 Access to Reserve C36110 for exploration and evaluation of mineral potential be permitted under conditions to protect conservation value specified in vesting order.

Intent being met

Government policy on mining in national parks provides for this recommendation.

Please circle the appropriate response or respond in the space provided.

Area M 97 Name	<i>Wandi Nature Reserve</i>		
Title	<i>Floristics of the Wandii Nature Reserve, Town of Kwinana. PART VIII in Floristics of Reserves and Bushland Areas of the Perth Region</i>		
Published	<input checked="" type="checkbox"/> Unpublished	Date	<i>June 1993</i>
Author/s	<i>G.J. Keighery and B.J. Keighery</i>		
Location of Publication	<i>CALM (Woodvale), EPA</i>		
Purpose (why was the report prepared?)	<i>Flora Survey</i>		
Government	<i>CALM, Heritage Commission</i>		
Corporate			
Community Group	<i>Wildflower Society</i>		
Management Plan			

Soils	<i>site description</i>		
Units	mapped	<input checked="" type="checkbox"/> described	<input checked="" type="checkbox"/> referenced

Landscape			
Features	described	referenced	

Flora			
Vegetation Map			
Units	<i>Aplin (1979)</i>	Site based (no)	<i>10x10m (1)</i>
Mapped	<i>general descriptions, single unit</i>		
Veg Units	<input checked="" type="checkbox"/> <i>Comparable Heddle et al</i>	Compared Heddle et al.	Unit not mapped by Heddle et al.
Flora list			
Timing	% completion	<input checked="" type="checkbox"/> Significant Taxa	
<i>2yrs</i>	<input checked="" type="checkbox"/> Trees	<input checked="" type="checkbox"/> Shrubs	<input checked="" type="checkbox"/> Herbs
	<input checked="" type="checkbox"/> Sedges	<input checked="" type="checkbox"/> Weeds	DRF CALM Priority Other

Fauna			
Timing	% completion	Significant Taxa	
	Mammals	Birds	Sched1 Sched2 Other
	Reptiles	Invertebrates	

Vegetation Condition	<i>general statement for the area</i>		
Site based	Mapped	Units	<i>Trudgen</i>

Disturbance Factors			
Phytophthora	observed	<i>not observed</i>	Other <input checked="" type="checkbox"/> <i>Incidental</i>
	tested		itemised

Notes			

**Department of Environmental Protection System 6 Update: Site Based Flora
List M97 Reserve C36110, Wandri**
(extracted from the CALM Swan Coastal Plain database, Wand site 1, 2/95)

Anthericaceae

- Hensmania turbinata
- Laxmannia ramosa
- Laxmannia squarrosa
- Thysanotus multiflorus

Apiaceae

- Platysace compressa

Asteraceae

- Pithocarpa corymbulosa

Casuarinaceae

- Allocasuarina fraseriana

Colchicaceae

- Burchardia umbellata

Cyperaceae

- Lepidosperma angustatum
- Schoenus curvifolius

Dasypogonaceae

- Lomandra caespitosa
- Lomandra hermaphrodita
- Lomandra nigricans
- Lomandra preissii

Dilleniaceae

- Hibbertia hypericoides
- Hibbertia subvaginata

Droseraceae

- Drosera erythrorhiza
- Drosera menziesii subsp. penicillaris

Epacridaceae

- Brachyloma preissii
- Conostephium pendulum
- Leucopogon conostephioides
- Lysinema ciliatum

Goodeniaceae

- Dampiera linearis
- Lechenaultia floribunda

Haemodoraceae

- Conostylis aculeata
- Conostylis juncea
- Phlebocarya ciliata

Haloragaceae

- Gonocarpus pithyoides

CONTACT DR N. GIBSON CALM WOODVALE for further information.

Flora list for M97 (extracted from Swan Coastal Plain database, Wand site1, 2/1995).

Iridaceae

- * *Gladiolus caryophyllaceus*
- Patersonia occidentalis*

Mimosaceae

- Acacia stenoptera*

Myrtaceae

- Calytrix flavescens*
- Eucalyptus todtiana*
- Hypocalymma robustum*
- Kunzea ericifolia*
- Scholtzia involucrata*

Orchidaceae

- Caladenia discoidea*
- Prasophyllum plumaeforme*

Papilionaceae

- Bossiaea eriocarpa*
- Daviesia triflora*
- Gompholobium tomentosum*
- Hovea trisperma* var. *trisperma*
- Jacksonia furcellata*
- Jacksonia sternbergiana*

Poaceae

- Amphipogon turbinatus*
- * *Briza maxima*
- Danthonia occidentalis*
- Stipa semibarbata* group *scps*

Proteaceae

- Adenanthos cygnorum*
- Banksia attenuata*
- Banksia ilicifolia*
- Banksia menziesii*
- Petrophile linearis*
- Stirlingia latifolia*

Restionaceae

- Hypolaena exsulca*
- Loxocarya flexuosa*
- Lyginia barbata*

Stylidiaceae

- Stylidium repens*

Xanthorrhoeaceae

- Xanthorrhoea preissii*



WETLANDS CONSERVATION SOCIETY (INC)

c/- 14 Stone Court, Kardinya, WA 6163

6 atot

16 July 1995

The System Six Study Team
Department of Environmental Protection
141 St George's Terrace
Perth WA 6000

BS 347

Dear Sir,

System Six Review

The Wetlands Conservation Society wishes to make a submission to the System Six Review. This submission is in two parts. Firstly some comments on the general principles and secondly some specific nominations.

(1) General Principles

The original System Six Red Book, published in 1983, included 19 general recommendations. Many of these are now irrelevant or outdated. Recommendations 1 - 6 relate to the management of State Forests. These have been overtaken by events. It is now clear that the only effective way to conserve State Forest is to place it in national parks or nature reserves. There is an urgent need to set aside a comprehensive and representative system of forest reserves and this should be part of a new general recommendation.

Recommendations 7 - 12 have also been overtaken by events. Many of the areas recommended for protection as reserves have been destroyed (eg. Casuarina M98, Buckland Hill M55, Port Kennedy M106, etc.) Many others have not been established because of CALM's reluctance to take on new reserves without additional funding. Perhaps these reserves should be vested in other authorities (eg. local government, community groups, LCDCs, etc.) if CALM are unwilling to accept them. The Port Kennedy LCDC has done an outstanding job of managing that reserve, for example, at little cost to the WA Government.

Recommendations 13 and 14 are still relevant and they should be supplemented by a recommendation about how this process will be funded. A regional improvement fund like the MRIF should be established to facilitate the acquisition of land for parks and recreation in regional areas.

Recommendations 15 - 17 need very careful attention. Although the Ministry for Planning has done quite a good job of identifying and resuming land for Regional

Parks, CALM has failed to co-operate and so far we still do not have any legally established Regional Parks. The WCS believes that the Regional Park Concept is extremely important in the System Six Area because of the multiple uses of reserves. The concept of a regional park as an area for conservation, recreation and landscape protection is now well established. We have least confidence in CALM's willingness to manage these Parks and we have proposed that MFP should continue to manage them until all of the policy and management issues have been resolved. We believe that funding should come from local authority rates, land tax and development tax. Ultimately a Regional Parks Authority may be the best body to manage them. Because they are so different to national parks and nature reserves the RPA should be quite different from the NPNCA and have its own budget. It should work closely with CALM, MFP and the local authorities.

Recommendations 18 and 19 are still relevant and have been partially implemented. However recommendation 18 does not specify which agency should fund and coordinate this task. This should be addressed in the update.

The General Recommendations should include an additional set which relate to the funding and implementation of the specific recommendations. We believe that there is a need for an implementation committee which will set priorities and review progress. A major review or progress report should be required every three years. A funding mechanism for implementation and management of the System Six conservation estate should be clearly identified in the general recommendations. The failure to do this was one of the main reasons why the original System Six exercise was so unsuccessful.

(2) Specific Recommendations

I am aware that the DEP has provided a detailed nomination form. However, we wish to nominate so many areas that it is quite impracticable for us to fill in such detailed forms. Most of the areas we wish to nominate are already documented in official Government reports, so the degree of detail requested is unnecessary. However, I would be happy to supply any additional information you require for any of the nominations we have made. Please call me on 337 7113 (h) or 360 2274 (w) or 310 1711 (fax) if you need further information.

Our specific recommendations for new areas to be included in the System Six Report are :

(a) The Spectacles Swamps near Kwinana. These are part of the Beeliar Regional Park and are fully described in the Planning Report for that Park. They are also zoned P & R in the MRS.

(b) Long Swamp on Hope Valley Road, Kwinana. This is also included in the Beeliar Regional Park. It is the last of the wetlands in the western chain of the Cockburn Wetlands. It is privately owned.

(c) Bollard Bulrush Swamp in Wellard. This is also part of the Beeliar Regional Park

(m) Twin Bartram Swamp, Hird Road Swamp, Solomon Road Swamp and Gibbs / Russell Swamp in Jandakot. These small wetlands are the best remaining examples of the Jandakot suite of wetlands. They are reserved in the local open space system and are well documented by V. Semeniuk in the report to Gold Estates on Wetlands East of Thomsons Lake.

(n) Creery Wetlands. These important samphire marshes should be added to C50 (Peel Inlet). Their values are fully documented in the Bamford Report which was attached to the proposal for the Harbour City Canal Estate.

(o) Vasse - Wonnerup Regional park. The whole area of the Broadwater, Deadwater and the Vasse Wonnerup estuaries should become a regional park. This concept should be proposed in the System Six update.

(p) Cockburn Wetlands - Eastern Chain M93. The boundaries of this area should be modified to coincide with the boundaries of the Beelihar Regional Park.

(q) Folly, Maramanup, Duck and Beenyup Pools, Baldivis. These small pools on the Folly Drain are important breeding and feeding areas for wildlife. The Folly Drain is an important wildlife corridor and its conservation value should be recognised in the System Six Report.

(r) West Corio Swamp, Karnup. This is an important breeding area for the straw-necked ibis. It should be protected. The EPA did an assessment of it several years ago when sand mining was proposed.

(s) Serpentine River Valley. The entire length of the Serpentine River and its flood plain should be listed in the System Six Report. It is a major wildlife corridor and a habitat for many species. It should be recommended as a regional park.

(t) Wilbinga and Guilderton. Two large blocks of coastal heathland south of the mouth of the Moore River. The Wilbinga block was proposed as a land swap for M1 which has been approved for subdivision. These blocks are adjacent to C12 and together provide an outstanding opportunity to conserve the best remaining transect of coastal vegetation in the northern part of System Six.

If you require further information about any aspect of this submission, please contact me. I would like some feedback on your decision about these areas.

Yours faithfully,



Philip Jennings
President

- (d) Tamworth Hill Swamp in Baldavis. This is part of the proposed Rockingham Lakes Regional park. It is fully documented in the ecological study of the Rockingham lakes carried out by V and C Semeniuk for the Australian Heritage Commission. It is zoned for Parks and Recreation in the MRS and it is affected by a mining claim.
- (e) Anstey Swamp, Baldavis. This is also a part of the proposed Rockingham Lakes Regional Park. It is owned by the MFP and is zoned for Parks and Recreation. It is fully documented in the Semeniuk study and by the EPA in its original report on the Secret Harbour project.
- (f) Paganoni Swamp, Baldavis. This wetland is an outstanding conservation area. It is owned by the MFP and is zoned for Parks and Recreation. It is fully documented in the Semeniuk study and in the Wildflower Society's nomination of this reserve to the Register of the National Estate.
- (g) Lark Hill wetlands. This area lies adjacent to Port Kennedy M106 and contains some important wetlands and parallel dune formations. It is fully described by the Australian Heritage Commission in its listing of the area. The land is owned by the MFP and is zoned for Parks and Recreation. It is intended for inclusion in the Port Kennedy Scientific Park.
- (h) **Jandakot Botanical Park**. This area is fully documented by the MFP in its Planning study for the Jandakot Botanical Park. It includes some areas such as M97, M98, M99 and M100 which are already in the System Six Red Book. However, there are several other important reserves in this area which should be included in the System Six Report. All of this land is reserved for Parks and Recreation and most of it is owned by the State.
- (i) Piney Lake, Winthrop. This wetland was not included in System Six. However, it is part of the Beeliar Regional park and supports a diverse range of waterfowl and has some remnant vegetation. The City of Melville recently completed a management plan for this reserve.
- (j) Blue Gum Swamp, Mt Pleasant. This wetland is an important wildlife refuge. It is well managed by the City of Melville and is being rehabilitated by a local group. It has a management plan, prepared by the City of Melville. It could be incorporated into M73 as it is very close to Booragoon Lake.
- (k) Brixton Street Wetlands, Gosnells. These important wetlands should be added to M69. Their importance is well documented in the EPA assessment of the housing proposals for this area.
- (l) Ken Hurst Park, Leeming. This is an important area of wetland and banksia woodland adjacent to M94. It contains declared rare flora as indicated in the Floristic Study of the Swan Coastal Plain. The Murdoch Branch of the Wildflower Society has done a detailed flora survey of the site. Contact Diana Corbyn for details.

m97

Appendix 1: Vegetation Site Description for the **Wandi Nature Reserve**

Site 1 : Banksia Woodland.

Banksia attenuata, *B. menziesii* and *Allocasuarina fraseriana* Low Woodland over *Adenanthos cygnorum* and *Kunzea ericifolia* High Open Shrubland over *Stirlingia latifolia*, *Leucopogon conostephioides*, *Scholtzia involucreta* and *Hibbertia hypericoides* Low Open Heath over *Amphipogon turbinatus* Open Grassland, mixed Open Herbland and *Lyginia barbata* Open Sedgeland.

CONDITION	Rating	Very Good	
Soil:	grey sand over grey sand:	S8 Gozzard (1986)	
Litter	90%	Bare Ground	2%
Drainage:	good	Aspect:	gentle, SE

Appendix 2: Flora of the Wandii Nature Reserve

Records from quadrat data and opportunistic collecting, 1992-93. Families in alphabetical order. An * indicates non-native taxa.

GYMNOSPERMS

ZAMIACEAE

Macrozamia riedlei

ANGIOSPERMS

AIZOACEAE

**Carpobrotus edulis*

AMARANTHACEAE

Ptilotus drummondii
Ptilotus polystachyus

ANTHERICAEAE

Arnocrinum preissii
Arthropodium capillipes
Caesia occidentalis
Corynotheca micrantha
Laxmannia ramosa
Sowerbaea laxiflora
Thysanotus manglesianus
Thysanotus multiflorus
Thysanotus patersonii
Thysanotus sparteus
Thysanotus triandrus
Thysanotus thyrsoides
Tricoryne elatior

APIACEAE

Homalosciadium homalocarpum
Hydrocotyle callicarpa
Platysace compressa
Trachymene pilosa
Xanthosia huegelii

ASTERACEAE

Asteridea pulverulenta
**Hypochaeris glabra*
Lagenifera huegelii
Pithocarpa pulchella
Podolepis gracilis
Podotrochea chrysantha
**Ursinia anthemoides*
Waitzia suaveolens

BRASSICACEAE

Stenopetalum gracile

CAMPANULACEAE

Wahlenbergia preissii

CASUARINACEAE

Allocasuarina fraseriana
Allocasuarina humilis

CENTROLEPIDACEAE

Centrolepis drummondiana

COLCHICACEAE

Burchardia umbellata

CRASSULACEAE

Crassula colorata

CYPERACEAE

Isolepis cernua
Lepidosperma angustatum
Lepidosperma ?tenue
Mesomelaena pseudostygia
Schoenus clandestinus
Schoenus curvifolius
Schoenus subbulbosus

Tetradia octandra

DASYPOGONACEAE

Dasyogon bromeliifolius
Calectasia cyanea
Lomandra caespitosa
Lomandra hermaphrodita
Lomandra nigricans
Lomandra preissii
Lomandra suaveolens

DILLENACEAE

Hibbertia huegelii
Hibbertia hypericoides
Hibbertia racemosa
Hibbertia subvaginata

DROSERACEAE

Drosera erythorhiza
Drosera leucoblasta
Drosera menziesii ssp. *penicillaris*
Drosera pallida

EPACRIDACEAE

Astroloma pallidum
Brachyloma preissii
Conostephium pendulum
Conostephium preissii
Leucopogon conostephioides
Leucopogon parviflorus
Lysinema ciliatum

EUPHORBIACEAE

Monotaxis grandiflora
Phyllanthus calycinus
Poranthera microphylla

FABACEAE (PAPILIONACEAE)

Bossiaea eriocarpa
Daviesia divaricata
Daviesia triflora
Gompholobium aristatum
Gompholobium confertum
Gompholobium tomentosum
Hardenbergia comptoniana
Hovea trisperma var. *trisperma*
Isotropis cuneifolia
Jacksonia furcellata
Jacksonia sternbergiana
Kennedia prostrata
Nemcia reticulata

GOODENIACEAE

Dampiera linearis
Lechenaultia floribunda
Scaevola canescens
Scaevola repens

HAEMODORACEAE

Anigozanthos humilis
Anigozanthos manglesii
Conostylis aculeata ssp. *aculeata*
Conostylis juncea
Conostylis setigera
Haemodorum spicatum
Phlebocarya ciliata

HALORAGACEAE

Gonocarpus pthyoides

IRIDACEAE

**Gladiolus caryophyllaceus*
Patersonia occidentalis

JUNCACEAE

Juncus bufonius

LAMIACEAE

Hemiandra pungens

LAURACEAE

Cassytha flava
Cassytha pubescens

LOBELIACEAE

Lobelia gibbosa
Lobelia tenuior

LOGANIACEAE

Mitrasacme paradoxa

MIMOSACEAE

Acacia huegelii
Acacia pulchella
Acacia stenoptera
Acacia willdenowiana

MOLLUGINACEAE

Macarthuria australis

MYRTACEAE

Calytrix angulata
Calytrix flavescens
Calytrix fraseri
Eremaea pauciflora
Eremaea aff. *brevifolia*
D.Coates MI175
Eucalyptus marginata
Eucalyptus todtiana
Hypocalymma robustum
Kunzea ericifolia
Melaleuca thymoides
Scholtzia involucrata (prostrate)

ORCHIDACEAE

Caladenia flava
Caladenia latifolia
Elythranthera brunonis
Leporella fimbriata
Lyperanthus nigricans
Prasophyllum calcicola R.Bates
Pterostylis recurva
Pterostylis vittata

PHORMIACEAE

Dianella divaricata

POACEAE

**Aira cupaniana*
Amphipogon turbinatus
**Briza maxima*
Danthonia occidentalis
**Ehrharta calycina*
Neurachne alopecuroidea
Stipa compressa
Stipa flavescens

POLYGALACEAE

Comesperma calymega

PORTULACACEAE

Calandrinia corrigioloides

PROTEACEAE

Adenanthos cygnorum
Banksia attenuata
Banksia ilicifolia
Banksia menziesii
Dryandra nivea
Persoonia saccata
Petrophile linearis
Stirlingia latifolia
Synaphaea spinulosa

RESTIONACEAE

Alexgeorgia nitens
Loxocarya cinerea
Loxocarya flexuosa
Lyginia barbarta

RUBIACEAE

Opercularia vaginata

RUTACEAE

Boronia crenulata
Eriostemon spicatus

SANTALACEAE

Leptomeria cunninghamii

STYLIDIACEAE

Levenhookia stipitata
Stylidium brunonianum
Stylidium calcaratum
Stylidium junceum
Stylidium piliferum
Stylidium repens
Stylidium schoenoides

VIOLACEAE

Hybanthus calycinus

XANTHORRHOEACEAE

Xanthorrhoea preissii

PROPOSED JANDAKOT BOTANICAL PARK
AN ASSESSMENT OF THE CONSERVATION
VALUES OF VEGETATION FLORA AND
WETLANDS BETWEEN JANDAKOT AND WELLARD

February 1990

BOWMAN BISHAW GORHAM
ENVIRONMENTAL MANAGEMENT CONSULTANTS

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smaller more colourful flowers. Grows in winter wet depressions.

Diuris purdei. Found in densely vegetated winter wet depressions on the Coastal Plain. Flowers from September to October after fires.

Drakea elastica (syn. Drakea jeanensis). Found in sandy soils near swamps, often in Banksia woodland on the Coastal Plain from Perth south to Capel but also recorded from the Murchison River. Flowers from September to October.

Drakea micrantha (M.S.). An undescribed species. Grows in open sandy patches on the sandy rises near swamps in Allocasuarina woodland. In the study area it is at the northern limit of its range. Flowers from September to October.

Drosera occidentalis. Found in damp soils on the margins of swamps and in winter wet depressions (in peaty sand). Flowering occurs from November to December. Lowrie (1989) considers it to be "rather common and easy to locate, given knowledge of its growth cycle and habitat."

3.4.2 Priority Three Species Currently Known for the Study Area

Restio stenostachyus. Found in winter wet depressions and along watercourses. Although Marchant et al (1987) suggest this species could be endemic to the Perth region it is also known from the northern forest region.

Cartonema philydroides. A poorly known and poorly collected species occurring on the Coastal Plain from Guildford south to Capel with an occurrence at Kalbari (probably a separate species). This species may more common than was previously thought (G. J. Kieghery pers. comm.).

Thysanotus arbuscula. One of the fringe lilies, found in Banksia low forest, Jarrah-Marri forest and sandplain low scrub. Grows from 160 km north of Perth to c. 260 km south-east of Perth. Flowers from September to January.

Phlebocarya filifolia. Found in Banksia woodland on sandy soils from south Eneabba to south of Busselton (G. J. Kieghry pers. comm.). A poorly collected species now recognised to be more common than previously thought (Jandakot was previously thought to be the most southerly location for this species).

Jacksonia sericea. Apparently endemic to the Perth Region, found on calcareous and sandy soils of the Coastal Plain from Perth to Pinjarra. Flowers from December to February.

Gonocarpos pithyoides. Found in sandy soils on the Coastal Plain, extending north to Gingin in Banksia woodland. It appears to be poorly collected rather than uncommon.

3.4.3 Priority Two Species Currently Known for the Study Area

Lysinema elegans. This species has been collected from the Jandakot area in the past but has not been recollected there despite some searches. A population was recently found in the Moore River National Park (Griffin and B. Kieghery 1989) and may be the only extant population.

3.4.4 Priority Five Species Currently Known for the Study Area

Dodonaea hacketiana. This taxon is endemic to the Perth region (Marchant et al. 1987), growing from Perth to south of Jandakot.

3.4.5 Other Significant Flora

Evandra pauciflora. This species occurs sporadically (in suitable wetland habitats) from the Perth area south to Albany. Probably should be on the reserve list but uncommon but probably not rare.

Department of Agriculture, Western Australia.

- Trudgen, M.E. (1984). The Leschenault Peninsula - a flora and vegetation survey with an analysis of its conservation value and appropriate uses. Bulletin 100, Department of Conservation and Environment, Perth, W. A.
- Trudgen, M.E. (1987). A report on the vegetation of part of Neerabup National Park and adjoining privately owned land, with analysis of the conservation issues involved in a proposed land swap. Unpublished report prepared for Maunsell and partners, Perth
- Trudgen, M.E. (1988). A flora and vegetation survey of the coast of the Shire of Mandurah. State Planning Commission of Western Australia. (Unpublished report distributed in "draft" form.)
- Trudgen, M.E. and Kieghery, B. (1990a). A report on the flora and vegetation of the Alkimos area and conservation issues affecting it. Unpublished report prepared for Landcorp.
- Trudgen, M.E. and Kieghery, B. (1990b). A report on the flora and vegetation of the Ningana area and conservation issues affecting it. Unpublished report prepared for Landcorp.
- Weston, A.S. (1989a). Vegetation and significant flora in lots 65 and 66 Anstey/Keane Roads Forrestdale City of Armadale. Unpublished report prepared for G.R. Crimp and partners.

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MAP ONE: Significant Remnants of Native Vegetation

Sheet one : Northern Section of Study Area

KEY TO VEGETATION UNITS

Bassendean Complex-Central and Southern

Bd: Low woodland to low open forest of Banksia attenuata-Banksia menziesii with occasional Banksia ilicifolia, Allocasuarina fraseriana, Eucalyptus marginata and Nuytsia floribunda.

Bl: Low open forest of Banksia menziesii-Banksia ilicifolia-Eucalyptus marginata with occasional Banksia attenuata.

Bw: Low open woodland to closed heath dominated by species of Myrtaceae. The tree species are predominantly Melaleuca preissiana or Banksia ilicifolia. The understorey include Hypocalymma angustifolium, Pericalymma ellipticum and Astartea fascicularis.

Sw: Woodland of Melaleuca preissiana-Melaleuca rhapsiophylla with occasional Eucalyptus rudis and Banksia ilicifolia. With sedgelands of Baumea and Leptocarpus species and closed heaths dominated by Myrtaceae species.

L: Woodlands of Melaleuca rhapsiophylla-Eucalyptus rudis with the occasional Melaleuca preissiana and Banksia littoralis. The woodlands are interspersed with sedgelands of Baumea, Leptocarpus and Typha and areas of open water.

Karrakatta Complex-Central and South

K: Woodlands of Eucalyptus gomphocephala-Eucalyptus calophylla-Eucalyptus marginata with admixtures of Banksia attenuata-Banksia menziesii and Allocasuarina fraseriana.

KEY TO CONDITION RATING

E = Excellent

VG = Very Good

G = Good

P = Poor.

VP = Very Poor

C = Cleared

(See text for definitions)

SCALE: Approx. 1: 20,000

SOIL: Sp = Spearwood Sand; Gu = Guildford Formation
(All other areas Bassendean Sands)

FLORISTICS of
RESERVES and BUSHLAND AREAS
of the PERTH REGION (SYSTEM 6)

Parts V - IX

G.J. Keighery and B.J. Keighery

**Full document
available
on request**

The Wildflower Society has published these papers, parts of a continuing series, in the interest of the conservation of our unique flora. The Society considers it essential that decision makers and managers have available the necessary flora information before making irreversible land use decisions.

The Floristic Survey of the Swan Coastal Plain, of which the surveys of the flora of these areas was part, was carried out with the assistance of funds made available by the Commonwealth of Australia under the National Estate Grants Programme, and by the Australian Heritage Commission.

June 1993

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PO Box 64 Nedlands WA 6009

ISBN 0 9595443 8 0

Vascular Flora of Woodmans Point Nature Reserve

Greg Keighery
Department of Conservation and Land Management
Wildlife Research Centre, P.O. Box 51, Wanneroo
Western Australia, 6065.

Compiled October 2001

Introduction

Woodmans Point Nature Reserve (number 42469) is a small nature reserve which forms part of the Woodmans Point Regional Park of 247 hectares of which some 92 hectares is bushland (Government of Western Australia, 2000). The largest bushland remnant is contained in the nature reserve.

Methods

Several floristic sites were established in the reserve for the study of the floristics of the Swan Coastal Plain (Gibson. *et al*, 1994) The reserve has been extensively surveyed by foot traverse during all seasons for the reserve survey of the Swan Coastal Plain (Keighery, 1999). These surveys and Powell and Emberson (1981), were used to compile the flora list. The list is considered 90% complete.

Vegetation

Structural vegetation of the area has been mapped by Powell and Emberson (1981) who show *Eucalyptus gomphocephala* open forest, *Callitris preissii* low closed forest, *Acacia rostellifera*/*Spyridium globulosum* tall open scrub and *Spinifex hirsutus*/*S. longifolius* grassland on the strand (largely outside the reserve). At the south-eastern margin of the nature reserve is a low open shrubland of *Melaleuca systema* with mixed *Acacia* and *Scaevola nitida* over bunch grasses not listed by Powell and Emberson (1981) as separate from the *Acacia* shrubland.

As noted in Keighery *et al* (1997) and Bushforever (Government of Western Australia, 2000) the reserve contains the Threatened ecological community of *Callitris preissii* low closed forest. It also contains a mature stand of Quindalup Tuart in very good to excellent condition, having not been grazed. This stand is also of considerable scenic value in the landscape.

Vascular Flora

On the table of vascular flora occurrences of plants in these communities are listed under Tuart (*Eucalyptus gomphocephala* open forest, T), *Spinifex hirsutus*/*S. longifolius* grassland on the strand (Dune), *Callitris preissii* low closed forest (Callp), *Acacia rostellifera*/*Spyridium* shrubland of *Melaleuca systema* (He

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BS 244
BASS STH
NTH LAKE

BS 263
BASS S.
W. LABBS

BS 346
SPEAR S.
COOGE

BS 390
BASS S
FORREST

BS 247
SPEAR S.
MANNING

BS 269
SPEAR S.
SPECTACULUS

BS 347
BASS S.
WANDI

BS 391
BASS S.
THOMPSON

Proposals for the
Jandakot Botanic Park

Final

BS 248
BASS S.

BIBRA

BS 254
BASS S.

STH. LK.

BS 256
BASS S.

YANGEB.

BS 261
SPEAR S.

L. COOGE

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Ministry for Planning

BS 388

BASS S.
JANDAKOT

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March 1995

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