

CHURCHER SWAMP, BALDIVIS

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

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 75

Area (ha): bushland 24.3 (Site also includes open water.)

Map no. 75

Map sheet series ref. no. 2033-II SW

Other Names: not known

Local Authorities (Suburb): City of Rockingham (Baldivis)

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Spearwood Dunes

Sands derived from Tamala Limestone (Qts: S7)

Wetlands (within the Spearwood Dunes)

Holocene Swamp Deposits (Qhw: Scp)

VEGETATION AND FLORA

Vegetation Complexes

Spearwood Dunes

Karrakatta Complex — Central and South

Floristic Community Types: *not sampled, types inferred

Supergroup 2: Seasonal Wetlands

*17 *Melaleuca raphiophylla* — *Gahnia trifida* seasonal wetlands

Supergroup 3: Uplands centred on Bassendean Dunes and Dandaragan Plateau

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

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

*25 Southern *Eucalyptus gomphocephala* — *Agonis flexuosa* woodlands

WETLANDS

Wetland Types: sumpland

Natural Wetland Groups

Spearwood Dunes

Stakehill (S.4)

Wetland Management Objectives: Conservation (16.7ha)

Swan Coastal Plain Lakes EPP: 11.3ha

THREATENED ECOLOGICAL COMMUNITIES

Not assessed

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: open water, vegetated wetland

Vegetation and Flora: limited survey (DEP 1998 roadside observations, Semeniuk, V&C Research Group 1991b)

Structural Units: mapping (Semeniuk, V&C Research Group 1991b)

Uplands: *Eucalyptus gomphocephala* Very Open Woodland; Mixed *Banksia menziesii*, *B. attenuata*, *B. ilicifolia* and *Allocasuarina fraseriana* Low Woodlands

Wetlands: *Melaleuca raphiophylla* Low Woodland to Low Closed Forest occasionally with emergent *Eucalyptus rudis*; Mixed Sedgelands

Vegetation Condition: >60% Excellent, >25% Very Good to Good, <15% Degraded, with areas of severe localised disturbance

Total Flora: not known

Significant Flora: not surveyed

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

Linkage: adjacent bushland/canopy to the north and west (Areas of bushland to the north are incorrectly mapped.); part of Greenway 84 (Tingay, Alan & Associates 1998a)

Other Special Attributes: Wetland of 'regional significance' (Semeniuk, V&C Research Group 1991b, 1991e)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Indicative place (AHC 2000 D)

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

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

Recommendation: 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. 75 **Map no.** 99 **Map sheet series ref. no.** 2033-II SW

Other Names: not known

Area (ha): total 24.6 (includes open water); bushland 24.3

Local Authorities (Suburb)
City of Rockingham (Baldivis)

Zoning
MRS: Rural
TPS: Rural, Local Roads

Ownership Categories
Private (including commercial organisation)

Lot/Location/Reserve numbers (Purpose), Street name
1, 2, 3, 4, 5, 6, 7, 29 Eighty Rd; 8, 9 Stakehill Rd; 27, 28 Churcher Rd

SECTION 2: REGIONAL INFORMATION

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Total Flora: not known

Significant Flora: not surveyed

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

Linkage: adjacent bushland to the north and west (areas of bushland to the north are incorrectly mapped)

Other Special Attributes: Wetland of 'regional significance' (Semeniuk, V&C Research Group 1991b, 1991e)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed



SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Rarity, 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; location of conservation category wetland

Constraints: private land

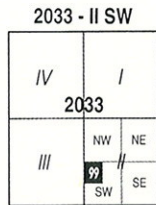
Recommendation: The most appropriate mechanism for the protection of this Bushplan Site be considered through the public comment period in consultation with the land owner(s).



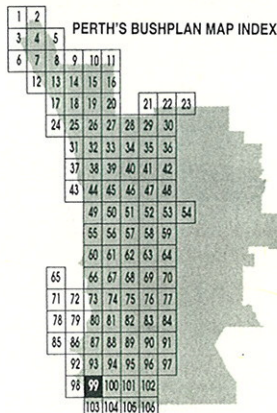


LEGEND

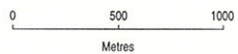
-  Bushplan Sites With Regionally Significant Bushland
-  Other Native Vegetation
-  Conservation Category Wetlands
-  Bushplan Sites With Some Existing Protection
-  Lot Number, Location Number
-  Channel Wetlands
-  Local Government Boundary



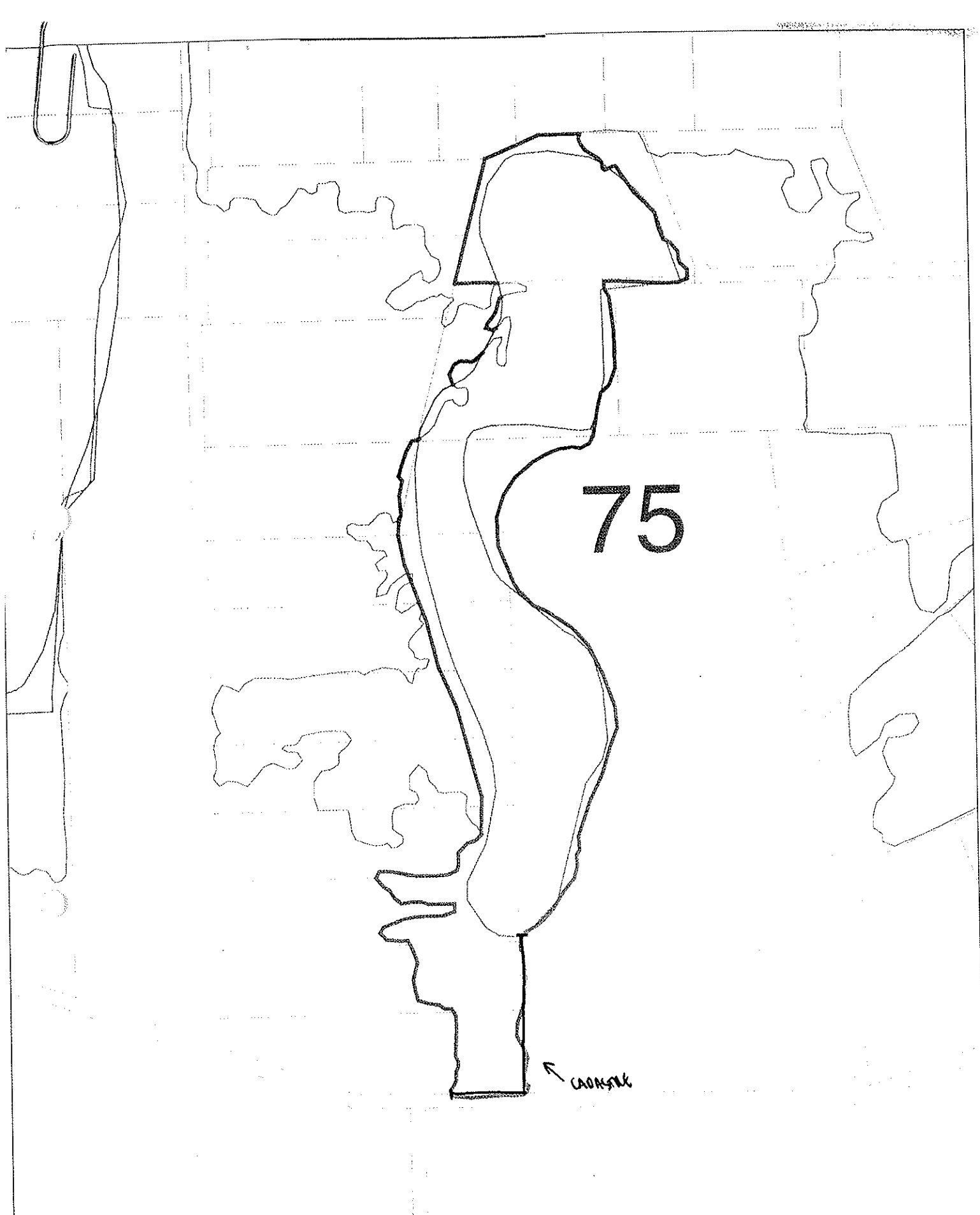
1 : 25 000 AMG Reference Grid showing Perth's Bushplan Map Sheet Breakdown



SCALE



Produced by Project Mapping Section
Land Information Branch, Ministry for
Planning, Perth W.A. November 1998
ntw-map171/environ/bushplan/bushv2_99.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 16/16 27/10/198

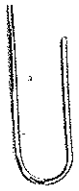


SCALE 1:2500



Metres

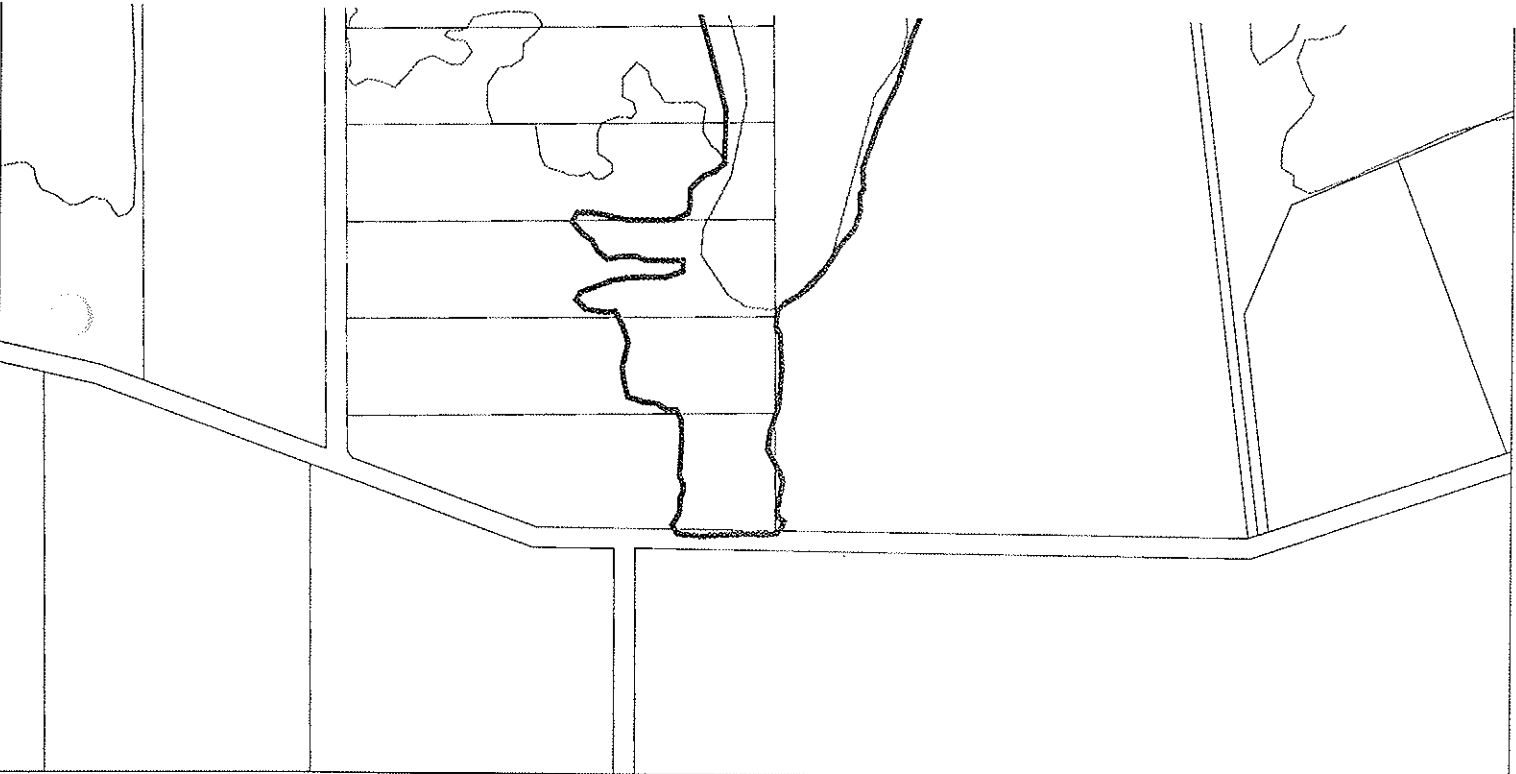
BJK



2/7

BS 75

Follow CCW at A, B + C



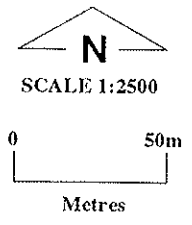
BUSHPLAN SITES CORRECTED

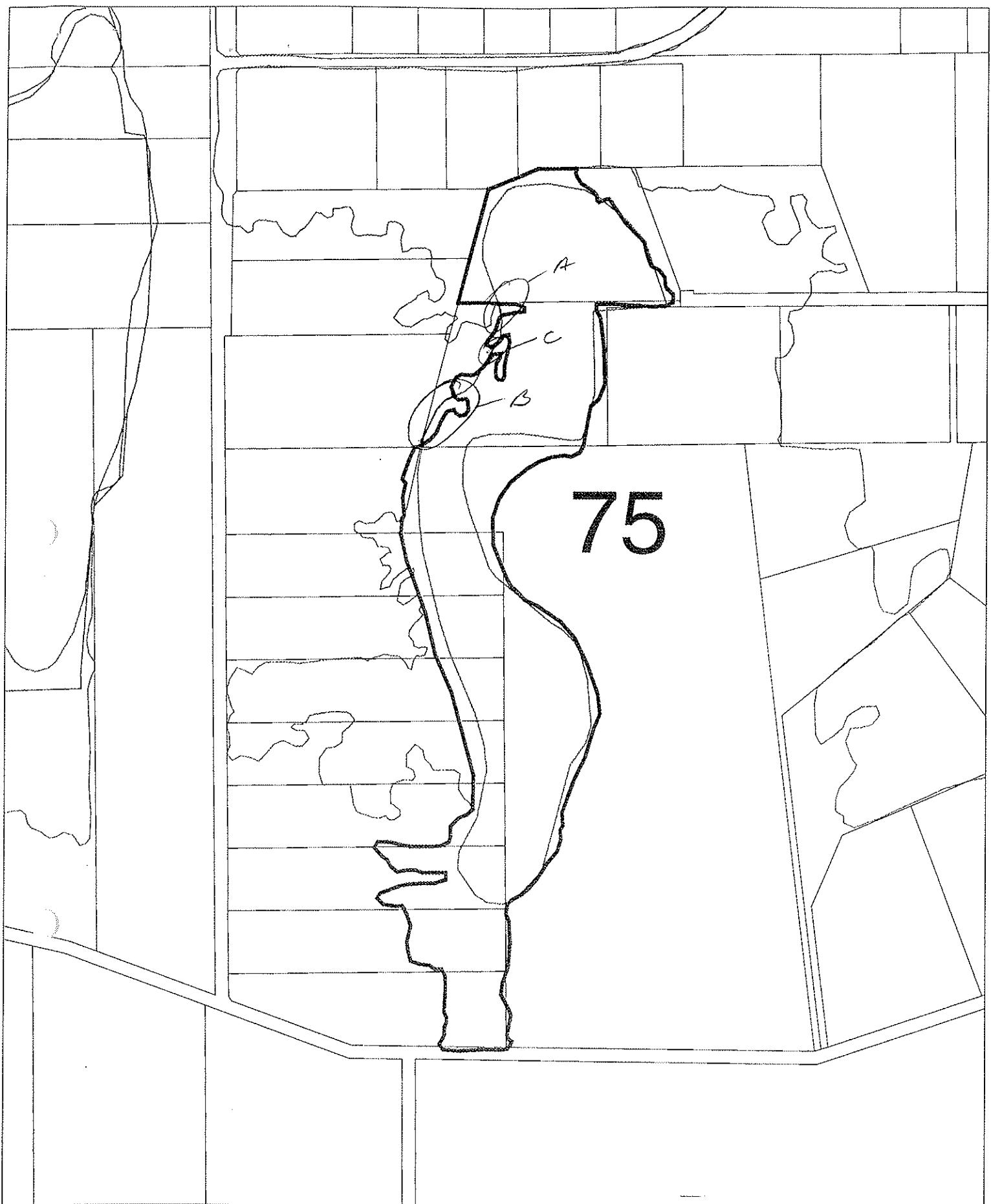


WESTERN AUSTRALIAN PLANNING COMMISSION



CUSTOMER FOCUS WESTERN AUSTRALIA





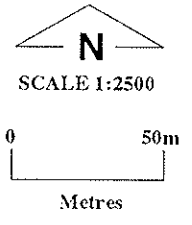
BUSHPLAN SITES CORRECTED



WESTERN
AUSTRALIAN
PLANNING
COMMISSION







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bp site 75

CHANGING SWAMP

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

MFP INTERNAL USE ONLY
 Prepared By: Andrea Zappacosta
 Prepared For:
 Map Ident: plot980522_1
 Date: 22 May 98
 Scale 1:7209



CHARACTER SWAMP

- ~~o Used paper "Excellent JP"~~
- ~~o Refs - files - no records~~
- ~~o check BOUNDARY - SOUTHERN~~
 - ~~... ethno (A) comes too far south~~
 - ~~(B) doesn't pick up enough bush~~
- ~~o Semenuk - Regional Sig ✓~~
- ~~o Conditions: AW not good~~
- ~~o V + C Semenuk (1991) - Stage 2 inter. Report~~

NOT much INFO ON LAKE SWAMP

DEP SYSTEM 6/BUSHPLAN - SURVEY SHEET
 BUSHLAND AREA CHURCH SWAMP. 875 SITES
 DATE 9.1.98 RECORDERS CK + BK

VOL 2 DEC
 B.J. KEIGHERY 6/97 UPDATED
 YES/NO

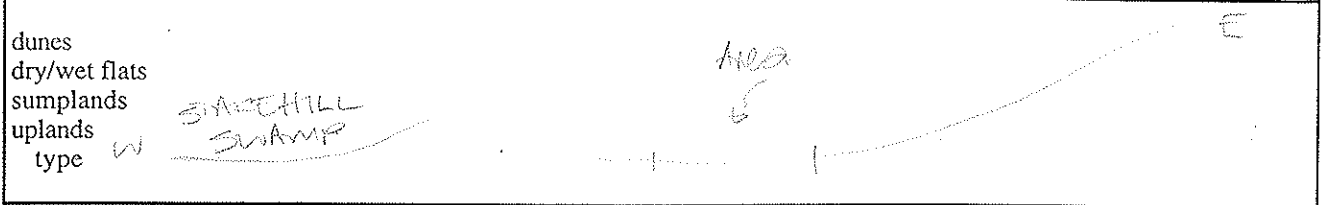
Observations edge transects

Spanwood S

Geographic Location Latitude S Longitude E
 Reference Map

Photograph Photographer's Name BRUNNEN Photo No (A) = 33

Transect of landscape units (draw in transect incorporating features listed and any other relevant unit)



Soil - surface Exposed rock type % area sub -soil

FLORA/VEGETATION (list dominant and significant plants below, see over for vege-association descriptions)

Eucalypts	<i>E. calophylla</i>	<i>E. wandoo</i>	<i>E. marginata</i>	<i>E. todtiana</i>	<i>E. rudis</i>
	<i>E. decipiens</i>	<i>E. drummondii</i>	<i>E. haematoxylon</i>	<i>E. lanepolei</i>	<i>E. gomphocephala</i>
	<i>E. accedens</i>	<i>E. patens</i>	<i>E. laeliae</i>	<i>E. megacarpa</i>	
Sheoaks	<i>Allocasuarina fraserana</i>		<i>Casuarina obesa</i>		
Banksia	<i>B. attenuata</i>	<i>B. menziesii</i>	<i>B. prionotes</i>	<i>B. illicifolia</i>	<i>B. grandis</i> <i>B. littoralis</i>
Melaleuca	<i>M. preissii</i>	<i>M. raphiophylla</i>	<i>M. lanceolata</i>	<i>M. cuticularis</i>	
Others	<i>Callitris preissii</i>				
Mallees	Eucalypts	<i>E. argutifolia</i>	<i>E. petrensis</i>	<i>E. decurva</i>	<i>E. foecunda</i> <i>E. latens</i>

SIGNIFICANT SPECIES / DOMINANT SPECIES

Brauneria stictoloba

(see over for vegeaion descriptions)

Vegetation Condition - Keighery 1994 (Trudgen 1993) (show range and indicate predominant class)

1 = 'Pristine' (Excellent)	
2 = Excellent (Very Good)	
3 = Very Good (Good)	EXCELLENT TO DEGRADED
4 = Good (Poor)	60% 25% 15%
5 = Degraded (Very Poor)	
6 = Completely Degraded	

Specific aspects of disturbance

partial clearing	
weeds (list):	<u>Vegetation grass</u> <u>E. ampel</u>
selective removal of species:	timber cutting mowing fire grazing dieback %area
fire frequency:	
'enrichment plantings' (list)	
animal impact:	horse foxes rabbits cats dogs goats pigs overgrazing by native mammals
soil movement:	mining dumping rubbish dumping roadworks
changes in water regimes:	flooding drainage watering nutrient influx
Tracks:	fire breaks walk trails off road vehicle use animal tracks
Service corridors:	SEC Main Roads Water Authority. Telecom
Other	

VEGETATION (describe each unit of vegetation using dominants and life form/height class and canopy cover according to the Muir/^{Keiskla} codes above)

(A)
PHOTO 33

A. Euc pud - scattered 1-2% on edge
 Meli thorn (6-7m) 70-80%
 Acacia salina (6) 1
 Pausan stichodallm 40% **PHOTO 33**
 Cassinia
 Some kikuyu.

- edges of scrub & cleared
 - sparse A. saligna
CANVT: EXCEL

(B)

(B) Meli thorn (4m) 70-80%
 Pausan stichodallm 10%
 Leucadine (6m) 10% **CANVT: EXCEL**

- some kikuyu on edge

(C)

(C) E. viminalis 5m - 7m - 2%
 E. sten. 3m - 6m - 2%
 P. thicket 3m 2%
 A. foresta 3-7m 4%
 Scattered Euc. Canopy 8-10m < 10%
 Velvet grass 20-30%

v. occ. Marziana + H. ... + Dianella ...
 Xanthorrhoea?

pingi ...
CANVT: v. DRS

Fauna comments

tot - dead a (A)

Adjacent bushland (refer to aerial photograph)

OTHER COMMENTS

Subm?

hh

SYSTEM 6 BUSHLAND SUBMISSION FORM FOR CONSIDERATION IN THE UPDATE PROGRAMME

If you wish to submit more than one area for consideration in the System 6 update, please use a separate form for each area.

Please fill in each section giving as much information as possible.

LOCATION, OWNERSHIP AND ZONING OF THE AREA

1. Location *Churchen Swamp*

Please give as accurate and detailed a description as possible of the site location

Please include either a hand drawn or copied map showing the area of the area

a) Bordering Roads: *Churchen Road / Baldwin's Rd.*

b) Nearest Corner:

c) Lot Number: Street Number:

d) Town/Suburb/Location: *Baldwin's*

e) Local Council: *Rockingham*

f) Site Name (if any):

g) Approximate size of the area (ha):

h) Please locate the area on a map and give us map references if possible:

.....

i) Map: Streetsmart /UBD/Other:

j) Map no.:

k) Grid Ref:

l) Please give any other information that may help us to find the location:

See SWest Coastal Structure Plan Review Working Paper No. 3, Figure 10 - Wet lands.

m) Are you aware of any development proposals that are likely to affect the area?

.....

.....

NOTE: Areas that have already been given development APPROVAL should not be nominated

Please fill out those questions that you can answer

2. Who owns the area? (If owned by the person/s making the nomination please indicate)
..... *Rural*

3. If you own the area, and may be interested in participating in conservation on private land initiatives please indicate (and leave your name and address at the end of this submission form)

4. What is the area zoned? (please indicate whether zoning is Town Planning Scheme or Metropolitan Region Scheme) *Rural*

CAN YOU TELL US A LITTLE ABOUT THE PHYSICAL CHARACTERISTICS OF THE AREA

5. Why do you consider this area important? (Refer to Guiding Issues paper)

① *Closed peat and silt condition - part of chain of wetland*

6. What is/are the soil type/s and colours ?

Type: Sand/Clay/Gravel/Loam/Silt
Colour: White/Grey/Brown/Orange/Yellow/Red/Black

7. Does the area have any special features such as unusual landforms / landscapes that still retain their natural vegetation? Yes/No

If yes, what are they?
.....
.....

8. Is the area a wetland or does it include a wetland?

If yes, what kind of a wetlands is it?

- a) lake
- b) river
- c) stream
- d) swamp
- e) estuary
- f) seasonally wet
- g) other

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

CAN YOU TELL US A LITTLE ABOUT THE VEGETATION /FAUNA ON THE NOMINATED AREA.

10. What percentage of the area is indigenous vegetation?

11. If the area includes regions cleared of native bushland please indicate reasons for the inclusion.

12. Has any previous flora or fauna survey work been done on the area?

If yes, please give details of the work

seminar studies, MPP-PEP, WANA.

13. How would you rate the condition of the native bushland? (see attached table)

- a) pristine
- b) excellent
- c) very good
- d) good
- e) degraded
- f) completely degraded
- g) don't know

14. Please indicate the disturbances affecting the area and where appropriate the percentage of the area disturbed.

- a) Partial clearing
- b) fragmentation
- c) Selective removal of species: timber cutting, wildflower picking, mowing dieback and other plant diseases
- d) Fire regime, including intensity, season and frequency
- e) 'Enrichment plantings' that is plantings of species not found in that community
- f) Weed invasion
- g) Animal impact: horses, foxes, rabbits, cats, dogs, camels, goats etc
- h) Soil movement, both removal and dumping
- i) Changes in water regimes; flooding, drainage and watering
- j) Salinity
- k) Fertiliser drift and along waterways nutrient influx
- l) Mining, including that for road works

- m) Grazing: stock, overgrazing by feral or native mammals
- n) Proliferation of tracks, fire breaks and walk trails
- o) Off-road vehicle use
- p) Use as service corridors by the SEC, Main Roads, Water Authority.

(Source: B Keighery. Bushland Plant Survey, September 1994)

15. Does the area contain any plant species of special interest that you know of?
(eg. declared rare flora, priority taxa, outlier populations)

Do you know what they are?

.....

16. Do you know of any native animals that use the area?

Can you list those you know of? (birds, mammals, reptiles, amphibians etc)

.....

17. Is the area used by any native animals of special interest? (eg. endangered species, large/important populations).....

If yes, please name them and indicate source of information

.....

.....

CAN YOU TELL US A LITTLE ABOUT THE SURROUNDING AREA

18. Are there any bushland areas (including wetlands) near to this area?
.....

If yes, how close are they ?

.....

.....

Are they already conservation reserves?

What is their approximate size?

19. Does the submitted area link other bushland areas?

.....

.....

Please attach any additional information about the area which may be of use when assessing it.

Table 2: Vegetation Condition Scale

Modified from Trudgen 1991 by B. J. Keighery for the Swan Coastal Plain Survey 1993.

1 = 'Pristine'

Pristine or nearly so, no obvious signs disturbance.

2 = Excellent

Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species

For example damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.

3 = Very Good

Vegetation structure altered, obvious signs of disturbance.

For example disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.

4 = Good

Vegetation structure significantly altered by very obvious signs of multiple disturbance. Retains basic vegetation structure or ability to regenerate to it.

For example disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and grazing.

5 = Degraded

Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management.

For example disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.

6 = Completely Degraded

The structure of the vegetation is no longer intact and the area is completely or almost completely without native species.

These areas are often described as 'parkland cleared' with the flora composing weed or crop species with isolated native trees or shrubs.

Source: B Keighery. Bushland Plant Survey, September 1994

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Nr 13037 15272

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