

## SIR FREDERICK SAMSON PARK, SAMSON

**Boundary Definition:** bushland taken to cadastre and zoning boundary

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

**Bush Forever Site no.** 59

**Area (ha):** bushland 12.6

**Map no.** 52

**Map sheet series ref. no.** 2033-I NW

**Other Names:** Submission Area 174

**Local Authorities (Suburb):** City of Fremantle (Samson)

**System 6 (1983):** M72 Part System area bushland, only bushland described

### **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

Cottesloe 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 (City of Fremantle 1989, 1995, DEP 1996 (Sams 01), Submission No. 174)

**Structural Units:** mapping (City of Fremantle 1995)

Uplands: Open Forest to Woodland dominated by *Eucalyptus calophylla*, *E. marginata* and *E. gomphocephala* and combinations of these generally over *Banksia attenuata*, *B. menziesii* and *Allocasuarina fraseriana* Low Woodland; *Xanthorrhoea preissii*, *Allocasuarina humilis*, *Macrozamia riedlei* Low Shrubland; *Anigozanthos manglesii* and *Thysanotus* species Very Open Herbland

**Scattered Native Plants:** Open Forest to Woodland dominated by *Eucalyptus calophylla*, *E. marginata* and *E. gomphocephala* and combinations of these — regionally significant vegetation recognised as being included in the area of the Site in need of protection

**Vegetation Condition:** 80% Very Good, 20% Good to Degraded, with areas of severe localised disturbance

**Total Flora:** 100 native taxa, 55 weed taxa (Appleby 1997 from City of Fremantle 1989, M. O'Byrne pers. comm., M. Appleby and DEP 1996) (estimated >80% expected flora)

**Significant Flora:** none recorded

**Fauna:** limited surveys for birds (39 species), native mammals (1 species) and reptiles (8 species) (City of Fremantle 1989, T. Baird pers. comm.). Significant bird species: category 1 (2), category 3 (3) and category 4 (3)

**Linkage:** no adjacent bushland

### **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, Criteria not relevant to determination of regional significance, but which may be applied when evaluating areas having similar values

**Recommendation:** Proposed Parks and Recreation Reservation (see Table 3, Volume 1).

**SIR FREDERICK SAMSON PARK, SAMSON**

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**SECTION 1: CADASTRAL INFORMATION**

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

**Bushplan Site no.** 59      **Map no.** 66      **Map sheet series ref. no.** 2033-I NW  
**System 6 (1983):** M72 Part System area bushland, only bushland described

**Other Names**

Submission Area 174

**Local Authorities (Suburb)**

City of Fremantle (Samson)

**Ownership Categories**

Local Government, State Government

**Area (ha):** total 14.0; bushland 12.6

**Zoning**

**MRS:** Urban

**TPS:** Open Space

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

**Street name**

629 Sellenger Ave; 578, 630, 2465 McCombe Ave  
 Crown Reserve

**SECTION 2: REGIONAL INFORMATION**

**LANDFORMS AND SOILS**

**Spearwood Dunes**

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**VEGETATION AND FLORA**

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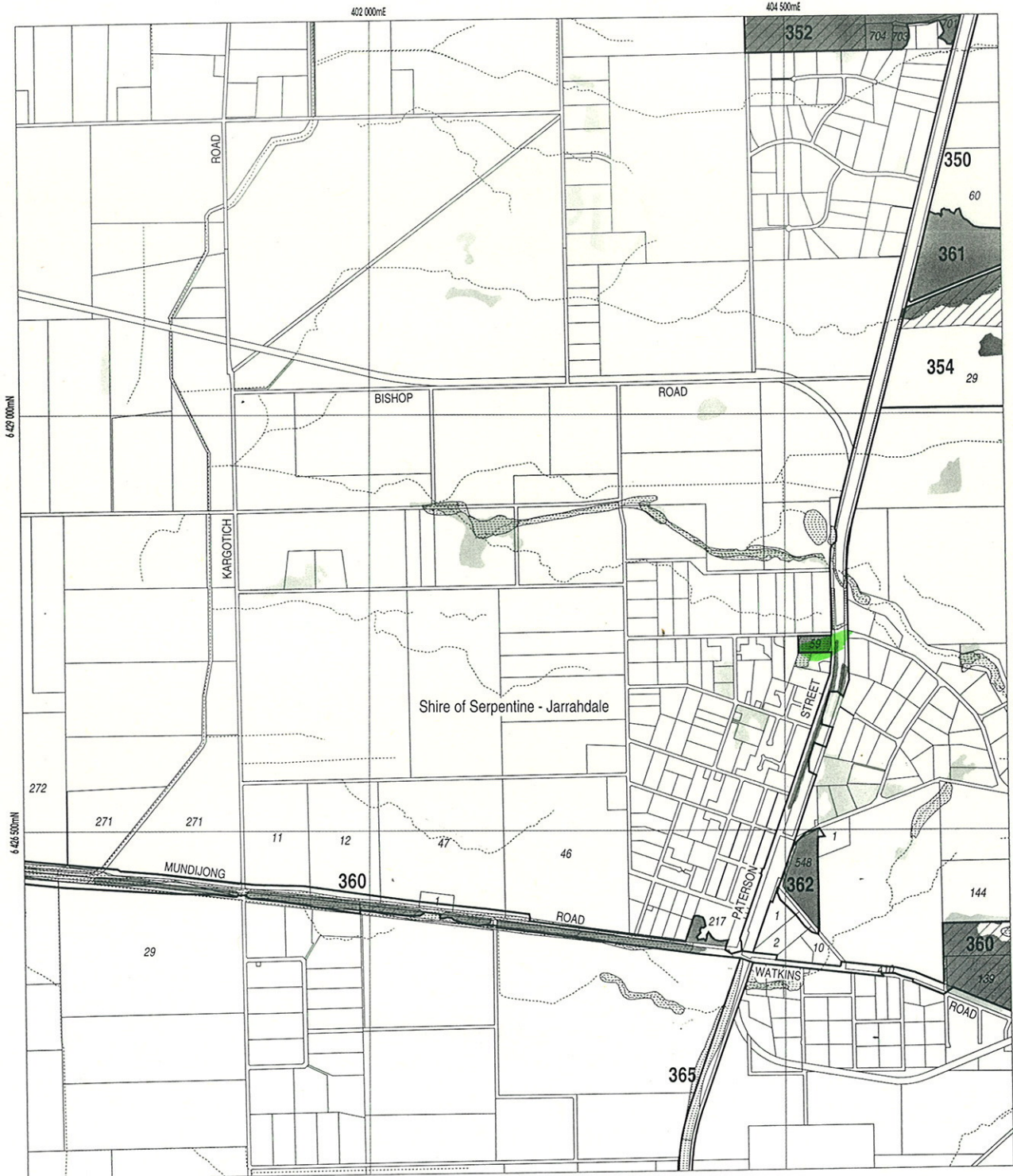
**SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE**

Not listed

**SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS**

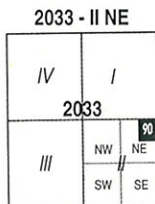
**Criteria:** Representation of ecological communities, Rarity, Criteria not relevant to determination of conservation value, but which may be applied when evaluating areas having similar values



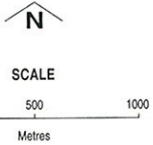
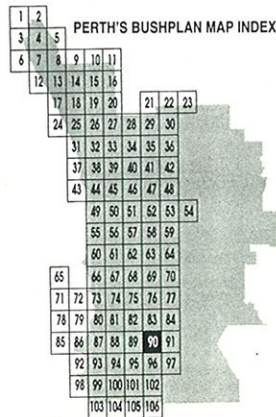


**LEGEND**

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



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



Produced by Project Mapping Section  
 Land Information Branch, Ministry for  
 Planning, Perth W.A. November 1998  
[ntw-map9/environ/bushplan/bushv2\\_90.dgn](http://ntw-map9/environ/bushplan/bushv2_90.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

## PLANT SPECIES FOUND AT SIR FREDERICK SAMSON PARK

This list was compiled from the original Management Plan (Ecoscape, 1989), a brief survey conducted by the DEP (October, 1994), a list of orchid species supplied by Margo O'Byrne (DEP) and my own limited survey in spring 1996.

Exotic species are marked with an asterisk (\*). Native, non-indigenous species are marked thus #. Dubious records are denoted thus ?. Where possible these have been checked. Nomenclature follows that used in the *Flora of Australia* (AGPS).

### CYCADS

#### ZAMIACEAE

- 1 *Macrozamia riedlei* Zamia

### MONOCOTYLEDONS

#### CYPERACEAE

- 2 *Lepidosperma angustatum*  
3 *Lepidosperma scabrum*  
4 *Mesomelaena pseudostygia*  
5 *Schoenus latitans*  
6 *Schoenus grandiflorus*

DONT  
HAVE

#### HAEMODORACEAE

- 7 *Anigozanthos humilis* Catspaw  
8 *Anigozanthos manglesii* Mangles Kangaroo Paw  
9 *Conostylis aculeata*  
10 *Conostylis candicans*  
1 *Conostylis setigera*  
2 *Haemodorum spicatum* Bloodroot

#### IRIDACEAE

- 1 \**Chasmanthe floribunda* African Cornflag  
2 \**Ferraria crispa* Black Flag  
3 \**Freesia x leichtlinii* Freesia  
4 \**Gladiolus caryophyllaceus* Wild Gladiolus  
5 \**Gynandris setifolia* Thread Iris  
6 \**Homeria flaccida* One-leaf Cape Tulip  
7 \**Romulea rosea* Guildford Grass  
8 \**Sparaxis bulbifera* Harlequin Flower  
9 \**Watsonia leipoldtii* Watsonia

#### LILIACEAE

3	<i>Arthropodium capillipes</i>	
10	* <i>Asphodelus fistulosa</i>	Onion Weed
4	<i>Burchardia umbellata</i>	Milkmaids
5	<i>Caesia parviflora</i>	
6	<i>Chamaescilla corymbosa</i>	Blue Squill
7	<i>Corynotheca micrantha</i>	
8	<i>Dianella revoluta</i> var. <i>divaricata</i>	Flax Lily
11	* <i>Lachenalia reflexa</i>	
9	<i>Sowerbaea laxiflora</i>	Purple Tassels
20	<i>Thysanotus arenarius</i>	
1	<i>Thysanotus manglesianus</i>	
2	<i>Thysanotus triandrus</i>	
12	* <i>Trachyandra divaricata</i>	
3	<i>Tricoryne elatior</i>	Yellow Autumn Lily

### ORCHIDACEAE

4	<i>Caladenia flava</i> ssp. <i>flava</i>	Cowslip Orchid
5	<i>Caladenia latifolia</i>	Pink Fairies
6	<i>Caladenia arenicola</i>	Carousel Spider
7	<i>Caladenia longicauda</i>	White Spider
8	<i>Caladenia ? arenicola x longicauda</i>	
9	<i>Diuris magnifica</i>	
30	<i>Leptocerus menziesii</i>	Rabbit Orchid
1	<i>Lyperanthus ? nigricans</i>	
2	<i>Microtis</i> sp.	
3	<i>Pterostylis sanguinea</i>	

### OROBANCHACEAE

	* <i>Orobanche minor</i>	Lesser Broomrape
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### POACEAE

13	* <i>Aira caryophyllea</i>	
14	* <i>Avena barbata</i>	Wild Oats
15	* <i>Briza maxima</i>	Shivery Grass
16	* <i>Briza minor</i>	Quaking Grass
17	* <i>Bromus madritensis</i>	Brome Grass
18	* <i>Cynodon dactylon</i>	Couch Grass
4	<i>Danthonia occidentalis</i>	Wallaby Grass
19	* <i>Ehrharta calycina</i>	Veldt Grass
20	* <i>Ehrharta longifolia</i>	Perennial Veldt Grass
21	* <i>Eragrostis curvula</i>	African Love Grass
22	* <i>Lagurus ovatus</i>	Rabbit-tail Grass
23	* <i>Lolium rigidum</i>	Perennial Ryegrass
5	<i>Microlaena stipoides</i>	Weeping Grass
24	* <i>Pennisetum clandestinum</i>	Kikuyu
6	<i>Poa porphyryclados</i>	

25	* <i>Rhynchelytrum repens</i>	Red Natal Grass
26	* <i>Stenotaphrum secundatum</i>	Buffalo Grass
27	* <i>Sporobolus indicus</i>	Rat's-tail Grass
7	<i>Stipa compressa</i>	
8	<i>Stipa flavescens</i>	

#### RESTIONACEAE

9	<i>Loxocarya flexuosa</i>	
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#### XANTHORRHOEACEAE

40	<i>Dasypogon bromeliifolius</i>	Drumsticks
1	<i>Lomandra caespitosa</i>	
2	<i>Lomandra sp.1</i>	
3	<i>Lomandra sp.2</i>	
4	<i>Xanthorrhoea preissii</i>	Grasstree, Balga

### DICOTYLEDONS

#### AMARANTHACEAE

5	<i>Ptilotus drummondii</i>	
6	<i>Ptilotus polystachyus</i>	

#### ANACARDIACEAE

28	* <i>Schinus terebinthifolius</i>	Brazilian Mastic/ Japanese Pepper
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#### ASTERACEAE

27	* <i>Arctotheca calendula</i>	Capeweed
31	* <i>Conyza bonariensis</i>	Fleabane
32	* <i>Crepis sp.</i>	
33	* <i>Dimorphotheca sp.</i>	
33	* <i>Gazania splendens</i>	Gazania
7	<i>Hypochaeris glabra</i>	Cat's Ear
37	* <i>Osteospermum clandestinum</i>	Stinking Roger
8	<i>Ozothamnus cordatum</i>	Tangle Daisy
9	<i>Podolepis gracilis</i>	
35	* <i>Senecio vulgaris</i>	
36	* <i>Sonchus asper</i>	Sow Thistle
37	* <i>Ursinia anthemoides</i>	
50	<i>Waitzia suaveolens</i>	

#### CARYOPHYLLACEAE

38	* <i>Petrorhagia velutina</i>	
39	* <i>Silene gallica</i>	French Catchfly

## CASUARINACEAE

- 1 *Allocasuarina fraseriana* Sheoak
- 2 *Allocasuarina humilis* Dwarf Sheoak

## DILLENACEAE

- 3 *Hibbertia hypericoides* Native Buttercup
- 4 *Hibbertia racemosa*

## DROSERACEAE

- 5 *Drosera macrantha*
- 6 *Drosera sp.*

## EPACRIDACEAE

- 7 *Astroloma pallidum* Emu Berry (Nyoongar translation)
- 8 *Conostephium pendulum* Pearl Flower
- 9 *Leucopogon propinquus* Beard Heath

## EUPHORBIACEAE

- 40 *\*Euphorbia terracina* Geraldton Carnation Weed
- 60 *Phyllanthus calycinus* False Boronia

## FABACEAE

- 1 *Bossiaea eriocarpa*
- 2 *Daviesia divaricata*
- 3 *Daviesia juncea*
- 4 *Daviesia nudiflora*
- 5 *Daviesia triflora*
- 6 *Gompholobium tomentosum* (note: there appear to be two distinct forms, one with a bright yellow flower in early summer and slightly taller habit)
- 7 *Hardenbergia comptoniana* Native Wisteria
- 8 *Isotropis cuneifolia* Granny Bonnets
- 9 *Jacksonia furcellata* Grey Stinkwood
- 70 *Jacksonia sternbergiana* Yellow Stinkwood
- 1 *Kennedia prostrata* Running Postman
- 41 *\*Lupinus angustifolius* Narrow-leaf Lupin
- 42 *\*Lupinus cosentii* Sandplain Lupin
- 2 *Oxylobium capitatum*
- 43 *\*Trifolium angustatum*
- 44 *\*Trifolium campestre*
- 45 *\*Trifolium repens*

GERANIACEAE

- 46 \**Erodium botrys* Crane's Bill  
 47 \**Pelargonium capitatum* Rose Pelargonium

GOODENIACEAE

- 3 *Dampiera linearis*  
 4 *Scaevola canescens*  
 5 *Scaevola paludosa*

MIMOSACEAE

- 48 #*Acacia celastrifolia*  
 6 *Acacia cyclops* Red Eye Wattle  
 7 *Acacia huegelii*  
 49 #*Acacia iteaphylla* Gawler Range Wattle  
 8 *Acacia lasiocarpa*  
 50 # *Acacia podalyriifolia* Mt. Morgan Wattle, Qld Silver Wattle  
 9 *Acacia pulchella* Prickly Moses  
 80 *Acacia saligna* Orange Wattle, Koojong  
 1 *Acacia stenoptera*  
 2 *Acacia wildenowiana*

MORACEAE

- \**Ficus carica* Edible Fig

MYRTACEAE

- 51 #*Chamaelaucium uncinatum* Geraldton Wax  
 3 *Corymbia calophylla* Marri  
 4 *Eucalyptus gomphocephala* Tuart  
 5 *Eucalyptus marginata* Jarrah  
 6 *Hypocalymma robusta*

OXALIDACEAE

- 52 \**Oxalis pes-caprae* Soursob

PROTEACEAE

- 7 *Banksia attenuata* Candle Banksia  
 8 *Banksia grandis* Bull Banksia  
 9 *Banksia menziesii* Firewood Banksia  
 1 *Dryandra lindleyana* Couch Honeypots  
 90 *Dryandra sessilis* Parrot Bush  
 1 *Hakea prostrata*  
 2 *Persoonia saccata* Snottygobble

- 3 *Petrophile linearis* Pixie Mops
- 4 *Petrophile macrostachya*
- 5 *Synaphea spinulosa*

RANUNCULACEAE

- 6 *Clematis pubescens* Old Man's Beard

RUBIACEAE

- 53 \**Centranthus ruber* Valerian

RUTACEAE

- 7 *Eriostemon spicatus*

STERCULIACEAE

- 54 #*Brachychiton populneus* Kurrajong

STYLIDIACEAE

- 8 *Stylidium brunonianum*
- 9 *Stylidium schoenoides*

THYMELACEAE

- 100 *Pimelea rosea* Rose Banjine

VERBENACEAE

- 55 \**Lantana camara* Lantana

BJK 12/10/78

100 Native tree

55 tree

## VERTEBRATE FAUNA RECORDED AT SAMSON PARK

Exotic species are marked with an asterisk (\*). Non-indigenous native species are denoted thus: #. Questionable records (possible misidentifications or aviary escapes) are indicated by a question mark (?).

### MAMMALS

Brushtail Possum	<i>Trichosurus vulpecula</i>
Common House Mouse	<i>Mus musculus</i>
Rabbit	<i>Oryctolagus cuniculus</i>

### REPTILES

Bobtail	<i>Tiliqua rugosa</i>
Dugite	<i>Pseudinaja affinis</i>
	<i>Lerista distinguenda</i>
	<i>L. fallens</i>
	<i>Monetia grayii</i>
	<i>Morethia obscura</i>
Western Limestone Skink	
Western Spiny-tailed gecko	

### BIRDS

Australian Hobby	<i>Falco longipennis</i>
Australian Kestrel	<i>F. cenchroides</i>
Australian Magpie	<i>Gymnorhina tibicen</i>
Black-faced Cuckoo Shrike	<i>Coracina novaehollandiae</i>
Black Duck	<i>Anas superciliosa</i>
Brown Falcon	<i>Falco beriogra</i>
Brown Honeyeater	<i>Lichmera indistincta</i>
Boobook Owl	<i>Ninox novaeseelandiae</i>
Collared Sparrowhawk	<i>Accipiter cirrocephalus</i>
Elegant Parrot	<i>Neophema elegans</i>
?Fairy Martin	<i>Cecropis ariel</i>
Fan-tailed Cuckoo	<i>Cuculus pyrrhphanus</i>
*Feral Pigeon	<i>Columba livia</i>
#Galah	<i>Cacatua roseicapilla</i>
Grey Butcherbird	<i>Cracticus torquatus</i>
Grey Fantail	<i>Rhipidura fuliginosus</i>
#Laughing Kookaburra	<i>Dacelo novaeguineae</i>
*Laughing Turtle-dove	<i>Streptopelia senegalensis</i>
?Mallee Ringneck	<i>Platycercus zonarius barnardi</i>
New Holland Honeyeater	<i>Philydonyris novaehollandiae</i>
Peregrine Falcon	<i>Falco peregrinus</i>
?Pied Butcherbird	<i>Cracticus nigrogularis</i>
?Port Lincoln Ringneck	<i>Platycercus zonarius zonarius</i>
Purple-crowned Lorikeet	<i>Glossopsitta porphyrocephala</i>
Red Wattlebird	<i>Anthochaera carunculata</i>

Red-capped Parrot  
?Regent Parrot  
?Rock Parrot  
Rufous Whistler  
Sacred Kingfisher  
Silver Gull  
Silvereye  
Singing Honeyeater  
\*Spotted Turtle-dove  
Striated Pardalote  
Tawny Crowned Honeyeater  
Tree Martin  
Weebill  
Welcome Swallow  
Western Gerygone  
Western Spinebill  
Western Thornbill  
White-tailed Black Cockatoo  
Yellow-rumped Thornbill

*Purpureicephalus spurius*  
*Polytelis anthopeplus*  
*Neophema petrophila*  
*Pachycephala rufiventris*  
*Halcyon sancta*  
*Larus novaehollandiae*  
*Zosterops lateralis*  
*Meliphaga virescens*  
*Streptopelia chinensis*  
*Pardalotus striatus*  
*Philydonyris melanops*  
*Cecropis nigricans*  
*Smicronis brevirostris*  
*Hirundo neoxena*  
*Gerygone fusca*  
*Acanthorhynchus superciliosus*  
*Acanthiza inornata*  
*Calyptorhynchus latirostris*  
*Acanthiza chrysorrhoa*

BSSA  
BSSS.  
2/10/98



Town Hall Centre, 8 William Street  
Fremantle, Western Australia

PO Box 807, Fremantle  
Western Australia 6160

Telephone: (08) 9432 9999  
Facsimile: (08) 9430 4634

Facsimile Cover Sheet

To Ms NADANIE HORNEY Fax Number 9635 1187  
 Date 20-8-98  
 From Tony French Time 10:15  
 Number of Pages (inc. Cover) 8

NADANIE,

Pls find attached photos from  
Services conducted by March 1997.

Regards

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Common House Mouse  
Rabbit

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*Mus musculus*  
*Oryctolagus cuniculus*

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Dugite

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*Monetia grayii*  
*Morethia obscura*

Western Limestone Skink  
Western Spiny-tailed gecko

### BIRDS

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Australian Kestrel  
Australian Magpie  
Black-faced Cuckoo Shrike  
Black Duck  
Brown Falcon  
Brown Honeyeater  
Boobook Owl  
Collared Sparrowhawk  
Elegant Parrot  
?Fairy Martin  
Fan-tailed Cuckoo  
\*Feral Pigeon  
#Galah  
Grey Butcherbird  
Grey Fantail  
#Laughing Kookaburra  
\*Laughing Turtle-dove  
?Mallee Ringneck  
New Holland Honeyeater  
Peregrine Falcon  
?Pied Butcherbird  
?Port Lincoln Ringneck  
Purple-crowned Lorikeet  
Red Wattlebird

*Falco longipennis*  
*F. cenchroides*  
*Gymnorhina tibicen*  
*Coracina novaehollandiae*  
*Anas superciliosa*  
*Falco berigora*  
*Lichmera indistincta*  
*Ninox novaeseelandiae*  
*Accipiter cirrocephalus*  
*Neophema elegans*  
~~*Cecropis ariel*~~ No.  
*Cuculus pyrrhophanus*  
*Columba livia*  
*Cacatua roseicapilla*  
*Cracticus torquatus*  
*Rhipidura fuliginosa*  
*Dacelo novaeguineae*  
*Streptopelia senegalensis*  
*Platycercus zonarius barnardi*  
*Philydonyris novaehollandiae*  
*Falco peregrinus*  
~~*Cracticus nigrogularis*~~ No.  
~~*Platycercus zonarius zonarius*~~ No.  
~~*Glossopsitta porphyrocephala*~~ No.  
*Anthochaera carunculata*

Red-capped Parrot  
?Regent Parrot  
?Rock Parrot  
Rufous Whistler  
Sacred Kingfisher  
Silver Gull  
Silvereye  
Singing Honeyeater  
\*Spotted Turtle-dove  
Striated Pardalote  
Tawny Crowned Honeyeater  
Tree Martin  
Weebill  
Welcome Swallow  
Western Gerygone  
Western Spinebill  
Western Thornbill  
White-tailed Black Cockatoo  
Yellow-rumped Thornbill

*Purpureicephalus spurius*  
*Polytelis anthopeplus*  
~~*Neophema petrophila*~~ - MO  
*Pachycephala rufiventris*  
*Halcyon sancta*  
*Larus novaehollandiae*  
*Zosterops lateralis*  
*Meliphaga virescens*  
*Streptopelia chinensis*  
*Pardalotus striatus*  
*Philydonyris melanops*  
*Cecropis nigricans*  
*Smicrornis brevirostris*  
*Hirundo neoxena*  
*Gerygone fusca*  
*Acanthorhynchus superciliosus*  
*Acanthiza inornata*  
*Calyptorhynchus latirostris*  
*Acanthiza chrysorrhoa*

## PLANT SPECIES FOUND AT SIR FREDERICK SAMSON PARK

This list was compiled from the original Management Plan (Ecoscape, 1989), a brief survey conducted by the DEP (October, 1994), a list of orchid species supplied by Margo O'Byrne (DEP) and my own limited survey in spring 1996.

Exotic species are marked with an asterisk (\*). Native, non-indigenous species are marked thus #. Dubious records are denoted thus ?. Where possible these have been checked. Nomenclature follows that used in the *Flora of Australia* (AGPS).

### CYCADS

#### ZAMIACEAE

*Macrozamia riedlei* Zamia

### MONOCOTYLEDONS

#### CYPERACEAE

*Lepidosperma angustatum*  
*Lepidosperma scabrum*  
*Mesomelaena pseudostygia*  
*Schoenus latifans*  
*Schoenus grandiflorus*

#### HAEMODORACEAE

*Anigozanthos humilis* Catspaw  
*Anigozanthos manglesii* Mangles Kangaroo Paw  
*Conostylis aculeata*  
*Conostylis candicans*  
*Conostylis setigera*  
*Haemodorum spicatum* Bloodroot

#### IRIDACEAE

\**Chasmanthe floribunda* African Cornflag  
\**Ferraria crispa* Black Flag  
\**Freesia x leichtlinii* Freesia  
\**Gladiolus caryophyllaceus* Wild Gladiolus  
\**Gynandris setifolia* Thread Iris  
\**Homeria flaccida* One-leaf Cape Tulip  
\**Romulea rosea* Guildford Grass  
\**Sparaxis bulbifera* Harlequin Flower  
\**Watsonia leipoldtii* Watsonia

#### LILIACEAE

GERANIACEAE

\**Erodium botrys*  
\**Pelargonium capitatum*

Crane's Bill  
Rose Pelargonium

GOODENIACEAE

*Dampiera linearis*  
*Scaevola canescens*  
*Scaevola paludosa*

MIMOSACEAE

#*Acacia celastrifolia*  
*Acacia cyclops*  
*Acacia huëgelii*  
#*Acacia iteaphylla*  
*Acacia lasiocarpa*  
# *Acacia podalyriifolia*  
*Acacia pulchella*  
*Acacia saligna*  
*Acacia stenoptera*  
*Acacia wildenowiana*

Red Eye Wattle  
Gawler Range Wattle  
Mt. Morgan Wattle, Qld Silver Wattle  
Prickly Moses  
Orange Wattle, Koojong

MORACEAE

\**Ficus carica*

Edible Fig

MYRTACEAE

#*Chamaelaucium uncinatum*  
*Corymbia calophylla*  
*Eucalyptus gomphocephala*  
*Eucalyptus marginata*  
*Hypocalymma robusta*

Geraldton Wax  
Marri  
Tuart  
Jarrah

OXALIDACEAE

\**Oxalis pes-caprae*

Soursob

PROTEACEAE

*Banksia attenuata*  
*Banksia grandis*  
*Banksia menziesii*  
*Dryandra lindleyana*  
*Dryandra sessilis*  
*Hakea prostrata*  
*Persoonia saccata*

Candle Banksia  
Bull Banksia  
Firewood Banksia  
Couch Honey pots  
Parrot Bush  
Snottygobble

## CASUARINACEAE

*Allocasuarina fraseriana*  
*Allocasuarina humilis*

Sheoak  
Dwarf Sheoak

## DILLENIACEAE

*Hibbertia hypericoides*  
*Hibbertia racemosa*

Native Buttercup

## DROSERACEAE

*Drosera macrantha*  
*Drosera sp.*

## EPACRIDACEAE

*Astroloma pallidum*  
*Conostephium pendulum*  
*Leucopogon propinquus*

Emu Berry (Nyoongar translation)  
Pearl Flower  
Beard Heath

## EUPHORBIACEAE

\**Euphorbia terracina*  
*Phyllanthus calycinus*

Geraldton Carnation Weed  
False Boronia

## FABACEAE

*Bossiaea eriocarpa*  
*Daviesia divaricata*  
*Daviesia juncea*  
*Daviesia nudiflora*  
*Daviesia triflora*

*Gompholobium tomentosum* (note: there appear to be two distinct forms, one with a bright yellow flower in early summer and slightly taller habit)

*Hardenbergia comptoniana*

*Isotropis cuneifolia*

*Jacksonia furcellata*

*Jacksonia sternbergiana*

*Kennedia prostrata*

\**Lupinus angustifolius*

\**Lupinus cosentii*

*Oxylobium capitatum*

\**Trifolium angustatum*

\**Trifolium campestre*

\**Trifolium repens*

Native Wisteria  
Granny Bonnets  
Grey Stinkwood  
Yellow Stinkwood  
Running Postman  
Narrow-leaf Lupin  
Sandplain Lupin

<i>*Rhynchelytrum repens</i>	Red Natal Grass
<i>*Stenotaphrum secundatum</i>	Buffalo Grass
<i>*Sporobolus indicus</i>	Rat's-tail Grass
<i>Stipa compressa</i>	
<i>Stipa flavescens</i>	

**RESTIONACEAE**

*Loxocarya flexuosa*

**XANTHORRHOEACEAE**

<i>Dasypogon bromeliifolius</i>	Drumsticks
<i>Lomandra caespitosa</i>	
<i>Lomandra sp. 1</i>	
<i>Lomandra sp. 2</i>	
<i>Xanthorrhoea preissii</i>	Grasstree, Balga

**DICOTYLEDONS**

**AMARANTHACEAE**

*Ptilotus drummondii*  
*Ptilotus polystachyus*

**ANACARDIACEAE**

*\*Schinus terebinthifolius*      Brazilian Mastic/ Japanese Pepper

**ASTERACEAE**

<i>*Arctotheca calendula</i>	Capeweed
<i>*Conyza bonariensis</i>	Fleabane
<i>*Crepis sp.</i>	
<i>*Dimorphotheca sp.</i>	
<i>*Gazania splendens</i>	Gazania
<i>Hypochaeris glabra</i>	Cat's Ear
<i>*Osteospermum clandestinum</i>	Stinking Roger
<i>Ozothamnus cordatum</i>	Tangle Daisy
<i>Podolepis gracilis</i>	
<i>*Senecio vulgaris</i>	
<i>*Sonchus asper</i>	Sow Thistle
<i>*Ursinia anthemoides</i>	
<i>Waitzia suaveolens</i>	

**CARYOPHYLLACEAE**

<i>*Petrorhagia velutina</i>	
<i>*Silene gallica</i>	French Catchfly

<i>Arthropodium capillipes</i>	
* <i>Asphodelus fistulosa</i>	Onion Weed
<i>Burchardia umbellata</i>	Milkmaids
<i>Caesia parviflora</i>	
<i>Chamaescilla corymbosa</i>	Blue Squill
<i>Corynotheca micrantha</i>	
<i>Dianella revoluta</i> var. <i>divaricata</i>	Flax Lily
* <i>Lachenalia reflexa</i>	
<i>Sowerbaea laxiflora</i>	Purple Tassels
<i>Thysanotus arenarius</i>	
<i>Thysanotus manglesianus</i>	
<i>Thysanotus triandrus</i>	
* <i>Trachyandra divaricata</i>	
<i>Tricoryne elatior</i>	Yellow Autumn Lily

#### ORCHIDACEAE

<i>Caladenia flava</i> ssp. <i>flava</i>	Cowslip Orchid
<i>Caladenia latifolia</i>	Pink Fairies
<i>Caladenia arenicola</i>	Carousel Spider
<i>Caladenia longicauda</i>	White Spider
<i>Caladenia</i> ? <i>arenicola</i> x <i>longicauda</i>	
<i>Diuris magnifica</i>	
<i>Leptocerus menziesii</i>	Rabbit Orchid
<i>Lyperanthus</i> ? <i>nigricans</i>	
<i>Microtis</i> sp.	
<i>Pterostylis sanguinea</i>	

#### OROBANCHACEAE

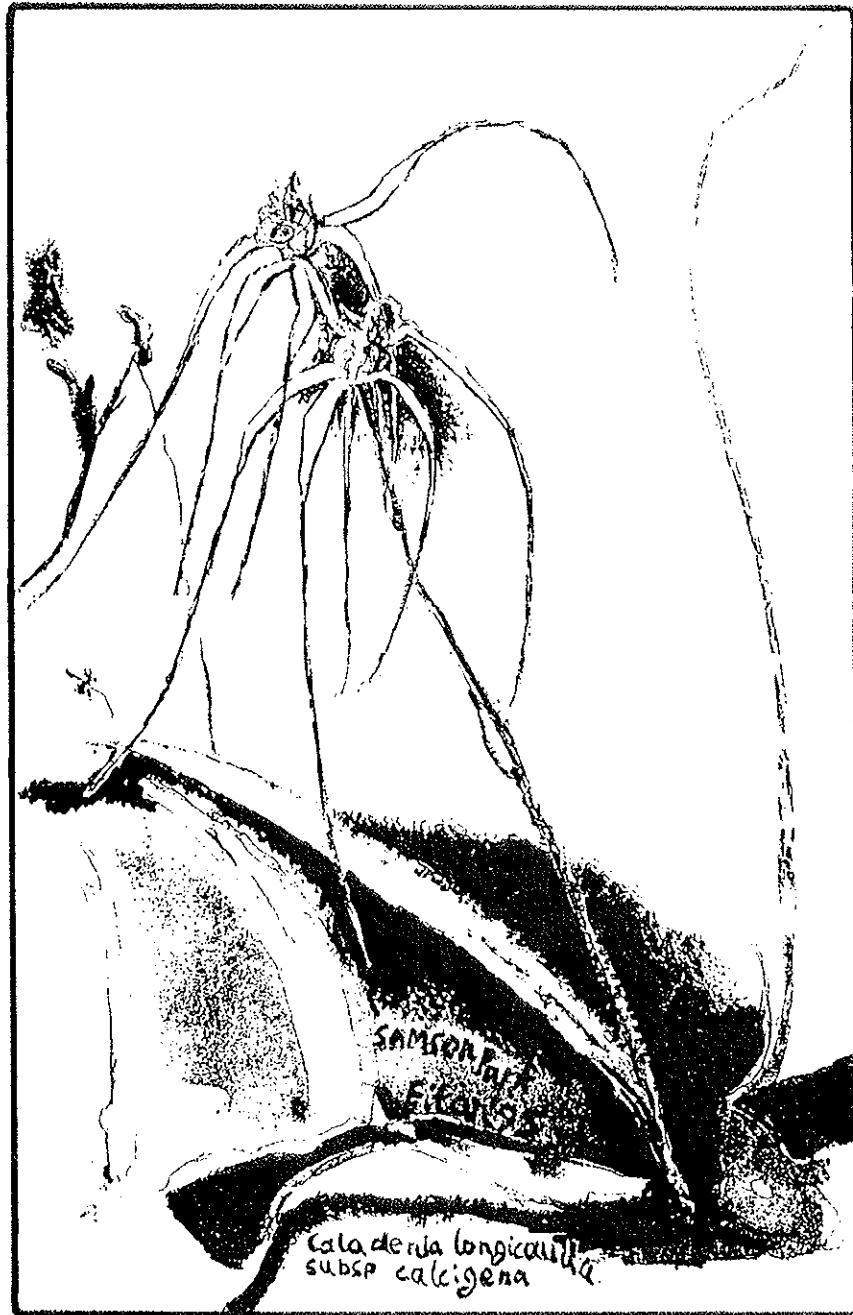
* <i>Orobanche minor</i>	Lesser Broomrape
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#### POACEAE

* <i>Aira caryophyllea</i>	
* <i>Avena barbata</i>	Wild Oats
* <i>Briza maxima</i>	Shivery Grass
* <i>Briza minor</i>	Quaking Grass
* <i>Bromus madritensis</i>	Brome Grass
* <i>Cynodon dactylon</i>	Couch Grass
<i>Danthonia occidentalis</i>	Wallaby Grass
* <i>Ehrharta calycina</i>	Veldt Grass
* <i>Ehrharta longifolia</i>	Perennial Veldt Grass
* <i>Eragrostis curvula</i>	African Love Grass
* <i>Lagurus ovatus</i>	Rabbit-tail Grass
* <i>Lolium rigidum</i>	Perennial Ryegrass
<i>Microlaena stipoides</i>	Weeping Grass
* <i>Pennisetum clandestinum</i>	Kikuyu
<i>Poa porphyryclados</i>	

X See Other Volume for entire  
Plan

SIR FREDERICK  
SAMSON PARK  
MANAGEMENT PLAN



Parks and Recreation Department  
City of Fremantle

NOVEMBER 1995

## **EXECUTIVE SUMMARY**

### **Values of Samson Park**

Samson Park is the largest and most significant environmental reserve in the City of Fremantle. It contains the only remnant of Jarrah/ Marri/ Tuart Open Forest in the municipality and is an important refuge for native birds, reptiles and small mammals. This type of vegetation would once have covered most of Fremantle's hinterland, and a large proportion of the metropolitan area. Such remnants are now rare: the closest reserve with this type of vegetation is Reabold Hill. The remnant bushland at Samson Park thus provides a unique "sense of place" and is of immense importance to the landscape character of Fremantle and beyond. The conservation value of Samson Park has been recognised by the EPA by its inclusion in the Darling System (System 6) Report. The suburb of Samson is also important to Fremantle's wartime heritage, being the site of the Melville Military Camp during World War Two. Seven W.A. battalions (an estimated 12,000 troops), the Australian Women's Army Service and a small contingent of RAAF personnel trained here during WWII. A cairn commemorating the Army's presence has been erected in the Park.

Samson Park is the only area of public open space in the suburb of Samson. It is an extremely well-used park. A park usage survey of Samson and nearby Kardinya residents conducted as part of the management review revealed that over 80% of local residents use the park regularly, and people from as far afield as East Fremantle, Beaconsfield, Willagee and Coolbellup are frequent visitors. From the survey sample alone (254 respondents), over 90 people indicated they use the park daily. Most park users enjoy the combination of bush and the lawn area, which has been developed for more intensive recreational use. Large bush reserves are rare in suburbia, and offer recreational experiences such as bushwalking, adventure play and nature study, which are appreciated by a wide range of ages.

A rehabilitation program has been underway since 1986 to restore the natural vegetation of Samson Park and maintain wildlife in the area. Revegetation efforts in Samson Park have been recognised by two major environmental awards: the John Tonkin Greening Award (Samson Primary School, 1991), and the State Finals of the prestigious National Landcare Awards (Fremantle City Council, 1993).

Samson Park is also an important scientific and educational resource for primary, secondary and tertiary institutions, and has been used for various bush regeneration courses and Wildflower Society activities. The park is a focus for community involvement, with active participation in the park's management by a dedicated Friends' Group, past activities involving the local primary school, and regular community planting and maintenance days.

### **Management Concerns**

Samson Park is both an important regional nature reserve and the only recreational park for the residents of Samson. Conflict between conservation management, active recreational use and dog exercise is one of the primary management concerns for Samson Park.

Bush areas are degraded from frequent fire, a growing rabbit population, excessive traffic off defined tracks, garden and rubbish dumping, and weed invasion. There is some evidence of disease in mature Jarrah trees. Stresses placed upon the vegetation from the above factors exacerbate plant disease. Rabbits, drought and vandalism have had a disastrous effect on recent rehabilitation works in the park, and threaten natural regeneration of plant species. Native fauna is at risk from arson, neighbourhood cats and occasional unleashed dogs.

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Playground equipment at Samson Park is inadequate, particularly for pre-schoolers and adolescents, and does not conform to safety standards. Unleashed dogs are a problem in the vicinity of the playground and in bush areas. Dog faeces are a major concern in the playground and other areas, despite recent dog bags and bin placed in the park.

Frequent fires are a threat both to life and property and to the native vegetation and fauna of the park. Fire also mars the aesthetic appeal of the parkland. The majority of the fires at Samson Park are the result of arson.

Vandalism and rubbish dumping are readily apparent in both bush and developed areas of the park. These problems have intensified with the loss of a regular staff presence at Samson Park, and bins missing due to vandalism. Because Samson Park is an important access way between the local shopping centre/ Kanyana/ Primary School complex and bus routes and several fast-food outlets on South Street, the amount of rubbish generated is immense.



Mature Tuart tree in Samson Park. These magnificent trees provide nesting hollows.

## **SUMMARY OF MAJOR RECOMMENDATIONS**

The following is a summary of the main recommendations of the Management Plan. More detailed recommendations and actions required to implement each are given at the end of each relevant section of the Management Plan.

### **1. Ensure an adequate staff presence to manage Samson Park.**

Samson Park requires a regular staff presence to:

- \* reduce the incidence of opportunistic vandalism and arson
- \* provide a better standard of maintenance and improve the public's image of the park
- \* ensure prompt action to avoid the large-scale problems (rabbits, plant losses) which have occurred in the past
- \* monitor flora and fauna and provide feedback on management inputs
- \* assist the Friends of Samson Park with rehabilitation activities

### **2. Maintain a separate budget line for rehabilitation activities.**

This has recently been established in recognition of the importance of a reliable funding source for rehabilitation works. The rehabilitation program outlined in the previous Management Plan is still far from complete and there has been serious, continuing degradation of the park recently as a result of rabbit numbers and successive dry years. There are significant costs incurred in routine maintenance of this bush area (weed control, rabbit control, path maintenance etc.). Reliable funding in future should obviate the serious problems experienced lately with revegetation works, and change the management emphasis from rehabilitation to maintenance.

### **3. Upgrade recreational facilities to provide a safe and stimulating play area for children of all ages.**

Many respondents to the park survey complained about the play equipment, which is inadequate to meet the heavy recreational use of the park, unsuitable, and does not comply with Australian Standards. The following measures are recommended:

- \* remove and replace existing dilapidated equipment
- \* fence pre-school play areas to prevent access from dogs, which soil sand and occasionally worry or attack children
- \* improve recreational facilities for older children. Priority to be given to upgrading the basketball pad
- \* provide additional seating and adequate access for pram and wheelchair users

4. **As recommended in the EPA System 6 Report, include Lots 629 and 576 in the existing reservation (C34233: Public Recreation and Parkland)**

Exclusion of these lots from the protection of reservation poses a threat to the integrity of Samson Park and should be redressed if Council is committed to appropriate management of this regional conservation reserve.

5. **Establish a clear use zoning system for Samson Park to minimise the present extent of use conflict.**

A zoning system would provide better protection for areas of high conservation value and severely degraded bushland areas under rehabilitation and minimise existing problems with dogs in play and picnic areas.

6. **Improve routine maintenance of the park and verge areas.**

Verge areas are important as they provide a first impression and affect people's attitude to the park and their behaviour within it. Vergeside plantings are in need of replacement planting and maintenance. Rubbish collection schedules need to be more frequent to deal with the amount of rubbish in Samson Park. The problem is compounded by stolen and vandalised bins which are not promptly replaced.

7. **Establish a network of habitat linkages between Samson Park and other important bush remnants.**

Samson Park is quite isolated from other bushland areas, and is the only remnant of Jarrah/ Marri/ Tuart woodland in the municipality. A Greenplan policy is recommended to link this park with other important habitat areas within and adjacent to the municipality. Initiatives such as cat curfews, clearance controls and sympathetic landscaping in the immediate area of Samson Park are to be encouraged.

8. **Rabbit and weed control strategies outlined in the Management Plan should be implemented.**

Rabbit and weed control are urgently required to combat degradation of bush areas. A crucial part of each of these strategies is monitoring, which provides information on the effectiveness of treatments used. Training of staff and volunteers in plant identification and appropriate handling of herbicides is essential.

9. **Extend the interpretation program for Samson Park.**

The aims of the interpretation strategy for Samson Park are threefold:

- \* to educate park users about the natural environment
- \* to encourage appropriate park usage
- \* to promote Samson Park to the wider community.

Promotion of Samson Park has been overlooked in past interpretation activities, although it presents an excellent opportunity for Council to promote its environmental activities. Better use could be made of the noticeboard to include information about the park's history, its flora and fauna, the rehabilitation program, and Friend's Group activities. Interpretation of Samson Park could be integrated into the Kanyana Program, and a static display exhibited in the Kanyana foyer. Encouragement should be given to local schools to use Samson Park as an educational resource and become involved in rehabilitation activities. Signage is urgently need on the verge to indicate major track entrances, and convey positive messages about appropriate park usage. The existing signage along tracks could be expanded, to include notes about plant/ animal interactions, ecological processes (eg. fire, disturbance, weed invasion), appropriate park usage, and rehabilitation techniques.

**10. Expand and refine the rehabilitation strategy.**

The rehabilitation strategy requires further track rationalisation to protect bush areas. Where possible, tracks should follow "desire lines" and fire breaks to avoid duplication. Further revegetation is required in edge areas and severely degraded internal areas. Greater emphasis needs to be placed on appropriate species selection and maintenance of revegetation plantings.

**11. Continue the present fire ban. Maintain the present informal "parkwatch" group and access to reticulation controls to ensure rapid response to fires.**

Fire is a major degrading process at Samson Park in terms of its biota and landscape value. It remains a risk to surrounding properties. Continued control of veldt grass and monitoring of other species which could pose a similar risk is essential. The fire ban until 1999 recommended in the original management plan (Ecoscape, 1989) should remain. After this period it should be reviewed in the light of fire occurrence, fuel levels/ risk, and populations of indigenous flora and fauna. Both the Fire Brigade and a biologist with expertise in the field of fire ecology should be consulted.

**12. Instigate a reliable monitoring program for the Park as a means of auditing expenditure on rehabilitation.**

This should be regarded as an essential component of management and part of the auditing system for Parks and Recreation expenditure. Such an auditing process provides feedback on management inputs and allows optimal resource allocation for minimal outlay. The outcomes of such inputs as a major redesign of reticulation, several years' worth of revegetation plantings, trackwork, permanent quadrat establishment, and trials of direct seeding, mulching etc. in Samson Park are not known, or have represented wasted effort due to a lack of even the most basic monitoring. Monitoring is also essential when using herbicides such as Fusilade for non-registered use in bushland, as the registering company can disclaim all liability for "off-label" usage.

## 1. INTRODUCTION

Sir Frederick Samson Park was reserved in 1971, when Samson Estate was developed from former Army land. An 8.6 hectare area of bushland was retained for the Park, named after a former Mayor of Fremantle, Sir Frederick Samson. Now a "C" Class Reserve vested with the City of Fremantle, the Park remains largely undeveloped, with the exception of a central strip of turf with play, barbecue and toilet facilities. Samson Park is managed by the City of Fremantle.

The vegetation of the Park consists of Jarrah/ Marri/ Tuart woodland, with a Banksia and Sheoak understorey. Dominant understorey species are Grass-trees and Zamia palms. The Park provides habitat for over 50 bird species, reptiles and bats. A Friends of Samson Park group was formed in 1990 with the aim of fostering greater community interest and involvement in Samson Park, particularly conserving the Park's flora and fauna. The Friends group hold regular busy bees and nature walks in the Park. The Friends of Samson Park Management Committee advise Council on matters relating to the management of the Park.

### 1.1 Values of Urban Bushland

Urban bushland reserves such as Samson Park are a valuable recreational, biological, educational and landscape resource within the ubiquitous built environment of suburbia. The value of these reserves has only recently been recognised by state and local authorities and by the general public, and there is now a degree of commitment to managing these reserves for conservation as well as recreation. The State Government is committed to an Urban Bushland Strategy which aims to identify and protect bushland areas of regional significance through a reserve system for the greater metropolitan area. The existing System Six reserves, of which Samson Park is one, form the basis of this network. Another initiative of this strategy is to establish a system of corridor-linked parks ("greenways") between Perth and the outer suburbs, including bush areas wherever possible. Through liaison between local government, the Department of Environment, Department of Conservation and Land Management, and the newly-formed Perth Environment Project, sound land management practices are to be encouraged in urban bushland (DPUD, 1993).

Urban bushland is important for imparting a "sense of place". The indigenous vegetation of an area gives it a distinctive visual character which reflects the unique set of environmental conditions in any location. This contrasts with the contrived landscapes so typical of suburbia (Buchhorn et al., 1989). Bushland reserves provide refuges for indigenous flora and fauna within the generally hostile urban environment. The preservation of these larger habitat areas and of linking corridors of indigenous vegetation allow these distinctively local species to survive in urban environments. Linear links are also an important landscape and recreational resource.

With growing concern for the environment, there is also increased recreational demand for accessible bushland areas. Whilst not offering the challenge of rugged bushwalking, urban bush reserves provide opportunities to feel "at one" with the natural environment through walking, birdwatching and other "passive" activities. Bush reserves are also important adventure play areas for children (Jeavons, 1986), and provide interesting recreational spaces for adolescents, a group often overlooked by park planners (Owens, 1994). Adventure play is particularly important in built-up areas where public open space is of limited extent, restricted in the scope of recreation facilities provided, and surrounded by busy roads.

Bush reserves such as Samson Park are an invaluable educational resource for local children, students and the wider public. They allow a glimpse of what the landscape was like before European settlement, and are refuges for indigenous flora and fauna. Children (and adults) can learn at first hand about native plants, animals, and ecological processes. Bush remnants can also provide an insight into the life of the Nyoongah people before European colonisation, and are a reminder of how drastically the landscape has changed since European settlement. Interpretation programs, which inform park users about the park's environment and appropriate park usage, are a vital facet of park management.

## **1.2 Management Issues**

Urban bushland reserves offer many challenges to park managers. In the past, scant attention was paid to actively managing bush reserves, other than over-zealous control burning, which has hastened their degradation (Ecoscape, 1989). It is now recognised that without regular maintenance and monitoring, bush reserves soon become seriously degraded.

Urban bush reserves are effectively island ecosystems, surrounded by an environment hostile to their biota. In island ecosystems, resources are limited, gene flow is restricted, and species are more at risk to succumbing to periodic events such as fire, drought, disease or insect attack than the same species occurring in larger populations in large, unalienated reserves (Diamond, 1976; Majer & Recher, 1994). The effects of isolation of urban bushland remnants may be reduced by linking areas of public open space, creating wildlife corridors (Bennett, 1991). The EPA System Six Report emphasises the importance of creating linear public open space for this purpose (EPA, 1981).

Small bush reserves such as Samson Park are typified by a large edge: internal area ratio. Edges of bush reserves are invariably the most degraded areas, due to the combined effects of weed invasion, stormwater quantity and quality, predation by domestic pets, trampling, and dumping of garden rubbish. Although the indigenous vegetation of the area is remarkably resilient to events such as fire and drought, increasing disturbance of the groundstorey, frequent fire and altered hydrological conditions predispose the indigenous vegetation to a greater risk of disease and favour the spread of invasive weed species. Whilst indigenous species are finely adapted to conditions of regular summer drought, poor nutrient status and occasional fire, most weed species are aggressive colonisers which survive a wide range of ecological tolerance and compete successfully for water, nutrients and space. Without persistent efforts at weed control, further degradation of native vegetation is inevitable. Loss of indigenous vegetation also means loss of habitat for indigenous fauna. While some species adapt to changes in vegetation, others with more specialised habitat requirements may decline in numbers or even become locally extinct.

Recreational pressures on reserves such as Samson Park are great. People expect to be able to enjoy near-pristine bushland, exercise themselves, walk their dogs, enjoy picnic facilities, have access to children's play equipment, and have room to kick a footy. There are also significant social pressures which have an impact on bush reserves: vandalism, arson, and concern of nearby residents of the fire hazard posed by such reserves. There is now increasing recognition of the fact that urban bush reserves require intensive management by staff with a good knowledge of ecology and bushland rehabilitation, as well as an awareness of local recreational and other social needs.

The other major landuse of the Park is its use by the Water Authority as a stormwater reservoir for the surrounding area. A total catchment of 63 hectares ( largely medium-density suburban development) drains into Samson Park. WAWA has a small enclosure near the southern boundary of the park. An average volume of 150,000cubic metres is discharged into the Park each year. No major roads drain into this catchment, reducing the risk of oil and other chemical contamination within the Park (Ecoscape, 1989).

### 3.3 LANDFORM

Samson Park lies in the swale (valley) of part of the Spearwood dune system. Being of recent origin, the Spearwood Dune System is typified by its topographical variation and undulating terrain. Hills are higher (eg. Cantonment Hill, Reabold Hill, Mt. Eliza) than those of the older Bassendean Dune System, located further inland (see Geology, Geomorphology and Soils). Samson Park acts as a drainage basin for the surrounding area. The lowest point of the Park (in the central lawn area) is 24.2m AHD and the highest point (on the corner of Sellenger Avenue and McKenzie Road) is 47m AHD (Ecoscape, 1989).

### 3.4 GEOLOGY, GEOMORPHOLOGY AND SOILS

Samson Park lies on the Swan Coastal Plain. This landform lies between the Indian Ocean and the Darling Fault and is bounded to the north by a subsidiary fault running north-west from Bullsbrook, and to the south by the Collie - Cape Naturaliste Scarp. The Swan Coastal Plain consists of five geomorphic elements running roughly parallel to the coast: the Ridge Hill Shelf (lateritic foothills of the Darling Scarp); Pinjarra Plain (a narrow band of alluvium at the base of the Scarp); and the Bassendean, Spearwood and Quindalup Dune Systems. These Dune Systems run from west to east, with the oldest deposits forming the Bassendean System, and the most recent forming the Quindalup System. Each of the dune systems was formed by accumulation of wind-blown sand deposits from successive shorelines during the Quaternary period (recent geologic time). Samson Park is located on the Spearwood Dune System, which lies inland from the more recent Quindalup Dunes. The chain of nearby lakes to the east of Samson Park (Bibra Lake, North Lake, South Lake and Lake Yangebup) form the boundary of the Spearwood and Bassendean Dune Systems. The Spearwood Dune System consists of wind-blown deposits (aeolianite) with a hard capping of calcite beneath varying depths of yellow or brown sand (Cottesloe Soil Association). Prevailing south-westerly winds have shaped the aeolianite parent material of the dune system at least during recent geologic times (Quaternary), producing distinct windward and lee slopes trending south-west (McArthur & Bettaney, 1960). This topography can still be seen in the area. Soils of the area are podzolized (leached) sands, low in fertility, and mildly alkaline (pH 7-8). Originally these soils would have been calcareous to the surface, but continued leaching has precipitated calcium carbonate to the lower capping rock. Loss of iron from the soil also occurs with leaching . The soil in Samson Park is fairly shallow: in some parts of the park the cap rock is visible at the surface. Soil loss from erosion resulting from rabbit activity and excessive recreational pressure is thus a problem in areas to be revegetated.

The most important climatic factor affecting the area's soils is precipitation. Soils are heavily leached in winter and may even experience some waterlogging, then rapidly fall below field capacity after November. There is virtually no available soil moisture within several feet of the surface throughout summer (McArthur & Bettaney, 1960).

The combination of low soil fertility and severe moisture deficit for approximately six months of the year has several management implications. Indigenous vegetation of the area is adapted to these conditions and may be adversely affected by increasing soil moisture or fertility levels, for example in the vicinity of the central grass sward and stormwater discharge areas. Some of these effects are direct, as in the case of Proteaceae species (Banksias, Persoonias, Petrophiles), which are acutely sensitive to increased phosphate levels, or anecdotal evidence of Banksia species suffering from excessive watering over summer in Perth gardens (Beard, 1990). The most obvious indirect consequence of increased soil moisture and fertility levels is invasion of indigenous vegetation by weed species, which will produce vigorous growth under these conditions.

### 3.5 CLIMATE

The climate of the area is typically Mediterranean, with a long, hot, dry summer (five to six dry months per year) and mild, wet winter (Beard, 1990, Seddon, 1972). Mean annual rainfall (measured at Fremantle) is 771mm, most of which occurs between May and September. Maximum temperatures range from 28.8°C in February to 17.5°C in August, and minima from 18.7°C (February) to 9.8°C (August) (Bureau of Meteorology, 1988).

Because of the extended period of moisture deficit and high temperatures, plant growth is minimal over summer, and many species experience some form of dormancy (Seddon, 1972).

These climatic conditions produce an extended fire season for the metropolitan area, usually from November to April. Other climatic conditions which influence fire risk/behaviour are high temperatures, low relative humidities experienced in this period, strong overnight and early morning easterlies, and west or south-west afternoon sea breezes. Vegetation is at its most flammable from December and maintains its flammability until late autumn rains (Robley, 1983).

### 3.6 VEGETATION

The vegetation at Samson Park is classified as Tuart-Jarrah-Marri Woodland. In the complex mosaic of dune soils of the Spearwood System the Tuart Forest Formation, with its component of extremely lime-tolerant species, intergrades with species found in the Jarrah-Banksia Woodland further east (Smith, 1973). Dominant overstorey species at Samson Park are Jarrah (*Eucalyptus marginata*), Marri (*E. calophylla*) and Tuart (*E. gomphocephala*). Samson Park retains a reasonable eucalypt cover despite the many fires of the last decade. Other metropolitan reserves, such as King's Park, have largely lost their eucalypt overstorey as a result of excessive fire frequency (Seddon, 1972). However, Tuart trees in the park have poor seedling recruitment, and mature Jarrah show signs of crown dieback, indicating some form of stress or disease. The combination of poor regeneration, disease and excessive fire frequency threaten the long-term survival of these eucalypts. The tall shrub layer is dominated by Candle Banksia (*Banksia attenuata*). Other major shrub species are Firewood Banksia (*Banksia menziesii*), *Hakea prostrata* and Sheoak (*Allocasuarina fraseriana*). There is one surviving Bull Banksia (*Banksia grandis*) in Samson Park. This species would once have been fairly widespread in the area, but appears to be self-incompatible. There is no natural regeneration of this species, possibly because of self-incompatibility. This species has also not survived in revegetation plantings. The lower scrub layer is dominated by Blackboys (*Xanthorrhoea preissii*), Dwarf Sheoak (*Allocasuarina humilis*) and Zamias (*Macrozamia riedlei*) in more intact vegetation, and *Jacksonia sternbergiana* and *Acacia pulchella* in severely burnt areas. *Jacksonia sternbergiana* appears to be a particularly vigorous post-

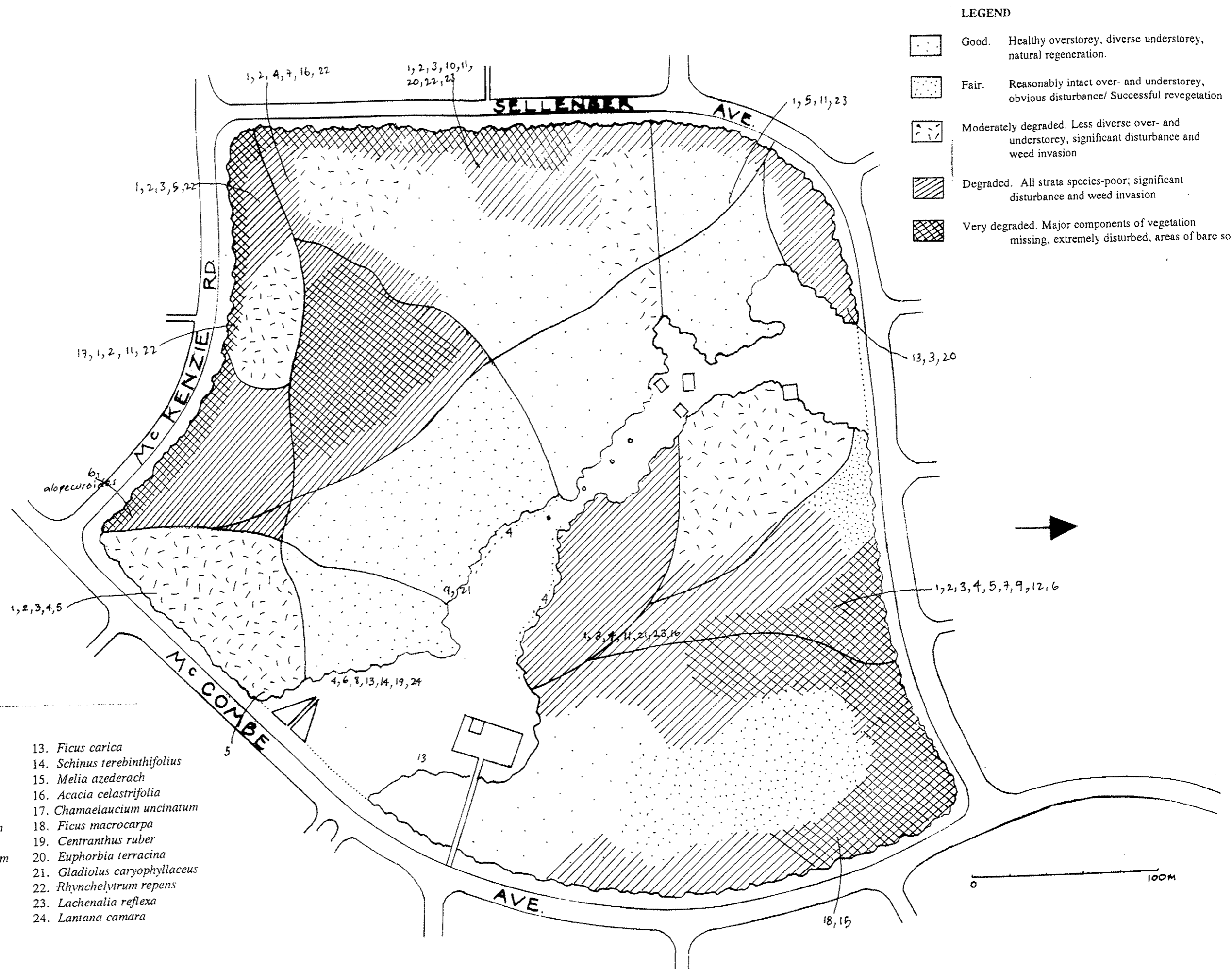
fire coloniser. The herb layer is dominated by sedge species, particularly *Mesomelaena pseudostygia*, *Hibbertia hypericoides*, *Daviesia nudiflora*, *Petrophile* spp. *Conostephium pendulum* and *Leucopogon* spp. There is a large component of geophytes which emerge every spring. These include Milkmaids (*Burchardia umbellata*), Bloodroot (*Haemodorum ? spicatum*), Kangaroo Paw (*Anigozanthos manglesii*), Fringe Lilies (*Thysanotus* spp.), and several orchid species (*Pterostylis sanguinea*, *Diuris magnifica*, *Caladenia* spp., *Microtis* sp., *Lyperanthus nigricans*). Introduced grasses form a major component of the ground layer. The most prolific of these are Veldt Grass (*\*Ehrharta calycina*), African Love Grass (*\*Eragrostis curvula*), Quaking Grass (*\*Briza* spp.), Rabbit-tail Grass (*\*Lagurus ovatus*) and Wild Oats (*\*Avena fatua*). Other major non-indigenous ground storey species are Pelargoniums (*\*Pelargonium capitatum*) and Lupins (*\*Lupinus consentii*) - see following section (3.6.1 Weeds) for further details.

A total of 122 species have been found in Samson Park, of which 82 (67 %) are indigenous and 40 (33 %) are exotic. A list of these species is given in Appendix 1. No declared rare or threatened species have been found in Samson Park. Determination of significance of species at a lower level (i.e. regional, local, disjunct or unusual occurrences) will be possible when CALM's Vegetation of the Swan Coastal Plain Report is published (D. Coates, W.A. Herbarium, pers. comm.). However, as this is the last remnant of Jarrah/ Marri/ Tuart woodland in the municipality, the vegetation has a great deal of local significance, and every effort must be made to conserve indigenous species. Priorities are species such as Tuart, Bull Banksia, Sheoak, Tangle Daisy, and many of the indigenous geophytes. These plants have small populations and poor recruitment in Samson Park, and are threatened by a number of factors. These species should be reinforced in revegetation plantings.






All vegetation in the park has been degraded to some extent by factors such as fire, trampling, vandalism, past use of off-road vehicles in the park, rabbits and weed invasion. The condition of vegetation in the park was assessed and rated from severely degraded to good condition. Severely degraded vegetation is that where a significant component of all structural classes (trees, shrubs and ground cover) have been lost; degraded, where the over- or understorey has been severely depleted; moderately degraded vegetation retains remnants of all structural classes, but is relatively species-poor and weedy; and good, where there is a reasonable diversity of species in all strata, and weed cover is not severe. This was only assessed visually; when a flora survey of the park is done, it would be possible to assess the vegetation more accurately. Figure 3 shows the condition of the park's vegetation.

Many of the Jarrah have dead "stag heads" and leaf discolouration. While this is common after heavy flowering and consistent with the effects of fire (K. McDougall, pers. comm.), the possible presence of Jarrah dieback (*Phytophthora cinnamomi*) in the park is of concern. Testing for *Phytophthora* was done a few years ago, with negative results. However, this organism is notoriously difficult to isolate, so these results do not necessarily mean that there is no disease in the park. Tree health should be monitored, and care taken to avoid possible contamination from infected plant material or mulch. Sudden death of susceptible species (Jarrah, Blackboys, Banksias) should be noted and roots of these plants tested for the presence of this pathogen.

The previous flora survey of the park was not adequate to meet the objectives. A complete list of all species in the park, their relative abundance, recruitment/ regeneration, and patterns of distribution are required. This will indicate different vegetation types in the park (eg. areas on shallower soils with a greater component of Tuart), species characteristic of each, and should provide a good indicator of vegetation condition (eg. species-poor edges and



LEGEND

-  Good. Healthy overstorey, diverse understorey, natural regeneration.
-  Fair. Reasonably intact over- and understorey, obvious disturbance/ Successful revegetation
-  Moderately degraded. Less diverse over- and understorey, significant disturbance and weed invasion
-  Degraded. All strata species-poor; significant disturbance and weed invasion
-  Very degraded. Major components of vegetation missing, extremely disturbed, areas of bare soil.

WEED KEY

- |                                   |                                      |
|-----------------------------------|--------------------------------------|
| 1. <i>Ehrharta calycina</i>       | 13. <i>Ficus carica</i>              |
| 2. <i>Lupinus consentii</i>       | 14. <i>Schinus terebinthifolius</i>  |
| 3. <i>Oxalis pes-caprae</i>       | 15. <i>Melia azederach</i>           |
| 4. <i>Eragrostis curvula</i>      | 16. <i>Acacia celastrifolia</i>      |
| 5. <i>Pelargonium capitatum</i>   | 17. <i>Chamaelaucium uncinatum</i>   |
| 6. <i>Pennisetum clandestinum</i> | 18. <i>Ficus macrocarpa</i>          |
| 7. <i>Cynodon dactylon</i>        | 19. <i>Centranthus ruber</i>         |
| 8. <i>Stenotaphrum secundatum</i> | 20. <i>Euphorbia terracina</i>       |
| 9. <i>Briza spp.</i>              | 21. <i>Gladiolus caryophyllaceus</i> |
| 10. <i>Freesia x leichtlinii</i>  | 22. <i>Rhynchelytrum repens</i>      |
| 11. <i>Gazania splendens</i>      | 23. <i>Lachenalia reflexa</i>        |
| 12. <i>Asphodelus fistulosa</i>   | 24. <i>Lantana camara</i>            |

FIGURE 3. Samson Park: Vegetation condition/ weeds

## 5. HABITAT LINKAGES

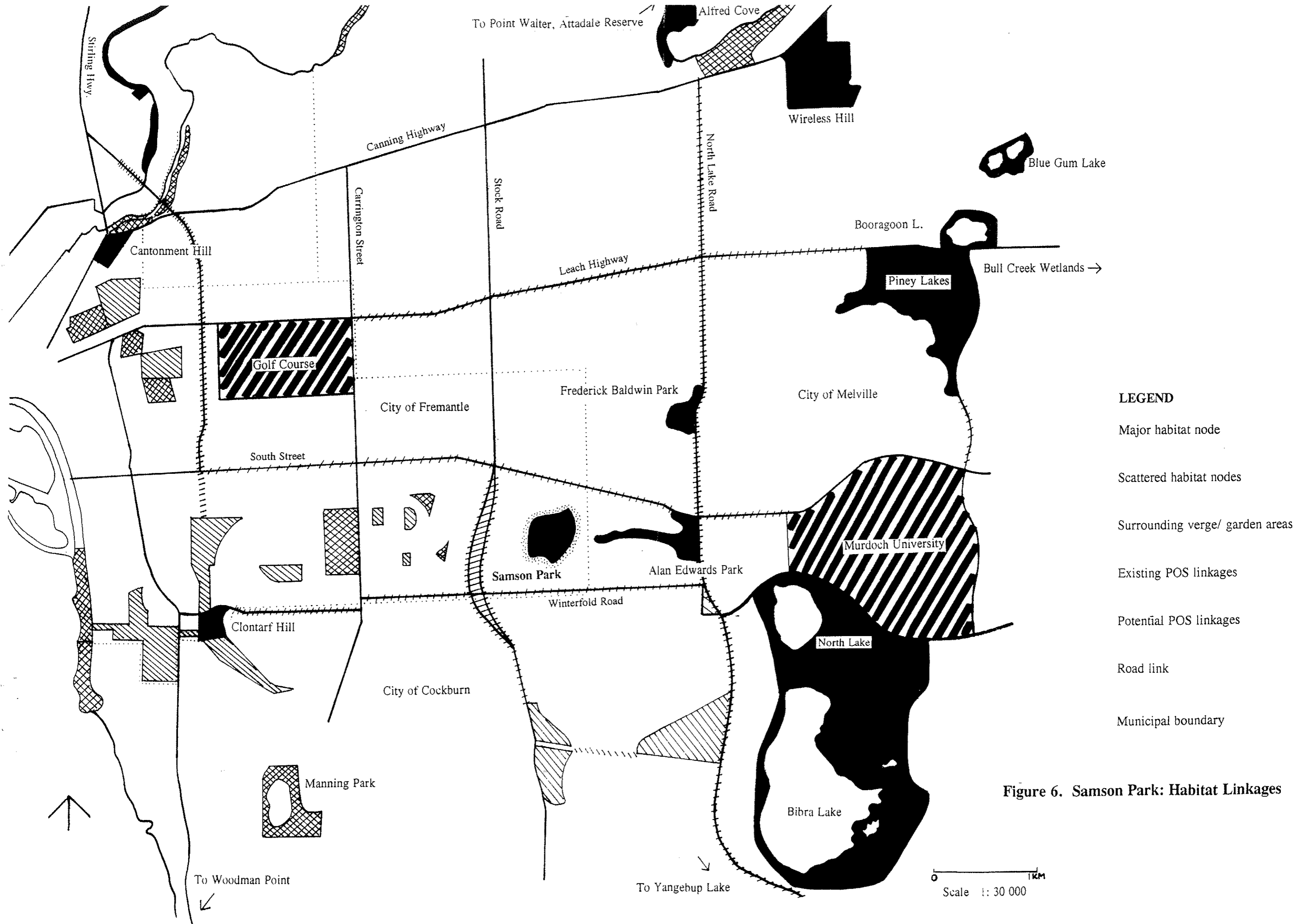
The terms "wildlife corridor" or "habitat linkage" are used to describe linear habitat which links more substantial areas of remnant habitat in a fragmented landscape. These corridors enable wildlife to move between larger habitat nodes and provide feeding and resting sites for nomadic or migratory species, alleviating some of the pressures on wildlife in isolated remnant vegetation. Examples of wildlife corridors are strips of remnant vegetation fringing waterways, strips of parkland, golf courses, or even well-planted gardens and verges.

While the issue of wildlife corridors may appear to be peripheral to the management of Samson Park, continued fauna loss from this and other isolated bushland parks in the region will be inevitable if habitat linkages between urban greenspaces are not reserved or created. The loss of indigenous species resulting from habitat fragmentation disrupts ecological processes, altering food chains, prey-predator relationships, nutrient cycling and pollination. Loss of understorey plants has been associated with decline in small insectivorous bird species such as thornbills and pardalotes, which in turn leads to severe insect irruptions, one of the causal factors of tree decline or dieback (Loyn, 1987). There is increasing interest from local government in developing such corridors to protect the conservation values of major bushland reserves (Majer & Recher, 1994; Appleby, Beardsell & McDougall, 1993). The State Government's Urban Bushland Strategy recommends establishment of Landscape Protection Zones in Town Planning Schemes to encourage conservation of remnant bush on private land, and the establishment of "Greening Plans" by local authorities (DPUD, 1993).

The suburb of Samson is bounded on three sides by major roads (South Street, Stock Road and Winterfold Road), which form an effective barrier to wildlife movement from adjacent areas. To the east is Alan Edwards Park (City of Melville), a linear strip of Public Open Space. Areas identified for habitat linkages to Samson Park are: Alan Edwards Park; verges in the immediate area of Samson Park; grounds of Samson Primary School and North Lake Senior High School; the verges of Stock Road (which already contains a wide strip of remnant vegetation) and other main roads; and residential gardens (Figure 6).

In the immediate vicinity of Samson Park, the verge planting should be supplemented where sightlines/ powerlines and other services permit with indigenous trees and shrubs. Suitable species are those which conform to usual street tree requirements (i.e. do not unnecessarily obstruct paths, sightlines etc., are relatively maintenance-free, and are aesthetically suitable). Examples are *Banksia menziesii*, *Banksia attenuata*, *Banksia grandis*, and some of the smaller shrubs (eg. *Hypocalymma robustum*, *Acacia lasiocarpa*, *Acacia wildenowiana*, *Conostephium pendulum*, *Hovea trisperma*, *Daviesia* spp.)

The consultants who prepared the fauna report for Samson Park were "...struck by the unsympathetic, water-hungry gardens planted by the majority of the adjoining residents" (Majer & Recher, 1995, p.4). Residents in the vicinity should be encouraged to plant suitable habitat species in their gardens. Because this would entail changes to most people's gardens, some incentive may need to be offered to residents (eg. free of subsidised shrubs, a habitat garden ("Greening Samson") competition). An explanatory pamphlet such as the Bird Observers' Club "How to Attract Native Birds to your Garden" could be circulated. As cat predation is a significant problem in Samson Park, residents should also be encouraged to bell cats and keep them inside or penned overnight. The park user survey indicated a strong level of support for this initiative (Section 6.1)



To Point Walter, Attadale Reserve

Alfred Cove

Wireless Hill

Blue Gum Lake

Booragoon L.

Piney Lakes

Bull Creek Wetlands →

Golf Course

Frederick Baldwin Park

City of Melville

City of Fremantle

South Street

Murdoch University

Samson Park

Alan Edwards Park

Winterfold Road

North Lake

Clontarf Hill

City of Cockburn

Manning Park

Bibra Lake

To Woodman Point

To Yangebup Lake

0 1km  
Scale 1: 30 000

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*Thysanotus dichotomus*  
*Thysanotus thyrsoides*  
*Tricoryne elatior*

#### ORCHIDACEAE

<i>Caladenia flava</i> ssp. <i>flava</i>	Cowslip Orchid
<i>Caladenia latifolia</i>	Pink Fairies
<i>Caladenia arenicola</i>	Carousel Spider
<i>Caladenia longicauda</i>	White Spider
<i>Caladenia ? arenicola x longicauda</i>	
<i>Diuris magnifica</i>	Pansy Orchid
<i>Lyperanthus ? nigricans</i>	
<i>Microtis</i> sp.	
<i>Pterostylis sanguinea</i>	Dark banded Greenhood

#### OROBANCHACEAE

* <i>Orobanche minor</i>	Lesser Broomrape
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#### POACEAE

* <i>Aira</i> spp.	
* <i>Avena barbata</i>	Wild Oats
* <i>Briza maxima</i>	Shivery Grass
* <i>Briza minor</i>	Quaking Grass
* <i>Bromus madritensis</i>	Brome Grass
* <i>Cortaderia selleana</i>	Pampas Grass
* <i>Cynodon dactylon</i>	Couch
<i>Danthonia</i> spp.	Wallaby Grasses
* <i>Ehrharta calycina</i>	Veldt Grass
* <i>Eragrostis curvula</i>	African Love Grass
* <i>Lagurus ovatus</i>	Rabbit-tail Grass
* <i>Lolium rigidum</i>	Perennial Rye-grass
<i>Microlaena stipoides</i>	Weeping Grass
* <i>Pennisetum clandestinum</i>	Kikuyu
* <i>Rhynchelytrum repens</i>	Red Natal Grass
* <i>Stenotaphrum secundatum</i>	Buffalo Grass
* <i>Sporobolus indicus</i>	Rat's-tail Grass
<i>Stipa</i> spp.	Spear Grass

#### RESTIONACEAE

*Loxocarya flexuosa*

#### XANTHORRHEACEAE

<i>Dasypogon bromeliifolius</i>	Pineapple Grass
<i>Lomandra caespitosa</i>	
<i>Xanthorrhrea preissii</i>	Blackboy, Balga

## DICOTYLEDONS

### AMARANTHACEAE

*Ptilotus drummondii*  
*Ptilotus polystachyus*

### ANACARDIACEAE

\**Schinus terebinthifolius*  
Tree)

Brazilian Mastic (Japanese Pepper

### ASTERACEAE

\**Conyza bonariensis*  
\**Gazania splendens*  
*Helichrysum cordatum*  
\**Hypochoeris glabra*  
*Podolepis gracilis*  
\**Sonchus asper*  
\**Ursinia anthemoides*  
*Waitzia suaveolens*

Fleabane  
Gazania  
Tangle Daisy  
Cat's ear

Sow Thistle

### CARYOPHYLLACEAE

\**Petrorhagia velutina*  
\**Silene gallica*

French Catchfly

### CASUARINACEAE

*Allocasuarina fraseriana*  
*Allocasuarina humilis*

Sheoak  
Dwarf Sheoak

### DILLENIACEAE

*Hibbertia hypericoides*  
*Hibbertia racemosa*

Native Buttercup

### DROSERACEAE

*Drosera* spp.

Sundews

### EPACRIDACEAE

*Astroloma pallidum*  
*Conostephium pendulum*  
*Leucopogon propinquus*

Pearl Flower  
Beard Heath

EUPHORBIACEAE

*\*Euphorbia terracina*  
*Phyllanthus calycinus*

FABACEAE

*Bossiaea ornata* Eggs and Bacon  
*Daviesia divaricata*  
*Daviesia juncea*  
*Daviesia nudiflora*  
*Gompholobium tomentosum*  
*Hardenbergia comptoniana* Native Wisteria  
*Jacksonia furcellata*  
*Jacksonia sternbergiana*  
*Kennedia prostrata* Running Postman  
*\*Lupinus consentii* Sandplain Lupin  
*Oxylobium capitatum*  
*\*Trifolium angustatum*  
*\*Trifolium campestre*

GERANIACEAE

*\*Erodium botrys* Crane's Bill  
*\*Pelargonium capitatum* Pelargonium

GOODENIACEAE

*Dampiera linearis*  
*Scaevola canescens*  
*Scaevola paludosa*

MIMOSACEAE

*Acacia ? alata*  
*#Acacia celastrifolia*  
*Acacia lasiocarpa*  
*#Acacia podalyriifolia* Mt. Morgan Wattle  
*#Acacia iteaphylla* Gawler Range Wattle  
*Acacia pulchella* Prickly Moses  
*Acacia saligna* Orange Wattle  
*Acacia stenoptera*  
*Acacia wildenowiana*

MORACEAE

*\*Ficus carica* Edible Fig  
*\*Ficus macrocarpa* Moreton Bay Fig

MYRTACEAE

<i>Chamaelaucium uncinatum</i>	Geraldton Wax
<i>Eucalyptus calophylla</i>	Marri, Red Gum
<i>Eucalyptus gomphocephala</i>	Tuart
<i>Eucalyptus marginata</i>	Jarra
<i>Hypocalymma robustum</i>	

PROTEACEAE

<i>Banksia attenuata</i>	Candle Banksia
<i>Banksia grandis</i>	Bull Banksia
<i>Banksia menziesii</i>	Firewood Banksia
<i>Dryandra nivea</i>	Couch Honeypot
<i>Dryandra sessilis</i>	Parrot Bush
<i>Hakea prostrata</i>	
<i>Isopogon cuneifolia</i>	
<i>Persoonia saccata</i>	
<i>Petrophile linearis</i>	Pixie Mops
<i>Petrophile macrostachya</i>	
<i>Synaphea ? spinulosa</i>	

RANUNCULACEAE

<i>Clematis microphylla</i>	Old Man's Beard
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RUBIACEAE

* <i>Centranthus ruber</i>	Valerian
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STYLIDIACEAE

<i>Stylidium schoenoides</i>	
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THYMELEACEAE

<i>Pimelea rosea</i>	Rose Banjine
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VERBENACEAE

* <i>Lantana camara</i>	Lantana
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**APPENDIX 2. List of bird species found in Samson Park, with notes on occurrence and habitat requirements**

This list was compiled from records from the previous Management Plan (Ecoscape, 1989), a long term survey being conducted by Mrs. Barbara Parker of the Friends of Samson Park, and a brief survey by Dr. Harry Recher, who provided all the habitat notes and an indication of the significance of each species (Majer & Recher, 1995). Comparisons are drawn between occurrences at Samson Park and records from a longitudinal study of King's Park (Recher & Serventy, 1991). The list was vetted by Peter Anson of the Royal Australasian Ornithologists Union (RAOU). Exotic species are marked with an asterisk (\*). Questionable records (possible aviary escapes or misidentifications) are indicated by a question mark (?).

**Australian Hobby** (*Falco longipennis*)

An uncommon but wide-ranging species in the south-west. Not recorded in King's Park.

**Australian Kestrel** (*F. cenchroides*)

A common and widely distributed species often seen along road edges and in open areas. It requires open habitat and is unlikely to nest in Samson Park. Not recorded in King's Park.

**Australian Magpie** (*Gymnorhina tibicen*)

Common breeding resident throughout the Perth region.

**Black-faced Cuckoo Shrike** (*Coracina novaehollandiae*)

Frequent visitor throughout the Perth region. It nests on large horizontal branches, usually high in trees. This bird is sensitive to disturbance and is unlikely to nest in Samson Park due to the large numbers of visitors and dogs.

**Black Duck** (*Anas superciliosa*)

Resident throughout the Perth region. A casual visitor to Samson Park in periods when there is standing water.

**Brown Falcon** (*Falco berriogra*)

A wide-ranging but uncommon bird on the Swan Coastal Plain. It is most frequent in open habitats and low shrublands.

**Brown Honeyeater** (*Lichmera indistincta*)

Abundant breeding resident throughout the Perth region. Brown Honeyeaters build a small cup-shaped nest in low shrubs and in King's Park often builds nests close to frequently-used paths.

**Boobook Owl** (*Ninox novaeseelandiae*)

This is a hole-nesting species requiring a large hollow. The habitat area required by a breeding pair will depend on the abundance of large insects and other small mammals as food,

but Samson Park is probably at the lower size limit for this species. It occurs and probably breeds in King's Park.

**Collared Sparrowhawk** (*Accipiter cirrocephalus*)

This bird is easily confused with the Brown Goshawk, as the two species are similar in both appearance and habits. The Collared Sparrowhawk has not been recorded in King's Park, although both occur in the Perth region. The Brown Goshawk is the more common of the two species.

**Elegant Parrot** (*Neophema elegans*)

A tree hole nesting species that has increased in abundance and range with agricultural clearing. The Elegant Parrot is a ground-foraging species which feeds on grass and weed seeds. It is uncommon in the Perth region, and has not been recorded in King's Park.

**?Fairy Martin** (*Cecropis ariel*)

The Fairy Martin has never been common on the Swan Coastal Plain and it has decreased in abundance over the past 50 years. It is possible that it has been confused with the Tree Martin, which is similar in appearance.

**Fan-tailed Cuckoo** (*Cuculus pyrrhphanus*)

This species has decreased in abundance throughout its southwestern distribution over the last 50 years and is uncommon in the Perth region. Its preferred hosts are the Broad-tailed Thornbill and the White-browed Scrubwren, neither of which occur at Samson Park. The decline of the Fan-tailed Cuckoo parallels that of its hosts. It is an infrequent visitor to King's Park.

**\*Feral Pigeon** (*Columba livia*)

Common throughout the Perth region, though not recorded from King's Park.

**#Galah** (*Cacatua roseicapilla*)

The Galah has increased in abundance and distribution since the beginning of the century, colonising the Perth region after World War Two. It will nest in tree hollows in close proximity to people. Galahs have only been recorded in King's Park since 1986.

**Grey Butcherbird** (*Ralecticus torquatus*)

A breeding resident throughout the Perth region. The Butcherbird often builds its nest within a couple of metres of the ground and in King's Park has been found nesting near quite heavily-used recreation facilities.

**Grey Fantail** (*Rhipidura fuliginosa*)

Common throughout the Perth region. A breeding resident in King's Park, with numbers increasing during winter with the arrival of migrants from cooler areas. The Grey Fantail is sensitive to disturbance when nesting. Nests may be found within one metre of the ground.

**#Laughing Kookaburra** (*Dacelo novaeguineae*)

The Kookaburra was introduced to the Perth region in 1897 and has spread throughout the southwest. It is a hole nesting species that commonly associates with people, but generally prefers to nest in less disturbed situations.

**\*Laughing Turtle-dove** (*Streptopelia senegalensis*)

The turtle-dove is more typical of suburban habitats than bushland areas in the Perth region. It was introduced to Perth, probably from Africa, in 1898. It will nest almost any where in the shrub layer.

**?Mallee Ringneck** (*Platycercus zonarius barnardi*)

This is one of four forms of the Ringnecked Parrot *Platycercus zonarius*. The form that occurs naturally on the Swan Coastal Plain is the "28" Parrot (*Platycercus zonarius semitorquatus*), while the Port Lincoln Parrot (*Platycercus zonarius zonarius*) is the form which occurs throughout the rest of southern W.A. The Mallee Ringneck occurs in S.A., Vic., N.S.W. and Qld. in mallee, mulga and native pine woodlands. "Port Lincoln" and "Mallee" have frequently been applied mistakenly to the "28" Parrot in the Perth region. As the sighting was made by an experienced birdwatcher, it is likely to have been an aviary escape.

**New Holland Honeyeater** (*Philydonyris novaehollandiae*)

An abundant breeding resident throughout the southwest wherever there is a good supply of nectar-rich flowers. It is unlikely to find sufficient nectar resources in Samson Park to sustain breeding. An infrequent visitor in King's Park.

**Peregrine Falcon** (*Falco peregrinus*)

A wide-ranging but uncommon species. It feeds on birds, including pigeons and gulls. It is unlikely to be more than a rare visitor to Samson Park. Not recorded from King's Park.

**?Pied Butcherbird** (*Cracticus nigrogularis*)

Uncommon in the Perth region. Normally a species of drier and more open woodlands. The Pied Butcherbird can easily be confused with the Grey Butcherbird.

**?Port Lincoln Ringneck** (*Platycercus zonarius zonarius*)

See notes under Mallee Ringneck.

**Purple-crowned Lorikeet** (*Glossopsitta porphyrocephala*)

An uncommon visitor to the Perth region. Not recorded in King's Park.

**Red Wattlebird** (*Anthochaera carunculata*)

Abundant breeding resident throughout the Perth region. Nests abundantly in King's Park, with nests placed from one to ten metres above the ground.

**Red-capped Parrot** (*Purpureicephalus spurius*)

This is a forest-dependent species that feeds on eucalypt, sheoak and other tree seed. It requires hollows for nesting. Mrs. Parker has observed a breeding pair in Samson park. This species has not been recorded from King's Park.

?**Regent Parrot** (*Polytelis anthopeplus*)

This parrot is an uncommon visitor to the higher rainfall districts of the southwest. Birds in the Perth region could be aviary escapes.

?**Rock Parrot** (*Neophema petrophila*)

The Rock Parrot inhabits coastal islands and occurs on the southwest mainland in coastal dunes and rocky foreshores. It is easily confused with the elegant parrot.

**Rufous Whistler** (*Pachycephala rufiventris*)

A common breeding resident in larger bushland remnants in the Perth region. Nests may be placed from one to 30m above the ground in dense shrubs and trees.

**Sacred Kingfisher** (*Halycon sancta*)

A tree-hole nester, the Sacred Kingfisher has declined in abundance throughout the southwest in the last 50 years. There are no recent records from King's Park, but formerly a breeding summer visitor.

**Silver Gull** (*Larus novaehollandiae*)

An abundant coastal species which often visits parks to scavenge for food.

**Silvereye** (*Zosterops lateralis*)

A flocking species with a wandering, wide-ranging habit, so that numbers may vary considerably. Nests are placed in thick shrubbery between one and three metres from the ground. This species is particularly susceptible to predation by cats. It is a common breeding resident of King's Park.

**Singing Honeyeater** (*Meliphaga virescens*)

After the Brown Honeyeater, this is the most common native bird in suburban Perth.

\***Spotted Turtle-dove** (*Streptopelia chinensis*)

The Spotted Turtle-dove is more typical of suburban habitats than bushland areas in the Perth area. It was introduced to Perth from southeast Asia in 1898. It will nest almost anywhere in the shrub layer.

**Striated Pardalote** (*Pardalotus striatus*)

A small tree-hole nesting species. Numbers are greatest in winter when individuals from cooler climatic regions disperse to warmer coastal regions. A breeding resident in King's Park.

**Tawny Crowned Honeyeater** (*Philydonyris melanops*)

The Tawny Crowned Honeyeater is an uncommon resident in low open heaths and shrublands in the southwest. Not recorded in King's Park.

**Tree Martin** (*Cecropis nigricans*)

An uncommon visitor to King's Park, although it may have nested there earlier this century. Numbers increase in the Perth region during summer with the arrival of dispersing flocks, probably from the arid inland. Tree Martins tend to nest in colonies, in tree hollows.

**Weebill** (*Smicrornis brevirostris*)

The Weebill feeds on lerps (sap-sucking psyllid insects) and builds a small hanging dome nest between one and 15m from the ground. It appears tolerant of people and will nest in close proximity to heavily used areas.

**Welcome Swallow** (*Hirundo neoxena*)

The Welcome Swallow is very tolerant of people and disturbance. It builds mud nests under eaves, in caves, and outside buildings. A common resident in the suburban area.

**Western Gerygone** (*Gerygone fusca*)

The Western Gerygone or Western Warbler builds a dome-shaped hanging nest within four metres of the ground. It is tolerant of people: nests in King's Park have been placed close to busy paths.

**Western Spinebill** (*Acanthorhynchus superciliosus*)

This species nests in thick scrub within three metres of the ground. It appears tolerant of people. It is an uncommon breeding resident of King's Park.

**Western Thornbill** (*Acanthiza inornata*)

**White-tailed Black-Cockatoo** (*Calyptorhynchus latirostris*)

Occasional visitor to Samson Park. More frequently found in the remains of the pine plantations in Kardinya and beyond.

**Yellow-rumped Thornbill** (*Acanthiza chrysorrhoa*)

Prefers open habitats, often on the ground.

### APPENDIX 3. Mammal and reptile species recorded at Samson Park.

This list appeared in the original Management Plan (Ecoscape, 1989). No comprehensive survey has been made of non-avian vertebrate fauna in Samson Park. There are likely to be greater numbers of reptiles and possibly bats inhabiting Samson Park than this list indicates.

#### MAMMALS

Brushtail Possum	<i>Trichosurus vulpecula</i>
Common House Mouse	<i>Mus musculus</i>
Rabbit	<i>Oryctolagus cuniculus</i>

#### REPTILES

Bobtail	<i>Tiliqua rugosa</i>
Dugite	<i>Pseudonaja affinis</i>

#### APPENDIX 4. List of Species for Revegetation Plantings

Numbers denote priority for revegetation plantings (1 = higher priority, 2 = lower priority). This relates to the present abundance of species, the amount of natural regeneration or successful re-establishment in plantings, and the structural importance of the species.

All stock for revegetation plantings should be collected on site or from nearby sites (within a 15km radius) to ensure that plantings are of local provenance, and to minimise the risk of further establishment of alien species. This should be stipulated on any nursery contracts.

##### 1. Overstorey species

1 <i>Allocasuarina fraseriana</i>	Sheoak
2 <i>Banksia attenuata</i>	Candle Banksia
1 <i>Banksia grandis</i>	Bull Banksia
1 <i>Banksia menziesii</i>	Firewood Banksia
2 <i>Eucalyptus calophylla</i>	Marri
1 <i>Eucalyptus gomphocephala</i>	Tuart
2 <i>Eucalyptus marginata</i>	Jarra

##### 2. Tall Shrubs

2 <i>Acacia saligna</i>	Orange Wattle
2 <i>Dryandra sessilis</i>	Parrot Bush
2 <i>Hakea prostrata</i>	
2 <i>Jacksonia furcellata</i>	
2 <i>Jacksonia sternbergiana</i>	

##### 3. Shrubs

1 <i>Acacia lasiocarpa</i>	
2 <i>Acacia pulchella</i>	Prickly Moses
1 <i>Acacia stenoptera</i>	
1 <i>Acacia wildenowiana</i>	
2 <i>Allocasuarina humilis</i>	Dwarf Sheoak
2 <i>Conostephium pendulum</i>	Pearl Flower
2 <i>Hypocalymma robustum</i>	
2 <i>Leucopogon propinquus</i>	Beard Heath
1 <i>Macrozamia riedlei</i>	Zamia
1 <i>Persoonia saccata</i>	
2 <i>Petrophile linearis</i>	Pixie Mops
1 <i>Petrophile macrostachya</i>	
1 <i>Synaphea spinulosa</i>	

##### 4. Small shrubs/ groundcovers/ vines

2 <i>Anigozanthos humilis</i>	Catspaw
2 <i>Anigozanthos manglesii</i>	Mangles Kangaroo Paw
2 <i>Astroloma pallidum</i>	
2 <i>Bossiaea ornata</i>	Eggs and Bacon
2 <i>Burchardia umbellata</i>	Milkmaids

**Small shrubs/ groundcovers/ vines (cont.)**

2 <i>Clematis microphylla</i>	Old Man's Beard
2 <i>Conostylis aculeata</i>	
2 <i>Conostylis candidans</i>	
2 <i>Conostylis setigera</i>	
2 <i>Dampiera linearis</i>	
2 <i>Dasypogon bromeliifolius</i>	Pineapple Grass
2 <i>Daviesia divaricata</i>	
2 <i>Daviesia juncea</i>	
2 <i>Daviesia nudiflora</i>	
2 <i>Dianella revoluta</i> var <i>divaricata</i>	Flax Lily
1 <i>Dryandra nivea</i>	Couch Honey Pot
2 <i>Gompholobium tomentosum</i>	
2 <i>Haemodorum ? spicatum</i>	
2 <i>Hardenbergia comptoniana</i>	Native Wisteria
1 <i>Helichrysum cordatum</i>	Tangle Daisy
1 <i>Hibbertia hypericoides</i>	Native Buttercup
1 <i>Hibbertia racemosa</i>	
2 <i>Hovea trisperma</i>	
1 <i>Isopogon cuneifolia</i>	
2 <i>Kennedia prostrata</i>	Running Postman
1 <i>Lepidosperma angustatum</i>	
1 <i>Lepidosperma scabrum</i>	
1 <i>Lomandra caespitosa</i>	
1 <i>Loxocarya flexuosa</i>	
1 <i>Mesomelaena pseudostygia</i>	
2 <i>Oxylobium capitatum</i>	
2 <i>Pimelea rosea</i>	
2 <i>Podolepis gracilis</i>	
2 <i>Ptilotus drummondii</i>	
2 <i>Scaevola canescens</i>	
2 <i>Scaevola paludosa</i>	
1 <i>Tetraria octandra</i>	
2 <i>Thysanotus dichotomus</i>	
2 <i>Thysanotus thyrsoides</i>	
2 <i>Tricoryne elatior</i>	
2 <i>Waitzia suaveolens</i>	
1 <i>Xanthorrhoea preissii</i>	Blackboy, Balga



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SPEARS

SIR FREDERICK SAMSON PARK MANAGEMENT PLAN

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4. Control of exotic weed species needs to take place in conjunction with the regeneration of native vegetation.
5. Specific control methods will be required for most weed species.
6. Fire and disturbance must be minimised so that the native vegetation has advantage over exotic species in recolonisation of the Park.
7. Access to all rehabilitated areas to be maintained at all times.

### 5.3 Fauna

Samson Park, like many other metropolitan bushland reserves, provides valuable habitats for many animal species. Size and shape of the reserve will often critically determine the number and diversity of animal species. This study did not attempt to determine the range of animal species found at the park. Incidental sightings were recorded and information from a previous study (Camer-Pesci, 1986) were used for this project.

#### 5.3.1 Mammals

Scats from the brushtail possum (*Trichosurus vulpecula*) were found at one site and local residents have reported many sightings of this species. The common house mouse (*Mus musculus*) was seen on two occasions. Other animals found include the domestic cat and rabbits (warrens were sighted only).

#### 5.3.2 Birds

A number of bird species were recorded by the Royal Australasian Ornithologists Union (RAOU) for Samson Park. A total of 32 species were found and include species commonly found in coastal open forest formations such as honeyeaters, parrots, magpies, and the introduced species feral pigeons and the laughing turtle dove. A list of the bird species is given in Appendix C.

#### 5.3.3 Reptiles

A number of skinks were sighted but not identified except for the bobtail (*Tiliqua rugosa*). From local reports the dugite (*Pseudonaja affinis*) is also found in the Park.

### 5.4 Management Implications

1. Sir Frederick Samson Park contains a variety of animal species and serves as a valuable habitat for them. Maintenance of the diversity of habitats is important.
2. Uncontrolled burning of the whole Park must be avoided as it can destroy valuable habitats and food for animal species.
3. The predatory ability of domestic cats can destroy many wildlife species, particularly small birds and skinks. Warning devices such as collars with bells may help to reduce wildlife loss.
4. More detailed information is required on the type and ecology of animal species found at Samson Park.
5. Access to all rehabilitated areas to be maintained at all times.

APPENDIX B: PLANT SPECIES FOUND AT SIR FREDERICK SAMSON PARK

\* Exotic species

GENERIC NAME	COMMON NAME	FAMILY
<i>Acacia alata</i>	Winged Wattle	Mimosaceae
<i>Acacia lasiocarpa</i>		"
<i>Acacia pulchella</i>	Prickly Moses	"
<i>Acacia saligna</i>	Orange Wattle	"
* <i>Aira caryophyllea</i>	Silvery Hairgrass	Poaceae
<i>Allocasuarina humilis</i>	Dwarf Sheoak	Casuarinaceae
<i>Allocasuarina fraseriana</i>	Sheoak	"
<i>Anigozanthos humilis</i>	Catspaw	Haemodoraceae
<i>Anigozanthos manglesii</i>	Mangles Kangaroo Paw	"
* <i>Asphodelus fistulosa</i>	Onion Weed	Asphodelaceae
<i>Astroloma pallidum</i>		Epacridaceae
* <i>Avena barbata</i>	Bearded Oat	Poaceae
<i>Banksia attenuata</i>		Proteaceae
<i>Banksia grandis</i>	Bull Banksia	"
<i>Banksia menziesii</i>	Firewood Banksia	"
<i>Bosseae ornata</i>		Papilionaceae
* <i>Briza maxima</i>	Blowfly Grass	Poaceae
* <i>Briza minima</i>	Shivery Grass	"
* <i>Bromus madritensis</i>		"
<i>Burchardia umbellata</i>	Milkmaids	Colchicaceae
<i>Caladenia patersonii</i>	White Spider orchid	Orchidaceae
<i>Clematis microphylla</i>	Old Mans Beard	Ranunculaceae
<i>Conostephium pendulum</i>	Pearl Flower	Epacridaceae
<i>Conostylis aculeata</i>		Haemodoraceae
<i>Conostylis candicans</i>		"
<i>Conostylis setigera</i>		"
* <i>Conyza bonariensis</i>	Fleabane	Asteraceae
* <i>Cortaderia selloana</i>	Pampas Grass	Poaceae
* <i>Cynodon dactylon</i>	Couch Grass	"
<i>Dampiera linearis</i>	Common Dampiera	Goodeniaceae
* <i>Danthonia pencillata</i>	Common Wallaby Grass	Poaceae
<i>Dasypogon bromeliifolius</i>	Pineapple Bush	Dasypogonaceae
<i>Daviesia divaricata</i>		Papilionaceae
<i>Daviesia juncea</i>		"
<i>Daviesia nudiflora</i>		"
<i>Dianella revoluta</i>		Phormiaceae
<i>Dryandra nivea</i>	Couch Honey-pot	Proteaceae
<i>Dryandra sessilis</i>	Parrot Bush	"
<i>Drosera sp.</i>		Droseraceae
* <i>Ehrharta calycina</i>	Perennial Veldtgrass	Poaceae
* <i>Erodium botrys</i>	Long Storksbill	Geraniaceae
<i>Eucalyptus calophylla</i>	Marri	Myrtaceae
<i>Eucalyptus gomphocephala</i>	Tuart	"
<i>Eucalyptus marginata</i>	Jarra	"
* <i>Ficus carica</i>	Common Fig	Moraceae
* <i>Gladiolus caryophyllaceus</i>	Gladioli	Iridaceae
<i>Gompholobium tomentosum</i>		Papilionaceae
<i>Haemodorum spicatum</i>	Bloodroot	Haemodoraceae
<i>Hakea prostrata</i>		Proteaceae
<i>Hardenbergia comptoniana</i>	Native Wisteria	Papilionaceae
<i>Helichrysum capitatum</i>	Tangle Daisy	Fabaceae
<i>Hibbertia hypericoides</i>		Dilleniaceae

<i>Hibbertia racemosa</i>	Stalked Guinea Flower	"
<i>Hovea trisperma</i>	Common Hovea	Papilionaceae
* <i>Hypochaeris glabra</i>	Smooth Catsear	Asteraceae
<i>Hypocalymma robustum</i>	Swan River Myrtle	Myrtaceae
<i>Isotropis cuneifolia</i>	Lamb Poison	Papilionaceae
<i>Jacksonia furcellata</i>		"
<i>Jacksonia sternbergiana</i>		"
<i>Kennedia prostrata</i>	Running Postman	"
* <i>Lagurus ovatus</i>	Hare's Tail Grass	Poaceae
* <i>Lantana camara</i>	Common Lantana	Verbenaceae
<i>Lepidosperma angustatum</i>		Cyperaceae
<i>Lepidosperma scabrum</i>		"
* <i>Lolium rigidum</i>	Ryegrass	Poaceae
<i>Lomandra caespitosa</i>		Dasyopogonaceae
<i>Loxocarya flexuosa</i>		Restionaceae
* <i>Lupinus consentii</i>	Sandplain Lupin	Papilionaceae
<i>Macrozamia riedlei</i>	Zamia	Zamiaceae
<i>Mesomelaena stygia</i>		Cyperaceae
* <i>Orbanche minor</i>	Lesser Broomrape	Orabanchaceae
<i>Oxylobium capitatum</i>	Bacon and Eggs	Papilionaceae
* <i>Pelargonium capitatum</i>	Rose Pelargonium	Geranaceae
* <i>Pennisetum clandestinum</i>	Kikuyu Grass	Poaceae
<i>Persoonia saccata</i>		Proteaceae
* <i>Petrorhagia velutina</i>		Caryophyllaceae
<i>Petrophile linearis</i>	Pixie Mops	Proteaceae
<i>Petrophile macrostachya</i>		"
<i>Pimelea rosea</i>	Rose Banjine	Thymelaeceae
<i>Ptilotus drummondii</i>		Amaranthaceae
<i>Ptilotus polystachyus</i>		"
* <i>Romulea rosea</i>	Guildford Grass	Iridaceae
<i>Scaevola canescens</i>	Grey Scaevola	Goodeniaceae
<i>Scaevola palludosa</i>		"
* <i>Silene gallica</i>	Mediterranean Catchfly	Caryophyllaceae
* <i>Sonchus asper</i>	Rough Sowthistle	Asteraceae
<i>Synaphea polymorpha</i>		Proteaceae
<i>Tetragia octandra</i>		Cyperaceae
<i>Thysanotus dichotomus</i>		Anthericaceae
<i>Thysanotus thysoides</i>		"
<i>Tricoryne elatior</i>	Yellow Autumn Lily	Liliaceae
* <i>Trifolium angustatum</i>	Narrow-leaf Clover	Papilionaceae
* <i>Trifolium campestre</i>	Hop Clover	"
* <i>Ursina anthemoides</i>		Asteraceae
* <i>Watsonia leipoldtii</i>		Iridaceae
<i>Watzia suaveolens</i>	Everlastings	Asteraceae
<i>Xanthorrhoea preissii</i>	Blackboy	Xanthorrhoeaceae

## 5. HABITAT LINKAGES

The terms "wildlife corridor" or "habitat linkage" are used to describe linear habitat which links more substantial areas of remnant habitat in a fragmented landscape. These corridors enable wildlife to move between larger habitat nodes and provide feeding and resting sites for nomadic or migratory species, alleviating some of the pressures on wildlife in isolated remnant vegetation. Examples of wildlife corridors are strips of remnant vegetation fringing waterways, strips of parkland, golf courses, or even well-planted gardens and verges.

While the issue of wildlife corridors may appear to be peripheral to the management of Samson Park, continued fauna loss from this and other isolated bushland parks in the region will be inevitable if habitat linkages between urban greenspaces are not reserved or created. The loss of indigenous species resulting from habitat fragmentation disrupts ecological processes, altering food chains, prey-predator relationships, nutrient cycling and pollination. Loss of understorey plants has been associated with decline in small insectivorous bird species such as thornbills and pardalotes, which in turn leads to severe insect irruptions, one of the causal factors of tree decline or dieback (Loyn, 1987). There is increasing interest from local government in developing such corridors to protect the conservation values of major bushland reserves (Majer & Recher, 1994; Appleby, Beardsell & McDougall, 1993). The State Government's Urban Bushland Strategy recommends establishment of Landscape Protection Zones in Town Planning Schemes to encourage conservation of remnant bush on private land, and the establishment of "Greening Plans" by local authorities (DPUD, 1993).

The suburb of Samson is bounded on three sides by major roads (South Street, Stock Road and Winterfold Road), which form an effective barrier to wildlife movement from adjacent areas. To the east is Alan Edwards Park (City of Melville), a linear strip of Public Open Space. Areas identified for habitat linkages to Samson Park are: Alan Edwards Park; verges in the immediate area of Samson Park; grounds of Samson Primary School and North Lake Senior High School; the verges of Stock Road (which already contains a wide strip of remnant vegetation) and other main roads; and residential gardens (Figure 6).

In the immediate vicinity of Samson Park, the verge planting should be supplemented where sightlines/ powerlines and other services permit with indigenous trees and shrubs. Suitable species are those which conform to usual street tree requirements (i.e. do not unnecessarily obstruct paths, sightlines etc., are relatively maintenance-free, and are aesthetically suitable). Examples are *Banksia menziesii*, *Banksia attenuata*, *Banksia grandis*, and some of the smaller shrubs (eg. *Hypocalymma robustum*, *Acacia lasiocarpa*, *Acacia wildenowiana*, *Conostephium pendulum*, *Hovea trisperma*, *Daviesia* spp.)

The consultants who prepared the fauna report for Samson Park were "...struck by the unsympathetic, water-hungry gardens planted by the majority of the adjoining residents" (Majer & Recher, 1995, p.4). Residents in the vicinity should be encouraged to plant suitable habitat species in their gardens. Because this would entail changes to most people's gardens, some incentive may need to be offered to residents (eg. free of subsidised shrubs, a habitat garden ("Greening Samson") competition). An explanatory pamphlet such as the Bird Observers' Club "How to Attract Native Birds to your Garden" could be circulated. As cat predation is a significant problem in Samson Park, residents should also be encouraged to bell cats and keep them inside or penned overnight. The park user survey indicated a strong level of support for this initiative (Section 6.1)

**APPENDIX C : BIRD SPECIES FOUND AT SIR FREDERICK SAMSON PARK**

**COMMON NAME**

**GENERIC NAME**

Australian Hobby	<i>Falco longipennis</i>
Australian Kestrel	<i>Falco cenchroides</i>
Australian Magpie	<i>Gymnorhina tibicen</i>
Australian Raven	<i>Corvus coronoides</i>
Black-faced Cuckoo Shrike	<i>Corancina novaehollandiae</i>
Brown Honeyeater	<i>Lichmera indistincta</i>
Collared Sparrowhawk	<i>Accipiter cirrhocephalus</i>
Feral Pigeon	<i>Columba livia</i>
Grey Butcherbird	<i>Cracticus torquatus</i>
Grey Fantail	<i>Rhipidura fuliginosa</i>
Galah	<i>Cacatua roseicapilla</i>
Laughing Kookaburra	<i>Dacelo novaeguinea</i>
Laughing Turtle-Dove	<i>Streptopelia senegalensis</i>
Mallee Ringneck	<i>Barnardius barnardi</i>
Port Lincoln Ringneck	<i>Barnardius zonarius</i>
Red-capped Parrot	<i>Purpureicephalus spurius</i>
Rufous Whistler	<i>Pachycephala rufiventris</i>
Red Wattlebird	<i>Anthochaera carunculata</i>
Silver Gull	<i>Larus novaehollandiae</i>
Sacred Kingfisher	<i>Halcyon sancta</i>
Silvereye	<i>Zosterops lateralis</i>
Singing Honeyeater	<i>Lichenostomus virescens</i>
Striated Pardalote	<i>Pardalotus striatus</i>
Spotted Turtle-Dove	<i>Streptopelia chinensis</i>
Tree Martin	<i>Cecropsis nigricans</i>
White-tailed Black-Cockatoo	<i>Calyptorhynchus baudinii</i>
Welcome Swallow	<i>Hirundo neoxena</i>
Western Gerygone	<i>Gerygone fusca</i>
Weebill	<i>Smicrornis brevirostris</i>
Western Thornbill	<i>Acanthiza inornata</i>
Western Spinebill	<i>Acanthorhynchus superciliosus</i>
Yellow-rumped Thornbill	<i>Acanthiza chrysorrhoa</i>

APPENDIX D : MAMMAL AND REPTILE SPECIES RECORDED AT  
SAMSON PARK

COMMON NAME

GENERIC NAME

MAMMALS

Brushtail Possum  
Common House Mouse  
Rabbit

*Trichosurus vulpecula*  
*Mus musculus*  
*Oryctolagus cuniculus*

REPTILES

Bobtail  
Dugite

*Tiliqua rugosa*  
*Pseudonaja affinis*

## APPENDIX E : MONITORING QUADRATS AT SAMSON PARK

As part of the monitoring programme three permanent quadrats were established and photographed. The first quadrat is located in the bushland on the eastern side of the lawn area, while the second and third quadrats are located in the bushland on the western side of the lawned area (Figure 10.0). Surveying in the location of these sites should be carried out by the Council in future.

A photograph of each plot was taken from the south-eastern corner of each plot diagonally across it (Fig. 10.0). The photograph was taken using an SLR camera with a 24mm lense set on a tripod. The distance between the ground and the lense was 1525mm. Prints of the photographs are shown overleaf.

The following information pertains to site notes taken for each quadrat:

Permanent Quadrat 1: Disturbed area, dominated by veldtgrass, hare's tail grass (*Lagurus ovalis*), blackboys. Open area with no overstorey or large shrubs. Tracks nearby. Species list given in Table 5.0.

Permanent Quadrat 2: Disturbed area on the edge of the park, dominated by veldt grass and couch, ground cover sparse in some areas. One large Jarrah tree in the corner of the plot. Species list given in Table 5.0.

Permanent Quadrat 3: Disturbed site near the perimeter of the park. Dominated by veldt grass and Jarrah. No small tree or large shrub strata. Some litter cover. Species list given in Table 5.0.

Monitoring the survival and growth rates of species planted in both Strategy One and Two areas should also be carried out. Two 5 X 5 metre quadrats should be established in each Strategy area and the numbers and heights of each species planted recorded along with a photograph of each plot. Annual monitoring will then give accurate information on the performance of each species thus providing a valuable data base for follow-up programmes.



□ Completely Degraded  
▨ 28

SAMS #1  
FCT 28  
(ALL SAME UNIT) <sup>excluding</sup> Comp 28



M72 Sir Frederick Samson Park, Samson  
City of Fremantle Management Plan

Friends

Advocate

Management

Other Names:

Specific Study/studies    Miscellaneous studies

Flora

Vegetation Map	1	2	3	<i>described</i>
Flora list	1	<i>2</i>	3	4
Significant Taxa	<i>done / suitable / doubtful</i>			

Fauna

Mammals	1	<i>2</i>	
Birds	1	<i>2</i>	<i>RAOU not listed</i>
Reptiles and Amphibia	1	<i>2</i>	
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:

*Friends of Samson Park*

M72 Sir Frederick Samson Park, Samson  
 City of Fremantle Management Plan

M72.1 Purpose of Reserve C34233 be amended to Public Recreation and Parkland and Reserve be vested in City of Fremantle.	Implemented	Now a Reserve for Public Recreation and Parkland vested in City of Fremantle.
M72.2 Lots 578 and 529 be added to Reserve C34233.	Intent Being Met	The local authority's management plan addresses this issue proposing to manage these lots in association with the reserved land.
M72.3 Fremantle City Council in consultation with EPA prepare management plan.	Implemented	City of Fremantle has a management plan for the area.  Friends of Samson Park has an interest in this area.

SHEET 1: System 6 - REPORT Information Search

Date 4/5/94

Please circle the appropriate response or respond in the space provided.

Area M72 Name	Sanson Park		
Title	Management Plan		
Published/Unpublished	Date		
Author/s	David Kaashagen		
Location of Publication	City Fire		
Purpose (why was the report prepared?)	City Fire		
Government			
Corporate			
Community Group			
Management Plan			

Soils	Environ. Geol		
Units	mapped	described	referenced
			Darling System

Landscape			
Features	described	referenced	our descriptions

Flora			
Vegetation Map	sites 10x10m		
Units	described	Site based (no)	transects (contingued)
Mapped	species richness		
Veg Units	Comparable Heddle et al	Compared Heddle et al	Unit not mapped by Heddle et al.
Flora list			
Timing	%completion 80%	Significant Taxa	
Summ '89	Trees	Shrubs	Herbs
	Sedges	Weeds	DRF CALM Priority Other

Fauna	area opportunistic, literature, local knowledge		
Timing	%completion	Significant Taxa	
Sum '89	Mammals 100%	Birds	RAOU
	Reptiles 50%	Invertebrates	Sched 1 Sched 2 Other

Vegetation Condition	general description		
Site based	Mapped	Units	
	disturbed areas (highly & non-disturbed)		
Disturbance Factors			
Phytophthora	observed	Other	Incidental
	tested	itemised	Fire, tracts etc

Notes	Monitoring sites set up - 3 sites (technique for all areas)		
	- photographed		
	- mapped		
	- Council advised to locate fixed points		
	- locations dist / slightly / bushland		
	European & Aboriginal History		

Prokanece,

▷ Banksia

Orchids

Courted Plants

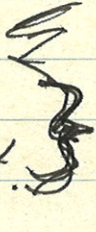
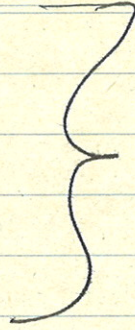
Prosera =

Weeds

Crevillea

Eucalypt

Eucalypt.





4087

4088



remantle

2081

2080

2082

2083

M72 SIR FREDERICK SAMSON PARK, SAMSON

FREMANTLE REMNANT VEG MAP

**AREA INFORMATION**

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

M72

<b>Conservation Area</b>	
Nature Reserve	
Reserve No	
National Park	
Reserve No	
Local Government	
Reserve No	
Other	
<b>Proposed Conservation Areas</b> SIR FREDERICK SAMSON PARK, SAMSON	
Local Government	City of Fremantle - Freehold land
Reserve No	C342263 for public recr not vested
Other	

**Conservation Area**

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

**AREA**

Total Area	8.5682 hectares
Completely Degraded	3.8125 hectares
comments:	heavily infested w B.2a (few E.1a)
	2 seedlings of B. attenuata - indicative of some regeneration

**AREA MAPPED FLORISTIC UNITS**

Boundaries: System6 CALM

Units	Site (Condition)	Code	Bound	Area (ha)	Area(ha)
		S6 : SAMS			
28	ø1 (5)		B	4.756	N/A

Boundaries determined by use of

aerial photograph	metro Regional Area run 8 5123 11/12/92
orthophoto	2033 1 NW Aug 1991
vegetation map	
soil map	

### 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 SIR FREDERICK SAMSON PARK, SAMSON.\*

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: Mc COMBE AVE., SELLENGER AVE., McKENZIE RD.

b) Nearest Corner: ① McKENZIE RD/Mc COMBE AVE. (LOT 576) ② SELLENGER/Mc COMBE

c) Lot Number: ① 576... ② 629 Street Number: (LOT 629)

d) Town/Suburb/Location: SAMSON

e) Local Council: CITY OF FREMANTLE

f) Site Name (if any): SIR FREDERICK SAMSON PARK (PART OF)

g) Approximate size of the area (ha): 3.5 ha.

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

i) Map: Streetsmart / UBD Other: Ed-37

j) Map no.: 347

k) Grid Ref: B-C : 1

l) Please give any other information that may help us to find the location:  
See attached map for location of freehold lots 576 & 629.

m) Are you aware of any development proposals that are likely to affect the area?  
NO

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

\* Note that this submission refers to freehold lots 629 & 576 within Sir Frederick Samson Park, which constitute over 30% of the total area. The remaining 1 section (C34233) is secure.

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) .....

CITY OF PERMANTLE

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) ~~Public Recreation & Parkland (TRP)~~

Urban (MRS) Open Space (OPS)

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) last remnant of Tuart/Jarrah/Manni woodland in area 2) important habitat for over 40 bird spp., possums, reptiles etc. 3) only POS in suburb

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

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? ...Slope of old dune system (surrounding topography modified by road building, etc.) covered by last remnant of Tuart/Jarrah/Manni woodland in municipality

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? ...NA.....

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

10. What percentage of the area is indigenous vegetation? ...80% (total park area)

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

...FROM PART OF THE PACULAND/ RECREATION RESERVE.....

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

...YES.....

If yes, please give details of the work 1) partial flora/fauna survey for 1985 Management Plan (Ecoscape P/L); 2) One EPA quadrat (Oct '94); 3) bird records from late '80s (B. Parker for PAOU) &

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

majority of area

about 20% of total area

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

a) Partial clearing ✓ central strip through reserve for playground/recreation purposes (10%)

b) fragmentation ✓ (see above) - isolated from other native veg.

c) Selective removal of species: timber cutting, wildflower picking, mowing dieback and other plant diseases

d) Fire regime, including intensity, season and frequency ✓ history of annual control burn to 1984; subsequent arson (10%)

e) 'Enrichment plantings' that is plantings of species not found in that community ✓ unidentified nursery tubestock/seed - Acacia celastriifolia, A. podalyr A. theaphylla (< 10%)

f) Weed invasion ✓ Elytharia, Pennisetum, Lygodon, Oxalis, gladiolus, Freesia, Eragrostis, Gazania (20%)

g) Animal impact: horses, foxes, rabbits, cats, dogs, camels, goats etc ✓ rabbits (control measure) (10%)

h) Soil movement, both removal and dumping small amt. of pit digging by kids | undertaker, cats, dog (dog exercise area).

i) Changes in water regimes; flooding, drainage and watering

j) Salinity not known.

k) Fertiliser drift and along waterways nutrient influx

l) Mining, including that for road works N/A.

→ drainage basin for solar seasonally very wet; irrigated turf strip in cent of park. (100%)  
→ nutrient loading from storm-water efflux & occasional turf treatment. (100%)

- m) Grazing: stock, overgrazing by feral or native mammals - rabbits (control measure undertaken). 10%
  - n) Proliferation of tracks, fire breaks and walk trails ✓ 50%
  - o) Off-road vehicle use ✓ past history pre 1985 when fenced; some BMX use.
  - p) Use as service corridors by the SEC, Main Roads, Water Authority. WAWA - computer on Lot 630
- (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) *N.O.T. KNOWN*

Do you know what they are? .....

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

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) *SEE ATTACHED*

If yes, please name them and indicate source of information

*SEE ATTACHED*

**CAN YOU TELL US A LITTLE ABOUT THE SURROUNDING AREA**

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

*NORTH LAKE, BIBRA LAKE, REMNANT BUSHLAND (not secured) in COOLBELLUP (MPD Land off Stock Rd.)*

If yes, how close are they? .....

*① North Lake: 2km ; ② Bibra L. (3km) ; ③ MPD Coolbellup (1.5km).*

Are they already conservation reserves? *YES*

What is their approximate size? *North Lake ≤ 1 km<sup>2</sup> ; Bibra L. ≈ 2 km<sup>2</sup> ; MPD - Shel*

19. Does the submitted area link other bushland areas? *NO. However, there is scope to increase habitat planting on a linear park (Alan Edwards/Melville C.) which would link this to North Lake SHS*

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

Thank you for providing this submission. If you want further feedback on the outcome of submission then please leave name and address.

*Should we need to contact you for further site identification it would be helpful to have a name and telephone contact number*

*This information will be treated as confidential*

Name: (Please Print) WACY APPLEBY Tamy Baird

Address: 16 HOLBERT ST. N. FREMANTLE 6159 / City of Fremantle

Daytime telephone number: 335 3330 430 2314

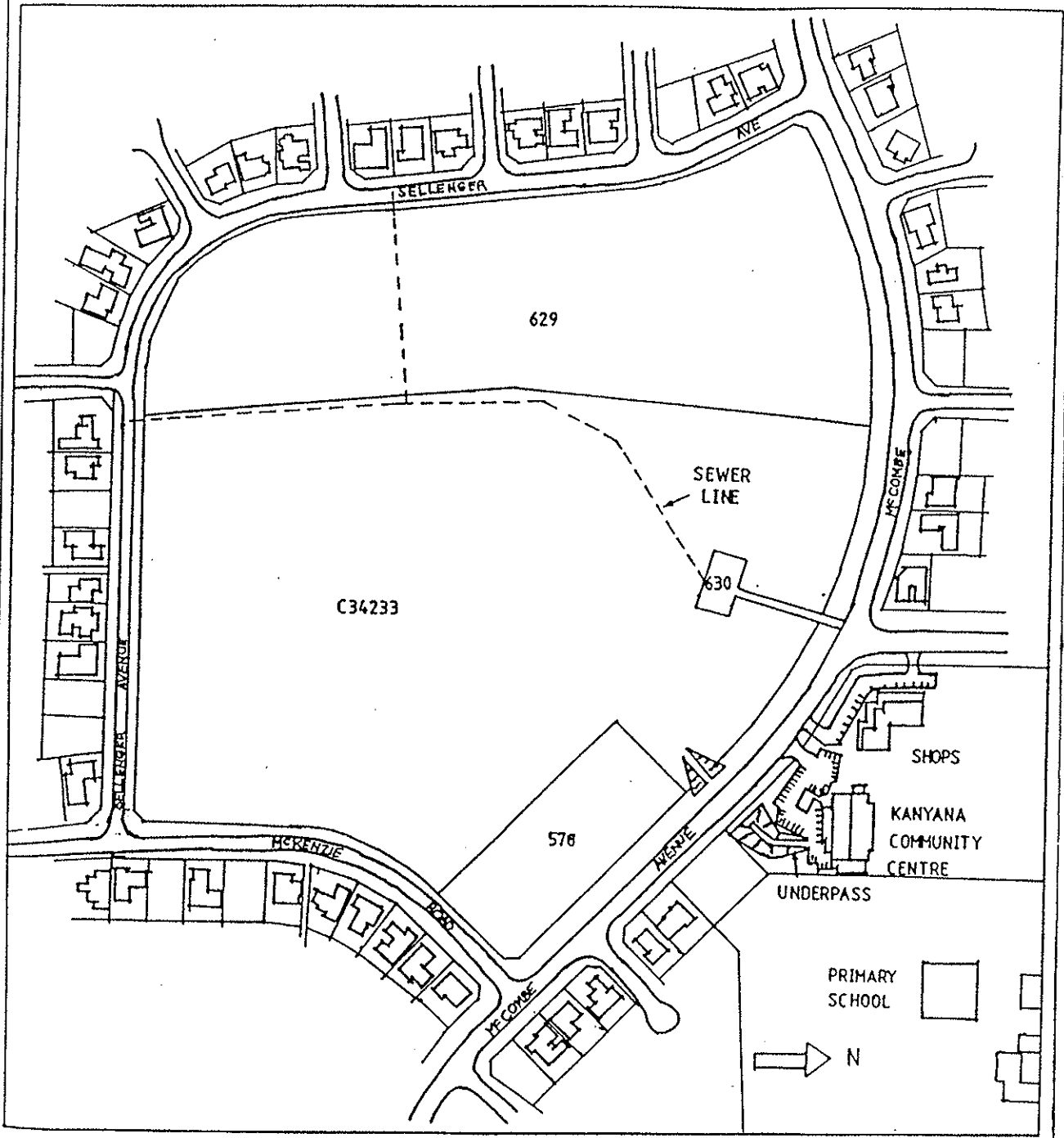


Figure 3.0 : LAND USE AND ZONING



SIR FREDERICK  
SAMSON PARK  
MANAGEMENT PLAN

REVISED 1995

DRAFT ONLY

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## APPENDIX 1. PLANT SPECIES FOUND AT SIR FREDERICK SAMSON PARK

This list has been compiled from the original Management Plan (Ecoscape, 1989), a brief survey conducted by the EPA (October, 1994), a list of orchid species provided by Margo O'Byrne (EPA), and observations over a three month period (February - May 1995). A complete botanical survey has not as yet been done.

Exotic species are marked with an asterisk (\*). Native, non-indigenous species are marked (#). Dubious records are denoted thus (?) and should be checked as part of the botanical survey and with the W.A. Herbarium. Nomenclature follows that used in the *Flora of Australia* (AGPS).

### CYCADS

#### ZAMIACEAE

*Macrozamia riedlei* Zamia

### MONOCOTYLEDONS

#### CYPERACEAE

*Lepidosperma angustatum*  
*Lepidosperma scabrum*  
*Mesomelaena pseudostygia*  
*Tetraria octandra*

#### HAEMODORACEAE

*Anigozanthos humilis* Catspaw  
*Anigozanthos manglesii* Mangles Kangaroo Paw  
*Conostylis aculeata*  
*Conostylis candicans*  
*Conostylis setigera*  
*Haemodorum ? spicatum* Bloodroot

#### IRIDACEAE

\**Freesia x leichtlinii* Freesia  
\**Gladiolus caryophyllaceus* Gladiolus  
\**Romulea rosea* Guildford Grass  
\**Watsonia leipoldtii* Watsonia

#### LILIACEAE

\**Asphodelus fistulosa* Onion Weed  
*Burchardia umbellata* Milkmaids  
*Dianella revoluta* var. *divaricata* Flax Lily

*Thysanotus dichotomus*  
*Thysanotus thyrsoides*  
*Tricoryne elatior*

#### ORCHIDACEAE

<i>Caladenia flava</i> ssp. <i>flava</i>	Cowslip Orchid
<i>Caladenia latifolia</i>	Pink Fairies
<i>Caladenia arenicola</i>	Carousel Spider
<i>Caladenia longicauda</i>	White Spider
<i>Caladenia ? arenicola x longicauda</i>	
<i>Diuris magnifica</i>	
<i>Lyperanthus ? nigricans</i>	Pansy Orchid
<i>Microtis</i> sp.	
<i>Pterostylis sanguinea</i>	Dark banded Greenhood

#### OROBANCHACEAE

* <i>Orobanche minor</i>	Lesser Broomrape
--------------------------	------------------

#### POACEAE

* <i>Aira</i> spp.	
* <i>Avena barbata</i>	Wild Oats
* <i>Briza maxima</i>	Shivery Grass
* <i>Briza minor</i>	Quaking Grass
* <i>Bromus madritensis</i>	Brome Grass
* <i>Cortaderia selloana</i>	Pampas Grass
* <i>Cynodon dactylon</i>	Couch
<i>Danthonia</i> spp.	Wallaby Grasses
* <i>Ehrharta calycina</i>	Veldt Grass
* <i>Eragrostis curvula</i>	African Love Grass
* <i>Lagurus ovatus</i>	Rabbit-tail Grass
* <i>Lolium rigidum</i>	Perennial Rye-grass
<i>Microlaena stipoides</i>	Weeping Grass
* <i>Pennisetum clandestinum</i>	Kikuyu
* <i>Rhynchelytrum repens</i>	Red Natal Grass
* <i>Stenotaphrum secundatum</i>	Buffalo Grass
* <i>Sporobolus indicus</i>	Rat's-tail Grass
<i>Stipa</i> spp.	Spear Grass

#### RESTIONACEAE

*Loxocarya flexuosa*

#### XANTHORRHEACEAE

<i>Dasyopogon bromeliifolius</i>	Pineapple Grass
<i>Lomandra caespitosa</i>	
<i>Xanthorrhrea preissii</i>	Blackboy, Balga

## DICOTYLEDONS

### AMARANTHACEAE

*Ptilotus drummondii*  
*Ptilotus polystachyus*

### ANACARDIACEAE

\**Schinus terebinthifolius* Brazilian Mastic (Japanese Pepper Tree)

### ASTERACEAE

\**Coryza bonariensis* Fleabane  
\**Gazania splendens* Gazania  
*Helichrysum cordatum* Tangle Daisy  
\**Hypochoeris glabra* Cat's ear  
*Podolepis gracilis*  
\**Sonchus asper* Sow Thistle  
\**Ursinia anthemoides*  
*Waitzia suaveolens*

### CARYOPHYLLACEAE

\**Petrorhagia velutina*  
\**Silene gallica* French Catchfly

### CASUARINACEAE

*Allocasuarina fraseriana* Sheoak  
*Allocasuarina humilis* Dwarf Sheoak

### DILLENACEAE

*Hibbertia hypericoides* Native Buttercup  
*Hibbertia racemosa*

### DROSERACEAE

*Drosera* spp. Sundews

### EPACRIDACEAE

*Astroloma pallidum*  
*Conostephium pendulum* Pearl Flower  
*Leucopogon propinquus* Beard Heath

## EUPHORBIACEAE

*\*Euphorbia terracina*  
*Phyllanthus calycinus*

## FABACEAE

*Bossiaea ornata*  
*Daviesia divaricata* Eggs and Bacon  
*Daviesia juncea*  
*Daviesia nudiflora*  
*Gompholobium tomentosum*  
*Hardenbergia comptoniana* Native Wisteria  
*Jacksonia furcellata*  
*Jacksonia sternbergiana*  
*Kemedia prostrata*  
*\*Lupinus consentii* Running Postman  
*Oxylobium capitatum* Sandplain Lupin  
*\*Trifolium angustatum*  
*\*Trifolium campestre*

## GERANIACEAE

*\*Erodium botrys*  
*\*Pelargonium capitatum* Crane's Bill  
Pelargonium

## GOODENIACEAE

*Dampiera linearis*  
*Scaevola canescens*  
*Scaevola paludosa*

## MIMOSACEAE

*Acacia ? alata*  
*#Acacia celastrifolia*  
*Acacia lasiocarpa*  
*#Acacia podalyriifolia* Mt. Morgan Wattle  
*#Acacia iteaphylla* Gawler Range Wattle  
*Acacia pulchella* Prickly Moses  
*Acacia saligna* Orange Wattle  
*Acacia stenoptera*  
*Acacia wildenowiana*

## MORACEAE

*\*Ficus carica*  
*\*Ficus macrocarpa* Edible Fig  
Moreton Bay Fig

MYRTACEAE

*#Chamaelaucium uncinatum*  
*Eucalyptus calophylla*  
*Eucalyptus gomphocephala*  
*Eucalyptus marginata*  
*Hypocalymma robustum*  
PROTEACEAE

Geraldton Wax  
Marri, Red Gum  
Tuart  
Jarrah

*Banksia attenuata*  
*Banksia grandis*  
*Banksia menziesii*  
*Dryandra nivea*  
*Dryandra sessilis*  
*Hakea prostrata*  
*Isopogon cuneifolia*  
*Persoonia saccata*  
*Petrophile linearis*  
*Petrophile macrostachya*  
*Synaphea ? spinulosa*

*Candle Banksia*  
*Bull Banksia*  
*Firewood Banksia*  
*Couch Honeypot*  
*Parrot Bush*

*Pixie Mops*

RANUNCULACEAE

*Clematis microphylla*

Old Man's Beard

RUBIACEAE

*\*Centranthus ruber*

Valerian

STYLIDIACEAE

*Stylidium schoenoides*

THYMELEACEAE

*Pimelea rosea*

Rose Banjine

VERBENACEAE

*\*Lantana camara*

Lantana

**APPENDIX 2. List of bird species found in Samson Park, with notes on occurrence and habitat requirements**

This list was compiled from records from the previous Management Plan (Ecoscape, 1989), a long term survey being conducted by Mrs. Barbara Parker of the Friends of Samson Park, and a brief survey by Dr. Harry Recher, who provided all the habitat notes and an indication of the significance of each species (Majer & Recher, 1995). Comparisons are drawn between occurrences at Samson Park and records from a longitudinal study of King's Park (Recher & Serventy, 1991). The list was vetted by Peter Anson of the Royal Australasian Ornithologists Union (RAOU). Exotic species are marked with an asterisk (\*). Questionable records (possible aviary escapes or misidentifications) are indicated by a question mark (?).

**Australian Hobby** (*Falco longipennis*)

An uncommon but wide-ranging species in the south-west. Not recorded in King's Park.

**Australian Kestrel** (*F. cenchroides*)

A common and widely distributed species often seen along road edges and in open areas. It requires open habitat and is unlikely to nest in Samson Park. Not recorded in King's Park.

**Australian Magpie** (*Gymnorhina tibicen*)

Common breeding resident throughout the Perth region.

**Black-faced Cuckoo Shrike** (*Coracina novaehollandiae*)

Frequent visitor throughout the Perth region. It nests on large horizontal branches, usually high in trees. This bird is sensitive to disturbance and is unlikely to nest in Samson Park due to the large numbers of visitors and dogs.

**Black Duck** (*Anas superciliosa*)

Resident throughout the Perth region. A casual visitor to Samson Park in periods when there is standing water.

**Brown Falcon** (*Falco berriogra*)

A wide-ranging but uncommon bird on the Swan Coastal Plain. It is most frequent in open habitats and low shrublands.

**Brown Honeyeater** (*Lichmera indistincta*)

Abundant breeding resident throughout the Perth region. Brown Honeyeaters build a small cup-shaped nest in low shrubs and in King's Park often builds nests close to frequently-used paths.

**Boobook Owl** (*Ninox novaeseelandiae*)

This is a hole-nesting species requiring a large hollow. The habitat area required by a breeding pair will depend on the abundance of large insects and other small mammals as food,

but Samson Park is probably at the lower size limit for this species. It occurs and probably breeds in King's Park.

**Collared Sparrowhawk** (*Accipiter cirrocephalus*)

This bird is easily confused with the Brown Goshawk, as the two species are similar in both appearance and habits. The Collared Sparrowhawk has not been recorded in King's Park, although both occur in the Perth region. The Brown Goshawk is the more common of the two species.

**Elegant Parrot** (*Neophema elegans*)

A tree hole nesting species that has increased in abundance and range with agricultural clearing. The Elegant Parrot is a ground-foraging species which feeds on grass and weed seeds. It is uncommon in the Perth region, and has not been recorded in King's Park.

**?Fairy Martin** (*Cecropis ariel*)

The Fairy Martin has never been common on the Swan Coastal Plain and it has decreased in abundance over the past 50 years. It is possible that it has been confused with the Tree Martin, which is similar in appearance.

**Fan-tailed Cuckoo** (*Cuculus pyrrhophanus*)

This species has decreased in abundance throughout its southwestern distribution over the last 50 years and is uncommon in the Perth region. Its preferred hosts are the Broad-tailed Thornbill and the White-browed Scrubwren, neither of which occur at Samson Park. The decline of the Fan-tailed Cuckoo parallels that of its hosts. It is an infrequent visitor to King's Park.

**\*Feral Pigeon** (*Columba livia*)

Common throughout the Perth region, though not recorded from King's Park.

**#Galah** (*Cacatua roseicapilla*)

The Galah has increased in abundance and distribution since the beginning of the century, colonising the Perth region after World War Two. It will nest in tree hollows in close proximity to people. Galahs have only been recorded in King's Park since 1986.

**Grey Butcherbird** (*Cracticus torquatus*)

A breeding resident throughout the Perth region. The Butcherbird often builds its nest within a couple of metres of the ground and in King's Park has been found nesting near quite heavily-used recreation facilities.

**Grey Fantail** (*Rhipidura fuliginosa*)

Common throughout the Perth region. A breeding resident in King's Park, with numbers increasing during winter with the arrival of migrants from cooler areas. The Grey Fantail is sensitive to disturbance when nesting. Nests may be found within one metre of the ground.

**#Laughing Kookaburra** (*Dacelo novaeguineae*)

The Kookaburra was introduced to the Perth region in 1897 and has spread throughout the southwest. It is a hole nesting species that commonly associates with people, but generally prefers to nest in less disturbed situations.

**\*Laughing Turtle-dove** (*Streptopelia senegalensis*)

The turtle-dove is more typical of suburban habitats than bushland areas in the Perth region. It was introduced to Perth, probably from Africa, in 1898. It will nest almost any where in the shrub layer.

**?Mallee Ringneck** (*Platycercus zonarius barnardi*)

This is one of four forms of the Ringnecked Parrot *Platycercus zonarius*. The form that occurs naturally on the Swan Coastal Plain is the "28" Parrot (*Platycercus zonarius semitorquatus*), while the Port Lincoln Parrot (*Platycercus zonarius zonarius*) is the form which occurs throughout the rest of southern W.A. The Mallee Ringneck occurs in S.A., Vic., N.S.W. and Qld. in mallee, mulga and native pine woodlands. "Port Lincoln" and "Mallee" have frequently been applied mistakenly to the "28" Parrot in the Perth region. As the sighting was made by an experienced birdwatcher, it is likely to have been an aviary escape.

**New Holland Honeyeater** (*Philydonyris novaehollandiae*)

An abundant breeding resident throughout the southwest wherever there is a good supply of nectar-rich flowers. It is unlikely to find sufficient nectar resources in Samson Park to sustain breeding. An infrequent visitor in King's Park.

**Peregrine Falcon** (*Falco peregrinus*)

A wide-ranging but uncommon species. It feeds on birds, including pigeons and gulls. It is unlikely to be more than a rare visitor to Samson Park. Not recorded from King's Park.

**?Pied Butcherbird** (*Craicticus nigrogularis*)

Uncommon in the Perth region. Normally a species of drier and more open woodlands. The Pied Butcherbird can easily be confused with the Grey Butcherbird.

**?Port Lincoln Ringneck** (*Platycercus zonarius zonarius*)

See notes under Mallee Ringneck.

**Purple-crowned Lorikeet** (*Glossopsitta porphyrocephala*)

An uncommon visitor to the Perth region. Not recorded in King's Park.

**Red Wattlebird** (*Anthochaera carunculata*)

Abundant breeding resident throughout the Perth region. Nests abundantly in King's Park, with nests placed from one to ten metres above the ground.

**Red-capped Parrot** (*Purpureicephalus spurius*)

This is a forest-dependent species that feeds on eucalypt, sheoak and other tree seed. It requires hollows for nesting. Mrs. Parker has observed a breeding pair in Samson park. This species has not been recorded from King's Park.

**?Regent Parrot** (*Polytelis anthopeplus*)

This parrot is an uncommon visitor to the higher rainfall districts of the southwest. Birds in the Perth region could be aviary escapes.

**?Rock Parrot** (*Neophema petrophila*)

The Rock Parrot inhabits coastal islands and occurs on the southwest mainland in coastal dunes and rocky foreshores. It is easily confused with the elegant parrot.

**Rufous Whistler** (*Pachycephala rufiventris*)

A common breeding resident in larger bushland remnants in the Perth region. Nests may be placed from one to 30m above the ground in dense shrubs and trees.

**Sacred Kingfisher** (*Halycon sancta*)

A tree-hole nester, the Sacred Kingfisher has declined in abundance throughout the southwest in the last 50 years. There are no recent records from King's Park, but formerly a breeding summer visitor.

**Silver Gull** (*Larus novaehollandiae*)

An abundant coastal species which often visits parks to scavenge for food.

**Silvereye** (*Zosterops lateralis*)

A flocking species with a wandering, wide-ranging habit, so that numbers may vary considerably. Nests are placed in thick shrubbery between one and three metres from the ground. This species is particularly susceptible to predation by cats. It is a common breeding resident of King's Park.

**Singing Honeyeater** (*Meliphaga virescens*)

After the Brown Honeyeater, this is the most common native bird in suburban Perth.

**\*Spotted Turtle-dove** (*Streptopelia chinensis*)

The Spotted Turtle-dove is more typical of suburban habitats than bushland areas in the Perth area. It was introduced to Perth from southeast Asia in 1898. It will nest almost anywhere in the shrub layer.

**Striated Pardalote** (*Pardalotus striatus*)

A small tree-hole nesting species. Numbers are greatest in winter when individuals from cooler climatic regions disperse to warmer coastal regions. A breeding resident in King's Park.

**Tawny Crowned Honeyeater** (*Philydonyrus melanops*)

The Tawny Crowned Honeyeater is an uncommon resident in low open heaths and shrublands in the southwest. Not recorded in King's Park.

**Tree Martin** (*Cecropis nigricans*)

An uncommon visitor to King's Park, although it may have nested there earlier this century. Numbers increase in the Perth region during summer with the arrival of dispersing flocks, probably from the arid inland. Tree Martins tend to nest in colonies, in tree hollows.

**Weebill** (*Smicrornis brevirostris*)

The Weebill feeds on lerps (sap-sucking psyllid insects) and builds a small hanging dome nest between one and 15m from the ground. It appears tolerant of people and will nest in close proximity to heavily used areas.

**Welcome Swallow** (*Hirundo neoxena*)

The Welcome Swallow is very tolerant of people and disturbance. It builds mud nests under eaves, in caves, and outside buildings. A common resident in the suburban area.

**Western Gerygone** (*Gerygone fusca*)

The Western Gerygone or Western Warbler builds a dome-shaped hanging nest within four metres of the ground. It is tolerant of people: nests in King's Park have been placed close to busy paths.

**Western Spinebill** (*Acanthorhynchus superciliosus*)

This species nests in thick scrub within three metres of the ground. It appears tolerant of people. It is an uncommon breeding resident of King's Park.

**Western Thornbill** (*Acanthiza inornata*)

**White-tailed Black-Cockatoo** (*Calyptorhynchus latirostris*)

Occasional visitor to Samson Park. More frequently found in the remains of the pine plantations in Kardinya and beyond.

**Yellow-rumped Thornbill** (*Acanthiza chrysorrhoa*)

Prefers open habitats, often on the ground.

### APPENDIX 3. Mammal and reptile species recorded at Samson Park.

This list appeared in the original Management Plan (Ecoscape, 1989). No comprehensive survey has been made of non-avian vertebrate fauna in Samson Park. There are likely to be greater numbers of reptiles and possibly bats inhabiting Samson Park than this list indicates.

#### MAMMALS

Brushtail Possum	<i>Trichosurus vulpecula</i>
Common House Mouse	<i>Mus musculus</i>
Rabbit	<i>Oryctolagus cuniculus</i>

#### REPTILES

Bobtail	<i>Tiliqua rugosa</i>
Dugite	<i>Pseudonaja affinis</i>

**APPENDIX B: PLANT SPECIES FOUND AT SIR FREDERICK SAMSON PARK**

\* Exotic species

GENERIC NAME	COMMON NAME	FAMILY
<i>Acacia alata</i>	Winged Wattle	Mimosaceae
<i>Acacia lasiocarpa</i>		"
<i>Acacia pulchella</i>	Prickly Moses	"
<i>Acacia saligna</i>	Orange Wattle	"
* <i>Aira caryophylla</i>	Silvery Hairgrass	Poaceae
<i>Allocasuarina humilis</i>	Dwarf Sheoak	Casuarinaceae
<i>Allocasuarina fraseriana</i>	Sheoak	"
<i>Anigozanthos humilis</i>	Catspaw	Haemodoraceae
<i>Anigozanthos manglesii</i>	Mangles Kangaroo Paw	"
* <i>Asphodelus fistulosa</i>	Onion Weed	Asphodelaceae
<i>Astroloma pallidum</i>		Epacridaceae
* <i>Avena barbata</i>	Bearded Oat	Poaceae
<i>Banksia attenuata</i>		Proteaceae
<i>Banksia grandis</i>	Bull Banksia	"
<i>Banksia menziesii</i>	Firewood Banksia	"
<i>Bosseae ornata</i>		Papilionaceae
* <i>Briza maxima</i>	Blowfly Grass	Poaceae
* <i>Briza minima</i>	Shivery Grass	"
* <i>Bromus madritensis</i>		"
<i>Burchardia umbellata</i>	Milkmaids	Colchicaceae
<i>Caladenia patersonii</i>	White Spider orchid	Orchidaceae
<i>Clematis microphylla</i>	Old Mans Beard	Ranunculaceae
<i>Conostephium pendulum</i>	Pearl Flower	Epacridaceae
<i>Conostylis aculeata</i>		Haemodoraceae
<i>Conostylis candicans</i>		"
<i>Conostylis setigera</i>		"
* <i>Conyza bonariensis</i>	Fleabane	Asteraceae
* <i>Cortaderia selloana</i>	Pampas Grass	Poaceae
* <i>Cynodon dactylon</i>	Couch Grass	"
<i>Dampiera linearis</i>	Common Dampiera	Goodeniaceae
* <i>Danthonia pencillata</i>	Common Wallaby Grass	Poaceae
<i>Dasyogon bromeliifolius</i>	Pineapple Bush	Dasyogonaceae
<i>Daviesia divaricata</i>		Papilionaceae
<i>Daviesia juncea</i>		"
<i>Daviesia nudiflora</i>		"
<i>Dianella revoluta</i>		Phormiaceae
<i>Dryandra nivea</i>	Couch Honeygot	Proteaceae
<i>Dryandra sessilis</i>	Parrot Bush	"
<i>Drosera sp.</i>		Droseraceae
* <i>Ehrharta calycina</i>	Perennial Veldtgrass	Poaceae
* <i>Erodium botrys</i>	Long Storksbill	Geraniaceae
<i>Eucalyptus calophylla</i>	Marri	Myrtaceae
<i>Eucalyptus gomphocephala</i>	Tuart	"
<i>Eucalyptus marginata</i>	Jarra	"
* <i>Ficus carica</i>	Common Fig	Moraceae
* <i>Gladiolus caryophyllaceus</i>	Gladioli	Iridaceae
<i>Gompholobium tomentosum</i>		Papilionaceae
<i>Haemodorum spicatum</i>	Bloodroot	Haemodoraceae
<i>Hakea prostrata</i>		Proteaceae
<i>Hardenbergia comptoniana</i>	Native Wisteria	Papilionaceae
<i>Helichrysum capitatum</i>	Tangle Daisy	Fabaceae
<i>Hibbertia hypericoides</i>		Dilleniaceae

<i>Hibbertia racemosa</i>	Stalked Guinea Flower	"
<i>Hovea trisperma</i>	Common Hovea	Papilionaceae
* <i>Hypochaeris glabra</i>	Smooth Catsear	Asteraceae
<i>Hypocalymma robustum</i>	Swan River Myrtle	Myrtaceae
<i>Isotropis cuneifolia</i>	Lamb Poison	Papilionaceae
<i>Jacksonia furcellata</i>		"
<i>Jacksonia sternbergiana</i>		"
<i>Kennedia prostrata</i>	Running Postman	"
* <i>Lagurus ovatus</i>	Hare's Tail Grass	Poaceae
* <i>Lantana camara</i>	Common Lantana	Verbenaceae
<i>Lepidosperma angustatum</i>		Cyperaceae
<i>Lepidosperma scabrum</i>		"
* <i>Lolium rigidum</i>	Ryegrass	Poaceae
<i>Lomandra caespitosa</i>		Dasypogonaceae
<i>Loxocarya flexuosa</i>		Restionaceae
* <i>Lupinus consentii</i>	Sandplain Lupin	Papilionaceae
<i>Macrozamia riedlei</i>	Zamia	Zamiaceae
<i>Mesomelaena stygia</i>		Cyperaceae
* <i>Orbanche minor</i>	Lesser Broomrape	Orabanchaceae
<i>Oxylobium capitatum</i>	Bacon and Eggs	Papilionaceae
* <i>Pelargonium capitatum</i>	Rose Pelargonium	Geranaceae
* <i>Pennisetum clandestinum</i>	Kikuyu Grass	Poaceae
<i>Persoonia saccata</i>		Proteaceae
* <i>Petrorhagia velutina</i>		Caryophyllaceae
<i>Petrophile linearis</i>	Pixie Mops	Proteaceae
<i>Petrophile macrostachya</i>		"
<i>Pimelea rosea</i>	Rose Banjine	Thymelaeceae
<i>Ptilotus drummondii</i>		Amaranthaceae
<i>Ptilotus polystachyus</i>		"
* <i>Romulea rosea</i>	Guildford Grass	Iridaceae
<i>Scaevola canescens</i>	Grey Scaevola	Goodeniaceae
<i>Scaevola palludosa</i>		"
* <i>Silene gallica</i>	Mediterranean Catchfly	Caryophyllaceae
* <i>Sonchus asper</i>	Rough Sowthistle	Asteraceae
<i>Synaphea polymorpha</i>		Proteaceae
<i>Tetraria octandra</i>		Cyperaceae
<i>Thysanotus dichotomus</i>		Anthericaceae
<i>Thysanotus thysoides</i>		"
<i>Tricoryne elatior</i>	Yellow Autumn Lily	Liliaceae
* <i>Trifolium angustatum</i>	Narrow-leaf Clover	Papilionaceae
* <i>Trifolium campestre</i>	Hop Clover	"
* <i>Ursina anthemoides</i>		Asteraceae
* <i>Watsonia leipoldtii</i>		Iridaceae
<i>Watzia suaveolens</i>	Everlastings	Asteraceae
<i>Xanthorrhoea preissii</i>	Blackboy	Xanthorrhoeaceae

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