

* — * =
 PLOTS FALLING IN SUPER GROUP 1
 near or on the Ridge H71 Shelf

FLT 1

ACTON-1 (a)
 smith02 (a)
 smith03 (a)
 wonn01 (a)
 wicher01 (a)
 gibson02 (a)
 kemp01 (a)
 boyan 02 (a)
 kelly01 (a)
 dard01 (a)
 dard03 (a)
 will02 (a)
 CAPEL-5 (b)
 wonn02 (b)
 will04 (a)
 wyarl03 (3b)
 * xNorm02 *
 AMBR-1 (b)
 AMBRAL-1 (b)
 AMBR-4 (b)
 AMBR-6 (b)
 AMBR-9 (b)
 CARB-1 (b)
 CARB-4 (b)
 YALLIN-1 (b)
 CARB-2 (b)
 YOON-1 (b)
 xR116703 (c)

FLT 3

BRIX-2 (a)
 * card12 * (b)
 * card13 * (b)
 waro 01 (b)
 * BUPNRD02 * (b)
 * lamb1 * (c)
 * lamb2 * (a)
 * xNorm04 *
 * xNorm05 *
 * xNorm06 *
 * cage01 *
 * talb1 * (c)
 * xRush03 * (c) RUSH #3
 * xElbr04 * (c) ELBR01
 * xserp01 * (c) SERP01
 * xserp02 * (c) SERP02
 * xserp03 * (c) SERP03
 * xserp04 * (c)
 BRIX-5 (a)
 * xElbr01 * (a)
 MUD-4 (a)
 MUD-5 (a)
 brick1 (a)
 brick3 (a)
 waro 06 (a)
 brick6 (a)
 brick7 (a)
 brick8 (a)
 brick5 (a)
 * xElbr02 * (a)
 * xElbr03 * (a)
 * xElbr06 * (a)
 DUCK-1 (c)
 DUCK-2 (c)
 WATER-3 (c)
 PEARCE-2 (c)
 * talb4 * (c)

← Outside Study area

RUSH #3
 ELBR01
 SERP01
 SERP02
 SERP03

NORM
 RV

No Group?

FLT 58

GROUP: 8

19 MEMBER/S

* xElbr01 *	14 * xElbr03 *	15 * xElbr03 *	16 * xElbr04 *	17
* xElbr05 *	18 * xElbr06 *	19 * xRedh01 *	20 * xRedh02 *	21
* xRedh04 *	22 * xRedh07 *	23 * xRedh09 *	24 * xRedh10 *	25
* xRedh03 *	27 * xRedh06 *	29 * xElbr02 *	43 * xPearc03 *	44
* xElbr01 *	60 * xElbr03 *	61 * xQuinn08 *	64	

WANDOO

Outside Study area

SITE LOCATION

Suggested name of area (1996)

Some Other Commonly used Names:

(290) Limestone heathlands and Tuart-Banksia woodlands near Bernard Rd, Carabooda

Local Authorities (Suburb)

City of Wanneroo (Carabooda)

Ownership categories: Street name, Lot number

Area (ha):

Total approx 175, 100% bushland (GIS & aerial photo)

Zoning (MRS & town planning)

Rural

LANDFORM AND SOIL

Landscape features: vegetated uplands, limestone cave

Geomorphology and soils

Spearwood Dunes

Sands derived from Tamala limestone (Qts: S7)

Tamala/limestone (Qtl: LS2)

REGIONAL VEGETATION AND FLORA

Vegetation Complex

Spearwood Dunes

Cottesloe Complex - Central and South

Floristic Community Types: *not sampled types inferred

Supergroup 4 - Uplands centred on Spearwood and Quindalup Dunes

*24 Northern Spearwood shrublands and woodlands

*28 Spearwood *B. attenuata* or *B. attenuata* - *Eucalyptus* woodlands

REGIONAL WETLANDS

No wetlands mapped

THREATENED COMMUNITIES

Not assessed

AREA DESCRIPTION

Vegetation and Flora

Structural units: (submission) *Eucalyptus gomphocephala* and *Banksia* Woodland, mixed Shrubland on limestone

Remnant Vegetation (canopy only): >5%

Vegetation Condition: (1996 aerial photo interpretation, submission) >90% Excellent to Very Good, two small areas with areas of severe localised disturbance (?quarries)

Total Flora: not known

DRF/Priority - GIS: none recorded

Fauna

Mammals: not surveyed

Linkage: bushland linkage south west to Neerabup National Park (across Wanneroo Road, through proposed linkage between Neerabup to the south and Yanchep National Park, north).

Special Attributes:

Historically important cave (submission).

INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed

CONSERVATION RECOMMENDATIONS

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

Constraints: Private land, MRS Urban zoning, Mineral Resource Area, Mineral Lease,

Recommendation:



Area Description Proforma

Peel - Harvey (E.3)

Wetland Management Objective: Conservation, Resource Enhancement, Department of Environmental Protection

Lake EPP: ha none identified

THREATENED COMMUNITIES/SPECIES

CALM Threatened Ecological Communities DRAFT classification of communities
Not assessed, Presumed Totally Destroyed, Critically Endangered, Endangered, Vulnerable, Data Deficient, Low Risk

AREA DESCRIPTION

Based on information generated from sites (Gibson et al. 1994, Keighery, Gibson 1996, 6 Update) and reports, published and unpublished on the bushland areas.

Vegetation and Flora

Structural units: not known, (limited survey), (detailed survey), (mapping)

Forest Woodland Shrubland Herbland Sedgeland Grassland

Eucalypts - *Eucalyptus calophylla*, *E. wandoo*, *E. marginata*, *E. tottiana*, *E. rudis*, *E. decipiens*, *E. lanepoolei*, *E. haemotoxylon* and *E. gomphocephala* + *E. laetiae*

Sheoaks - *Allocasuarina fraseriana* and *Casuarina obesa*

Banksias - *Banksia attenuata*, *B. menziesii*, *B. prionotes*, *B. ilicifolia*, *B. grandis* and *B. littoralis*

Melaleucas - *Melaleuca preissiana*, *M. raphiophylla* and *M. lanceolata*

Callitris preissii

Jacksonia, *Viminaria*, *Daviesia*, *Leucopogon*, *Regelia*, *Banksia*, *Dryandra*, *Grevillea*, *Hakea*, *Petrophile*, *Stirlingia*, *Gompholobium*, *Calytrix*, *Verticordia*, *Pericalymma*, *Melaleuca*, *Hibbertia*, *Halosarcia*, *Sarcocornia*, *Xanthorrhoea*, *Kingia* and *Acacia*

Borya, *Phlebocarya*, *Lomandra*, *Anigozanthos*, *Conostylis*, *Patersonia*, *Drosera* and *Stylidium*

Baumea, *Gahnia*, *Evandra*, *Schoenus*, *Mesomelaena*, *Alexgeorgia*, *Cyathochaeta*, *Loxocarya*, *Leptocarpus*, *Restio* and *Juncus*

Spinifex, *Stipa*, *Danthonia* and *Poa*.

Vegetation Condition: >30% >50% >75% >90% Pristine, Excellent, Very Good, Good, Degraded, Completely Degraded with % Pristine, Excellent, Very Good, Good, Poor, Completely Degraded with areas of severe localised disturbance

Total Flora: not known, (estimated), (site generated list only), (estimated >50% expected flora), (estimated >75% expected flora), (estimated >90% expected flora)

DRF/Priority: GIS: none recorded, R ID, 1 ID, 2 ID, 3 ID, 4 ID

Records from survey: not surveyed

Fauna

WA Museum specimen records for selected mammals.

Mammals: not surveyed, Wambenger (*Phascogale tapoatafa*), Honey Possum (*Tarsipes rostratus*), Ash - grey Mouse (*Psuedomys albocinereus*), Quenda (*Isodon obesulus*)

RAOU Birds:

Bird lists for selected areas.

Linkage

Bushland as mapped on GIS and 1996 aerial photography in the Perth Metropolitan Area, most recent available photography coverage elsewhere and some ground survey.

: no adjacent bushland, bushland linkage to north, south, east, west

Special Attributes:

Indicative Place (1) on Register of the National Estate Database; Interim List (2), Register of the National Estate

INTERNATIONAL AND NATIONAL SIGNIFICANCE

Not listed, Wetlands of International Significance, ANCA Directory of Important Wetlands in Australia, Register of the National Estate, RAMSAR Wetland

CONSERVATION RECOMMENDATIONS

Criteria met for inclusion: eg XX, XY Y

Constraints: Private land, MRS Urban zoning, Mineral Resource Area, Mineral Lease ETC

Recommendation:

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Lambert Rd

→ Lamb 1
4
Lamb 2

Veg Cond
Land Tenure
Litter depth
Soil colour
Depth 2 rock

RUSH03 32 03 0.824 - x 60
116 01 0.565 - x 60

Review of top locations
of Bromus sites

Have details for Lamb Rd →
tamb. Rd →

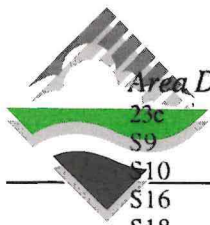
foeb 01-03 →

Questions to answer

- What are the floristic groupings?
- ~~What~~ How are the communities described?
 - ↳ By species
 - By soil
 - By topology

Handwritten notes in blue ink, possibly a list or index, including numbers and letters (e.g., 21 M, 22 S, 23 S, 24 S, 25 S, 26 S, 27 S, 28 M, 29 S, 30 S, 31 S, 32 S, 33 S, 34 S, 35 S, 36 S, 37 S, 38 S, 39 S, 40 S, 41 S, 42 S, 43 S, 44 S, 45 S, 46 S, 47 S, 48 S, 49 S, 50 S, 51 S, 52 S, 53 S, 54 S, 55 S, 56 S, 57 S, 58 S, 59 S, 60 S, 61 S, 62 S, 63 S, 64 S, 65 S, 66 S, 67 S, 68 S, 69 S, 70 S, 71 S, 72 S, 73 S, 74 S, 75 S, 76 S, 77 S, 78 S, 79 S, 80 S, 81 S, 82 S, 83 S, 84 S, 85 S, 86 S, 87 S, 88 S, 89 S, 90 S, 91 S, 92 S, 93 S, 94 S, 95 S, 96 S, 97 S, 98 S, 99 S, 100 S).

Taxonid	Spcode	Comments	Plot	Date
2066	GREPIL		xserp01	
2066	GREPIL		xelbr03	
1468	HAELAX		xEllib01	
1468	HAELAX		xEllib02	
1468	HAELAX		xEllib04	
1470	HAEPAN		xelbr01	
1470	HAEPAN		xelbr03	
1472	HAESIM		xRedh10	
1473	HAESIM		xEllib03	
1473	HAESIM		xRedh09	
2137	HAKCER		xserp02	
2143	HAKCON		xEllib02	
2149	HAKCRI		xRedh05	
2149	HAKCRI		xRedh03	
2149	HAKCRI		xRedh06	
2152	HAKCYC		xserp03	
2152	HAKCYC		xserp04	
2158	HAKERI		xEllib04	
2158	HAKERI		xRedh01	
2158	HAKERI		xRedh09	
2158	HAKERI		xEllib03	
2158	HAKERI		xRedh10	
2158	HAKERI		xRedh04	
2166	HAKINC		xRedh07	
2166	HAKINC		xelbr03	
2166	HAKINC		xserp01	
2166	HAKINC		xEllib04	
2166	HAKINC		xEllib03	
2175	HAKLIS		xserp03	
2175	HAKLIS		xEllib06	
2175	HAKLIS		xserp01	
2175	HAKLIS		xelbr01	
2175	HAKLIS		xserp04	
2175	HAKLIS		xRedh10	
2206	HAKSTE		xEllib01	
2214	HAKTRI		xRedh05	
2215	HAKUND		xRedh01	
2215	HAKUND		xRedh10	
2215	HAKUND		xEllib04	
2215	HAKUND		xserp03	
2215	HAKUND		xEllib02	
2215	HAKUND		xserp01	
2215	HAKUND		xRedh07	
2215	HAKUND		xelbr01	
6686	HALCOR		xEllib03	
8017	HELCOR		xRedh01	
6871	HEMSER		xEllib04	
6871	HEMSER		xRedh01	
6871	HEMSER		xelbr01	
5112	HIBAUR		xRedh10	
5112	HIBAUR		xRedh01	
5112	HIBAUR		xserp03	
5112	HIBAUR		xRedh04	
5112	HIBAUR		xRedh06	
5112	HIBAUR		xRedh07	



Area Description Proforma

- 23c North-eastern *Banksia attenuata* - *B. menziesii* woodlands
 S9 *Banksia attenuata* woodlands over dense low shrublands
 S10 *Calothamnus sanguineus* dense low shrublands on sandy laterites

Department of Environmental Protection

- S16 Mixed dense shrublands on yellow brown sands
 S18 *E. marginata*/*E. calophylla* Woodlands on laterites

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

- 24 Northern Spearwood shrublands and woodlands
 25 Southern *E. gomphocephala* - *Agonis flexuosa* woodlands
 26a *M. huegelii* - *M. acerosa* shrublands of limestone ridges
 26b Woodlands and mallees on limestone
 27 Species poor mallees and shrublands on limestone
 28 Spearwood *B. attenuata* or *B. attenuata* - *Eucalyptus* woodlands
 29a Coastal shrublands on shallow sands
 29b *Acacia* shrublands on taller dunes
 30a1 *Callitris preissii* forests
 30a2 Woodlands and shrublands on Holocene dunes (re-allocated from 30c)
 30b Quindalup *Eucalyptus gomphocephala* and/or *Agonis flexuosa* woodlands
 S11 Northern *Acacia rostellifera* - *Melaleuca acerosa* shrublands
 S12 Rottnest Island *Callitris preissii* and/or *M. lanceolata* forests and woodlands
 S13 Northern *Olearia axillaris* - *Scaevola crassifolia* shrublands
 S14 *Spinifex longifolius* - *Tetragonia decumbens* low shrublands

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- S15 Weed group, poorly allied

REGIONAL WETLAND

After Semeniuk (1987) and ???Waters and Rivers Commission (1996).

No wetlands mapped

Wetland Types: lake, sumpland, dampland, artificial lake, floodplain, palusplain, paluslope, river, creek, artificial channel, estuary (waterbody), estuary (peripheral)

Consanguineous suite (undefined areas included in boundary)

Darling Plateau

Dandaragan Plateau - Darling Plateau interface

Wannamal (Dp/D)

Dandaragan Plateau

Red Gulley (Dp.1)

Coorang (Dp.2)

Clewley (Dp.3)

Mogumber (Dp.4)

Pinjarra Plain

Keysbrook (P.1)

Rassendean - Pinjarra transition OR Bassendean with fluvial features

Beermullah (B/P.1)

Mungala (B/P.2)

Muchea (B/P.3)

Bennet Brook (B/P.4)

Bassendean Dunes

Pinjar (B.1)

Gnangara (B.2)

Jandakot (B.3)

Riverdale (B.4)

Spearwood - Bassendean interface

Bibra (S/B.1)

Spearwood Dunes

Yanchep (S.1)

Balcatta (S.2)

Coogee (S.3)

Stakehill (S.4)

Quindalup

Cooloongup (Qu.1)

Becher (Qu.2)

Peelhurst (Qu.3)

Coastal Plain Rivers

Moore River (R.1)

Swan River (R.2)

Ellen Brook (R.3)

Goergrub (R.4)

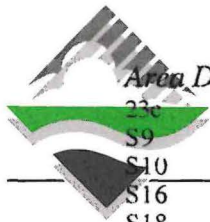
Estuaries

Moore River (E.1)

Swan River (E.2)



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REGIONAL WETLAND

After Semeniyuk (1987) and ???Waters and Rivers Commission (1996).

No wetlands mapped

Wetland Types: lake, sumpland, damp land, artificial lake, floodplain, palusplain, paluslope, river, creek, artificial channel, estuary (waterbody), estuary (peripheral)

Consanguineous suite (undefined areas included in boundary)

Darling Plateau

Dandaragan Plateau - Darling Plateau interface

Wannamal (Dp/D)

Dandaragan Plateau

Red Gulley (Dp.1)

Coorang (Dp.2)

Clewley (Dp.3)

Mogumber (Dp.4)

Pinjarra Plain

Keysbrook (P.1)

Bassendean - Pinjarra transition OR Bassendean with fluvial features

Beermullah (B/P.1)

Mungala (B/P.2)

Muchea (B/P.3)

Bennet Brook (B/P.4)

Bassendean Dunes

Pinjar (B.1)

Gnangara (B.2)

Jandakot (B.3)

Riverdale (B.4)

Spearwood - Bassendean interface

Bibra (S/B.1)

Spearwood Dunes

Yanchep (S.1)

Balcatta (S.2)

Coogee (S.3)

Stakehill (S.4)

Quindalup

Cooloongup (Qu.1)

Becher (Qu.2)

Peelhurst (Qu.3)

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Moore River (R.1)

Swan River (R.2)

Ellen Brook (R.3)

Goergrub (R.4)

Estuaries

Moore River (E.1)

Swan River (E.2)



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Area Description Proforma

Spearwood Dunes

Karrakatta Complex - North

Karrakatta Complex - North Transition

Karrakatta Complex - Central and South

Cottesloe Complex - North

Cottesloe Complex - Central and South

Quindalup Dunes

Quindalup Complex

Wetlands

Herdman Complex

Pinjar Complex

Marine (lagoonal and estuarine) Deposits

Yoongarillup Complex

Vasse Complex

Floristic Community Types

Gibson et al. (1994), except for supplementary groups SL - S20 and 19b, 20d and 23c identified in the Update. Also group 30 was better defined and group 30a was split into 30a1 and 30a2, members of 30c falling elsewhere. That is there are 23 new groups, a total of 66 floristic community types being identified regionally on the Swan Coastal Plain.

: not sampled types inferred, not sampled insufficient remnant vegetation, not sampled unable to infer types.

Supergroup 1 - Foothills/Pinjarra Plain

1a *E. haematoxylon* - *E. marginata* woodlands on Whicher foothills

1b Southern *E. calophylla* woodlands on heavy soils

2 Southern wet shrublands

3a *E. calophylla* - *Kingia australis* woodlands on heavy soils

3b *E. calophylla* - *E. marginata* woodlands on sandy clay soils

3c *E. calophylla* - *Xanthorrhoea preissii* woodlands and shrublands

S8 *E. wandoo* Woodlands (Scarp) → supplementary group

Supergroup 2: Seasonal Wetlands

4 *Melaleuca preissiana* damplands → also a plateau.

5 Mixed shrub damplands

6 Weed dominated wetlands on heavy soils

7 Herb rich saline shrublands in clay pans

8 Herb rich shrublands in clay pans

9 Dense shrublands on clay flats

10a Shrublands on dry clay flats

10b Shrublands on southern ironstones

11 Wet forests and woodlands

12 *M. teretifolia* and / or *Astartea* aff. *fascicularis* shrublands

13 Deeper wetlands on heavy soils

14 Deeper wetlands on sandy soils

15 Forests and woodlands of deep seasonal wetlands

16 Highly saline seasonal wetlands

17 *M. raphiophylla* - *Gahnia trifida* seasonal wetlands

18 Shrublands on calcareous silts

19a Sedgeland in Holocene dune swales

19b Woodlands over sedgeland in Holocene dune swales

S1 *Astartea* aff. *fascicularis*/ *Melaleuca* species dense shrublands

S2 northern *Pericalymma ellipticum* dense low shrublands

S3 Wet sedgeland on sandy clays

S4 *Regelia ciliata* Dandaragan Plateau wetlands

S5 *Acacia saligna* wetlands

S6 Northern dense low shrublands

S7 Northern woodlands to forests over tall sedgeland alongside permanent wetlands

S17 *Eucalyptus rudis*/ *Agonis linearifolia* wetlands in Bassendean Dunes

S19 Dense tall shrublands

S20 Northern shrublands on sandy clays

Supergroup 3: Uplands, centred on Bassendean Dunes and the Dandaragan Plateau

20a *Banksia attenuata* woodlands over species rich dense shrublands - *Coudulatum*

20b Eastern *Banksia attenuata* and / or *E. marginata* woodlands

20c Eastern shrublands and woodlands

20d Dandaragan Plateau shrublands and woodlands

21a Central *Banksia attenuata* - *E. marginata* woodlands

21b Southern *Banksia attenuata* woodlands

21c Low lying *Banksia attenuata* woodlands or shrublands

22 *Banksia ilicifolia* woodlands

23a Central *Banksia attenuata* - *B. menziesii* woodlands

23b Northern *Banksia attenuata* - *B. menziesii* woodlands

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Acacia - micostachya
Acacia - robusta

Area Description Proforma

Darling Scarp - gravels and laterite (Czl: eg G2, LA1)

Whichee Scarp

Foothills (Foothills of the various plateaus on the eastern margins of the Swan Coastal Plain: Dandaragan Plateau.

Darling Plateau, called the Ridge Hill Shelf and Blackwood Plateau)

Colluvial deposits (Qc : eg Msg, Csg, Ms3, Smg, S5)

Colluvial sand (Qs: eg S6)

Yoganup Formation (Qpr: eg S12)

Pinjarra Plain

Guildford formation (Qpa: eg FS, Ms2, Mgs1, Cs, Sc) (Qha: eg Cp, S14, Msc1)

Alluvial/colluvial deposit (Qha/Qc: eg G1)

Alluvial/colluvial deposit (Pinjarra Plain / Ridge Hill) (Qha/Qc: eg FS3)

Mucheia Limestone (Qpm: eg LS5)

Bassendean Dunes

Bassendean sands (Qpb: eg S8)

Bassendean Dunes/Pinjarra Plain

Bassendean sands over Guildford Formation (Qpb/Qpa: eg S10)

Spearwood Dunes

Sands derived from Tamala limestone (Qts: eg S7)

Tamala limestone (Qtl: eg LS1, LS2)

Quindalup Dunes (Holocene dunes)

Safety bay sands (Qhs: eg S1, S2, S13, LS4)

Wetlands (within the Quindalup Spearwood Bassendean Dunes Pinjarra Plain)

Holocene swamp deposits (Qhw: eg Cps, Scp, Spc, Spm, Ms5)(Qrw: eg Sp1, Sp2)

Lagoonal and estuarine Deposits (within the Quindalup Spearwood Bassendean Dunes Pinjarra Plain)

Lagoonal and estuarine deposits (Vasse) (Qhg: eg M5, Sm2)

Lagoonal deposits in Bassendean dunes (Qpw: eg S9)

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REGIONAL VEGETATION AND FLORA

Vegetation Complex

As described and mapped by Heddlie et al (1980). 1:250 000

Plateaus

Mogumber Complex - North (Dandaragan Plateau)

Mogumber Complex - South (Dandaragan Plateau)

Karamal Complex - North (Dandaragan Plateau)

Karamal Complex - South (Dandaragan Plateau)

Culiula Complex (Dandaragan Plateau)

Wannamal Complex (Dandaragan Plateau)

Kingia Complex (Blackwood Plateau)

Jarrahwod Complex (Blackwood Plateau)

Scarps

Reagan Complex (Dandaragan Plateau)

Gingin Complex (Dandaragan Plateau)

Foothills

Coonambidge Complex (Dandaragan Plateau)

Forrestfield Complex (Ridge Hill Shelf, Darling Plateau)

Cartis Complex (Blackwood Plateau)

Pinjarra Plain

Abba Complex

Guildford Complex

Swan Complex

Dardanup Complex

Serpentine River Complex

Beernullah Complex

Bootine Complex

Yanga Complex

Mungala Complex

Moore Complex

Bassendean Dunes

Bassendean Complex - North

Bassendean Complex - Central and South

Bassendean Complex - North Transition

Bassendean Complex - Central and South Transition

Combinations of Bassendean Dunes/Pinjarra Plain/Spearwood Dunes

Southern River Complex

Caladenia Complex

Cannington Complex





Area Description Proforma

GUIDE TO AREA DESCRIPTION

A general proforma was developed covering all possible categories. This proforma with a brief explanation as considered necessary. Further detail on the information categories is contained in Part 2.

All explanatory text is shown in **bold italics**.

Head Office:
8th Floor, Westralia Square
141 St Georges Terrace
Perth, Western Australia 6000
Tel (09) 222 7000 Fax (09) 322 1598

Regional Offices:
Bunbury • Geraldton • Kalgoorlie
Karratha • Kwinana

Suggested name of area (1996)

System 6 (1984)

Some Other Commonly used Names:

Area (ha):

Total, % bushland (GIS aerial photo) OR no bushland mapped, %lake surface

Local Authorities (Suburb)

Zoning (MRS & town planning)

Ownership categories: Street name, Lot number

Reserve Status

LANDFORM AND SOIL

General landscape features.

Landscape features: river - limestone cliff, ocean - limestone cliff, limestone ridge, Muchea limestone, ironstone, tall dune, permanent freshwater lake, permanent salt lake, vegetated wetland, creek, river, estuary, island, vegetated uplands

Geomorphology and soils

Broad units are those identified in McArthur and Bettenay (1960.) The broad geology units identified by Playford et al. (1976) and Environmental Geology and Urban Geology (various authors, depending on the mapping available) follow.

Key to Symbols

Geology Units

Czi	Laterite
Oc	Colluvium
Qs	Colluvial Sand
Qna	Alluvium - Holocene
Qpa	Alluvium - Pleistocene
Qb	Bassendean Sands
Qpw	Lagconal deposits in Bassendean Sands
Qtl	Tamala Limestone
Qts	Sand derived from Tamala Limestone
Qhs	Safety Bay Sands
Qhg	Lagconal and estuarine deposits

Soil Units

The main "soil fraction" is given first in capitals, followed by fractions in decreasing importance in lower case

C	clay
M	silt
G	gravel
P	organic material
S	sand

Rocks

Double capitals	
LS	limestone
LA	laterite
GR	granite
GN	gneiss
CO	dolerite

Numbers indicate mappable units of similar character.

Plateau (The Dandaragan Plateau is considered to be part of the Plain by most studies and is included in the Plain)
Dandaragan Plateau)

Darling Plateau (Darling Range)

Blackwood Plateau (Whicher Range)

Scarp

Dandaragan Scarp

Gingin Scarp



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