

SHENTON BUSHLAND, SHENTON PARK

Boundary Definition: protected area boundary

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 218

Area (ha): bushland 19.7

Map no. 46

Map sheet series ref. no. 2034-II SW

Other Names: not known

Local Authorities (Suburb): City of Nedlands (Karrakatta)

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Spearwood Dunes

Sands derived from Tamala Limestone (Qts: S7)

VEGETATION AND FLORA

Vegetation Complexes

Spearwood Dunes

Karrakatta Complex — Central and South

Floristic Community Types

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

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

WETLANDS

No wetlands mapped

THREATENED ECOLOGICAL COMMUNITIES

Not assessed

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: vegetated uplands

Vegetation and Flora: limited survey (DEP 1999, Gibson *et al.* 1994 (Shent 01)); detailed survey (Ecoscape 1994a)

Structural Units

Uplands: *Eucalyptus marginata* Woodland over *Banksia attenuata*, *B. menziesii* and *Allocasuarina fraseriana*

Low Woodland; *Banksia attenuata*, *B. menziesii* and *Allocasuarina fraseriana* Low Woodland with scattered emergent *Eucalyptus marginata* and with occasional emergent *E. gomphocephala*

Scattered Native Plants: from above communities — regionally significant vegetation recognised as being in the area of Site in need of protection

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

Total Flora: 109 native taxa, 40 weed taxa (estimated >90% expected flora, Wildflower Society and CALM in Ecoscape 1994a)

Significant Flora: *Jacksonia sericea* (3)

Fauna: structured survey for birds (43 species), reptiles (17 species) and amphibians (3 species) (O. Berry and P. Berry pers. comm.). Significant bird species: category 1 (1), category 3 (3) and category 4 (3). Rich reptile assemblage for the size of reserve. Significant reptile species: Gould's Goanna (*Varanus gouldii*)

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

Other Special Attributes: National Trust of Australia (WA) Classification

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Subject to protection under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Rarity, Maintaining ecological processes or natural systems, Criteria not relevant to determination of regional significance, but which may be applied when evaluating areas having similar values

Recommendation: Site with Some Existing Protection; the existing care, control and management intent of the reserve is endorsed. The purpose of the reserve should be amended to include conservation and appropriate mechanisms applied in consultation with the management body (see Table 3, Volume 1).

SHENTON BUSHLAND, SHENTON PARK

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SECTION 1: CADASTRAL INFORMATION

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

Bushplan Site no. 218 **Map no.** 55 **Map sheet series ref. no.** 2034-II SW

Other Names: not known

Area (ha): total 20.9; bushland 19.7

Local Authorities (Suburb)

Zoning

City of Nedlands (Karrakatta)

MRS: Urban, Public Purposes-Hospital, Public Purposes-Commonwealth Government

TPS: Landscape, Light Industry

Ownership Categories

Lot/Location/Reserve numbers (Purpose),

Local Government

Street name

12019 Lemnos St

Crown Reserve

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

Other Special Attributes: National Trust of Australia (WA) Classification

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Rarity, Maintaining ecological processes or natural systems, Criteria not relevant to determination of conservation value, but which may be applied when evaluating areas having similar values

Opportunities and/or Constraints

Opportunities: Bushplan Site/part Bushplan Site location of Scheduled Fauna; under TPS Landscape Zoning, Crown Reserve

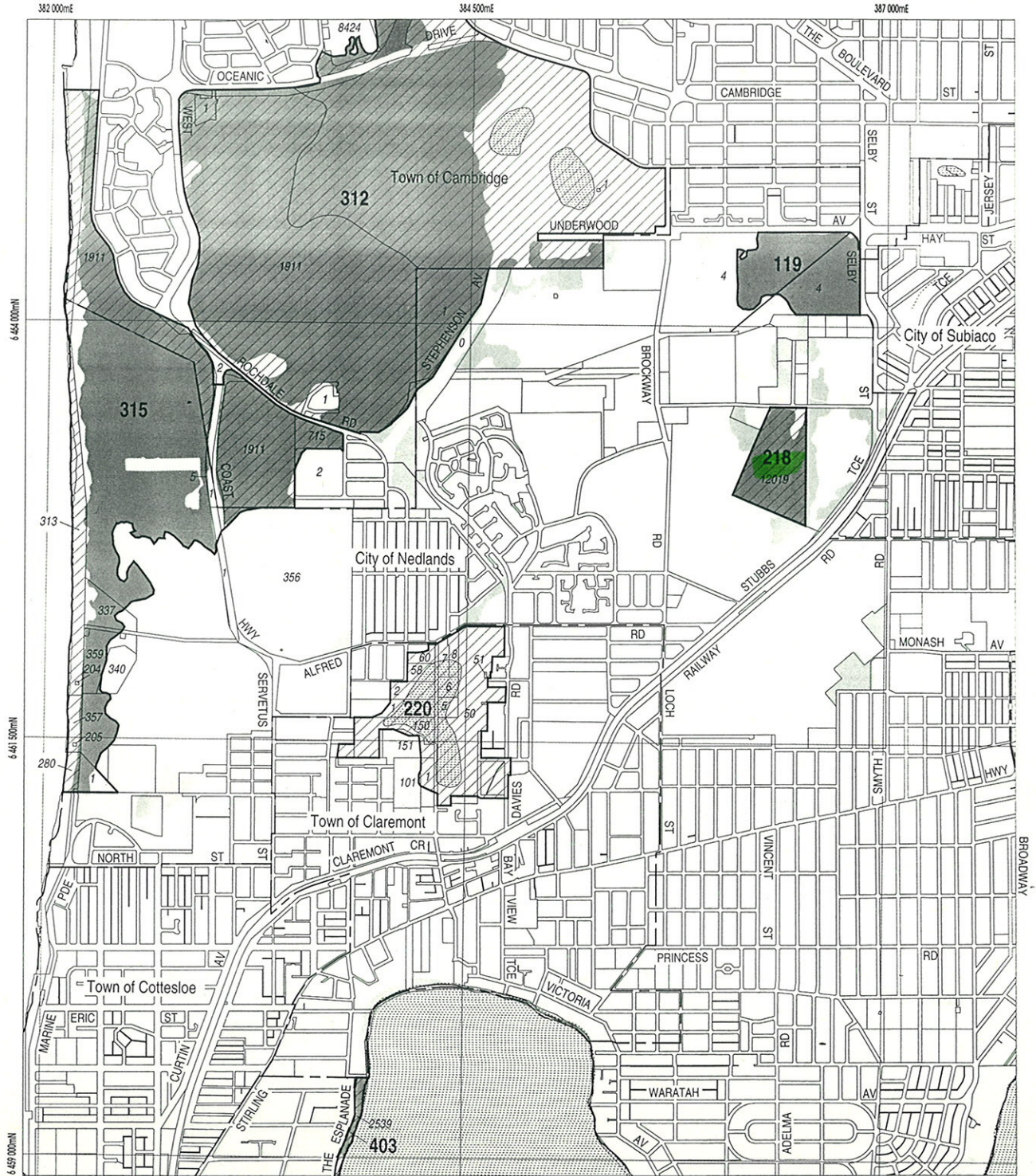
Constraints: under MRS Urban Zoning



Part B DESCRIPTIONS

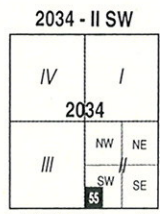
Recommendation: The existing care, control and management intent of the reserve is endorsed. Long-term security and support for conservation management of the Bushplan Site to be enhanced by: amending the purpose of the reserve to include conservation; and applying appropriate mechanisms in consultation with the reserve management body.





LEGEND

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



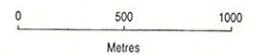
1 : 25 000 AMG Reference Grid showing Perth's Bushplan Map Sheet Breakdown

PERTH'S BUSHPLAN MAP INDEX

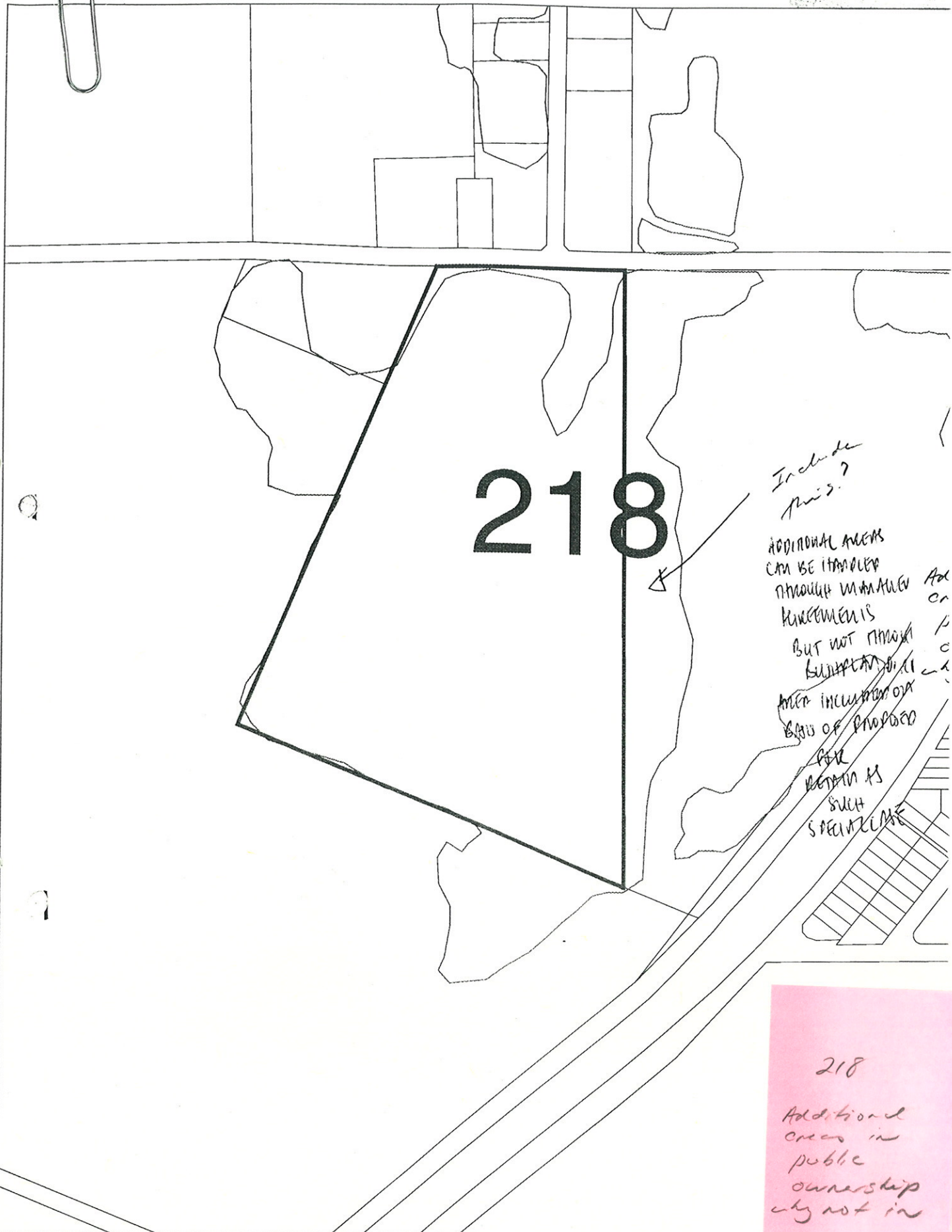
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97	98
99	100
101	102
103	104
105	106



SCALE



Produced by Project Mapping Section
 Land Information Branch, Ministry for
 Planning, Perth W.A. November 1998
 ntw-map18/enviro/bushplan/bushv2_55.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



218

Include this?
 ADDITIONAL AREAS
 CAN BE HANDLED
 THROUGH MINUTE
 KINCORPMENTS
 BUT NOT THROUGH
 BUSHPLAN
 AREA INCLUSION OR
 BASIS OF PROPOSED
 PER
 RETAIN AS
 SUCH
 SPECIAL CASE

218
 Additional areas in
 public
 ownership
 why not in

BUSHPLAN SITES CORRECTED

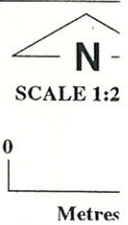


WESTERN AUSTRALIAN PLANNING COMMISSION



CUSTOMER FOCUS WESTERN AUSTRALIA

B T./Bk 22/10/98

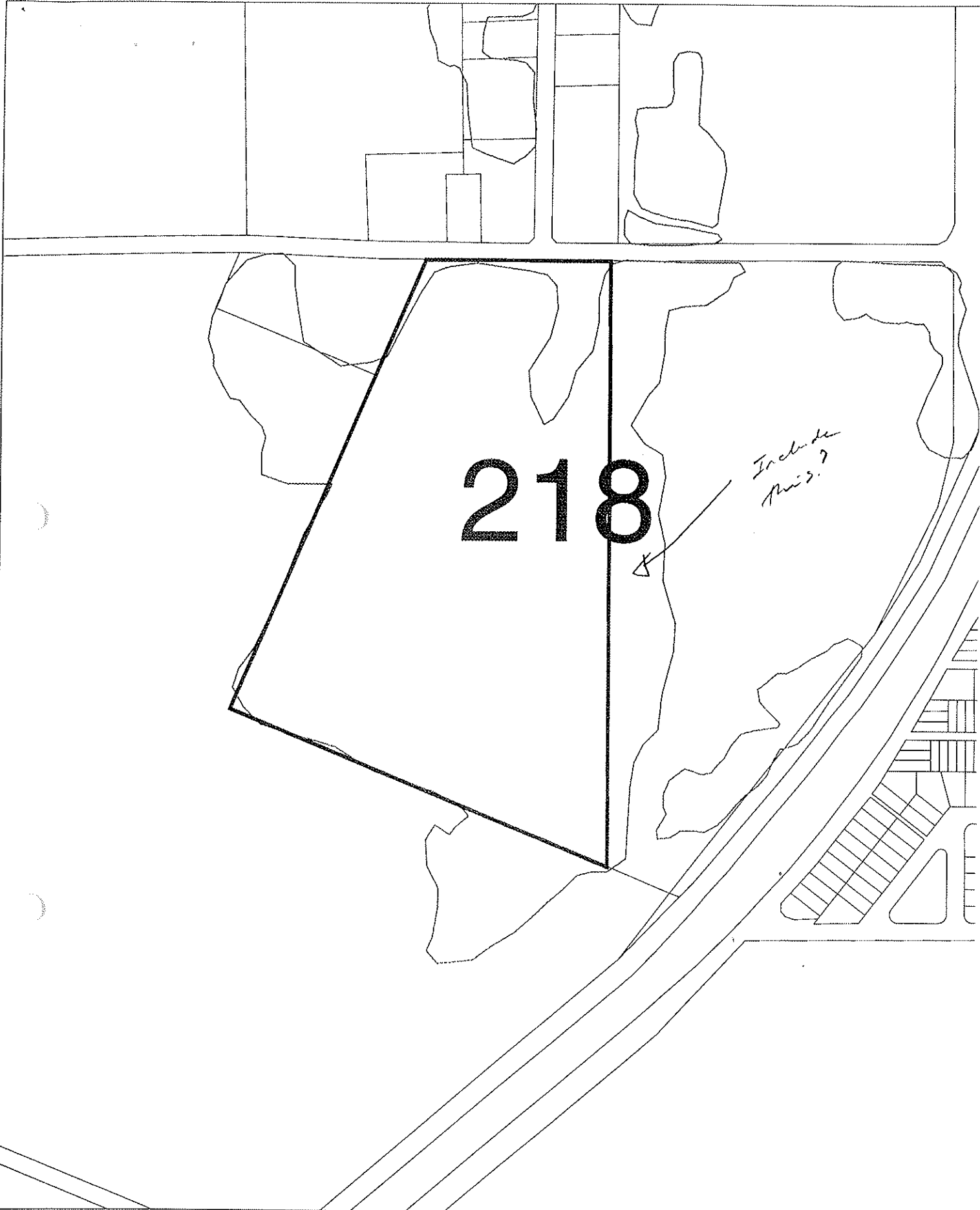


BSK 6/7

BS 218

? Expand boundary to E
to include hospital vegetation
and west to include Dog's
Home area

Addition



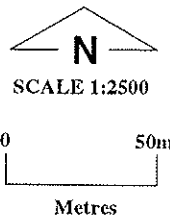
BUSHPLAN SITES CORRECTED

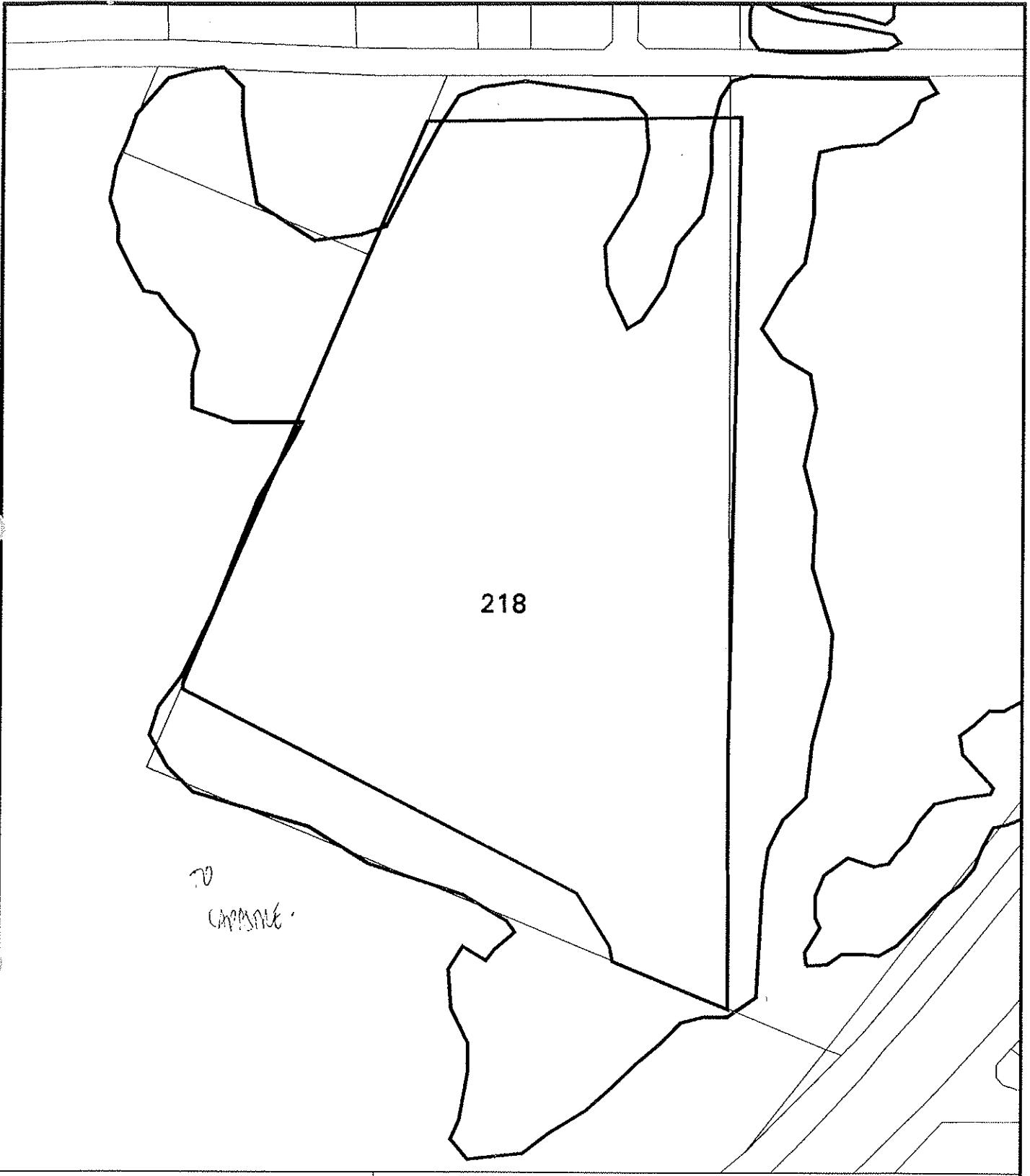


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AUSTRALIAN
PLANNING
COMMISSION**



**CUSTOMER
FOCUS
WESTERN AUSTRALIA**





218

TO
CAPPASINE

bp site 218

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

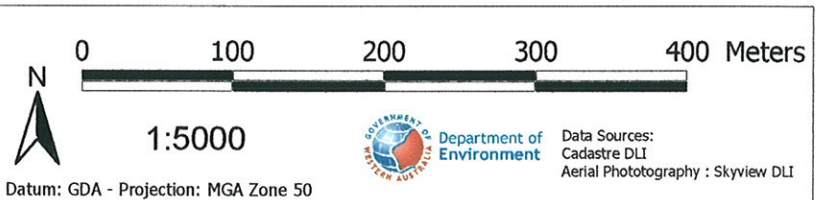
MFP INTERNAL USE ONLY
Prepared By: Andrea Zappacosta
Prepared For:
Map Idet: plot980526_1
Date: 26 May 98
Scale 1:4120

BOUNDARIES ACCORDING TO:
 0 PREVIOUS AMENDMENT TO PLAN.



- ▭ Bush Forever Sites
- ▭ Local Government Authority Boundaries
- Geomorphic Wetlands Feb04 by Evaluation
- ▭ Conservation
- ▭ Resource Enhancement
- ▭ Multiple Use
- Floristic Survey Sites of the Southern Swan Coastal Plain
- GJKENV (Keighery 1996)
- GRIFFIN (Griffen 1994)
- SCP (Gibson et al 1994)
- SYS6ENV (DEP 1996 and Trudgen & Keighery 1995)
- SYS6ENV2 (DEP 1996 and Trudgen & Keighery 1995)
- ★ CALM Threatened Ecological Communities 2002
- Roads - Perth Metropolitan

Bush Forever Site 218: Shenton Bushland, Shenton Park



Data Sources:
Cadastral DLI
Aerial Photography : Skyview DLI

PERTH'S BUSHPLAN

PB069

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Submission from the City of Nedlands**Bold Park Bushplan Site 212**

The City of Nedlands has a small portion in the south eastern corner of Bold Park. This land is currently reserved for Parks and Recreation within the Metropolitan Region Scheme. The area has regional significance as a flora and fauna reserve. The City of Nedlands supports the inclusion of this area as a Bushplan site, and endorses the recommendations in Volume 2 Part B page 294 of Perth's Bushplan.

Shenton Bushland Bushplan Site 218

This area is currently zoned for light industrial use, however there is a proposal to amend the zoning to Parks and Recreational use. The City of Nedlands has actively encouraged a support group "The Friends of Shenton Bushland" in their efforts to ensure the conservation of this area. The City supports the inclusion of this area as a Bushplan site, and endorses the recommendations in Volume 2 Part B page 296 of Perth's Bushplan.

The City also supports the inclusion of bushland remnants adjoining the proposed Bushplan site. These comprise a strip of bushland down the eastern side of Shenton Bushland, part of the Lemnos hospital and Stubbs Terrace hospital grounds, and remnant bushland on the southern side, part of Irwin Barracks. Inclusion of these areas should be with the co-operation of the landowners.

Underwood Avenue Bushland Bushplan Site 219

This area is owned by UWA and is currently used for agricultural research. There are some pockets of localised severe degradation within this site, however the area has high conservation value due to the proximity of Shenton Bushland Site 218, and its potential as part of Greenway 20 a green corridor linking Bold Park, Lake Claremont and Allen Park bushland. The City is aware that the UWA have plans to develop this site, and endorses the recommendations on Volume 2 Part B page 294 of Perth's Bushplan that "the most appropriate mechanism for this Bushplan Site be considered through the public comment period in consultation with the land owner(s)".

Swanbourne Bushland Bushplan Site 315

This area within the City of Nedlands comes mainly within the jurisdiction of the Commonwealth Government and the Water Corporation, but also includes the majority of a small triangle of land (area 1, Map 55), owned in fee simple by the City and currently a Local Scheme Reserve. This is an important coastal section of Quindalup Dune and its conservation should be a high priority. In principle the City of Nedlands supports the inclusion of this area as a Bushplan site and endorses the recommendations in Volume 2 Part B page 346, although with some reservations (refer to general comments section below).

The City also supports the inclusion of bushland contained in Allen Park an area adjacent to this Bushland site. Its inclusion is warranted on the grounds that it is currently listed by the National Trust of Australia, contains a high level of bio-diversity and its potential as part of Greenway 20 linkage to the Lake Claremont wetland area.

Point Resolution Reserve, Dalkeith

Bushplan Site

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This area is currently identified as a Metropolitan Scheme Reserve and is one of the few naturally vegetated areas along the Swan estuary. The City supports the inclusion of this area as a Bushplan site and endorses the recommendations on page 382 Volume 2 Part B of Perth's Bushplan.

General Comments

It is accepted that priority for resumption of Local Government freehold land may be lower than privately owned Bushplan sites, but nevertheless Local Government should still be compensated for loss of development rights. The use of these compensation funds could be tied to the management of Local Bushland sites if this is considered appropriate.

Following from this is the problem of managing bushland areas. There is a perception that management of locally significant bushland will be the responsibility of Local Government. The City of Nedlands has a comparatively small rate base and several Bushplan sites within its boundaries. As a consequence there is a lack of funds available for the management of both Bushplan sites and other significant local bushland. The Bushplan document does not address how it is proposed to manage these sites once they have been declared.

There is a need for appropriate rezonings for conservation purposes in both the Metropolitan Region Scheme and Nedlands Planning Scheme.

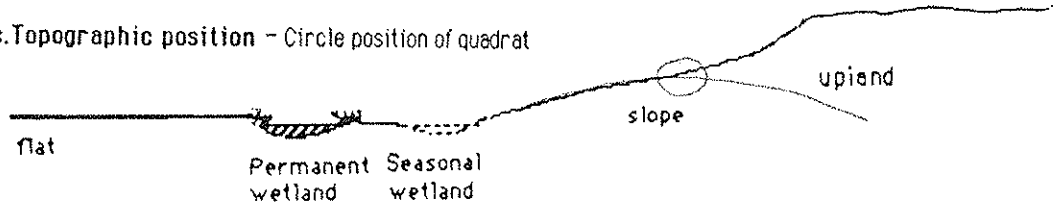
QUADRAT No. 514857 41 VEGETATION TYPE Grassy Swamp and Banksia
 DATE FIRST TRIP 22/7/92 VOLUNTEERS _____
 DATE SECOND TRIP 1/24/92 VOLUNTEERS BJM
 BOTANIST BJK, CW

1. LOCATION of the QUADRAT

a. Mud Map Draw a sketch of the location of the quadrat the back of this sheet. →

b. Photograph Photographer's name _____

c. Topographic position - Circle position of quadrat



Keighery and Keighery, 1990
Adapted from Griffin and Keighery, 1989
MOORE RIVER to JURRIEN SANDPLAIN
SURVEY. WILDFLOWER SOCIETY of WA

SITE-N7

2. SITE DATA - Circle the correct response

Slope flat gentle steep Aspect N NE E SE S SW W NW





% Bare ground 0% Drainage well mod poor Wet All year winter/spring






Litter (% cover) _____ Surface soil _____ Sub-surface soil _____


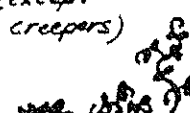


3. VEGETATION STRUCTURE AND COVER. Record appropriate cover class

Environ Pool S7

Cover Class - percentage classes

LIFE FORM	TREES	<i>Forest</i>	<i>Bank trees</i>	MALLEES		15m 10m 5m
		<i>Bank all edge</i>	<i>Mountains</i>	MALLEE SHRUB <i>less than 8m</i>	MALLEE TREE <i>8m or more</i>	
COVER CLASS (%)	<i>> 15m</i> <i>5-15m</i>		<i>Under 5m</i> 			
	<i>2-15m</i> <i>5-15m</i>	<i>20-30%</i>				

LIFE FORM	SHRUBS						3m 2m 1m
		<i>over 2m</i>	<i>2.0-1.5m</i>	<i>1.5-1.0m</i>	<i>1.0m-.5m</i>	<i>under 5m</i>	
COVER CLASS (%)							
		<i>20-30%</i>	<i>10-20%</i>	<i>2-10%</i>			

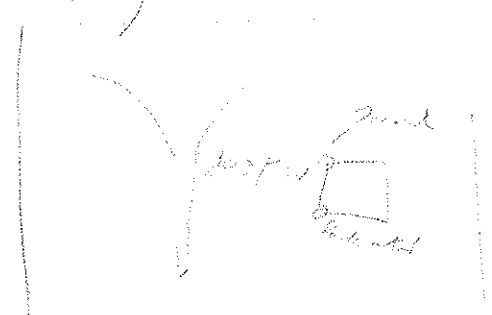
LIFE FORM	BUNCH GRASSES	HERBS	SEDGES	<i>Moss ground</i>	1.0m 1.5m 1.0m .5m
		<i>under .5m</i>	<i>under .5m (except creepers)</i>	<i>over .5m</i>	
COVER CLASS (%)					
	<i>2-10%</i>			<i>20-30%</i>	

Presently 120A to be
Woodland Local Govt.

Height (metres)

Stubb legs
The
hug

US



- Styrol rob.
- ✓ Petro. minor
- Alone trap.
- Blue pol.
- Red grain
- Shyppin
- Atter: red
- ✓ No. calog
- ✓ Stent
- ✓ Red. lat.
- ✓ Haem. toxin
- ✓ Conus. yard
- ✓ Dry ~~canis~~.
- Das nudi
- luna pui.
- ✓ Drive synth
- ✓ e. long. bab.
- ✓ Alia vit.
- ✓ Aug. hum.
- ✓ She lat.

- ✓ Stomach
- North hug
- Back face
- Blue in
- Stubb case
- Red camp
- Same. jans.
- Red card
- Gene case.
- Green sulp
- ✓ Haem. spec.
- ✓ No. hug
- ✓ Long. hug
- ✓ Long. p
- ✓ Stubb yard
- ✓ Rat. bow.
- ✓ Myb. only.
- ✓ Ak. cut
- ✓ Drive. long.
- ✓ Red spider
- ✓ Can. drain
- ✓ Ppae. way
- ✓ Tric. elat.
- ✓ Phlet. grain

12/16

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

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: Lemnos St (Northern boundary)

b) Nearest Corner: Lemnos St / Stubbs Tce.

c) Lot Number: Street Number:

d) Town/Suburb/Location: Shenton Park

e) Local Council: City of Nedlands

f) Site Name (if any): Shenton Park Bushland (or Nedlands Bushland)

g) Approximate size of the area (ha): 24.5 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:

West of Lemnos Hospital & north of Irish Barracks

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) Vested to City of Nedlands + Health Dept.

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)

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)

6. What is/are the soil type/s and colours? Karrakatta, some Cottlesloe

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? Yes. It is most significant that it is an area of natural bush in an urban landscape.

8. Is the area a wetland or does it include a wetland? No

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.

Some tracks, some weed invasion.

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

Yes.....

If yes, please give details of the work. Draft Management Plan prepared for City of Nedlands by Ecoscape (July 1994)

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)
At least 25 bird species, Brushtail Possum, rats, wephles (not surveyed)

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?
Yes

If yes, how close are they? *It lies between Kings Park & Bold Park*

Are they already conservation reserves?

What is their approximate size?

19. Does the submitted area link other bushland areas?
Not directly, but may provide a link for birds between Bold Park & Kings Park.

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

Q5. Importance of the Area.

1. As a link between Bold Park and Kings Park it may have an important function for avian habitat + feeding, + consequent seed dispersal or insect control.
2. Given the frequency of fire in Kings Park, it has the potential to act as a refuge for displaced birds + as a centre of dispersal for repopulation of Kings Park after fire.
3. It is also a centre of dispersal for small birds + reptiles into surrounding gardens where they maintain a presence for urban wildlife, + control insects + hence reduce the need for pesticides.
4. It is much less developed than Bold Park + Kings Park and provides a more natural experience for people who may now, or in the future, wish to maintain their contact with nature.
5. It is a valuable educational tool. Friends of Shenton Park Bushland have established monitoring sites.
6. It provides a focus for local community concern + need for action to preserve natural areas.
7. Given the vast spread of urbanisation it is important to retain such a uniquely large bush block for its own sake. That it is there at all is its chief importance + most significant reason for perpetual protection.

FOR INTERNAL USE ONLY from Gibson *et.al* 1994

1

CONTACT DR N. GIBSON CALM WOODVALE for further information.

Flora list for Shenton Park Bushland (extracted from Swan Coastal Plain database, Shent01, 29/1/96).

Department of Environmental Protection System 6 Update: Site Based Flora List for Shenton Park Bushland

(extracted from the CALM Swan Coastal Plain database, Shent01, 29/1/96)

Anthericaceae

Caesia micrantha
Sowerbaea laxiflora
Thysanotus patersonii

Apiaceae

Xanthosia huegelii

Asteraceae

* Hypochaeris glabra
* Ursinia anthemoides

Campanulaceae

* Wahlenbergia capensis

Caryophyllaceae

* Petrorhagia velutina
* Silene gallica

Casuarinaceae

Allocasuarina fraseriana

Colchicaceae

Burchardia umbellata

Cyperaceae

Lepidosperma angustatum
Mesomelaena pseudostygia
Schoenus clandestinus
Tetraria octandra

Dasyogonaceae

Lomandra hermaphrodita
Lomandra maritima

Dilleniaceae

Hibbertia huegelii

FOR INTERNAL USE ONLY from Gibson *et.al* 1994

2

CONTACT DR N. GIBSON CALM WOODVALE for further information.

Flora list for Shenton Park Bushland (extracted from Swan Coastal Plain database, Shent01, 29/1/96).

Hibbertia hypericoides

Droseraceae

Drosera stolonifera

Euphorbiaceae

Monotaxis grandiflora

Geraniaceae

* Pelargonium capitatum

Goodeniaceae

Scaevola repens var. repens

Haemodoraceae

Conostylis aculeata

Conostylis setigera

Iridaceae

* Gladiolus caryophyllaceus

* Romulea rosea

Mimosaceae

Acacia pulchella

Myrtaceae

Eucalyptus gomphocephala

Eucalyptus marginata

Hypocalymma robustum

Orchidaceae

Caladenia flava

Papilionaceae

Daviesia decurrens

Gompholobium tomentosum

Isotropis cuneifolia

Jacksonia sericea

Kennedia prostrata

Nemcia capitata

FOR INTERNAL USE ONLY from Gibson *et.al* 1994

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CONTACT DR N. GIBSON CALM WOODVALE for further information.

Flora list for Shenton Park Bushland (extracted from Swan Coastal Plain database, Shent01, 29/1/96).

Phormiaceae

Dianella revoluta var. divaricata

Poaceae

- * Aira caryophyllea
- * Briza maxima
- * Ehrharta calycina

Proteaceae

Banksia attenuata
Banksia menziesii
Grevillea vestita
Petrophile linearis

Restionaceae

Alexgeorgea nitens
Loxocarya flexuosa

Xanthorrhoeaceae

Xanthorrhoea preissii

Department of Environmental Protection System 6 Update: Site Based Flora List for Shenton Park Bushland

(extracted from the CALM Swan Coastal Plain database, Shent01, 14/12/95)

Anthericaceae

Caesia occidentalis
Chamaescilla corymbosa
Thysanotus thyrsoides
Thysanotus triandrus

Asteraceae

* Hypochaeris glabra
* Ursinia anthemoides

Campanulaceae

* Wahlenbergia capensis
Wahlenbergia preissii

Crassulaceae

Crassula colorata
Crassula pedicellosa

Cyperaceae

Mesomelaena tetragona
Schoenus subflavus
Tetraria australiensis
Tetraria octandra

Dasypogonaceae

Kingia australis
Lomandra hermaphrodita
Lomandra sericea

Dilleniaceae

Hibbertia hypericoides

Droseraceae

Drosera sp. scps

Epacridaceae

Astroloma stomarrhena

Goodeniaceae

Goodenia caerulea
Lechenaultia biloba

CONTACT DR N. GIBSON CALM WOODVALE for further information.

Flora list for Shentin Park Bushland (extracted from Swan Coastal Plain database, Shent01, 14/12/95).

Haemodoraceae

Conostylis setigera
Haemodorum laxum
Haemodorum spicatum

Iridaceae

Patersonia babianoides
Patersonia occidentalis
Patersonia rudis

Mimosaceae

Acacia lateriticola
Acacia myrtifolia
Acacia teretifolia

Myrtaceae

Baeckea camphorosmae
Beaufortia bicolor
Calothamnus sp. scps
Eremaea pauciflora
Eucalyptus marginata subsp. elegantella
Melaleuca trichophylla

Papilionaceae

Bossiaea ornata
Daviesia decurrens
Gompholobium knightianum
Hovea trisperma
Nemcia dilatata

Pittosporaceae

Pronaya fraseri

Poaceae

* Aira caryophyllea
* Briza maxima
* Lolium rigidum
Neurachne alopecuroidea

Proteaceae

Dryandra armata
Dryandra nivea
Hakea cyclocarpa
Hakea ruscifolia
Hakea stenocarpa
Petrophile squamata

CONTACT DR N. GIBSON CALM WOODVALE for further information.

Flora list for Shentin Park Bushland (extracted from Swan Coastal Plain database, Shent01, 14/12/95).

Restionaceae

Loxocarya fasciculata

Stylidiaceae

Levenhookia pusilla

Thymelaeaceae

Pimelea sp. scps

Xanthorrhoeaceae

Xanthorrhoea acanthostachya

Xanthorrhoea gracilis

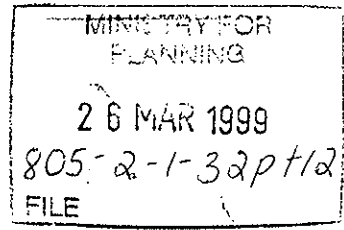
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March 25, 1999

Francis Street, Perth
Western Australia 6000
Telephone (08) 9427 2700
Facsimile (08) 9427 2882

Bushland Coordinator
Perth Bushplan
Ministry for Planning
Albert Facey House
469 Wellington Street
PERTH WA 6000



PB069

Dear Sir/Madam

Comments on Shenton Bushland, Shenton Park (Volume 2 Part B page 295) and Underwood Avenue Bushland, Shenton Park (Volume 2 Part B page 294)

The Museum has studied **Shenton Bushland** over five consecutive summer seasons 1994/95 – 1998/99 and recorded birds (40), reptiles (17) and frogs (3). Significant bird species: category 1 (1), category 3 (3) and category 4 (5). The discovery of a Barn Owl nest in the metropolitan area is regarded as significant. Significant reptile species: Gould's Varanus (*Varanus gouldii*).

In 1998/99 permission was obtained from the University of WA to survey the fauna of nearby **Underwood Avenue Bushland**. The principal objective of this was to enable a comparison to be made with **Shenton Bushland** which was surveyed concurrently. **Underwood Avenue Bushland** (31.5 ha) is somewhat larger than **Shenton Bushland** (19.7 ha) and in some respects its vegetation is less degraded. It was thus intended to determine whether any animal species were present that had not been recorded in **Shenton Bushland**. Their presence would be indicative that they probably occurred in **Shenton Bushland** in the past.

Results obtained indicate that the species composition of birds, reptiles and amphibians in the two bushlands is very similar. (See attached lists). No additional reptile species were recorded in the **Underwood Avenue Bushland**. The Dugite (*Pseudonaja affinis*) and Gould's Varanus (*Varanus gouldii*) were the only species not recorded there. However, most species of reptiles and frogs were more abundant in the **Underwood Avenue Bushland**, possibly reflecting different recent fire histories. The Varied Sitella, Rufous Whisler and probably also the Little Eagle all breed in **Underwood Avenue Bushland**, but have not been recorded to do so in **Shenton Bushland**.

It is likely that these, and some other bird species recorded in **Shenton Bushland**, are visitors from **Underwood Avenue Bushland** and may be dependant on the combined area of these two adjacent bushlands. Despite the shorter sampling period at **Underwood Avenue Bushland**, a greater number of bird species have been recorded breeding there than at **Shenton Bushland**

SUBMISSION NO 332

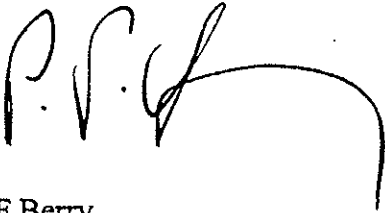
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|--|--|--|--|--|---|
| Museum of Natural Science
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Maritime Museum
Cliff Street, Fremantle
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Western Australia 6530
Telephone (08) 9921 5080
Facsimile (08) 9921 5158 | Albany Residency
Museum
Residency Road, Albany
Western Australia 6330
Telephone (08) 9841 4844
Facsimile (08) 9841 4027 | Museum of the Goldfields
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Western Australia 6430
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|--|--|--|--|--|---|

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It is suggested that the Bushplan should document and take into account breeding sites of raptors in the metropolitan area. For example, traditional breeding sites (which are often used repeatedly over many years) of raptors such as the Goshawk, Barn Owl and Little Eagle, must now be rare in the metropolitan area.

In 1998/99 arachnids and other non-insect invertebrates were also collected from the **Shenton Bushland** and **Underwood Avenue Bushland** pits. Identifications are proceeding but are currently incomplete.

The WA Museum strongly supports the ranking of **Shenton Park Busland** and **Underwood Avenue Busland** as being of regional significance and draws attention to their proximity and likely interdependence, particularly with regard to birds.

Yours faithfully

A handwritten signature in black ink, appearing to read 'P.F. Berry', with a long horizontal flourish extending to the right.

P.F. Berry
Director
Museum of Natural Science

REPTILE AND FROG LIST FOR SHENTON BUSHLAND (1194-99) AND
UNDERWOOD AVENUE BUSHLAND (1998-1999)

O. F. and P. F. Berry

TAXON	SHENTON BUSHLAND	UNDERWOOD AVENUE BUSHLAND
REPTILES		
Pygopodidae – Legless Lizards		
<i>A. repens</i>	X	X
<i>L. burtonis</i>	X	X
Scincidae - Skinks		
<i>Ctenotus fallens</i>	X	X
<i>Ctenotus lesueurii</i>	X	X
<i>Cryptoblepharus plagiocephalus</i>	X	X
<i>Hemiergis quadrilineata</i>	X	X
<i>Lerista elegans</i>	X	X
<i>Lerista praepedita</i>	X	X
<i>Menetia greyii</i>	X	X
<i>Morethia obscura</i>	X	X
<i>Tiliqua rugosa</i>	X	X
Gekkonidae - Geckos		
<i>Phyllodactylus marmoratus</i>	X	X
Agamidae - Dragons		
<i>Pogona minor</i>	X	X
Typhlopidae – Blind-snakes		
<i>Ramphotyphlops australis</i>	X	X
Elapidae – Elapid Snakes		
<i>Simoselaps bertholdi</i>	X	X
<i>Pseudonaja affinis</i>	X	-
Varanidae - Monitors		
<i>Varanus gouldii</i>	X	-
FROGS		
Leptodactylidae		
<i>Helioporus eyrei</i>	X	
<i>Limnodynastes dorsalis</i>	X	X
<i>Myobatrachus gouldii</i>	X	X

BIRDS RECORDED FROM SHENTON BUSHLAND (1994-1999) AND UNDERWOOD AVENUE BUSHLAND (1998-1999) by P. F. and O. F. Berry

SPECIES	Shenton Bushland	University Bushland
Australian Hobby	X	X
Black-shouldered Kite	X	
Goshawk	X	X
Sparrowhawk	X	X
Wedge-tailed Eagle	X	
Little Eagle	X	X * N
Painted Button-quail	X	
Little Button-quail	X	
Lace-neck Dove	X*	X*
Laughing dove	X*	X*
Carnaby's White-tailed Black Cockatoo	X	X
Galah	X*	X*
Short-billed Corella	X*	X*
Purple-crowned Lorikeet	X	
Rainbow Lorikeet	X*	X*
Twenty-eight Parrot	X*	X*
Red-capped Parrot	X	
Tawney Frogmouth	X	X
Barn Owl	X * N	
Boobook Owl	X	
Laughing Kookaburra	X	X
Rainbow Bee-eater	X*	X
Sacred Kingfisher	X	X
Welcome Swallow	X	X
Tree Martin	X	
Black-faced Cuckoo-shrike	X	X
Rufous Whistler	X	X*
Western Flyeater (Gerygone)	X	X*
Weebill	X*	X*
Grey Fantail	X	X*
Silver-eye	X	X
Varied Sitella	X	X*
Red Wattlebird	X*	X*
Singing Honeyeater	X*	X*
Brown Honeyeater	X*	X*
White-cheeked Honeyeater		X
Yellow-rumped Thornbill	X	X*
Striated Pardalote	X*	X*
Grey Butcherbird	X	X*
Magpie	X	X
Australian Raven	X*	X

Total number of bird species: 40 32

* = breeding *N = breeding based on nest only