

# PERIPHERAL VEGETATION of the Swan and Canning Estuaries 1981



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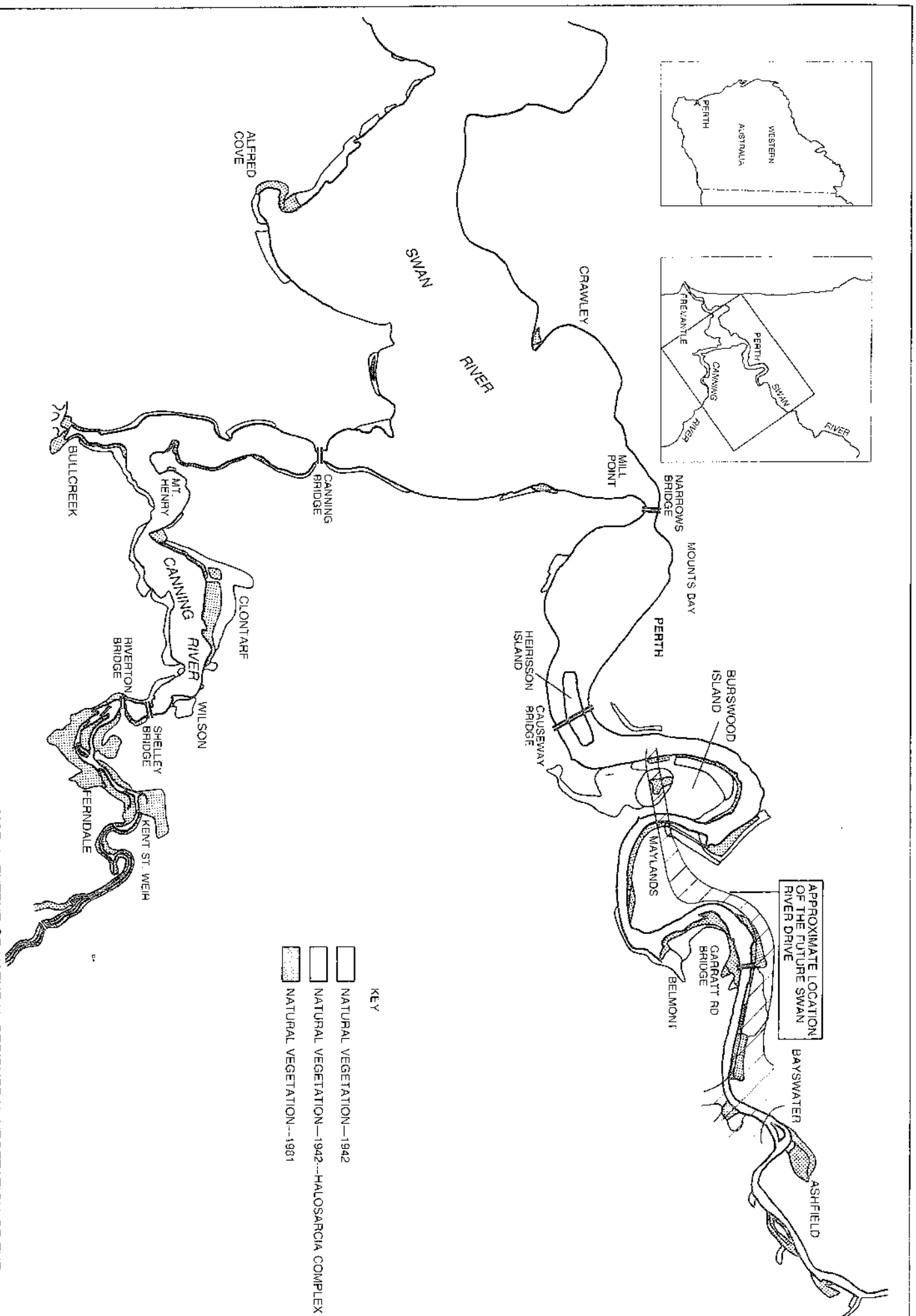


Swan River  
Management Authority

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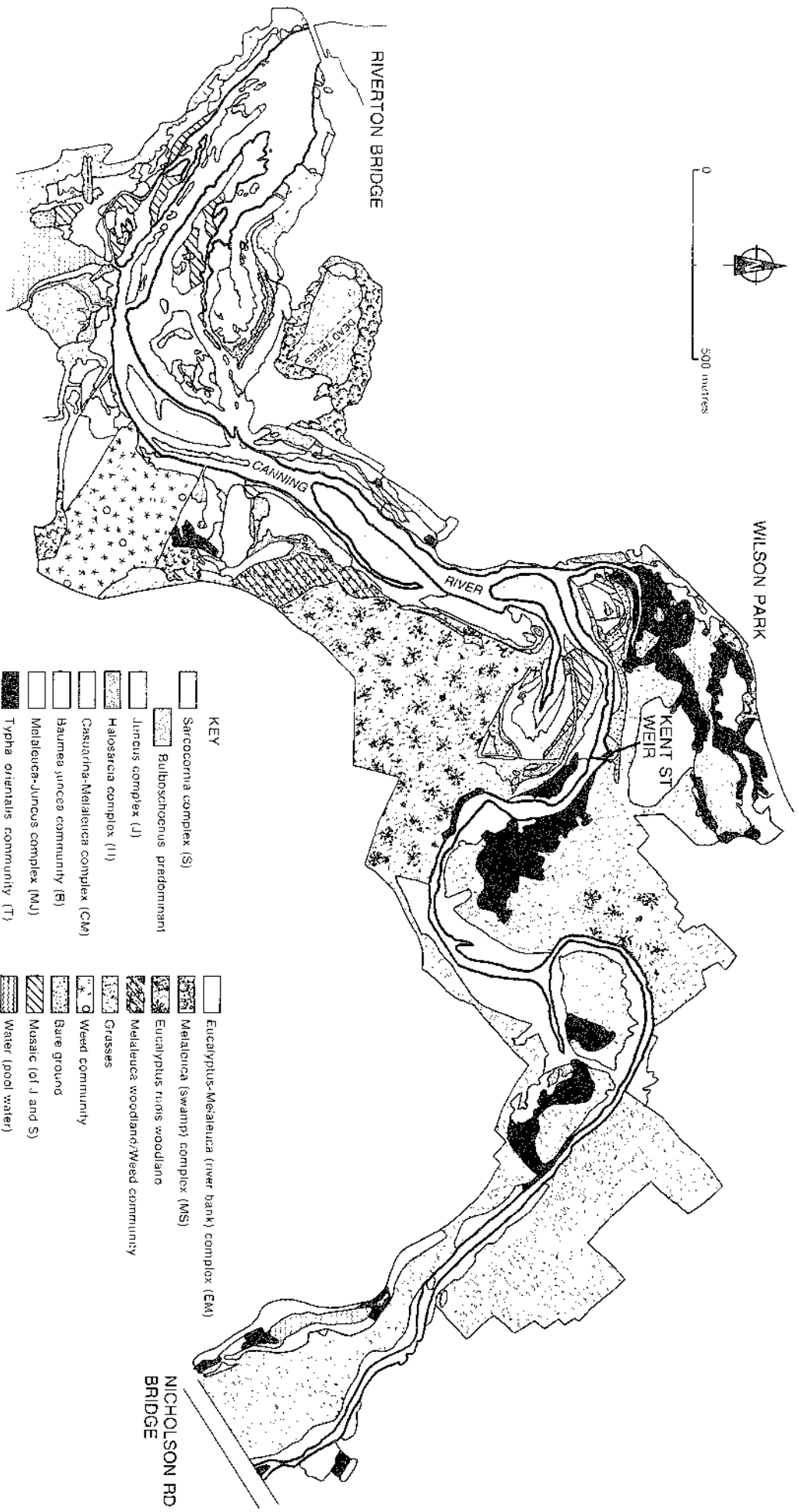
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- KEY
- NATURAL VEGETATION--1942
  - NATURAL VEGETATION--1942--HALOSARCIA COMPLEX
  - ▨ NATURAL VEGETATION--1981

MAP 1: EXTENT OF NATURAL PERIPHERAL VEGETATION OF THE SWAN AND CANNING RIVERS 1942 AND 1981

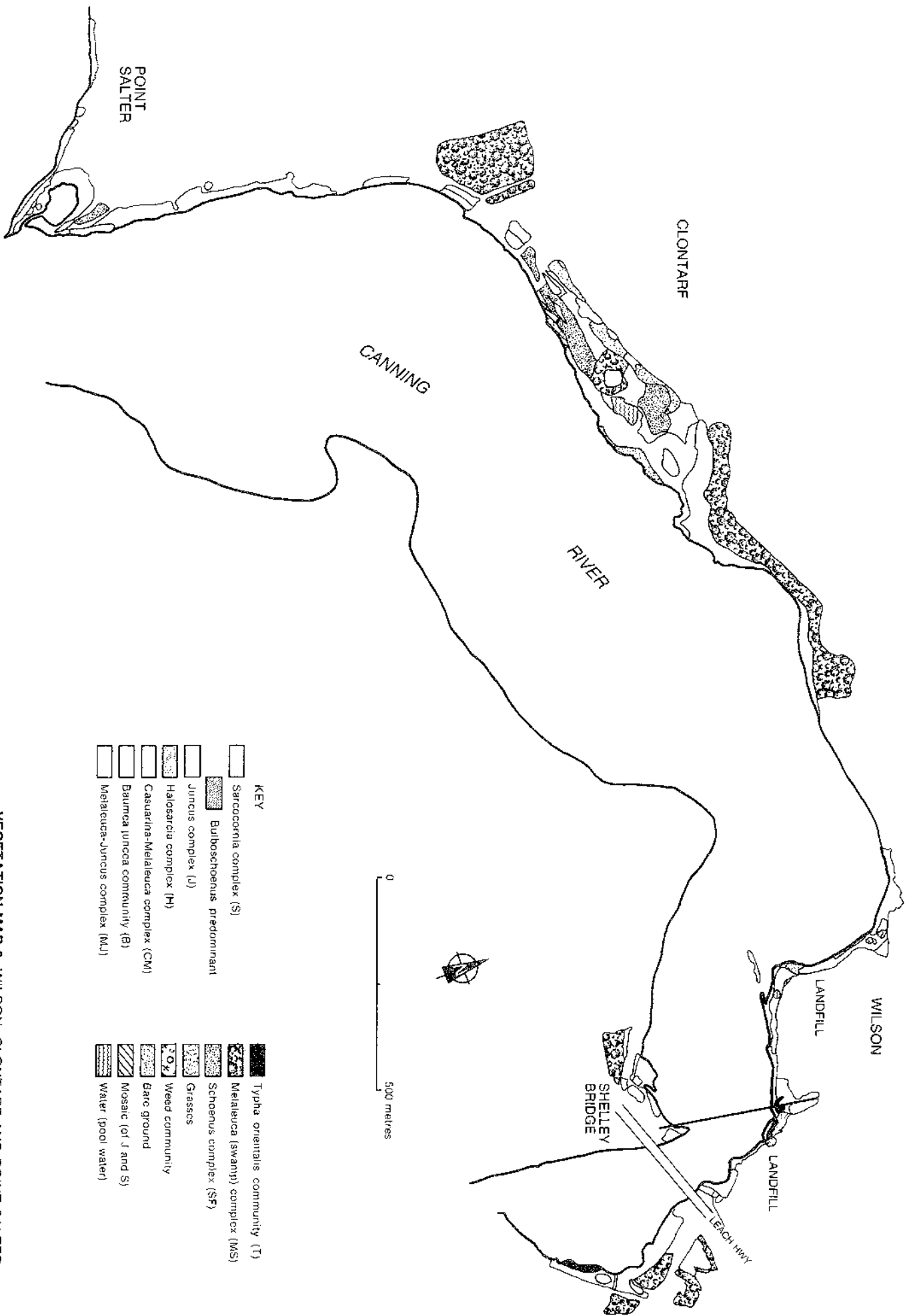


0  
500 metres



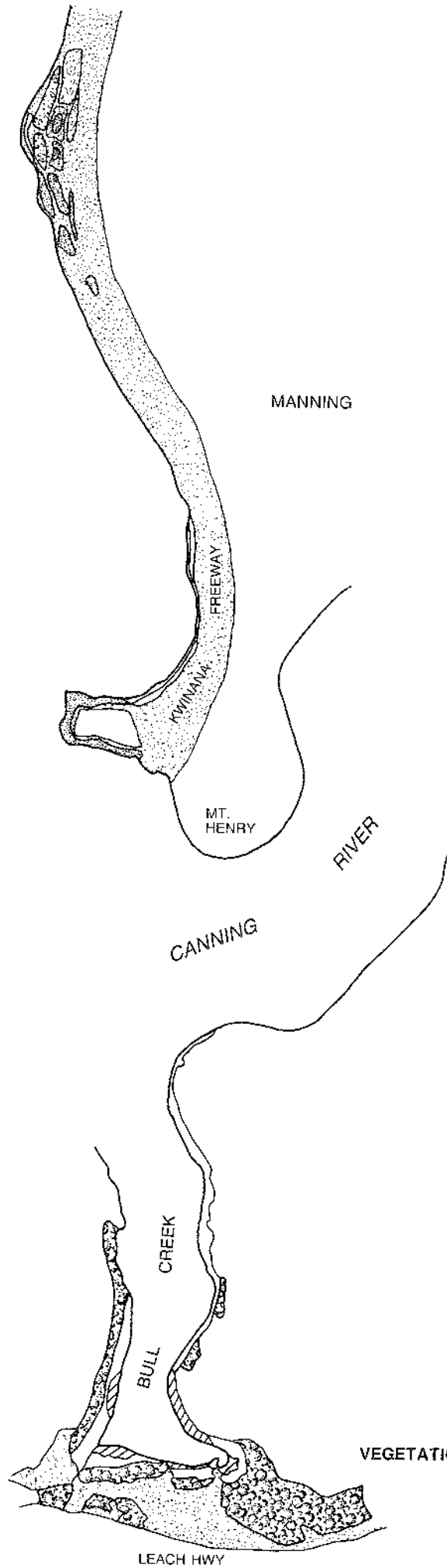
- KEY**
- Sarcocornia complex (S)
  - Baiboschoenus predominant
  - Juncus complex (J)
  - Halosarcia complex (H)
  - Casuarina-Melaleuca complex (CM)
  - Baumea juncosa community (B)
  - Melaleuca-Juncus complex (MJ)
  - Typha orientalis community (T)
  - Eucalyptus-Melaleuca (river bank) complex (EM)
  - Melaleuca (swamp) complex (MS)
  - Eucalyptus fratis woodlands
  - Melaleuca woodlands/Weed community
  - Grasses
  - Weed community
  - Bare ground
  - Mosaic (of J and S)
  - Water (pool water)

VEGETATION MAP 1: RIVERTON/NICHOLSON RD BRIDGE SECTION



- KEY**
- Sarcocornia complex (S)
  - Bulboschoenus predominant
  - Juncus complex (J)
  - Halosarcia complex (H)
  - Casuarina-Melaleuca complex (CM)
  - Baumea juncea community (B)
  - Melaleuca-juncus complex (MJ)
  - Typha orientalis* community (T)
  - Melaleuca (swamp) complex (MS)
  - Schoenus complex (SF)
  - Grasses
  - Weed community
  - Bare ground
  - Mosaic (of J and S)
  - Water (pool water)

VEGETATION MAP 2: WILSON, CLONTARF AND POINT SALTER



MANNING

KWINANA  
FREEWAY

MT.  
HENRY

CANNING  
RIVER










BULL  
CREEK

LEACH HWY



0 500 metres

KEY

-  Juncus complex (J)
-  Casuarina-Melaleuca complex (CM)
-  Melaleuca-Juncus complex (MJ)
-  Melaleuca (swamp) complex (MS)
-  Schoenus complex (SF)
-  Melaleuca woodland
-  Grasses
-  Bare ground
-  Mosaic (of J and MJ)

VEGETATION MAP 3: MANNING AND BULLCREEK

Table 1 Vegetation Units of the Peripheral Vegetation of the Swan and Canning Rivers

Schoenoplectus validus Community (SV) <i>Schoenoplectus validus</i>	Casuarina-Melaleuca Complex (CM) (plate 4) <i>Casuarina obesa</i> and/or <i>Melaleuca raphiophylla</i> <i>J. kraussii</i>
Sarcocornia Complex (S) (plate 1) <i>Sarcocornia quinqueflora</i> , <i>Suaeda australis</i> , <i>Samolus repens</i>	Casuarina-Melaleuca Typical Community (CM1) As above and <i>Bulboschoenus caldwellii</i> , <i>S. repens</i> , <i>Myoporum caprarioides</i>
Sarcocornia Typical Community (S1) As above	Casuarina-Melaleuca-Baumea Community (CM2) As above and <i>Baumea juncea</i>
Sarcocornia-Bulboschoenus Community (S2) As above and <i>Bulboschoenus caldwellii</i>	Melaleuca-Typha Community (CM3) <i>Melaleuca raphiophylla</i> , <i>J. kraussii</i> , <i>Typha orientalis</i>
Bulboschoenus Predominant (S3) (plate 2) <i>Bulboschoenus caldwellii</i>	Casuarina-Bulboschoenus Community (CM4) <i>C. obesa</i> , <i>B. caldwellii</i> , <i>J. kraussii</i>
Sarcocornia-Triglochin-Isolepis marginata Community (S4) As above and <i>Triglochin mucronata</i> , <i>Isolepis marginata</i>	Baumea juncea Community (B) <i>Baumea juncea</i>
Juncus Complex (J) (plates 1, 5) <i>Juncus kraussii</i>	Melaleuca-Juncus Complex (MJ) (plates 1, 5) <i>M. raphiophylla</i> <i>J. kraussii</i>
Juncus Typical Community (J1) As above	Melaleuca-Juncus Community (MJ) As above
Juncus-Sarcocornia Sub-community (J1-A) <i>Juncus kraussii</i> , <i>S. quinqueflora</i> <i>S. australis</i>	<i>Typha orientalis</i> Community (T) (plate 6) <i>Typha orientalis</i>
Juncus-Samolus Sub-community (J1-B) <i>Juncus kraussii</i> , <i>Samolus repens</i>	Eucalyptus-Melaleuca (River Bank) Complex (EM) <i>Eucalyptus rudis</i> (plate 7) <i>Melaleuca raphiophylla</i> , <i>Rumex crispus</i> , <i>Paspalum dilatatum</i>
Juncus-Melaleuca Community (J2) <i>Juncus kraussii</i> and <i>Melaleuca cuticularis</i> , <i>M. hamulosa</i> or <i>M. raphiophylla</i>	Eucalyptus-Melaleuca-Juncus pallidus Community (EM1) As above and <i>Juncus pallidus</i> , <i>Centella cordifolia</i> , <i>Paspalum distichum</i> <i>P. dilatatum</i> , <i>Typha orientalis</i>
Halosarcia Complex (H) (plate 3) <i>Halosarcia indica</i> subsp. <i>bidens</i> and/or <i>Halosarcia halocnemoides</i>	Eucalyptus-Melaleuca-Aster Community (EM2) As above and <i>Aster subulatus</i>
Halosarcia Typical Community (H1) As above	Eucalyptus-Melaleuca Typical Community (EM3) As above <i>Eucalyptus-Melaleuca-Typha</i> Sub-community (EM3-A) (plate 10) <i>Typha orientalis</i> <i>Eucalyptus-Melaleuca</i> — Typical Sub-community (EM3-B)
Halosarcia-Frankenia Community (H2) As above and <i>Frankenia pauciflora</i>	
Halosarcia-Angianthus Community (H3) As above and <i>Angianthus preissianus</i> , <i>Angianthus micropodioides</i>	
Sarcocornia blackiana Community (SB) <i>Sarcocornia blackiana</i> , <i>Polypogon monspeliensis</i>	
 Salt-marsh	
 Fringing Forest	



Table 1 continued

*Melaleuca* (Swamp) Complex (MS)

*M. raphiophylla*,  
*E. rudis*,  
*P. dilatatum*,  
*Agonis linearifolia*,  
*Lepidosperma longitudinale*

*Melaleuca* Community (MS1)

As above and  
*Cynodon dactylon*,  
*Baumea juncea* and/or  
*J. kraussii*

*Melaleuca-Agonis* Community (MS2)

As above and  
*Agonis linearifolia*

*Melaleuca-Melaleuca preissiana* Community (MS3)

As above and  
*Melaleuca preissiana*,  
*Eucalyptus calophylla*,  
*Oxylobium linearifolium*

*Schoenus* Complex (SF) (plate 8)

*Schoenus subfascicularis*

*Schoenus* Community (SF)

As above

*Eucalyptus rudis* Woodland (plates 9, 21)

Dominant species —

*E. rudis*

Other (understorey) species:

- \* *Stenotaphrum secundatum*,
- \* *Rumex crispus*
- \* *Pennisetum clandestinum*
- Cynodon dactylon*
- \* *Conyza bonariensis*
- \* *Sonchus asper*

- Paspalum dilatatum*
- \* *Watsonia bulbilifera*
- Acacia saligna*
- \* *Lolium multiflorum*
- \* *Lolium rigidum*
- Iridaceae* sp.
- \* *Avena barbata*
- \* *Stachys avensis*
- \* *Erharta erecta*
- Briza maxima*
- \* *Lotus uliginosus*
- \* *Raphanus raphanistrum*
- \* *Oxalis pes-caprae*
- \* *Fumaria officinale*
- \* *Homeria collina*
- \* *Hyperchoeris radiata*
- \* *Erodium cicutarium*
- \* *Arctotheca calendula*
- \* *Sonchus oleraceus*
- Salvia* sp.

Weed Community

Common Species:

- Paspalum dilatatum*
- \* *Conyza bonariensis*
- Acacia saligna*
- \* *Cortaderia selleana*
- \* *Stenotaphrum secundatum*
- \* *Rumex crispus*
- \* *Ricinus communis*
- Pteridium aquilinum*
- \* *Rubus selmerii*
- \* *Arundo donax*
- \* *Pennisetum clandestinum*
- \* *Zantedeschia aethiopica*
- Cynodon dactylon*

Ecological Notes

The *Schoenoplectus validus* Community is found along the Swan upstream from Maylands. *Schoenoplectus* is completely emergent as a separate strip, one to three metres wide, parallel to and about one to two metres from, the river bank. It is often associated with fresh water drains, particularly those entering more saline waters such as encountered at Maylands. Sometimes, *Bulboschoenus caldwellii* is found fringing with it, but mostly it is a totally separate monospecific stand of *Schoenoplectus validus*.

The *Sarcocornia* Complex (S) occurs along tidal flats somewhat sheltered from the river by vegetation characterised by *Casuarina obesa* and/or *Juncus kraussii* on low river bank levees. The complex rarely abuts onto the rivers. Of great significance in this complex is *Bulboschoenus caldwellii*. It is totally absent in the *Sarcocornia* Typical Community (S1) possibly due to the high soil salinities associated with this community, but is quite abundant in the *Sarcocornia-Bulboschoenus* Community (S2) where this complex is at its minimum associated salinity level. Bridgewater (1982) recognised a very similar plant community and stated that it 'appears controlled by a dynamic system where the saline waters of the estuary are balanced by surface groundwater flows of freshwater'. S2 is often found in salt-marshes dissected by drains or which are close to drainage outlets, an observation which strongly supports this explanation. *Bulboschoenus* Predominant Community (S3) is dominated completely by *B. caldwellii* and represents the extreme success of this species in the *Sarcocornia* Complex, often displacing those species characteristic of the complex. It is mostly found landward of the *Juncus* Complex and around tidal pools. *Sarcocornia-Triglochin-Isolepis marginata* Community (S4) which is differentiated by the presence of *Triglochin mucronata* and *Isolepis marginata* is found at the highest land surface elevation associated with this complex.

Bridgewater (1982) also recognised the *Suaeda australis* Community, consisting of mainly *S. australis*.



<i>Dactyloctenium aegyptium</i>	1	1	1	1	5	1	1	1	2	3	1
<i>Juncus pediformis</i>									5		
<i>Lorus uliginosus</i>									2		
<i>Paspalum distichum</i>	+	+	+	+	7				4	3	1
<i>Alternanthera nodiflora</i>									1	1	
<i>Asteria fascicularis</i>									2	+	2
<i>Coryza bonariensis</i>									1	+	2
<i>Cyperus alterniflorus</i>									2	+	2
<i>Cenella cordifolia</i>									1		
<i>Chenopodium melanocarpum</i>									5	2	1
<i>Solanum nigrum</i>									2	1	2
<i>Typha orientalis</i>	+	1	1	1	5				1	5	1
<i>Eucalyptus rudis</i>									4	1	2
<i>Paspalum dilatatum</i>									1	4	5
<i>Acacia saligna</i>									1	3	4
<i>Agonis linearifolia</i>									+	1	3
<i>Hemarthria uncinata</i>									1	1	2
<i>Lepidosperma longitudinale</i>									+	1	+
<i>Melaleuca preissiana</i>									1	+	4
<i>Pteridium aquilinum</i>									+	1	3
<i>Zantedeschia aethiopica</i>									+	1	3
<i>Eucalyptus calophylla</i>									+	1	3
<i>Oxylobium linearifolium</i>									+	1	3
<i>Jacksonia sternbergiana</i>									+	1	3
<i>Paterosonia umbrosa</i>									+	1	3
<i>Schoenus subfascicularis</i>									+	1	3
<i>Ehretia calycina</i>									+	1	3
<i>Hakea varia</i>									+	1	3
<i>Hypocalymma angustifolium</i>									+	1	3
<i>Jacksonia farcollata</i>									+	1	3
<i>Asparagus asparagoides</i>									+	1	3
<i>Bauhinia articulata</i>									+	1	3
<i>Briza maxima</i>									+	1	3
<i>Carpobrotus edulis</i>									+	1	3
<i>Carex inversa</i>	1								1	2	1
<i>Eulalia virgata</i>									+	1	2
<i>Ehretia erecta</i>									+	1	2
<i>Gahnia tritida</i>									+	1	2
<i>Lactuca serrifolia</i>									+	1	2
<i>Nasturtium officinale</i>									+	1	2
<i>Oxalis pes-caprae</i>									+	1	2
<i>Polygonum minus</i>									+	1	2
<i>Parapholis incurva</i>									+	1	2
<i>Sonchus asper</i>									+	1	2
<i>Isoetes nodosa</i>									+	1	2
<i>Sporobolus virginicus</i>									+	1	2
<i>Gomphocarpus fruticosus</i>									+	1	2
<i>Stenolopum secundatum</i>									+	1	2
<i>Triglochin procera</i>	1								3	1	1
<i>Walsonia bulbifera</i>									+	1	1
<i>Triadaceae sp.</i>									+	1	1
<i>Cortaderia seloana</i>									+	1	1
<i>Ursinia anthemoides</i>									+	1	1
<i>Samolus junceus</i>									+	1	1