

## SWAN RIVER SALTMARSHES, BAYSWATER/MAYLANDS

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

### **SECTION 1: LOCATION INFORMATION**

**Bush Forever Site no.** 313

**Area (ha):** bushland 38.6

**Map no.** 48

**Map sheet series ref. no.** 2034-II SE

**Other Names:** Submission Area 209

**Local Authorities (Suburb):** City of Bayswater (Bayswater), City of Belmont (Ascot)

**System 6 (1983):** M51 area of bushland goes beyond System area boundaries, all bushland described

### **SECTION 2: REGIONAL INFORMATION**

#### **LANDFORMS AND SOILS**

##### **Pinjarra Plain**

Guildford Formation (Qpa: Ms2) (Qha: Mc1)

Alluvial Colluvial Deposit (Qha/Qc: Ms4)

##### **Bassendean Dunes**

Bassendean Sands (Qpb: S8)

#### **VEGETATION AND FLORA**

##### **Vegetation Complexes**

###### **Pinjarra Plain**

Guildford Complex

Swan Complex

**Floristic Community Types:** not sampled, types not inferred

#### **REGIONAL WETLANDS**

**Wetland Types:** artificial channel, creek, estuary (waterbody), estuary (shoreline and peripheral)

##### **Natural Wetland Groups**

###### **Estuaries**

Swan River (E.2)

**Wetland Management Objectives:** Conservation (39.6ha, 393.8m)

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

#### **THREATENED ECOLOGICAL COMMUNITIES**

Not determined

### **SECTION 3: SPECIFIC SITE DETAIL**

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

**Vegetation and Flora:** limited survey (EPA 1985b, Pen 1983); detailed survey (Connell 1995, Regeneration Technology 1994, Smith 1985)

**Structural Units:** mapping (Pen 1983, Regeneration Technology 1994, Smith 1985)

**Wetlands:** *Eucalyptus rudis* Open Woodland; *Melaleuca raphiophylla* Low Woodland to Low Open Forest with patches of *Juncus pallidus* Sedgeland; *Casuarina obesa* and *Melaleuca raphiophylla* Low Woodland to Low Open Forest; *Sarcocornia quinqueflora* and *Suaeda australia* Low Shrubland to Closed Low Heath; *Halosarcia indica* subsp. *bidens* and *H. halocnemoides* Low Shrubland to Closed Low Heath; *Juncus kraussii* Sedgeland to Closed Sedgeland; Closed Sedgelands dominated by *Bolboschoenus caldwellii* and *\*Typha orientalis*

**Scattered Native Plants:** not assessed

**Vegetation Condition:** varies from Excellent Condition to Completely Degraded

**Total Flora:** 46 native taxa, 39 exotics (Smith 1985) (estimated >50% expected flora)

**Significant Flora:** not surveyed

**Fauna:** structured survey for birds (80 species), native mammals (1 species), reptiles (7 species) and amphibians (6 species) (Siemon 1991). Significant waterbird habitat including breeding, feeding and wading habitats. Significant bird species: category 1 (1), category 3 (7) and category 4 (6). Significant mammal species: Water Rat. Significant reptile species: Mourning Skink (*Egernia luctuosa*)

**Linkage:** no adjacent bushland; part of Greenway 24 (Tingay, Alan & Associates 1998a); part of a regionally significant contiguous bushland/wetland linkage (Part A, Map 7)

**Other Special Attributes:** one of a very limited number of bushland areas on the Swan Estuary, naturally vegetated areas on the Swan Estuary having particular conservation value in providing habitat for fauna and linkage between areas of bushland; contains open space of regional significance (DCE 1983)

***SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE***

Directory of Important Wetlands in Australia; 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, General criteria for the protection of wetland, streamline and estuarine fringing vegetation and coastal vegetation, Criteria not relevant to determination of regional significance, but which may be applied when evaluating areas having similar values

**Recommendation:** Part A: Site with Some Existing Protection; existing Parks and Recreation Reserve. Part B: Regional Creekline Mechanism (with mapped vegetation) (see Table 3, Volume 1).

**SWAN RIVER SALTMARSHES, BAYSWATER/MAYLANDS**

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**SECTION 1: CADASTRAL INFORMATION**

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

**Bushplan Site no.** 313      **Map no.** 51, 57      **Map sheet series ref. no.** 2034-II SE  
**System 6 (1983):** M51 area of bushland goes beyond System area boundaries, all bushland described

**Other Names**      **Area (ha):** total 49.2; bushland 38.6  
 Submission Area 209

**Local Authorities (Suburb)**  
 City of Bayswater (Bayswater), City of Belmont (Ascot)

**Zoning**  
**MRS:** Parks and Recreation, Waterways, Private Recreation

**TPS:** Landscape

**Ownership Categories**

State Government

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

556, 561 Hardey Rd; 226, 230 Harold St; 1, 2, 3 Clarkson Rd; 224, 225 Waterway Cr; 304 Swan View Tce; 0, 107 Stone St  
 Crown Reserve

**SECTION 2: REGIONAL INFORMATION**

**LANDFORMS AND SOILS**

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**Linkage:** no adjacent bushland; part of proposed Greenway 24 (Tingay, Alan & Associates 1997a); part of a regionally significant contiguous bushland/wetland linkage (Volume 2A, Map 8)



Part B DESCRIPTIONS

**Other Special Attributes:** one of a very limited number of bushland areas on the Swan Estuary, naturally vegetated areas on the Swan Estuary having particular conservation value in providing habitat for fauna and linkage between areas of bushland; contains open space of regional significance (DCE 1983)

**SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE**

Directory of Important Wetlands in Australia

**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, Criteria not relevant to determination of conservation value, but which may be applied when evaluating areas having similar values

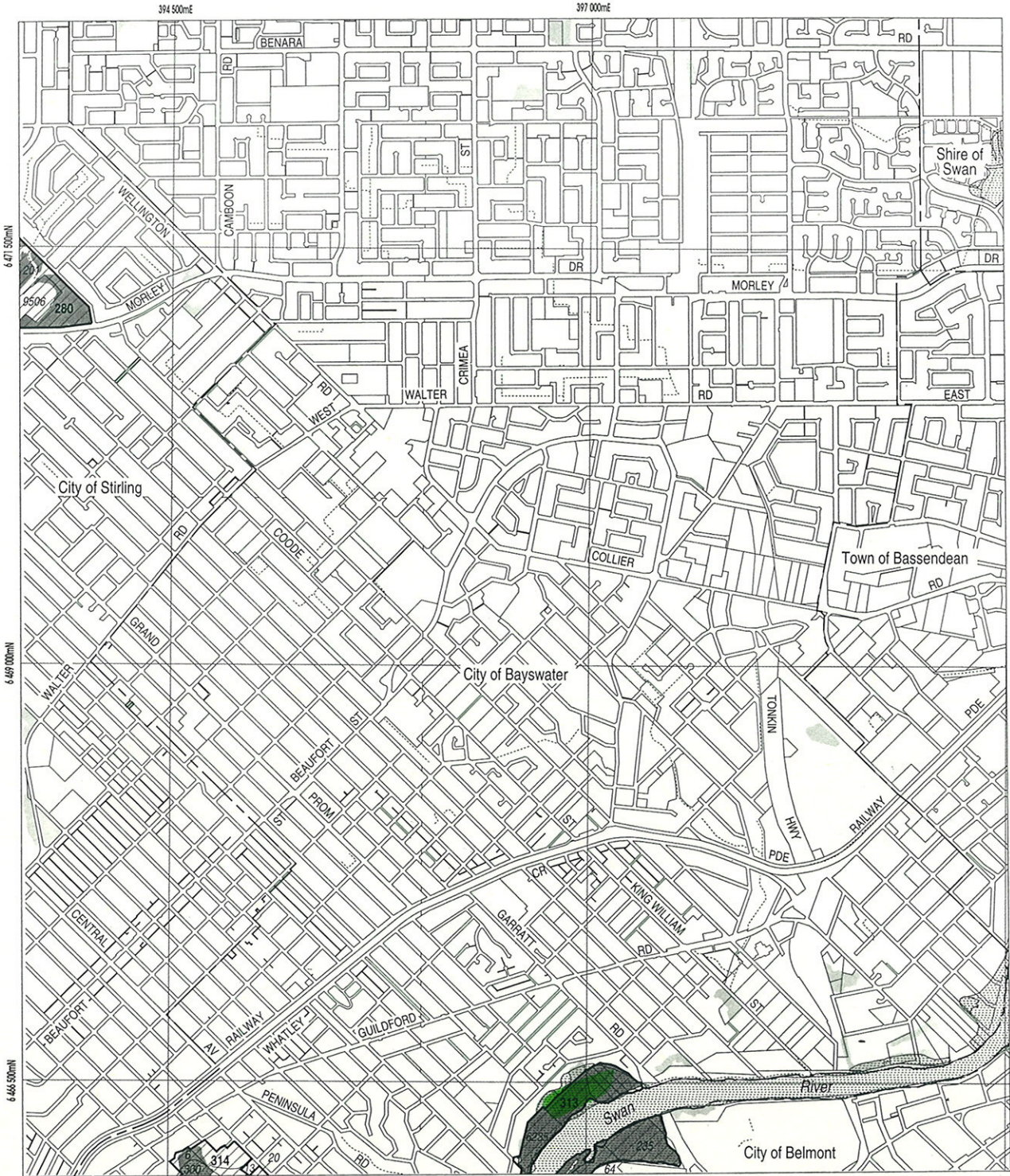
**Opportunities and/or Constraints**

**Opportunities:** Bushplan Site/part Bushplan Site subject to Swan and Canning Rivers EPP; location of Scheduled Fauna, conservation category wetlands; under MRS Parks and Recreation Reservation and TPS Landscape Zoning, Crown Reserve

**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**

- 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

**2034 - II SE**

IV	I
2034	
III	II SE

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					
24	25	26	27	28	29	30					
31	32	33	34	35	36						
37	38	39	40	41	42						
43	44	45	46	47	48						
49	50	51	52	53	54						
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								

**SCALE**

0      500      1000

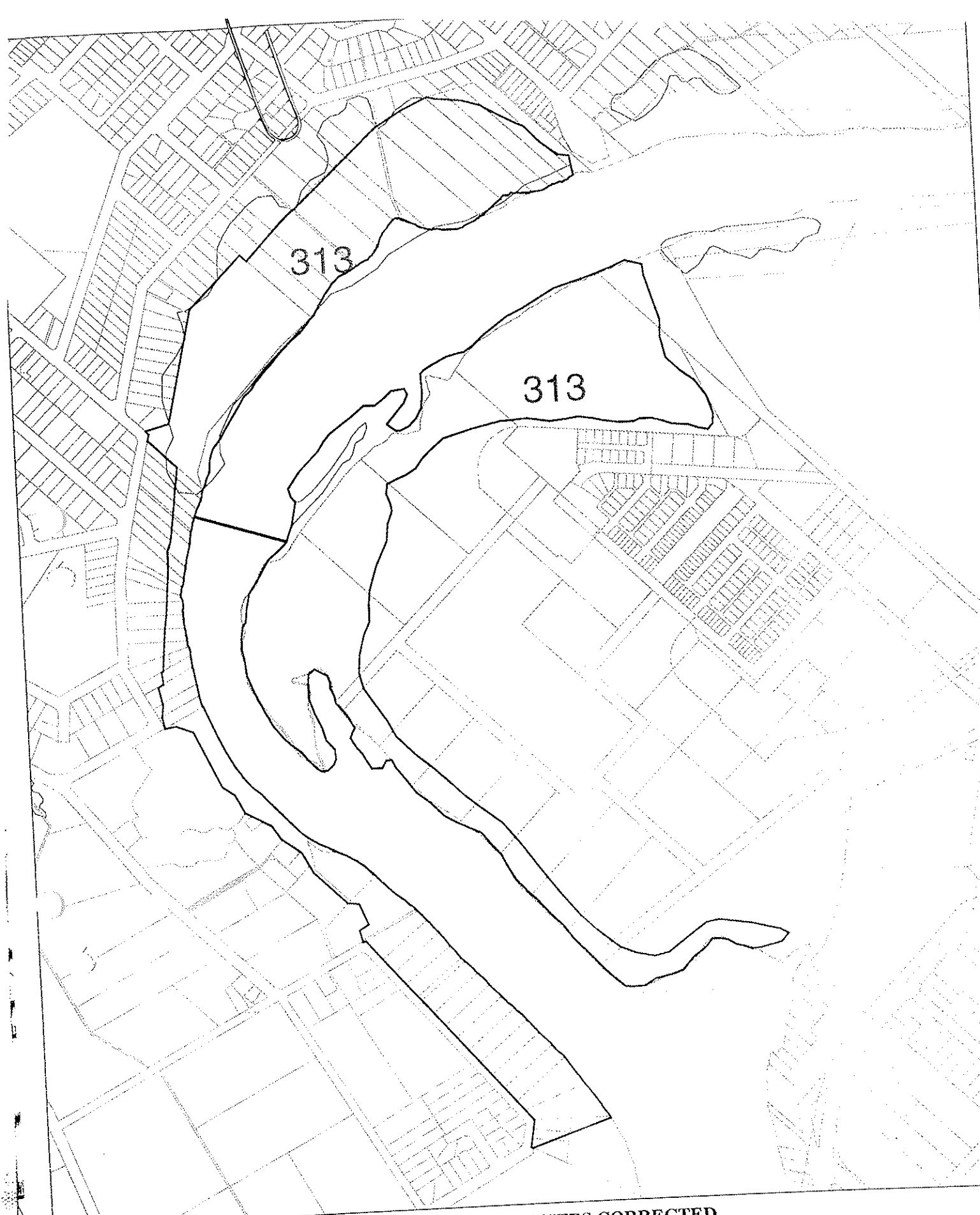
Metres

Produced by Project Mapping Section  
Land Information Branch, Ministry for  
Planning, Perth W.A. November 1998  
ntw-map18/enviro/bushplan/bushv2\_51.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**

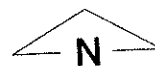


**WESTERN  
AUSTRALIAN  
PLANNING  
COMMISSION**



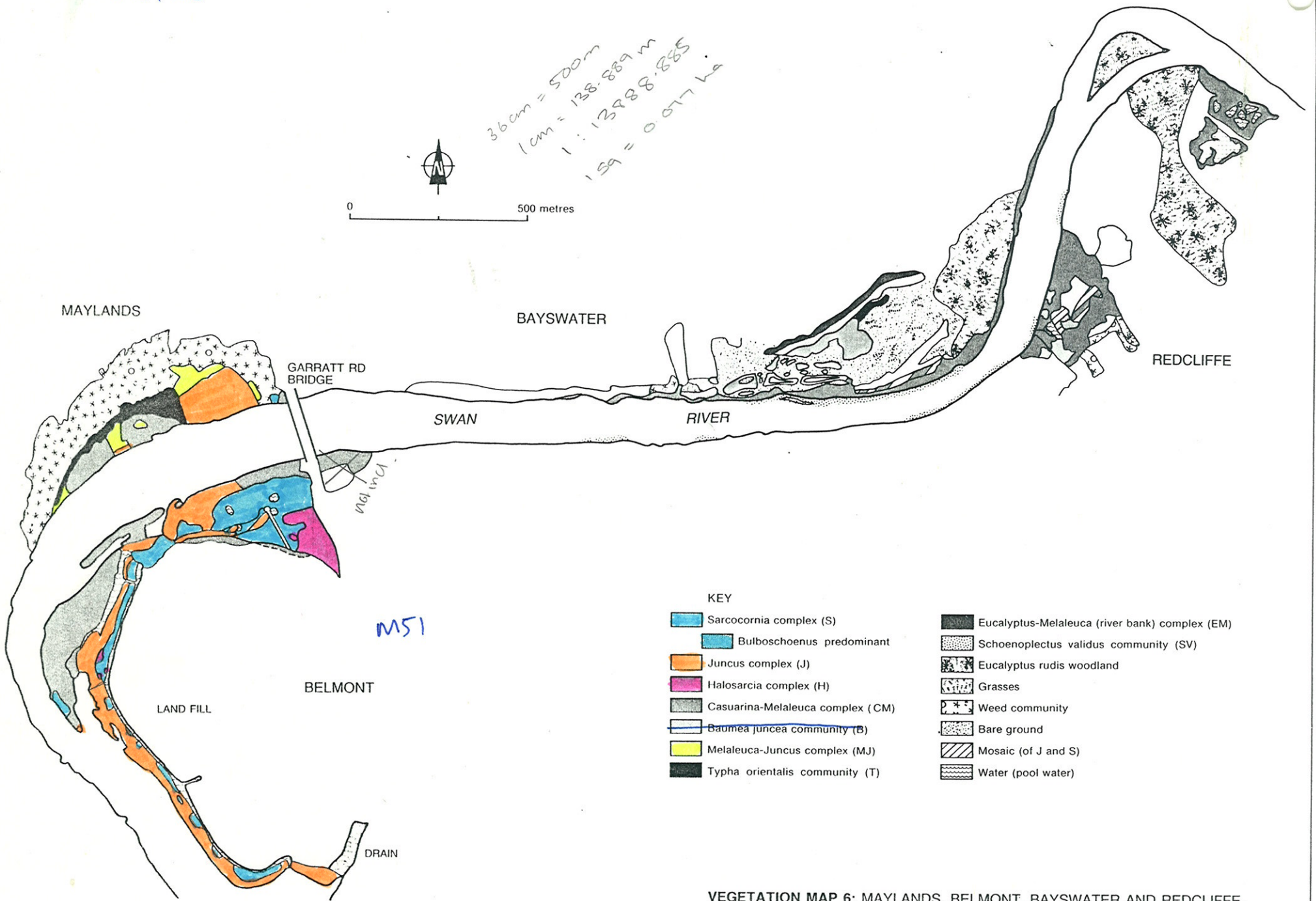
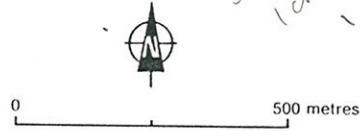
**CUSTOMER  
FOCUS**  
WESTERN AUSTRALIA

*P. TR 28/12/98*



19/4/85

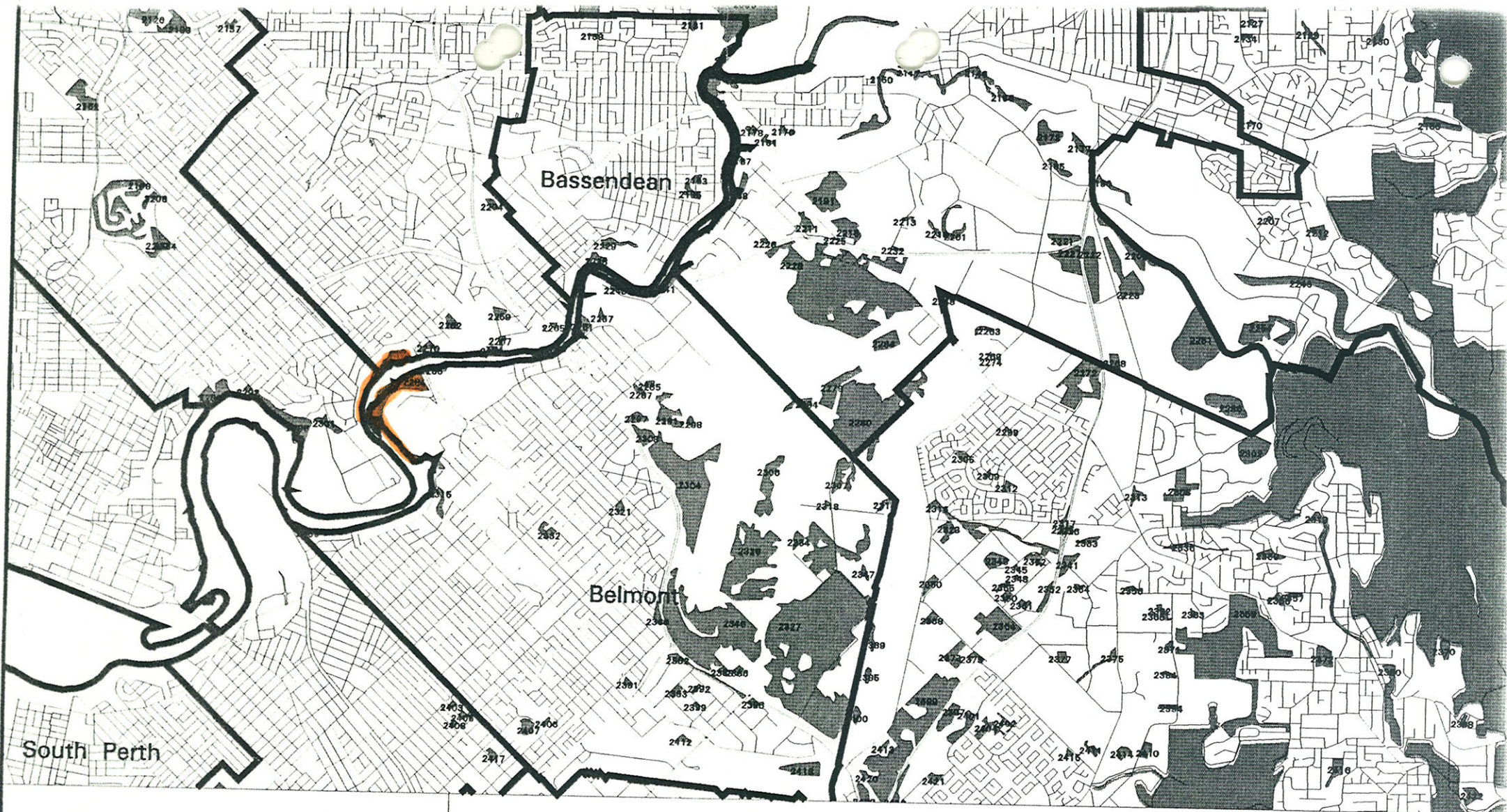
36cm = 500m  
 1cm = 138.889m  
 1 : 13888.889  
 1sq = 0.077 ha



KEY

Sarcocornia complex (S)	Eucalyptus-Melaleuca (river bank) complex (EM)
Bulboschoenus predominant	Schoenoplectus validus community (SV)
Juncus complex (J)	Eucalyptus rudis woodland
Halosarcia complex (H)	Grasses
Casuarina-Melaleuca complex (CM)	Weed community
Baumea juncea community (B)	Bare ground
Melaleuca-Juncus complex (MJ)	Mosaic (of J and S)
Typha orientalis community (T)	Water (pool water)

VEGETATION MAP 6: MAYLANDS, BELMONT, BAYSWATER AND REDCLIFFE.

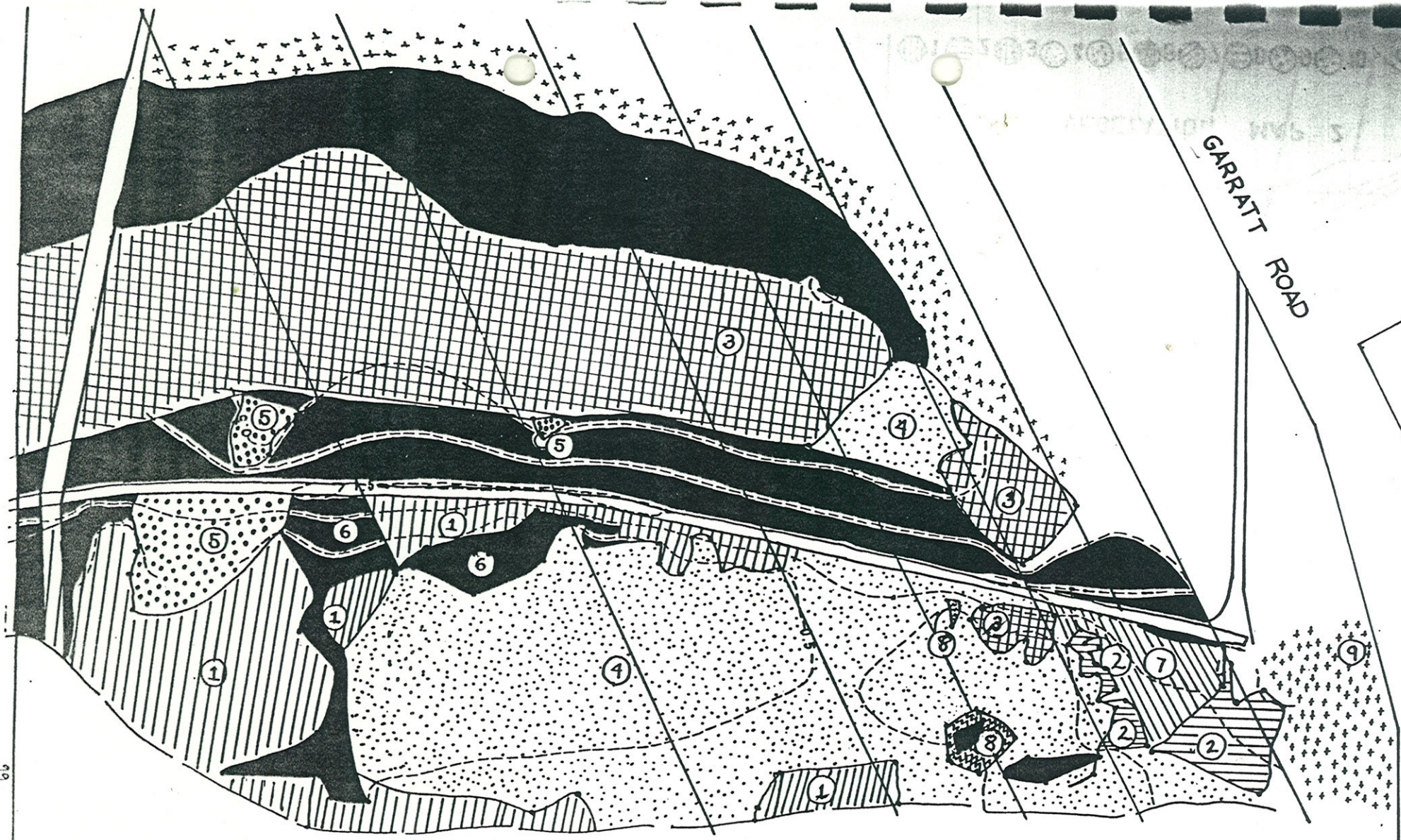


Road centre line data provided by  
Department of Land Administration,  
Midland, WA.

Interpretation of remnant vegetation is from January 1991 1:20000 colour aerial photography and December 1992 SPOT-LANDSAT composite image with 10 m resolution. Photographs and imagery were provided by Department of Land Administration and were interpreted by Catherine Keenan, Perth Environment Project (Jan. - June 1994). Department of Agriculture and Water Authority mapping were used in some instances to assist interpretation.

This plot has been produced for the purpose of ground truthing that interpretation. The Perth Environment Project would be pleased to receive advice as to the accuracy of the boundaries shown, and information regarding the composition and condition of each bushland entity.

The definition of bushland is that by Chambers and Walker (1994): 'Land on which there is



GARRATT ROAD

From: Regeneration Technology Pty Ltd 1994  
 Bangrup Wetlands Reserve Management Plan  
 1994-1999  
 MS1-1 Sept 6 1999

SWAN RIVER



**REGENERATION TECHNOLOGY**  
 ACN 060 052 566 **PTY LTD**

SCALE 1:1000  
 DATE 27/1/94

**VEGETATION MAP 1**

1 2 3 4 5 6 7 8 9 10 / contours

99





**Bush Forever Sites**

**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 313: Swan River Saltmarshes, Bayswater/Maylands

0 100 200 300 400 500 Meters



1:10000



Department of  
Environment

Data Sources:  
Cadastral DLI  
Aerial Photography : Skyview DLI

Datum: GDA - Projection: MGA Zone 50



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 313: Swan River Saltmarshes, Bayswater/Maylands



1:7500

Datum: GDA - Projection: MGA Zone 50



Data Sources:  
Cadastral DLI  
Aerial Photography : Skyview DLI



## 2. SWAN RIVER SALTMARSHES, BAYSWATER/MAYLANDS

The section of this bushland site which falls within the City of Belmont is protected by an existing MRS 'Parks and Recreation' reserve. This reservation extends beyond the perimeter of this bushland site. It is therefore imperative that strategies for the management and care of this bushland site have regard to the relationship of this site with the broader MRS reservation.




### COMMENT ON BUSHPLAN RECOMMENDATIONS

1. It is considered that supporting justification for the 10 per cent target established for securing the 26 vegetation complexes of each forest type should be included in Bushplan. Without this, the nominated 10 percent target seems meaningless and unconvincing. The other criteria which were used for selecting sites to be incorporated in Bushplan is comprehensive and appears to be rationally based.
2. The future development and use of the land adjacent to the 233 bushland sites will have some impact on community attitudes towards these bushland sites and could give rise to community concerns about potential bushfires, crime and antisocial behaviour, among other management issues. In view of this, it is considered that Bushplan should offer further guidance and examples of best practice for securing appropriate buffers, establishing appropriate land uses and implementing suitable subdivisional designs for land adjacent to the nominated Bushplan sites. This additional information would supplement the brief coverage of this matter given in "Part B - Developing Perth's Bushplan" (p36).
3. Bushplan includes a recommendation for the planning process to aim to retain regionally significant vegetation by maximising the areas to be included within open space contributions. It suggests that this land should be ceded free of cost to government and be generally over the usual 10 per cent local open space provisions. It is of concern that the use of the 10 per cent local open space contribution to preserve bushland could result in a loss of spaces for legitimate community recreational use. There is also concern that the use of public open space for conservation purposes would be incongruous with the conservation objectives of Bushplan and would afford doubtful security to the bushland being protected.

To address these concerns it is suggested that in accordance with the Western Australian Planning Commission's draft Community Code, the 10 per cent open space contribution for bushland conservation should only be used where it can be shown that the recreational needs of communities are adequately catered for. In addition to this, it is suggested that the State government's open space policies should be amended to enable above the normal 10 per cent requirement where bushland/wetland conservation or wetland areas are identified (noting that compensation could be payable for requirements above the normal 10 per cent).



**bp site 313** *Stm?*  
*MRS (P&R)*

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

*\*MINOR AREAS  
 + PICK UP LAND BOUNDARIES*

*23/7 OK*  
 What is going on?  
 Why is the P&R boundary  
 not being used as  
 the full back position?  
 Except when there  
 are obvious oddities.  
 Need boundaries  
 over veg

Map Ident: plot980528_1	DATE: 28 May 98
Prepared By: Andrea Zappacosta	Prepared For:
Scale 1:AUTO	MFP INTERNAL USE ONLY



**SYSTEM 6 BUSHLAND SUBMISSION FORM  
FOR CONSIDERATION IN THE UPDATE PROGRAMME**

*Request to upgrade the area - Saltmarshes - M51, Belmont to a higher status.*

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: *GRANDSTAND Rd - HAROLD St - PLANT St - CRAIG St - NORTHY St - BELMONT*

b) Nearest Corner: *ADJOINS ASCOT FIELDS DEVELOPMENT.*

c) Lot Number: *PARTS OF LOTS 64-223 to 230 & 234, 235*  
*ALL OF LOT 233* Street Number: *—*

d) Town/Suburb/Location: *33*

e) Local Council: *CITY OF BELMONT*

f) Site Name (if any): *M51 - Saltmarshes - BELMONT*

g) Approximate size of the area (ha): *EXTENDS 1KM DOWNSTREAM FROM GARRETT RD BRIDGE.*

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

i) Map: *1993* *Streetsmart*/UBD/Other: *—*

j) Map no.: *62*

k) Grid Ref: *A + B 8 - 9 - 10*

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

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

*'ASCOT FIELDS' - Housing - Disturbance to old TIPSITE - MARINA : POWER BOATS - DREDGING OF CHANNEL THRO' SYSTEM 6 wetlands FROM ARTIFICIAL LAKE TO RIVER.*

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

Submit ~~28~~ M51  
209

17th August, 1995

The System 6 Study Team,  
Department of Environmental Protection,  
141 St. George's Terrace,  
Perth, 6000

Dear Sir/Madam,

Re: M51 Swan River Saltmarshes and Sandbars -  
Belmont.

This area is of high conservation value.  
I make application to upgrade its Status to guarantee its  
permanent protection, thereby maintaining the integrity of  
the current environment.

The area which is being incorporated into the Ascot  
Field development is at risk from leachates from the old  
tip site, housing to level of R100, creation of a Marina  
with an opening to the River through the System 6  
wetlands and access to the area by Boardwalks.

I request:

- \* A Management Plan be formulated specifically for this area rather than its continued inclusion in the M51 conglomerate.
- \*The responsibility for management to be placed with an appropriate environmental authority and not the local government authority.
- \* That it be identified as a Sanctuary with access denied to walkers and boat users .

The appropriate application form has been completed and is attached.

Yours sincerely,

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) ..... PEOPLE OF WA .....  
..... STATE GOVERNMENT - PARKWAY OWNED BY M.R.P.A. ....

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) ..... N/A .....

4. What is the area zoned? (please indicate whether zoning is Town Planning Scheme or Metropolitan Region Scheme) ..... 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)  
.....  
..... *Key Systems to Med Book 1983 P227* .....

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? ..... *Wetlands + sandbanks* .....

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

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? ..... 10-15% (2) .....

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

10. What percentage of the area is indigenous vegetation? ..... *Next to d Brook 1983* .....

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

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

If yes, please give details of the work ..... *Designated MSI Systems 6 Assessment - 1983* .....

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
- } • sandbars fringing the area  
\* wetlands adjacent to Grandstand Rd.*

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
- Potential for leaching into area from disturbed top soil*

- 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? ..... *Keighery 1983 Field Book p 227*

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

Can you list those you know of? (birds, mammals, reptiles, amphibians etc)  
 ..... *as above*

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

If yes, please name them and indicate source of information  
 ..... *as above*

**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? ..... *Keighery System*  
 ..... *6 Field Book*  
 ..... *1983*

What is their approximate size? .....

**19. Does the submitted area link other bushland areas?** .....

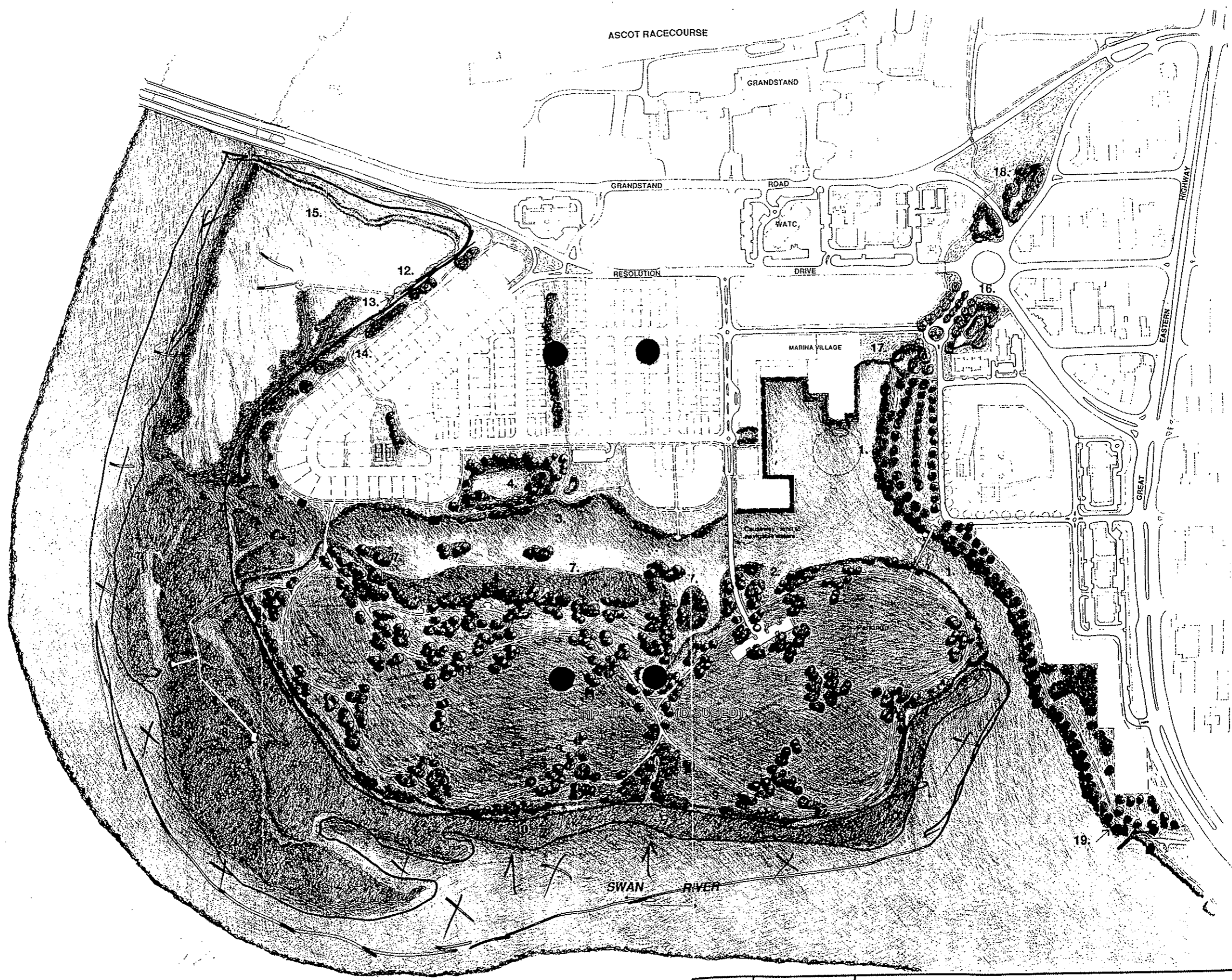
Please attach any additional information about the area which may be of use when assessing it.

*(All introductory letters)*

1. STABLE EDGE TREATMENT USING COMBINATION OF HARD ENGINEERING AND SOFT VEGETATED DETAILING.
2. RECREATIONAL LANDING BEACH FOR SMALL BOATS AND PICNIC AREA.
3. PREDOMINATELY EDGE OF BEACH SAND AND SEDGE FRINGE, WITH PAPERBARK GROVES AND AS REQUIRED LOCALISED ENGINEERING STRUCTURES.
4. FRESHWATER LAKE WITH DENSE FRINGING SEDGE, AND PAPERBARKS, ISLAND HABITATS FOR WATER BIRDS.
5. (OLD KIKUYU Paddock) BRAIDED CHANNELS AND ISLAND FEATURES-KEY RIVERINE HABITAT RESTORATION AREA-MIXED INDIGENOUS PLANTS OF SEDGE, SAMPHIRE AND PAPERBARKS, WITH VARIABLE DEPTH RANGE.
6. FLUSHING CHANNEL WIDTH OF 15 METRES (MAX) DEPTH OF 1 METRE.
7. WILDLIFE REFUGE/HABITAT AREA FOR WATER BIRDS AND OTHER FAUNA. SAMPHIRE, SEDGE, CASUARINA AND PAPERBARK FRINGING VEGETATION FOR PRIVACY, SEPERATION OF DUAL USE PATH ON TIP.
8. CONTROL ACCESS TRAIL AND BROADWALK THROUGH TO LARGER VEGETATED ISLAND AND OBSERVATION DECK.
9. DRY LANDSCAPING OF RIVER FORESHORE/TIP EDGE WITH INDIGENOUS RIVERINE SPECIES.
10. EXISTING CHANNEL ACCESSIBLE AS CANOE TRAIL.

11. OPEN DRY LAND GRASSING WITH SELECTIVE INDIGENOUS TREES TO FORM OPEN PARK LAND/VISUAL SOFTENING.
12. PROPOSED BOUNDARY MOAT TO PROVIDE EFFECTIVE CONTROL OF ACCESS INTO SYSTEM 6 AREA (CANOE ACCESS MAY BE RESTRICTED) MAXIMUM WIDTH 3 METRES.
13. CONTROL BARRIER-RESTRICTED ACCESS TO TRANSMITTER MAST.
14. PROPOSED LANDSCAPED "INTERFACE" TO ACCOMMODATE DUAL USE PATH AND STORMWATER DISPOSAL SWALE STRUCTURE.
15. OPTIONAL PROPOSED EXTENSION TO MOAT BARRIER, OR PERIMETER FENCE.
16. ONLINE RETENTION BASIN FOR BELMONT DRAIN.
17. OFFLINE RETENTION BASIN FOR ZONE A DRAINAGE PRECINCT-ASCOT WATERS.
18. POSSIBLE ADDITIONAL RETENTION BASINS FOR BELMONT AND MATHIESON DRAINS.
19. BELMONT DRAIN LOW FLOW OUTFALL.

**GENERAL**  
NOXIOUS WEEDS AND PEST PLANTS WILL BE CONTROLLED OVER THE WHOLE SITE



SOURCE:  
1. RUSSELL TAYLOR & WILLIAM BURRELL  
2. LE PROVOST DAMES & MOORE  
3. OVERMAN ZUIDEVELD  
4. CMPS&F  
5. LANDSCAPE ARCHITECTURAL SERVICES  
6. LAND SYSTEMS EBC (ADELAIDE)



Job No.	29495-004-367		
Prep. By	JS	21-6-95	
Chk'd. By	ILeP	3-7-95	
Rev. No.	2	5-7-95	

ASCOT WATERS  
**FINAL DEVELOPMENT PLAN**

Figure No.  
**6**

**LE PROVOST  
DAMES & MOORE**





M51 Swan River Saltmarshes, Belmont and Maylands  
Bulletin 240 (Cycle path)

*Friends Baigrop*

**M52 Perth Airport.**

Friends Advocate Management

Other Names: *Baigup Wetland Reserve*

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 ? *name*  
 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
<i>Bayswater Greenworks</i>
<i>planned Friends of Baigup Wetlands</i>

Nicole Simon

SHEET 2: System 6 - VERBAL Information Search

Date 30/5/99

Area MSI Name	SWAN RIVER SALT MARSHES, BEHRENS & KIMMINS		
Source	SIMON, S & J WEGE (KATHY MERRY NAT BONDS UNIT)		
Purpose (why was the study done?)	SIMON & WEGE UNIVERSITY PROJECT / MOSQUITO STRATEGY		
Government			
Corporate			
Community Group			
Management Plan	KATHY MERRY BONDS FOR ENVIRONMENTAL RESTORATION		
Publication Planned	KATHY (Yes)	No	Date ?
Planned Location			

Soils		
Units	described	referenced

Landscape		
Features	described	referenced

Flora		
Vegetation Map		
Units	Comparatives	Site based (no)
Mapped	UNIVERSITY BONDS (SIS) SIX TOWER IN MOSQUITO STRATEGY	
Veg Units	(Comparable Heddle et al)	Compared Heddle et al. Unit not mapped by Heddle et al.
Flora list		
Timing	SPRING	% completion 80%
	Trees Shrubs Herbs Sedges Weeds	Significant Taxa DRF CALM Priority Other

Fauna - Trapping	undertaken weekly for 2 months in Swan & Wege
Timing	SPRING % completion 80%
	Mammals 100% Birds 70% Reptiles 70% Invertebrates 20%
	Significant Taxa Sched1 Sched2 Other water ret - Hydnangia

Vegetation Condition		
Site based	Mapped	Units
Disturbance Factors		
Phytophthora	observed	Other incidental
tested		Fire bushes disturbance, itemised ~ mortality

Notes	Generally all work publications & SRT publications are undertaken quickly and compiled as comprehensive floristic lists as possible - use community based mapping. This applies to all the information that is an attached sheet. If you require more information, don't hesitate to contact Nicole Simon 327 9730 or visit - bridges, maroon, Cypripedium etc are unlikely to have been recorded.		
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BAIGUP WETLAND RESERVE



LEGEND

- STATE PLANNING COMMISSION
- CROWN RESERVES

BAIGUP WETLAND RESERVE

Map Id: Baigup.omd

BY: DAVID PIKE

FOR: State Planning Commission

SCALE 1:87373

DATE: May 18, 1994

ARCHIVES

7117 625-711

Pro

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1 MOUNT STREET PERTH

Proposed Cyclepath on the Swan River Foreshore  
(Milne Street, Bayswater to Mitchell Street, Mount Lawley)

Department of Local Government

Report and Recommendations  
by the  
Environmental Protection Authority

BS 313  
RIVERS

Department of Conservation and Environment  
Perth, Western Australia

Bulletin 240

November 1985

ISBN 0 7309 0403 2  
ISSN 0156-2983

# SWAN RIVER SALTMARSHES (SYSTEM SIX AREA M51) GARRATT ROAD BRIDGE, BAYSWATER

**SUMMARY OF REHABILITATIVE WORKS COMPLETED BY STAFF AND PARTICIPANTS OF THE LANDCARE AND ENVIRONMENTAL ACTION PROGRAMME (L.E.A.P.) NOVEMBER 16 1992 - MAY 14 1993, SPONSORED BY BAYSWATER GREENWORK (INC).**

**FOR: City of Stirling, City of Bayswater, Department of Planning and Urban Development, Environment Protection Authority.**

**FROM: Miles Hitchcock, L.E.A.P. Co-Ordinator, Bayswater Greenwork (Inc)**

## 1.0 REHABILITATIVE WORKS

Rehabilitative works completed under the Programme consisted of two major areas of activity, detailed in the two following sections, 1.1 and 1.2.(SEE MAP 1). Works in area 1.1 were undertaken within Bayswater City boundaries, while works in area 1.2 were with Stirling City boundaries.

### 1.1 North-Eastern Path and Planting (In Bayswater City Boundaries)

A firebreak/access path was constructed through the weed communities and around the melaleuca swamp community at the north-east end of the reserve. Areas for planting/seeding were selected (Areas 1.1a, 1.1b, 1.1c,1.1d) and the prevalent weeds were suppressed by crushing or slashing and subsequent application of Roundup (glyphosate) herbicide on regrowth. Seedling trees and shrubs were then planted into these areas. A summary of treatments and planting follows.

Area 1.1a: This is an area of *Typha orientalis* invasion into previously cleared melaleuca swamp. *Typha* was crushed manually to the ground around remnant trees and seedlings, and the area was direct seeded with *Melaleuca raphiophylla*, by placing cut and dried seed branches upright in the ground. No herbicide was used in this area as it is permanently waterlogged/inundated.

Area 1.1b: This is an area of *Paspalum* sp. ("summer grass"), blackberry and *Typha orientalis* invasion into cleared melaleuca swamp. The weed community was crushed to ground level and regrowth of paspalum and blackberry was sprayed with 1:100 Roundup in February 1993. In May the area was planted with approx. 60 trees and shrubs. Species: *Melaleuca raphiophylla*, *Melaleuca laterita*, *Casuarina obesa*, *Eucalyptus rudis*, *Viminea* sp ("swishbush").

Area 1.1c This is an area of bracken and morning glory invasion into cleared marginal swampland, bordering uncleared melaleuca swamp. The weeds were slashed and regrowth sprayed with 1:75 Roundup in April 1993. In May approx 30 trees and shrubs were planted in this cleared area and under existing trees. Species: *Melaleuca laterita*, *Melaleuca preissiana*, *Eucalyptus rudis*, *Kunzea ericifolia*.

Area 1.1d This is an area of *Paspalum*, Blackberry and Bracken invasion into cleared melaleuca swamp. The area was slashed and weed regrowth sprayed with 1:100 Roundup in April 1993. In May the area was planted with approx. 40 trees and shrubs. Species: *Melaleuca laterita*, *Eucalyptus rudis*, *Kunzea ericifolia*.

## 1.2 North-West Restorative Plantings (In Stirling City Boundaries)

In December 1992 an unplanned fire burnt out large sections of the heavily weed-infested Western sector of the wetland, to the north of the cycle levee. As this is the most disturbed and, up until the fire, the least accessible area of M51, Programme managers took the opportunity to trial post-burn weed suppression techniques, and restorative revegetation works. Three areas were marked out after the burn (Areas 1.2a, 1.2b, 1.2c). Vegetative regrowth after the fire was almost entirely non-native, the major weeds being *Typha orientalis*, pampas grass, *paspalum* in the "low-ground" areas, and bracken and blackberry in "high-ground" areas. Weed suppression techniques involved "weed-mats" - or carpet - thrown over regrowth, and slashing with monitored applications of Roundup on regrowth. These areas were then planted with selected local native species. Where weed mats were used, seedlings were planted into holes cut into the mats. Each area was large enough to take over 500 seedlings. A summary of treatments and plantings follows.

Area 1.2a.(SEE SITE PLAN). Totally weed-infested floodplain, with areas of seasonally-waterlogged "high-ground" falling to permanently-waterlogged "low-ground". Bracken and pampas grass were controlled by slashing the post-burn regrowth and spraying secondary regrowth with 1:50 Roundup. *Paspalum* and blackberry were controlled by applying 1:100 Roundup to post-burn regrowth. Some high-ground areas were treated with weed mats. A stream area was dug out to improve water flow. The area was treated thus from Jan-April 1993. In May the area was planted.

High-ground Species: *Casuarina obesa*, *Melaleuca laterita*, *Melaleuca raphiophylla*, *Melaleuca preissiana* *Acacia saligna*, *Eucalyptus rudis*, approx.350.

Low-ground Species: *Melaleuca teritifolia*, *Melaleuca viminea* approx.150.

Stream Species: *Juncus kraussi* approx 70.

Area 1.2b (SEE SITE PLAN). Totally weed infested floodplain with a raised "high-ground" bank on one side, above a partly-waterlogged to fully-inundated "low-ground" area. Successful weed treatments as per Area 1.2a. A stream was also dug out to improve drainage.

High-ground Species: *Acacia saligna*, *Eucalyptus rudis*, *Banksia littoralis*, *Kunzea ericifolia*, *Viminea* sp, *Eucalyptus calophylla*, *Oxylobium* sp ("Swan River Pea") Approx. 200.

Low Ground Species: *Casuarina obesa*, *Melaleuca teritifolia*, *Melaleuca raphiophylla*, *Melaleuca laterita*, *Acacia saligna* Approx 350.

Area 1.2c (SEE SITE PLAN). Totally weed-infested floodplain of permanently-waterlogged "low-ground" leading to area of swamp marginal "high ground". Weed treatments as per Area 1.2a. *Typha orientalis* has been fully controlled only under weed mats, and has elsewhere only thinned. Spraying of glyphosate on *Typha* was ineffective as a method of control, but limited results were achieved by wiping 1:50 Roundup directly onto leaf area Stream deepened to improve drainage.

High-ground Species: *Melaleuca preissiana*, *Banksia littoralis*, *Eucalyptus rudis*, *Eucalyptus calophylla*, *Acacia saligna* Approx: 150

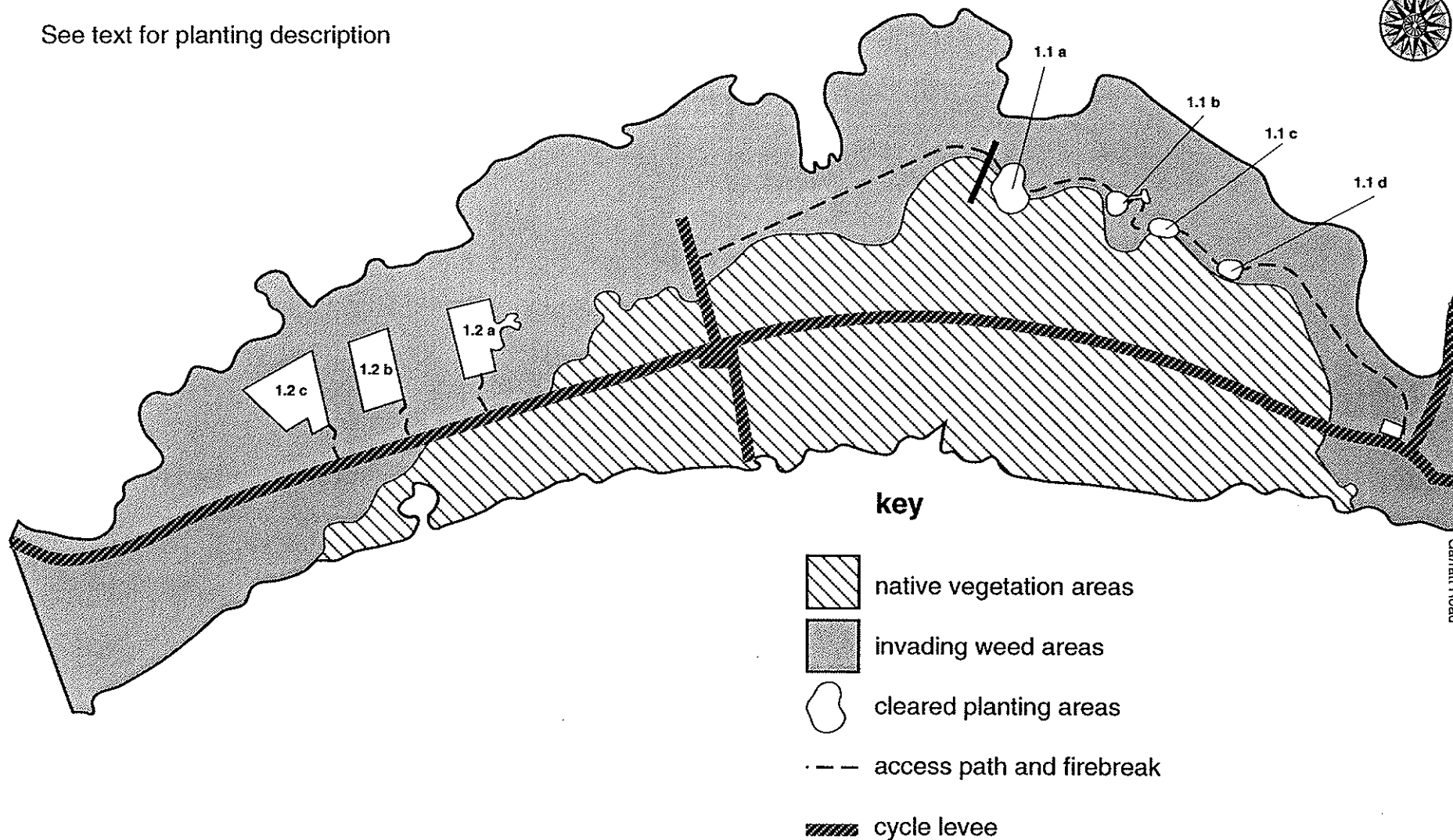
Low-ground Species: *Melaleuca raphiophylla*, *Melaleuca laterita*, *Melaleuca teritifolia* Approx: 350.

APPROXIMATE TOTAL SEEDLINGS PLANTED: 2000.

# Map 1: L.E.A.P. Project rehabilitation area -M51

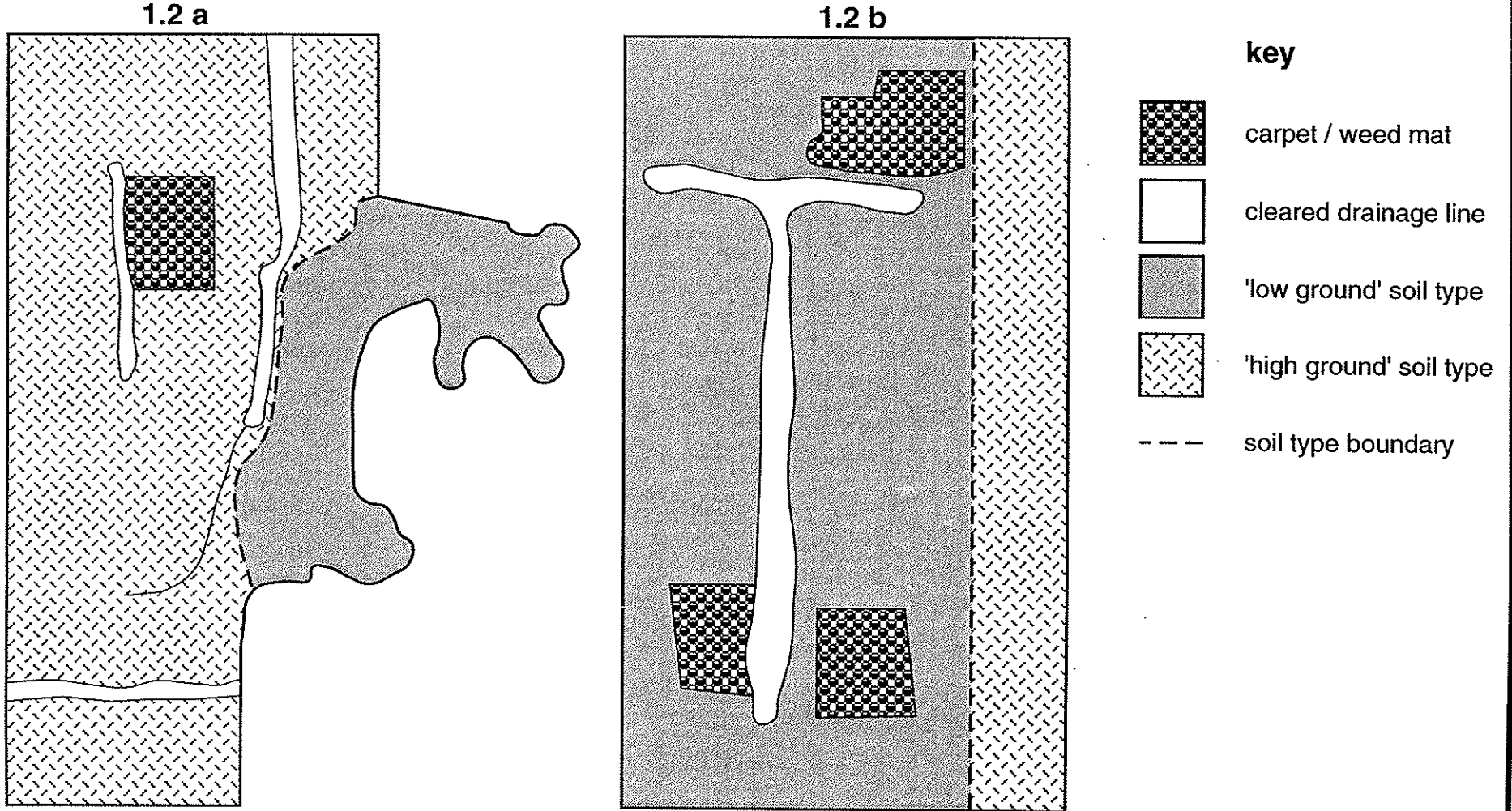
## Swan River Salt-Marshes, Garratt Road, Bays

See text for planting description



# Site plan for rehabilitation areas - north western end

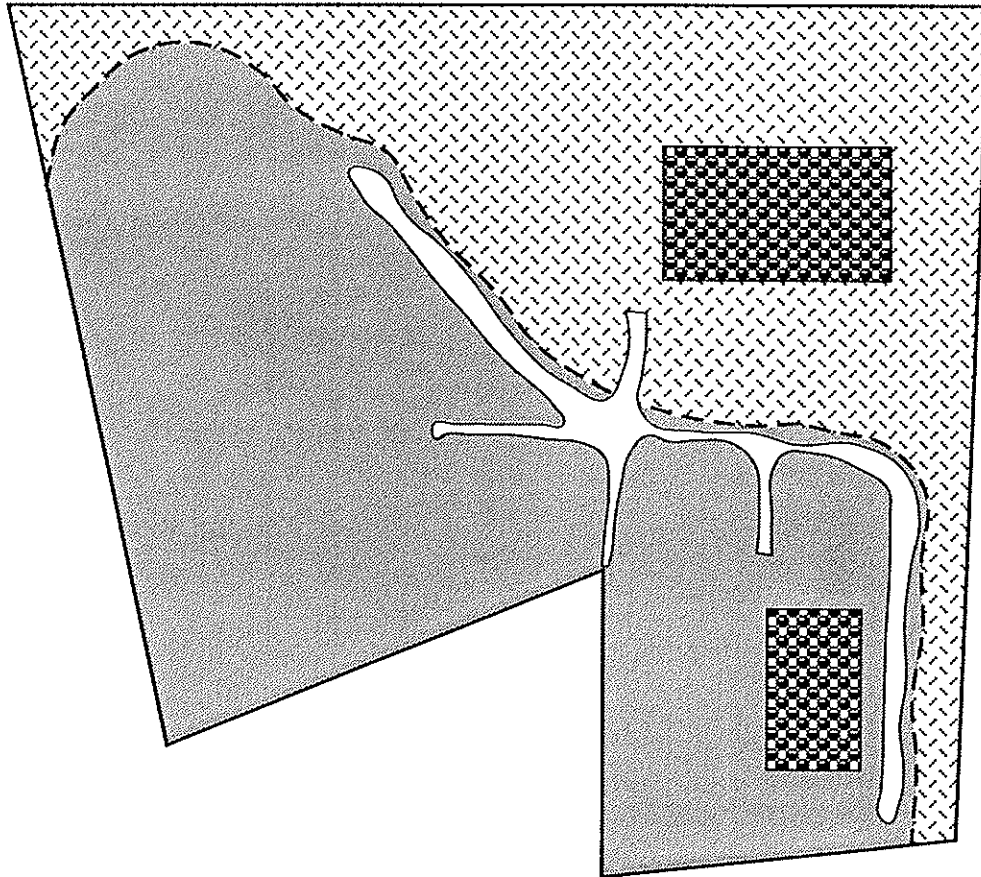
See text for planting description



# Site plan for rehabilitation areas - north western end

See text for planting description

1.2 c



## key



carpet / weed mat



cleared drainage line



'low ground' soil type



'high ground' soil type



soil type boundary

# BAIGUP WETLAND RESERVE MANAGEMENT PLAN

1994 - 1999

**Full document  
available  
on request**



# PERIPHERAL VEGETATION of the Swan and Canning Estuaries 1981

**Full document  
available  
on request**



Department of Conservation & Environment  
Western Australia

Bulletin 113  
July, 1983



Swan River  
Management Authority



WILD 1574 UAGA  
Nr 13037 15272

100136

-5022-1 267-58 100 0180 0280 56-

003076 21 01 25 60 1939

WILD 1574 UA6A  
Nr 13097 15272

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