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VEGETATION MAPPING
OF SOUTH WEST FOREST REGION
OF
WESTERN AUSTRALIA

PART 4 – APPENDIX D (151 - 301)

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& Environment Australia**

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Appendix D

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APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		S of Cape Naturaliste
Geomorphologic catena – VC (EVS)	GE – Gracetown (Py7)	Cd – Cowaramup (Ac7)	C2 – Cowaramup (Jp6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Crest of a stabilized but exposed dune on the edge of Gracetown Ridge	Sandy slopes and rises which are part of the undulating upland of the Margaret River Plateau	Undulating surface of the Margaret River Plateau
Soil structure, texture and fertility	Deep brownish yellow sand overlying limestone at depth of >1m, with brown organic stained topsoil	Gravelly yellow brown sand overlying yellow brown sandy clay	Gravelly yellow brown sand over sandy clay or pale grey brown sandy loam over sandy clay
Soil hydrology	Water shedding with good infiltration but only moderate storage capacity due to coarse texture	Mildly water shedding with perched groundwater table in winter, good infiltration and moderate storage capacity	Rises water shedding, depressions water gaining, perched water table in winter moderate infiltration and storage capacity
Over storey (canopy or emergents)	Tall Shrubland of <i>Agonis flexuosa</i> (Af), <i>Acacia rostellifera</i> (Ar) and <i>Acacia saligna</i> (As) with stunted <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Low Closed Forest of <i>Agonis flexuosa</i> (Af), <i>Eucalyptus cornuta</i> (Eco), <i>Banksia attenuata</i> (Ba) and <i>Corymbia calophylla</i> (Cc)	Low Closed Forest of <i>Agonis flexuosa</i> (Af), <i>Corymbia calophylla</i> (Cc) and <i>Banksia grandis</i> (Bg)
Second storey	No second storey	No second storey	No second storey
Shrub and herb storey	Closed Heath of <i>Melaleuca scabra</i> , <i>Phyllanthus calycinus</i> , <i>Hibbertia hypericoides</i> , <i>Clematis pubescens</i> , <i>Xanthorrhoea preissii</i> , <i>Loxocarya cinerea</i> , <i>Trachymene pilosa</i> , <i>Pimelea rosea</i>	<i>Hibbertia hypericoides</i> , <i>Loxocarya cinerea</i> , <i>Spyridium globulosum</i> , <i>Hibbertia cuneiformis</i> , <i>Lepidosperma squamatum</i> , <i>Burchardia umbellata</i> , <i>Acacia pulchella</i>	<i>Jacksonia furcellata</i> , <i>Xanthorrhoea preissii</i> , <i>Hibbertia hypericoides</i> , <i>Acacia pulchella</i> , <i>Loxocarya cinerea</i> , <i>Allocasuarina humilis</i> , <i>Pimelea rosea</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest between Yallingup & Dunsborough		
Geomorphologic catena – VC (EVS)	Cw2 – Cowaramup (Mm6)	Cd – Cowaramup (Ac7)	M – Metricup (Jp6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Swampy depression in the Margaret River Plateau	Sandy rises overlying basement granitic rocks of the Margaret River Plateau	Steep but even eastern slopes of the Margaret River Plateau
Soil structure, texture and fertility	Mixed alluvial soils (sands to clay), mostly loams over mottled clays	Bleached sand with topsoil stained with organic matter very infertile	Shallow gravelly yellow brown sandy loam over sheet laterite, moderately fertile
Soil hydrology	Water gaining, poor lateral and internal drainage	Mildly water shedding via subsoil, good infiltration moderate storage capacity	Strongly water shedding, with good infiltration but limited storage capacity
Over storey (canopy or emergents)	Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Melaleuca preissiana</i> (Mp), <i>Agonis flexuosa</i> (Af) and <i>Banksia littoralis</i> (Bl)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc), <i>Allocasuarina fraseriana</i> (Afr), <i>Banksia attenuata</i> (Ba), <i>Banksia ilicifolia</i> (Bi) and <i>Xylomelum occidentale</i> (Xi)	Woodland to Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	No second storey	The non eucalypt species act partially as second storey to the eucalypts, which are marginally taller	Weakly developed second storey of <i>Persoonia longifolia</i> (Pl) <i>Banksia grandis</i> (Bg) and <i>Agonis flexuosa</i> (Af)
Shrub and herb storey	<i>Pericalymma ellipticum</i> <i>Hypocalymma angustifolium</i> <i>Astartea fascicularis</i> <i>Juncus pallidus</i>	<i>Adenanthos meisneri</i> <i>Hakea ruscifolia</i> <i>Bossiaea eriocarpa</i> <i>Dasyopogon bromeliifolius</i> <i>Hibbertia hypericoides</i> <i>Leucopogon cordatus</i> <i>Melaleuca thymoides</i> <i>Hypolaena exsulca</i>	<i>Hakea lissocarpa</i> <i>Hakea trifurcata</i> <i>Hibbertia hypericoides</i> <i>Xanthorrhoea preissii</i> <i>Bossiaea ornata</i> <i>Hakea amplexicaulis</i> <i>Hypocalymma robustum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		E of Warner Glen Rd, S of Blackwood River	
Geomorphologic catena – VC (EVS)	Nw – Nillup (Bk7)		Nd – Nillup (Ac7)	Nw – Nillup (Bk7)
Landform and Vegetation profile				
100m				
80m				
60m				
40m				
20m				
Land form description	Shallow and narrow open drainage depression with the Blackwood Plateau	Sandy rise on the lateritized surface of the Blackwood Plateau	Shallow broad swampy depression within the Blackwood Plateau	
Soil structure, texture and fertility	Pale grey brown sandy loam over light grey sandy clay, moderately fertile	Yellowish brown deep sand with organic enriched topsoil	Pale grey brown sandy loam over mottled grey sandy clay	
Soil hydrology	Slopes mildly water shedding, floor water gaining, seasonally waterlogged	Weakly water shedding via subsoil, good infiltration but poor storage capacity due to coarse texture	Water gaining, seasonally waterlogged with perched water table	
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Eucalyptus patens</i> (Ep), <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus megacarpa</i> (Emg)	Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Allocasuarina fraseriana</i> (Afr)	Open Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus patens</i> (Ep) and <i>Eucalyptus marginata</i> (Em)	
Second storey	<i>Banksia grandis</i> (Bg) on slopes only, <i>Trymalium floribundum</i> (Tf) reaching status of a small tree on valley floor	No second storey	No second storey	
Shrub and herb storey	<i>Pteridium esculentum</i> , <i>Xanthorrhoea preissii</i> , <i>Acacia divergens</i> , <i>Astartea fascicularis</i> , <i>Agonis linearifolia</i> , <i>Lasiopetalum floribundum</i> , <i>Gahnia trifida</i> , <i>Trymalium floribundum</i> , <i>Lepidosperma tetraquetrum</i>	<i>Agonis parviceps</i> , <i>Mesomelaena tetragona</i> , <i>Acacia extensa</i> , <i>Hibbertia hypericoides</i> , <i>Adenanthos barbiger</i> , <i>Leucopogon australis</i> subsp. <i>acutifolius</i> , <i>Hovea elliptica</i>	<i>Acacia divergens</i> , <i>Astartea fascicularis</i> , <i>Lepidosperma squamatum</i> , <i>Agonis parviceps</i> , <i>Haemodorum laxum</i> , <i>Agonis linearifolia</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest N of Augusta E of Karridale		
Geomorphologic catena – VC (EVS)	Bw – Blackwood (Sw7)	B – Blackwood (Mk8)	Bw – Blackwood (Sw7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Swampy open drainage depression on a minor tributary to lower Blackwood River	Raised river terrace adjacent to Blackwood River	Swampy depression within the terrace of the lower Blackwood River
Soil structure, texture and fertility	Silty sandy loam, strongly enriched with organic matter	Yellow sand to clayey sand grading into sandy clay loam	Silty sand over sandy clay
Soil hydrology	Water shedding, seasonally flooded and waterlogged for prolonged period	Water shedding, good infiltration, moderate storage capacity	Transition to water gaining, seasonally waterlogged
Over storey (canopy or emergents)	Low Woodland to Low Forest of <i>Melaleuca raphiophylla</i> (Mr) and <i>Melaleuca incana</i> subsp. <i>incana</i> (Mi)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Scattered emergents of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on dry and <i>Melaleuca raphiophylla</i> (Mr) on wetter sites, over Heath and Sedgeland
Second storey	No second storey	<i>Xylomelum occidentale</i> (Xo), <i>Agonis flexuosa</i> (Af)	Weak development of <i>Xylomelum occidentale</i> (Xo) on drier sites
Shrub and herb storey	<i>Juncus kraussii</i> subsp. <i>australiensis</i> <i>Boronia molloyae</i> <i>Astartea fascicularis</i> <i>Lobelia alata</i> var. <i>alata</i> <i>Taraxis grossa</i> <i>Callistachys lanceolata</i> <i>Haloragis brownii</i>	<i>Podocarpus drouynianus</i> <i>Macrozamia riedlei</i> <i>Hakea ruscifolia</i> <i>Xanthorrhoea preissii</i> <i>Bossiaea ornata</i> <i>Bossiaea linophylla</i> <i>Opercularia echinocephala</i> <i>Anarthria prolifera</i>	<i>Acacia pulchella</i> <i>Agonis parviceps</i> <i>Agonis linearifolia</i> <i>Astartea fascicularis</i> <i>Mesomelaena tetragona</i> <i>Anigozanthos flavidus</i> <i>Tetraria octandra</i> <i>Lepidosperma tenue</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Hyperhumid southwest		SW of Augusta
Geomorphologic catena -VC (EVS)	WE - Wilyabrup (Qm7)	WE - Wilyabrup (Qm7)	WEw - Wilyabrup (Qm7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Seaward slope of the Margaret River Plateau	Slope of a minor coastal valley (depression)	Floor of a minor coastal depression on edge of Margaret River Plateau
Soil structure, texture and fertility	Gravelly yellow brown sand over sandy clay loam	Gravelly yellow brown sandy loam over sandy clay	Dark brown peaty loam
Soil hydrology	Water shedding, with good infiltration and moderate storage capacity; limited by exposure and salt spray	Mildly watershedding, with moderate infiltration and storage capacity; high wind and salt spray exposure	Watergaining, water logged for greater part of the year
Over storey (canopy or emergents)	Low Woodland of <i>Corymbia calophylla</i> (Cc), with few <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Banksia littoralis</i> (Bl)	Low Open Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) over heath	No overstorey
Second storey	No second storey, other than tall <i>Xanthorrhoea preissii</i> (Xp) and stunted <i>Agonis flexuosa</i> (Af)	No second storey	No second storey
Shrub and herb storey	<i>Acacia alata</i> , <i>Pteridium esculentum</i> , <i>Tetrarrhena laevis</i> , <i>Opercularia hispidula</i> var. <i>pauciflora</i> , <i>Viminaria juncea</i> , <i>Spyridium globulosum</i> , <i>Dampiera linearis</i> , <i>Leucopogon parviflorus</i>	<i>Pteridium esculentum</i> , <i>Tremandra stelligera</i> , <i>Xanthorrhoea preissii</i> , <i>Bossiaea disticha</i> , <i>Tetrarrhena laevis</i> , <i>Lepidosperma squamatum</i> , <i>Leucopogon verticillatus</i> , <i>Patersonia occidentalis</i>	Sedgeland of <i>Lepidosperma leptostachyum</i> , <i>Gahnia trifida</i> , <i>Baumea articulata</i> , <i>Lepidosperma effusum</i> with <i>Phlebalium anceps</i> , <i>Centella asiatica</i> , <i>Tetraria capillaris</i> , <i>Xanthorrhoea preissii</i> , <i>Juncus kraussii</i> subsp. <i>australiensis</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Hyperhumid southwest at Margaret River		
Geomorphologic catena – VC (EVS)	W1 – Wilyabrup (Km9)	Wr – Wilyabrup (Ms6)	Ww1 – Wilyabrup (Km9)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Alluvial flats of a major valley within Margaret River Plateau	Moderately steep sideslope of a major valley within the Margaret River Plateau	Valley of a minor tributary within the dissected portion of the Margaret River Plateau
Soil structure, texture and fertility	Earthy red brown sandy loam over sandy clay or clay loam	Brownish sandy loam with dark organic surface over yellow brown sandy clay	Red brown loamy sand grading into sandy clay loam
Soil hydrology	Water gaining, but well drained close to stream bed	Strongly water shedding, with limited infiltration and water storage capacity	Slopes water shedding, with good infiltration capacity, valley floor water gaining, seasonally waterlogged
Over storey (canopy or emergents)	Tall Open Forest of <i>Eucalyptus diversicolor</i> (Ed) with minor admixture of <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Corymbia calophylla</i> (Cc) with minor admixture of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Tall Open Forest of <i>Eucalyptus diversicolor</i> (Ed) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Agonis flexuosa</i> (Af) <i>Callistachys lanceolata</i> (Cl) on stream banks	No second storey	<i>Agonis flexuosa</i> (Af), large <i>Trymalium floribundum</i> approaching small tree size <i>Callistachys lanceolata</i> on stream line only
Shrub and herb storey	<i>Lepidosperma effusum</i> <i>Lepidosperma tetraquetrum</i> <i>Trymalium floribundum</i> <i>Pteridium esculentum</i> <i>Dampiera hederacea</i> <i>Opercularia volubilis</i>	<i>Hovea elliptica</i> <i>Logania vaginalis</i> <i>Leucopogon verticillatus</i> <i>Kingia australis</i> <i>Xanthorrhoea preissii</i> <i>Hakea amplexicaulis</i> <i>Hibbertia hypericoides</i>	<i>Lepidosperma tetraquetrum</i> <i>Lepidosperma effusum</i> <i>Leucopogon verticillatus</i> <i>Pteridium esculentum</i> <i>Opercularia volubilis</i> <i>Leucopogon capitellatus</i> <i>Hardenbergia comptoniana</i> <i>Tremandra stelligera</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Hyperhumid southwest		Margaret River
Geomorphologic catena – VC (EVS)	W1 – Wilyabrup (Km9)	C1 – Cowaramup (Jp9)	Cw1 – Cowaramup (Km9)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Deeply incised valley within a lateritized plateau over granitic basement	Gently undulating surface of a lateritized plateau over granitic basement rock	Mildly sloping depression within a lateritized plateau over granitic basement rock
Soil structure, texture and fertility	Red brown sandy loam over sandy clay, or gravelly yellow brown sand over yellow brown clay loam	Gravelly yellow brown sand or sandy loam over yellow brown sandy clay	Pale brown sand or sandy loam topsoil over mottled light grey sandy clay
Soil hydrology	Slopes water shedding but with good infiltration and storage capacity; floors water gaining but not waterlogged	Mildly water shedding with good infiltration and storage capacity except in minor depressions where seasonally waterlogged	Water gaining, seasonally waterlogged, with poor lateral and internal drainage
Over storey (canopy or emergents)	Tall Open Forest of <i>Eucalyptus diversicolor</i> (Ed) and <i>Corymbia calophylla</i> (Cc)	Open to Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on slopes, Woodland of <i>Melaleuca preissiana</i> (Mp) and <i>Banksia littoralis</i> (Bl) in depression
Second storey	<i>Callistachys lanceolata</i> (Cl) on river banks, <i>Agonis flexuosa</i> (Af), <i>Allocasuarina decussata</i> (Ad) on lower slopes, <i>Banksia grandis</i> (Bg) on upper slopes	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	Some <i>Agonis flexuosa</i> (Af) under <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Shrub and herb storey	<i>Lepidosperma tetraquetrum</i> <i>Lepidosperma effusum</i> on valley floor, <i>Chorilaena quercifolia</i> , <i>Trymalium floribundum</i> , <i>Bossiaea linophylla</i> , <i>Acacia urophylla</i> <i>Tremandra stelligera</i> on slopes	<i>Leucopogon verticillatus</i> <i>Lepidosperma capitellatus</i> <i>Pteridium esculentum</i> , <i>Bossiaea linophylla</i> , <i>Bossiaea ornata</i> , <i>Hovea elliptica</i> <i>Lasiopetalum floribundum</i>	<i>Pericalymma ellipticum</i> <i>Astartea fascicularis</i> <i>Agonis linearifolia</i> <i>Mesomelaena tetragona</i> <i>Lepidosperma effusum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Hyperhumid southwest		Between Karridale and Witchcliffe	
Geomorphologic catena – VC (EVS)	H – Glenarty Hills (Jp9)		Hw – Glenarty Hills (Km9)	Hw – Glenarty Hills (Km9)
Landform and Vegetation profile				
100m				
80m				
60m				
40m				
20m				
Land form description	Upper slope and crest of a rise within the Margaret River Plateau	Mid and lower slope within dissection of the Margaret River Plateau	Slopes and floor of a valley incised into the Margaret River Plateau	
Soil structure, texture and fertility	Gravelly yellow brown sand over sandy clay loam	Gravelly yellow-brown sandy loam over yellow brown sandy clay	Gravelly yellow brown sand over yellow brown sandy clay	
Soil hydrology	Mildly water shedding with good infiltration and storage capacity	Water shedding but with good infiltration and storage capacity	Slopes mildly water shedding; floor watergaining	
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Tall Open Forest of <i>Eucalyptus diversicolor</i> (Ed) with minor admixture of <i>Corymbia calophylla</i> (Cc)	Tall Open Forest of <i>Eucalyptus diversicolor</i> (Ed) with minor admixture of <i>Eucalyptus patens</i> (Ep)	
Second storey	<i>Persoonia longifolia</i> (Pl) <i>Agonis flexuosa</i> (Af)	<i>Agonis flexuosa</i> (Af), large <i>Trymalium floribundum</i> (Tf) approaching small tree size	<i>Agonis flexuosa</i> (Af) <i>Trymalium floribundum</i> (Tf) <i>Callistachys lanceolata</i> (Cl)	
Shrub and herb storey	<i>Macrozamia riedlei</i> <i>Leucopogon capitellatus</i> <i>Tremandra stelligera</i> <i>Hibbertia hypericoides</i> <i>Pteridium esculentum</i> <i>Hovea elliptica</i> <i>Agonis parviceps</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i>	<i>Chorilaena quercifolium</i> <i>Pteridium esculentum</i> <i>Lasiopetalum floribundum</i> <i>Acacia alata</i> <i>Leucopogon verticillatus</i> <i>Leucopogon propinquus</i> <i>Leucopogon capitellatus</i> <i>Hovea elliptica</i>	<i>Lepidosperma effusum</i> <i>Agonis linearifolia</i> <i>Astartea fascicularis</i> <i>Pteridium esculentum</i> <i>Lepidosperma tetraquetrum</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		
Geomorphologic catena – VC (EVS)	W1 – Wilyabrup (Km9)	Ww1 – Wilyabrup (Km9)	Cr – Cowaramup (Ms6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Side slopes of valleys incised into the Margaret River Plateau	Lower slope and floor of a valley incised into the Margaret River Plateau	Steep rocky slopes with the Margaret River Plateau
Soil structure, texture and fertility	Gravelly yellow brown sand over sandy clay	Gravelly yellow brown sandy loam on slopes, mixed alluvial soils on floor	Bare rock and shallow skeletal gritty sandy loams
Soil hydrology	Water shedding with good infiltration and moderate storage capacity	Slopes water shedding, floor water gaining, but not water-logged due to stream incision and gradient	Excessively water shedding with very limited infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc), occasionally some <i>Eucalyptus diversicolor</i> (Ed)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep) with minor admixture of <i>Eucalyptus marginata</i> (Em) upslope	Scattered emergents of stunted <i>Corymbia calophylla</i> (Cc) over Heath, Herbfields and bare rock
Second storey	Very weakly developed second storey of <i>Agonis flexuosa</i> (Af) and <i>Persoonia longifolia</i> (Pl)	<i>Agonis flexuosa</i> (Af)	No second storey
Shrub and herb storey	<i>Acacia browniana</i> <i>Leucopogon capitellatus</i> <i>Hibbertia hypericoides</i> <i>Trymalium ledifolium</i> <i>Hakea lissocarpha</i> <i>Pimelea rosea</i> <i>Tetraria capillaris</i> <i>Podocarpus drouynianus</i>	<i>Trymalium floribundum</i> <i>Hovea elliptica</i> <i>Mirbelia dilatata</i> <i>Podocarpus drouynianus</i> <i>Tremandra diffusa</i> <i>Acacia browniana</i> <i>Trymalium ledifolium</i> <i>Lasiopetalum floribundum</i>	<i>Hakea lissocarpha</i> <i>Xanthorrhoea preissii</i> <i>Hovea elliptica</i> <i>Hibbertia hypericoides</i> <i>Hakea trifurcata</i> <i>Andersonia micrantha</i> <i>Anarthria gracilis</i> <i>Hypocalymma angustifolium</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Hyperhumid southwest		Between Karridale and Witchcliffe
Geomorphologic catena – VC (EVS)	Hd – Glenarty Hills (Ac7)	Hw – Glenarty Hills (Km9)	Hd – Glenarty Hills (Ac7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Moderate slopes within undulating landscape formed by dissection of the Margaret River Plateau	Depression within undulating landscape formed by the dissection of the Margaret River Plateau	Gently undulating plain on the Margaret River Plateau
Soil structure, texture and fertility	Deep bleached sand with grey organic topsoil	Pale brown sand or sandy loam over sandy clay loam	Deep bleached sand with grey organic topsoil
Soil hydrology	Weakly water shedding laterally via subsoil, good infiltration but only moderate storage capacity due to coarse structure	Water gaining with high perched water table during winter	
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus diversicolor</i> (Ed)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Callistachys lanceolata</i> (Cl) near drainage line	Weak occurrence of <i>Banksia grandis</i> (Bg)
Shrub and herb storey	<i>Hovea elliptica</i> <i>Xanthorrhoea preissii</i> <i>Macrozamia riedlei</i> <i>Agonis parviceps</i> , <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Pteridium esculentum</i> <i>Podocarpus drouynianus</i> <i>Hibbertia hypericoides</i>	<i>Agonis linearifolia</i> <i>Lepidosperma effusum</i> <i>Pteridium esculentum</i> <i>Trymalium floribundum</i> <i>Astartea fascicularis</i>	<i>Macrozamia riedlei</i> <i>Podocarpus drouynianus</i> <i>Platysace tenuissima</i> <i>Tremandra stelligera</i> <i>Agonis parviceps</i> <i>Hibbertia hypericoides</i> <i>Hovea elliptica</i> <i>Leucopogon propinquus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Hyperhumid southwest		On Brockman Hwy E of Karridale
Geomorphologic catena – VC (EVS)	H – Glenarty Hills (Jp9)	H – Glenarty Hills (Jp9)	Hw – Glenarty Hills (Km9)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Mild slope on the south eastern margin of the Margaret River Plateau	Sideslope of a valley incised into the Margaret River Plateau	Lower slopes and valleys incised into the Margaret River Plateau
Soil structure, texture and fertility	Red brown sandy loam over sandy clay loam, fertile	Gravelly yellow brown loamy sand over sandy clay subsoil	Gravelly yellow brown sand over sandy clay subsoil
Soil hydrology	Mildly water shedding with good infiltration and storage capacity	Mildly water shedding, good infiltration and moderately good storage capacity	Slopes mildly water shedding, with high groundwater table in winter, valley floors water gaining, water-logged for much of year
Over storey (canopy or emergents)	Tall Open Forest of <i>Eucalyptus diversicolor</i> (Ed) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on slopes, Woodland of <i>Eucalyptus patens</i> (Ep), <i>Eucalyptus rudis</i> (Er), and Low Woodland of <i>Melaleuca raphiophylla</i> (Mr) and <i>Agonis juniperina</i> (Aj) on valley floor
Second storey	Sparse <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (PI) and <i>Agonis flexuosa</i> (Af)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (PI)	Second storey weakly developed on slopes, absent on valley floor
Shrub and herb storey	<i>Hovea elliptica</i> <i>Acacia urophylla</i> <i>Leucopogon verticillatus</i> <i>Tremandra stelligera</i> <i>Pteridium esculentum</i>	<i>Macrozamia riedlei</i> , <i>Leucopogon capitellatus</i> <i>Tremandra stelligera</i> , <i>Hibbertia hypericoides</i> , <i>Pteridium esculentum</i> , <i>Hovea elliptica</i> <i>Agonis parviceps</i> , <i>Patersonia umbrosa</i> var. <i>xanthina</i>	<i>Gahnia trifida</i> <i>Lepidosperma effusum</i> <i>Agonis linearifolia</i> , <i>Astartea fascicularis</i> , <i>Agonis parviceps</i> <i>Hakea varia</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		Blackwood Plateau SW of Nannup	
Geomorphologic catena – VC (EVS)	SS – Scott Scarp (Jm8)		MP – Milyeaup (Jm8)	TL – Telerah (Jg5)
Landform and Vegetation profile				
100m				
80m				
60m				
40m				
20m				
Land form description	Escarpment between Blackwood Plateau and a stream, on basaltic rock	Margin of the Blackwood Plateau, within the basaltic zone	Slightly undulating divides of the sedimentary portion of the Blackwood Plateau	
Soil structure, texture and fertility	Red earth with friable sandy loam changing to clay loam and clay in subsoil, very fertile	Gravelly yellow brown sands and yellow to red brown sand with clay sand texture, fertile	Wide range from lateritic duricrust, through gravels, sands to sandy loams and sandy clay loams, infertile	
Soil hydrology	Water shedding with fair infiltration and water storage capacity	Mildly water shedding with good infiltration, moderate to good storage capacity	Mildly water shedding to water gaining, good infiltration, variable storage capacity	
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus megacarpa</i> (Emg) and <i>Eucalyptus patens</i> (Ep) on lower slopes, <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on mid and upper slopes	Open to Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	
Second storey	<i>Callistachys lanceolata</i> (Cl) and <i>Agonis flexuosa</i> (Af) near stream line, <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl) on slopes	<i>Allocasuarina fraseriana</i> (Afr) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Xylomelum occidentale</i> (Xo) and <i>Allocasuarina fraseriana</i> (Afr) as second storey in Woodland and in (Em) and (Cc) in Low Woodlands	
Shrub and herb storey	<i>Bossiaea linophylla</i> , <i>Hakea lissocarpha</i> , <i>Leucopogon capitellatus</i> , <i>Leucopogon propinquus</i> , <i>Leucopogon verticillatus</i> , <i>Acacia urophylla</i> , <i>Hibbertia amplexicaulis</i> , <i>Clematis pubescens</i>	<i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> , <i>Bossiaea linophylla</i> , <i>Hovea trisperma</i> , <i>Clematis pubescens</i> , <i>Macrozamia riedlei</i> , <i>Acacia pulchella</i>	<i>Agonis parviceps</i> , <i>Kingia australis</i> , <i>Hypocalymma angustifolium</i> , <i>Adenanthos obovatus</i> , <i>Dasyopogon bromeliifolius</i> , <i>Lepidosperma squamatum</i> , <i>Andersonia sprengelioides</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		W. of Carbanup
Geomorphologic catena – VC (EVS)	Yd – Yelverton (Ac7)	Yw – Yelverton (Bk7)	Y – Yelverton (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Sandy rise on the Yelverton Shelf, the western edge of Blackwood Plateau	Shallow drainage depression within the Yelverton Shelf	Undulating plain on the Yelverton Shelf
Soil structure, texture and fertility	Bleached pale grey sand with organic stained topsoil, very interfile	Mixed alluvial soils, but in this case bleached pale grey sand	Bleached pale grey sand with organic stained topsoil, over laterite, infertile
Soil hydrology	Neither water shedding nor water gaining, good infiltration but only moderate storage capacity	Water gaining, but not waterlogged due to high porosity of the sand	Neither water shedding nor gaining, good infiltration but only moderate storage due to coarse structure
Over storey (canopy or emergents)	Woodland of <i>Allocasuarina fraseriana</i> (Afr), <i>Banksia attenuata</i> (Ba) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Allocasuarina fraseriana</i> (Afr), <i>Eucalyptus patens</i> (Ep) and <i>Banksia attenuata</i> (Ba)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	Weakly developed second storey of <i>Xylomelum occidentale</i> (Xo)	<i>Agonis flexuosa</i> (Af) <i>Nuytsia floribunda</i> (Nf)	<i>Banksia grandis</i> (Bg) <i>Allocasuarina fraseriana</i> (Afr) and <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Lindsaea linearis</i> <i>Stirlingia latifolia</i> <i>Dasyopogon bromeliifolius</i> <i>Melaleuca thymoides</i> <i>Phlebocarya ciliata</i> <i>Conostephium pendulum</i> <i>Conostylis aculeata</i>	<i>Macrozamia riedlei</i> <i>Acacia extensa</i> <i>Kunzea rostrata</i> <i>Phlebocarya ciliata</i> <i>Pultenaea reticulata</i> <i>Leucopogon glabellus</i> <i>Lysinema ciliatum</i> <i>Lyginia barbata</i>	<i>Xanthorrhoea preissii</i> <i>Hakea amplexicaulis</i> <i>Dasyopogon hookeri</i> <i>Bossiaea ornata</i> <i>Adenanthos barbiger</i> <i>Dampiera linearis</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest			Between Nannup & Margaret River		
Geomorphologic catena – VC (EVS)	TL – Telerah (Jg5)		BD – Bidella (Bk7)	KI – Kingia (Jg5)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Midslope in a mildly undulating landscape of the Blackwood Plateau	Broad upper valley of weakly incised headwaters in Blackwood Plateau	Ridge of a local divide within the Blackwood Plateau			
Soil structure, texture and fertility	Yellowish grey brown sandy loam merging into pale yellowish clay loam at shallow depth	Humus podzol, with dark brown sandy loam surface soil underlain by compact ironstone hardpan	Pale yellow brown gravelly sand, with outcrops of laterite			
Soil hydrology	Mildly water shedding with moderate infiltration but poor storage capacity	Water gaining, seasonally waterlogged, limited storage capacity (due to hardpan)	Water shedding via subsoil, good infiltration and storage capacity			
Over storey (canopy or emergents)	Low Open Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) in mallee form, with <i>Allocasuarina fraseriana</i> (Afr) of same height	Low Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus patens</i> (Ep) and <i>Hakea lasianthoides</i> (HI)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)			
Second storey	No second storey, a few tall <i>Kingia australis</i> (Ka)	No second storey	<i>Allocasuarina fraseriana</i> (Afr) <i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo)			
Shrub and herb storey	<i>Agonis parviceps</i> , <i>Adenanthos barbiger</i> , <i>Grevillea quercifolia</i> , <i>Lechenaultia biloba</i> , <i>Dryandra lindleyana</i> , <i>Podocarpus drouynianus</i> , <i>Isopogon sphaerocephalus</i> , <i>Tetraria capillaris</i>	<i>Agonis parviceps</i> , <i>Lepidosperma squamatum</i> , <i>Verticordia plumosa</i> , <i>Grevillea quercifolia</i> , <i>Cyathochaeta avenacea</i> , <i>Astroloma pallidum</i> , <i>Tetraria capillaris</i> , <i>Meeboldina coangustata</i>	<i>Kingia australis</i> , <i>Hakea cyclocarpa</i> , <i>Loxocarya cinerea</i> , <i>Anarthria prolifera</i> , <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Daviesia incrassata</i> , <i>Agonis parviceps</i> , <i>Lepidosperma squamatum</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		S of Nannup
Geomorphologic catena – VC (EVS)	BD – Bidella (Bk7)	CE – Coate (Bk7)	KI – Kingia (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of the valley of a medium sized stream traversing the Blackwood Plateau	Mild midslope between valley and uplands	Undulating local divide within the Blackwood Plateau
Soil structure, texture and fertility	Humus podzols, with silty sand topsoil overlying lateritic hardpan	Humus podzol with humus enriched topsoil, over bleached sandy clay	Yellow duplex soil with sandy loam topsoil over mottled clay subsoil
Soil hydrology	Water gaining, seasonally flooded and water logged	Mildly watershedding with good infiltration but only moderate storage capacity; impeded lateral and internal drainage	Water shedding laterally through subsoil, moderate infiltration and storage capacity
Over storey (canopy or emergents)	Tall Shrubland of <i>Agonis linearifolia</i> (AI) and <i>Callistachys lanceolata</i> (CI) reaching the size of small trees (6m) with emergent <i>Corymbia calophylla</i> (Cc)	Low Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	No second storey	No second storey	<i>Persoonia longifolia</i> (PI) (weakly developed)
Shrub and herb storey	<i>Lepidosperma tetraquetrum</i> <i>Hypocalymma cordifolium</i> <i>Hakea varia</i> , <i>Astartea fascicularis</i> , <i>Anigozanthos flavidus</i> , <i>Lepidosperma squamatum</i> , <i>Leucopogon australis</i> subsp. <i>acutifolius</i> <i>Pteridium esculentum</i>	<i>Xanthorrhoea preissii</i> <i>Hovea elliptica</i> <i>Lindsaea linearis</i> <i>Podocarpus drouynianus</i> <i>Anarthria scabra</i> <i>Anarthria prolifera</i> <i>Leucopogon verticillatus</i>	<i>Xanthorrhoea preissii</i> <i>Kingia australis</i> <i>Hakea amplexicaulis</i> <i>Lindsaea linearis</i> <i>Leucopogon australis</i> subsp. <i>acutifolius</i> , <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Bossiaea ornata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		S of Nannup
Geomorphologic catena – VC (EVS)	KI – Kingia (Jg5)	BD – Bidella (Bk7)	DS – Darling Scarp Dickson (Rs7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Undulating ridge crests and slope of a divide on the Blackwood Plateau	Minor valley shallowly incised into the Blackwood Plateau	Irregular steep slopes of the Darling Scarp with some rock outcrops
Soil structure, texture and fertility	Yellow duplex soils with sandy topsoil and podzols with humus enriched topsoil	Catena of soils from yellow duplex soil on slopes to humus podzols on floor	Range of soils from shallow skeletal sandy loams to yellow and red duplex soils and earths
Soil hydrology	Mildly water shedding via subsoil, good infiltration, moderately good storage capacity	Slopes water shedding with good infiltration, floor water gaining, seasonally water-logged	Strongly water shedding, with limited infiltration and water storage capacity
Over storey (canopy or emergents)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc) on slopes, merging into Woodland of <i>Eucalyptus patens</i> (Ep), <i>Banksia littoralis</i> (BI) and <i>Melaleuca preissiana</i> (Mp) on floor	Woodland of <i>Corymbia calophylla</i> (Cc), Heath and Herbfields on outcrops
Second storey	<i>Allocasuarina fraseriana</i> (Afr) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Allocasuarina fraseriana</i> (Afr) on slopes only	No true second storey
Shrub and herb storey	<i>Podocarpus drouynianus</i> <i>Agonis parviceps</i> <i>Kingia australis</i> <i>Pultenaea reticulata</i> <i>Adenanthos obovatus</i> <i>Lepidosperma squamatum</i> <i>Dasyogon hookeri</i>	<i>Podocarpus drouynianus</i> <i>Agonis parviceps</i> , <i>Kingia australis</i> , <i>Adenanthos obovatus</i> on slopes <i>Pultenaea reticulata</i> <i>Agonis linearifolia</i> <i>Dasyogon hookeri</i> on floor	<i>Andersonia sprengelioides</i> <i>Hakea lissocarpha</i> <i>Hovea trisperma</i> <i>Macrozamia riedlei</i> <i>Bossiaea ornata</i> <i>Xanthorrhoea preissii</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		NE of Cowaramup
Geomorphologic catena – VC (EVS)	T – Treeton (Jg5)	Tw – Treeton (Bk7)	Td – Treeton (Ac7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Mild upland slopes on the Blackwood Plateau	Lower slopes and floor of a minor valley within the Blackwood Plateau	Undulating slopes on the Blackwood Plateau
Soil structure, texture and fertility	Gravelly yellow brown sand over sandy clay loam	Gravelly yellow brown sand or pale grey brown sandy loam over sandy clay subsoil	Bleached sand with grey organic topsoil
Soil hydrology	Mildly water shedding via subsoil, good infiltration, moderate storage capacity	Water gaining, with perched groundwater table in winter, with waterlogged patches	Mildly water shedding via subsoil, good infiltration, moderate storage capacity only, due to coarse texture
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc) and some <i>Allocasuarina fraseriana</i> (Afr)	Open Forest of <i>Eucalyptus patens</i> (Ep), <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	Second storey of tall <i>Kingia australis</i> (Ka) and <i>Hakea lasianthoides</i> (Hl)	Weakly developed second stratum of <i>Allocasuarina fraseriana</i> (Afr)
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Hovea chorizemifolia</i> <i>Acacia pulchella</i> <i>Podocarpus drouynianus</i> <i>Bossiaea ornata</i> <i>Agonis parviceps</i> <i>Tetraria capillaris</i>	<i>Pteridium esculentum</i> <i>Mirbelia dilatata</i> <i>Agonis parviceps</i> <i>Lepidosperma tenue</i> <i>Hakea lissocarpha</i> <i>Hibbertia hypericoides</i> <i>Hovea elliptica</i> <i>Podocarpus drouynianus</i>	<i>Kingia australis</i> <i>Hibbertia hypericoides</i> <i>Dasyogon hookeri</i> <i>Bossiaea ornata</i> <i>Mesomelaena tetragona</i> <i>Xanthorrhoea gracilis</i> <i>Hakea amplexicaulis</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		Junction of Scott River Rd & Brockman Hwy	
Geomorphologic catena – VC (EVS)	N – Nillup (Jg5)		Nw – Nillup (Bk7)	Nd – Nillup (Ac7)
Landform and Vegetation profile				
100m				
80m				
60m				
40m				
20m				
Land form description	Level to gently undulating plain on Blackwood Plateau	Depression within an undulating plain of the Blackwood Plateau	Level to gently sloping rise on the Blackwood Plateau	
Soil structure, texture and fertility	Yellow brown sandy loam over mottled light grey sandy clay loam	Bleached wet sand with dark organic topsoil	Bleached sand, with grey organic topsoil	
Soil hydrology	Neither water gaining nor water shedding, with good infiltration and moderate storage capacity	Water gaining, inadequately drained laterally, seasonally waterlogged	Neither water gaining nor shedding, with good infiltration but low to moderate storage capacity	
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Scattered emergents of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Banksia littoralis</i> (Bl) and <i>Nuytsia floribunda</i> (Nf)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	
Second storey	<i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo) <i>Agonis flexuosa</i> (Af)	No true second storey	<i>Nuytsia floribunda</i> (Nf) <i>Xylomelum occidentale</i> (Xo) <i>Banksia grandis</i> (Bg)	
Shrub and herb storey	<i>Adenanthos obovatus</i> <i>Agonis parviceps</i> <i>Podocarpus drouynianus</i> <i>Macrozamia riedlei</i> <i>Hibbertia hypericoides</i> <i>Hakea amplexicaulis</i> <i>Xanthorrhoea preissii</i>	Heath and sedgeland of <i>Hakea varia</i> <i>Agonis parviceps</i> <i>Agonis linearifolia</i> <i>Acacia divergens</i> <i>Hypolaena exsulca</i> <i>Anigozanthos flavidus</i> <i>Viminaria juncea</i>	<i>Agonis parviceps</i> <i>Hibbertia hypericoides</i> <i>Bossiaea ornata</i> <i>Baxtertia australis</i> <i>Adenanthos obovatus</i> <i>Mesomelaena tetragona</i> <i>Dasyogon bromeliifolius</i> <i>Anarthria prolifera</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid southwest		near Ludlow
Geomorphologic catena - VC (EVS)	Lw - Ludlow (Sw4)	L - Ludlow (outside mapped area)	Lw - Ludlow (Sw4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Vales along streams crossing the Ludlow Plain	Gentle rises within the coastal plain, underlain by aeolinite	Depressions within the Ludlow Plain
Soil structure, texture and fertility	Deep brown alluvial sands, overlying limestone at depth	Deep brownish yellow sand with organic stained topsoil, overlying limestone at depth of over 1m	Brownish loamy sands to clay loams, overlying limestone at depth
Soil hydrology	Water gaining but not seriously waterlogged due to lateral drainage to stream	Water shedding via subsoil, good infiltration and storage capacity	Waterlogged and locally flooded for prolonged periods
Over storey (canopy or emergents)	Woodland of <i>Agonis flexuosa</i> (Af), <i>Eucalyptus rudis</i> (Er) and <i>Melaleuca raphiophylla</i> (Mr)	Tall Woodland and Open Forest of <i>Eucalyptus gomphocephala</i> (Egm) with minor admixture of <i>Corymbia calophylla</i> (Cc)	Ranging from Open Woodland of <i>Melaleuca raphiophylla</i> (Mr) and <i>Eucalyptus rudis</i> (Er) to sedgeland
Second storey	Some <i>Acacia saligna</i> (As)	<i>Agonis flexuosa</i> (Af) to a lesser degree <i>Banksia grandis</i> (Bg)	<i>Melaleuca teretifolia</i>
Shrub and herb storey	<i>Gahnia trifida</i> <i>Baumea juncea</i> <i>Lepidosperma longitudinale</i> <i>Lobelia alata</i> var. <i>alata</i> <i>Acacia pulchella</i> var. <i>pulchella</i> <i>Burchardia umbellata</i>	<i>Hibbertia hypericoides</i> <i>Macrozamia riedlei</i> <i>Phyllanthus calycinus</i> <i>Leucopogon propinquus</i> <i>Hardenbergia comptoniana</i> <i>Sowerbaea laxiflora</i> <i>Acacia willdenowiana</i> <i>Lepidosperma squamatum</i>	<i>Hakea varia</i> <i>Triglochin lineare</i> <i>Cassutha racemosa</i> <i>Cotula coronopifolia</i> <i>Crassula natans</i> var. <i>minus</i> <i>Isolepis producta</i> <i>Lemna disperma</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		SE of Busselton near Yongarilup
Geomorphologic catena – VC (EVS)	Aw – Abba (Sw4)	AB – Abba (Mb5)	
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Depression within the Abba Plain of the southern Swan Coastal Plain	Near level Abba Plain within the southern Swan Coastal Plain	
Soil structure, texture and fertility	Shallow light grey sand with organic stained surface overlying blocky sandy clay	Grey sand, with organic stained surface, overlying brownish sandy clay	
Soil hydrology	Strongly water gaining, waterlogged for much of the year	Neither water gaining nor shedding, seasonally wet but not acutely waterlogged	
Over storey (canopy or emergents)	No tree over storey	Open Woodland of <i>Corymbia calophylla</i> (Cc)	
Second storey	No tree second storey	<i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo) tall <i>Xanthorrhoea preissii</i> (Xp) <i>Kingia australis</i> (Ka)	
Shrub and herb storey	Tall Shrubland of <i>Melaleuca teretifolia</i> , <i>Viminaria juncea</i> (Vj), <i>Hakea varia</i> , <i>Melaleuca viminea</i> , <i>Pericalymma ellipticum</i> , <i>Leptocarpus rivularis</i>	<i>Mesomelaena tetragona</i> , <i>Pericalymma ellipticum</i> , <i>Regelia ciliata</i> , <i>Hakea ceratophylla</i> , <i>Acacia pulchella</i> , <i>Hypocalymma angustifolium</i> , <i>Lepidosperma squamatum</i> , <i>Philotheca spicata</i> , <i>Dryandra lindleyana</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest near Carbanup N Jindong Rd		
Geomorphologic catena VC (EVS)	Aw – Abba (Sw4)	AB – Abba (Mb5)	
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Depression within the southern Swan Coastal Plain	Flat and low rise on the southern Swan Coastal Plain	
Soil structure, texture and fertility	Sandy loam grading into clay loam or sandy clay at depth	Sandy loam over sandy clay loam or sandy clay at depth	
Soil hydrology	Water logged for prolonged periods	Winter water table 20-50cm below surface, dropping to 50cm below surface by spring	
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er) with occasional <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Corymbia calophylla</i> (Cc)	
Second storey	<i>Melaleuca raphiophylla</i> (Mr) as second storey	<i>Acacia saligna</i> (Ac) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	
Shrub and herb storey	<i>Melaleuca viminea</i> (Mv) <i>Hakea varia</i> <i>Acacia saligna</i> (As) <i>Desmocladius fasciculatus</i> <i>Brachysema praemorsum</i> <i>Kunzea rostrata</i> <i>Hypocalymma angustifolium</i>	<i>Kingia australis</i> <i>Anigozanthos viridis</i> <i>Astartea fascicularis</i> <i>Pteridium esculentum</i> <i>Hibbertia hypericoides</i> <i>Acacia extensa</i> <i>Xanthorrhoea preissii</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		around Carburnup
Geomorphologic catena – VC (EVS)	AF – Abba (Mb5)	Af – Abba (Mb5)	Ad – Abba (Ac7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Terraces and floor of a medium sized stream in southern Swan Coastal Plain	Lower slopes and flats of a river valley	Mildly sloping rise above the coastal plain
Soil structure, texture and fertility	Red brown sandy loam with humus enriched topsoil grading into red brown sandy clay loam, fertile	Grey sand overlying brownish sandy loam grading to sandy clay below 0.5m, moderately fertile	Pale grey to white siliceous sand over 1m deep, with organic stained topsoil, very infertile
Soil hydrology	Water gaining but well drained due to incision of the stream	Mildly water shedding via subsoil, well drained due to strongly incised stream nearby	Mildly water shedding via subsoil, good infiltration, only moderate storage capacity (high porousness)
Over storey (canopy or emergents)	Tall Woodland to <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Agonis flexuosa</i> (Af) as second storey to <i>Corymbia calophylla</i> (Cc) and fringing the watercourse; also tall <i>Hakea varia</i> (Hv)	<i>Agonis flexuosa</i> (Af) <i>Acacia saligna</i> (As) <i>Persoonia longifolia</i> (PI)	<i>Agonis flexuosa</i> (Af) <i>Allocasuarina fraseriana</i> (Afr) <i>Nuytsia floribunda</i> (Nf)
Shrub and herb storey	<i>Astartea fascicularis</i> <i>Agonis linearifolia</i> , <i>Baumea vaginalis</i> , <i>Lepidosperma effusum</i> on valley floor; <i>Acacia extensa</i> , <i>Acacia pulchella</i> , <i>Billardiera variifolia</i> , <i>Anigozanthos viridis</i> , <i>Brachysema praemorsum</i> on terraces	<i>Acacia extensa</i> , <i>Hakea lissocarpa</i> , <i>Leucopogon capitellatus</i> , <i>Bossiaea ornata</i> <i>Bossiaea linophylla</i> <i>Mesomelaena tetragona</i> <i>Anigozanthos viridis</i> <i>Hibbertia hypericoides</i> <i>Phyllanthus calycinus</i>	<i>Calothamnus sanguineus</i> <i>Stirlingia latifolia</i> <i>Patersonia occidentalis</i> <i>Melaleuca thymoides</i> <i>Acacia extensa</i> <i>Hypocalymma robustum</i> <i>Mesomelaena tetragona</i> <i>Kunzea micromera</i> <i>Pultenaea reticulata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest SE of Busselton, Whicher Scarp on Nannup Rd & on Oats Rd		
Geomorphologic catena – VC (EVS)	WC – Whicher Scarp (Jn5)	WC – Whicher Scarp (Jn5)	WC – Whicher Scarp (Jn5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Moderately steep slope of the Whicher Escarpment	Mild slope of the Whicher Escarpment	Moderate slope of the Whicher Escarpment
Soil structure, texture and fertility	Gravelly yellow brown sand over sandy clay, with lateritic floaters	Bleached pale grey siliceous sand over 1m deep	Bleached pale grey sand over yellow sand more than 1m deep
Soil hydrology	Moderately strongly water shedding with good infiltration and storage capacity	Mildly water shedding via subsoil, with good infiltration, storage capacity limited by coarseness	Mildly water shedding via subsoil, good infiltration but only moderate storage capacity
Over storey (canopy or emergents)	Woodland to Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and tall <i>Allocasuarina fraseriana</i> (Afr)	Woodland of <i>Eucalyptus marginata</i> (Em) (both subsp. <i>arginata</i> and subsp. <i>elegantella</i>), <i>Banksia attenuata</i> (Ba), <i>Allocasuarina fraseriana</i> (Afr)
Second storey	<i>Persoonia longifolia</i> (Pl) <i>Corymbia haematoxylon</i> (Ch)	<i>Persoonia longifolia</i> (Pl) <i>Xylomelum occidentale</i> (Xo) <i>Corymbia haematoxylon</i> (Ch), <i>Banksia grandis</i> (Bg) <i>Banksia attenuata</i> (Ba) <i>Nuytsia floribunda</i> (Nf)	<i>Xylomelum occidentale</i> (Xo) <i>Persoonia elliptica</i> (Pe) <i>Banksia grandis</i> (Bg)
Shrub and herb storey	<i>Xanthorrhoea preissii</i> , <i>Hakea amplexicaulis</i> , <i>Calothamnus sanguineus</i> , <i>Hibbertia hypericoides</i> , <i>Mesomelaena tetragona</i> , <i>Trymalium ledifolium</i> , <i>Bossiaea ornata</i> , <i>Bossiaea eriocarpa</i> , <i>Acacia nervosa</i> , <i>Pimelea suavolens</i> , <i>Grevillea quercifolia</i>	<i>Hakea ruscifolia</i> , <i>Bossiaea eriocarpa</i> , <i>Adenanthos meisneri</i> , <i>Melaleuca thymoides</i> , <i>Acacia extensa</i> , <i>Pityrodia bartlingii</i> , <i>Stirlingia latifolia</i> , <i>Podocarpus drouynianus</i> , <i>Gompholobium confertum</i> , <i>Leucopogon distans</i> , <i>Leucopogon nutans</i> , <i>Petrophile media</i> , <i>Synaphaea floribunda</i> , <i>Anarthria laevis</i>	<i>Adenanthos meisneri</i> <i>Stirlingia latifolia</i> <i>Bossiaea eriocarpa</i> <i>Melaleuca thymoides</i> <i>Scholtzia involucrata</i> <i>Adenanthos barbiger</i> <i>Podocarpus drouynianus</i> <i>Bossiaea pulchella</i> <i>Isopogon sphaerocephalus</i> <i>Kunzea recurva</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid southwest		Between Capel and Donnybrook	
Geomorphologic catena – VC (EVS)	CSs- Cartis (Jn5)		CSs - Cartis (Jn5)	WC – Whicher Scarp (Jn5)
Landform and Vegetation profile				
100m				
80m				
60m				
40m				
20m				
Land form description	Near level outwash apron below Whicher Escarpment	Mildly sloping lower slope of the Whicher Escarpment	Moderate sloping upper slope - Whicher Escarpment	
Soil structure, texture and fertility	Bleached white sand with organic stained topsoil over brown iron/organic hardpan at depth	Deep yellow brown sand over laterite at depth	Yellow brown gravelly sandy loam with numerous outcrops of duricrust	
Soil hydrology	Mildly water gaining but not waterlogged, good infiltration but only moderate storage capacity	Mildly water shedding via topsoil, good infiltration and intermediate storage capacity	Strongly water shedding via subsoil, with good infiltration and storage capacity	
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Banksia attenuata</i> (Ba), <i>Banksia ilicifolia</i> (Bi) and <i>Allocasuarina fraseriana</i> (Afr)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with tall <i>Allocasuarina fraseriana</i> (Afr) as lower associate	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	
Second storey	<i>Xylomelum occidentale</i> (Xo) <i>Nuytsia floribunda</i> (Nf) as associates or understory	<i>Corymbia haematoxylon</i> (Ch) and <i>Xylomelum occidentale</i> (Xo)	<i>Banksia grandis</i> (Bg) <i>Corymbia haematoxylon</i> (Ch) <i>Allocasuarina fraseriana</i> (Afr) <i>Xylomelum occidentale</i> (Xo) <i>Persoonia elliptica</i> (Pe)	
Shrub and herb storey	<i>Allocasuarina humilis</i> <i>Leucopogon conostephioides</i> <i>Adenanthos meisneri</i> <i>Dasyopogon bromeliifolius</i> <i>Petrophile linearis</i> , <i>Stirlingia latifolia</i> , <i>Melaleuca thymoides</i> , <i>Lyginia barbata</i> , <i>Kunzea ericifolia</i>	<i>Stirlingia latifolia</i> <i>Podocarpus drouynianus</i> <i>Phlebocarya ciliata</i> <i>Melaleuca thymoides</i> <i>Dasyopogon bromeliifolius</i> <i>Adenanthos meisneri</i> <i>Hibbertia hypericoides</i>	<i>Dasyopogon hookeri</i> <i>Isopogon sphaerocephalus</i> <i>Xanthorrhoea gracilis</i> <i>Adenanthos barbiger</i> <i>Hibbertia hypericoides</i> <i>Hakea amplexicaulis</i> <i>Mesomelaena tetragona</i> <i>Daviesia incrassata</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid southwest		SE Dardanup
Geomorphologic catena –VC (EVS)	CSs – Cartis (Jn5)	WC – Whicher Scarp (Jn5)	WC – Whicher Scarp (Jn5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Outwash apron below Whicher Scarp	Lower slope of the Whicher Scarp	Upper slope of the Whicher Scarp
Soil structure, texture and fertility	Pale yellowish brown loamy sand	Dark yellowish brown loamy sand	Yellowish brown gravelly sand with moderate lateritic outcropping, underlain by sandy clay at depth
Soil hydrology	Neither water gaining nor water shedding, good infiltration but only moderate storage capacity due to coarse texture	Mildly water shedding via subsoil, good infiltration but only moderate storage due to coarse texture	Strongly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Banksia attenuata</i> (Ba)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Banksia grandis</i> (Bg) <i>Banksia attenuata</i> (Ba) <i>Xylomelum occidentale</i> (Xo)	<i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo)	<i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Melaleuca thymoides</i> <i>Dasypogon bromeliifolius</i> <i>Bossiaea eriocarpa</i> <i>Patersonia occidentalis</i> <i>Calothamnus sanguineus</i> <i>Stirlingia latifolia</i> <i>Adenanthos barbiger</i> <i>Allocasuarina humilis</i>	<i>Dasypogon bromeliifolius</i> <i>Hibbertia hypericoides</i> <i>Melaleuca thymoides</i> <i>Patersonia occidentalis</i> <i>Stirlingia latifolia</i> <i>Kunzea recurva</i> <i>Bossiaea eriocarpa</i> <i>Daviesia decurrens</i>	<i>Xanthorrhoea preissii</i> <i>Xanthorrhoea gracilis</i> <i>Hibbertia hypericoides</i> <i>Lepidosperma tenue</i> <i>Hakea stenocarpa</i> <i>Dasypogon bromeliifolius</i> <i>Isopogon sphaerocephalus</i> <i>Dryandra lindleyana</i> <i>Petrophile striata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest Between Yallingup and Dunsborough		
Geomorphologic catena – VC (EVS)	Cd – Cowaramup (Ac7)	Mv – Metricup (Ms6)	C2 – Cowaramup (Jp6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Undulating rises and plains on the Margaret River Plateau	Valley deeply incised into the eastern margin of the Margaret River Plateau	Remnant of the lateritized surface of the Margaret River Plateau in the form of rises and knolls
Soil structure, texture and fertility	Deep bleached sand over laterite	Shallow yellow brown gravel overlying laterite, or yellow brown sandy loam over sandy clay	Shallow yellow brown sand or sandy loam over sheet laterite
Soil hydrology	Neither water shedding nor water gaining, good infiltration, moderate storage capacity	Slopes strongly water shedding, moderate infiltration, limited water storage capacity, narrow valley floor water gaining	Neither water gaining nor shedding, good infiltration and moderate storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Low Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with <i>Nuytsia floribunda</i> (Nf), <i>Persoonia longifolia</i> (Pl)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Xylomelum occidentale</i> (Xo) <i>Agonis flexuosa</i> (Af) <i>Banksia grandis</i> (Bg) <i>Nuytsia floribunda</i> (Nf)	No second storey	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) <i>Persoonia elliptica</i> (Pe) <i>Xylomelum occidentale</i> (Xo) <i>Nuytsia floribunda</i> (Nf)
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Hakea lissocarpha</i> , <i>Hibbertia hypericoides</i> , <i>Lindsaea linearis</i> <i>Calothamnus sanguineus</i> <i>Adenanthos barbiger</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Dryandra lindleyana</i> <i>Daviesia incrassata</i>	<i>Hakea varia</i> , <i>Allocasuarina humilis</i> , <i>Hibbertia hypericoides</i> <i>Calothamnus sanguineus</i> <i>Hypocalymma angustifolium</i> <i>Hemigenia incana</i> <i>Acacia pulchella</i>	<i>Xanthorrhoea preissii</i> <i>Xanthorrhoea gracilis</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Hibbertia hypericoides</i> , <i>Daviesia incrassata</i> , <i>Calothamnus sanguineus</i> , <i>Adenanthos barbiger</i> , <i>Hakea amplexicaulis</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		near Eagle Bay
Geomorphologic catena - VC (EVS)	Ww2 - Wilyabrup (Mm6)	Wr - Wilyabrup (not on mapped area) (Ms6)	WE - Wilyabrup (not on mapped area) (Qm7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Lower slopes and valley floors in granitic terrain	Mid and upper slopes and crest in strongly dissected granitic terrain	Exposed coastal rocky slopes, steep
Soil structure, texture and fertility	Gravelly yellow brown sandy loam over sandy clay subsoil, fertile	Stony duplex soils with sandy loam surface over clay loam, shallow, fertile	Bare rock and skeletal sandy loams, fertile
Soil hydrology	Slopes water shedding, valley floor water gaining but not waterlogged due to steep stream gradient	Water shedding, with fair infiltration but limited storage capacity	Water shedding with very limited infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on slopes, some <i>Eucalyptus patens</i> (Ep) on valley floor	Woodland to Open Forest of <i>Corymbia calophylla</i> (Cc) with some <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), wind sheared near crest	Bare rock, Heath and low open woodland of <i>Corymbia calophylla</i> (Cc) and occasionally <i>Melaleuca lanceolata</i> (MI)
Second storey	<i>Agonis flexuosa</i> (Af)	<i>Agonis flexuosa</i> (Af) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Agonis flexuosa</i> (Af) <i>Eucalyptus phylacis</i> (Eph) all trees wind sheared
Shrub and herb storey	<i>Hovea elliptica</i> <i>Pteridium esculentum</i> <i>Leucopogon verticillatus</i> <i>Tremandra stelligera</i> <i>Hibbertia hypericoides</i> <i>Hypocalymma angustifolium</i> <i>Opercularia hispidula</i> var. <i>pauciflora</i> ; <i>Trymalium floribundum</i>	<i>Hakea lissocarpa</i> <i>Hibbertia hypericoides</i> <i>Leucopogon verticillatus</i> <i>Leucopogon propinquus</i> <i>Macrozamia riedlei</i> <i>Logania vaginalis</i> <i>Acacia browniana</i> <i>Hakea amplexicaulis</i> <i>Bossiaea ornata</i>	<i>Gastrolobium spinosum</i> <i>Hakea trifurcata</i> on steep slopes, <i>Rhagodia baccata</i> <i>Carex preissii</i> <i>Leucopogon parviflorus</i> under <i>Melaleuca lanceolata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Hyperhumid southwest		E. of Margaret River
Geomorphologic catena – VC (EVS)	Ww1 – Wilyabrup (Mm6)	Ww1 – Wilyabrup (Mm6)	Wr – Wilyabrup (Ms6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Lower slope and floor of a major valley within the Margaret River Plateau	Midslopes of a major valley in the Margaret River Plateau	Granitic outcrop on the slope of a major valley incised into Margaret River Plateau
Soil structure, texture and fertility	Red brown sandy loam grading into sandy clay loam	Gravelly yellow brown loamy sand over sandy clay	Mainly bare rock, with pockets of skeletal soil (sandy loam)
Soil hydrology	Water gaining, well drained close to stream, less so, further away	Water shedding, with good infiltration and storage capacity	Strongly water shedding, very poor infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep) with minor admixture of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	No over storey
Second storey	<i>Agonis flexuosa</i> (Af) <i>Hakea lasianthoides</i> (HI)	<i>Agonis flexuosa</i> (Af) at lower limit, <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl) in the remainder	No second storey
Shrub and herb storey	<i>Kingia australis</i> <i>Astartea fascicularis</i> <i>Agonis linearifolia</i> <i>Mirbelia dilatata</i> <i>Acacia alata</i> <i>Hakea varia</i> <i>Jansonias formosa</i> <i>Anigozanthos flavida</i>	<i>Logania vaginalis</i> , <i>Pteridium esculentum</i> , <i>Hovea elliptica</i> <i>Acacia myrtifolia</i> , <i>Acacia browniana</i> , <i>Opercularia hispidula</i> var. <i>pauciflora</i> <i>Leucopogon verticillatus</i> <i>Macrozamia riedlei</i> <i>Hibbertia cuneiformis</i>	Lithic Complex, herblands and Heath of <i>Dodonaea ceratocarpa</i> <i>Cryptandra arbutiflora</i> <i>Hakea trifurcata</i> <i>Hibbertia hypericoides</i> <i>Viminaria juncea</i> <i>Verticordia plumosa</i> <i>Neurachne alopecuroidea</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest S of Yallingup, SW of Carbanup		
Geomorphologic catena – VC (EVS)	Cw2 – Cowaramup (Mm6)	C2 – Cowaramup (Jp6)	Cw2 – Cowaramup (Mm6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Slight depression in the Margaret River Plateau	Gently undulating rises on the Margaret River Plateau (residuals of lateritized surface)	Narrow open drainage depression in the Margaret River Plateau
Soil structure, texture and fertility	Pale yellow grey sandy clay loam over mottled sandy clay	Pale yellow brown sandy loam over sheet laterite	Dark yellow brown sandy loam over sandy clay, fertile
Soil hydrology	Water gaining, poor lateral and internal drainage, seasonally waterlogged	Neither water gaining nor shedding, moderately good infiltration and storage	Water shedding except for streamline, good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus patens</i> (Ep), <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	No second storey	No second storey	<i>Persoonia longifolia</i> (Pl) <i>Banksia grandis</i> (Bg) on slopes, <i>Trymalium floribundum</i> (Tf) reaching the status of a small tree on valley
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Xanthorrhoea gracilis</i> <i>Hakea lissocarpa</i> <i>Tetraria octandra</i> <i>Hypocalymma angustifolium</i> <i>Desmocladius fasciculatus</i> <i>Hibbertia hypericoides</i> <i>Daviesia decurrens</i>	<i>Kingia australis</i> <i>Xanthorrhoea preissii</i> <i>Dasyopogon hookeri</i> <i>Hakea lissocarpa</i> <i>Mesomelaena tetragona</i> <i>Hibbertia hypericoides</i> <i>Scaevola calliptera</i> <i>Dryandra lindleyana</i>	<i>Hovea elliptica</i> <i>Pteridium esculentum</i> <i>Xanthorrhoea gracilis</i> <i>Leucopogon verticillatus</i> <i>Tremandra stelligera</i> <i>Opecularia hispidula</i> var. <i>pauciflora</i> <i>Hibbertia hypericoides</i> <i>Cyathochaeta avenacea</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest Between Nannup and Busselton		
Geomorphologic catena - VC (EVS)	RO - Rosa (Mn6)	RO - Rosa (Mn6)	TL - Telerah (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Lower slope and valley floor on the northern margin of the Blackwood Plateau	Moderately steep slopes of a valley on the northern margin of the Blackwood Plateau	Mildly sloping transition between uplands and valley system on edge of Blackwood Plateau
Soil structure, texture and fertility	Sandy loam with strong humus enrichment in topsoil on valley floor, grey sandy loam slopes	Grey gravelly sandy loam over sandy clay with some lateritic outcrops	Grey silty sand over iron/organic hardpan
Soil hydrology	Slopes water shedding with moderate infiltration and storage capacity; water gaining, seasonally waterlogged	Strongly water shedding with good infiltration and moderate storage capacity	Neither water gaining nor shedding, good infiltration but limited storage capacity, seasonally wet
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	Dense second storey of <i>Agonis linearifolia</i> (Al) and <i>Mirbelia dilatata</i> (Md) approaching the size of small trees on valley floor <i>Xylomelum occidentale</i> (Xo) on slope	No second storey	Strongly developed second storey of <i>Corymbia haematoxylon</i> (Ch) with some <i>Xylomelum occidentale</i> (Xo)
Shrub and herb storey	<i>Petrophile diversifolia</i> , <i>Grevillea trifida</i> , <i>Hakea amplexicaulis</i> , <i>Pultenaea drummondii</i> , <i>Anarthria prolifera</i> , <i>Mesomelaena tetragona</i> , <i>Hypocalymma cordifolium</i> , <i>Hibbertia hypericoides</i> , <i>Lepidosperma tenue</i>	<i>Hakea lissocarpha</i> , <i>Hibbertia hypericoides</i> , <i>Xanthorrhoea preissii</i> , <i>Calothamnus sanguineus</i> , <i>Grevillea trifida</i> , <i>Hypocalymma angustifolium</i> , <i>Thomasia macrocalyx</i> , <i>Daviesia decurrens</i>	<i>Xanthorrhoea preissii</i> , <i>Anarthria scabra</i> , <i>Adenanthos meisneri</i> , <i>Mesomelaena tetragona</i> , <i>Lyginia barbata</i> , <i>Dasypogon bromeliifolius</i> , <i>Hibbertia hypericoides</i> , <i>Anarthria prolifera</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid southwest		E of Boyanup
Geomorphologic catena – VC (EVS)	RO – Rosa (Mn6)	RO – Rosa (Mn6)	
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a minor valley below the western edge of the Blackwood Plateau	Lower slope between a minor stream and the edge of the Blackwood Plateau	
Soil structure, texture and fertility	Yellowish brown sandy loam with organic enriched topsoil	Yellowish brown loamy sand	
Soil hydrology	Mildly water gaining but not waterlogged due to free internal drainage	Mildly water shedding, good infiltration and moderate to good storage capacity	
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland to Open forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	
Second storey	<i>Xylomelum occidentale</i> (Xo) <i>Banksia grandis</i> (Bg) <i>Nuytsia floribunda</i> (Nf) tall <i>Kingia australis</i> (Ka)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) <i>Xylomelum occidentale</i> (Xo) tall <i>Xanthorrhoea preissii</i>	
Shrub and herb storey	<i>Dasypogon bromeliifolius</i> <i>Xanthorrhoea preissii</i> <i>Xanthorrhoea gracilis</i> <i>Anarthria prolifera</i> <i>Acacia pulchella</i> <i>Acacia lateriticola</i> <i>Melaleuca thymoides</i> <i>Hypolaena exsulca</i> <i>Kunzea recurva</i> <i>Lepidosperma squamatum</i> <i>Philothea spicata</i>	<i>Macrozamia riedlei</i> <i>Adenanthos obovatus</i> <i>Anarthria prolifera</i> <i>Johnsonia lupulina</i> <i>Mesomelaena tetragona</i> <i>Dasypogon bromeliifolius</i> <i>Hibbertia hypericoides</i> <i>Hypolaena exsulca</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		NW of Nannup
Geomorphologic catena – VC (EVS)	TL – Telerah (Jg5)	BK – Blackwood (Mn6)	DP – Darradup (Fw5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Undulating ridges and spurs within the Blackwood Plateau	Moderately steep slopes of the Blackwood River Valley within Blackwood Plateau	Terraced valley floor of the Blackwood River; upper bench shown here
Soil structure, texture and fertility	Lateritic duricrusts and pale yellow brown gravelly sands over sandy clay at depth	Yellow duplex soils with gravelly sandy loam topsoil over sandy clay	Brown clayey sand or sand
Soil hydrology	Mildly water shedding via subsoil, good infiltration and storage capacity	Strongly water shedding, good infiltration and moderate storage capacity	Water gaining, seasonally waterlogged with moderate infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest to Woodland of <i>Corymbia calophylla</i> (Cc) with some <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Eucalyptus rudis</i> (Er)
Second storey	<i>Persoonia longifolia</i> (Pl) <i>Xylomelum occidentale</i> (Xo)	<i>Persoonia longifolia</i> (Pl)	<i>Melaleuca preissiana</i> (Mp)
Shrub and herb storey	<i>Bossiaea ornata</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Gompholobium confertum</i> <i>Agonis parviceps</i> <i>Daviesia incrassata</i> <i>Podocarpus drouynianus</i> <i>Isopogon sphaerocephalus</i>	<i>Podocarpus drouynianus</i> <i>Hakea lissocarpha</i> <i>Hibbertia hypericoides</i> <i>Bossiaea ornata</i> <i>Acacia obovata</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Dryandra bipinnatifida</i>	<i>Xanthorrhoea preissii</i> <i>Leucopogon propinquus</i> <i>Leucopogon verticillatus</i> <i>Orthrosanthus laxus</i> <i>Jacksonia horrida</i> <i>Acacia extensa</i> <i>Hibbertia hypericoides</i> <i>Adenanthos barbiger</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		W of Nannup
Geomorphologic catena – VC (EVS)	DP – Darradup (Fw5)	BK – Blackwood (Mn6)	LY – Layman (Fw5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley floor of the main stream on the Blackwood Plateau	Mild slopes of the main stream on the Blackwood Plateau	Broadly concave elongated depressions, probably former valley floors
Soil structure, texture and fertility	Light yellow brown clayey sand on upper terraces, grey brown silty loams on lower terraces	Yellow duplex soils with sandy surface over pale yellow mottled sandy clay, often with duricrust	Mixture of alluvial and colluvial soils, mostly sandy, ranging from well drained brown yellow sands to wet humus podzols
Soil hydrology	Water gaining, seasonally flooded but not seriously waterlogged due to good internal and lateral drainage	Mildly water shedding, with good infiltration and moderate to good storage capacity	Water gaining, with poor lateral but good internal drainage, locally waterlogged
Over storey (canopy or emergents)	Open Forest to Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus rudis</i> (Er),	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep)
Second storey	<i>Banksia seminuda</i> (Bs) <i>Agonis flexuosa</i> (Af) <i>Melaleuca preissiana</i> (Mp)	<i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo) and <i>Persoonia longifolia</i> (Pl)	<i>Allocasuarina fraseriana</i> (Afr), <i>Nuytsia floribunda</i> (Nf) <i>Banksia littoralis</i> (Bl) and <i>Melaleuca preissiana</i> (Mp)
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Hakea lissocarpha</i> <i>Acacia extensa</i> on upper terrace; <i>Hypocalymma angustifolium</i> , <i>Lepidosperma tetraquetrum</i> , <i>Lepidosperma effusum</i> , <i>Astartea fascicularis</i> on lower terraces	<i>Bossiaea linophylla</i> <i>Podocarpus drouynianus</i> <i>Macrozamia riedlei</i> <i>Adenanthos barbiger</i> <i>Hibbertia hypericoides</i> <i>Leucopogon capitellatus</i> <i>Hakea lissocarpha</i>	<i>Agonis parviceps</i> , <i>Agonis linearifolia</i> , <i>Anigozanthos flavidus</i> , <i>Mesomelaena tetragona</i> , <i>Leucopogon australis</i> subsp. <i>acutifolius</i> , <i>Lepidosperma squamatum</i> , <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Hakea varia</i> , <i>Pericalymma ellipticum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest			Between Nannup & Margaret River		
Geomorphologic catena – VC (EVS)	JL – Jalbaragup (Mn6)		JL – Jalbaragup (Mn6)	KI – Kingia (Jg5)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Floor of the valley of a medium sized stream incised into the Blackwood Plateau	Slopes of the valley of a medium sized stream incised into the Blackwood Valley	Mildly undulating local divide within the Blackwood Plateau			
Soil structure, texture and fertility	Mosaic of yellow brown clayey sands, orange earths and grey brown silty loams	Yellow duplex soils with loamy sand surface over mottled sandy clay	Shallow sandy loam over sandy clay, with residual laterite			
Soil hydrology	Mildly water shedding except for the stream zone, moderately good infiltration and storage capacity	Moderately water shedding with good infiltration but only moderate storage capacity	Water shedding, with limited infiltration and storage capacity			
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)			
Second storey	Very weakly developed second storey of <i>Xylomelum occidentale</i> (Xo) <i>Persoonia longifolia</i> (Pl) <i>Hakea lasianthoides</i> (HI)	<i>Allocasuarina fraseriana</i> (Afr) to a lesser degree <i>Banksia grandis</i> (Bg)	<i>Allocasuarina fraseriana</i> (Afr)			
Shrub and herb storey	<i>Podocarpus drouynianus</i> <i>Macrozamia riedlei</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Kingia australis</i> (Ka) <i>Hakea amplexicaulis</i> <i>Bossiaea ornata</i> <i>Agonis parviceps</i>	<i>Hakea lissocarpha</i> <i>Tetratheca stelligera</i> <i>Daviesia incrassata</i> <i>Agonis parviceps</i> <i>Lepidosperma squamatum</i> <i>Hibbertia amplexicaulis</i> <i>Adenanthos barbiger</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i>	<i>Adenanthos barbiger</i> <i>Calothamnus sanguineus</i> <i>Xanthorrhoea preissii</i> <i>Hakea amplexicaulis</i> <i>Podocarpus drouynianus</i> <i>Daviesia incrassata</i> <i>Hovea trisperma</i> <i>Lysinema ciliatum</i> <i>Dryandra lindleyana</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central			Near Donnybrook		
Geomorphologic catena – VC (EVS)	PR – Preston (Fw5)		PR – Preston (Fw5)	DB3 – Donnybrook (Ic6)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Valley floor of the Preston River near its entry on the Blackwood Plateau	Valley floor and lower slopes of Preston River, away from the stream	Slope on Donnybrook sandstone adjacent to the valley of the Preston River			
Soil structure, texture and fertility	Brown silty loams over clay loam	Brown silty loam over clay loam	Yellow brown gravelly sand over sandy clay at depth			
Soil hydrology	Periodically inundated but generally not severely waterlogged due to deep incision of the stream bed	Neither water gaining nor shedding, moderate infiltration and good storage, mild waterlogging in winter	Moderately water shedding via subsoil, with good infiltration and storage capacity			
Over storey (canopy or emergents)	Fringing Woodland of <i>Eucalyptus rudis</i> (Er) flanked by Tall Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep)	Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)			
Second storey	<i>Banksia seminuda</i> (Bs) <i>Paraserianthes lophantha</i> subsp. <i>lophantha</i> (Pal)	Scattered understorey of <i>Agonis flexuosa</i> (Af) <i>Acacia saligna</i> (As) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)			
Shrub and herb storey	Tall dense shrub storey of <i>Agonis linearifolia</i> <i>Trymalium floribundum</i> <i>Astartea fascicularis</i> <i>Gahnia trifida</i> <i>Pteridium esculentum</i> <i>Acacia urophylla</i> <i>Lepidosperma squamatum</i> <i>Bossiaea eriocarpa</i>	<i>Pteridium esculentum</i> <i>Xanthorrhoea preissii</i> <i>Hakea lissocarpha</i> <i>Acacia urophylla</i> <i>Viminaria juncea</i> <i>Bossiaea eriocarpa</i>	<i>Acacia extensa</i> , <i>Hakea ruscifolia</i> <i>Hibbertia hypericoides</i> , <i>Hibbertia racemosa</i> <i>Gompholobium marginatum</i> <i>Gompholobium venustum</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Adenanthos barbiger</i> , <i>Daviesia incrassata</i> <i>Hovea chorizemifolia</i> , <i>Bossiaea eriocarpa</i> , <i>Grevillea quercifolia</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		W of Nannup
Geomorphologic catena – VC (EVS)	MP – Milyeanup (Jm8)	LY – Layman (Fw5)	BN – Bentley (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Gently undulating surface developed on basaltic intrusion into the Blackwood Plateau	Broadly concave and elongated depressions, probably former valley floors	Mildly sloping terraces not associated with current major stream (non-riverine)
Soil structure, texture and fertility	Reddish yellow to yellow brown gravelly sands and clayey sands, with some lateritic duricrust	Yellow brown silty sand	Yellow brown silty sands with some lateritic outcrops
Soil hydrology	Mildly water shedding, with good infiltration and storage capacity	Mildly water gaining, but with good internal drainage	Neither water shedding nor gaining, good infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) and <i>Agonis flexuosa</i> (Af)	<i>Xylomelum occidentale</i> (Xo) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) <i>Allocasuarina fraseriana</i> (Afr)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) <i>Allocasuarina fraseriana</i> (Afr)
Shrub and herb storey	<i>Leucopogon verticillatus</i> <i>Macrozamia riedlei</i> <i>Pteridium esculentum</i> <i>Bossiaea linophylla</i> <i>Bossiaea ornata</i> <i>Chorizema ilicifolium</i> <i>Acacia extensa</i> <i>Podocarpus drouynianus</i>	<i>Hibbertia hypericoides</i> <i>Bossiaea ornata</i> <i>Bossiaea linophylla</i> <i>Adenanthos obovatus</i> <i>Leucopogon propinquus</i> <i>Mesomelaena tetragona</i> <i>Daviesia incrassata</i> <i>Grevillea quercifolia</i>	<i>Bossiaea ornata</i> <i>Acacia extensa</i> <i>Leucopogon verticillatus</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Adenanthos barbiger</i> <i>Macrozamia riedlei</i> <i>Desmocladius flexuosus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Hyperhumid southwest		NW of Pemberton
Geomorphologic catena - VC (EVS)	CE - Coate (Bk7)	KI - Kingia (Jg5)	BD - Bidella (Bk7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad depression in headwaters of a stream within the Blackwood Plateau	Undulating local divide within the Blackwood Plateau	Minor valley in the Blackwood Plateau with broadly concave floors
Soil structure, texture and fertility	Humus podzols, often underlain by iron/organic hardpan	Yellow duplex soils and humus podzols	Yellow duplex soils on slopes, sand over sandy clay on slopes, humus podzols (organic topsoil on floors)
Soil hydrology	Mildly water gaining with good infiltration and moderate storage capacity	Mildly to moderately water shedding with moderate infiltration and storage capacity	Slopes water shedding with good infiltration and moderate storage, floor water gaining, seasonally waterlogged
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on slope, Woodland of <i>Melaleuca preissiana</i> (Mp) and <i>Banksia littoralis</i> (Bl) on floor
Second storey	Weakly developed <i>Persoonia longifolia</i> (Pl)	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	Weakly developed second storey of <i>Allocasuarina fraseriana</i> (Afr) on slopes
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Hovea elliptica</i> <i>Agonis parviceps</i> <i>Anarthria scabra</i> <i>Acacia myrtifolia</i> <i>Adenanthos obovatus</i> <i>Podocarpus drouynianus</i>	<i>Acacia drummondii</i> <i>Bossiaea ornata</i> <i>Hovea chorizemifolia</i> <i>Kingia australis</i> <i>Agonis parviceps</i> <i>Isopogon sphaerocephalus</i> <i>Leucopogon verticillatus</i>	<i>Agonis parviceps</i> , <i>Anarthria scabra</i> , <i>Dasyopogon bromeliifolius</i> , <i>Desmocladius fasciculatus</i> , <i>Mesomelaena tetragona</i> , <i>Lepidosperma tenue</i> <i>Anigozanthos flavidus</i> <i>Xanthorrhoea preissii</i> , <i>Adenanthos meisneri</i> ,

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid south west		NW from Nannup
Geomorphologic catena - VC (EVS)	CE - Coate (Bk7)	KI - Kingia (Jg5)	BD - Bidella (Bk7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad depression in upper drainage system of a stream on Blackwood Plateau	Undulating crests and slopes on divide on the Blackwood Plateau	Minor valleys in the Blackwood Plateau, with broadly concave floor
Soil structure, texture and fertility	Humus podzol with organic enriched dark brown topsoil over iron/organic hardpan	Gravelly yellow duplex soil with humus enriched topsoil	Yellow duplex soils on slopes merging into humus podzols underlain by iron/organic hardpan
Soil hydrology	Water gaining, seasonally waterlogged	Water shedding with good infiltration and storage capacity	Slopes water shedding, floors water gaining, seasonally waterlogged
Over storey (canopy or emergents)	Low Open Forest of <i>Melaleuca preissiana</i> (Mp) on valley floor, open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on slopes	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus megacarpa</i> (Emg) on valley floor; <i>E. marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on slopes
Second storey	No second storey under Mp, weakly developed <i>Xylomelum occidentale</i> (Xo) and <i>Banksia grandis</i> (Bg) under <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Well developed second stratum of <i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg), <i>Persoonia elliptica</i> (Pe) and <i>Persoonia longifolia</i> (Pl) and <i>Xylomelum occidentale</i> (Xo)	<i>Melaleuca preissiana</i> (Mp) and <i>Banksia seminuda</i> (Bs) on valley floor <i>Allocasuarina fraseriana</i> (Afr) on slopes
Shrub and herb storey	<i>Agonis parviceps</i> , <i>Pericalymma ellipticum</i> , <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Mesomelaena tetragona</i> , <i>Adenanthos obovatus</i> <i>Lepidosperma squamatum</i>	<i>Agonis parviceps</i> , <i>Podocarpus drouynianus</i> , <i>Adenanthos obovatus</i> , <i>Anarthria prolifera</i> <i>Lindsaea linearis</i> , <i>Dasypogon bromeliifolius</i> , <i>Leucopogon</i>	<i>Agonis parviceps</i> , <i>Adenanthos meisneri</i> , <i>Mesomelaena tetragona</i> , <i>Kingia australis</i> <i>Petrophile diversifolia</i> <i>Thomasia macrocalyx</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		W of Nannup
Geomorphologic catena – VC (EVS)	JL – Jalbaragup (Mn6)	KI – Kingia (Jg5)	BK – Blackwood (Mn6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley of medium sized streams moderately incised into the Blackwood Plateau	Undulating ridge crests of divides within the Blackwood Plateau	Moderately steep slopes of a major valley within the Blackwood Plateau
Soil structure, texture and fertility	Yellow duplex soils on slopes, with loamy sand over sandy clay, silty loams and orange earths on floor	Pale yellow brown gravelly sands with some duricrust, with pale yellow sands down slope	Yellow duplex soils with pale brown sandy loam over mottled sandy clay
Soil hydrology	Slopes water shedding with moderate infiltration and storage capacity; floor water gaining, waterlogged	Mildly to moderately water shedding with good infiltration and storage capacity	Water shedding with good infiltration and moderate to good storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on slopes, <i>Eucalyptus patens</i> (Ep) and <i>Eucalyptus rudis</i> (Er) on valley floor	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Banksia grandis</i> (Bg), <i>Persoonia longifolia</i> (Pl) on slopes; <i>Agonis flexuosa</i> (Af) and <i>Banksia seminuda</i> (Bs) on valley floors	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg), <i>Persoonia longifolia</i> (Pl)	<i>Agonis flexuosa</i> (Af), <i>Banksia grandis</i> (Bg), <i>Xylomelum occidentale</i> (Xo) and <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Bossiaea ornata</i> , <i>Hakea ruscifolia</i> , <i>Podocarpus drouynianus</i> , <i>Dasypogon hookeri</i> on slopes; <i>Astartea fascicularis</i> , <i>Agonis parviceps</i> , <i>Agonis linearifolia</i> , <i>Acacia divergens</i> , <i>Gahnia trifida</i> on floor	<i>Podocarpus drouynianus</i> , <i>Bossiaea ornata</i> , <i>Isopogon sphaerocephalus</i> , <i>Leucopogon verticillatus</i> , <i>Leucopogon propinquus</i> , <i>Agonis parviceps</i> , <i>Hakea amplexicaulis</i>	<i>Podocarpus drouynianus</i> , <i>Hakea lissocarpha</i> , <i>Hibbertia hypericoides</i> , <i>Bossiaea ornata</i> , <i>Bossiaea linophylla</i> , <i>Adenanthos meisneri</i> , <i>Leucopogon capitellatus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest SW of Nannup		
Geomorphologic catena – VC (EVS)	CE – Coate (Bk7)	TL – Telerah (Jg5)	KI – Kingia (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad swampy floor of a head water valley on the Blackwood Plateau	Transition to uplands within the Blackwood Plateau	Undulating ridge crest of a divide between streams of the Blackwood Plateau
Soil structure, texture and fertility	Humus podzols with dark brown to black iron/organic horizon at about 1m depth	Sandy yellow duplex soils, with sand over mottled clay, deep sands and humus podzols	Pale yellow brown gravelly sand with lateritic duricrust over sandy clay at shallow depth
Soil hydrology	Water gaining with ground-water table near surface for much of the year	Mostly mildly water shedding, but with some water gaining depressions, good infiltration, moderate storage	Water shedding with variable storage and infiltration capacity according to soil type
<i>Continued Over Page</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		SW of Nannup
Geomorphologic catena – VC (EVS)	CE – Coate (Bk7)	TL – Telerah (Jg5)	KI – Kingia (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Over storey (canopy or emergents)	Low Open Woodland or isolated emergents of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) <i>Corymbia calophylla</i> (Cc) <i>Allocasuarina fraseriana</i> (Afr) <i>Melaleuca preissiana</i> (Mp) <i>Banksia littoralis</i> (Bl) and <i>Banksia ilicifolia</i> (Bi)	Open Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on deeper soils, virtually treeless on shallow soils
Second storey	No true second storey, main stratum Sedgelands and Heath of <i>Agonis parviceps</i> , <i>Pultenaea reticulata</i> , <i>Andersonia sprengelioides</i> , <i>Evandra aristata</i> , <i>Beaufortia sparsa</i>	<i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo) <i>Allocasuarina fraseriana</i> (Afr)	<i>Allocasuarina fraseriana</i> (Afr), <i>Xylomelum occidentale</i> (Xo) and <i>Nuytsia floribunda</i> (Nf); tall <i>Kingia australis</i> (Ka) on shallow treeless sites
Shrub and herb storey	<i>Kingia australis</i> <i>Meeboldina scariosa</i>	<i>Podocarpus drouynianus</i> <i>Agonis parviceps</i> <i>Kingia australis</i> <i>Pultenaea reticulata</i> <i>Adenanthos obovatus</i> <i>Dasypogon hookeri</i> <i>Lepidosperma squamatum</i>	<i>Agonis parviceps</i> <i>Adenanthos obovatus</i> <i>Dasypogon hookeri</i> <i>Andersonia sprengelioides</i> <i>Leucopogon capitellatus</i> <i>Hypocalymma angustifolium</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		W. of Carbanup
Geomorphologic catena – VC (EVS)	Yw – Yelverton (Bk7)	Y – Yelverton (Jg5)	Y – Yelverton (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley floor of a minor stream with an incised stream bed on Yelverton Shelf	Mildly sloping bench between stream and rise on Yelverton Shelf	Moderately sloping rise above the Yelverton Shelf, lateritized
Soil structure, texture and fertility	Mixed alluvial soils, chiefly brownish loam topsoil overlying mottled clay subsoil	Shallow gravelly sandy loam overlying sheet laterite at shallow depth	Gravelly yellow brown sand or sandy loam overlying yellow brown sandy clay
Soil hydrology	Mildly water gaining but not strongly waterlogged due to proximity to well incised stream bed	Water shedding, weak vertical but strong lateral drainage, poor storage capacity	Water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep)	Open Woodland of <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	<i>Agonis flexuosa</i> (Af) <i>Hakea lasianthoides</i> (HI)	No second storey	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) <i>Xylomelum occidentale</i> (Xo) <i>Agonis flexuosa</i> (Af) on lower slope
Shrub and herb storey	<i>Agonis linearifolia</i> <i>Astartea fascicularis</i> <i>Lepidosperma effusum</i> <i>Gahnia trifida</i> <i>Trymalium floribundum</i> <i>Dasypogon hookeri</i> <i>Tetrarrhena laevis</i> <i>Pteridium esculentum</i>	<i>Allocasuarina humilis</i> <i>Mesomelaena tetragona</i> <i>Lepidosperma tenue</i> <i>Astroloma pallidum</i> <i>Andersonia caerulea</i> <i>Hakea lissocarpha</i> <i>Hypocalymma angustifolium</i> <i>Hovea chorizemifolia</i>	<i>Dasypogon hookeri</i> <i>Hakea amplexicaulis</i> <i>Adenanthos barbiger</i> <i>Hibbertia hypericoides</i> <i>Mesomelaena tetragona</i> <i>Hakea lissocarpha</i> <i>Hovea chorizemifolia</i> <i>Allocasuarina humilis</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		W of Carbanup
Geomorphologic catena – VC (EVS)	Yw – Yelverton (Bk7)	Y – Yelverton (Jg5)	Yd – Yelverton (Ac7)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Lower slopes of a minor rise, towards depression within the Yelverton Shelf	Midslopes and crest of a minor rise within the Yelverton Shelf	Mildly sloping sandy rise within the Yelverton Shelf
Soil structure, texture and fertility	Pale grey brown sand or sandy loam overlying mottled light grey sandy clay, moderate fertility	Gravelly yellow brown sand or sandy loam overlying yellow brown sandy clay, moderate fertility	Deep white siliceous sand with grey organic stained topsoil, very infertile
Soil hydrology	Mildly water gaining with perched water table in winter at or near surface, disappearing during summer	Mildly water shedding via subsoil, good infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration, moderate storage capacity due to texture
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Allocasuarina fraseriana</i> (Afr), <i>Agonis flexuosa</i> (Af), <i>Banksia attenuata</i> (Ba)
Second storey	<i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo) <i>Persoonia longifolia</i> (Pl), tall <i>Kingia australis</i> (Ka)	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo) <i>Persoonia longifolia</i> (Pl)	<i>Xylomelum occidentale</i> (Xo) and <i>Nuytsia floribunda</i> (Nf)
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Dasypogon hookeri</i> , <i>Bossiaea ornata</i> , <i>Acacia extensa</i> <i>Acacia pulchella</i> , <i>Mesomelaena tetragona</i> , <i>Adenanthos obovatus</i> , <i>Leucopogon capitellatus</i>	<i>Xanthorrhoea preissii</i> , <i>Hibbertia hypericoides</i> <i>Adenanthos barbiger</i> , <i>Adenanthos meisneri</i> <i>Hibbertia hypericoides</i> <i>Agonis parviceps</i> , <i>Lindsaea linearis</i> , <i>Calothamnus sanguineus</i> , <i>Lepidosperma squamatum</i>	<i>Adenanthos meisneri</i> <i>Dasypogon bromeliifolius</i> <i>Phlebocarya ciliata</i> <i>Lysinema ciliatum</i> <i>Hibbertia hypericoides</i> <i>Andersonia caerulea</i> <i>Astroloma ciliatum</i> <i>Astroloma pallidum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid southwest		near Metricup
Geomorphologic catena – VC (EVS)	M – Metricup (Jp6)	Y – Yelverton (Jg5)	Yw – Yelverton (Bk7)
Landform and Vegetation profile			
Land form description	Slopes of the eastern edge of the Margaret River Plateau	Residual laterite of the Yelverton shelf, western margin of the Blackwood Plateau	Broad drainage depression incised into the Yelverton Shelf
Soil structure, texture and fertility	Gravelly yellow brown sand over sandy clay loam	Shallow gravelly yellow brown sand over sheet laterite	Gravelly yellow brown sand over sandy clay on slopes, mixed alluvial soils, from sands to clays, on floor
Soil hydrology	Strongly water shedding via subsoil, good infiltration, moderate water storage capacity	Neither water shedding nor gaining, good infiltration and moderate storage capacity	Slopes water shedding, floor water gaining, with perched water table in winter
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep)
Second storey	<i>Banksia grandis</i> (Bg) <i>Xylomelum occidentale</i> (Xo) and <i>Persoonia longifolia</i> (Pl)	Weak development of <i>Agonis flexuosa</i> (Af)	<i>Banksia grandis</i> (Bg) on slopes <i>Kunzea ericifolia</i> (Ke) thicket on valley floor
Shrub and herb storey	<i>Podocarpus drouynianus</i> <i>Acacia browniana</i> <i>Hakea lissocarpha</i> <i>Hibbertia hypericoides</i> <i>Bossiaea ornata</i> <i>Hakea amplexicaulis</i> <i>Hypocalymma robustum</i>	<i>Xanthorrhoea preissii</i> <i>Dasyogon hookeri</i> <i>Kingia australis</i> <i>Mesomelaena tetragona</i> <i>Calothamnus sanguineus</i> <i>Dryandra bipinnatifida</i>	<i>Boronia crenulata</i> <i>Mirbelia dilatata</i> <i>Xanthorrhoea preissii</i> <i>Xanthorrhoea gracilis</i> <i>Dasyogon hookeri</i> <i>Agonis parviceps</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		E. of Witchcliffe
Geomorphologic catena – VC (EVS)	Tw – Treeton (Bk7)	T – Treeton (Jg5)	T – Treeton (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Alluvial flat within valley incised into the Blackwood Plateau	Moderate upland slope on the Blackwood Plateau	Undulating knolls and ridges, residual lateritized surface of the Blackwood Plateau
Soil structure, texture and fertility	Brown earthy sandy loam grading into yellow sandy clay, fertile	Gravelly yellow brown sandy loam over sandy clay or sandy clay loam, moderately fertile	Shallow yellow brown sand overlying sheet laterite, infertile
Soil hydrology	Water gaining but mostly adequately drained	Water shedding, with winter perched water table, good infiltration but only moderate storage capacity	Mildly water shedding, good infiltration but poor storage capacity due to impediment in profile
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus patens</i> (Ep), <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc) and <i>Allocasuarina fraseriana</i> (Afr)
Second storey	<i>Hakea lasianthoides</i> (HI)	No second storey	No second storey
Shrub and herb storey	<i>Mirbelia dilatata</i> <i>Pteridium esculentum</i> <i>Pultenaea drummondii</i> <i>Acacia divergens</i> <i>Anigozanthos flavidus</i> <i>Hakea amplexicaulis</i> <i>Lomandra pauciflora</i>	<i>Hakea lissocarpha</i> <i>Hovea elliptica</i> <i>Hakea amplexicaulis</i> <i>Hibbertia hypericoides</i> <i>Kingia australis</i> <i>Tetraria octandra</i> <i>Pultenaea drummondii</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i>	<i>Agonis parviceps</i> <i>Hovea elliptica</i> <i>Hibbertia hypericoides</i> <i>Daviesia decurrens</i> <i>Dasyopogon hookeri</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Hakea amplexicaulis</i> <i>Hakea ruscifolia</i> <i>Adenanthos barbiger</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid southwest		Rosa Brook Bridge on Warner Glen Road
Geomorphologic catena – VC (EVS)	BK – Blackwood (Mn6)	T – Treeton (Jg5)	T – Treeton (Jg5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley within the Blackwood Plateau with moderate slopes, and narrow valley floor	Mid and upper slope within the Blackwood Plateau	Broad undulating ridge crest within the Blackwood Plateau
Soil structure, texture and fertility	Yellow or pale grey sandy loam over sandy clay subsoil	Gravelly yellow brown sand over sandy clay loam and pale grey sandy loam over sandy clay	Gravelly yellow brown sand over sandy clay loam, with some lateritic outcrops, infertile
Soil hydrology	Slopes mildly water shedding, valley floor water gaining but not markedly waterlogged	Moderately water shedding, with moderate infiltration and water storage capacity	Mildly water shedding, good infiltration and moisture storage
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> (Em)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Hakea lasianthoides</i> (HI) and <i>Agonis juniperina</i> (Aj) on valley floor	Infrequent occurrence of <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl)	Weakly developed second storey of <i>Banksia grandis</i> (Bg), <i>Persoonia longifolia</i> (Pl) and <i>Allocasuarina fraseriana</i> (Afr)
Shrub and herb storey	<i>Trymalium floribundum</i> <i>Agonis linearifolia</i> , <i>Astartea fascicularis</i> , <i>Lepidosperma tenue</i> , <i>Acacia pulchella</i> , <i>Hakea ceratophylla</i> , <i>Pteridium esculentum</i>	<i>Hibbertia hypericoides</i> <i>Hakea lissocarpha</i> <i>Kingia australis</i> <i>Agonis parviceps</i> <i>Pultenaea drummondii</i> <i>Tetraria octandra</i>	<i>Hakea lissocarpha</i> <i>Bossiaea ornata</i> <i>Lepidosperma squamatum</i> <i>Hovea chorizemifolia</i> <i>Hibbertia hypericoides</i> <i>Hibbertia commutata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central		W of Kirup
Geomorphologic catena – VC (EVS)	BL – Balingup (Ms5)	HR – Hester (Jp6)	BL – Balingup (Ms5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Steep upper slope near the western edge of the Darling Plateau	Ridge near the western edge of the Darling Plateau	Slope of a strongly incised valley in the Darling Plateau
Soil structure, texture and fertility	Yellow brown sandy loam over clay and granite, with granitic outcrop, fertile	Yellow brown gravelly sandy loam over kaolinitic clay at depth, infertile	Light brown gravelly sandy loam over sandy clay, moderately fertile
Soil hydrology	Strongly water shedding with limited storage and moderate infiltration capacity	Mildly water shedding via subsoil, good infiltration and storage capacity	Moderately water shedding via subsoil with good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Corymbia calophylla</i> (Cc) with minor occurrence of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey other than tall <i>Xanthorrhoea preissii</i> (Xp)	<i>Hakea amplexicaulis</i> (Ha) approaching the size of a small tree	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Macrozamia riedlei</i> <i>Hibbertia hypericoides</i> <i>Phyllanthus calycinus</i> <i>Acacia pulchella</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Leucopogon propinquus</i> <i>Leucopogon australis</i> subsp. <i>acutifolius</i>	<i>Bossiaea linophylla</i> <i>Macrozamia riedlei</i> <i>Acacia pulchella</i> <i>Tetraria octandra</i> <i>Xanthorrhoea preissii</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Leucopogon capitellatus</i> <i>Hibbertia hypericoides</i>	<i>Macrozamia riedlei</i> <i>Bossiaea ornata</i> <i>Pteridium esculentum</i> <i>Hibbertia hypericoides</i> <i>Leucopogon capitellatus</i> <i>Leucopogon verticillatus</i> <i>Hibbertia amplexicaulis</i> <i>Opercularia hispidula</i> var. <i>pauciflora</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central		E of Kirup
Geomorphologic catena – VC (EVS)	BLf – Balingup (Fv5)	HR – Hester (Jp6)	CC1 – Catterick (Mn5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Slopes of a moderately incised valley in the Darling Plateau	Crest of a ridge on the uplands of the Darling Plateau	Slope of a shallowly incised minor valley in the Darling Plateau
Soil structure, texture and fertility	Yellow brown sandy loam over clay, with lateritic and granitic outcrops, moderately fertile	Yellowish brown gravelly sandy loam over kaolinitic clay at depth, relatively infertile	Yellowish brown loamy sand of moderate depth, infertile
Soil hydrology	Strongly water shedding on mid slope, mildly water gaining on lower slopes	Moderately water shedding via subsoil, good infiltration and storage capacity	Mildly water shedding on mid slope, mildly water gaining on lower slope
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with <i>Eucalyptus patens</i> (Ep) on lower slope	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Mirbelia dilatata</i> (Md) approaching the size of a small tree, on lower slope	No second storey	<i>Banksia grandis</i> (Bg) <i>Banksia littoralis</i> (Bl)
Shrub and herb storey	<i>Hibbertia hypericoides</i> <i>Acacia lateriticola</i> <i>Xanthorrhoea preissii</i> <i>Hakea lissocarpha</i> <i>Leucopogon capitellatus</i> <i>Hypocalymma angustifolium</i> <i>Macrozamia riedlei</i> <i>Lepidosperma squamatum</i> <i>Leucopogon propinquus</i>	<i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> , <i>Xanthorrhoea preissii</i> , <i>Xanthorrhoea gracilis</i> <i>Hibbertia hypericoides</i> <i>Hibbertia commutata</i> , <i>Acacia extensa</i> , <i>Leucopogon verticillatus</i> , <i>Macrozamia riedlei</i> , <i>Leucopogon capitellatus</i> , <i>Leucopogon propinquus</i> , <i>Dryandra lindleyana</i> , <i>Hakea lissocarpha</i>	<i>Acacia extensa</i> <i>Adenanthos obovatus</i> <i>Leucopogon australis</i> subsp. <i>acutifolius</i> <i>Hypolaena exsulca</i> <i>Hypocalymma ellipticum</i> <i>Johnsonia lupulina</i> <i>Hibbertia hypericoides</i> <i>Tetralix octandra</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central		E of Bridgetown
Geomorphologic catena – VC (EVS)	CP1 – Condinup (Fv4)	NWf1 – Newgalup (Fv4)	NWg1 – Newgalup (Fv4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad valley floor of a valley strongly incised into the Darling Plateau	Mildly sloping lower slopes of a valley strongly incised into the Darling Plateau	Steeply sloping rocky slopes of a valley strongly incised into the Darling Plateau
Soil structure, texture and fertility	Dark grey brown clay loam, fertile	Yellow duplex soils with gravelly sand topsoil, moderately fertile	Shallow skeletal soils and yellow duplex with gravelly sandy loam topsoil, fertile
Soil hydrology	Water gaining, seasonally inundated, high saline groundwater	Water gaining, moderate subsoil storage capacity	Water shedding, little or no subsoil storage capacity, but some springs
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er) with <i>Eucalyptus patens</i> (Ep) at upslope margin	Woodland of <i>Eucalyptus rudis</i> (Er) and <i>Eucalyptus patens</i> (Ep) woodland on loams, some <i>Banksia grandis</i> (Bg) on sandy loams	Range of vegetation from Lithic Complex to Woodland of <i>Eucalyptus rudis</i> (Er) and <i>Corymbia calophylla</i> (Cc) on deeper soils
Second storey	No second storey of trees, but tall dense shrub storey of <i>Melaleuca viminea</i>	No second storey of trees but moderately tall and dense mixed shrub storey of <i>Pteridium esculentum</i> , <i>Xanthorrhoea preissii</i> , <i>Bossiaea linophylla</i> , <i>Macrozamia riedlei</i> over a number of exotic weed species	No second storey of trees
Shrub and herb storey	<i>Melaleuca viminea</i> <i>Astartea fascicularis</i> <i>Hakea varia</i> <i>Isolepis nodosa</i> <i>Lobelia alata</i> var. <i>alata</i> <i>Juncus kraussii</i> subsp. <i>australiensis</i>		<i>Hakea undulata</i> <i>Hakea lissocarpa</i> <i>Bossiaea ornata</i> <i>Bossiaea eriocarpa</i> <i>Leucopogon capitellatus</i> <i>Phyllanthus calycinus</i> <i>Macrozamia riedlei</i> <i>Trymalium ledifolium</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central E of Bridgetown on Tweeds & Waters Rd.		
Geomorphologic catena – VC (EVS)	NWf1 – Newgalup (Fv4)	NW1 – Newgalup (Mm4)	DMg – Dalmore (Ms4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley floor and stream bed of a major stream (Blackwood River)	Terrace in the valley of a major stream dissecting the Darling Plateau	Steep rocky slope of a deeply dissected major valley
Soil structure, texture and fertility	Alluvial soils, including sands, sandy loams on loams, variable fertility	Brown sandy loams and silty loams over clay loam or clay, moderately fertile	Shallow skeletal loams and sandy loam, fertile
Soil hydrology	Water gaining, seasonally inundated, not seriously waterlogged due to good incision and gradient of stream	Water gaining from slopes, water shedding to stream, intermediate infiltration and storage capacity	Strongly water shedding with very limited capacity for infiltration and storage
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er)	Open Forest of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Eucalyptus patens</i> (Ep) on break of slope	Open Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew)
Second storey	<i>Melaleuca raphiophylla</i> (Mr) on riverbanks, less commonly <i>Banksia seminuda</i> (Bs) and <i>Acacia saligna</i> (As)	<i>Acacia saligna</i> (As) approaching small tree size, but otherwise mainly tall shrub storey of <i>Bossiaea linophylla</i> and <i>Xanthorrhoea preissii</i>	<i>Allocasuarina huegeliana</i> (Ah) as understorey to <i>Corymbia calophylla</i> and <i>Eucalyptus wandoo</i> and as low overstorey on rocky sites
Shrub and herb storey	<i>Astartea fascicularis</i> <i>Lepidosperma effusum</i> <i>Hardenbergia comptoniana</i> <i>Pteridium esculentum</i> , <i>Acacia extensa</i> , <i>Sollya heterophylla</i> , <i>Pericalymma ellipticum</i> plus strong development of exotics (<i>Rubus</i> spp., <i>Oxalis</i> spp., <i>Avena</i> spp.)	<i>Macrozamia riedlei</i> <i>Phyllanthus calycinus</i> <i>Leucopogon capitellatus</i> <i>Xanthorrhoea humilis</i> <i>Tetraria octandra</i> <i>Dampiera alata</i> <i>Hibbertia amplexicaulis</i> <i>Desmocladius flexuosus</i> <i>Bossiaea linophylla</i>	<i>Phyllanthus calycinus</i> <i>Hakea lissocarpa</i> , <i>Darwinia citriodora</i> , <i>Hovea chorizemifolia</i> <i>Borya sphaerocephala</i> , <i>Sollya eterophylla</i> , <i>Macrozamia riedlei</i> , <i>Tetrarrhena laevis</i> <i>Billardiera drummondiana</i> <i>Chamaescilla corymbosa</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central			NE of Manjimup near Bridgetown		
Geomorphologic catena – VC (EVS)	NWg1 – Newgalup (Ms4)		NWg1 – Newgalup (Ms4)	GR – Grimwade (Mm5)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Lower slope and floor of a valley strongly incised into the Darling Plateau	Lower slope of a valley moderately strongly incised into the Darling Plateau	Head of a broad flat gully within the Darling Plateau, close to Blackwood dissection			
Soil structure, texture and fertility	Red brown duplex soil with loamy topsoil, fertile	Pale yellow brown loamy sand with outcrops of lateritic duricrust, moderately fertile	Yellow brown loamy sand with outcrops of lateritic duricrust, moderately fertile			
Soil hydrology	Slope moderately water shedding, intermediate infiltration and storage capacity	Moderately water shedding with good infiltration and storage capacity	Slopes mildly water shedding, good infiltration and storage capacity; floor water gaining but not waterlogged due to good internal and external drainage			
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) on slopes, <i>Eucalyptus rudis</i> (Er) and <i>Eucalyptus wandoo</i> (Ew) on valley floor	Open Forest of <i>Eucalyptus marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)			
Second storey	No second storey	No second storey	<i>Persoonia longifolia</i> (PI)			
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Acacia pulchella</i> <i>Leucopogon verticillatus</i> <i>Leucopogon capitellatus</i> on slopes <i>Lepidosperma effusum</i> <i>Samolus junceus</i> <i>Agonis linearifolia</i> on floor	<i>Macrozamia riedlei</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Lomandra drummondii</i> <i>Phyllanthus calycinus</i> <i>Dryandra lindleyana</i> <i>Tetraria octandra</i> <i>Clematis pubescens</i> <i>Lepidosperma tenue</i>	<i>Xanthorrhoea preissii</i> <i>Pteridium esculentum</i> <i>Leucopogon australis</i> subsp. <i>acutifolius</i> , <i>Macrozamia riedlei</i> , <i>Hibbertia commutata</i> <i>Austrodanthonia setacea</i> <i>Phyllanthus calycinus</i> <i>Leucopogon capitellatus</i> <i>Leucopogon verticillatus</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central Between Bridgetown & Boyup Brook		
Geomorphologic catena - VC (EVS)	KU1 - Kulikup (Jv4)	LK1 - Lukin (Mm4)	DM1 - Dalmore (Jp4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Low rises between minor valleys	Moderately shallow valley in head waters	Broad spurs and low ridges, with minor granitic outcrops
Soil structure, texture and fertility	Moderately deep sandy gravels of moderate to low fertility	Loamy gravels, deep sandy gravels and sands of moderate to low fertility	Loamy gravels and deeper sandy gravels of moderate to low fertility
Soil hydrology	Mildly water shedding but with good infiltration and subsoil storing capacity	Water gaining, seasonally waterlogged	Moderately water shedding with fair infiltration and water storing capacity
Over storey (canopy or emergents)	Open Forest to Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc) with <i>Eucalyptus rudis</i> (Er) along streamline	Open Forest to Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	No second storey	Largely without second storey of trees.	No second storey
Shrub and herb storey	<i>Hakea lissocarpha</i> <i>Leucopogon capitellatus</i> <i>Bossiaea ornata</i> <i>Tetraria capillaris</i> <i>Desmocladius fasciculatus</i> <i>Lepidosperma tenue</i> <i>Macrozamia riedlei</i>	Dense shrub layer of <i>Melaleuca raphiophylla</i> , <i>Melaleuca viminea</i> along streamlines; <i>Desmocladius fasciculatus</i> , <i>Sollya heterophylla</i> , <i>Macrozamia riedlei</i> , <i>Hakea lissocarpha</i> , <i>Leucopogon capitellatus</i> <i>Neurachne alopecuoridea</i> on slopes	<i>Dryandra sessilis</i> var. <i>sessilis</i> <i>Macrozamia riedlei</i> <i>Bossiaea ornata</i> <i>Hakea lissocarpha</i> <i>Trymalium ledifolium</i> <i>Dianella revoluta</i> <i>Leucopogon capitellatus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central		S. of Boyup Brook
Geomorphologic catena – VC (EVS)	CP1 – Condinup (Fv4)	NWg1 – Newgalup (Ms4)	DM1 – Dalmore (Jp4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Streambed and alluvial terrace	Steep rocky slope between uplands and streambed	Residual spur from earlier milder dissection
Soil structure, texture and fertility	Deep brown sands and sandy loams of moderate fertility	Skeletal sandy loam, yellow or red duplex soils, fertile	Gravelly deep yellow and red duplex soils, moderately fertile
Soil hydrology	Water gaining, seasonally flooded	Excessively water shedding with little or no storage capacity	Good infiltration, good capacity for subsoil storage
Over storey (canopy or emergents)	Low Forest of <i>Eucalyptus rudis</i> (Er) and <i>Melaleuca raphiophylla</i> (Mr)	Variable, from bare rock outcrop, through Low Open Woodland of <i>Allocasuarina huegeliana</i> (Ah) and <i>Acacia acuminata</i> (Aa) to <i>Corymbia calophylla</i> (Cc) <i>Eucalyptus wandoo</i> (Ew) Woodland on deeper soils	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	No true second storey	Limited occurrence of <i>Persoonia longifolia</i> (Pl) and <i>Banksia grandis</i> (Bg)
Shrub and herb storey	<i>Astartea fascicularis</i> <i>Baumea articulata</i> <i>Hakea varia</i> <i>Hypocalymma angustifolium</i>	<i>Hakea lissocarpha</i> <i>Hakea undulata</i> <i>Borya sphaerocephala</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Bossiaea ornata</i> <i>Phyllanthus calycinus</i>	<i>Hakea lissocarpha</i> <i>Leucopogon capitellatus</i> <i>Acacia pulchella</i> <i>Scaevola calliptera</i> <i>Bossiaea ornata</i> <i>Macrozamia riedlei</i> <i>Desmocladius fasciculatus</i> <i>Lepidosperma tenue</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central		S. of Boyup Brook
Geomorphologic catena – VC (EVS)	NWg1 – Newgalup (Ms4)	DM1 – Dalmore (Jp4)	LK1 – Lukin (Mm4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Steep gully in headwaters of a minor stream in the dissected portion of the central Darling Plateau	Upper slopes and crests of a minor divide in the dissected portion of the central Darling Plateau	Moderately steep gully in the headwaters of a minor stream in the dissected portion of central Darling Plateau
Soil structure, texture and fertility	Yellowish brown gravelly sandy loam, fertile	Yellowish brown gravelly loamy sand with lateritic outcrop, moderately fertile	Dark yellowish brown loamy sand, moderately fertile
Soil hydrology	Water shedding with good infiltration and moderate storage capacity	Water shedding with moderately good infiltration and storage capacity	Mildly water shedding with good infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	No second storey	No second storey
Shrub and herb storey	<i>Hakea lissocarpha</i> <i>Xanthorrhoea preissii</i> <i>Macrozamia riedlei</i> <i>Desmocladius fasciculatus</i> <i>Phyllanthus calycinus</i> <i>Trymalium ledifolium</i> <i>Brachysema praemorsum</i>	<i>Dryandra sessilis</i> var. <i>sessilis</i> <i>Macrozamia riedlei</i> <i>Bossiaea ornata</i> <i>Hakea lissocarpha</i> <i>Trymalium ledifolium</i> <i>Dianella revoluta</i> <i>Hibbertia commutata</i> <i>Leucopogon capitellatus</i>	<i>Xanthorrhoea preissii</i> <i>Macrozamia riedlei</i> <i>Hakea lissocarpha</i> <i>Leucopogon capitellatus</i> <i>Tetraria capillaris</i> <i>Tetraria octandra</i> <i>Desmocladius flexuosus</i> ms <i>Phyllanthus calycinus</i> <i>Bossiaea eriocarpa</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid central between Dinninup & Boyup Bk		
Geomorphologic catena – VC (EVS)	NWg2 – Newgalup (Ds2)	DM2 – Dalmore (Jp3)	NW2 – Newgalup (Wm2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Moderately steep slopes between a rise and a major river valley	Medium rise in a dissected plateau	Mid slope between a rise and a minor valley
Soil structure, texture and fertility	Yellow brown gravelly sandy loam with some lateritic outcrop, fertile	Yellow brown sandy loam with granitic outcrop, moderately fertile	Yellow brown sandy loam, moderately fertile
Soil hydrology	Moderately to strongly water shedding with good infiltration; storage capacity variable	Strongly water shedding, with good infiltration and limited storage capacity	Mildly water shedding, good storage and infiltration capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) on steeper slopes with shallower soils, <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) low open forest on milder slope	Woodland of <i>Eucalyptus wandoo</i> (Ew) with a weak admixture of <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus wandoo</i> (Ew), <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	No second storey	No second storey	<i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds) approaching the status of a small tree
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Acacia pulchella</i> <i>Bossiaea eriocarpa</i> <i>Calytrix flavescens</i> <i>Sollya heterophylla</i> <i>Macrozamia riedlei</i> <i>Hakea lissocarpa</i>	<i>Hypocalymma angustifolium</i> <i>Desmocladius fasciculatus</i> ms <i>Borya sphaerocephala</i> <i>Bossiaea ornata</i> , <i>Dianella revoluta</i> var. <i>divaricata</i> <i>Acacia lasiocarpa</i> <i>Lepidosperma tenue</i> <i>Baekkea camphorosmae</i> <i>Hakea lissocarpa</i>	<i>Trymalium ledifolium</i> <i>Bossiaea eriocarpa</i> <i>Phyllanthus calycinus</i> <i>Brachysema praemorsum</i> <i>Hakea lissocarpa</i> <i>Acacia pulchella</i> <i>Tetraria capillaris</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central		
Geomorphologic catena – VC (EVS)	BL – Balingup (Ms5)	BL – Balingup (Ms5)	HR – Hester (Jp6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Deeply incised valley of a minor tributary of the Blackwood River	Shallowly incised head waters of a minor tributary of the Blackwood River	Residual lateritic uplands on the margin of the Blackwood dissection
Soil structure, texture and fertility	Red brown sandy loam to loam over saprolite, fertile	Gravelly red sandy loam, some lateritic floaters and outcrops, moderately fertile	Yellow brown gravelly loamy sand with numerous lateritic outcrops, infertile
Soil hydrology	Moderately water shedding except on streamline, moderate infiltration and storage capacity	Mildly water shedding except for valley floor, good infiltration and moderate storage capacity	Mildly water shedding via subsoil, very good infiltration and storage capacity due to depth of solum
Over storey (canopy or emergents)	Tall Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep)	Open to Tall Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey of trees but tall shrub stratum of <i>Trymalium floribundum</i> (Tf) approaching size of small tree	<i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl) on slopes, <i>Mirbelia dilatata</i> (Md) & <i>Trymalium floribundum</i> (Tf) on floor	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Hibbertia amplexicaulis</i> <i>Tremandra diffusa</i> <i>Chorizema ilicifolium</i> <i>Clematis pubescens</i> <i>Hardenbergia comptoniana</i> <i>Pteridium esculentum</i> <i>Leucopogon verticillatus</i> <i>Lepidosperma tetraquetrum</i> on streamline	<i>Xanthorrhoea preissii</i> , <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Leucopogon verticillatus</i> <i>Leucopogon propinquus</i> <i>Leucopogon capitellatus</i> <i>Hakea amplexicaulis</i> <i>Macrozamia riedlei</i>	<i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> , <i>Xanthorrhoea preissii</i> , <i>X. gracilis</i> , <i>Hibbertia hypericoides</i> , <i>H. commutata</i> , <i>Leucopogon verticillatus</i> , <i>L. capitellatus</i> , <i>L. propinquus</i> <i>Macrozamia riedlei</i> <i>Hibbertia amplexicaulis</i> <i>Pteridium esculentum</i> <i>Hakea lissocarpha</i> , <i>Dryandra lindleyana</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central Blackwood valley E of Nannup		
Geomorphologic catena – VC (EVS)	SP – Southampton (Fv5)	BTf – Bridgetown (Fv5)	BT – Bridgetown (Ms5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley floor of the Blackwood River, eastward of the Darling Scarp	Mildly sloping terrace in the valley of the Blackwood River	Steep slopes of the Blackwood River dissection
Soil structure, texture and fertility	Alluvial soils, mainly brown silty sands	Yellow brown sandy loam to silty loam, at times underlain by secondary laterite	Skeletal gritty loams with outcrops of crystalline rocks (granite gneiss, dolerite)
Soil hydrology	Periodically flooded but not acutely waterlogged due to deep incision of the stream into the terraces	Mildly water shedding with moderate infiltration capacity, water storage capacity affected by laterite	Strongly water shedding, moderate infiltration and very limited storage capacity
Over storey (canopy or emergents)	Tall Woodland of <i>Eucalyptus rudis</i> (Er)	Open Forest of <i>Corymbia calophylla</i> (Cc) with admixture of <i>Eucalyptus rudis</i> (Er) at lower and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) at upper margin	Woodland of <i>Corymbia calophylla</i> (Cc) on deeper soils to Heath on shallow soils
Second storey	<i>Melaleuca raphiophylla</i> (Mr) <i>Hakea lasianthoides</i> (HI) approach the size of a small tree	<i>Hakea lasianthoides</i> (HI) approaches the size of a small tree	No second storey
Shrub and herb storey	<i>Melaleuca lateritia</i> <i>Pteridium esculentum</i> <i>Astartea fascicularis</i> <i>Gastrolobium bilobum</i> <i>Lepidosperma squamatum</i> <i>Juncus pallidus</i>	<i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Hibbertia hypericoides</i> , <i>Phyllanthus calycinus</i> <i>Hibbertia amplexicaulis</i> <i>Dryandra lindleyana</i> <i>Chorizema ilicifolium</i> <i>Lepidosperma tenue</i> <i>Pimelea argentea</i> <i>Dodonaea viscosa</i>	<i>Xanthorrhoea preissii</i> <i>Leucopogon capitellatus</i> , <i>Leucopogon propinquus</i> , <i>Leucopogon verticillatus</i> . <i>Hakea lissocarpa</i> <i>Calothamnus quadrifidus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central		S of Collie
Geomorphologic catena – VC (EVS)		ML – Mumballup (Fv5)	
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description		River flats and terraces of a medium sized valley incised into the Darling Plateau	
Soil structure, texture and fertility		Alluvial soils, including sands, sandy loams and loams, fertile	
Soil hydrology		Water gaining and seasonally waterlogged floors, terraces better drained	
Over storey (canopy or emergents)		Open Forest of <i>Melaleuca raphiophylla</i> (Mr) and <i>Eucalyptus rudis</i> (Er) on river banks/ flats, <i>Eucalyptus patens</i> (Ep) and <i>Corymbia calophylla</i> (Cc) on terraces	
Second storey		Minor development of <i>Banksia littoralis</i> (Bl) and <i>Paraserianthes lophantha</i> subsp. <i>lophantha</i> (Pal)	
Shrub and herb storey		<i>Agonis linearifolia</i> <i>Trymalium floribundum</i> <i>Astartea fascicularis</i> <i>Gahnia trifida</i> <i>Lepidosperma tetraquetrum</i> <i>Pteridium esculentum</i> <i>Viminaria juncea</i> <i>Hypocalymma angustifolium</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central		Between Bridgetown & Yornup
Geomorphologic catena – VC (EVS)	BLf - Balingup (Fw5)		BL – Balingup (Ms5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a major tributary of the Blackwood within deep dissection of Darling Plateau	Steep valley slope within deep dissection of the Darling Plateau	
Soil structure, texture and fertility	Red duplex soil with sandy loam over gleyed clay, fertile	Red duplex soil with red brown loam over clay, fertile	
Soil hydrology	Water gaining, seasonally flooded and waterlogged but with good lateral drainage	Water shedding, with moderately good infiltration and storage capacity	
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er) on streamline and <i>Eucalyptus patens</i> (Ep) on lower slopes	Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	
Second storey	Weakly developed <i>Acacia saligna</i> (As) approaching tree size under <i>Eucalyptus rudis</i> - <i>Eucalyptus patens</i> transition	Weakly developed, occasional <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl) also tall <i>Xanthorrhoea preissii</i> (Xp)	
Shrub and herb storey	<i>Lepidosperma effusum</i> <i>Pteridium esculentum</i> <i>Astartea fascicularis</i> <i>Kennedia coccinea</i> <i>Kunzea recurva</i> also numerous exotics.	<i>Leucopogon capitellatus</i> <i>Leucopogon verticillatus</i> <i>Hibbertia commutata</i> <i>Kennedia coccinea</i> <i>Macrozamia riedlei</i> <i>Hibbertia amplexicaulis</i> <i>Hakea lissocarpha</i> <i>Bossiaea ornata</i> <i>Clematis linearifolia</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central		SW of Collie
Geomorphologic catena – VC (EVS)	GR – Grimwade (Mm5)		GR – Grimwade (Mm5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of medium sized valley incised into the Darling Plateau	Lower slopes of medium sized valley incised into the Darling Plateau	
Soil structure, texture and fertility	Yellowish brown silty loam, fertile	Reddish brown loam grading into clay loam, fertile	
Soil hydrology	Mildly water gaining but not waterlogged due to good lateral drainage	Moderately water shedding with good infiltration and storage capacity	
Over storey (canopy or emergents)	Open Forest to Tall Open Forest of <i>Eucalyptus patens</i> (Ep) with <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) at margin	Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep) at lower margin	
Second storey	<i>Trymalium floribundum</i> (Tf) approaching the status of a small tree	Weakly developed second storey of <i>Persoonia longifolia</i> (Pl)	
Shrub and herb storey	<i>Hakea amplexicaulis</i> <i>Pteridium esculentum</i> <i>Xanthorrhoea preissii</i> <i>Macrozamia riedlei</i> <i>Phyllanthus calycinus</i> <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> <i>Leucopogon propinquus</i> <i>Leucopogon capitellatus</i> <i>Clematis pubescens</i>	<i>Hibbertia hypericoides</i> <i>Xanthorrhoea preissii</i> <i>Macrozamia riedlei</i> <i>Hakea amplexicaulis</i> <i>Leucopogon propinquus</i> <i>Pteridium esculentum</i> <i>Hibbertia amplexicaulis</i> <i>Dryandra lindleyana</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central south	S of Donnybrook near Newlands	
Geomorphologic catena – VC (EVS)	GR – Grimwade (Mm5)	GR – Grimwade (Mm5)	
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of valley incised into the Darling Plateau	Midslope of valley incised into the Darling Plateau	
Soil structure, texture and fertility	Yellowish brown gravelly sandy loam, with some granitic outcrop, fertile	Yellowish brown loamy gravels, moderately fertile	
Soil hydrology	Slopes mildly watershedding, floor water gaining, seasonally waterlogged	Moderately water shedding , with good infiltration and storage capacity	
Over storey (canopy or emergents)	Open Forest to Tall Open Forest of <i>Eucalyptus patens</i> (Ep) and <i>Corymbia calophylla</i> (Cc)	Open to Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	
Second storey	<i>Agonis flexuosa</i> (Af)	Weak development of <i>Banksia grandis</i> (Bg) and tall <i>Hakea amplexicaulis</i> (Ha)	
Shrub and herb storey	<i>Acacia urophylla</i> <i>Macrozamia riedlei</i> <i>Trymalium floribundum</i> <i>Hibbertia commutata</i> <i>Lasiopetalum floribundum</i> on slopes <i>Agonis linearifolia</i> <i>Lepidosperma tetraquetrum</i> on valley floor	<i>Bossiaea linophylla</i> <i>Hibbertia hypericoides</i> <i>Acacia extensa</i> , <i>Bossiaea eriocarpa</i> , <i>Leucopogon capitellatus</i> , <i>Lepidosperma squamatum</i> , <i>Lechenaultia biloba</i> , <i>Lomandra nigricans</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central NE from Donnybrook on Darling Scarp		
Geomorphologic catena – VC (EVS)	DB3 – Donnybrook (Ic6)	DB3 – Donnybrook (Ic6)	DS – Darling Scarp (RS4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Minor valley incised into the edge of the Darling Plateau	Moderate slope of the Darling Scarp at its junction with Blackwood Plateau	Steep slope of the Darling Scarp at its junction with Blackwood Plateau
Soil structure, texture and fertility	Red brown sandy loam over kaolinitic clay, moderately fertile	Yellow brown gravelly sandy loam with duricrust, over kaolinitic clay	Yellow brown saprolite and kaolinitic clay with granitic outcrops
Soil hydrology	Floor water gaining, slopes water shedding with good infiltration and storage capacity	Strongly water shedding with good infiltration and moderate storage capacity	Very strongly water shedding with limited infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) on slopes, <i>Eucalyptus rudis</i> (Er) on valley floor	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Corymbia haematoxylon</i> (Ch) to Heath
Second storey	<i>Agonis flexuosa</i> (Af) on lower slopes, <i>Banksia grandis</i> (Bg) on midslopes	Few <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl)	No true second storey
Shrub and herb storey	<i>Agonis linearifolia</i> <i>Grevillea diversifolia</i> on valley floor; on slopes <i>Pteridium esculentum</i> <i>Xanthorrhoea preissii</i> <i>Acacia urophylla</i> <i>Hakea lissocarpha</i> <i>Leucopogon propinquus</i> <i>Macrozamia riedlei</i>	<i>Leucopogon capitellatus</i> <i>Hakea lissocarpha</i> <i>Bossiaea ornata</i> <i>Hakea amplexicaulis</i> <i>Hovea chorizemifolia</i> <i>Acacia urophylla</i> <i>Macrozamia riedlei</i> <i>Lepidosperma tenue</i>	<i>Baeckea camphorosmae</i> <i>Hypocalymma angustifolium</i> <i>Verticordia plumosa</i> <i>Lepidosperma squamatum</i> <i>Haemodorum paniculatum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central SE of Donnybrook in Preston Valley	
Geomorphologic catena – VC (EVS)	QWf – Queenwood (Ic5)	QW – Queenwood (Ic5)
Landform and Vegetation profile		
100m		
80m		
60m		
40m		
20m		
Land form description	Mild lower slopes of the Preston River valley	Moderate slopes of the Preston River valley
Soil structure, texture and fertility	Yellow brown duplex with sandy topsoil, infertile	Yellow brown duplex with gravelly loamy sand topsoil, infertile
Soil hydrology	Mildly water shedding via subsoil, good infiltration, moderate storage capacity	Moderately water shedding with good infiltration and moderate storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Persoonia longifolia</i> (Pl) <i>Nuytsia floribunda</i> (Nf) <i>Xylomelum occidentale</i> (Xp)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Adenanthos obovatus</i> <i>Adenanthos meisneri</i> <i>Bossiaea eriocarpa</i> <i>Dasypogon bromeliifolius</i> <i>Mesomelaena tetragona</i> <i>Xanthorrhoea preissii</i> <i>Melaleuca thymoides</i> <i>Conostylis aculeata</i>	<i>Acacia extensa</i> <i>Acacia lateriticola</i> <i>Hibbertia hypericoides</i> <i>Bossiaea eriocarpa</i> <i>Bossiaea ornata</i> <i>Lepidosperma squamatum</i> <i>Leucopogon capitellatus</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Styphelia tenuiflora</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central		near Kirup
Geomorphologic catena – VC (EVS)		KR – Kirup (Ic5)	
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description		Broad mildly sloping depression in the Darling Plateau	
Soil structure, texture and fertility		Deep leached grey sand with organic stained topsoil, infertile	
Soil hydrology		Mildly water shedding via subsoil, good infiltration but only moderate storage capacity due to coarseness	
Over storey (canopy or emergents)		Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	
Second storey		Strong development of <i>Xylomelum occidentale</i> (Xo) less <i>Banksia grandis</i> (Bg)	
Shrub and herb storey		<i>Bossiaea linophylla</i> <i>Acacia extensa</i> , <i>Pteridium esculentum</i> , <i>Hibbertia hypericoides</i> , <i>Phlebocarya ciliata</i> , <i>Philothea spicata</i> <i>Gompholobium tomentosum</i> <i>Hibbertia racemosa</i> <i>Opercularia hispidula</i> var. <i>pauciflora</i> <i>Conostylis serrulata</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central SE of Donnybrook on Boyup Brook Rd	
Geomorphologic catena - VC (EVS)	KR - Kirup (Ic5)	KR - Kirup (Ic5)
Landform and Vegetation profile		
100m		
80m		
60m		
40m		
20m		
Land form description	Mildly sloping shelf above floor of the Preston River	Low sandy rise above the mildly sloping shelf
Soil structure, texture and fertility	Grey loamy sand over sandy clay at depth, infertile	Grey sand over decomposed sandstone, very infertile
Soil hydrology	Mildly water shedding via subsoil, good infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration, moderate storage capacity
Over storey (canopy or emergents)	Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) <i>Nuytsia floribunda</i> (Nf) <i>Banksia attenuata</i> (Ba) and <i>Xylomelum occidentale</i> (Xo)
Second storey	Weak development of <i>Persoonia longifolia</i> (Pl) <i>Nuytsia floribunda</i> (Nf)	No second storey
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Acacia extensa</i> <i>Acacia pulchella</i> <i>Hibbertia hypericoides</i> <i>Bossiaea eriocarpa</i> <i>Mesomelaena tetragona</i> <i>Anigozanthos manglesii</i> <i>Lepidosperma squamatum</i> <i>Gompholobium venustum</i> <i>Lyginia barbata</i>	<i>Adenanthos meisneri</i> <i>Melaleuca thymoides</i> <i>Stirlingia latifolia</i> <i>Bossiaea eriocarpa</i> <i>Phlebocarya ciliata</i> <i>Acacia extensa</i> <i>Lyginia barbata</i> <i>Dasypogon bromeliifolius</i> <i>Hypolaena exsulca</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central		NE of Bridgetown
Geomorphologic catena – VC (EVS)	BO – Boonarie (Ic5)	BO – Boonarie (Ic5)	WG – Wilga (Jg4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a minor upland depression	Mild slopes of a minor upland depression	Near level upland, only slightly raised above the drainage lines
Soil structure, texture and fertility	Humus podzol, acid, very infertile	Podzol with sandy surface, infertile	Podzol with sandy loam surface, infertile
Soil hydrology	Water gaining, seasonally waterlogged, storage limited by subsoil impedance	Mildly water gaining, good infiltration	Mildly water shedding, good infiltration and storage
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er), <i>Melaleuca preissiana</i> (Mp) and <i>Banksia littoralis</i> (Bl)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) greater in number but with smaller crowns than usual
Second storey	Replaced by tall shrub storey	Well developed second storey of <i>Banksia grandis</i> (Bg)	Second storey very poorly developed, only occasional <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Melaleuca viminea</i> <i>Hakea varia</i> <i>Hypocalymma angustifolium</i> <i>Mesomelaena tetragona</i> <i>Xanthorrhoea preissii</i> <i>Agonis linearifolia</i> <i>Astartea fascicularis</i>	<i>Bossiaea linophylla</i> <i>Hibbertia hypericoides</i> <i>Philotheca spicata</i> <i>Bossiaea ornata</i> <i>Dryandra lindleyana</i> <i>Hakea lissocarpha</i>	<i>Hakea lissocarpha</i> <i>Hibbertia commutata</i> <i>Hibbertia amplexicaulis</i> <i>Bossiaea linophylla</i> <i>Bossiaea ornata</i> <i>Leucopogon capitellatus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central Between Balingup and Cundinup		
Geomorphologic catena – VC (EVS)	GR – Grimwade (Mm5)	HR – Hester (Jp6)	
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Deeply incised valley of medium sized stream close Darling Scarp	Transition between uplands and shallowly incised broad gully in head waters of a minor stream	
Soil structure, texture and fertility	Skeletal soils, mostly shallow gritty loams, with granitic outcrops	Red brown gravelly loam, moderately fertile	
Soil hydrology	Slopes strongly water shedding, limited infiltration and storage capacity	Mildly water shedding with good infiltration and storage capacity	
Over storey (canopy or emergents)	Fringing Woodland of <i>Eucalyptus rudis</i> (Er) on streamline, Woodland of <i>Corymbia calophylla</i> (Cc) with few <i>Eucalyptus marginata</i> (Em) on slopes	Open to Tall Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> (Em)	
Second storey	No second storey, some tall <i>Xanthorrhoea preissii</i> (Xp)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	
Shrub and herb storey	<i>Gastrolobium spinosum</i> <i>Darwinia citriodora</i> <i>Dodonaea ceratocarpa</i> <i>Dodonaea viscosa</i> <i>Hakea lissocarpa</i> <i>Macrozamia riedlei</i> <i>Trymalium floribundum</i> <i>Bossiaea linophylla</i> <i>Phyllanthus calycinus</i>	<i>Bossiaea linophylla</i> <i>Pteridium esculentum</i> <i>Leucopogon verticillatus</i> <i>Leucopogon capitellatus</i> <i>Clematis pubescens</i> <i>Hibbertia hypericoides</i> <i>Hibbertia amplexicaulis</i> <i>Hakea amplexicaulis</i> <i>Bossiaea ornata</i> <i>Hovea chorizemifolia</i> <i>Chorizema rhombeum</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		near Qualeup
Geomorphologic catena – VC (EVS)	QUw – Qualeup (Gw3)	QU – Qualeup (Ac3)	KU2 – Kulikup (Jv3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a broad valley shallowly incised into the Darling Plateau	Lower slopes of a broad depression in the Darling Plateau	Gently undulating sedimentary surface on the Darling Plateau
Soil structure, texture and fertility	Yellow duplex with loamy sand topsoil over gleyed clay, of low to moderate fertility	Red duplex soil with red brown sandy loam topsoil over clay, moderately fertile	Yellow duplex soil with gravelly sandy loam topsoil over sandy clay, of low to moderate fertility
Soil hydrology	Moderately to strongly water gaining, seasonally waterlogged and in part inundated	Mildly water shedding with good infiltration and moderate storage capacity	Mildly water shedding but locally weakly water gaining; good infiltration and moderate storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er) in lowest depression, <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc) on better drained sites	Woodland of <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Melaleuca raphiophylla</i> (Mr) with <i>Eucalyptus rudis</i> (Er); <i>Hakea prostrata</i> (Hp) approaching small tree size under <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)	<i>Hakea prostrata</i> (Hp) approaching small tree size also <i>Acacia acuminata</i> (Aa)	No second storey
Shrub and herb storey	<i>Melaleuca viminea</i> <i>Hakea varia</i> on valley floor; <i>Xanthorrhoea preissii</i> <i>Pericalymma ellipticum</i> <i>Allocasuarina humilis</i> <i>Brachysema praemorsum</i> <i>Hakea lissocarpa</i> on slopes	<i>Brachysema praemorsum</i> <i>Kennedia prostrata</i> <i>Bossiaea eriocarpa</i> <i>Xanthorrhoea preissii</i> <i>Tetrarrhena laevis</i> <i>Desmodcladus flexuosus</i>	<i>Brachysema praemorsum</i> <i>Hakea lissocarpa</i> <i>Dianella revoluta</i> <i>Bossiaea eriocarpa</i> <i>Bossiaea ornata</i> <i>Hibbertia commutata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semi-arid central			Walshaws Rd near Balbarrup		
Geomorphologic catena – VC (EVS)	QU – Qualeup (Ac3)		QUw – Qualeup (Gw3)	SD – Sandalwood (Jp3)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Mild slope of a broad open depression on a dissected plateau	Lower slope and floor of a depression in the headwaters of a minor stream on a dissected plain	Upper slope of a medium rise on a dissected plateau			
Soil structure, texture and fertility	Yellowish brown loamy sand, low to moderate fertility	Light grey brown loamy sand on slopes, grey clay loam on valley floor, variable fertility	Pale brown gravelly loamy sand, with some lateritic outcrops, moderate fertility			
Soil hydrology	Mildly water shedding via subsoil, good infiltration, moderate storage capacity	Water gaining with good infiltration capacity, fairly good internal drainage on slopes; waterlogged for long periods on valley floor	Water shedding, with good infiltration			
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) with few <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus wandoo</i> (Ew) on lower slopes; low emergents of <i>Melaleuca preissiana</i> (Mp) over <i>Baumea Sedgeland</i> on valley floor	Woodland of <i>Eucalyptus wandoo</i> (Ew), <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)			
Second storey	No second storey	No second storey	No second storey			
Shrub and herb storey	<i>Hakea lissocarpa</i> <i>Gastrolobium calycinum</i> <i>Loxocarya cinerea</i> <i>Conostylis serrulata</i> <i>Lomandra integra</i> <i>Senecio hispidulus</i> <i>Patersonia occidentalis</i> <i>Hakea prostrata</i>	<i>Baumea articulata</i> , <i>Baumea juncea</i> , <i>Hakea sulcata</i> on valley floors; <i>Xanthorrhoea preissii</i> , <i>Hakea lissocarpa</i> <i>Gastrolobium calycinum</i> <i>Hypocalymma angustifolium</i> <i>Loxocarya cinerea</i> , <i>Hibbertia commutata</i> , <i>Baeckea camphorosmae</i> , <i>Gompholobium marginatum</i> on valley slopes	<i>Xanthorrhoea preissii</i> <i>Hakea lissocarpa</i> <i>Brachysema praemorsum</i> <i>Desmocladius fasciculatus</i> ms <i>Tetraria capillaris</i> <i>Bossiaea ornata</i> <i>Neurachne alopecuroidea</i> <i>Dianella revoluta</i> var. <i>divaricata</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central Haddleton Springs near Qualeup		
Geomorphologic catena – VC (EVS)	QUw – Qualeup (Gw3)	QUs – Qualeup (Ac3)	QU – Qualeup (Ac3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a minor valley in the Darling Plateau	Lower slope of a minor valley in the Darling Plateau	Upper slope and ridge of a minor rise on the Darling Plateau
Soil structure, texture and fertility	Yellow brown sandy loam with humus enriched topsoil, low fertility	Silty sand, with humus enriched topsoil and light grey subsoil, infertile	Yellowish brown gravelly loamy sand, with lateritic duricrust, low fertility
Soil hydrology	Water gaining, seasonally waterlogged	Mildly water shedding via subsoil, good infiltration and storage capacity	Moderately water shedding via subsoil, good infiltration storage capacity
Over storey (canopy or emergents)	Woodland of <i>Melaleuca preissiana</i> (Mp), <i>Melaleuca raphiophylla</i> (Mr), <i>Eucalyptus rudis</i> (Er), <i>Banksia littoralis</i> (Bl), <i>Acacia saligna</i> (As)	Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)
Second storey	No true second storey	<i>Banksia attenuata</i> (Ba), <i>Acacia saligna</i> (As), <i>Melaleuca preissiana</i> (Mp)	No second storey
Shrub and herb storey	<i>Baumea juncea</i> , <i>Baumea articulata</i> , <i>Lepidosperma longitudinale</i> , <i>Hypocalymma angustifolium</i> , <i>Astartea fascicularis</i> , <i>Hakea varia</i> , <i>Lobelia alata</i> var. <i>alata</i>	<i>Kunzea sulphurea</i> , <i>Pericalymma ellipticum</i> , <i>Hypocalymma angustifolium</i> , <i>Phlebocarya ciliata</i> , <i>Calytrix flavescens</i> , <i>Hypolaena exsulca</i> , <i>Acacia pulchella</i>	<i>Acacia extensa</i> , <i>Bossiaea ornata</i> , <i>Hakea lissocarpha</i> , <i>Macrozamia riedlei</i> , <i>Hibbertia commutata</i> , <i>Brachysema praemorsum</i> , <i>Acacia nervosa</i> , <i>Conostylis serrulata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid central		North of Qualeup
Geomorphologic catena - VC (EVS)	SD -Sandalwood (Jp3)	QUs - Qualeup (Ac3)	QUw - Qualeup (Gw3)
Landform and Vegetation profile			
Land form description	Relatively large and steep upland within strong dissection	Mild and lower slope, mildly sloping	Valley floor of medium-size stream
Soil structure, texture and fertility	Pale yellow brown loamy gravels over clay of moderate fertility	Deep sand of low fertility	Variable, from red brown sandy loam to grey clay loam of moderate fertility
Soil hydrology	Water shedding with variable subsoil storage capacity	Weakly water gaining via sub soil, well drained due to coarse texture	Moderately to strongly water gaining with impeded external and internal drainage
Over storey (canopy or emergents)	Woodland to Open Forest of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), to low woodland of <i>Banksia attenuata</i> (Ba)	Woodland of <i>Eucalyptus wandoo</i> (Ew) to low forest of <i>Eucalyptus rudis</i> (Er), <i>Melaleuca raphiophylla</i> (Mr), <i>Melaleuca cuticularis</i> (Mc) <i>Banksia littoralis</i> (Bl)
Second storey	<i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds) approaching the size of a small tree (6m) on upper slopes and <i>Hakea prostrata</i> (Hp) on lower slopes	<i>Banksia grandis</i> (Bg) in woodland only	No second storey
Shrub and herb storey	<i>Baeckea camphorosmae</i> <i>Bossiaea ornata</i> <i>Desmocladius fasciculatus</i> ms <i>Dryandra bipinnatifida</i> <i>Hibbertia commutata</i>	<i>Kunzea ericifolia</i> , <i>Jacksonia furcellata</i> <i>Hypocalymma angustifolium</i> <i>Phlebocarya ciliata</i>	<i>Gastrolobium calycinum</i> <i>Baeckea camphorosmae</i> <i>Astartea fascicularis</i> <i>Hakea varia</i> <i>Regelia ciliata</i> <i>Baumea juncea</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		S of Moordiarup
Geomorphologic catena - VC (EVS)	Bo1 - Boscabel (Lp2)	Bo1s - Boscabel (Ac3)	Bo1s - Boscabel (Ac3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Mid to upper slope of a medium sized valley on the Darling Plateau	Mid slope of a medium sized valley on the Darling Plateau	Mid to lower slope of a medium sized valley on the Darling Plateau
Soil structure, texture and fertility	Gravelly sandy loam with outcrops of sandy laterite, moderately fertile	Grey loamy sand over gravel and clay at depth, relatively infertile	Deep grey sand, very infertile
Soil hydrology	Water shedding, good infiltration and moderate storage capacity	Mildly water shedding via subsoil, good infiltration, moderate storage capacity	Mildly water shedding to mildly water gaining; good infiltration, limited storage due to coarse texture
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with minor admixture of <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	No second storey	<i>Nuytsia floribunda</i> (Nf) <i>Hakea prostrata</i> (Hp) approaching small tree status	<i>Banksia attenuata</i> (Ba)
Shrub and herb storey	<i>Macrozamia riedlei</i> <i>Acacia pulchella</i> <i>Hakea lissocarpha</i> <i>Bossiaea eriocarpa</i> <i>Austrodanthonia caespitosa</i> <i>Tetraria capillaris</i> <i>Ptilotus manglesii</i> <i>Trymalium ledifolium</i> <i>Lepidosperma squamatum</i>	<i>Macrozamia riedlei</i> <i>Hibbertia hypericoides</i> <i>Patersonia occidentalis</i> <i>Loxocarya cinerea</i> <i>Austrostipa campylachne</i> <i>Tetraria octandra</i> <i>Borya sphaerocephala</i> <i>Hakea lissocarpha</i> <i>Bossiaea eriocarpa</i>	<i>Xanthorrhoea preissii</i> <i>Macrozamia riedlei</i> <i>Desmocladius fasciculatus</i> ms <i>Hibbertia hypericoides</i> <i>Acacia stenoptera</i> <i>Lepidosperma squamatum</i> <i>Calytrix flavescens</i> <i>Stirlingia latifolia</i> <i>Allocasuarina humilis</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central near Qualeup on Lower Blackwood Rd		
Geomorphologic catena – VC (EVS)	GW – Gnoweagerup (Fv3)	BR – Brockman (Fv3)	DM2 – Dalmore (Jp3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of medium sized valley in the Darling Plateau	Lower slopes of a medium sized valley in the Darling Plateau	Lower slope of a minor rise, adjacent to valley of medium sized stream
Soil structure, texture and fertility	Yellow duplex soil with grey sandy topsoil over mottled gleyed clay, saline	Yellow duplex soil with sandy loam topsoil over sandy clay, moderately fertile	Yellow duplex soil with gravelly sandy loam topsoil of low to moderate fertility
Soil hydrology	Water gaining, seasonally flooded and waterlogged, affected by rising saline groundwater	Mildly water shedding with good infiltration and moderate storage capacity	Mildly water shedding with good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er), with many dead trees on drainage line	Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	Weakly developed, tall <i>Xanthorrhoea preissii</i> (Xp), <i>Acacia saligna</i> (As) and <i>Hakea prostrata</i> (Hp) approaching the size of small trees	Tall <i>Xanthorrhoea preissii</i> (Xp)
Shrub and herb storey	<i>Melaleuca viminea</i> <i>Baumea juncea</i> <i>Sarcocornia blackiana</i> <i>Pimelea</i> sp. <i>Patersonia occidentalis</i> <i>Halosarcia halocnemoides</i>	<i>Hypocalymma angustifolium</i> , <i>Phyllanthus calycinus</i> , <i>Bossiaea eriocarpa</i> , <i>Opercularia vaginata</i> <i>Brachysema praemorsum</i> <i>Kennedia prostrata</i> <i>Lepidosperma tenue</i> <i>Dianella revoluta</i> <i>Hybanthus floribundus</i>	<i>Hakea lissocarpa</i> , <i>Bossiaea ornata</i> , <i>Lepidosperma tenue</i> , <i>Desmocladius fasciculatus</i> , <i>Hypocalymma angustifolium</i> , <i>Macrozamia riedlei</i> , <i>Trymalium ledifolium</i> , <i>Leucopogon capitellatus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid central		E of Boyup Brook
Geomorphologic catena	CP2 – Condinup (Fv3)	NWg2 – Newgalup (Ds2)	DM2 – Dalmore (Jp3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Alluvial plain and stream bed of a major stream	Mild lower slope in otherwise strongly dissected landscape	Residual upland in strongly dissected portion of Darling Plateau
Soil structure, texture and fertility	Deep brown sandsand loamy sands of variable fertility	Yellowish brown gravelly sandy loam over sandy clay of low to moderate fertility	Pale yellowish brown gravelly sandy loam over sandy clay of low fertility
Soil hydrology	Strongly water gaining, seasonally inundated and waterlogged for prolonged periods	Mildly water gaining, infiltration proportional to texture; loams (downslope) to sands (upslope)	Mildly water shedding moderately good infiltration and water storage
Over storey (canopy or emergents)	Woodland to Low Open Forest of <i>Eucalyptus rudis</i> (Er)	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)	Woodland to Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew)
Second storey	<i>Melaleuca raphiophylla</i> (Mr)	<i>Banksia grandis</i> (Bg) <i>Nuytsia floribunda</i> (Nf)	No second storey
Shrub and herb storey	<i>Astartea fascicularis</i> <i>Lepidosperma longitudinale</i> <i>Baumea articulata</i> <i>Baumea juncea</i> <i>Lepyrodia glauca</i> <i>Lobelia alata</i> var. <i>alata</i>	<i>Acacia pulchella</i> <i>Desmocladius flexuosus</i> ms <i>Bossiaea eriocarpa</i> <i>Hibbertia commutata</i> <i>Hakea lissocarpa</i> <i>Dryandra sessilis</i> var. <i>sessilis</i>	<i>Desmocladius fasciculatus</i> <i>Bossiaea ornata</i> <i>Leucopogon capitellatus</i> <i>Hakea lissocarpa</i> <i>Trymalium ledifolium</i> <i>Macrozamia riedlei</i> <i>Scaevola calliptera</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid central		Walshaw Rd near Dinninup
Geomorphologic catena – VC (EVS)	LK2 – Lukin (Nm2)	SD – Sandalwood (Jp3)	SD – Sandalwood (Jp3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Lower slope of a minor valley within a dissected plateau	Mid slope between a minor valley and a medium rise within a dissected plateau	Moderately steep upper slope of a medium rise, within a dissected plateau
Soil structure, texture and fertility	Yellow brown gravelly loamy sand, moderately fertile	Yellow brown gravelly sandy loam, moderately infertile	Yellow brown gravelly loamy sand, moderately fertile
Soil hydrology	Mildly water gaining with good infiltration and storage capacity, adequately drained	Moderately water shedding with good infiltration and storage capacity	Strongly water shedding with good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with minor admixture of <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with minor admixture of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew)
Second storey	No second storey	<i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds) approaching the status of a small tree (6m) on upper slopes, <i>Hakea prostrata</i> (Hp) on lower slopes, some <i>Nuytsia floribunda</i> (Nf)	No second storey
Shrub and herb storey	<i>Xanthorrhoea preissii</i> <i>Hakea lissocarpa</i> <i>Acacia pulchella</i> , <i>Kennedia prostrata</i> , <i>Hibbertia commutata</i> , <i>Trymalium ledifolium</i> , <i>Tetraria octandra</i> <i>Hakea prostrata</i> , <i>Bossiaea eriocarpa</i>	<i>Calytrix flavescens</i> <i>Dryandra bipinnatifida</i> <i>Baeckea camphorosmae</i> <i>Desmocladius flexuosus</i> ms <i>Patersonia occidentalis</i> <i>Austrodanthonia caespitosa</i> <i>Phyllanthus calycinus</i>	<i>Bossiaea ornata</i> <i>Astroloma pallidum</i> <i>Desmocladius fasciculatus</i> <i>Hakea lissocarpa</i> <i>Xanthorrhoea preissii</i> <i>Hibbertia commutata</i> <i>Leucopogon propinquus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		North of Moodiarup	
Geomorphologic catena – VC (EVS)	DK5 – Darkin (Cv1)		DK5 – Darkin (Cv1)	DK5 – Darkin (Cv1)
Landform and Vegetation profile				
100m				
80m				
60m				
40m				
20m				
Land form description	Lunette developed between swamp and lake	Low lying swampy depression, saline	Mild lower slope between swampland and a low rise	
Soil structure, texture and fertility	Deep aeolian sand	Heavy textured solonetzic soil	Yellow duplex soil	
Soil hydrology	Good infiltration and moderately good storage, mildly water shedding via subsoil	Seasonally inundated, water-logged for much of the year	Mildly water shedding with good infiltration and moderate storage capacity	
Over storey (canopy or emergents)	Woodland of <i>Banksia prionotes</i> (Bp) with emergents of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus rudis</i> (Er) on lower slopes	Low Forest of <i>Casuarina obesa</i> (Co), with <i>Eucalyptus rudis</i> (Er) on the interface with lunette	Woodland of <i>Eucalyptus wandoo</i> (Ew)	
Second storey	<i>Acacia acuminata</i> (Aa) <i>Acacia saligna</i> (As)	No second storey	No second storey other than some tall <i>Dryandra sessilis</i> (Ds)	
Shrub and herb storey	<i>Jacksonia furcellata</i> <i>Jacksonia sternbergiana</i> <i>Conostylis serrulata</i> <i>Dianella revoluta</i> <i>Lepidosperma tenue</i> <i>Dryandra sessilis</i> var. <i>sessilis</i> , <i>Loxocarya cinerea</i> <i>Hakea prostrata</i>	<i>Atriplex pumilio</i> <i>Acacia ampliceps</i>	<i>Allocasuarina humilis</i> <i>Hakea lissocarpa</i> <i>Acacia pulchella</i> <i>Hypocalymma angustifolium</i> <i>Trymalium ledifolium</i> <i>Hibbertia commutata</i> <i>Chorizema aciculare</i> <i>Desmocladius flexuosus</i> ms	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		near Moodiarup
Geomorphologic catena – VC (EVS)	DK5 – Darkin (Cv1)		
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad river flats with braided channels		
Soil structure, texture and fertility	Solonetzic soil with pale yellow loamy sand over clay		
Soil hydrology	Seasonally inundated, water gaining with poor internal drainage, affected by saline groundwater		
Over storey (canopy or emergents)	Low Open Woodland of <i>Eucalyptus rudis</i> (Er) and <i>Melaleuca raphiophylla</i> (Mr)		
Second storey	<i>Melaleuca viminea</i> (Mv)		
Shrub and herb storey	<i>Eleocharis</i> sp. * <i>Cyperus tenellus</i> <i>Harperia lateriflora</i> <i>Cotula coronipifolia</i>		

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid central		E of Mayanup
Geomorphologic catena – VC (EVS)	KU2 – Kulikup (Jv3)	NW2 – Newgalup (Wm2)	GW – Gnowengerup (Fv3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Extensive residual plateau, mildly undulating	Lower slope of a shallow dissection	Valley floor of a medium sized stream
Soil structure, texture and fertility	Gravels with sandy loam matrix	Yellow duplex soils, with sandy loam surface over sandy clay	Plastic black clay over iron humus pan, high salinity
Soil hydrology	Mainly water retaining with good infiltration and storage capacity due to deep profile	Water shedding with limited infiltration and moisture storage	Seasonally inundated, waterlogged for most of the year
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus rudis</i> (Er) on lowest slope only	Woodland of <i>Eucalyptus rudis</i> (Er) and <i>Melaleuca raphiophylla</i> (Mr)
Second storey	Largely absent, except for <i>Acacia microbotrya</i> (Am) under dead jarrah in minor depression	No second storey	No second storey
Shrub and herb storey	<i>Bossiaea ornata</i> <i>Grevillea leptobotrya</i> <i>Lepidosperma tenue</i> <i>Hibbertia commutata</i> <i>Macrozamia riedlei</i> <i>Hakea lissocarpha</i> <i>Sollya heterophylla</i> <i>Hibbertia commutata</i>	<i>Hakea prostrata</i> <i>Allocasuarina humilis</i> <i>Ptilotus manglesii</i> <i>Hibbertia commutata</i> <i>Brachysema praemorsum</i> <i>Neurachne alopecuroidea</i>	Sedge ground storey of <i>Baumea</i> sp. * <i>Atriplex pumilio</i> * <i>Cynodon dactylon</i> <i>Sarcocornia quinqueflora</i> subsp. <i>quinqueflora</i> <i>Lobelia alata</i> var. <i>alata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid central		near Mayanup
Geomorphologic catena – VC (EVS)	NW2 – Newgalup (Wm2)	LK2 – Lukin (Nm2)	DM2 – Dalmore (Jp3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Long even slope	Broad head of valley	Residual upland in the form of a narrow long ridge
Soil structure, texture and fertility	Duplex soils with loamy gravels overlying clay of moderate fertility	Sandy loam with some gravelly sands of moderate fertility	Gravelly loamy sand and gravelly loam of low to moderate fertility
Soil hydrology	Mildly water gaining, intermediate infiltration, limited storage capacity	Moderately water shedding, intermediate infiltration and water storing capacity	Limited shedding, very good infiltration and subsoil storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) on lower slope	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey of trees observed but tall <i>Xanthorrhoea preissii</i> (Xp) present	No second storey	Largely without second storey, fer <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Acacia saligna</i> <i>Acacia pulchella</i> <i>Allocasuarina humilis</i> <i>Hakea prostrata</i> <i>Loxocarya cinerea</i> <i>Phyllanthus calycinus</i> <i>Neurachne alopecuroidea</i>	<i>Acacia pulchella</i> <i>Desmocladius fasciculatus</i> <i>Sollya heterophylla</i> <i>Macrozamia riedlei</i> <i>Hakea lissocarpha</i> <i>Leucopogon capitellatus</i>	<i>Sollya heterophylla</i> <i>Trymalium ledifolium</i> <i>Brachysema praemorsum</i> <i>Leucopogon capitellatus</i> <i>Bossiaea ornata</i> <i>Acacia pulchella</i> <i>Neurachne alopecuroidea</i> <i>Leucopogon propinquus</i> <i>Hakea lissocarpha</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		Haddleton Springs
Geomorphologic catena – VC (EVS)	DK5 – Darkin (Cv1)	DK2 – Darkin (Wm2)	DK4 – Darkin (Wm2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a minor valley on the Darling Plateau	Mild lower slope of a minor valley	Floor of a minor valley
Soil structure, texture and fertility	Humus podzol, with high incorporation of organic matter in the topsoil, infertile	Deep leached sand, light brown, with humus enriched topsoil, infertile	Loamy sand, with humus enriched topsoil of low to moderate fertility
Soil hydrology	Water gaining, waterlogged for prolonged periods	Mildly water shedding via subsoil, good infiltration but only moderate storage capacity due to coarseness	Water gaining, seasonally waterlogged
Over storey (canopy or emergents)	Low Forest of <i>Melaleuca preissiana</i> (Mp) and <i>Eucalyptus rudis</i> (Er) with <i>Corymbia calophylla</i> (Cc) on upper margin	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Open Woodland of <i>Corymbia calophylla</i> (Cc) with some <i>Eucalyptus rudis</i> (Er) on drainage line
Second storey	No second storey	<i>Banksia attenuata</i> (Ba) and <i>Kunzea ericifolia</i> (Ke) approaching the size of small trees (4m)	No true second storey
Shrub and herb storey	Dominated by <i>Lepyrodia glauca</i> and <i>Atriplex pumilio</i> <i>Lepidosperma longitudinale</i> <i>Baumea juncea</i> <i>Lobelia alata</i> var. <i>alata</i> <i>Hibbertia nymphaea</i>	<i>Mesomelaena tetragona</i> <i>Stirlingia latifolia</i> <i>Lyginia barbata</i> <i>Phlebocarya ciliata</i> <i>Petrophile linearis</i> <i>Calytrix flavescens</i> <i>Adenanthos meisneri</i> <i>Hibbertia huegelii</i>	<i>Acacia saligna</i> <i>Hakea prostrata</i> <i>Xanthorrhoea preissii</i> <i>Gastrolobium calycinum</i> <i>Conostylis serrulata</i> <i>Hypocalymma angustifolium</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Acacia incurva</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		Duranilin
Geomorphologic catena – VC (EVS)	DK5 – Darkin (Cv1)	DK2 – Darkin (Wm2)	DK1 – Darkin (Lp2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a minor valley in the Darling Plateau	Undulating lowerslopes and minor gullies on the Darling Plateau	Mildly sloping shelf on the Darling Plateau
Soil structure, texture and fertility	Pale yellow sandy loam over clay	Sandy loam over loamy clay	Shallow gravel over sandy clay
Soil hydrology	Water gaining, seasonally inundated in lowest portion	Mildly water shedding, low to moderate infiltration and storage	Strongly impeded internal drainage and storage, mildy water shedding
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew, with <i>Eucalyptus rudis</i> (Er) on drainage line and <i>Eucalyptus decipiens</i> subsp. <i>chalara</i> (Edc) on transition from flat to slopes	Woodland of <i>Eucalyptus wandoo</i> (Ew) on ridges and slopes, <i>Eucalyptus decipiens</i> subsp. <i>chalara</i> (Edc) near gullies	Scattered low emergents of <i>Eucalyptus drummondii</i> subsp. <i>humilis</i> (Edr)
Second storey		<i>Acacia acuminata</i> (Aa) <i>Acacia microbotrya</i> (Am)	No second storey
Shrub and herb storey	Largely eliminated by grazing	<i>Xanthorrhoea preissii</i> <i>Hypocalymma angustifolium</i> <i>Hakea prostrata</i> <i>Borya sphaerocephala</i> <i>Haemodorum simplex</i> <i>Loxocarya cinerea</i> <i>Neurachne alopecuroidea</i>	Closed Heath of <i>Gastrolobium spinosum</i> <i>Xanthorrhoea preissii</i> <i>Hakea incrassata</i> <i>Lepidosperma squamatum</i> <i>Hibbertia exasperata</i> <i>Hakea undulata</i> <i>Dryandra armata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		N of Qualeup
Geomorphologic catena – VC (EVS)	Fa4 – Farrar (Cv1)	Fa2 – Farrar (Wm2)	DM2 – Dalmore (Jp3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad valley floor of a minor stream incised into the Darling Plateau	Valley slope of a minor stream in the Darling Plateau	Uplands rising above the Darling Plateau
Soil structure, texture and fertility	Yellow duplex soil with loamy sand topsoil over gleyed clay	Yellow duplex soil with sandy loam topsoil over clay	Yellow duplex soil with gravelly loamy sand topsoil over sandy clay, some lateritic floaters
Soil hydrology	Water gaining, seasonally waterlogged, adversely affected by rising saline groundwater	Moderately water shedding with intermediate infiltration and storage capacity	Moderately water shedding with good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er) with many trees killed by rising saline groundwater	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with admixture of <i>Eucalyptus wandoo</i> (Ew)
Second storey	No second storey	<i>Hakea prostrata</i> (Hp) approaching the size of a small tree	<i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds) approaching the size of a small tree
Shrub and herb storey	Residual <i>Melaleuca viminea</i> shrubland, elsewhere <i>Eleocharis</i> sp. <i>Harperia lateriflora</i> <i>Sarcocornia blackiana</i>	<i>Hakea lissocarpha</i> <i>Xanthorrhoea preissii</i> <i>Daviesia preissii</i> <i>Hypocalymma angustifolium</i> <i>Lepidosperma squamatum</i> <i>Pericalymma ellipticum</i>	<i>Lechenaultia biloba</i> <i>Tetraria capillaris</i> <i>Billardiera villosa</i> <i>Trymalium ledifolium</i> <i>Opercularia vaginata</i> <i>Bossiaea eriocarpa</i> <i>Bossiaea ornata</i> <i>Astroloma prostratum</i> <i>Acacia nervosa</i> , <i>Lepidosperma tenue</i> , <i>Acacia insolita</i> <i>Grevillea leptobotrya</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		S of Qualeup
Geomorphologic catena – VC (EVS)	Fa1 – Farrar (Lp2)	Fa2 – Farrar (Wm2)	Fa5 – Farrar (Cv1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Residual lateritic upland in a strongly dissected region of the Darling Plateau	Slope of a minor valley incised into the Darling Plateau	Floor of a minor valley incised into the Darling Plateau
Soil structure, texture and fertility	Yellow duplex soil with gravelly brown sandy loam topsoil	Red duplex soil with sandy loam topsoil	Yellow duplex soil with sandy topsoil over mottled clay
Soil hydrology	Mildly water shedding with good infiltration and storage capacity	Moderately water shedding, with good infiltration and moderate storage capacity	Water gaining, seasonally waterlogged, affected by saline groundwater
Over storey (canopy or emergents)	Open Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Eucalyptus wandoo</i> (Ew) with few <i>Corymbia calophylla</i> (Cc)	Open Woodland of <i>Eucalyptus wandoo</i> (Ew), <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Woodland of <i>Eucalyptus wandoo</i> (Ew) on upper margin, <i>Eucalyptus rudis</i> (Er) on the valley floor
Second storey	No second storey	No second storey	Tall <i>Xanthorrhoea preissii</i> (Xp)
Shrub and herb storey	<i>Billardiera erubescens</i> <i>Daviesia preissii</i> , <i>Astroloma pallidum</i> , <i>Astroloma drummondii</i> , <i>Hakea lissocarpha</i> , <i>Lepidosperma tenue</i> , <i>Bossiaea ornata</i> <i>Bossiaea eriocarpa</i> <i>Brachysema praemorsum</i> <i>Hibbertia commutata</i> <i>Hovea chorizemifolia</i> <i>Lechenaultia biloba</i> , <i>Lomandra brittaniae</i> , <i>Tetraria capillaris</i> , <i>Pultenaea radiata</i>	<i>Gastrolobium spinosum</i> <i>Hypocalymma angustifolium</i> <i>Dryandra armata</i> <i>Hakea petiolaris</i> <i>Hakea lissocarpha</i> <i>Lepidosperma gracile</i> <i>Acacia pulchella</i> <i>Stypandra glauca</i>	Largely removed by clearing and grazing, originally probably <i>Melaleuca viminea</i> <i>Hakea prostrata</i> <i>Hakea varia</i> <i>Hypocalymma angustifolium</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central			Between Qualeup and Moodiarup		
Geomorphologic catena – VC (EVS)	Fa1 – Farrar (Lp2)		Fa2 – Farrar (Wm2)	KU2 – Kulikup (Jv3)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Residual lateritic surface within strongly dissected Darling Plateau, with breakaway at margin	Slopes and floor of a intermediate valley incised into the Darling Plateau	Gently undulating surface in the Darling Plateau			
Soil structure, texture and fertility	Gravelly loamy sand topsoil over sandy clay on upland, clay loam with laterite on breakaway	Yellow duplex soil with sandy loam topsoil over sandy clay	Gravelly sandy loam topsoil over sandy clay			
Soil hydrology	Mildly to moderately water shedding, with variable capacity for infiltration and storage	Water shedding on slopes, water gaining on valley floor; lowest surface affected by rising saline groundwater	Mildly to moderately water shedding with good infiltration and moderate storage capacity			
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc) changing to <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas) on and below breakaway	Woodland of <i>Eucalyptus rudis</i> (Er) on the floor, with <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas) and <i>Eucalyptus wandoo</i> (Ew) on slopes; <i>Eucalyptus rudis</i> (Er) also ascends on to slopes	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew) with <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas)			
Second storey	Tall <i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds)	<i>Acacia acuminata</i> (Aa)	No second storey			
Shrub and herb storey	<i>Xanthorrhoea drummondii</i> <i>Hibbertia commutata</i> <i>Phyllanthus calycinus</i> <i>Lepidosperma tenue</i> <i>Hakea lissocarpha</i> <i>Bossiaea eriocarpa</i> <i>Petrophile serruriae</i>	<i>Hakea lissocarpha</i> <i>Hakea prostrata</i> <i>Xanthorrhoea preissii</i> <i>Lepidosperma squamatum</i> <i>Hypocalymma angustifolium</i>	<i>Brachysema praemorsum</i> <i>Hakea lissocarpha</i> <i>Bossiaea ornata</i> <i>Bossiaea eriocarpa</i> <i>Hibbertia commutata</i> <i>Dianella revoluta</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		near Moodiarup
Geomorphologic catena – VC (EVS)	DK5f – Darkin (Cv1)	DK2 – Darkin (Wm2)	Fa4 – Farrar (Cv1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley floor of a major stream (Arthur River) with braided channel	Slope of a minor rise above the floor of a major stream (Arthur River)	Levee bank and valley floor of a medium sized stream (Balgarnup River)
Soil structure, texture and fertility	Mixed alluvials soils, from sands to loams	Duplex soil, sandy loam topsoil over sandy clay	Sandy loam to loam
Soil hydrology	Water gaining, affected by saline stream flow and saline groundwater	Moderately water shedding with moderate infiltration and storage capacity	Seasonally flooded but not waterlogged on the levee bank
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er) <i>Melaleuca raphiophylla</i> (Mr) and <i>Casuarina obesa</i> (Co)	Woodland of <i>Eucalyptus wandoo</i> (Ew) with <i>Eucalyptus rudis</i> (Er) extending upslope and <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas) on the crest of the rise	Residual woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus rudis</i> (Er)
Second storey	The distinction between strata is obliterated by flood damage, deaths and regeneration	<i>Acacia acuminata</i> (Aa)	<i>Acacia acuminata</i> (Aa) (on levee bank) and <i>Melaleuca raphiophylla</i> (Mr) on streamline
Shrub and herb storey	<i>Melaleuca densa</i> <i>Melaleuca viminalis</i> <i>Acacia pulchella</i> <i>Halosarcia halocnemoides</i> <i>Sarcocornia blackiana</i>	<i>Acacia pulchella</i> <i>Hypocalymma angustifolium</i> <i>Jacksonia sternbergiana</i> <i>Kennedia prostrata</i> but mainly exotic grasses	No remnant indigenous species, only exotic grasses

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		East of Duranilin on North Capercup Rd	
Geomorphologic catena – VC (EVS)	DK5 – Darkin (Cv1)		DK2 – Darkin (Wm2)	
Landform and Vegetation profile				
100m				
80m				
60m				
40m				
20m				
Land form description	Mildly undulating upland surface of the Darling Plateau	Steep rise above the undulating surface of the Darling Plateau		
Soil structure, texture and fertility	Yellow duplex with pale grey loamy sand over clay	Red brown gravelly loam with lateritic floaters		
Soil hydrology	Neither gaining nor shedding, good infiltration and moderate storage capacity	Strongly water shedding, moderate infiltration and storage capacity		
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) with admixture of lower <i>Eucalyptus decipiens</i> subsp. <i>chalara</i> (Edc) at lower end	Woodland of <i>Eucalyptus wandoo</i> with some <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)		
Second storey	No second storey	No second storey		
Shrub and herb storey	<i>Allocasuarina humilis</i> <i>Gastrolobium calycinum</i> <i>Xanthorrhoea preissii</i> <i>Daviesia nematophylla</i> <i>Hakea erinacea</i> , <i>Hakea trifurcata</i> , <i>Hakea prostrata</i> <i>Mesomelaena tetragona</i> <i>Dryandra bipinnatifida</i> <i>Baeckea camphorosmae</i>	On steeper slopes vegetation reduced to sparse low cover of <i>Bossiaea eriocarpa</i> , <i>Hibbertia commutata</i> and <i>Acacia pulchella</i> . On milder slopes also <i>Allocasuarina humilis</i> , <i>Dryandra squarrosa</i> subsp. <i>squarrosa</i> <i>Lepidosperma tenue</i>		

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid north N of Darkan on Williams Rd		
Geomorphologic catena – VC (EVS)	DK1 – Darkin (Lp2)	DK3 – Darkin (Ds2)	DK3 – Darkin (Ds2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Mildly sloping upper slope of a ridge on the Darling Plateau	Steep upper slope and breakaway on the uplands of the Darling Plateau	Moderately steep slopes of a major dissection
Soil structure, texture and fertility	Gravelly loamy sand over concreted laterite with lateritic floaters	Red brown gravelly loam over clay at relatively shallow depth	Sandy loam topsoil over kaolinitic clay, saprolite or granitic rock, some granite outcrops
Soil hydrology	Mildly water shedding with good infiltration and moderate storage capacity	Strongly water shedding with suboptimal infiltration and storage capacity	Strongly water shedding with possibility of localised spring occurrence
Over storey (canopy or emergents)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas) on and below breakaway; <i>Eucalyptus wandoo</i> (Ew) on lower slopes	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus rudis</i> (Er), with the latter ascending upslope from its normal occurrence on valley floor
Second storey	Some tall <i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds)	No second storey	No second storey
Shrub and herb storey	<i>Acacia drummondii</i> <i>Allocasuarina humilis</i> <i>Hakea lissocarpa</i> <i>Bossiaea eriocarpa</i> <i>Hypocalymma angustifolium</i> <i>Dryandra lindleyana</i> <i>Phyllanthus calycinus</i> <i>Trymalium ledifolium</i> <i>Glischocaryon aureum</i>	<i>Dryandra lindleyana</i> <i>Dianella revoluta</i> <i>Lepidosperma tenue</i> , much bare ground	<i>Hakea lissocarpa</i> <i>Hypocalymma angustifolium</i> <i>Dryandra lindleyana</i> <i>Bossiaea eriocarpa</i> <i>Macrozamia riedlei</i> <i>Trymalium ledifolium</i> <i>Dianella revoluta</i> <i>Hibbertia commutata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		S of Qualeup
Geomorphologic catena	Fa2- Farrar (Fa2)	Fa3 – Farrar (Ds2)	Fa3 – Farrar (Ds2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Lower slope of a minor valley moderately deeply incised into the Darling Plateau	Steep mid slope of a minor valley moderately incised into the Darling Plateau	Moderately steep slope, of a minor valley incised into the Darling Plateau
Soil structure, texture and fertility	Dark grey brown sandy loam over sandy clay	Red brown loam over clay at shallow depth	Red brown duplex soil with sandy loam over sandy clay at moderate depth
Soil hydrology	Mildly water shedding with good infiltration and storage capacity	Strongly water shedding with limited infiltration and storage capacity	Moderately strongly water shedding with intermediate infiltration and storage capacity
Over storey (canopy or emergents)	Woodland to Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Low Open Woodland of <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus wandoo</i> (Ew) with <i>Eucalyptus rudis</i> (Er) on drainage line
Second storey	No second storey	Some tall <i>Xanthorrhoea preissii</i> (Xp)	No second storey
Shrub and herb storey	<i>Sollya heterophylla</i> <i>Gastrolobium bilobum</i> <i>Dryandra sessilis</i> var. <i>sessilis</i> <i>Trymalium ledifolium</i> <i>Hakea lissocarpha</i> <i>Macrozamia riedlei</i> <i>Phyllanthus calycinus</i> <i>Hibbertia amplexicaulis</i> <i>Brachysema praemorsum</i> <i>Tetraria capillaris</i>	<i>Gastrolobium calycinum</i> <i>Gastrolobium bilobum</i> <i>Hakea lissocarpha</i> <i>Phyllanthus calycinus</i> <i>Macrozamia riedlei</i> <i>Trymalium ledifolium</i> <i>Dryandra lindleyana</i> <i>Lepidosperma tenue</i>	<i>Gastrolobium calycinum</i> <i>Gastrolobium bilobum</i> <i>Hakea lissocarpha</i> <i>Hibbertia commutata</i> <i>Brachysema praemorsum</i> on slopes; <i>Hypocalymma angustifolium</i> , <i>Lepidosperma squamatum</i> near drainage line

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		near Duranilin
Geomorphologic catena – VC (EVS)	DK4 – Darkin (Cv1)	DK3 – Darkin (Ds2)	DK1 – Darkin (Lp2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad flat below slopes	Strongly dissected rocky slopes and rock outcrops	Undissected remnants of the lateritic plateau
Soil structure, texture and fertility	Sandy loam topsoil over sandy clay subsoil	Shallow skeletal gritty loams	Gravel with sandy loam matrix, underlain by kaolinitic clay
Soil hydrology	Water gaining, limited infiltration and storage capacity	Strongly water shedding with minimal capacity for infiltration and storage	Moderately water shedding (laterally) with good infiltration and water storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew)	Open Woodland of <i>Eucalyptus rudis</i> (Er) <i>Allocasuarina huegeliana</i> (Ah) and <i>Acacia acuminata</i> (Aa)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Eucalyptus wandoo</i> (Ew)
Second storey	<i>Allocasuarina huegeliana</i> (Ah), <i>Acacia acuminata</i> (Aa)	No second storey	Largely absent
Shrub and herb storey	<i>Hakea marginata</i> , <i>Isopogon dubius</i> , <i>Verticordia densiflora</i> , <i>Adenanthos meisneri</i> , <i>Viminaria juncea</i> , <i>Hakea prostrata</i> , <i>Hakea lissocarpha</i> , <i>Hypocalymma angustifolium</i> , <i>Hakea trifurcata</i> , <i>Dryandra squarrosa</i> subsp. <i>squarrosa</i> , <i>Hibbertia commutata</i> , <i>Loxocarya cinerea</i> , <i>Baeckea camphorosmae</i> , <i>Austrostipa elegantissima</i> , <i>Haemodorum simplex</i> , <i>Lepidosperma effusum</i>	<i>Hakea undulata</i> , <i>Dianella revoluta</i> , <i>Cheilanthes austrotenuifolia</i> , <i>Borya nitida</i> , <i>Hypocalymma angustifolium</i>	<i>Dryandra squarrosa</i> subsp. <i>squarrosa</i> , <i>Dryandra sessilis</i> var. <i>sessilis</i> , <i>Xanthorrhoea preissii</i> , <i>Macrozamia riedlei</i> , <i>Bossiaea ornata</i> , <i>Trymalium ledifolium</i> , <i>Lepidosperma tenue</i> , <i>Leucopogon capitellatus</i> , <i>Hakea lissocarpha</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid central		S of Duralinin
Geomorphologic catena – VC (EVS)	Fa2 – Farrar (Wm2)	Fa3 – Farrar (Ds2)	Fa1 – Farrar (Lp2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Milder lower slopes and valley floors	Steeper valley slopes	Residual lateritic plateau, steep breakaways at margins
Soil structure, texture and fertility	Yellow duplex soils with sandy surface soil and sandy clay subsoil	Yellow brown gravelly duplex soils with loamy topsoil	Yellow brown gravelly duplex soils, with lateritic boulders
Soil hydrology	Mildly water shedding with moderate infiltration and storage capacity	Strongly water shedding with moderate infiltration and storage capacity	Neither water shedding nor gaining, good infiltration and water storage capacity, except at margins (water shedding)
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) on slopes and valley floors, <i>Eucalyptus rudis</i> (Er) on valley floors and stream-lines only	Woodland of <i>Eucalyptus wandoo</i> (Ew) with some <i>Corymbia calophylla</i> (Cc) on lower slopes	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) with <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas) on breakaways
Second storey	<i>Acacia acuminata</i> (Aa)	<i>Acacia acuminata</i> (Aa)	Second storey largely absent, especially under <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas), some <i>Banksia attenuata</i> (Ba) on sands and <i>Banksia grandis</i> (Bg) on gravels
Shrub and herb storey	<i>Gastrolobium calycinum</i> <i>Acacia pulchella</i> <i>Bossiaea eriocarpa</i> <i>Hibbertia commutata</i> <i>Ptilotus manglesii</i> <i>Austroanthonia caespitosa</i> <i>Loxocarya cinerea</i>	<i>Gastrolobium bilobum</i> <i>Gastrolobium calycinum</i> <i>Hakea lissocarpa</i> , <i>Acacia pulchella</i> , <i>Bossiaea eriocarpa</i> <i>Trymalium ledifolium</i> <i>Cheilanthes austrotenuifolia</i> , <i>Borya nitida</i> <i>Desmocladius flexuosus</i> ms	<i>Macrozamia riedlei</i> <i>Xanthorrhoea preissii</i> <i>Hibbertia hypericoides</i> <i>Desmocladius fasciculatus</i> ms <i>Leucopogon capitellatus</i> <i>Allocasuarina fraseriana</i> <i>Bossiaea eriocarpa</i> , <i>Calytrix flavescens</i> , <i>Petrophile serruriae</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid north		W of Collie
Geomorphologic catena – VC (EVS)	He1 – Helena (Ms4)		He1 – Helena (Ms4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Slope of a medium sized valley in the Darling Plateau	Lower slopes/ floor in major valley in Darling Plateau	Steep slope of a major valley in the Darling Plateau
Soil structure, texture and fertility	Yellow brown sandy loam over clay (duplex)	Grey brown silty loam over clay	Skeletal yellow brown sandy loam among extensive granitic outcrops
Soil hydrology	Moderately water shedding good infiltration and storage capacity	Water gaining, but not water-logged due to strong stream incision and steep stream gradient	Strongly water shedding, with very limited capacity for infiltration and storage
Over storey (canopy or emergents)	Tall Open Forest of <i>Corymbia calophylla</i> (Cc) with <i>Eucalyptus patens</i> (Ep) on lower and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on upper slope	Open Forest of <i>Corymbia calophylla</i> (Cc)	No Over storey
Second storey	Weakly developed second storey of <i>Persoonia longifolia</i> (PI)	<i>Agonis flexuosa</i> (Af) and <i>Paraserianthes lophantha</i> subsp. <i>lophantha</i> (Pr)	No second storey
Shrub and herb storey	<i>Hovea elliptica</i> <i>Pteridium esculentum</i> <i>Lasiopetalum floribundum</i> <i>Clematis pubescens</i> <i>Tremandra stelligera</i> <i>Leucopogon australis</i> subsp. <i>acutifolius</i> <i>Leucopogon propinquus</i> <i>Macrozamia riedlei</i> <i>Hibbertia commutata</i>	<i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> , <i>Adiantum aethiopicum</i> , <i>Hovea elliptica</i> <i>Lasiopetalum floribundum</i> <i>Macrozamia riedlei</i> <i>Hibbertia commutata</i> <i>Leucopogon verticillatus</i> <i>Leucopogon australis</i> subsp. <i>acutifolius</i> <i>Hakea amplexicaulis</i> <i>Clematis pubescens</i>	<i>Grevillea bipinnatifida</i> <i>Darwinia citriodora</i> <i>Hypocalymma angustifolium</i> <i>Borya sphaerocephala</i> <i>Acacia pulchella</i> <i>Baeckea camphorosmae</i> <i>Melaleuca scabra</i> <i>Trymalium ledifolium</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid north		near Harvey
Geomorphologic catena – VC (EVS)	He1 – Helena (Ms4)		D1 – Dwellingup (JP6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a major valley deeply incised into the Darling Plateau	Steep slopes of a major valley deeply incised into the Darling Plateau	Margin of the Darling Plateau next to a major river incision
Soil structure, texture and fertility	Dark brown sandy loams and loams, fertile	Skeletal gritty sandy loams	Yellow brown to red-brown gravelly duplex soils with outcrops of duricrust
Soil hydrology	Water gaining but not water logged due to deep incision and steep gradient of stream	Strongly water shedding except near minor springs; limited infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Tall Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus patens</i> (Ep)	Scattered emergents to Woodland of <i>Corymbia calophylla</i> (Cc) with <i>Eucalyptus rudis</i> (Er) near minor springs	Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Agonis flexuosa</i> (Af) <i>Banksia seminuda</i> (Bs) <i>Callistachys lanceolata</i> (Cl) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) on deeper soils	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Grevillea diversifolia</i> <i>Trymalium floribundum</i> <i>Acacia urophylla</i> <i>Pteridium esculentum</i> <i>Hypocalymma cordifolium</i> <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> <i>Chorizema ilicifolium</i>	<i>Hakea lissocarpha</i> <i>Trymalium ledifolium</i> <i>Phyllanthus calycinus</i> <i>Hypocalymma angustifolium</i> <i>Hakea undulata</i> <i>Hakea trifurcata</i> <i>Leucopogon capitellatus</i> <i>Macrozamia riedlei</i> <i>Darwinia citriodora</i>	<i>Leucopogon verticillatus</i> , <i>Leucopogon capitellatus</i> <i>Clematis pubescens</i> <i>Acacia urophylla</i> <i>Pteridium esculentum</i> <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> <i>Hakea lissocarpha</i> <i>Kennedia coccinea</i> <i>Macrozamia riedlei</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north		SE of Armadale S of Jarrahdale
Geomorphologic catena – VC (EVS)	He1- Helena (Ms4)	He1 – Helena (Ms4)	D2 – Dwellingup (JP4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Deeply incised river valley on the western margin of the Darling Plateau	Steep rocky slopes of deeply incised river valley on the western margin of the Darling Plateau	Western edge of the Darling Plateau
Soil structure, texture and fertility	Skeletal sandy loams with much granitic and doleritic outcrop	Skeletal sandy loams with much granitic and doleritic outcrop	Yellow brown lateritic gravel over deep kaolinitic clays, with much ironstone outcrops
Soil hydrology	Strongly water shedding except on the streamline, poor infiltration and storage capacity	Very strongly water shedding, poor infiltration and storage capacity	Neither shedding nor gaining, very good infiltration and water storage capacity
<i>Continued Over Page</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north		SE of Armadale S of Jarrahdale
Geomorphologic catena – VC (EVS)	He1- Helena (Ms4)	He1 – Helena (Ms4)	D2 – Dwellingup (JP4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Over storey (canopy or emergents)	Open Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> and <i>Eucalyptus rudis</i> (Er) on streamlines	Scattered emergents and Open Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus laeliae</i> (El), <i>Eucalyptus wandoo</i> (Ew) and <i>Allocasuarina huegeliana</i> (Ah)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey, but thicket of <i>Agonis linearifolia</i> on streamline.	No second storey	<i>Allocasuarina fraseriana</i> (Afr) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	Lichens (Lithic Complex) <i>Borya sphaerocephala</i> <i>Grevillea bipinnatifida</i> <i>Hakea undulata</i> <i>Hakea lissocarpha</i> <i>Hovea elliptica</i> <i>Dryandra praemorsa</i> <i>Haemodorum paniculatum</i> <i>Dianella revoluta</i>	Lichens (Lithic Complex) <i>Borya sphaerocephala</i> <i>Grevillea bipinnatifida</i> <i>Hakea undulata</i> <i>Hakea lissocarpha</i> <i>Hovea elliptica</i> <i>Dryandra praemorsa</i> <i>Dianella revoluta</i>	<i>Adenanthos barbiger</i> <i>Hovea chorizemifolia</i> <i>Grevillea wilsonii</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Macrozamia riedlei</i> <i>Hakea lissocarpha</i> <i>Phyllanthus calycinus</i> <i>Styphelia tenuiflora</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid north			E of Harvey & Brunswick		
Geomorphologic catena – VC (EVS)	My1 – Murray (NM6)		My1 – Murray (NM6)	D1 – Dwellingup (JP6)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Floor of a major valley in the Darling Plateau	Moderate slopes of a major valley in the Darling Plateau	Margin of the Darling Plateau adjacent to a major river dissection			
Soil structure, texture and fertility	Brown sandy loam to loam	Dark brown gravelly loams over red brown clays or red brown earths	Brown gravelly sandy loams over pale yellow brown clay at depth; some duricrust			
Soil hydrology	Water gaining, seasonally flooded but not waterlogged for prolonged periods due to good lateral drainage	Water shedding, but with good infiltration and storage capacity	Moderately water shedding via subsoil, with very good infiltration and storage capacity			
Over storey (canopy or emergents)	Tall Open Forest of <i>Eucalyptus patens</i> (Ep) and <i>Corymbia calophylla</i> (Cc)	Open to Tall Open Forest of <i>Corymbia calophylla</i> (Cc) with <i>Eucalyptus patens</i> (Ep) on lower slope and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on upper slopes	Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)			
Second storey	<i>Agonis flexuosa</i> (Af), <i>Banksia seminuda</i> (Bs) and <i>Callistachys lanceolata</i> (Cl) on streamline only	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)			
Shrub and herb storey	<i>Grevillea diversifolia</i> <i>Trymalium floribundum</i> <i>Hypocalymma cordifolium</i> <i>Lepidosperma tetraquetrum</i> <i>Astartea fascicularis</i> <i>Pteridium esculentum</i> <i>Chorizema ilicifolium</i>	<i>Trymalium floribundum</i> <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> <i>Chorizema ilicifolium</i> <i>Leucopogon verticillatus</i> <i>Leucopogon capitellatus</i> <i>Macrozamia riedlei</i> <i>Acacia urophylla</i> <i>Pteridium esculentum</i>	<i>Leucopogon verticillatus</i> <i>Leucopogon propinquus</i> <i>Leucopogon capitellatus</i> <i>Pteridium esculentum</i> <i>Macrozamia riedlei</i> <i>Lasiopetalum floribundum</i> <i>Clematis pubescens</i> <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north			E. Armadale, Jarrahdale		
Geomorphologic catena –VC (EVS)	My1 – Murray (NM6)		My1 – Murray (NM6)	D2 – Dwellingup (JP4)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Valley floor of a major stream in northern Darling Plateau	Moderately steep valley slopes of a major stream in northern Darling Plateau	Margin of the northern Darling Plateau next to major river dissection			
Soil structure, texture and fertility	Brown sandy loam to loam	Dark brown gravelly loams over red brown clay loam	Orange brown gravelly sandy loams over pale yellow brown clay			
Soil hydrology	Water gaining, seasonally flooded but not waterlogged for prolonged period due to good lateral drainage	Water shedding, with good infiltration and storage capacity	Water shedding, good infiltration and storage capacity			
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus patens</i> (Ep) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus patens</i> (Ep) on lower and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on upper slopes	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)			
Second storey	<i>Banksia littoralis</i> (Bl) <i>Callistachys lanceolata</i> (Cl) and <i>Agonis linearifolia</i> (Al) (size of small trees in the riparian zone)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) <i>Allocasuarina fraseriana</i> (Afr)			
Shrub and herb storey	<i>Mesomelaena tetragona</i> <i>Lepidosperma tetraquetrum</i> <i>Lepidosperma squamatum</i> <i>Hypocalymma angustifolium</i> <i>Astartea fascicularis</i> <i>Grevillea diversifolium</i> <i>Baekkea camphorosmae</i> <i>Dampiera alata</i>	<i>Trymalium floribundum</i> (lower slopes), <i>Acacia extensa</i> , <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> , <i>Chorizema ilicifolium</i> <i>Leucopogon verticillatus</i> , <i>L. capitellatus</i> , <i>L. propinquus</i> , <i>Hakea lissocarpha</i> , <i>Macrozamia riedlei</i> , <i>Pteridium esculentum</i> , <i>Acacia urophylla</i>	<i>Leucopogon verticillatus</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Pteridium esculentum</i> <i>Clematis pubescens</i> <i>Macrozamia riedlei</i> <i>Acacia urophylla</i> <i>Lasiopetalum floribundum</i> <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid north		W of Collie
Geomorphologic catena – VC (EVS)	D1 – Dwellingup (JP6)	Yg1 – Yarragil (H16)	D1 – Dwellingup (JP6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Residual upland, surface (upper slope) within the Darling Plateau	Lower slope and floor of a minor valley within the Darling Plateau	Residual upland surface (upper slope) within the Darling Plateau
Soil structure, texture and fertility	Yellowish brown gravelly loamy sand over kaolinitic clay at depth	Red brown gravelly loam over clay	Dark yellowish brown gravelly loamy sand over kaolinitic clay, with black laterite outcrop
Soil hydrology	Moderately water shedding with good infiltration and storage capacity	Slopes water shedding, good infiltration and storage capacity; valley floor mildly water gaining	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Low Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	Weakly developed second storey of <i>Allocasuarina fraseriana</i> (Afr)	No second storey	Weakly developed second storey of <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Bossiaea linophylla</i> <i>Hibbertia hypericoides</i> <i>Hypocalymma angustifolium</i> <i>Pteridium esculentum</i> <i>Dryandra lindleyana</i> <i>Hakea amplexicaulis</i> <i>Leucopogon propinquus</i> <i>Acacia pulchella</i>	<i>Hibbertia hypericoides</i> <i>Hibbertia commutata</i> <i>Lasiopetalum floribundum</i> <i>Hypocalymma angustifolium</i> <i>Macrozamia riedlei</i> <i>Phyllanthus calycinus</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> , <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> <i>Xanthorrhoea gracilis</i>	<i>Pteridium esculentum</i> <i>Bossiaea ornata</i> <i>Patersonia umbrosa</i> var. <i>xanthina</i> <i>Hibbertia hypericoides</i> <i>Scaevola calliptera</i> <i>Hibbertia amplexicaulis</i> <i>Acacia pulchella</i> <i>Macrozamia riedlei</i> <i>Opercularia hispidula</i> var. <i>pauciflora</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid north Salmon - Wights Catchments Collie		
Geomorphologic catena - VC (EVS)	Yg1 - Yarragil (H16)	Yg1 - Yarragil (H16)	D1 - Dwellingup (JP6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a minor valley in a strongly dissected part of Darling Plateau	Lower slopes of a minor valley in strongly dissected part of Darling Plateau	Upper slopes and ridge forming a minor divide within the Darling Plateau
Soil structure, texture and fertility	Sandy loam over gritty sandy clay	Red and yellow sandy earths	Yellow brown gravelly sands and sandy gravels, over kaolinitic clay at depth
Soil hydrology	Water gaining, seasonally saturated but no prolonged waterlogging due to good lateral drainage	Mildly water gaining, but without serious waterlogging, good infiltration and storage capacity	Mildly water shedding, good infiltration and storage capacity
Over storey (canopy or emergents)	Open to Tall Open Forest of <i>Corymbia calophylla</i> (Cc) with <i>Eucalyptus patens</i> (Ep) on drainage line and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on slope	Open to Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open to Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Agonis linearifolia</i> approaching the size of small tree on streamline and valley floor; <i>Persoonia longifolia</i> (PI) on slopes	Weakly developed second storey of <i>Persoonia longifolia</i> (PI)	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (PI)
Shrub and herb storey	<i>Lepidosperma tetraquetrum</i> <i>Astartea fascicularis</i> <i>Hypocalymma angustifolium</i> <i>Meeboldina scariosa</i> <i>Hakea lissocarpha</i> <i>Mesomelaena tetragona</i>	<i>Hypocalymma angustifolium</i> <i>Mesomelaena tetragona</i> <i>Lepidosperma squamatum</i> <i>Acacia extensa</i> <i>Baeckea camphorosmae</i> <i>Hakea lissocarpha</i> <i>Meeboldina scariosa</i>	<i>Leucopogon verticillatus</i> <i>Leucopogon capitellatus</i> <i>Pteridium esculentum</i> <i>Macrozamia riedlei</i> <i>Hovea chorizemifolia</i> <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Hakea lissocarpha</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north			E of Armadale & Jarrahdale		
Geomorphologic catena – VC (EVS)	Yg1 – Yarragil (H16)		Yg1 – Yarragil (H16)	D2 – Dwellingup (JP4)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Floor of a minor valley of a tributary stream in northern Darling Plateau	Slopes of a minor valley moderately incised into the northern Darling Plateau	Upland ridges and spurs within mildly undulating northern Darling Plateau			
Soil structure, texture and fertility	Loamy sands to loams, over sandy clay or orange 'earths', over secondary laterite (ironstone pan)	Pale yellow brown gravelly sands, with occasional ironstone outcrop	Pale yellow to red brown gravelly sands and sandy loams, with frequent lateritic ironstone outcrops			
Soil hydrology	Water gaining, seasonally water logged	Mildly water shedding, with good infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity (as deep profile)			
Over storey (canopy or emergents)	Woodland to Open Forest of <i>Eucalyptus patens</i> (Ep), <i>Eucalyptus megacarpa</i> (Emg) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)			
Second storey	<i>Banksia littoralis</i> (Bl) near stream, <i>Banksia grandis</i> (Bg) on slopes	Strong development of <i>Allocasuarina fraseriana</i> (Afr) <i>Banksia grandis</i> (Bg) to a lesser degree <i>Persoonia longifolia</i> (Pl)	<i>Allocasuarina fraseriana</i> (Afr) <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl)			
Shrub and herb storey	Tall <i>Agonis linearifolia</i> <i>Gahnia decomposita</i> <i>Mesomelaena tetragona</i> <i>Hypocalymma angustifolium</i> <i>Dampiera alata</i> <i>Meeboldina scariosa</i> <i>Lepidosperma squamatum</i> <i>Lepidosperma tetraquetrum</i> <i>Kingia australis</i>	<i>Grevillea wilsonii</i> <i>Styphelia tenuiflora</i> <i>Adenanthos barbiger</i> <i>Hovea chorizemifolia</i> <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Lepidosperma squamatum</i> <i>Lechenaultia biloba</i> <i>Hakea ruscifolia</i>	<i>Adenanthos barbiger</i> <i>Hovea chorizemifolia</i> <i>Hakea lissocarpha</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Macrozamia riedlei</i> <i>Styphelia tenuiflora</i> <i>Patersonia rudis</i> subsp. <i>rudis</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid north		E of Harvey
Geomorphologic catena – VC (EVS)	Yg2 – Yarragil (H16)	Yg2 – Yarragil (H16)	D1 – Dwellingup (JP6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a broad minor valley within the Darling Plateau	Gentle slopes of a broad minor valley within the Darling Plateau	Low divide on the Darling Plateau
Soil structure, texture and fertility	Orange earth underlain by iron hardpan, or humus podsol	Deep sands and gravelly sands, sometimes with iron hardpan at depth	Yellow brown sandy gravels with some lateritic duricrust
Soil hydrology	Water gaining, waterlogged for much of the year	Mildly water shedding via subsoil, good infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Scattered emergents of <i>Melaleuca preissiana</i> (Mp) and <i>Banksia littoralis</i> (Bl) with <i>Eucalyptus megacarpa</i> (Emg) on transition to forest	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc) with some <i>Eucalyptus patens</i> (Ep) on lower slopes	Tall Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg)	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Astartea fascicularis</i> <i>Hypocalymma angustifolium</i> <i>Pericalymma ellipticum</i> <i>Meeboldina scariosa</i> <i>Agonis linearifolia</i> <i>Acacia alata</i> <i>Lepidosperma squamatum</i>	<i>Adenanthos barbiger</i> <i>Daviesia preissii</i> <i>Hakea ruscifolia</i> <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Trymaltum ledifolium</i> <i>Lepidosperma squamatum</i> <i>Lasiopetalum floribundum</i>	<i>Adenanthos barbiger</i> <i>Leucopogon verticillatus</i> <i>Leucopogon propinquus</i> <i>Leucopogon capitellatus</i> <i>Hakea lissocarpha</i> <i>Macrozamia riedlei</i> <i>Hovea chorizemifolia</i> <i>Bossiaea ornata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north		E. of Jarrahdale
Geomorphologic catena – VC (EVS)	S - Swamp (Sw3)	Yg2 – Yarragil (H16)	D2 – Dwellingup (JP4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad flat valley in head waters of a minor stream on the Darling Plateau	Mild slopes of a broad valley of a minor stream on the Darling Plateau	Crest of a low rise on the Darling Range Plateau (local divide)
Soil structure, texture and fertility	Leached grey sands over clay or organic iron hardpan	Leached grey sand, with humus enriched surface and organic hardpan	Pale yellow brown gravelly sand with occasional lateritic outcrop
Soil hydrology	Water gaining with inadequate internal and external drainage, seasonally waterlogged	Mildly water shedding via subsoil, good infiltration, moderate storage capacity, inadequate lateral drainage	Mildly water shedding via subsoil, good internal drainage, infiltration and storage capacity
Over storey (canopy or emergents)	Scattered emergents of <i>Eucalyptus patens</i> (Ep), <i>Corymbia calophylla</i> (Cc), <i>Banksia littoralis</i> (Bl) and <i>Melaleuca preissiana</i> (Mp)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	Occasional <i>Melaleuca preissiana</i> (Mp), <i>Banksia littoralis</i> (Bl) downslope; <i>Banksia grandis</i> (Bg) upslope	Strong development of <i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg), less <i>Persoonia elliptica</i> (Pe)
Shrub and herb storey	<i>Hakea ceratophylla</i> , <i>Hakea varia</i> , <i>Astartea fascicularis</i> , <i>Pericalymma ellipticum</i> , <i>Meeboldina scariosa</i> , <i>Mesomelaena tetragona</i> , <i>Synaphea petiolaris</i> subsp. <i>petiolaris</i> , <i>Hypocalymma angustifolium</i> , <i>Lepidosperma squamatum</i>	<i>Adenanthos obovatus</i> , <i>Dasypogon bromeliifolius</i> , <i>Petrophile linearis</i> , <i>Mesomelaena tetragona</i> , <i>Lepidosperma squamatum</i> , <i>Dampiera alata</i> , <i>Hypocalymma angustifolium</i> , <i>Meeboldina scariosa</i> ms	<i>Adenanthos barbiger</i> , <i>Grevillea wilsonii</i> , <i>Lechenaultia biloba</i> , <i>Hovea chorizemifolia</i> , <i>Styphelia tenuiflora</i> , <i>Hakea ruscifolia</i> , <i>Patersonia rudis</i> subsp. <i>rudis</i> , <i>Lepidosperma squamatum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid north			Between Collie & Mornington Mills		
Geomorphologic catena - VC (EVS)	Yg1 - Yarragil (H16)		D1 - Dwellingup (JP6)	My1 - Murray (NM6)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Broad minor valley, shallowly incised into the Darling Plateau		Mildly undulating uplands of the Darling Plateau	Lower slope of a valley moderately incised into the Darling Plateau		
Soil structure, texture and fertility	Sandy loam over clay or orange earths over iron hardpan		Pale to red brown gravelly loamy sand, with frequent lateritic outcrops, over kaolinitic clay at depth	Red earths with sandy loam topsoil grading into clay loam at depth		
Soil hydrology	Strongly water gaining but not seriously waterlogged due to good lateral drainage to a flowing stream		Moderately water shedding via subsoil, good infiltration and storage capacity	Mildly water shedding with good infiltration and water storage capacity		
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus patens</i> (Ep), <i>Eucalyptus rudis</i> (Er) and <i>Eucalyptus megacarpa</i> (Emg)		Cut over and regenerated Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some residual large <i>Corymbia calophylla</i> (Cc)	Tall Open Forest of <i>Eucalyptus patens</i> (Ep) and <i>Corymbia calophylla</i> (Cc)		
Second storey	Weak development of <i>Paraserianthes lophantha</i> subsp. <i>lophantha</i> (Pl)		Weak development of <i>Allocasuarina fraseriana</i> (Afr)	Weak development of <i>Banksia grandis</i> (Bg)		
Shrub and herb storey	Tall shrub storey of <i>Trymalium floribundum</i> and <i>Agonis linearifolia</i> also tall sedge <i>Lepidosperma tetraquetrum</i> <i>Pteridium esculentum</i> <i>Hypocalymma cordifolium</i> <i>Chorizema ilicifolium</i> <i>Thomasia rhynchocarpa</i>		<i>Macrozamia riedlei</i> <i>Lasiopetalum floribundum</i> <i>Acacia lateriticola</i> <i>Bossiaea ornata</i> <i>Boronia spathulata</i> <i>Leucopogon propinquus</i> <i>Hakea lissocarpha</i> <i>Xanthorrhoea humilis</i>	Tall shrub storey of <i>Trymalium floribundum</i> , <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> <i>Pteridium esculentum</i> <i>Acacia urophylla</i> <i>Chorizema ilicifolium</i> <i>Acacia pulchella</i> <i>Hovea chorizemifolia</i>		

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central Between Bridgetown & Wilga		
Geomorphologic catena – VC (EVS)	WG – Wilga (JG4)	D1 – Dwellingup (JP6)	BO – Boonarie (Ic5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Mildly sloping upland surface of the Darling Plateau	Undulating uplands of the Darling Plateau	Broad relatively shallow valley between lateritic uplands
Soil structure, texture and fertility	Yellowish brown loamy sand over sandy clay	Yellowish brown gravelly loam, sand with lateritic outcrops over kaolinitic clay at depth	Yellowish brown silty sands and sandy loams, over sandy clay
Soil hydrology	Mildly water shedding via subsoil, good infiltration and moderate storage capacity	Moderately water shedding via subsoil, good infiltration and storage capacity	Water gaining with variable degree of waterlogging
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc), numerous small diameter trees	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc), composed of fewer larger trees	Woodland to Open Forest of <i>Eucalyptus patens</i> (Ep) and <i>Eucalyptus rudis</i> (Er)
Second storey	Second storey largely absent	Weak development of <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl)	<i>Banksia grandis</i> (Bg) on better drained sites and <i>Banksia littoralis</i> (Bl) on seasonally waterlogged sites
Shrub and herb storey	<i>Bossiaea linophylla</i> <i>Hibbertia hypericoides</i> <i>Hibbertia racemosa</i> <i>Philotheca spicata</i> <i>Leucopogon capitellatus</i> <i>Bossiaea ornata</i> <i>Hakea lissocarpa</i> <i>Dryandra lindleyana</i> <i>Jacksonia furcellata</i> <i>Logania serpyllifolia</i>	<i>Bossiaea linophylla</i> <i>Hibbertia commutata</i> <i>Hibbertia amplexicaulis</i> <i>Leucopogon capitellatus</i> <i>Hakea lissocarpa</i> <i>Hibbertia enervia</i> <i>Platytheca galioides</i> <i>Bossiaea linophylla</i>	<i>Agonis linearifolia</i> <i>Astartea fascicularis</i> <i>Xanthorrhoea preissii</i> <i>Hypocalymma angustifolium</i> <i>Hakea lissocarpa</i> <i>Mesomelaena tetragona</i> <i>Lepidosperma effusum</i> <i>Kunzea recurva</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central		N of Bridgetown
Geomorphologic catena – VC (EVS)	CC1 – Catterick (Mm5)	HR – Hester (JP6)	Pn – Pindalup (Mm5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Moderately incised minor valley	Undulating upland	Weakly incised flat bottomed valley
Soil structure, texture and fertility	Sandy gravels on slopes, orange earths on valley floor	Deep gravels with sandy loam matrix over kaolinitic clay at depth	Sandy gravels on slopes, loamy yellow duplex soils on valley floor
Soil hydrology	Slopes mildly water shedding, valley floor water gaining and seasonally waterlogged	Mildly water shedding via subsoil, very good infiltration, and water storage capacity	Slopes mildly water shedding, valley floor water gaining with poor drainage, seasonally waterlogged
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on upper slopes, <i>Eucalyptus patens</i> (Ep) on lower slopes and <i>Eucalyptus rudis</i> (Er) on drainage line	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on slopes, Woodland of <i>Eucalyptus rudis</i> (Er) <i>Banksia littoralis</i> (Bl) on floor
Second storey	Second storey poorly developed, some <i>Persoonia longifolia</i> (Pl) on slopes	Good development of <i>Banksia grandis</i> (Bg), <i>Allocasuarina fraseriana</i> (Afr) and <i>Persoonia longifolia</i> (Pl)	No true second tree storey
Shrub and herb storey	<i>Agonis linearifolia</i> <i>Astartea fascicularis</i> <i>Hypocalymma angustifolium</i> on valley floor <i>Hakea lissocarpa</i> <i>Bossiaea ornata</i> <i>Macrozamia riedlei</i> <i>Phyllanthus calycinus</i> on slopes	<i>Leucopogon verticillatus</i> <i>Leucopogon propinquus</i> <i>Bossiaea ornata</i> <i>Hakea lissocarpa</i> <i>Macrozamia riedlei</i>	<i>Hakea varia</i> <i>Hakea prostrata</i> <i>Hypocalymma angustifolium</i> <i>Meeboldina scariosa</i> <i>Lepidosperma squamatum</i> <i>Baeckea camphorosmae</i> <i>Synaphea petiolaris</i> subsp. <i>petiolaris</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid central			E of Bridgetown		
Geomorphologic catena – VC (EVS)	GR – Grimwade (Mm5)		D1 – Dwellingup (JP6)	LK1 – Lukin (Mm4)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Medium sized steeply sloping valley	Residual lateritic upland	Mildly sloping gully among residual uplands			
Soil structure, texture and fertility	Gravelly loams and shallow loams	Lateritic gravel with sandy loam matrix	Gravelly sandy loam			
Soil hydrology	Strongly water shedding except near drainage line, moderate infiltration but limited water storage capacity	Mildly water shedding, good infiltration and water storage capacity	Water gaining with intermediate infiltration and water storage, seasonally wet on drainage line			
Over storey (canopy or emergents)	Open Forest of <i>Corymbia calophylla</i> (Cc) with <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on upper slopes and <i>Eucalyptus patens</i> (Ep) and <i>Eucalyptus rudis</i> (Er) on lower slopes	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on slopes; Woodland of <i>Eucalyptus rudis</i> (Er) on valley floor			
Second storey	Heavy clearance, some <i>Persoonia longifolia</i>	Some <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl)	Some <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl) on slopes only			
Shrub and herb storey	<i>Macrozamia riedlei</i> <i>Xanthorrhoea preissii</i> <i>Phyllanthus calycinus</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Hakea lissocarpa</i> <i>Hibbertia hypericoides</i> <i>Hypocalymma angustifolium</i> <i>Astartea fascicularis</i> on drainage line	<i>Bossiaea ornata</i> <i>Bossiaea linophylla</i> <i>Hakea lissocarpa</i> <i>Macrozamia riedlei</i> <i>Hibbertia hypericoides</i> <i>Pteridium esculentum</i> <i>Sollya heterophylla</i>	<i>Bossiaea linophylla</i> <i>Hakea lissocarpa</i> <i>Hibbertia hypericoides</i> <i>Macrozamia riedlei</i> on slopes <i>Astartea fascicularis</i> and <i>Hypocalymma angustifolium</i> on drainage lines			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perhumid north		S of Harvey
Geomorphologic catena – VC (EVS)	Lo – Lowdon (Ms5)	D1 – Dwellingup (JP6)	Yg1 – Yarragil (HI6)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Dissected slopes of the Darling Plateau close to the Darling Scarp, often on metamorphic rocks	Residual uplands of the Darling Plateau, in the form of divides and spurs	Minor valleys incised into the Darling Plateau
Soil structure, texture and fertility	Deep gravelly duplex soils on upper slopes, red and yellow duplex soils on lower slopes	Yellowish brown sandy gravels, underlain by kaolinitic clays at depth, with outcrops of lateritic duricrust	Deep sandy gravels on slopes, orange earths over iron hardpan, or humus podzols on valley floors
Soil hydrology	Moderately to strongly water shedding, with good infiltration and moderate storage capacity	Mildly water shedding with good infiltration and storage capacity	Slopes mildly water shedding, good infiltration and storage capacity; floor water gaining, seasonally water-logged
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on deeper soils; <i>Agonis flexuosa</i> (Af) as low open forest on shallower soils	Open Forest to Tall Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on slopes; open forest to woodland of <i>Eucalyptus patens</i> (Ep) and <i>Eucalyptus megacarpa</i> (Emg) on floors
Second storey	<i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl)	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	<i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl) on slopes, <i>Banksia littoralis</i> (Bl) and <i>Banksia seminuda</i> (Bs) on valley floor
Shrub and herb storey	<i>Leucopogon verticillatus</i> <i>Leucopogon capitellatus</i> <i>Acacia urophylla</i> <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> , <i>Hibbertia hypericoides</i> , <i>Macrozamia</i>	<i>Leucopogon verticillatus</i> <i>L. capitellatus</i> , <i>L. propinquus</i> <i>Pteridium esculentum</i> , <i>Acacia urophylla</i> , <i>Bossiaea aquifolium</i> subsp. <i>quifolium</i> , <i>Bossiaea ornata</i> , <i>Hakea lissocarpha</i> ,	<i>Acacia alata</i> <i>Agonis linearifolia</i> <i>Astartea fascicularis</i> <i>Grevillea diversifolia</i> <i>Gahnia decomposita</i> <i>Lepidosperma tetraquetrum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north		S. of Armadale
Geomorphologic catena – VC (EVS)	Fo – Forrestfield (Ic2)	DS – Darling Scarp (Rs4)	D2 – Dwellingup (JP4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Mildly undulating shelf and spurs at the foot of Darling Scarp	Steeply sloping western edge of the Darling Plateau	Mildly undulating uplands at the western margin of the Darling Plateau
Soil structure, texture and fertility	Yellow brown gravelly sands	Bare rock, skeletal soils and shallow gritty sandy loam on milder slopes	Yellow brown gravelly sands and sandy loams, over sandy clay at depth with some lateritic duricrust
Soil hydrology	Mildly water shedding via subsoil, with good infiltration and storage capacity	Very strongly water shedding with limited infiltration and storage capacity	Mildly water shedding, with good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)	Open Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus laeliae</i> (EII), <i>Eucalyptus wandoo</i> (Ew) and <i>Allocasuarina huegeliana</i> (Ah)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg), <i>Banksia attenuata</i> (Ba), <i>Banksia menziesii</i> (Bm) and <i>Xylomelum occidentale</i> (Xo)	Grading into Heath, Herbland and Lithic Complex on exposed rock due to steepness of slope and depth of soil	<i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl) <i>Allocasuarina fraseriana</i> (Afr)
Shrub and herb storey	<i>Mesomelaena stygia</i> <i>Hakea ruscifolia</i> <i>Hibbertia hypericoides</i> <i>Stirlingia latifolia</i> <i>Conospermum stoechadis</i> <i>Macrozamia riedlei</i> <i>Dryandra sessilis</i> var. <i>sessilis</i> <i>Xanthorrhoea preissii</i>	<i>Hakea undulata</i> <i>Hakea lissocarpha</i> <i>Grevillea bipinnatifida</i> <i>Cheilanthes austrotenuifolia</i> <i>Borya sphaerocephala</i> <i>Trymalium ledifolium</i>	<i>Adenanthos barbiger</i> <i>Grevillea wilsonii</i> <i>Hakea lissocarpha</i> <i>Macrozamia riedlei</i> <i>Leucopogon capitellatus</i> <i>Hovea chorizemifolia</i> <i>Phyllanthus calycinus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid north		near Harvey
Geomorphologic catena – VC (EVS)	Fo – Forrestfield (Ic2)	DS – Darling Scarp (Rs4)	LO – Lowdon (Ms5)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Mildly sloping shelf at the foot of the Darling Scarp	Steeply sloping face of the Darling Scarp, with numerous rock outcrops	Moderately to steeply sloping valley slopes adjacent to Darling Scarp
Soil structure, texture and fertility	Deep gravelly sands	Bare rock, shallow skeletal soils and gritty sandy loam, according to steepness of slope	Variable according to proximity to streamline and steepness of soils, from skeletal soils to duplex soils
Soil hydrology	Mildly water shedding via subsoil, good infiltration and moderate storage capacity (coarseness)	Strongly water shedding with very limited infiltration and storage capacity	Strongly water shedding except on streamline, limited infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with <i>Allocasuarina fraseriana</i> (Afr) as associate or second storey	Lithic Complex, Herbfield, Heath and Open Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus wandoo</i> (Ew), <i>Corymbia haematoxylon</i> (Ch) and <i>Allocasuarina huegeliana</i> (Ah)	Woodland of <i>Eucalyptus rudis</i> (Er) and <i>Melaleuca raphiophylla</i> (Mr) on streamline, Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia haematoxylon</i> (Ch) on shallow soils
Second storey	<i>Xylomelum occidentale</i> (Xo) <i>Banksia attenuata</i> (Ba) <i>Banksia grandis</i> (Bg)	No second storey	
Shrub and herb storey	<i>Stirlingia latifolia</i> , <i>Hakea ruscifolia</i> , <i>Hakea cyclocarpa</i> <i>Daviesia preissii</i> <i>Hibbertia hypericoides</i> <i>Mesomelaena tetragona</i> <i>Lepidosperma squamatum</i> <i>Synaphea petiolaris</i> subsp. <i>petiolaris</i>	<i>Borya sphaerocephala</i> <i>Grevillea bipinnatifida</i> <i>Hakea undulata</i> , <i>Hakea elliptica</i> , <i>Hakea trifurcata</i> <i>Cheilanthes austrotenuifolia</i> <i>Trymalium ledifolium</i> <i>Calothamnus graniticus</i>	<i>Grevillea bipinnatifida</i> <i>Lepidosperma squamatum</i> <i>Hakea lissocarpha</i> <i>Trymalium ledifolium</i> <i>Macrozamia riedlei</i> <i>Hakea undulata</i> <i>Hibbertia hypericoides</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid north		Near Gidgegannup
Geomorphologic catena – VC (EVS)	My2 – Murray (WM2)	My2 – Murray (WM2)	D3 – Dwellingup (JP4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a valley moderately incised into the Darling Range	Slopes of a valley moderately incised into the Darling Plateau	Edge and crest of lateritic uplands of the Darling Range
Soil structure, texture and fertility	Red earths and red duplex soils, with some outcrops of crystalline rocks	Gravelly red and yellow duplex soils with clay subsoil, some rock outcrops	Yellow brown gravelly sandy loam over kaolinitic clay at depth
Soil hydrology	Slopes mildly water shedding, floor water gaining but not waterlogged due to stream incision and gradient	Strongly water shedding with moderate infiltration but limited storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus patens</i> (Ep), <i>Eucalyptus rudis</i> (Er), <i>Eucalyptus wandoo</i> (Ew), <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	No second storey	Weakly developed second storey of <i>Allocasuarina fraseriana</i> (Afr), some <i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds) approaching tree size
Shrub and herb storey	<i>Labichea punctata</i> <i>Mesomelaena tetragona</i> <i>Astartea fascicularis</i> <i>Acacia alata</i> <i>Hypocalymma angustifolium</i> <i>Lepidosperma squamatum</i> <i>Dampiera alata</i>	<i>Hakea lissocarpha</i> <i>Macrozamia riedlei</i> <i>Acacia pulchella</i> <i>Baeckea camphorosmae</i> <i>Hypocalymma angustifolium</i> <i>Hibbertia commutata</i> <i>Leucopogon capitellatus</i> <i>Trymalium ledifolium</i>	<i>Phyllanthus calycinus</i> <i>Trymalium ledifolium</i> <i>Lepidosperma tenue</i> <i>Bossiaea eriocarpa</i> <i>Hibbertia commutata</i> <i>Hibbertia lasiopus</i> <i>Macrozamia riedlei</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid north north of Mundaring (Avon NP)		
Geomorphologic catena – VC (EVS)	He2 – Helena (WS2)	He2 – Helena (WS2)	D3 – Dwellingup (IP3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Lower slopes of a major valley deeply incised into the Darling Plateau	Mid slopes of a major valley deeply incised into the Darling Plateau	Margin of the Darling Plateau adjacent to a major river dissection
Soil structure, texture and fertility	Shallow sandy loam alluvium next to stream, skeletal sandy loams on slopes	Bare rock or skeletal sandy loams	Reddish brown gravelly sandy loams, underlain by pale sandy clays, some lateritic outcrops
Soil hydrology	Water shedding except next to stream, low infiltration and storage capacity	Very strongly water shedding with very low infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland, with <i>Casuarina obesa</i> (Co) and <i>Eucalyptus rudis</i> (Er) on streamline, <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc) on slopes	Lithic Complex, Herbfields, Heath or Open Woodland of <i>Eucalyptus wandoo</i> (Ew), <i>Corymbia calophylla</i> (Cc) and <i>Allocasuarina huegeliana</i> (Ah)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Corymbia calophylla</i> (Cc) with some <i>Eucalyptus wandoo</i> (Ew) on transition to valley slopes
Second storey	No second storey	No second storey	No second storey
Shrub and herb storey	<i>Hakea lissocarpa</i> <i>Grevillea bipinnatifida</i> <i>Grevillea pilulifera</i> <i>Dianella revoluta</i> <i>Trymalium ledifolium</i> on slopes <i>Viminaria juncea</i> <i>Astartea fascicularis</i> on streamline	<i>Borya sphaerocephala</i> <i>Grevillea bipinnatifida</i> <i>Hakea undulata</i> <i>Hakea elliptica</i> <i>Hakea lissocarpa</i> <i>Trymalium ledifolium</i> <i>Hakea undulata</i>	<i>Hakea lissocarpa</i> <i>Macrozamia riedlei</i> <i>Acacia pulchella</i> <i>Gastrolobium calycinum</i> <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Desmocladus flexuosus</i> ms <i>Leucopogon capitellatus</i> <i>Styphelia tenuiflora</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid north		SE of Mundaring
Geomorphologic catena – VC (EVS)	My2 – Murray (WM2)	My2 – Murray (Wm2)	D4 – Dwellingup (IP3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Low slopes of a major valley moderately deeply incised into the Darling Plateau	Slopes of a major valley moderately deeply incised into the Darling Plateau	Margin of the Darling Plateau next to a major river dissection
Soil structure, texture and fertility	Brown sandy loam to loam	Dark brown gravelly loams over red brown loamy clay, occasional granitic or doleritic outcrop	Yellow brown gravelly sandy loam over pale sandy clay at depth; some lateritic outcrop
Soil hydrology	Water gaining, seasonally flooded but with good lateral drainage capacity	Strongly water shedding, with moderate infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Low Forest of <i>Eucalyptus rudis</i> (Er) and <i>Melaleuca raphiophylla</i> (Mr) on floor, <i>Eucalyptus patens</i> (Ep) and <i>Corymbia calophylla</i> (Cc) open forest on slopes	Woodland of <i>Eucalyptus wandoo</i> (Ew) with some <i>Corymbia calophylla</i> (Cc)	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	No second storey	No second storey
Shrub and herb storey	<i>Lepidosperma tetraquetrum</i> <i>Lepidosperma squamatum</i> <i>Hypocalymma angustifolium</i> <i>Astartea fascicularis</i> <i>Trymalium floribundum</i> <i>Xanthorrhoea preissii</i>	<i>Hakea lissocarpha</i> <i>Diplolaena drummondii</i> <i>Hypocalymma angustifolium</i> <i>Lepidosperma squamatum</i> <i>Baeckea camphorosmae</i> <i>Gastrolobium calycinum</i> <i>Macrozamia riedlei</i>	<i>Hakea lissocarpha</i> <i>Phyllanthus calycinus</i> <i>Macrozamia riedlei</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Styphelia tenuiflora</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid north		South east of Jarrahdale	
Geomorphologic catena – VC (EVS)	D2 – Dwellingup (JP4)		Ce – Cooke (Rs3)	Ce – Cooke (Rs3)
Landform and Vegetation profile				
100m				
80m				
60m				
40m				
20m				
Land form description	Colluvial foot slopes of a monadnock rising above the Darling Plateau	Moderate lower slope of a monadnock rising above the Darling Plateau	Steep slopes of a monadnock rising above the Darling Plateau	
Soil structure, texture and fertility	Pale yellow brown gravelly sand	Pale brown gravelly sandy loam over kaolinitic clay with some skeletal loams and granitic outcrops	Bare rock and skeletal gravelly sandy loams	
Soil hydrology	Moderately water shedding via subsoil, good infiltration and storage	Strongly water shedding, good to moderate infiltration, moderate to poor storage	Extremely strongly water shedding, with poor infiltration and virtually no storage capacity	
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)	Open Forest or Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Mosaic of Lithic Complex, Herbfields, Heath or Open Woodland of <i>Eucalyptus laevis</i> (El), <i>Eucalyptus wandoo</i> (Ew), <i>Corymbia calophylla</i> (Cc) and <i>Allocasuarina huegeliana</i> (Ah)	
Second storey	<i>Banksia grandis</i> (Bg) <i>Allocasuarina fraseriana</i> <i>Persoonia elliptica</i> (Pe)	Weakly developed second storey of <i>Banksia grandis</i> (Bg) and <i>Persoonia elliptica</i> (Pe)	No second storey	
Shrub and herb storey	<i>Grevillea wilsonii</i> <i>Adenanthos barbiger</i> <i>Lechenaultia biloba</i> <i>Styphelia tenuiflora</i> <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Hovea chorizemifolia</i> <i>Hakea rusCIFolia</i>	<i>Trymalium ledifolium</i> <i>Phyllanthus calycinus</i> <i>Macrozamia riedlei</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Hakea lissocarpha</i> <i>Hibbertia commutata</i> <i>Hibbertia hypericoides</i>	<i>Borya sphaerocephala</i> , <i>Grevillea bipinnatifida</i> <i>Trymalium ledifolium</i> <i>Hakea undulata</i> , <i>Hovea elliptica</i> , <i>Hakea trifurcata</i> , <i>Hakea lissocarpha</i> <i>Dryandra praemorsa</i> <i>Dianella revoluta</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north		near McAllinden
Geomorphologic catena – VC (EVS)	CF – Cardiff (Ac4)	CI – Collie (IP3)	Pn – Pindalup (W12)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Mild slope within Wilga Basin, on gently undulating Darling Plateau	Minor rise within Wilga Basin, on gently undulating Darling Plateau	Minor shallow valley within gently undulating Darling Plateau
Soil structure, texture and fertility	Transition from deep leached sand to gravelly sand	Pale yellow brown gravelly sand with some lateritic duricrust	Pale grey sand with humus enriched topsoil and humus/iron hardpan
Soil hydrology	Neither water gaining nor water shedding with good infiltration, but storage capacity limited by coarse texture	Mildly water shedding via subsoil, good infiltration and storage capacity	Mildly to moderately water gaining, seasonally water logged
Over storey (canopy or emergents)	Transition from Low Open Woodland of <i>Banksia attenuata</i> (Ba) on deep sand to Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on gravelly sand	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)	Transition from Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) to Low Open Woodland of <i>Melaleuca preissiana</i> (Mp) and <i>Banksia littoralis</i> (Bl)
Second storey	Weak development of <i>Persoonia longifolia</i> (Pl) on gravelly sand	Weakly developed low second storey of <i>Hakea prostrata</i> (Hp) on lower margin	Weakly developed second storey of <i>Xylomelum occidentale</i> (Xo)
Shrub and herb storey	<i>Allocasuarina humilis</i> <i>Leucopogon nutans</i> <i>Calytrix flavescens</i> <i>Phlebocarya ciliata</i> <i>Petrophile linearis</i> <i>Xanthorrhoea preissii</i> <i>Tetraria capillaris</i> <i>Bossiaea ornata</i>	<i>Tetraria capillaris</i> , <i>Tetraria octandra</i> , <i>Bossiaea ornata</i> <i>Lepidosperma tenue</i> <i>Desmocladius fasciculatus</i> ms <i>Hakea lissocarpha</i> <i>Hibbertia amplexicaulis</i> <i>Hibbertia commutata</i> <i>Hibbertia hypericoides</i>	<i>Acacia extensa</i> , <i>Acacia pulchella</i> , <i>Jacksonia furcellata</i> <i>Bossiaea eriocarpa</i> , <i>Calytrix flavescens</i> , <i>Phlebocarya ciliata</i> <i>Astartea fascicularis</i> <i>Leucopogon australis</i> subsp. <i>acutifolius</i> , <i>Meeboldina scariosa</i> , <i>Aotus gracillima</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north York-Beverley Rd (13-24km S from Y) East of final project boundary		
Geomorphologic catena – VC (EVS)	Wi – Williams (Ev2)	Wi – Williams (Ev2)	Mi – Michibin (Wm1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Flood plain of a major tributary of the Avon River - alluvial terraces	Flats adjacent to the stream lines	Lower slopes of a major valley
Soil structure, texture and fertility	Grey alluvial clay and orange alluvial loamy sand	Red brown alluvial clay	Rocky red brown sandy loam
Soil hydrology	Seasonally flooded and waterlogged, water gaining, not markedly affected by salinity	Periodically inundated but not waterlogged	Water shedding, moderate infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er) with admixture of <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (El) on terraces	Woodland of <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (El) with some emergent <i>Eucalyptus salmonophloia</i> (Esl)	Low Woodland of <i>Allocasuarina huegeliana</i> (Ah) and <i>Acacia acuminata</i> (Aa). Overstorey of <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> may have been present prior to European settlement
Second storey	<i>Melaleuca raphiophylla</i>	<i>Acacia acuminata</i> (Aa) <i>Hakea preissii</i> (Hp)	No second storey
Shrub and herb storey	<i>Melaleuca viminea</i> and exotic weeds	<i>Templetonia sulcata</i> and exotic weeds	<i>Opercularia vaginata</i> <i>Hybanthus floribundus</i> <i>Dryandra sessili</i> var. <i>sessilis</i> <i>Dryandra cirsioides</i> <i>Kennedia prostrata</i> <i>Lepidosperma tenue</i> <i>Stypandra glauca</i> <i>Dampiera lavandulacea</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid north			E & W of Wandering		
Geomorphologic catena - VC (EVS)	Wi - Williams (Ev2)		Wi - Williams (Ev2)	Wi - Williams (Ev2)		
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Broad valley floor of a medium stream	Broad valley floor of a medium stream	Broad valley of a minor stream			
Soil structure, texture and fertility	Alluvial sandy loams and loam	Alluvial sandy loams and loams	Yellow duplex with sandy loam topsoil over sandy clay subsoil			
Soil hydrology	Water gaining, periodically flooded and seasonally waterlogged, affected by salinity of the stream	Water gaining, periodically flooded and seasonally waterlogged, affected by salinity of the stream	Water gaining, seasonally waterlogged			
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er), <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (El) and <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus rudis</i> (Er) and <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus rudis</i> (Er), <i>Eucalyptus patens</i> (Ep) and <i>Eucalyptus wandoo</i> (Ew)			
Second storey	<i>Melaleuca raphiophylla</i> (Mr) on streamline; <i>Acacia acuminata</i> (Aa) away from stream	<i>Melaleuca raphiophylla</i> (Mr) <i>Acacia acuminata</i> (Aa) <i>Allocasuarina huegeliana</i> (Ah); <i>Banksia prionotes</i> (Bp) on sandy soil	<i>Melaleuca raphiophylla</i> (Mr) <i>Hakea prostrata</i> (Hp) <i>Acacia saligna</i> (As)			
Shrub and herb storey	Shrub storey not recorded	Shrub storey not recorded	<i>Orthrosanthus laxus</i> <i>Gastrolobium calycinum</i> <i>Hakea lissocarpha</i> <i>Daviesia preissii</i> <i>Desmocladius flexuosus</i> ms <i>Macrozamia riedlei</i> <i>Mesomelaena tetragona</i> <i>Hypocalymma angustifolium</i> <i>Meeboldina scariosa</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north between Toodyay and Coondle		
Geomorphologic catena – VC (EVS)	Wi – Williams (Ev2)	Bi – Bindoon (Ds0)	Bi – Bindoon (Ds0)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form Description	Floor of a major valley deeply incised into the Darling Plateau	Slopes of a major valley deeply incised into the Darling Plateau	Steep upper slope of a major river dissection, and the breakaway at edge of Plateau
Soil structure, Texture and Fertility	Mixture of alluvial deposits gravel, sand, sandy loam	Red brown sandy loams or brownish grey gritty sandy loams with outcrops of crystalline rock	Gravelly sandy loam over pink clay
Soil hydrology	Water gaining, seasonally flooded but not acutely water logged due to river gradient and incision	Moderately to strongly water shedding, with moderate to limited infiltration, capacity due to steepness of slope	Strongly water shedding but possibly with some subsoil gain from above, good infiltration, moderate storage
Over storey (canopy or emergents)	Ranging from bare sand banks through Low Woodland of <i>Casuarina obesa</i> (Co) and <i>Melaleuca raphiophylla</i> (Mr) to Woodland of <i>Eucalyptus rudis</i> (Er) and <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (Elx)	Ranging from bare rock through Herbfields and Shrubland, to Woodland of <i>Eucalyptus wandoo</i> (Ew), <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (Elx) and Low Woodland of <i>Allocasuarina huegeliana</i> (Ah)	Open Forest of <i>Eucalyptus accedens</i> (Eac) and <i>Eucalyptus wandoo</i> (Ew)
Second storey	<i>Acacia microbotrya</i> (Am) and <i>Acacia acuminata</i> (Aa) at upper margin	<i>Acacia acuminata</i> (Aa) occurs as second storey or as open low woodland	No second storey, other than some tall <i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds)
Shrub and herb storey	Almost totally composed of exotic weeds and grasses	Largely removed by clearing and grazing, residual species <i>Acacia pulchella</i> , <i>Stypandra glauca</i> , <i>Cheilanthes austrotenuifolia</i> , <i>Dianella revoluta</i>	Very limited development of shrub and herb storey such as <i>Lasiopetalum cardiophyllum</i> , <i>Acacia pulchella</i> , <i>Nemcia spathulata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		Bindoon
Geomorphologic catena – VC (EVS)	No – Noonung (Ev2)	Bi – Bindoon (Ds0)	Bi – Bindoon (Ds0)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Terraces of a major valley incised into the Darling Plateau	Lower slopes of a major valley incised into the Darling Plateau	Upper slopes of a major valley incised into the Darling Plateau
Soil structure, texture and fertility	Red brown alluvial loams and sandy loams	Red brown earths and red brown duplex soils	Red brown earths and duplex soils mixed with lateritic colluvium at upper end
Soil hydrology	Seasonally inundated and water logged, but with fair lateral drainage to the stream bed	Strongly water shedding, with moderate infiltration, and variable storage capacity	Water shedding, with variable infiltration and storage capacity
Over storey (canopy or emergents)	Low Open Forest of <i>Eucalyptus rudis</i> (Er) and <i>Melaleuca raphiophylla</i> (Mr) on streamline and of <i>Casuarina obesa</i> (Co) on terraces	Open Woodland of <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (Elx) on deeper soil, of <i>Allocasuarina huegeliana</i> (Ah) on shallower soils	Woodland of <i>Eucalyptus wandoo</i> (Ew) on transition to the plateau uplands, <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (Elx) and <i>Allocasuarina huegeliana</i> (Ah) on shallower soils
Second storey	No second storey	Some <i>Acacia acuminata</i> (Aa)	Some <i>Acacia acuminata</i> (Aa)
Shrub and herb storey	<i>Samolus junceus</i> <i>Halosarcia indica</i> subsp. <i>bidens</i> but mainly exotic weeds	<i>Acacia pulchella</i> <i>Stypandra glauca</i> <i>Dianella revoluta</i> <i>Cheilanthes austrotenuifolia</i> <i>Chamaescilla corymbosa</i> <i>Tetraria octandra</i> <i>Haemodorum paniculatum</i>	<i>Cheilanthes austrotenuifolia</i> <i>Tetraria octandra</i> <i>Dianella revoluta</i> <i>Chamaescilla corymbosa</i> but mainly exotic grasses

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north On Spring Hill Rd near its junction with York-Williams Rd		
Geomorphologic catena – VC (EVS)	G – Goonaping (Ac2)	G – Goonaping (Ac2)	G – Goonaping (Ac2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Depression within a mildly undulating landscape	Lower slope of a gently undulating landscape	Low sandy rise within a gently undulating landscape
Soil structure, texture and fertility	Valley duplex with shallow loamy sand topsoil over yellowish clay	Pale loamy sand over yellowish clay	Deep pale sand, infertile
Soil hydrology	Water gaining, seasonally inundated, prolonged waterlogging	Seasonally moist but not seriously waterlogged	Mildly water shedding via subsoil with good infiltration but very poor retention capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas)	Woodland of <i>Eucalyptus wandoo</i> (Ew)	Low Woodland of <i>Banksia attenuata</i> (Ba)
Second storey	<i>Actinostrobilus pyramidalis</i> (Ap) as scattered low second storey	<i>Allocasuarina huegeliana</i> (Ah), <i>Acacia saligna</i> (As), <i>Hakea prostrata</i> (Hp), <i>Actinostrobilus pyramidalis</i> (Ap), <i>Melaleuca preissiana</i> (Mp)	Tall shrub stratum of <i>Kunzea ericifolia</i> subsp. <i>ericifolia</i> (Ke), <i>Adenanthos cygnorum</i> (Ac)
Shrub and herb storey	<i>Melaleuca viminea</i> , <i>Stenanthemum tridentatum</i> , <i>Acacia pulchella</i> var. <i>pulchella</i> , <i>Latrobea tenella</i> var. <i>tenella</i> , <i>Melaleuca lateriflora</i> , <i>Acanthocarpus preissii</i> , <i>Stypandra glauca</i> , <i>Chorizandra enodis</i>	<i>Adenanthos cygnorum</i> , <i>Melaleuca scabra</i> , <i>Melaleuca viminea</i> , <i>Verticordia densiflora</i>	Shrub and herb species displaced by the exotic veldt grass <i>Ehrharta calycina</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		W of York
Geomorphologic catena – VC (EVS)	Wi – Williams (Ev2)	Mi – Michibin (Wm1)	Y6 – Yalanbee (Vp1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a medium sized valley within the Darling Plateau	Gently undulating side slopes of a medium sized valley in the Darling Plateau	Transition to the undulating surface of the Darling Plateau
Soil structure, texture and fertility	Alluvial loam	Yellow sandy loam	Grey loamy sand, over gravel
Soil hydrology	Water gaining and seriously affected by saline ground water	Mildly water shedding	Moderately water shedding with good infiltration and mode
Over storey (canopy or emergents)	Scattered low emergents of <i>Casuarina obesa</i> (Co) and <i>Eucalyptus rudis</i> (Er) over shrubland and sedgeland	Open Woodland of <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew)
Second storey	No second storey	No second storey	Low, weakly developed second storey of <i>Allocasuarina huegeliana</i> (Ah), <i>Hakea prostrata</i> (Hp) and <i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds)
Shrub and herb storey	Heath and Sedgeland of <i>Halosarcia pergranulata</i> subsp. <i>pergranulata</i> <i>Frankenia tetrapetala</i> <i>Isolepis setiformis</i> <i>Triglochin mucronata</i> * <i>Juncus acutus</i> <i>Cotula coronopifolia</i> and a lot of exotic grasses	<i>Xanthorrhoea preissii</i> <i>Acacia pulchella</i> <i>Lepidosperma tenue</i> <i>Neurachne alopecuroidea</i> <i>Dampiera alata</i> <i>Haemodorum discolor</i> <i>Chamaescilla corymbosa</i> <i>Lechenaultia biloba</i>	<i>Hibbertia hypericoides</i> <i>Petrophile striata</i> <i>Tetraria octandra</i> <i>Lepidosperma tenue</i> <i>Haemodorum laxum</i> <i>Gastrolobium calycinum</i> <i>Loxocarya cinerea</i> <i>Dryandra lindleyana</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north 6km W of project boundary on Beverley Rd		
Geomorphologic catena – VC (EVS)	Mi – Michibin (Wm1)	Mi – Michibin (Wm1)	Y6 – Yalanbee (Vp1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Shallow head of a valley near the interface with uplands	Slope below a breakaway, on the margin of the narrow plateau remnant	Narrow plateau remnant in a strongly dissected landscape
Soil structure, texture and fertility	Sandy surfaced valley duplex soil over sandy clay	Pink and white kaolinitic clay with lateritic gravel and floaters	Cracked pavement of massive laterite, virtually without soil
Soil hydrology	Mildly water shedding, seasonally wet with moderate infiltration and storage capacity	Strongly water shedding with limited infiltration and storage capacity	Strongly water shedding via subsoil, good infiltration (via cracks), moderate storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus astringens</i> subsp. <i>astringens</i> (Eas) and <i>Eucalyptus accedens</i> (Eac)	Open Woodland of <i>Eucalyptus accedens</i> (Eac)
Second storey	<i>Acacia acuminata</i> (Aa) <i>Allocasuarina huegeliana</i> (Ah)	No second storey	<i>Allocasuarina huegeliana</i> (Ah) and tall <i>Dryandra sessilis</i> var. <i>sessilis</i> (Drs)
Shrub and herb storey	<i>Gonocarpus cordiger</i> <i>Hibbertia enervia</i> , <i>Bossiaea eriocarpa</i> , <i>Hakea prostrata</i> <i>Gastrolobium spinosum</i> <i>Hibbertia commutata</i> , <i>Hibbertia montana</i> , <i>Astroloma baxteri</i> , <i>Dianella revoluta</i> <i>Austrodanthonia</i> sp. <i>Hypolaena exsulca</i>	Bare or with very sparse shrub layer of <i>Gastrolobium bilobum</i> <i>Astroloma baxteri</i>	<i>Petrophile circinata</i> <i>Persoonia quinquenervis</i> <i>Gastrolobium bilobum</i> <i>Conospermum filifolium</i> subsp. <i>filifolium</i> <i>Sollya heterophylla</i> <i>Tetrarrhena laevis</i> <i>Grevillea monticola</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north	Boyagin Reserve 1-2km E of project boundary	
Geomorphologic catena – VC (EVS)	Mi – Michibin (Wm1)	Mi – Michibin (Wm1)	Y6 – Yalanbee (Vp1)
Landform and Vegetation profile			
Land form description	Mild lower slope of a major dissection below a large plateau remnant	Granitic outcrop within a major dissection below a large plateau remnant	Broad residual plateau remnant
Soil structure, texture and fertility	Brownish grey granitic loamy sand over sandy clay, moderate fertility	Mainly bare rock with pockets of grey loamy sand, good fertility	Lateritic gravel over sheet laterite, low fertility
Soil hydrology	Mildly water shedding via subsoil, moderate infiltration and storage capacity	Strongly water shedding with very limited infiltration and storage capacity	Mildly water shedding via subsoil with good infiltration but limited storage capacity due to extreme coarseness and presence of a hardpan
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus accedens</i> (Eac)	Few isolated <i>Allocasuarina huegeliana</i> (Ah) on outcrop, thickets of <i>Allocasuarina huegeliana</i> (Ah) around the outcrop.	Open Woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Eucalyptus accedens</i> (Eac)
Second storey	<i>Acacia acuminata</i> (Aa) <i>Allocasuarina huegeliana</i> (Ah)	No second storey	<i>Eucalyptus drummondii</i> subsp. <i>humilis</i> (Edr) in open spaces between larger trees
Shrub and herb storey	<i>Gastrolobium bilobum</i> <i>Gastrolobium spinosum</i> <i>Acacia pulchella</i> <i>Lepidosperma tenue</i> <i>Bossiaea eriocarpa</i>	<i>Cheilanthes austrotenuifolia</i> Lithic Complex and <i>Dodonaea viscosa</i> <i>Gastrolobium spinosum</i> <i>Trymalium ledifolium</i> <i>Hibbertia enervia</i> <i>Spartochloa scirpoidea</i>	<i>Bossiaea eriocarpa</i> <i>Dryandra lindleyana</i> <i>Dryandra squarrosa</i> subsp. <i>squarrosa</i> <i>Xanthorrhoea drummondii</i> <i>Allocasuarina humilis</i> <i>Hakea undulata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semi-arid north		SE. of Boddington
Geomorphologic catena – VC (EVS)	Ck – Coolakin (W11)	Ck – Coolakin (W11)	
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Lower slopes of a medium sized valley	Lower slopes of a medium sized valley	
Soil structure, texture and fertility	Brownish grey sandy loam over sandy clay, moderately fertile	Red brown loam over loamy clay, fertile	
Soil hydrology	Mildly water shedding, with moderate infiltration and storage capacity	Mildly water shedding, with moderate infiltration and storage capacity	
Over storey (canopy or emergents)	Woodland of <i>Corymbia calophylla</i> (Cc), <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Eucalyptus wandoo</i> (Ew)	Open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) with some <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus wandoo</i> (Ew)	
Second storey	Tall <i>Xanthorrhoea preissii</i> (Xp)	Sparse second storey of <i>Banksia grandis</i> (Bg)	
Shrub and herb storey	<i>Lepidosperma gracile</i> , <i>Tetraria capillaris</i> , <i>Austrostipa scabra</i> subsp. <i>scabra</i> , <i>Austrostipa flavescens</i> , <i>Bossiaea eriocarpa</i> , <i>Bossiaea ornata</i> , <i>Phyllanthus calycinus</i> , <i>Lechenaultia biloba</i> , <i>Leucopogon nutans</i> , <i>Dianella revoluta</i> , <i>Macrozamia riedlei</i> , <i>Hakea lissocarpha</i> , <i>Chorizema aciculare</i> , <i>Acacia pulchella</i> , <i>Hibbertia commutata</i>	<i>Bossiaea eriocarpa</i> , <i>Bossiaea ornata</i> , <i>Phyllanthus calycinus</i> , <i>Macrozamia riedlei</i> , <i>Tetraria octandra</i> , <i>Acacia pulchella</i> , <i>Acacia celsa</i> (trifolia), <i>Acacia drummondii</i> , <i>Acacia nervosa</i> , <i>Xanthorrhoea preissii</i> , <i>Leucopogon propinquus</i> , <i>Trymalium ledifolium</i>	

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		W of York
Geomorphologic catena - VC (EVS)	Wi - Williams (Ev2)	Mi - Michibin (Wm1)	Y6 - Yalanbee (Vp1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley floor of a medium sized valley within the Darling Plateau	Moderately steep slopes of a medium sized valley on the Darling Plateau	Upper slope and ridge within the undulating upland of the Darling Plateau
Soil structure, texture and fertility	Pale grey loamy sand over mottled clay	Pale brown sandy loam over clay or decomposed rock at shallow depth	Yellow brown gravelly sand over kaolinitic clay at depth
Soil hydrology	Water gaining, seasonally flooded and water logged	Strongly water shedding with moderate infiltration but limited infiltration capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Open woodland of <i>Eucalyptus rudis</i> (Er)	Open woodland of <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus accedens</i> (Eac), <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Melaleuca viminea</i> and <i>Melaleuca incana</i>	Well developed low second storey of <i>Acacia acuminata</i>	No second storey
Shrub and herb storey	* <i>Juncus acutus</i> <i>Tetraria capillaris</i> and strong development of exotic grasses	<i>Hakea undulata</i> <i>Borya sphaerocephala</i> <i>Haemodorum laxum</i> <i>Hakea preissii</i> <i>Stackhousia monogyna</i> and a strong development of exotic grasses	<i>Dryandra armata</i> , <i>Dryandra nobilis</i> subsp. <i>nobilis</i> , <i>Hakea incrassata</i> , <i>Gastrolobium parviflorum</i> var. <i>parviflorum</i> <i>Allocasuarina humilis</i> <i>Astroloma pallidum</i> <i>Neurachne alopecuroidea</i> <i>Lepidosperma tenue</i> <i>Gastrolobium spinosum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		W of York
Geomorphologic catena - VC (EVS)	Wi - Williams (Ev2)	Mi - Michibin (Wm1)	Y6 - Yalanbee (Vp1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valley floor of a medium sized valley within the Darling Plateau	Moderately steep slopes of a medium sized valley on the Darling Plateau	Upper slope and ridge within the undulating upland of the Darling Plateau
Soil structure, texture and fertility	Pale grey loamy sand over mottled clay	Pale brown sandy loam over clay or decomposed rock at shallow depth	Yellow brown gravelly sand over kaolinitic clay at depth
Soil hydrology	Water gaining, seasonally flooded and water logged	Strongly water shedding with moderate infiltration but limited infiltration capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Open Woodland of <i>Eucalyptus rudis</i> (Er)	Open Woodland of <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus accedens</i> (Eac), <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Melaleuca viminea</i> and <i>Melaleuca incana</i>	Well developed low second storey of <i>Acacia acuminata</i>	No second storey
Shrub and herb storey	* <i>Juncus acutus</i> <i>Tetraria capillaris</i> and strong development of exotic grasses	<i>Hakea undulata</i> <i>Borya sphaerocephala</i> <i>Haemodorum laxum</i> <i>Hakea preissii</i> <i>Stackhousia monogyna</i> and a strong development of exotic grasses	<i>Dryandra armata</i> , <i>Dryandra nobilis</i> subsp. <i>nobilis</i> , <i>Hakea incrassata</i> , <i>Gastrolobium parviflorum</i> var. <i>parviflorum</i> <i>Allocasuarina humilis</i> <i>Astroloma pallidum</i> <i>Neurachne alopecuroidea</i> <i>Lepidosperma tenue</i> <i>Gastrolobium spinosum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		W of York
Geomorphologic catena – VC (EVS)	Wi – Williams <i>(not in mapped area)</i> (Ev2)	Mi – Michibin <i>(not in mapped area)</i> (Wm1)	Y6 – Yalanbee (Vp1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a medium sized valley incised into the Darling Plateau	Steep slope of a medium sized valley incised into the Darling Plateau	Break away (edge) of the Darling Plateau adjacent to a river dissection
Soil structure, texture and fertility	Alluvial clay loam, moderately fertile	Shallow skeletal red brown sandy loam, with rock outcrops, fertile	Yellow gravelly sand above breakaway; sandy loam over pinkish clay below breakaway, infertile
Soil hydrology	Water gaining, seasonally inundated and water logged	Strongly water shedding, with very limited infiltration and storage capacity	Moderately to strongly water shedding, with variable infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus rudis</i> (Er)	Open woodland of <i>Acacia acuminata</i> (Aa) with a low admixture of <i>Corymbia calophylla</i> (Cc) and <i>Allocasuarina huegeliana</i> (Ah)	No tree storey. Thicket of <i>Allocasuarina campestris</i> and <i>Xanthorrhoea preissii</i> above breakaway shrubland of <i>Hakea undulata</i> below breakaway
Second storey	Well developed and moderately tall second storey of <i>Melaleuca viminea</i> (Mv) and <i>Melaleuca incana</i> (Mi)	No second storey	No second storey
Shrub and herb storey	<i>Baumea juncea</i> <i>Senecio lautus</i> subsp. <i>dissectifolius</i> and strong development of exotic grasses	<i>Calothamnus quadrifidus</i> <i>Borya sphaerocephala</i> <i>Hakea undulata</i> <i>Hibbertia hypericoides</i> <i>Grevillea bipinnatifida</i> <i>Thryptomene australis</i> <i>Cheilanthes austrotenuifolia</i> <i>Neurachne alopecuroidea</i>	<i>Melaleuca scabra</i> , <i>Centrolepis cephaliformis</i> , <i>Gastrolobium parviflorum</i> var. <i>parviflorum</i> , <i>Persoonia quinquenervis</i> , <i>Verticordia huegelii</i> , <i>Dodonaea ceratocarpa</i> , <i>Beaufortia bracteosa</i> , <i>Mesomelaena stygia</i> <i>Isopogon dubius</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Humid to Subhumid north		West of Boyup Brook
Geomorphologic catena – VS (EVS)	D1 – Dwellingup (JP6)	Pn – Pindalup (W12)	WG – Wilga (JG4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Crests and upper slopes within an undulating plateau	Broad flat valleys in headwaters of streams	Broad flat to gently undulating divides
Soil structure, texture and fertility	Gravelly yellow duplex soils and sandy gravels, infertile	Yellow duplex soils with loamy sand surface, moderately fertile	Yellow duplex soils with sandy surface, infertile
Soil hydrology	Limited run-off, high infiltration, good capacity for storage in deep profile	Water gaining storage limited by impermeable subsoil, seasonally wet	Limited run-off, good infiltration and storage
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus wandoo</i> (Ew), <i>Eucalyptus patens</i> (Ep) and <i>Eucalyptus rudis</i> (Er)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Allocasuarina fraseriana</i> (Afr), <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)	Largely absent, replaced by large shrubs of <i>Hakea prostrata</i> , <i>Melaleuca viminea</i> (streamline only)	Poorly developed, some <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Acacia browniana</i> <i>Hovea chorizemifolia</i> <i>Leucopogon propinquus</i> <i>Lasiopetalum floribundum</i> <i>Leucopogon verticillatus</i> <i>Macrozamia riedlei</i>	<i>Hakea lissocarpa</i> <i>Hypocalymma angustifolium</i> <i>Lepidosperma squamatum</i> <i>Baeckea camphorosmae</i> <i>Hakea prostrata</i>	<i>Hakea lissocarpa</i> <i>Hibbertia hypericoides</i> <i>Lepidosperma squamatum</i> <i>Mesomelaena tetragona</i> (low, sedgy)

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid north Between Armadale & Brookton		
Geomorphologic catena - VC (EVS)	Pn - Pindalup (W12)	Pn - Pindalup (W12)	D4 - Dwellingup (Ip3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor and lower slopes of a minor valley in the northern Darling Plateau	Mid and upper slopes of a minor valley in the northern Darling Plateau	Local divide, in form of upland ridges and spurs, within mildly undulating northern Darling Plateau
Soil structure, texture and fertility	Pale yellow sandy loam over sandy clay	Brown gravelly sandy loam over sandy clay; sandy clay loam and lateritic floaters at the breakaway	Yellow brown gravelly sand or sandy loam, with some lateritic outcrops
Soil hydrology	Water gaining, seasonally waterlogged with saline ground water at depth	Water shedding with good infiltration and moderate storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew), with occasional <i>Eucalyptus patens</i> (Ep)	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em), with <i>Eucalyptus accedens</i> (Eac) on breakaway	Woodland to open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) with admixture of <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	No second storey	Virtually without second storey
Shrub and herb storey	<i>Gastrolobium calycinum</i> <i>Hakea lissocarpha</i> <i>Hypocalymma angustifolium</i> <i>Baeckea camphorosmae</i> <i>Dampiera alata</i> <i>Mesomelaena tetragona</i> <i>Lepidosperma squamatum</i>	<i>Hakea lissocarpha</i> <i>Macrozamia riedlei</i> <i>Gastrolobium calycinum</i> <i>Baeckea camphorosmae</i> <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Leucopogon capitellatus</i> <i>Phyllanthus calycinus</i>	<i>Macrozamia riedlei</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Hakea lissocarpha</i> <i>Styphelia tenuiflora</i> <i>Patersonia rudis</i> subsp. <i>rudis</i> <i>Phyllanthus calycinus</i> <i>Lechenaultia biloba</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid north		NE of Collie
Geomorphologic catena - VC (EVS)	Pn - Pindalup (W12)	Pn - Pindalup (W12)	MH - Mornington (Ip3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Near flat floor of a shallow valley in weakly dissected Darling Plateau	Lower slope of a minor valley in weakly dissected portion of the Darling Range	Upper slope and ridge in a weakly dissected portion of the Darling Range
Soil structure, texture and fertility	Yellow duplex soils with bleached sandy loams over clay	Gravelly red and yellow duplex soils	Gravelly sands and loamy sands with outcrops of lateritic duricrust
Soil hydrology	Water gaining, seasonally water logged due to inadequate lateral and vertical drainage	Mildly water gaining and seasonally water logged, due to poor vertical and lateral drainage, at down slope end	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Open Woodland of <i>Eucalyptus rudis</i> (Er) and <i>Melaleuca preissiana</i> (Mp) on valley floor; Woodland of <i>Eucalyptus wandoo</i> (Ew) on the periphery	Woodland of <i>Eucalyptus wandoo</i> (Ew) on lower slopes; Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) on upper slopes	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with admixture of <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	No second storey	<i>Allocasuarina fraseriana</i> (Afr), <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	Shrubland and Sdgeland of <i>Hakea varia</i> , <i>Hakea ceratophylla</i> , <i>Melaleuca viminea</i> , <i>Melaleuca incana</i> , <i>Meeboldina scariosa</i> , <i>Pericalymma ellipticum</i> , <i>Lepidosperma squamatum</i> , <i>Mesomelaena tetragona</i> , <i>Hypocalymma angustifolium</i>	<i>Hypocalymma angustifolium</i> , <i>Baeckea camphorosmae</i> , <i>Dampiera alata</i> , <i>Lepidosperma squamatum</i> , <i>Hakea lissocarpha</i> , <i>Mesomelaena tetragona</i> , <i>Macrozamia riedlei</i> , <i>Hakea prostrata</i>	<i>Petrophile striata</i> , <i>Trymalium ledifolium</i> , <i>Phyllanthus calycinus</i> , <i>Styphelia tenuiflora</i> , <i>Bossiaea ornata</i> , <i>Hibbertia commutata</i> , <i>Macrozamia riedlei</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		W. of York
Geomorphologic catena – VC (EVS)	Pn – Pindalup (W12)	Pn – Pindalup (W12)	Y6 – Yalanbee (Vp1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of a shallow minor valley within the Darling Plateau	Slopes of a minor valley within the Darling Plateau	Low ridge forming a minor divide on the Darling Plateau
Soil structure, texture and fertility	Pale grey sand over mottled clay	Pale brown sandy loam over clay	Yellow brown gravelly loamy sand, with lateritic duricrust
Soil hydrology	Water gaining, seasonally water logged	Mildly water shedding, with moderate infiltration but limited storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Scattered individuals of <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc) on transition from floor to slope	Woodland of <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus accedens</i> (Eac), <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Hakea prostrata</i> (Hp) reaching the size of a small tree on the transition zone	No second storey	Low open understorey of <i>Dryandra nobilis</i> subsp. <i>nobilis</i> (Dn)
Shrub and herb storey	Shrubland of <i>Kunzea recurva</i> and <i>Pericalymma ellipticum</i> ; also <i>Jacksonia furcellata</i> , <i>Adenanthos cygnorum</i> , <i>Acacia barbinervis</i> , <i>Xanthorrhoea preissii</i> , <i>Lepidosperma leptostachyum</i>	<i>Hakea incrassata</i> <i>Hakea lissocarpha</i> <i>Caustis dioica</i> <i>Gastrolobium calycinum</i> <i>Neurachne alopecuroidea</i> <i>Centrolepis cephaliformis</i> <i>Persoonia quinquenervis</i> <i>Lechenaultia biloba</i>	<i>Dryandra armata</i> <i>Helichrysum leucopsideum</i> <i>Leucopogon nutans</i> <i>Lepidosperma tenue</i> <i>Neurachne alopecuroidea</i> <i>Gastrolobium bilobum</i> <i>Conostylis serrulata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid north		SE of Mundaring
Geomorphologic catena – VC (EVS)	S – Swamp (Sw3)	Pn – Pindalup (W12)	D4 – Dwellingup (Ip3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad flat floor of a minor valley very shallowly incised into Darling Plateau	Very mild slope between valley floor and low rise within the Darling Plateau	Low rise forming a divide between shallow valleys within the Darling Plateau
Soil structure, texture and fertility	Leached grey sand over clay or organic/iron hardpan	Moderately leached deep pale yellow sand	Pale yellow brown gravelly sand
Soil hydrology	Water gaining, seasonally waterlogged	Mildly water shedding via subsoil, good infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Scattered emergents or very open low woodland of <i>Melaleuca preissiana</i> (Mp) <i>Banksia littoralis</i> (BI) and <i>Nuytsia floribunda</i> (Nf)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) with minor admixture of <i>Corymbia calophylla</i> (Cc)	Woodland to open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) with some <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	No second storey, other than occasional <i>Nuytsia floribunda</i> (Nf)	Weakly developed second storey of <i>Allocasuarina fraseriana</i> (Afr) and <i>Banksia grandis</i> (Bg)
Shrub and herb storey	<i>Hakea varia</i> <i>Hakea ceratophylla</i> <i>Astartea fascicularis</i> <i>Pericalymma ellipticum</i> <i>Meeboldina scariosa</i> <i>Hypocalymma angustifolium</i> <i>Lepidosperma squamatum</i> <i>Mesomelaena tetragona</i>	<i>Adenanthos obovatus</i> <i>Dasypogon bromeliifolius</i> <i>Petrophile linearis</i> at moist end; <i>Stirlingia latifolia</i> <i>Caustis dioica</i> <i>Conospermum stoechadis</i> subsp. <i>stoechadis</i> at dry end of continuum	<i>Hakea cyclocarpa</i> <i>Hakea ruscifolia</i> <i>Isopogon dubius</i> <i>Stirlingia latifolia</i> <i>Styphelia tenuiflora</i> <i>Daviesia incrassata</i> <i>Patersonia rudis</i> subsp. <i>rudis</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central Near McAlinden Rd E of Donnybrook, N of Wilga		
Geomorphologic catena - VC (EVS)	Pn - Pindalup (W12)	Pn - Pindalup (W12)	WG - Wilga (JG4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor of valley shallowly incised into the Darling Range	Lower slopes of a valley shallowly incised into the Darling Plateau	Upper slope within the uplands of the Darling Plateau
Soil structure, texture and fertility	Yellowish brown sandy loam over clay	Yellow brown loamy sand over sandy clay	Dark yellow brown gravelly loamy sand
Soil hydrology	Water gaining, waterlogged for much of the year	Mildly water shedding via subsoil	Moderately water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	No tree storey	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Corymbia calophylla</i> (Cc) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	Tall Shrubland of <i>Kunzea ericifolia</i> (Ke) with shrubland of <i>Hakea varia</i>	No second storey	<i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Hakea prostrata</i> <i>Xanthorrhoea preissii</i> <i>Hypocalymma angustifolium</i> <i>Drosera erythrorhiza</i> <i>Lagenophora huegelii</i> <i>Astroloma ciliatum</i> <i>Mesomelaena tetragona</i>	<i>Xanthorrhoea preissii</i> <i>Hakea lissocarpha</i> <i>Synaphea petiolaris</i> <i>Dryandra lindleyana</i> <i>Bossiaea ornata</i> <i>Astroloma ciliatum</i> <i>Hibbertia hypericoides</i> <i>Hypocalymma angustifolium</i>	<i>Bossiaea ornata</i> <i>Hibbertia hypericoides</i> <i>Hibbertia amplexicaulis</i> <i>Macrozamia riedlei</i> <i>Acacia pulchella</i> <i>Hakea lissocarpha</i> <i>Dryandra lindleyana</i> <i>Phyllanthus calycinus</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		
Geomorphologic catena – VC (EVS)	Pn – Pindalup (W12)	Y5 – Yalanbee (Vp2)	Ck – Coolakin (W11)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Shallow minor valley within the Darling Plateau	Mildly rising divide on the Darling Plateau	Moderately incised valley within the Darling Range Plateau
Soil structure, texture and fertility	Yellow duplex soils with gravelly topsoil on slopes, and loam topsoil on valley floor	Yellow brown gravelly sand and sandy loam over kaolinitic clay at depth, some lateritic duricrust	Red duplex soils with gravelly sandy loam topsoil and clay subsoil
Soil hydrology	Slopes mildly water shedding with good infiltration and fair storage capacity; floors water gaining	Mildly water shedding via subsoil, very good infiltration and storage capacity	Strongly water shedding and with good infiltration but only moderate storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew), with <i>Eucalyptus rudis</i> (Er) on drainage lines	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus wandoo</i> (Ew) with admixture of <i>Eucalyptus accedens</i> (Eac) and <i>Corymbia calophylla</i> (Cc) on upper slopes
Second storey	No second storey	Few pockets of <i>Dryandra sessilis</i> var. <i>sessilis</i>	No second storey
Shrub and herb storey	<i>Xanthorrhoea preissii</i> , <i>Hakea lissocarpha</i> , <i>Hakea erinacea</i> , <i>Daviesia preissii</i> on slopes. On valley floor <i>Lechenaultia biloba</i> , <i>Viminaria juncea</i> , <i>Hypocalymma angustifolium</i> , <i>Hakea prostrata</i> , <i>Hakea varia</i> , <i>Lepidosperma squamatum</i>	<i>Dryandra squarrosa</i> subsp. <i>squarrosa</i> , <i>Dryandra lindleyana</i> , <i>Hibbertia hypericoides</i> , <i>Hibbertia commutata</i> , <i>Phyllanthus calycinus</i> , <i>Acacia pulchella</i> , <i>Hakea lissocarpha</i> , <i>Daviesia decurrens</i> , <i>Olearia paucidentata</i>	<i>Macrozamia riedlei</i> , <i>Xanthorrhoea preissii</i> , <i>Hakea lissocarpha</i> , <i>Lasiopetalum cardiophyllum</i> , <i>Bossiaea eriocarpa</i> , <i>Phyllanthus calycinus</i> , <i>Hibbertia hypericoides</i> , <i>Hibbertia commutata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		North of Bindoon
Geomorphologic catena – VC (EVS)	Mi – Michibin (Wm1)	Y6 – Yalanbee (Vp1)	Y6 – Yalanbee (Vp1)
Landform and Vegetation profile			
Land form description	Slope of valley moderately incised into the Darling Plateau	Upland surface of the Darling Plateau	Upland surface of the Darling Plateau
Soil structure, texture and fertility	Red duplex soil, with gravelly sandy loam topsoil and gneissic outcrops	Yellow brown gravelly sandy loam over kaolinitic clay at depth	Deep sandy gravel over kaolinitic clay at depth
Soil hydrology	Strongly water shedding with intermediate infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration but storage limited by extreme coarseness
Over storey (canopy or emergents)	Woodland to open woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (Elx)	Woodland of <i>Eucalyptus accedens</i> (Eac), <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)	Open Woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) with some <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Acacia acuminata</i> (Aa)	No second storey	No second storey
Shrub and herb storey	Largely replaced by exotic grasses. Some fire weeds, such as <i>Acacia pulchella</i> ; also <i>Dianella revoluta</i> <i>Stypandra glauca</i> <i>Lasiopetalum cardiophyllum</i>	<i>Daviesia preissii</i> <i>Hibbertia commutata</i> <i>Dryandra lindleyana</i> <i>Dryandra bipinnatifida</i> <i>Leucopogon nutans</i> <i>Macrozamia riedlei</i> <i>Xanthorrhoea preissii</i> <i>Hakea lissocarpha</i> <i>Trymalium ledifolium</i>	<i>Dryandra sessilis</i> var. <i>sessilis</i> , <i>Dryandra polycephala</i> <i>Dryandra armata</i> , <i>Hakea stenophylla</i> <i>Daviesia decurrens</i> <i>Daviesia preissii</i> <i>Calothamnus sanguineus</i> <i>Hibbertia hypericoides</i> <i>Hibbertia commutata</i> <i>Bossiaea eriocarpa</i> <i>Petrophile serruriae</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		York Rd E of Inkpen Rd
Geomorphologic catena – VC (EVS)	Y6 – Yalanbee (Vp1)		
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Undulating gravelly uplands		
Soil structure, texture and fertility	Yellow gravels and yellow gravelly sands with lateritic floaters		
Soil hydrology	Mildly water shedding via subsoil, good infiltration and storage capacity		
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus accedens</i> (Eac)		
Second storey	No second storey		
Shrub and herb storey	<i>Allocasuarina campestris</i> <i>Acacia pulchella</i> , <i>Acacia nervosa</i> , <i>Bossiaea eriocarpa</i> <i>Leucopogon capitellatus</i> <i>Leucopogon propinquus</i> <i>Hakea lissocarpha</i> , <i>Hakea trifurcata</i> , <i>Hibbertia enervia</i> <i>Petrophile serruriae</i> <i>Lechenaultia biloba</i> <i>Persoonia quinquenervis</i> <i>Ptilotus manglesii</i> <i>Daviesia incrassata</i> <i>Lepidosperma gracile</i>		

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		E. of Bindoon
Geomorphologic catena – VC (EVS)	Bi – Bindoon (Ds0)	Y6 – Yalanbee (Vp1)	Ck – Coolakin (W11)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Upper slopes of a major valley incised into the Darling Plateau	Plateau remnant in a strongly dissected region of the Darling Plateau	Slopes and streamline of a minor valley incised into the Darling Plateau
Soil structure, texture and fertility	Red brown earths and red duplex soils, the latter with sandy loam over rocky clay, also skeletal soils	Yellowish brown sandy gravels and lateritic duricrust, over kaolinitic clay at depth	Complex of skeletal soils near outcrops, through duplex soils with sandy loam surface, to yellow brown gravelly sands
Soil hydrology	Strongly water shedding, with variable infiltration and storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity	Moderately to strongly water shedding, variable infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus accedens</i> (Eac) on deeper less fertile soils, Open Woodland of <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (Elx) on shallower but more fertile soils; Woodland of <i>Allocasuarina huegeliana</i> (Ah), Heath or Herbfields on skeletal soils	Woodland of <i>Eucalyptus wandoo</i> (Ew), <i>Eucalyptus accedens</i> (Eac) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus rudis</i> (Er) along stream line, <i>E. wandoo</i> (Ew) over most of the slopes, <i>Eucalyptus accedens</i> (Eac) near breakaway on upper slope <i>Allocasuarina huegeliana</i> (Ah) on or near rock outcrop
Second storey	<i>Acacia acuminata</i> (Aa)	No second storey of trees	
Shrub and herb storey	<i>Borya sphaerocephala</i> , <i>Hakea lissocarpha</i> , <i>Austrodanthonia caespitosa</i> , <i>Dianella revoluta</i> , <i>Styphandra glauca</i> , <i>Acacia pulchella</i>	<i>Styphelia tenuiflora</i> , <i>Patersonia rudis</i> subsp. <i>rudis</i> , <i>Hakea ruscifolia</i> , <i>Lepidosperma squamatum</i> , <i>Hakea lissocarpha</i> , <i>Baeckea camphorosmae</i>	<i>Borya sphaerocephala</i> , <i>Hakea lissocarpha</i> , <i>Calothamnus sanguineus</i> , <i>Phyllanthus calycinus</i> , <i>Hibbertia hypericoides</i> , <i>Lechenaultia biloba</i> , <i>Nemcia spathulata</i> , <i>Acacia lasiocarpa</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north Northern Hwy between Bindoon and Muchea (interface between Dandaragan and Darling Plateau)		
Geomorphologic catena - VC (EVS)	Mb - Mogumber (Ig0)	Y6 - Yalanbee (Vp1)	Y6 - Yalanbee (Vp1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Upland surface of the Dandaragan sedimentary plateau	Minor escarpment on western edge of the crystalline Darling Plateau	Shallow depression within the Darling Plateau
Soil structure, texture and fertility	Deep leached grey sand with humus enriched topsoil	Yellow brown sandy gravel with numerous outcrops of lateritic duricrust	Leached grey sand with humus enriched topsoil, over gravel in sandy clay matrix at depth
Soil hydrology	Neither water shedding nor water gaining, with good infiltration but storage limited by extreme coarseness	Moderately water shedding via subsoil, moderate infiltration and storage capacity	Mildly water gaining with good infiltration and moderate storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus accedens</i> (Eac), <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em), <i>Eucalyptus wandoo</i> (Ew) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	<i>Banksia attenuata</i> (Ba) <i>Banksia menziesii</i> (Bm) <i>Eucalyptus todtiana</i> (Et) <i>Banksia grandis</i> (Bg)	No second storey	<i>Banksia attenuata</i> (Ba) <i>Banksia grandis</i> (Bg)
Shrub and herb storey	<i>Adenanthos cygnorum</i> <i>Stirlingia latifolia</i> <i>Jacksonia floribunda</i> <i>Conostephium pendulum</i> <i>Leucopogon conostephioides</i> <i>Scholtzia involucreta</i> <i>Hibbertia hypericoides</i>	<i>Hakea stenophylla</i> <i>Hibbertia commutata</i> <i>Trymalium ledifolium</i> <i>Hovea chorizemifolia</i> <i>Pimelea suaveolens</i> <i>Mesomelaena tetragona</i> <i>Styphelia tenuiflora</i> <i>Dryandra lindleyana</i>	<i>Xanthorrhoea preissii</i> <i>Hypocalymma angustifolium</i> <i>Calytrix flavescens</i> <i>Petrophile linearis</i> <i>Stirlingia latifolia</i> <i>Bossiaea eriocarpa</i> <i>Conostephium pendulum</i> <i>Hibbertia hypericoides</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north between Toodyay and Bindoon		
Geomorphologic catena - VC (EVS)	Bi - Bindon (Ds0)	Y6 - Yalanbee (Vp1)	Y6 - Yalanbee (Vp1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Upper slopes of a major dissection of the Darling Plateau, below breakaway	Margin of the Darling Plateau uplands, next to a major river dissection	Shallow depression in the uplands of the Darling Plateau
Soil structure, texture and fertility	Gravelly sandy loam over pink clay	Yellow brown gravelly loam sand with numerous outcrops of lateritic duricrust	Pale loamy sand overlying over yellowish clay with ironstone gravel
Soil hydrology	Strongly water shedding, but with possible gain via subsoil, good infiltration but only moderate storage capacity	Mildly water shedding via subsoil, good infiltration and storage capacity	Neutral, with relatively good internal drainage, moderate storage capacity
Over storey (canopy or emergents)	Open Forest of <i>Eucalyptus accedens</i> (Eac) and <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus accedens</i> (Eac), <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) with a few <i>Corymbia calophylla</i> (Cc)
Second storey	A few large <i>Dryandra sessilis</i> var. <i>sessilis</i> (Dr)	<i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds), some <i>Banksia grandis</i>	No second storey
Shrub and herb storey	Largely without shrub or herb stratum, merely scattered clumps of <i>Acacia pulchella</i> , <i>Nemcia spathulata</i> , <i>Lasiopetalum cardiophyllum</i>	<i>Hibbertia commutata</i> , <i>Hakea lissocarpa</i> , <i>Dryandra squarrosa</i> subsp. <i>squarrosa</i> , <i>Phyllanthus calycinus</i> , <i>Leucopogon nutans</i> , <i>Dryandra lindleyana</i> , <i>Hibbertia hypericoides</i> , <i>Daviesia decurrens</i>	<i>Hakea lissocarpa</i> , <i>Hibbertia hypericoides</i> , <i>Daviesia preissii</i> , <i>Daviesia decurrens</i> , <i>Petrophile striata</i> , <i>Dryandra lindleyana</i> , <i>Dryandra bipinnatifida</i> , <i>Synaphea petiolaris</i> subsp. <i>petiolaris</i> , <i>Hovea chorizemifolia</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north Spring Hill Rd. Eastern margin of project area. West of Beverley		
Geomorphologic catena – VC (EVS)	G – Goonaping (Ac2)	Y6 – Yalanbee (Vp1)	Ce – Cooke (RS3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Sandy pocket between undulating uplands and swampy depression	Mild undulating upland below a rocky outcrop	Raised outcrop of granitic rocks in an undulating landscape
Soil structure, texture and fertility	Deep pale sand and pale sand over gravelly loamy sand	Brownish grey granitic loamy sand and sandy loam, relatively fertile	Skeletal rocky red brown sandy loam, fertile
Soil hydrology	Mildly water shedding via subsoil, good infiltration but poor storage capacity due to coarseness	Mildly water gaining from nearby granitic outcrop, water shedding via subsoil, intermediate infiltration and storage capacity	Strongly water shedding with very limited infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em), <i>Nuytsia floribunda</i> (Nf), <i>Banksia prionotes</i> (Bp) and <i>Allocasuarina huegeliana</i> (Ah)	Woodland of <i>Eucalyptus wandoo</i> (Ew)	Open woodland of <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (El)
Second storey	No true second storey, but some tall shrubs of <i>Hakea prostrata</i> , <i>Dryandra sessilis</i> var. <i>sessilis</i> , <i>Kunzea ericifolia</i> (Ke)	<i>Acacia acuminata</i> (Aa) <i>Allocasuarina huegeliana</i> (Ah) <i>Hakea prostrata</i> (Hp)	Remnants of <i>Acacia acuminata</i> (Aa) and <i>Allocasuarina huegeliana</i> (Ah)
Shrub and herb storey	<i>Allocasuarina humilis</i> <i>Hakea trifurcata</i> , <i>Hakea incrassata</i> , <i>Adenanthos cygnorum</i> , <i>Caustis dioica</i> <i>Pericalymma ellipticum</i> <i>Verticordia acerosa</i> <i>Dryandra armata</i>	<i>Jacksonia sternbergiana</i> <i>Macrozamia riedlei</i> <i>Allocasuarina humilis</i> <i>Lepidosperma gracile</i> <i>Dryandra sessilis</i> var. <i>sessilis</i>	Totally eliminated by grazing

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north S. end of Spring Hill Rd Eastern margin of project area, west of Beverley		
Geomorphologic catena - VC (EVS)	Mi - Michibin (Wm1)	G - Goonaping (Ac2)	Mi - Michibin (Wm1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Moderately steep midslope in an undulating landscape	Mild sandy midslope in an undulating landscape	Moderate slope between a rocky upland and sand sheet
Soil structure, texture and fertility	Yellow gravelly loamy sand over clayey sand over sandy clay, moderate fertility	Deep pale sand, extremely infertile	Moderately fertile, yellow gravelly sandy loam on footslope, and shallow skeletal loam on steep slope.
Soil hydrology	Moderately water shedding via subsoil, good infiltration but limited storage capacity	Mildly water shedding via subsoil, good infiltration but poor storage due to coarseness of soil	Water gaining from rocky slopes, mildly water shedding via subsoil, moderate infiltration and storage capacity
Over storey (canopy or emergents)	Emergents of <i>Allocasuarina huegeliana</i> (Ah) over Heath land, with <i>Eucalyptus wandoo</i> (Ew) on lowerslope	Low Open Woodland of <i>Banksia attenuata</i> (Ba) merging at upper level into <i>Banksia prionotes</i> (Bp)	Woodland of <i>Eucalyptus wandoo</i> (Ew) with <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> (El) on steeper slopes above
Second storey	No second storey	<i>Adenanthos cygnorum</i> (Ac)	<i>Banksia prionotes</i> (Bp) on lower slopes. <i>Allocasuarina huegeliana</i> (Ah) on upper slopes
Shrub and herb storey	<i>Daviesia nudiflora</i> , <i>Hakea trifurcata</i> , <i>Astroloma serratifolium</i> , <i>Petrophile squamata</i> , <i>Hakea prostrata</i> , <i>Dryandra sessilis</i> var. <i>sessilis</i> , <i>Dryandra armata</i> , <i>Daviesia incrassata</i> , <i>Pericalymma ellipticum</i> , <i>Caustis dioica</i> , <i>Gastrolobium spinosum</i> , <i>Melaleuca scabra</i>	<i>Scholtzia involucrata</i> , <i>Hibbertia subvaginata</i> , <i>Eremaea pauciflora</i> , <i>Schoenus curvifolius</i> , <i>Leptospermum spinescens</i> , <i>Allocasuarina humilis</i>	Not recorded due to strong transitional variability from loamy to sandy soils

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid north		East of Mundaring
Geomorphologic catena – VC (EVS)	G – Goonaping (Ac2)	G – Goonaping (Ac2)	S - Swamp (Sw3)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad shallow depression at the head of drainage lines in the Darling Plateau	Broad shallow depressions at the head of drainage lines in the Darling Plateau	Broad shallow drainage lines in the Darling Plateau
Soil structure, texture and fertility	Leached deep grey sands, sometimes underlain by lateritic gravel in sandy clay matrix	Leached deep grey sands underlain by clay or iron/organic hardpan	Leached grey sands underlain by clay or iron/organic hardpan, or silty loams
Soil hydrology	Mildly water shedding via subsoil, good infiltration but storage capacity limited by extreme porosity	Mildly water gaining via lateral flow in the subsoil, seasonally water logged	Strongly water gaining, water logged for much of the year
Over storey (canopy or emergents)	Low Open Woodland of <i>Banksia attenuata</i> (Ba), <i>Banksia menziesii</i> (Bm) and <i>Nuytsia floribunda</i> (Nf); <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) at upland margin	Low Open Woodland of <i>Melaleuca preissiana</i> (Mp) and <i>Banksia littoralis</i> (Bl)	Scattered emergents of <i>Melaleuca preissiana</i> (Mp) and <i>Actinostrobus pyramidalis</i> (Ap)
Second storey	No second storey	No second storey	No second storey
Shrub and herb storey	<i>Conospermum stoechadis</i> subsp. <i>stoechadis</i> <i>Stirlingia latifolia</i> <i>Sphaerolobium medium</i> <i>Leptocarpus tenax</i> <i>Lepidosperma squamatum</i> <i>Meeboldina scariosa</i> <i>Patersonia occidentalis</i> <i>Petrophile linearis</i>	<i>Leptocarpus tenax</i> <i>Meeboldina scariosa</i> <i>Hypocalymma angustifolium</i> <i>Lepidosperma squamatum</i> <i>Hakea varia</i> <i>Hakea ceratophylla</i> <i>Pericalymma ellipticum</i>	Heath and Sedgeland of <i>Hakea varia</i> , <i>Hakea ceratophylla</i> <i>Melaleuca incana</i> <i>Melaleuca viminea</i> <i>Verticordia acerosa</i> <i>Meeboldina scariosa</i> <i>Pericalymma ellipticum</i> <i>Leptocarpus tenax</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north		East of Wilga
Geomorphologic catena – VC (EVS)	Lk1 – Lukin (Mm4)	WG – Wilga (JG4)	SK – Stockton (Gw4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Moderately incised valley in the Darling Plateau	Mildly sloping low divide on the Darling Plateau	Upland depression in the Darling Plateau
Soil structure, texture and fertility	Red duplex soils with gravelly loam topsoil, fertile	Yellow duplex soils with gravelly sandy topsoil, infertile	Deep sandy podzol with strong humus incorporation at surface, infertile
Soil hydrology	Slopes water shedding, floor water gaining, storage limited by impermeable subsoil	Good infiltration, reasonable storage capacity	Mildly water gaining, good infiltration, storage limited by coarse texture
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew), with <i>Eucalyptus rudis</i> (Er) on drainage line	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) <i>Eucalyptus wandoo</i> (Ew)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	Absent	<i>Persoonia longifolia</i> (Pl)	<i>Nuytsia floribunda</i> (Nf) <i>Banksia grandis</i> (Bg) <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Hakea lissocarpa</i> <i>Macrozamia riedlei</i> <i>Phyllanthus calycinus</i> <i>Hypocalymma angustifolium</i> <i>Melaleuca viminea</i> (drainage line only)	<i>Hakea lissocarpa</i> <i>Phyllanthus calycinus</i> <i>Leucopogon capitellatus</i> <i>Macrozamia riedlei</i>	<i>Adenanthos obovatus</i> <i>Phlebocarya ciliata</i> <i>Allocasuarina humilis</i> <i>Xanthorrhoea preissii</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north		SE of Collie
Geomorphologic catena – VC (EVS)	Pn – Pindalup (W12)	WG – Wilga (JG4)	SK – Stockton (Gw4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Flat bottomed minor valley	Mildly undulating uplands of the Darling Plateau	Shallow depression at the head of a minor valley
Soil structure, texture and fertility	Yellow duplex soils with loamy sand topsoil, over clay subsoil influenced by salty groundwater	Yellowish brown gravelly loamy sands	Sandy podzol with humus enriched topsoil and iron-organic pan at depth
Soil hydrology	Valley floor water gaining, seasonally waterlogged, slopes moderately water shedding	Mildly water shedding via subsoil, good infiltration and storage capacity	Mildly water gaining, poor lateral but good vertical drainage, good infiltration capacity
Over storey (canopy or emergents)	Scattered emergents of <i>Melaleuca cuticularis</i> (Mc) on valley floor, <i>Eucalyptus wandoo</i> (Ew) and <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on slopes	Woodland to Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) with some <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)
Second storey	<i>Banksia littoralis</i> (Bl) on transition from floor to slopes	No second storey	Weakly developed second storey of <i>Xylomelum occidentale</i> (Xo)
Shrub and herb storey	<i>Hakea varia</i> <i>Lepidosperma squamatum</i> <i>Meeboldina cana</i> <i>Kunzea recurva</i> <i>Drosera bulbosa</i> <i>Melaleuca viminea</i> <i>Verticordia</i> sp.	<i>Macrozamia riedlei</i> <i>Bossiaea ornata</i> <i>Trymalium ledifolium</i> <i>Lepidosperma tenue</i> <i>Tetraria capillaris</i> <i>Hibbertia racemosa</i> <i>Acacia extensa</i>	<i>Xanthorrhoea preissii</i> <i>Daviesia incrassata</i> <i>Adenanthos obovatus</i> <i>Mesomelaena tetragona</i> <i>Tetraria octandra</i> , <i>Hibbertia vaginata</i> , <i>Hibbertia racemosa</i> , <i>Conostylis setosa</i> <i>Dasypogon bromeliifolius</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central		SW of Wilga
Geomorphologic catena – VC (EVS)	Pn – Pindalup (W12)	WG – Wilga (JG4)	SK – Stockton (Gw4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Broad headwater valley, shallow and without clearcut streamline	Low mildly sloping rise within the Darling Plateau	Depression in uplands above valley formation, without any drainage line
Soil structure, texture and fertility	Red duplex with sandy loam overlying clay	Moderately deep grey to pale yellow sand over gravel	Deep grey sand, with humus enriched surface and iron/organic pan at depth
Soil hydrology	Water gaining, margins weakly, centre strongly waterlogged; poor internal drainage	Water shedding via subsoil, good infiltration but only moderate storage capacity due to coarse texture	Mildly water gaining via subsoil, good infiltration but poor storage capacity due to extreme coarse texture
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus patens</i> (Ep) on slopes, <i>Eucalyptus rudis</i> (Er) and Shrubland of <i>Melaleuca viminea</i> and <i>Hakea varia</i> on the valley floor	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Low Woodland of <i>Banksia attenuata</i> (Ba) and <i>Banksia ilicifolia</i> (Bi) with widely spaced <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) emergents
Second storey	No second storey	<i>Banksia grandis</i> (Bg)	Tall <i>Kunzea ericifolia</i> (Ke)
Shrub and herb storey	<i>Leucopogon propinquus</i> <i>Thomasia grandiflora</i> <i>Hakea lissocarpa</i> <i>Hibbertia commutata</i> <i>Dryandra lindleyana</i> <i>Hibbertia amplexicaulis</i> on slopes; <i>Hakea varia</i> <i>Hypocalymma angustifolium</i> <i>Kunzea recurva</i> on floor	<i>Xanthorrhoea preissii</i> <i>Adenanthos obovatus</i> <i>Bossiaea eriocarpa</i> <i>Bossiaea ornata</i> <i>Acacia extensa</i> <i>Lepidosperma squamatum</i> <i>Pimelea sulphurea</i> <i>Lysinema ciliatum</i> <i>Daviesia preissii</i> <i>Anigozanthos bicolor</i>	<i>Petrophile lienaris</i> <i>Patersonia occidentalis</i> <i>Leucopogon conostephioides</i> <i>Hibbertia racemosa</i> <i>Phlebocarya ciliata</i> <i>Calytrix flavescens</i> <i>Conostephium pendulum</i> <i>Allocasuarina humilis</i> <i>Adenanthos obovatus</i> <i>Lysinema ciliatum</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central		E. of Wilga
Geomorphologic catena – VC (EVS)	Pn – Pindalup (W12)	WG – Wilga (JG4)	WG – Wilga (JG4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Floor and lower slopes of a moderately incised valley in the Darling Plateau	Midslope of a moderately incised valley in the Darling Plateau	Upperslope of undulating uplands of the Darling Plateau
Soil structure, texture and fertility	Yellowish brown gravelly sandy loam over sandy clay	Yellowish brown gravelly sand over sandy clay	Yellow brown gravelly loamy sand
Soil hydrology	Mildly water shedding with moderate infiltration and water storage capacity	Moderately water shedding with good infiltration and moderate storage capacity	Moderately water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew), with minor admixture of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on the upslope margins	Woodland of <i>Eucalyptus marginata</i> (Em), with minor admixture of <i>Corymbia calophylla</i> (Cc)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)
Second storey	No second storey	Weakly developed second storey of <i>Persoonia longifolia</i> (Pl)	Weakly developed second storey of <i>Persoonia longifolia</i> (Pl)
Shrub and herb storey	<i>Hakea lissocarpa</i> <i>Phyllanthus calycinus</i> <i>Leucopogon propinquus</i> <i>Trymalium ledifolium</i> <i>Bossiaea ornata</i> <i>Baekkea camphorosmae</i> <i>Lepidosperma tenue</i> <i>Hakea prostrata</i>	<i>Hakea lissocarpa</i> <i>Xanthorrhoea gracilis</i> <i>Bossiaea ornata</i> <i>Hibbertia hypericoides</i> <i>Phyllanthus calycinus</i> <i>Hypocalymma angustifolium</i> <i>Lepidosperma squamatum</i> <i>Dryandra lindleyana</i> <i>Astroloma ciliatum</i> <i>Daviesia inflata</i>	<i>Hakea lissocarpa</i> <i>Macrozamia riedlei</i> <i>Hibbertia hypericoides</i> <i>Hibbertia amplexicaulis</i> <i>Acacia pulchella</i> <i>Bossiaea ornata</i> <i>Phyllanthus calycinus</i> <i>Dryandra lindleyana</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid central		S. of Wilga
Geomorphologic catena - VC (EVS)	Pn - Pindalup (W12)	WG - Wilga (JG4)	LK1 - Lukin (Mn4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Very shallow valley in headwaters, near divide	Low flat divide between two river catchments	Shallow valley in headwaters
Soil structure, texture and fertility	Yellow duplex soil with loamy sand topsoil over sandy clay	Yellow duplex with loamy sand surface over sandy clay	Yellow duplex soil with gravelly sandy loam topsoil over sandy clay
Soil hydrology	Water gaining, seasonally waterlogged, storage limited by heavy textured subsoil	Neutral, neither gaining nor shedding, good infiltration capacity and storage	Water gaining, seasonally waterlogged, storage ineffective due to heavy textured subsoil
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) with <i>Eucalyptus rudis</i> (Er) on drainage line	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc)	Woodland of <i>Eucalyptus wandoo</i> (Ew) with <i>Eucalyptus rudis</i> (Er) near drainage line
Second storey	Largely absent, replaced by tall shrubland of <i>Melaleuca</i> spp. on drainage line	Largely absent, occasional <i>Persoonia longifolia</i> (Pl)	Largely absent, replaced by tall shrubland of <i>Melaleuca</i> spp. near drainage line
Shrub and herb storey	<i>Mesomelaena tetragona</i> <i>Lepidosperma squamatum</i> <i>Hypocalymma angustifolium</i> <i>Melaleuca viminea</i> <i>Isolepis nodosa</i> <i>Juncus kraussii</i> subsp. <i>australiensis</i>	<i>Mesomelaena tetragona</i> <i>Hakea lissocarpa</i> <i>Hibbertia hypericoides</i> <i>Baeckea camphorosmae</i> <i>Acacia pulchella</i> <i>Hakea amplexicaulis</i> <i>Dryandra lindleyana</i>	<i>Mesomelaena tetragona</i> <i>Lepidosperma squamatum</i> <i>Hypocalymma angustifolium</i> <i>Melaleuca viminea</i> <i>Desmocladius fasciculatus</i> ms <i>Macrozamia riedlei</i> <i>Hakea prostrata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Subhumid north		
Geomorphologic catena – VC (EVS)	MJ – Muja (Gw4)	CI – Collie (Jg4)	CF – Cardiff (Ac4)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Valleys within the Collie Basin	Broad low divides within the Collie Basin	Gentle undulating plain or mild slope within the Collie Basin
Soil structure, texture and fertility	Gravelly sands on slopes, humus podzol on floors	Yellow brown sandy gravels and gravelly sands with lateritic duricrust	Deep leached sands
Soil hydrology	Water gaining, seasonally waterlogged	Mildly water shedding via subsoil, good infiltration and storage capacity	Neither gaining nor shedding water, good infiltration but storage limited by coarseness and porosity
Over storey (canopy or emergents)	Woodland to Open Woodland of <i>Melaleuca preissiana</i> (Mp), <i>Banksia littoralis</i> (Bl) and <i>Eucalyptus patens</i> (Ep)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) to Woodland of <i>Allocasuarina fraseriana</i> (Afr)	Woodland of <i>Allocasuarina fraseriana</i> (Afr), <i>Banksia attenuata</i> (Ba), <i>Banksia ilicifolia</i> (Bi), <i>Xylomelum occidentale</i> (Xo) and <i>Nuytsia floribunda</i> (Nf)
Second storey	No second storey	<i>Xylomelum occidentale</i> (Xo) <i>Banksia grandis</i> (Bg) <i>Allocasuarina fraseriana</i> (Afr)	No second storey
Shrub and herb storey	<i>Hakea ceratophylla</i> , <i>Agonis linearifolia</i> , <i>Hypocalymma angustifolium</i> , <i>Pericalymma ellipticum</i> , <i>Adenanthos obovatus</i> , <i>Dasyopogon bromeliifolius</i> , <i>Meeboldina scariosa</i> , <i>Leptocarpus tenax</i> , <i>Phlebocarya ciliata</i>	<i>Hakea lissocarpa</i> <i>Leucopogon capitellatus</i> <i>Bossiaea ornata</i> <i>Adenanthos barbiger</i> <i>Astroloma pallidum</i> <i>Daviesia incrassata</i> <i>Hovea chorizemifolia</i>	<i>Kunzea ericifolia</i> <i>Banksia meisneri</i> <i>Lepidosperma squamatum</i> <i>Leucopogon glabellus</i> <i>Bossiaea eriocarpa</i> <i>Stirlingia latifolia</i> <i>Schoenus brevifolius</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semiarid north		E of Collie
Geomorphologic catena – VC (EVS)	MH – Mornington Hills (Ip3)	S – Swamp (SW3)	D4 – Dwellingup (Ip3)
Landform and Vegetation profile			
Land form description	Minor steep sided hill rising above the uplands of the Darling Plateau	Floor of a minor valley on the Darling Plateau	Mildly undulating uplands of the Darling Range Plateau
Soil structure, texture and fertility	Yellow brown gravelly sandy loam, fertile	Bleached loamy duplex soils with clay subsoil, moderately fertile	Yellow brown gravelly sand, infertile
Soil hydrology	Water shedding via subsoil, good infiltration and storage capacity	Water gaining, seasonally waterlogged (inadequate vertical and lateral drainage)	Mildly water shedding via subsoil, good infiltration and storage capacity
Over storey (canopy or emergents)	Woodland of <i>Eucalyptus wandoo</i> (Ew) on steeper lower slope, woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) on milder upper slope	No tree stratum	Woodland of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em), <i>Corymbia calophylla</i> (Cc) and slightly lower <i>Allocasuarina fraseriana</i> (Afr)
Second storey	<i>Hakea undulata</i> (Hu) and <i>Dryandra sessilis</i> var. <i>sessilis</i> (Ds) under Wandoo; <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl) under <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em)	Tall Shrubland of <i>Melaleuca lateriflora</i> , <i>Melaleuca viminea</i> , <i>Melaleuca pauciflora</i> , <i>Melaleuca spathulata</i> , <i>Callistemon phoeniceus</i>	<i>Persoonia longifolia</i> (Pl) <i>Banksia grandis</i> (Bg)
Shrub and herb storey	<i>Hakea lissocarpa</i> , <i>Bossiaea ornata</i> , <i>Trymalium ledifolium</i> , <i>Macrozamia riedlei</i> , <i>Xanthorrhoea gracilis</i> , <i>Hibbertia commutata</i> , <i>Boronia crenulata</i> , <i>Styphelia tenuiflora</i>	Sedgeland of <i>Baumea articulata</i> , <i>Meeboldina cana</i> , <i>Meeboldina scariosa</i> ;	<i>Bossiaea ornata</i> , <i>Trymalium ledifolium</i> , <i>Xanthorrhoea preissii</i> , <i>Lepidosperma tenue</i> , <i>Styphelia tenuiflora</i> , <i>Kennedia coccinea</i> , <i>Hibbertia commutata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Semi-arid north			NE of Collie (Harris River)		
Geomorphologic catena – VC (EVS)	G – Goonaping (Ac2)		S – Swamp (SW3)		Pn – Pindalup (W12)	
Landform and Vegetation profile						
100m						
80m						
60m						
40m						
20m						
Land form description	Very gradual sloping sandy plain, in upper reaches of a catchment	Flat valley floor in upper reaches of a river catchment	Moderate slopes of a minor stream in upper reaches of a catchment			
Soil structure, texture and fertility	Deep leached grey or pale yellow sand, sometimes underlain by humus/iron pan	Clay loam over clay at shallow depth	Progression from loamy sand over clay to gravelly yellow duplex with duricrust outcrop			
Soil hydrology	Mildly water shedding to water gaining, good infiltration (limited storage capacity) (very porous)	Water gaining, poor internal and lateral drainage, water logged for much of the year	Moderately water shedding via subsoil, good infiltration and storage capacity			
Over storey (canopy or emergents)	Open Woodland of <i>Corymbia calophylla</i> (Cc), <i>Banksia attenuata</i> (Ba) <i>Banksia ilicifolia</i> (Bi) with some <i>Melaleuca preissiana</i> (Mp) on wet sites	Scattered low emergents of <i>Actinostrobus pyramidalis</i> (Ap)	Open Forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Em) and <i>Corymbia calophylla</i> (Cc) with <i>Eucalyptus patens</i> (Ep) on lower slope			
Second storey	No second storey	No second storey	<i>Acacia saligna</i> (As) on lower slopes; <i>Banksia grandis</i> (Bg) and <i>Persoonia longifolia</i> (Pl) on upper slopes			
Shrub and herb storey	<i>Stirling latifolia</i> , <i>Daviesia preissii</i> , <i>Leucopogon glabellus</i> , <i>Leptocarpus tenax</i> , <i>Petrophile linearis</i> , <i>Patersonia occidentalis</i> , <i>Dasyogon bromeliifolius</i>	Heath of <i>Hakea varia</i> , <i>Hakea ceratophylla</i> , <i>Melaleuca viminea</i> , <i>Melaleuca lateritia</i> , <i>Melaleuca hamulosa</i> , <i>Astartea fascicularis</i> , <i>Hypocalymma angustifolium</i> , <i>Meeboldina scariosa</i>	<i>Kingia australis</i> , <i>Baeckea camphorosmae</i> , <i>Mesomelaena tetragona</i> , <i>Hakea lissocarpha</i> , <i>Synaphea petiolaris</i> subsp. <i>petiolaris</i> , <i>Lepidosperma squamatum</i> , <i>Acacia pulchella</i>			

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Arid north		N of Muchea
Geomorphologic catena – VC (EVS)	Br – Beermullah (Cv2)	Co – Coonambidgee (Cv2)	Yn – Yanga (Cv2)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Shallow depression in the alluvial portion of the Swan Coastal Plain	Minor rise above the alluvial portion of the Swan Coastal Plain	Depression in the alluvial portion of the Swan Coastal Plain
Soil structure, texture and fertility	Solonchic soils developed from alluvial deposits	Moderately deep grey sands	Solonchic soils developed from alluvial deposits
Soil hydrology	Water gaining, seasonally waterlogged, affected by saline groundwater	Mildly water shedding via subsoil, good infiltration but poor storage capacity due to coarse texture	Water gaining, seasonally inundated and waterlogged for much of the year, affected by saline groundwater
Over storey (canopy or emergents)	Low Open Forest to Low Open Woodland of <i>Casuarina obesa</i> (Co) with <i>Corymbia calophylla</i> (Cc) in transition to drier sandier phases. Some <i>Melaleuca raphiophylla</i> (Mr)	Woodland of <i>Nuytsia floribunda</i> (Nf), <i>Eucalyptus todtiana</i> (Et), <i>Banksia attenuata</i> (Ba) and <i>Banksia ilicifolia</i> (Bi) on transition to moister phases	Scattered emergents of <i>Actinostrobos pyramidalis</i> (Ap)
Second storey	No second storey	No second storey	No second storey
Shrub and herb storey	<i>Melaleuca teretifolia</i> <i>Cotula coronopifolia</i> <i>Isolepis producta</i> <i>Crassula natans</i> var. <i>minus</i> <i>Triglochin lineare</i>	<i>Stirlingia latifolia</i> <i>Mesomelaena stygia</i> <i>Allocasuarina humilis</i> <i>Calothamnus sanguineus</i> <i>Hibbertia hypericoides</i> <i>Hibbertia subvaginata</i> <i>Scholtzia involucrata</i> <i>Leucopogon conostephioides</i>	<i>Melaleuca teretifolia</i> <i>Melaleuca hamulosa</i> <i>Hakea varia</i> <i>Hypocalymma angustifolium</i> <i>Meeboldina scariosa</i> <i>Hakea prostrata</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		near Wannamal
Geomorphologic catena - VC (EVS)	Cu - Cullula (Ig0)	Wn - Wannamal (Cw0)	Mi - Michibin (Wm1)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Eastern edge of the Dandaragan Plateau - a sandy plain overlying a swampy depression	Depression between the Darling and Dandaragan Plateau interface	Western edge of the Darling Plateau, at its transition to the Dandaragan Plateau - a minor escarpment
Soil structure, texture and fertility	Leach grey to pale yellow sand, infertile	Clay loam	Complex of shallow skeletal soils and moderately deep sandy loams; fertile
Soil hydrology	Mildly water shedding via subsoil, well drained except at edge of swamp, good infiltration but only limited storage capacity (coarseness)	Water gaining, water logged for considerable proportion of the year	Moderately to strongly water shedding, with variable infiltration and storage capacity
Over storey (canopy or emergents)	Low Open Woodland of <i>Banksia attenuata</i> (Ba) and <i>Banksia menziesii</i> (Bm) with <i>Banksia ilicifolia</i> (Bi) at moist end and <i>Eucalyptus todtiana</i> (Et) at dry end	Shrubland of <i>Melaleuca viminea</i> (Mv) and <i>Melaleuca teretifolia</i> (Mt) with some <i>Casuarina obesa</i> (Co) emergents	Woodland of <i>Corymbia calophylla</i> (Cc) on deeper soils, Low Woodland of <i>Allocasuarina huegeliana</i> , (Ah) or Shrub and Herbfield on shallow soils
Second storey	No second storey	No second storey	No second storey
Shrub and herb storey	<i>Mesomelaena pseudostygia</i> <i>Scholtzia involucrata</i> <i>Eremaea pauciflora</i> <i>Conostephium preissii</i> <i>Bossiaea eriocarpa</i> <i>Hemiandra pungens</i> <i>Regelia ciliata</i> <i>Xanthorrhoea preissii</i>	<i>Samolus junceus</i> <i>Meeboldina coangustata</i> <i>Halosarcia indica</i> subsp. <i>bidens</i> <i>Acacia saligna</i> <i>Halosarcia pergranulata</i> subsp. <i>pergranulata</i>	<i>Gastrolobium oxylobioides</i> <i>Trymalium floribundum</i> <i>Phyllanthus calycinus</i> <i>Cheilanthes austrotenuifolia</i> <i>Petrophile scabriuscula</i> <i>Trymalium ledifolium</i> <i>Xanthorrhoea preissii</i> <i>Dryandra fraseri</i>

APPENDIX D: VEGETATION COMPLEXES OF THE SOUTH WEST FOREST REGION

Geographic Region	Perarid north		E of Gingin
Geomorphologic catena -VC (EVS)	Wn - Wannamal (Cw0)	Cu - Cullula (Ig0)	Mb - Mogumber (Ig0)
Landform and Vegetation profile			
100m			
80m			
60m			
40m			
20m			
Land form description	Depressions within the Dandaragan Plateau	Mildly undulating uplands of the Dandaragan Plateau	Moderate rises within the Dandaragan Plateau
Soil structure, texture and fertility	Leached grey sands locally underlain by iron/organic hardpan	Deep grey and pale yellow sands, leached	Pale yellow brown gravelly sands with some lateritic outcropping
Soil hydrology	Water gaining, seasonally water logged	Mildly water shedding via subsoil, good infiltration but storage capacity limited by high porosity	Mildly water shedding via subsoil, good infiltration, moderate water storage capacity
Over storey (canopy or emergents)	Low Open Woodland of <i>Melaleuca preissiana</i> (Mp) and <i>Banksia littoralis</i> (Bl), Tall Shrubland of <i>Melaleuca viminea</i> , <i>Melaleuca raphiophylla</i> with <i>Banksia ilicifolia</i> (Bi) on drier sites	Low Woodland of <i>Banksia menziesii</i> (Bm), <i>Banksia attenuata</i> (Ba), <i>Banksia ilicifolia</i> (Bi), <i>Nuytsia floribunda</i> (Nf), <i>Eucalyptus todtiana</i> (Et) with taller emergents of <i>Corymbia calophylla</i> (Cc)	Open Woodland of <i>Corymbia calophylla</i> (Cc), with some <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> (Em) and <i>Eucalyptus todtiana</i> (Et)
Second storey			<i>Banksia attenuata</i> (Ba) <i>Banksia menziesii</i> (Bm) <i>Banksia ilicifolia</i> (Bi) <i>Banksia grandis</i> (Bg)
Shrub and herb storey	<i>Hypocalymma angustifolium</i> <i>Pericalymma ellipticum</i> <i>Adenanthos obovatus</i> <i>Dasyogon bromeliifolius</i> <i>Kunzea ericifolia</i> , <i>Regelia ciliata</i>	<i>Allocasuarina humilis</i> , <i>Stirlingia latifolia</i> , <i>Nemcia capitata</i> , <i>Eremaea pauciflora</i> <i>Mesomelaena pseudostygia</i> <i>Hypocalymma xanthopetalum</i> <i>Scholtzia involucrata</i> <i>Eremaea fimbriata</i>	<i>Xanthorrhoea brunonis</i> <i>Xanthorrhoea preissii</i> <i>Conostephium pendulum</i> <i>Jacksonia sternbergiana</i> <i>Macrozamia riedlei</i> <i>Hibbertia hypericoides</i> <i>Hibbertia subvaginata</i> <i>Lepidosperma squamatum</i>