# FLORA AND VEGETATION STUDIES 

## GNANGARA MOUND

## STAGES 1, 2 AND 3

## PART C-APPENDICES AND CD - missing

Prepared for:<br>Water and Rivers Commission \& Water Corporation<br>Prepared by:<br>Mattiske Consulting Pty Ltd

December 2003


Mattiske Consulting Pty Litd

Taxa axa
Acacia applanata
Acacia barbinervis subsp. borealis Acacia benthamii (P2) Acacia cochlearis Acacia cyclops
Acacia huegelii
Acacia huegell Asiocarpa var. lasiocarpa
Acacia pulchella
Acacia pulchella var. glaberrima
Acacia pulchella var.glalchella Acacia pulchella va: Acacia rostellife
Acacia saligna
Acacia saligna
Acacia sp.
Acacia stenoptera
Acacia truncata
Acacia willdenow
Acacia willdenow
Acacia xanthina
Acanthocarpus preissii
Acanthocarpos sp.
*Acetosella vulgaris
Actinotus glomeratus
Actinotus leucocephalu
Adenanthos barbiger
Adenanthos cygnorum subsp. cygnorum
Adenanthos obovati
Adenanthos sp.
Adriana quadripartita
Agonis flexuosa
*Aira caryophyllea
*Aira cupaniana
*Aira praecox
${ }^{\text {* Aira pra }}$ Aira sp.
Alexgeorgea nitens
Allocasuarina fraseriana
Allocasuarina huegelian
Allocasuarina humilis
Alyogyne huegelii
Amperea ericoides
Amphibromus nervos
Amphipogon amphipogonoide
Amphipogon laguroides
Amphipogon ?strictus
Amphipogon sp.
Amphipogon turbinatus
Amyema miquelii
*Anagallis arven


## Taxa <br> *Anagallis arvensis var. arvensis

Anarthria gracilis
Andersonia heterophylla
Andersonia involucrata
Andersonia lehmanniana subsp. lehmanniana
Andersonia sp.
Anigozanthos humilis subsp. humilis
Anigozanthos manglesii subsp. manglesii
Anigozanthos sp.
Anigozanthos viridis subsp. viridis
Anthotium junciforme (P4)
Aotus cordifolia (P3)
Aotus gracillima
Aotus intermedia
Aotus procumbens
Aphelia cyperoides
Aphelia nutans
*Arctotheca calendula
Arnocrinum preissii
*Asparagus asparagoides
Astartea scoparia
Astartea sp.
Asteraceae sp.
Asteridea pulverulenta
Astroloma microcalyx
Astroloma pallidum
stroloma xerophyllu
*Atriplex prostrata
ustrodanthonia caespitosa Austrodanthonthonia sp Austrostipa campylachne Austrostipa compressa Austrostipa flavescens
Austrostipa macalpine Austrostipa nitida Austrostipa semibarbata group scps
Austrostipa sp.
ustrostipa tenuifolia
*Avellinia michelii
*Avena barbata
*Avena fatua
Azolla filiculoides
Baeckea camphorosma
Baeckea robusta
Baeckea sp.




*Cymbalaria muralis
*Cynodon dactylon
Cyperaceae sp.
*Cyperus eragrostis
*Cyperus tenellus Cyrtostylis robusta Cyrtostylis sp.
Dampiera alata
Dampiera alata
Dampiera linearis
Dampiera sp.
Darwinia foetida (ms) (R)
Dasypogon bromeliifolius
Dasypogon sp.
Daucus glochidiatus
Daviesia decurrens subsp. decurrens (ms)
Daviesia divaricata subsp. divaricata Daviesia nudiflora subsp. nudiflora Daviesia physodes
Daviesia podophylla Daviesia triflora
Desmocladus asper
Desmocladus fasciculatus
Desmocladus flexuosus
Deyeuxia quadriseta
Dianella revoluta
Dianella revoluta var. divaricata
Dichelachne crinita
Dichopogon capillipes
Dielsia stenostachya











## Taxa

Pranha microphylla
Prasophyllum ovale
Prasophyllum regiu
Prasophyllum sp.
Pronaya fraseri
*Pseudognaphalium luteoalbum
Pteridium esculentum
Pterostylis aspersa
Pterostylis brevisepala (ms)
Pterostylis aff. nana SCP GJK/NG 1867cbs
Pterostylis pyramidalis
Pterostylis recurva
Pterostylis sp.
Pterostylis sp. limestone (B.J Keighery \& G.J Keighery 65) (pn)
Pterostylis sp. short sepals (W. JacksonBJ 259) (pn)
Pterostylis sp. Slender Snail Orchid (G.J Keighery 14516) (pn)
Ptilotus drummondii
Ptilotus drummondii var drummondii
Ptilotus humilis subsp. humilis
Ptilotus manglesii
Ptilotus polystachous var polystachus
Ptilotus stirlingii var. stirlingii
Ptilotus sp.
? Puccinellia sp.
Pultenaea reticulata
Ouinetia urvillei
Quinetia urvillei
Regelia ciliata
Regelia inops
Restio sp.
Rhagodia baccata
Rhagodia baccata subsp. baccata
Rhagooia baccata subsp. baccata
Rhodanthe citrina
Rhodanthe corymbosa
Rhodanthe manglesii

Kodane sp.
Rhodanthe spicata
Romulea rosea
*Rostraria cristata
*Rumex crispus
*Sagina apetala
natum
Sarcozona bicarinata (P3)
Scaevola canescens
Scaevola crassifolia
Scaevola crassifolia /nitida








APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND







## Taxa

Eremaea asterocarpa subsp. asterocarpa
Eremaea beaufortioides
Eremaea beaufortioides var . beaufortioide
Eremaea brevifolia
Eremaea pauciflora
Eremaea pauciflora var. pauciflora
Eremaea purpurea
Eremaea sp.
Eremophila glabra
Eremophila glabra subsp. albicans
Eriochilus dilatatus
Eriochilus dilatatus subsp. dilatatus (ms)
*Erodium botrys
*Erodium cicutarium
Eryngium pinnatifidum subsp. palustre (ms)
Eucalyptus decipiens subsp. decipiens
Eucalyptus foecunda
Eucalyptus gomphocephala
Eucalyptus marginata
Eucalyptus marginata subsp. marginata
Eucalyptus petrensis
Eucalyptus rudis subsp. rudis
Eucalyptus sp.
Eucalyptus toditiana
Euchilopsis linearis
Euchiton sphaericus
*Euphorbia peplus
*Euphorbia terrac
Eutaxia virgata Exocarpos aphyllus Exocarpos sparteus Ficinia nodosa Gahnia decomposita Gahnia trifida
? Gahnia sp.
*Galium murale
Geranium retrorsum
Geranium solanderi
*Gladiolus caryophyllaceus
Gladiolus sp.
Glossostigma diandrum
Glossostigma drummondi
Gnephosis drummondi
Gnephosis tenuissima
Gompholobium aristatum
Gompholobium capitatum
Gompholobium confertum
Gompholobium knig

Nand

## Quadrats







Leptomeria pauciflora
Leptomeria preissiana
Leptorhynchos scaber
Leptospermum sp
Lepyrodia muirii
Leucopogon australi
Leucopogon australis
Leucopogon conostephioides
Leucopogon glabellus
Leucopogon leptanthus
Leucopogon aff. nutans scps
Leucopogon nutans
Leucopogon oldfieldii
Leucopogon oxycedrus
Leucopogon parviflorus
Leucopogon polymorphus
Leucopogon propinquus
Leucopogon sp.
Leucopogon sp. (indeterminant) M137-1
Leucopogon sp. Moore River (M. Hislop 1695) (pn)
Leucopogon sprengelioides
Leucopogon squarros
Levenhookia pusil
Levenhookia sp.
Levenhookia stipitata
Lobelia alata
Lobelia heterophylla
Lobelia sp.
Lobelia tenuior
*Lobularia mariti
Logania vaginalis
*Lolium multiflorum perenn
${ }^{*}$ Lolium multiflor rigidum
Lomandra ?brittanii
Lomandra caespitosa
Lomandra maritima
Lomandra micrantha subsp. micrantha
Lomandra nigricans
Lomandra preissii
Lomandra sericea
Lomandra sp.
Lomandra suaveolens
Lons subiflor
Lotus subbiflorus
${ }^{*}$ Lupinus cosentinii
Luzula meridionalis




Petrophile seminuda
Petrophile serruriae
Petrophile sp.
*Petrorhagia dubia
*Phalaris minor
Philotheca spicata
Philydrella pygmaea subsp. pygmaea
Phlebocarya ciliata
Phyllangium paradoxu
Phyllanthus calycinus
Phylloglossum drummondii
Pileanthus "septentrionalis" caperg
Pilularia novae-hollandiae
Pimelea argentea
Pimelea calcicola
Pimelea floribunda
Pimelea imbricata var. piligera
Pimelea leucantha
Pimelea rosea
Pimelea sp.
Pimelea suaveolens
Pimelea sulphure
*Pinus radiata
Pithocarpa corymbulosa (P2)
Pithocarpa pulchella
Pithocarpa putc
Pithocarpa sp.
Pittosporum phylliraeoides
Pityrodia bartlingii
Plantago debilis
Platytheca galioides
*Poa annиa
Poa drummondiana
Poa poiformis
Poa porphyroclados
*Poa pratensis
Poaceae sp.
Podolepis gracilis
Podolepis gracilis (Swamp form) (G.J Keighery 13126)
Podolepis lessonii
Podotheca angustifolia
Podotheca angustifolia/gnaphalioides
Podotheca chrysantha
Podotheca gnaphalioides
Podotheca sp.
Pogonolepis stricta
*Polypogon monspeliensis
Polypogon tenellus
Poranthera ericoides




APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND





APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND







APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND




APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND



APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND




APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND



APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND



APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND
Taxa

APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND





APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND
Taxa

APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MIOUND


APPENDIX D：SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND

| Taxa | Quadrats |  |  |  |  |  | NOO <br> あお的 |  |  | N： |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 边边 |  |  | 式込 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ＊Phalaris minor |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Phyllanthus calycinus <br> Phylloglossum drummondii |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pileanthus＂septentrionalis＂caperg |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pilularia novae－hollandiae |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pimelea imbricata var．piligera |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pimelea leucantha |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pimelea sp． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pittosporum phylliraeoides |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pityrodia bartlingii |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Platytheca galioides$*$ Poa annua |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Poa drummondiana <br> Poa poiformis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Poa porphyroclados |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ＊Poa pratensis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Podolepis gracilis <br> Podolepis gracilis（Swamp form）（GJ Keighery 13126） |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Podolepis gracilis（Swamp form）（GJ Keighery 13126） <br> Podolepis lessonii |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Podotheca angusifolia |  |  |  |  |  |  |  |  | ＋ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ＋ |  |  | ＋ |  | ＋ |  |  |  |  |  |  |  |  |  |  |  |  | ＋ |  |  |
| Podotheca angustifolia／gnaphalioides |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Podotheca chrysantha |  |  |  |  |  |  |  | ＋ |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ＋ |  |  |  |  |  |  |  |  |
| Podotheca gnaphalioides |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ＋ |  |  | ＋ |  |  |  |  |  |  |  |  |
| Pogonolepis stricta |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ＊Polypogon monspeliensis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Polypogon tenellus |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ＋ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND


APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND



APPENDIX D: SPECIES DISTRIBUTION BY QUADRAT FOR THE MAPPING OF GNANGARA MOUND



Mattiske Consulting Pty Ltd
FIELD SHEET - VEGETATION SURVEY
FOR GNANGARA MOUND

| Project: <br> WRC 0101 | Site No: | Initials: |
| :---: | :---: | :---: |
| Film No: | Photo No: (From NW corner) | Date: / / |
| GPS (AMG) <br> easting: <br> northing: |  | Location <br> Notes: $\qquad$ <br> Age Since Last <br> Fire: $\qquad$ |
| Topography: $\qquad$ <br> Br: R:US:MS : LS : DL : MIC : MAC |  | Litter Cover (\%): $\qquad$ <br> Litter Type: Logs : Twigs : Leaves |
| Soils: (Ratio Soil colour: | : Silt : Loam : Sand | Bare Ground (\%):........................... |


| Coll No. | Taxon name | Present <br> (all) | $\begin{gathered} \text { Ht (cm) } \\ \text { (all) } \end{gathered}$ | \%Alive <br> (Dominant) | \%Dead <br> (Dominant) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

