

## CASUARINA PRISON BUSHLAND, CASUARINA

**Boundary Definition:** protected area/bushland (part taken to cadastre) boundary

### SECTION 1: LOCATION INFORMATION

**Bush Forever Site no.** 273

**Area (ha):** bushland 116.9

**Map no.** 65, 71

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

**Other Names:** Part Submission Area 13 and Submission Area 222, part of Jandakot Regional Park

**Local Authorities (Suburb):** Town of Kwinana (Casuarina)

**System 6 (1983):** M98 Part System area bushland, only bushland described

### SECTION 2: REGIONAL INFORMATION

#### LANDFORMS AND SOILS

##### Bassendean Dunes

Bassendean Sands (Qpb: S8)

##### Bassendean Dunes/Pinjarra Plain

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

#### VEGETATION AND FLORA

##### Vegetation Complexes

###### Bassendean Dunes

Bassendean Complex — Central and South

##### Floristic Community Types

###### Supergroup 2: Seasonal Wetlands

4 *Melaleuca preissiana* damplands

###### Supergroup 3: Uplands centred on Bassendean Dunes and Dandaragan Plateau

21a Central *Banksia attenuata* — *Eucalyptus marginata* woodlands

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

#### WETLANDS

**Wetland Types:** dampland, artificial channel

##### Natural Wetland Groups

###### Bassendean Dunes

Jandakot (B.3)

**Wetland Management Objectives:** Conservation (1.3ha), Resource Enhancement

**Swan Coastal Plain Lakes EPP:** none identified

#### THREATENED ECOLOGICAL COMMUNITIES

Not assessed

### SECTION 3: SPECIFIC SITE DETAIL

**Landscape Features:** vegetated wetland, vegetated uplands

**Vegetation and Flora:** limited survey (DEP 1996 (Cas 01-04), Trudgen 1990)

**Structural Units:** mapping (Trudgen 1990)

Uplands: *Banksia attenuata*, *B. ilicifolia* and *Eucalyptus marginata* Low Woodland; *Banksia attenuata* and

*B. ilicifolia* Low Open Forest

Wetlands: *Melaleuca preissiana* and *Nuytsia floribunda* Low Open Woodland; *Melaleuca preissiana* Woodland over *Banksia littoralis* Low Woodland

**Vegetation Condition:** >90% Excellent to Pristine, <10% Very Good to Good

**Total Flora:** 104 native taxa (plot-generated list only) (>50% expected flora)

**Significant Flora:** *Lysinema elegans* (one of two known significant populations south of Gnangara), *Burchardia bairdiae*, *Drosera gigantea* subsp. *geniculata*, *Hensmania turbinata*

**Fauna:** Significant mammal species: Quenda (Friend 1996 D)

**Linkage:** adjacent bushland to the south and west; part of a regionally significant fragmented bushland/wetland linkage (Part A, Map 7)

**Other Special Attributes:** part Site included in Jandakot Botanic Park Proposal (MfP 1995)

### SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed

### 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: Other Government Land Mechanism (see Table 3, Volume 1).

**CASUARINA PRISON BUSHLAND, CASUARINA**

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**SECTION 1: CADASTRAL INFORMATION**

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

**Bushplan Site no.** 273      **Map no.** 81, 82      **Map sheet series ref. no.** 2033-I SE, 2033-I SW  
**System 6 (1983):** M98 Part System area bushland, only bushland described

**Other Names**

Part Submission Area 13 and Submission Area 222

**Local Authorities (Suburb)**

Town of Kwinana (Casuarina)

**Area (ha):** total 118.2; bushland 116.9

**Zoning**

**MRS:** Parks and Recreation, Rural, Rural-Water Protection, Public Purposes-Prison

**TPS:** Landscape

**Lot/Location/Reserve numbers (Purpose),**

**Street name**

63, 126, 702 Orton Rd

Crown Reserve

**Ownership Categories**

State Government

**SECTION 2: REGIONAL INFORMATION**

**LANDFORMS AND SOILS**

**Bassendean Dunes**

Bassendean Sands (Qpb: S8)

**Bassendean Dunes/Pinjarra Plain**

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

**VEGETATION AND FLORA**

**Vegetation Complexes**

**Bassendean Dunes**

Bassendean Complex — Central and South

**Floristic Community Types**

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**Wetland Management Objectives:** Conservation (1.3ha), Resource Enhancement

**Swan Coastal Plain Lakes EPP:** none identified

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**Significant Flora:** *Lysinema elegans* (one of two known significant populations south of Gngangara), *Burchardia bairdiae*, *Drosera gigantea* subsp. *geniculata* ms, *Hensmania turbinata*

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

**Linkage:** adjacent bushland to the north (across road), south, east (across road) and west; part of a regionally significant fragmented bushland/wetland linkage (Volume 2A, Map 8)

**Other Special Attributes:** part Bushplan Site included in Jandakot Botanic Park Proposal (MfP 1995)

**SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE**

Not listed



**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 wetland; under MRS Parks and Recreation Reservation and TPS Landscape Zoning, Crown Reserve


**Constraints:** under General Mineral Resource Area (sand)

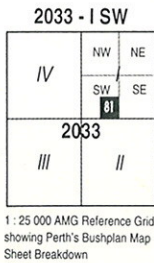
**Recommendation:** The care, control and management of parts of this Bushplan Site for conservation purposes within Jandakot Regional Park is endorsed. For the remainder of the Bushplan Site — The existing care, control and management intent of the reserve is endorsed. Long-term security and support for conservation management of the Bushplan Site to be enhanced by: amending the purpose of the reserve to include conservation; and applying appropriate mechanisms in consultation with the reserve management body.





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

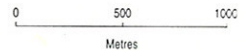


PERTH'S BUSHPLAN MAP INDEX

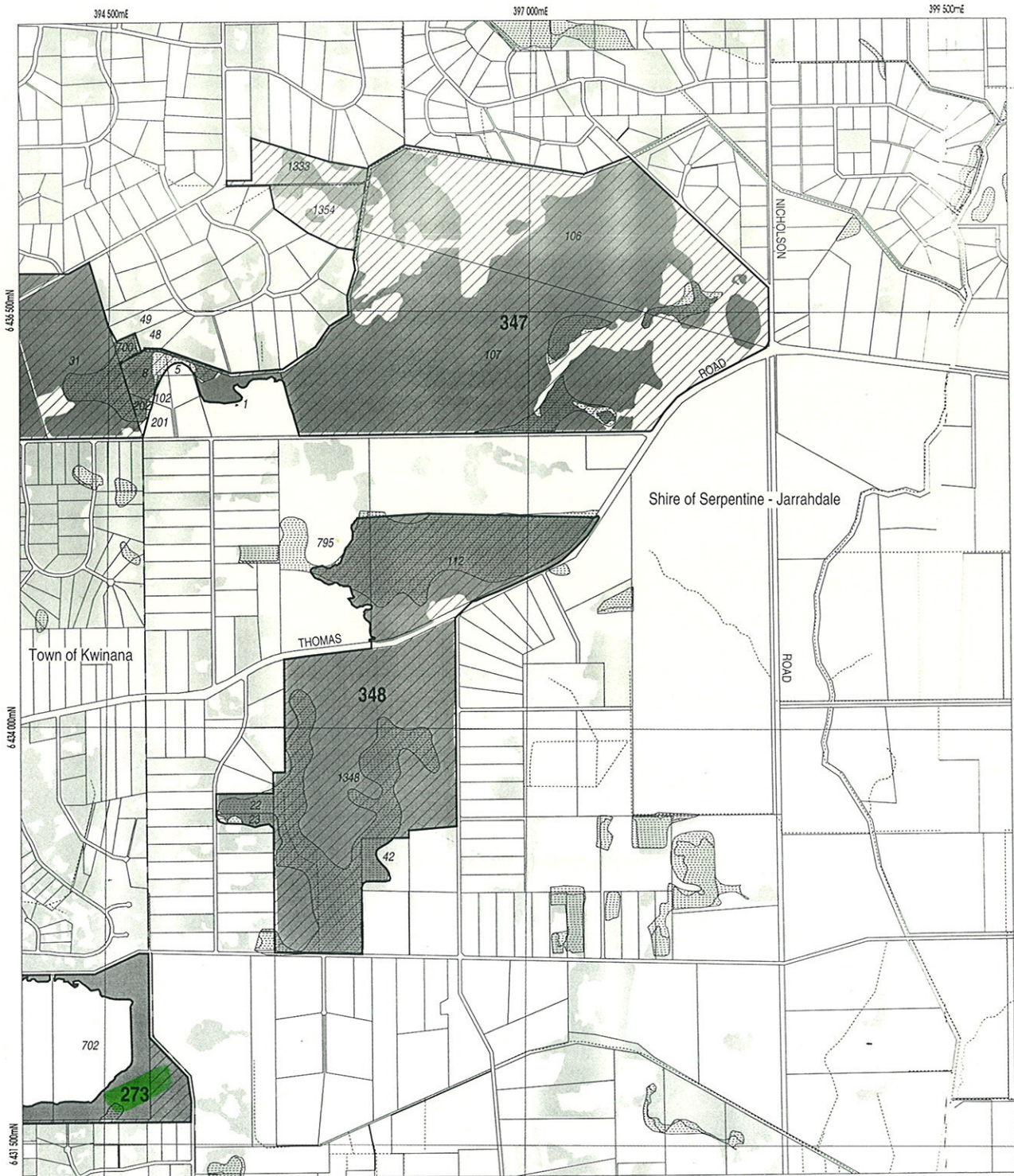
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103	104
105	106



SCALE

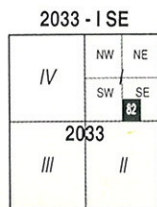


Produced by Project Mapping Section  
 Land Information Branch, Ministry for  
 Planning, Perth W.A. November 1998  
 ntw-map9/environ/bushplan/bushv2\_81.dgn  
 Cadastral Data supplied by Department  
 of Land Administration, W.A.  
 Wetlands Data supplied by  
 Water and Rivers Commission  
 Native Vegetation Extent for Study Area  
 supplied by Agriculture Western Australia



**LEGEND**

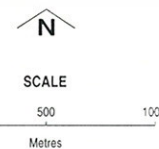
- 472 Bushplan Sites With Regionally Significant Bushland
- Other Native Vegetation
- Conservation Category Wetlands
- Bushplan Sites With Some Existing Protection
- 696 Lot Number, Location Number
- Channel Wetlands
- Local Government Boundary



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

**PERTH'S BUSHPLAN MAP INDEX**

1	2					
3	4					
5						
6	7	8	9	10	11	
12	13	14	15	16		
17	18	19	20	21	22	23
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43	44	45	46	47	48	
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55	56	57	58	59		
60	61	62	63	64		
65	66	67	68	69	70	
71	72	73	74	75	76	77
78	79	80	81	82	83	84
85	86	87	88	89	90	91
92	93	94	95	96	97	
98	99	100	101	102		
103	104	105	106			



Produced by Project Mapping Section  
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ntw-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



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# WETLANDS CONSERVATION SOCIETY (INC)

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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

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

- (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.

(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 Beeliam 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

**Department of Environmental Protection System 6 Update: Site Based Flora  
List M98 Reserve C31874, Casuarina**  
(108 taxa, Cas 1-4, B.J. Keighery, 4/5/95)

*5 weeds = 103*

Anthericaceae

- Arnocrinum preissii
- Caesia micrantha
- Caesia micrantha "large swamp form" scps (BJK&NG 094)
- Chamaescilla corymbosa
- Hensmania turbinata
- Laxmannia ramosa
- Thysanotus multiflorus
- Thysanotus patersonii
- Thysanotus sparteus
- Thysanotus thyrsoides
- Tricoryne elatior
- Tricoryne tenella

Apiaceae

- Platysace compressa
- Trachymene pilosa
- Xanthosia huegelii

Asteraceae

- \* Hypochaeris glabra
- Siloxerus humifusus
- \* Ursinia anthemoides

Casuarinaceae

- Allocasuarina fraseriana

Centrolepidaceae

- Centrolepis aristata

Colchicaceae

- Burchardia bairdiae
- Burchardia umbellata

Cyperaceae

- Baumea arthrophylla
- Cyathochaeta avenacea
- Lepidosperma angustatum
- Lepidosperma longitudinale
- Lepidosperma squamatum
- Mesomelaena graciliceps
- Schoenus curvifolius
- Schoenus rodwayanus
- Schoenus subbulbosus

Dasypogonaceae

- Dasypogon bromeliifolius
- Lomandra caespitosa
- Lomandra hermaphrodita
- Lomandra nigricans

Dilleniaceae

- Hibbertia hypericoides
- Hibbertia racemosa

Hibbertia stellaris  
Hibbertia subvaginata  
Hibbertia vaginata

Droseraceae

Drosera gigantea sthest subsp. geniculata ms  
Drosera glanduligera  
Drosera menziesii subsp. penicillaris  
Drosera paleacea  
Drosera sp. scps

Epacridaceae

Conostephium pendulum  
Leucopogon australis  
Leucopogon conostephioides

Euphorbiaceae

Poranthera microphylla

Goodeniaceae

Dampiera linearis  
Lechenaultia expansa

Haemodoraceae

Anigozanthos manglesii  
Conostylis juncea  
Conostylis setigera  
Phlebocarya ciliata

Iridaceae

Patersonia occidentalis

Lauraceae

Cassytha racemosa  
Cassytha sp. scps

Lobeliaceae

Lobelia tenuior

Loganiaceae

Mitrasacme paradoxa

Loranthaceae

Nuytsia floribunda

Mimosaceae

Acacia huegelii  
Acacia pulchella  
Acacia stenoptera

Myrtaceae

Astartea aff. fascicularis sthst  
Calothamnus lateralis  
Calytrix flavescens  
Eucalyptus marginata  
Hypocalymma angustifolium  
Melaleuca preissiana  
Melaleuca thymoides

*Pericalymma ellipticum*  
*Scholtzia involucrata*

Orchidaceae

*Caladenia flava*  
*Lyperanthus nigricans*

Papilionaceae

*Aotus gracillima*  
*Bossiaea eriocarpa*  
*Gompholobium tomentosum*  
*Hovea trisperma* var. *trisperma*  
*Jacksonia furcellata*

Poaceae

\* *Aira caryophyllea*  
*Amphipogon laguroides*  
\* *Briza maxima*  
*Danthonia occidentalis*  
\* *Ehrharta calycina*  
*Stipa compressa*

Proteaceae

*Adenanthos cygnorum*  
*Adenanthos obovatus*  
*Banksia attenuata*  
*Banksia ilicifolia*  
*Banksia littoralis*  
*Banksia menziesii*  
*Petrophile linearis*  
*Stirlingia latifolia*  
*Xylomelum occidentale*

Restionaceae

*Hypolaena exsulca*  
*Loxocarya flexuosa*  
*Lyginia barbata*  
*Restio stenostachyus*

Rutaceae

*Boronia alata*  
*Eriostemon spicatus*

Stylidiaceae

*Stylidium brunonianum*  
*Stylidium carnosum*  
*Stylidium junceum*  
*Stylidium repens*  
*Stylidium schoenoides*

Xanthorrhoeaceae

*Xanthorrhoea preissii*

Zamiaceae

*Macrozamia riedlei*

**AREA INFORMATION**

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

M98 *cosuama*

<b>Conservation Area</b>
Nature Reserve
Reserve No
National Park
Reserve No
Local Government
Reserve No
Other
<b>Proposed Conservation Areas</b>
Local Government
Reserve No <i>C31874 for government requirements</i>
Other <i>not vested</i>

**Conservation Area**

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

**TOTAL AREA**

Bushland Area	172.87	hectares
Completely Degraded	59 hectares	
	<i>few weeds rabbits</i>	

**AREA MAPPED FLORISTIC UNITS**

Units	Site (Condition)	Code	SB : CAS	Bound	Area (ha)
4	CAS φ1 (1)			B	11.625
21c	CAS φ2 (4)	} Boundary		20%	20.449
23a	CAS φ3 (2)			80%	81.796

Boundaries determined by use of

aerial photograph	Melvo Regional Area run 11 5275 15/12/92
orthophoto	2033 1 SW, SE Aug 1991
vegetation map	
soil map	

BS 244

BASS. STH

NTH LAKE

BS 247

SPEAR. S.

MANNING

BS 248

BASS. S.

BIBRA

BS 254

BASS. S.

STH. LK.

BS 256

BASS. S.

YANGEB.

BS 261

SPEAR. S.

L. COOGE

BS 262

BASS. S.

PIARRA

BS 263

BASS. S.

W. LABBS

BS 269

SPEAR. S.

SPECTACUL

# Jandakot Botanic Park

Proposals for the

Final

~~BS 273~~  
~~+ BS 404~~

~~CASUARINA~~ MODONG

BS 342

BASS. S.

ANST. KEAN

BS 346

SPEAR. S.

COOGE

BS 347

BASS. S.

WANDI

BS 348

BASS. S.

BS 353

BASS. S.

BANCSIA

BS 390

BASS. S.

FORREST F

BS 391

BASS. S.

HAMPSON

BS 392

SPEAR. S.

HARRY WA

BS 435

BS 429

SPEAR. S.

MARKER

BS 388

BASS. S.

JANDAKOT

BS 389

BASS. STH

EAST d JAND

Prepared for the Western Australian Planning Commission  
by the Ministry for Planning  
Albert Facey House  
469 Wellington Street  
Perth 6000 Western Australia



Ministry for Planning

BS 344

March 1995

BASS. S.

DE YOUNG

**M98 Reserve C31874, Casuarina**

Friends      Advocate      Management

Other Names:

Specific Study/studies      Miscellaneous studies

Flora

Vegetation Map	1	2	3	
Flora list	1	2	3	4
Significant Taxa		done	/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

Notes

<b>M98 Reserve C31874, Casuarina</b>		
M98.1 Purpose of Reserve C31874 be amended to Conservation of Flora and Fauna, and Water and Reserve be vested in NPNC.	Partially implemented	One-third of the reserve has been developed as a prison. The remaining two-thirds is managed for conservation purposes in association with CALM. DPUD proposes that the area be included in the Jandakot Botanic Park which was proposed as a regional park in Metroplan.  The Wildflower Society and the Naturalists Club has an interest in this area.
<b>M99 Reserve A25886, West of Byford</b> Modong Nature Reserve		
M99.1 Existing purpose and vesting of Reserve A25886 is endorsed.	Implemented	Endorsement. DPUD proposes that the area be included in the Jandakot Botanic Park which was proposed as a regional park in Metroplan.

LM

*Jepekin Jemahdulu*

*or MP*



sent in by Kwinana Residents Action Group 11/86  
from file 106/84 Vol 2

Malcolm Trudgen  
Consultant Botanist  
113 Park Street  
Subiaco... 6008  
11 August 1986

BS 273/404

### Comments on Casuarina Reserve

**Condition:** The reserve is in good condition with little weed invasion, no signs of dieback and a diverse assemblage of flora. The only obvious impacts on the reserve are the firebreak system and fire scars on many of the Jarrah trees, some of which have died as a consequence, however the reserve has apparently not been burnt for some years. (I should note here that we did not visit the portion of the reserve that has been used by off road vehicles.)

**Effect of proposed prison:** At 172.8 ha the reserve is a relatively small one and the proposed development would decrease its size significantly, further reducing its viability. The location of the prison in the centre of the reserve would be contrary to established good management strategies which attempt to protect the centre of reserves by using the outer parts to buffer them against damage by weed invasion, introduced diseases such as dieback and disturbance caused by vehicle and foot trafficking.

The development would increase weed infestation in the reserve by the introduction of weed seeds on vehicles involved with the construction and use of the prison and from the populations of weeds that would develop in the prison area itself and on the cleared area around the prison. This in turn would lead to a greater fire risk, consequent pressure for controlled burning, increased weed infestation due to increased burning and a cycle leading to the degradation of the remainder of the reserve. Other factors leading to degradation would be increased exposure to the wind and increased trafficking. Any future expansion of the prison would obviously also have direct and indirect impacts.

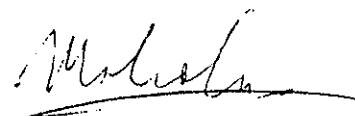
**Knowledge of the flora, vegetation and fauna of the reserve:** little is known about the reserve beyond the very broad-scale comments in the "System Six" books, however the following general comments are relevant.

**Vegetation.** There is no major reserve on the Swan Coastal Plain south of Perth with significant representation of *Banksia* woodlands similar to those on the reserve and this vegetation type is being reduced rapidly in extent by clearing for a variety of developments (housing, hobby farms, sandpits etc.) as most of it is on privately owned lands. So, the reserve is of significant value for the vegetation type on it. While the dominant species making up the tree layer are moderately widespread there is marked variation in the understorey of *Banksia* woodland vegetation and reserves at greater than 20-40 km are likely to be significantly different in their understorey composition, although they may be superficially similar (there is also significant variation with topographic position and minor soil changes within an area).

**Flora.** No documentation is available of the flora of the reserve. However the rare species *Brachyloma preissii* (a heath) is known from a smaller reserve 3 km to the north and could also occur on the Casuarina reserve, similarly three rare orchid species (*Drakea jeanensis*, *Drakea micrantha* and *Caladenia grandis*) are known from similar vegetation to the reserve within 10 km of it. During the very brief visit to the reserve an uncommon white form of *Hovea trisperma* was noted, this illustrates the poor level of knowledge of the flora of the reserve. It is likely that a reserve of this size in this vegetation type would have a flora in excess of 150 species.

**Fauna.** While not generally considered to be rich in mammals *Banksia* woodland is habitat for the Honey Possum, the range of which has been significantly reduced. It is considered to be good habitat for birds (acting as a reservoir for birds visiting the metropolitan area) and reptiles.

Yours sincerely



85 273 / 404 6455 5

**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.

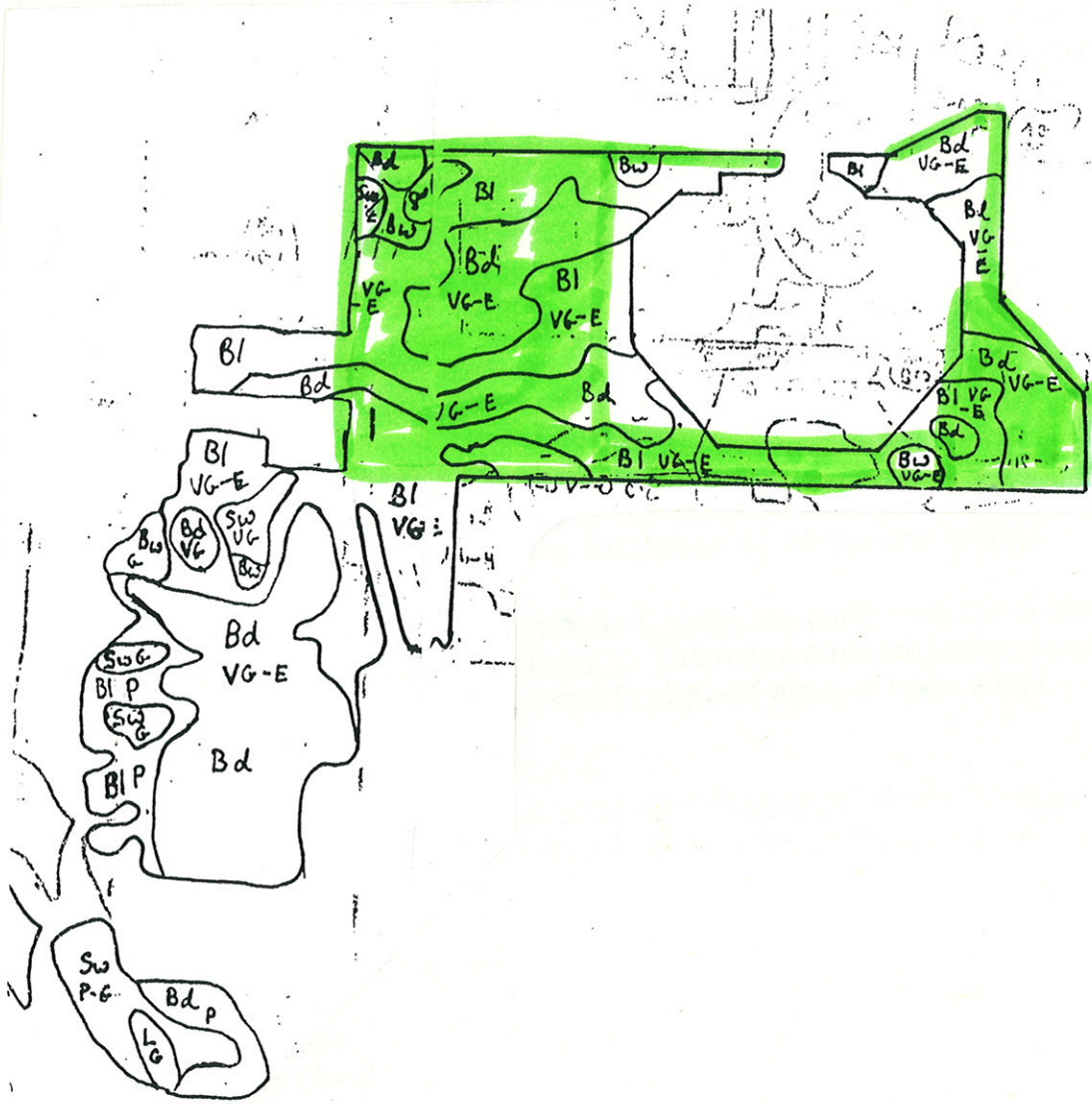
#### 3.4.4 Priority Five Species Currently Known for the Study Area

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 is uncommon but probably not rare.

Bowman Bishaw + Gorham, 1990, Proposed Jundakot Botanic Park



M98 Casuarina Prison Bushland

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 raphiophylla 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 raphiophylla-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)

**MAP ONE: Significant Remnants of Native Vegetation**

**Sheet two: Southern Section of Study Area**

**KEY TO VEGETATION UNITS**

**Bassendean Complex-Central and Southern**

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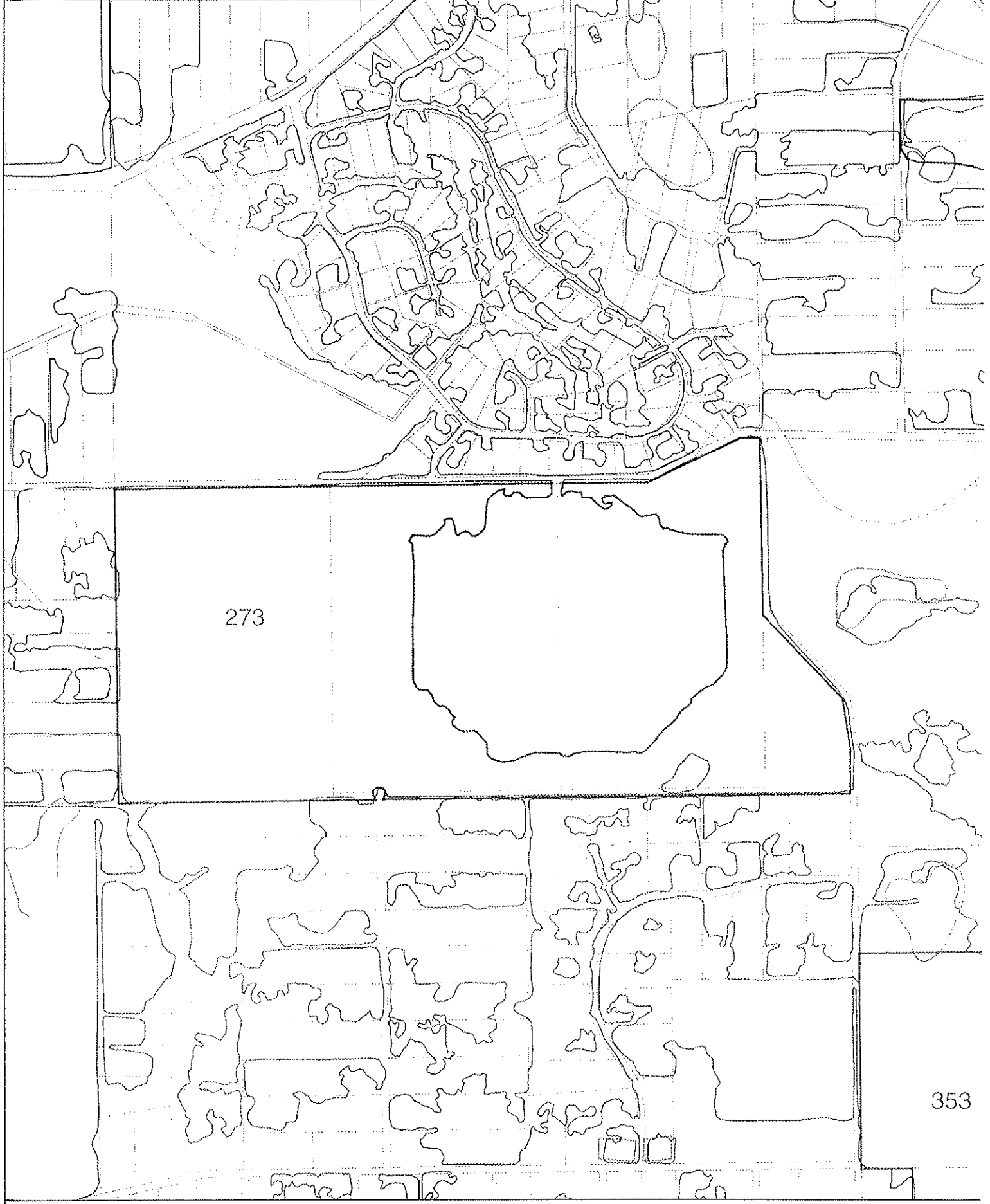
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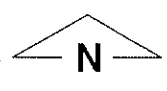
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**WESTERN  
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COMMISSION**



**CUSTOMER  
FOCUS**  
WESTERN AUSTRALIA



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CAS 01

CAS 02



CAS 03



CAS 04



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