NOOSA PLANNING SCHEME POLICY 3— LANDSCAPING PLANTS & GUIDELINES

Introduction

Noosa Shire is an attractive place due to its landform diversity and natural vegetation. The Shire encompasses beaches, sand dunes, river systems, wetlands, heath plains, woodlands, rainforests and ranges. The landform and natural vegetation are major reasons for the Shire's attraction to tourists and residents alike.

The purpose of this planning scheme policy is to support the Landscaping Code within Part 14 of *The Noosa Plan* by providing—

- a description of each natural landscape character area in Noosa Shire (Coastal/Beachfront Areas, Woodland/Open Forest Areas and Closed Forest/Rainforest Areas) (section 1 – 4);
- a list of preferred plant species for each natural landscape character area, including primary and secondary character species (sections 5 – 8);
- a list of undesirable plant species for Noosa Shire (section 9);
- a list of koala food and habitat tree species suitable for Noosa Shire (section 10); and
- specific planting guidelines and techniques (section 11)

1. Natural Landscape Character Areas

1.1 Three broad natural landscape character areas are evident in Noosa Shire these are the Coastal/Beachfront, Woodland/Open Forest and the Closed Forest/Rainforest areas. There is no precise delineation between these areas and an individual assessment of each site and its natural landscape character should be made. A description of each area is provided below.

2. Coastal/Beachfront Areas

Figure 2-1 Coastal/Beachfront Areas

2.1 These areas are in close proximity to the coast, and are characterised by sandy soil. The coastal beachfront areas extend from Peregian Beach to Sunshine Beach and westward to

incorporate parts of Cooloola Estate, Noosa Sound and Noosa Heads. Most of the Noosa North Shore is also within this area. The natural landscape character for this area is coastal heath or wallum with a specialised and distinctive character.

2.2 Those areas closer to the beach suffer coastal exposure from wind and salt spray. The exposure, combined with low fertility of the sand and its inability to hold moisture, present difficult conditions for plants and considerable care is needed in plant selection.

2.3 Section 6 this Policy provides a list of species which characterise coastal/beachfront areas.

3. Woodland/Open Forest Areas

Figure 3-1 Eucalypt Open Forest

Figure 3-2 Banksia Woodland

3.1 This landscape character area is found across most of the Shire and is highly variable ranging from banksia/allocasuarina woodlands near the coast, to paperbark woodlands in wetter areas near the Noosa River, to brush box forest with rainforest elements in more sheltered areas. It is most prevalent in Noosaville, Tewantin and the rural areas of the Shire.

3.2 The main canopy usually includes eucalypts and associated genera, though in wet areas such as south of Noosaville and northwest of Tewantin, paperbarks form the main canopy.

3.3 Section 7 of this policy provides a list of species that characterise woodland/open forest areas.

4. Closed Forest/Rainforest Areas

4.1 The closed forest and rainforest areas are now scarce in the Shire and have particular environmental significance. Remaining areas are often remnants from previous clearing. Closed forest/rainforest is located in the protected areas of Noosa Heads and the hinterland, and in gullies and adjacent to watercourses in the rural areas. There is potential for considerable revegetation of these communities in rural areas. Closed forest/rainforest species are remarkably adaptable to a wide range of conditions but generally require a moist well-drained soil.

4.2 Section 8 of this policy provides a list of species that characterise closed forest/rainforest areas.

Figure 4-1 Closed Forest

5. Preferred Plant Species

5.1 Following is a list of species that are generally available from wholesale suppliers. It is recognised that there are other species, not contained herein, of local origin that are readily available from retail nurseries. Essentially, other species may be utilised in landscape plans however evidence that they are of local origin should be provided.

5.2 To create the desired natural landscape character a mix of species from each category for the specific character area is required, with an emphasis on primary character species.

5.3 Hybrids/variegates shall not be used in *environmentally sensitive areas*[1] or for the purposes of environmental rehabilitation. However, hybrids/variegates may be accepted in other areas where the preferred plant species are not available.

5.4 The following abbreviations are used in this planning scheme policy—

Form = Growth Form

TT Tall Tree with a growth height greater than 20m

MT Medium Tree with a growth height between 10m and 20m

ST Small Tree with a growth height of less than 10m

LS Large Shrub with a growth height of greater than 3m

MS Medium Shrub with a growth height of between 1m and 3m

SS Small Shrub with a growth height of less than 1m

G Grass

GC Groundcover

TF Tufting - a type of plant that spreads out

[1] As defined by The Noosa Plan *environmentally sensitive areas* means land with steep slopes, land mapped on an overlay map, watercourses, drainage lines and ridges, and native habitat and wildlife corridors.

P Palm

V Vine

Soil = Soil Types

1 Sandy well drained soil

2 Average topsoil, reasonable drainage, and some moisture retention

3 Boggy soil, heavy clay, wet for part of the year

4 Grey Water area

Aspect:

S Able to tolerate full sun

PS Prefers part shade

SH Requires shade

Salt = Salt Tolerance

PE Able to withstand Part Exposure

FE Able to withstand Full Exposure

NT No tolerance to salt

Root Guard

RG Root Guard required if planted near road or carpark or within close proximity to buildings or services.

Street Trees/Carparks

NS Not suitable for planting in the street or carpark.

Availability

T Only available as tube stock from wholesalers

6. Coastal Beachfront Areas

Following is a list of species that characterise coastal/beachfront landscape character areas.

Table 6.1—Primary Character Species

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acacia flavescens	Primrose ball wattle	ST	PE	1 2	S			
Acacia sophorae	Coastal Wattle	MS	FE	1	S			
Acronychia imperforata	Fraser Island Apple	ST	FE	1	S\PS			
Alectryon coriaceus	Beach Birds Eye	ST	FE	1	S			

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Allocasuarina equisetifolia	Horsetail She-oak	ST	FE	1	S			
Allocasuarina littoralis	Black She-Oak	ST	PE	1234	S		RG	
Alphitonia excelsa	Red Ash	MT	PE	1234	S\PS			
Banksia aemula	Wallum Banksia	ST	PE	1	S\PS			
Banksia integrifolia	Coastal Banksia	MT	FE	1 2	S			
Callitris columellaris	Cooloola Cypress Pine	TT	FE	1 2	S			
Corymbia intermedia	Pink Bloodwood	TT	PE	1 2	S			
Corymbia tessellaris	Moreton Bay Ash	TT	FE	1 2	S			
Cupaniopsis anacardioides	Large Leaf Tuckeroo	MT	FE	1 2	S\PS			
Elaeocarpus reticulatus	Blueberry Ash	MT	PE	1 2	S\PS			
Eucalyptus robusta	Swamp Mahogany	TT	PE	1 2 3	S			
Eucalyptus tereticornis	Qld Blue Gum or Forest Red Gum	TT	PE	1234	S	NS	RG	
Hibiscus tiliaceus	Cottonwood	MT	FE	1234	S	NS	RG	
Lomandra longifolia/histrix	Mat-rush	G	FE	1234	S\PS			
Lophostemon confertus	Brush Box	TT	FE	1234	S\PS		RG	
Lophostemon suaveolens	Swamp Box	MT	PE	1234	S			
Macaranga tanarius	Macaranga	MT	FE	1234	S\PS	NS		
Melaleuca quinquenervia	Paperbark Tea Tree	TT	FE	1234	S\PS	NS	RG	
Melastoma affine	Blue Tongue	MS	PE	1234	S\PS			
Pandanus tectorius var. pedunculatus	Pandanus/ Screw Pine	MT	FE	1	S			
Phebalium woombye	Phebalium	MS	FE	1	S\PS			
Ricinocarpos pinifolius	Wedding Bush	MS	FE	1 2 3	S			
Xanthorrhoea johnsonii	Heath Grasstree	TF	PE	1234	S\PS			

Table 6.2—Secondary Character – Trees and Large Shrubs

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acacia aulacocarpa	Hickory Wattle	ST	PE	1 2 3	S	NS		
Acacia complanata	Flat Stem Wattle	ST	PE	1 2	S\PS			
Acacia concurrens	Dog Wattle	LS	FE	1 2	S	NS		T
Acacia leiocalyx	Lambs Tail Wattle	ST	PE	1 2	S	NS		T
Acacia maidenii	Maiden's Wattle	MT	NT	1 2	S	NS		
Acacia oshanesii	Irish Wattle	ST	PE	1 2	S\PS\SH	NS		
Acmena hemilampra	Broad Leaved Lilly Pilly	ST	NT	1 2	S\PS			
Acmena smithii	Lilly Pilly	ST	NT	1234	S\PS\SH			
Allocasuarina littoralis	Black She-Oak	ST	PE	1234	S		RG	
Alyxia illicifolia subspecies magnifolia	Large Leaved Chain fruit	LS	NT	1 2	PS\ SH	NS		
Angophora leiocarpa	Smooth Barked Apple	MT	NT	1234	S	NS		T
Banksia serrata	Red honeysuckle	MT	NT	1	S			
Callistemon salignus	Weeping White Bottle Brush	ST	NT	1234	S\PS			
Callistemon sp	All Cultivars	LS	NT	1234	S\PS			
Canthium coprosmoides	Beach canthium	LS	FE	1 2	S\PS			
Casuarina glauca	Swamp She-oak	MT	FE	2 3 4	S	NS	RG	
Clerodendron inerme		LS	FE	1	S\PS			
Commersonia bartramii	Brown Kurrajong	MT	PE	1234	S\PS			
Corymbia gummifera	Red Bloodwood	TT	NT	1 2	S			
Cupaniopsis parviflora	Small-leaved Tuckeroo	MT	NT	1 2	S\PS			

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Elaeocarpus obovatus	Hard Quandong	TT	PE	1 2	S\PS		RG	
Eucalyptus bancroftii	Tumbledown Gum	ST	PE	1234	S			
Eucalyptus conglomerata	Swamp Stringybark	MT	FE	1234	S			
Eucalyptus microcorys	Tallowwood	TT	PE	2	S		RG	
Eucalyptus racemosa	Scribbly Gum	TT	NT	1	S			
Ficus coronata	Creek Sandpaper Fig	ST	FE	1 2	S\PS		RG	T
Ficus macrophylla	Moreton Bay Fig	TT	FE	1234	S		RG	
Ficus obliqua	Small-leaved Fig	TT	FE	1234	S		RG	
Ficus platypoda	Rock Fig	LT	FE	1 2	S		RG	
Glochidion ferdinandi	Cheese Tree	MT	NT	1234	S\PS		RG	
Glochidion sumatranum	Umbrella Cheese Tree	MT	PE	1234	S\PS		RG	
Gmelina leichhardtii	White Beech	MT	NT	1 2	S\PS			
Grevillea banksii	Red Flowered Silky Oak	ST	PE	1 2	S\PS			
Halfordia kendack	Southern Ghittoe	MT	NT	1 2	S\PS			
Hibiscus heterophyllus	Native Rosella	LS	NT	1234	S\PS			T
Hibiscus splendens	Splendid Hibiscus	LS	NT	1234	S\PS			T
Jacksonia scoparia	Dogwood/Native Broom	LS	PE	1 2	S\PS			
Leptospermum petersonii	Lemon Scented Tea Tree	LS	PE	1 2	S			
Leptospermum polygalifolium	Wild May	LS	PE	1234	S\PS			
Leptospermum speciosum	Wallum Tea Tree	LS	PE	1234	S\PS			
Melaleuca bracteata	Revolution Green and Revolution Gold	TT	NT	1234	S			
Melaleuca sieberi		MT	PE	1234	S			
Melicope elleryana	Pink Euodia	MT	NT	1234	S\PS			
Omalanthus nutans	Native Bleeding Heart	ST	NT	1234	S\PS			
Petalostigma pubescens	Quinine Berry	ST	FE	1	S			
Petalostigma triloculare	Quinine Berry	MT	FE	1 2	S\PS			
Pilidiostigma rhytisperma	Plum Myrtle	LS	PE	1 2	PS\SH			
Polyscias elegans	Celery Wood	MT	PE	1234	S\PS			
Synoum glandulosum	Scentless Rosewood	ST	NT	1234	PS\SH			T
Vitex trifolia var bicolor	Coastal vitex	ST	FE	1 2	S\PS			

Table 6.3—Secondary Character - Small/Medium Shrubs, Vines and Groundcovers

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acacia suaveolens	Sweet wattle	MS	NT	1234	S\PS			
Alpinia caerulea	Native Ginger	TF	NT	1234	PS\SH			
Alyxia ruscifolia	Chain Berry	MS	NT	1 2	PS\SH			
Aotus ericoides	Eggs and Bacon	MS	NT	1 2	S			
Aotus lanigera	Golden Candlesicks	MS	PE	1	S			
Austromyrtus dulcis	Midyim	GC	FE	1 2	S\PS			
Baeckea stenophylla	Weeping Baeckea	MS	NT	1 2	S\PS			
Banksia oblongifolia	Dwarf banksia	SS	PE	1	S			
Banksia robur	Swamp Banksia	MS	PE	1234	S\PS			
Banksia spinulosa	Golden candlesticks	MS	NT	1 2	S\PS			
Bauera Capitata		SS	PE	1 2	S\PS			
Bauera rubioides	Wiry Dog Rose	SS	NT	1 2	S\PS			
Baumea rubiginosa	Soft Twigrush	G	NT	3 4	S			T
Blechnum spp.	Water Ferns	TF	NT	1234	S\PS\SH			

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Boronia falcifolia	Wallum Boronia	MS	PE	3	S			
Boronia rivularis	Wide Bay Boronia	MS	PE	1 2 3	S\PS			
Bracteantha sp.	Federation Daisy	GC	NT	1 2	S\PS			
Callistemon pachyphyllus	Swamp Callistemon	MS	PE	1234	S\PS			
Carpobrotus glaucescens	Pigface	GC	FE	1	S			
Crinum pedunculatum	River Lily	TF	PE	1234	S			
Dianella caerulea	Flax Lilly	TF	FE	1 2	S\PS			
Dianella congesta	Beach Flax Lily	TF	FE	1	S\PS			
Dillwynia retorta	Heathy Parrot Pea	MS	FE	1	S\PS			
Dodonea triquetra	Native Hop	MS	PE	1 2	S\PS			T
Eleocharis genticulata	Spikerush	TF	FE	1234	S	NS		T
Eleocharis minuta	Spikerush	TF	FE	1234	S	NS		T
Eleocharis ochrostachys	Spikerush	TF	NT	1234	S	NS		T
Eleocharis spiralis	Spikerush	TF	FE	1234	S\PS	NS		T
Eleocharis tetraquetra	Spikerush	TF	NT	2 3 4	S	NS		T
Eriostemon spp.	Qld. Wax flower	SS	NT		S\PS			
Grevillea sp	All Cultivars	MS	NT	1 2	S			
Hakea actites	Prickly Hakea	MS	NT	1234	S\PS			
Hardenbergia violacea	Native Sarsparilla	GC	PE	1 2	S\PS			
Helichrysum spp.	Golden Buttons\ paper daisy	GC	PE	1 2	S			
Hibbertia obtusifolia	Guinea Flower	SS	PE	1 2	S\PS			
Hibbertia scandens	Twining Guinea Flower	V	FE	1 2	S\PS	NS		
Hibiscus diversifiolius	Swamp Hibiscus	MS	NT	1234	S\PS			
Ipomoea pes-caprae	Goats Foot Convolvulus	GC	FE	1	S			T
Juncus usitatus	Common Rush	TF	NT	1234	S	NS		T
Kennedia rubicunda	Running Postman	V		1 2 3	S\PS	NS		
Leptospermum liversidgei	Lemon Scented Leptospermum	MS	PE	1234	S			
Lomandra confertifolia	Mat-rush	G	NT	1 2	S\PS			
Melaleuca nodosa	Prickly Leaved Paperbark	MS	PE	1234	S			T
Myoporum acuminatum		GC	FE	1 2	S			T
Petrophila shirleyae	Drumsticks, Conesticks	MS		1 2 3	S\PS			
Phebalium woombye prostate form		GC	FE	1	S			
Pultenea spp.	cv, Wallum Gold	SS	PE	1 2	S\PS			
Pultenea spp.	Bush Pea/Bacon & Eggs	MS	PE	1 2	S\PS			
Ricinocarpus pinifolius prostate form	Wedding Bush prostrate forms	GC	FE	1	S\PS			
Scaevola calendulacea	Dune Fan Flower	GC	FE	1	S			T
Sowerbaea juncea	Vanilla Lily	TF	PE	1 2	S\PS			T
Strangea linearis	Strangea	MS	PE	1 2 3	S			
Themeda triandra	Kangaroo Grass	TF	FE	1234	S\PS			T
Viola betonicifolia	Betony Leaved Violet	GC	NT	1234	S\PS			
Viola hederacea	Native Violet	GC	NT	1234	PS\ SH			
Wahlebergia stricta	Bluebells	TF	PE	1	S\PS	NS		

7. Woodland/Open Forest Areas

7.1 Following is a list of species that characterise open forest and woodland landscape character areas.

Table 7.1—Primary Character Species

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acacia aulacocarpa	Hickory Wattle	ST	PE	1 2 3	S	NS		
Acacia concurrens	Dog Wattle	LS	FE	1 2	S	NS		T
Acacia leiocalyx	Lambs Tail Wattle	ST	PE	1 2	S	NS		T
Acacia melanoxylon	Blackwood	TT	NT	1 2 3	S	NS		
Allocasuarina littoralis	Black She-oak	ST	PE	1234	S		RG	
Allocasuarina torulosa	Forest Oak	ST	NT	2	S\PS			
Alphitonia excelsa	Red Ash	MT	PE	1234	S\PS			
Angophora leiocarpa	Smooth Barked Apple	MT	NT	1234	S	NS		T
Callistemon salignus	Weeping White Bottle Brush	ST	NT	1234	S\PS			
Callitris columellaris	Cooloola Cypress Pine	TT	FE	1 2	S			
Corymbia citriodora	Spotted Gum	MT	NT	2	S	NS		
Corymbia intermedia	Pink Bloodwood	TT	PE	1 2	S			
Corymbia tessellaris	Moreton Bay Ash	TT	FE	1 2	S			
Dodonea triquetra	Native Hop	MS	PE	1 2	S\PS			T
Eucalyptus crebra	Narrow-leaved Ironbark	TT	NT	2	S	NS		
Eucalyptus grandis	Flooded Gum	TT	NT	1 2 3	S\PS	NS	RG	
Eucalyptus microcorys	Tallowwood	TT	PE	2	S		RG	
Eucalyptus pilularis	Blackbutt	TT	NT	1 2	S			T
Eucalyptus propinqua	Grey Gum	TT	NT	2	S			
Eucalyptus racemosa	Scribbly Gum	TT	NT	1	S			
Eucalyptus resinifera	Red Mahogany	TT	NT	1	S		RG	T
Eucalyptus robusta	Swamp Mahogany	TT	PE	1 2 3	S			
Eucalyptus siderophloia	Grey Ironbark	TT	NT	2	S			
Eucalyptus tereticornis	Qld Blue Gum or Forest Red Gum	TT	PE	1234	S	NS	RG	
Gahnia aspera	Saw sedge	TF	NT	1234	S\PS			
Hovea acutifolia	Hovea	MS	NT	1234	S\PS			
Jacksonia scoparia	Dogwood/ Native Broom	LS	PE	1 2	S\PS			
Livistona australis	Cabbage Palm	TT	NT	1234	S\PS			
Lomandra longifolia/histrix	Mat-rush	TF	FE	1234	S\PS			
Lophostemon confertus	Brush Box	TT	FE	1234	S\PS		RG	
Lophostemon suaveolens	Swamp Box	MT	PE	1234	S			
Melaleuca quinquenervia	Paperbark Tea Tree	TT	FE	1234	S\PS	NS	RG	
Melastoma affine	Blue Tongue	MS	PE	1234	S\PS			
Syncarpia glomulifera	Turpentine	TT	NT	1 2	S			
Xanthorrhoea johnsonii	Heath Grasstree	TF	PE	1234	S\PS			

Table 7.2—Secondary Character - Trees and Large Shrubs

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acacia fimbriata	Brisbane Wattle	ST	NT	1 2	S			
Acacia flavescens	Primrose ball wattle	ST	PE	1 2	S			

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acmena smithii	Lilly Pilly	ST	NT	1234	S\PS\SH			
Agathis robusta	Queensland Kauri	MT	NT	1 2	S		RG	
Allocasuarina cunninghamiana	River Oak	MT	NT	2 3 4	S	NS	RG	
Alphitonia petriei	Pink Ash	TT	NT	2	S\PS			
Araucaria bidwillii	Bunya Pine	TT	NT	2	S	NS	RG	
Backhousia myrtifolia	Grey myrtle	ST	NT	1234	S\PS			
Banksia integrifolia	Coastal Banksia	MT	FE	1 2	S			
Brachychiton bidwillii	Rusty Kurrajong	LS	NT	2	S\PS			
Brachychiton discolor	Lace Bark Tree	MT	NT	2	S\PS			
Brachychiton populneus	Kurrajong	MT	NT	2	S\PS			
Callistemon pachyphyllus	Swamp Callistemon	LS	PE	1234	S\PS			
Callistemon viminalis	Weeping Red Bottle Brush	MT	NT	1234	S\PS			
Casuarina glauca	Swamp She-Oak	MT	FE	2 3 4	S	NS	RG	
Commersonia bartramii	Brown Kurrajong	MT	PE	1234	S\PS			
Corymbia gummifera	Red Bloodwood	TT	NT	1 2	S			
Corymbia trachyphloia	Brown Bloodwood	TT	NT	2	S			
Cupaniopsis anacardioides	Large Leaf Tuckeroo	MT	FE	1 2	S\PS			
Cupaniopsis parviflora	Small-leaved Tuckeroo	MT	NT	1 2	S\PS			
Cyathea cooperi	Tree Fern	MT	NT	1234	SH	NS		
Elaeocarpus reticulatus	Blueberry Ash	MT	PE	1 2	S\PS			
Eucalyptus cloeziana	Gympie Messmate	TT	NT	2	S	NS	RG	T
Eucalyptus seeana	Narrow Leaved Red Gum	TT	NT	2 3	S			
Eucalyptus umbra	Shade Mahogany	TT	NT	1234	S	NS		T
Euroschinus falcata var. falcata	Ribbonwood	TT	NT	1 2	S\PS	NS		T
Ficus obliqua	Small-leaved Fig	TT	NT	1234	S		RG	
Ficus platypoda	Rock Fig	LT	FE	1 2	S		RG	
Glochidion ferdinandi	Cheese Tree	MT	NT	1234	S\PS		RG	
Glochidion sumatranum	Umbrella Cheese Tree	MT	PE	1234	S\PS		RG	
Gmelina leichhardtii	White Beech	MT	NT	1 2	S\PS			
Grevillea banksii	Red Flowered Silky Oak	ST	PE	1 2	S\PS			
Hibiscus heterophyllus	Native Rosella	LS	NT	1234	S\PS			T
Hibiscus splendens	Splendid Hibiscus	LS	NT	1234	S\PS			T
Hibiscus tiliaceus	Cottonwood	MT	FE	1234	S	NS	RG	
Leptospermum petersonii	Lemon Scented Tea Tree	LS	PE	1 2	S			
Leptospermum polygalifolium	Wild May	LS	PE	1234	S\PS			
Leptospermum speciosum	Wallum Tea Tree	LS	PE	1234	S\PS			
Livistona decipiens	Weeping Cabbage Palm	TT	NT	1234	S\PS			
Melaleuca bracteata	Revolution Green and Revolution Gold	ST	NT	1234	S			
Melia azedarach	White Cedar	MT	PE	1 2	S\PS			
Melicope elleryana	Pink Euodia	MT	NT	1234	S\PS			
Homalanthus nutans	Native Bleeding Heart	ST	NT	1234	S\PS			
Petalostigma pubescens	Quinine Berry	ST	FE	1	S			
Petalostigma triloculare	Quinine Berry	MT	FE	1 2	S\PS			
Pittosporum revolutum	Yellow Pittosporum	LS	NT	1 2	S\PS			
Pittosporum undulatum	Mock Orange	MT	NT	1 2	S\PS			
Polyscias elegans	Celery Wood	MT	PE	1234	S\PS			
Rapanea variabilis	Muttonwood	ST		1 2	S\PS			T
Synoum glandulosum	Scentless Rosewood	ST	NT	1234	PS\ SH			T
Syzigium oleosum	Blue Lilly-Pilly	MT	NT	1234	S\PS			
Tristaniopsis laurina	Giant Water Gum	TT	NT	1234	S\PS			

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Waterhousia floribunda	Weeping Lilly Pilly	TT	NT	1234	S\PS			

Table 7.3—Secondary Character - Small/Medium Shrubs, Vines and Groundcovers

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acacia complanata	Flat Stem Wattle	MS	PE	1 2	S\PS			
Acacia suaveolens	Sweet wattle	MS	NT	1234	S\PS			
Adiantum spp.	Maidenhair Ferns	GC	NT	1234	SH			
Alpinia caerulea	Native Ginger	TF	NT	1234	PS\SH			
Austromyrtus dulcis	Midyim	GC	FE	1 2	S\PS			
Baeckea virgata	Twiggy myrtle	MS	NT	1234	S\PS			
Banksia robur	Swamp Banksia	MS	PE	1234	S\PS			
Banksia spinulosa	Golden candlesticks	MS	NT	1 2	S\PS			
Bauera rubioides	Wiry Dog Rose	SS	NT	1 2	S\PS			
Baumea rubiginosa	Soft Twigrush	G	NT	3 4	S			T
Blechnum spp.	Water Ferns	TF	NT	1234	S\PS\SH			
Bracteantha sp.	Federation Daisy	GC	NT	1 2	S\PS			
Cissus antarctica	Water Vine	V	NT	1 2	S\PS	NS		
Cissus hypoglauca	Five Leaf Water Vine	V	NT	1 2	S\PS	NS		
Cordyline petiolaris	Broad-leaved palm Lily	MS	NT	1234	PS\SH			
Cordyline rubra	Red-fruited Palm lily	MS	NT	1234	PS\SH			
Crinum pedunculatum	River Lily	TF	PE	1234	S			
Cymbopogon refractus	Barbed Wire Grass	G	NT	1 2	S\PS			T
Dianella caerulea	Flax Lilly	TF	FE	1 2	S\PS			
Eleocharis equisetina	Spikerush	TF	NT	2 3 4	S	NS		T
Eleocharis genticulata	Spikerush	TF	FE	1234	S	NS		T
Eleocharis minuta	Spikerush	TF	FE	1234	S	NS		T
Eleocharis ochrostachys	Spikerush	TF	NT	1234	S	NS		T
Eleocharis spiralis	Spikerush	TF	FE	1234	S\PS	NS		T
Eleocharis tetraquetra	Spikerush	TF	NT	2 3 4	S	NS		T
Eriostemon spp.	Qld. Wax flower	SS	NT		S\PS			
Hardenbergia violacea	Native Sarsparilla	GC	PE	1 2	S\PS			
Helichrysum spp.	Golden Buttons\ paper daisy	GC	PE	1 2	S			
Hibbertia scandens	Twining Guinea Flower	V	FE	1 2	S\PS	NS		
Juncus usitatus	Common Rush	TF	NT	1234	S	NS		T
Kennedia rubicunda	Running Postman	V		1 2 3	S\PS	NS		
Lobelia membranacea	Lawn Lobelia	GC	NT	1234	S\PS\SH			
Lomandra confertifolia	Mat-rush	G	NT	1 2	S\PS			
Lomatia silacifolia	Parsley Bush	MS	NT	1 2	S\PS			T
Microlaena stipoides	Weeping Grass	G	NT	1234	PS\SH			T
Myoporum acuminatum		GC	FE	1 2	S			T
Omalanthus stillingifolius	Dwarf Bleeding Heart	SS	NT	1 2	PS\SH			
Phebalium woombye	Phebalium	MS	FE	1	S\PS			
Phebalium woombye prostate form		GC	FE	1	S			
Phylidrum lanuginosum	Frogmouth	TF	NT	1234	S			T
Platysace lancolatus		SS	FE	1 2	S\PS			
Plectranthus spp.	Native coleus	SS	NT	1 2	S\PS			T
Poa labillardierii	Tussock Grass	G	NT	1 2	S\PS			

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Pultenea spp.	cv, Wallum gold	SS	PE	1 2	S\PS			
Pultenea spp.	Bush pea/bacon & eggs	MS	PE	1 2	S\PS			
Restio tetraphyllus	Foxtails	TF	NT	1 3 4	S\PS	NS		T
Ricinocarpus pinifolius prostate form	Wedding Bush prostrate forms	GC	FE	1	S\PS			
Sowerbaea juncea	Vanilla Lily	TF	PE	1 2	S\PS			T
Tabernaemontana pandacaqui	Banana Bush	MS	NT	1234	S\PS	NS		T
Themeda triandra	Kangaroo Grass	TF	FE	1234	S\PS			T
Viola betonicifolia	Betony Leaved Violet	GC	NT	1234	S\PS			
Viola hederacea	Native Violet	GC	NT	1234	PS\SH			
Xanthorrhoea latifolia	Forest Grasstree	TF	NT	1 2	S\PS			

8. Closed Forest/Rainforest Areas

8.1 Following is a list of species that characterise closed forest/rainforest landscape character areas.

8.2 Numerous ferns, cycads and orchids are suitable for shaded areas under rainforest canopy. Table 5.3 lists some suggested species.

Table 8.1—Primary Character Species

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acmena smithii	Lilly Pilly	ST	NT	1234	S\PS\SH			
Agathis robusta	Queensland Kauri	MT	NT	1 2	S		RG	
Alphitonia petriei	Pink Ash	TT	NT	2	S\PS			
Aphananthe philippinensis	Rough leaved elm	MT	NT	1 2	S\PS			
Araucaria cunninghamii	Hoop Pine	TT	PE	1 2	S		RG	
Archontophoenix cunninghamiana	Picabeen/Bangalow Palm	P	NT	1234	PS\SH	NS		
Argyrodendron trifoliatum	Booyong	MT	NT	1 2	S\PS			T
Castanospermum australe	Black Bean	TT	NT	1234	S\PS		RG	
Commersonia bartramii	Brown Kurrajong	MT	PE	1234	S\PS			
Cryptocarya glaucescens	Jackwood	MT	NT	1 2	S\PS			
Diploglottis australis	Native Tamarind	TT	NT	1 2	S\PS			
Elaeocarpus eumundi	Eumundi Quandong	TT	NT	1 2	S\PS			
Elaeocarpus grandis	Blue Quandong	TT	NT	1 2	S\PS		RG	
Elaeocarpus obovatus	Hard Quandong	TT	PE	1 2	S\PS		RG	
Eucalyptus grandis	Flooded Gum	TT	NT	1 2 3	S\PS	NS	RG	
Euroschinus falcata var.	Ribbonwood	TT	NT	1 2	S\PS	NS		T
Ficus coronata	Creek Sandpaper Fig	ST	FE	1 2	S\PS		RG	T
Ficus fraseri	Sandpaper Fig	MT	NT	1 2	S		RG	T
Ficus macrophylla	Moreton Bay Fig	TT	FE	1234	S		RG	
Ficus obliqua	Small-leaved Fig	TT	FE	1234	S		RG	
Flindersia australis	Crows Ash	MT	NT	2	S			
Flindersia bennettiana	Bennett's Ash	MT	NT	1 2	S			
Flindersia schottiana	Bumpy Ash, Cudgerie	TT	NT	1 2	S\PS			
Glochidion ferdinandi	Cheese Tree	ST	NT	1234	S\PS		RG	
Grevillea robusta	Silky Oak	TT		1 2	S\PS		RG	
Harpullia pendula	Tulipwood	MT	NT	1 2	S\PS			

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Homalanthus nutans	Native Bleeding Heart	ST	NT	1234	S\PS			
Jagera pseudorhus	Foambark Tree	MT	NT	1 2	S\PS			
Livistona australis	Cabbage Palm	TT	NT	1234	S\PS			
Macaranga tanarius	Macaranga	MT	FE	1234	S\PS	NS		
Mallotus philippensis	Red Kamala	MT	NT	1 2	S\PS			
Melia azedarach	White Cedar	MT	PE	1 2	S\PS			
Melicope elleryana	Pink Euodia	MT	NT	1234	S\PS			
Podocarpus elatus	Plum Pine/Brown Pine	MT	NT	1 2	S\PS			
Polyscias elegans	Celery Wood	MT	PE	1234	S\PS			
Sloanea woollsii	Yellow Carabeen	TT	NT	1 2	S\PS			
Syzigium australe	Brush Cherry	ST	NT	1234	S\PS			
Toona ciliata	Red Cedar	MT	NT	1 2	S\PS			
Waterhousia floribunda	Weeping Lilly Pilly	TT	NT	1234	S\PS			

Table 8.2—Secondary Character - Trees and Large Shrubs

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Acacia disparima	Hickory Wattle	ST	PE	1 2 3	S	NS		
Acacia melanoxylon	Blackwood	TT	NT	1 2 3	S	NS		
Acmena hemilampra	Broad Leaved Lilly Pilly	ST	NT	1 2	S\PS			
Acmena ingens (brachyandra)	Red Apple	MT	NT	2	SH			
Acronychia imperforata	Fraser Island Apple	ST	FE	1	S\PS			
Allocasuarina torulosa	Forest Oak	ST	NT	2	S\PS			
Alphitonia excelsa	Red Ash	MT	PE	1234	S\PS			
Araucaria bidwillii	Bunya Pine	TT	NT	2	S	NS	RG	
Atractocarpas chartacea	Narrow-Leaved Native Gardenia	LS	NT	1 2	PS\SH			
Auranticarpa rhombifolia	Hollywood	ST	NT	1 2	S\PS			
Austromyrtus acmenioides	Scrub Ironwood	ST	NT	1 2	S\PS			
Austromyrtus hillii	Scaly myrtle	ST	NT	1 2	S\PS			
Backhousia citriodora	Lemon Scented Mrytle	ST	NT	1 2	S\PS			
Backhousia myrtifolia	Grey myrtle	ST	NT	1234	S\PS			
Barklya syringifolia	Crown of Gold Tree	MT	NT	2	S\PS			
Brachychiton acerifolius	Flame Tree	MT	NT	2	S\PS			
Brachychiton discolor	Lace Bark Tree	MT	NT	2	S\PS			
Caldcluvia paniculosa	Soft Corkwood	TT	NT	2	S\PS			
Callicoma serratifolia	Black Wattle	TT	NT	2	S\PS			
Castanospora alphandii	Brown Tamarind	MT	NT	2	S\PS			
Cryptocarya erythroxylon	Pigeonberry Ash	TT	NT	2	S\PS			
Cryptocarya laevigata	Glossy Laurel	LS	NT	1 2	SH			
Cryptocarya macdonaldii	Cooloola Laurel	MT	NT	1 2	S\PS			
Cupaniopsis anacardioides	Large Leaf Tuckeroo	MT	FE	1 2	S\PS			
Cupaniopsis parviflora	Small-leaved Tuckeroo	MT	NT	1 2	S\PS			
Cyathea cooperi	Tree Fern	MT	NT	1234	SH	NS		
Decaspermum humile	Silky Myrtle	ST	NT	1 2	S\PS			
Dysoxylum fraserianum	Rosewood	TT	NT	2	S\PS			
Dysoxylum muelleri	Red Bean	MT	NT	1 2	S\PS		RG	
Elaeocarpus reticulatus	Blueberry Ash	MT	PE	1 2	S\PS			
Emmenosperma alphitonioides	Yellow ash	TT	NT	2	S\PS			

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Endiandra pubens	Hairy Walnut	TT	NT	2	SH			
Ficus platypoda	Rock Fig	ST	FE	1 2	S		RG	
Flindersia xanthoxyla	Long Jack\ Yellowwood	TT	NT	2	S			
Glochidion sumatranum	Umbrella Cheese Tree	MT	PE	1234	S\PS		RG	
Gmelina leichhardtii	White Beech	MT	NT	1 2	S\PS			
Grevillea hilliana	White Yiel Yiel	MT	NT	1 2	S\PS			
Harpullia hillii	Blunt-leaved Tulipwood	MT	NT	1 2	S\PS			
Hibiscus heterophyllus	Native Rosella	LS	NT	1234	S\PS			T
Hibiscus splendens	Splendid Hibiscus	LS	NT	1234	S\PS			T
Hodgkinsonia ovatiflora	Hodgkinsonia	MT	NT	1 2	S\PS			T
Hymenosporum flavum	Native Frangipani	MT	NT	1234	S\PS			
Linospadix monostachya	Walking Stick Palm	P	NT	1 2	SH	NS		
Livistona decipiens	Weeping Cabbage Palm	TT	NT	1234	S\PS			
Lophostemon confertus	Brush Box	TT	FE	1234	S\PS		RG	
Macadamia integrifolia	Queensland Nut Tree	MT	NT	1 2	S\PS			
Neolitsea dealbata	White Bolly Gum	MT	NT	1234	PS\SH			T
Pararchidendron pruinosum	Snow wood	ST	NT	1 2	S\PS			
Petalostigma triloculare	Quinine Berry	MT	FE	1 2	S\PS			
Pittosporum revolutum	Yellow Pittosporum	LS	NT	1 2	S\PS			
Pittosporum undulatum	Mock Orange	MT	NT	1 2	S\PS			
Polyscias murrayi	Pencil Cedar	MT	NT	2	S\PS			T
Rapanea variabilis	Muttonwood	ST		1 2	S\PS			T
Rhodamnia argentea	Silver Myrtle	ST	NT	1 2	S\PS			
Rhodamnia rubescens	Scrub Turpentine	MT	NT	1 2	S\PS			
Rhodomyrtus psidioides	Native Guava	MT	NT	1234	S\PS			
Rhodosphaera rhodanthema	Deep Yellow Wood	MT	PE	1 2	S\PS			
Stenocarpus sinuatus	Firewheel Tree\Wheel of Fire	MT	NT	1 2	S\PS			
Synoum glandulosum	Scentless Rosewood	ST	NT	1234	PS\SH			T
Syzigium francisii	Francis' Water Gum	MT	NT	1234	S\PS			
Syzigium hodgkinsoniae	Red Lilly Pilly	ST	NT	1 2	PS\SH			
Syzigium luehmannii	Riberry	MT	NT	1234	S\PS			
Syzigium oleosum	Blue Lilly-Pilly	MT	NT	1234	S\PS			
Tristaniopsis laurina	Giant Water Gum	TT	NT	1234	S\PS			
Xanthostemon Oppositifolia	Southern Penda	MT	NT	1 2	S\PS			

Table 8.3—Secondary Character - Small/Medium Shrubs, Vines and Groundcovers

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Adiantum spp.	Maidenhair Ferns	GC	NT	1234	SH			
Alpinia caerulea	Native Ginger	TF	NT	1234	PS\SH			
Aphanopetalum resinosum	Gum Vine	V	NT	1&2	S\PS	NS		
Aristolochia praevenosa	Richmond Birdwing Vine	V	NT	1&2	S\PS	NS		
Austromyrtus dulcis	Midyim	GC	FE	1&2	S\PS			
Austromyrtus inophloia	cv Blushing Beauty	SS	NT	1&2	S\PS			
Baeckea virgata	Twiggy Myrtle	MS	NT	1234	S\PS			
Blechnum spp.	Water Ferns	TF	NT	1234	S\PS\SH			
Callicarpa pedunculata	Velvet Leaf	MS	NT	2	S\PS			T
Cissus antarctica	Water Vine	V	NT	1&2	S\PS	NS		
Cissus hypoglauca	Five Leaf Water Vine	V	NT	1&2	S\PS	NS		

Botanical Name	Common Name	Form	Salt	Soil	Aspect	Street	Root	Tube
Cordyline petiolaris	Broad-leaved palm Lily	MS	NT	1234	PS\SH			
Cordyline rubra	Red-fruited Palm lily	MS	NT	1234	PS\SH			
Davallia pyxidata	Haresfoot Fern	GC			PS\SH			
Dianella caerulea	Flax Lilly	TF	FE	1&2	S\PS			
Dodonea triquetra	Native Hop	MS	PE	1 2	S\PS			T
Gahnia aspera	Saw sedge	TF	NT	1234	S\PS			
Hovea acutifolia	Hovea	MS	NT	1234	S\PS			
Lomandra longifolia/histrix	Mat-rush	TF	FE	1234	S\PS			
Milletia megasperma	Native Wisteria	V	NT	1234	S\PS	NS		
Omalanthus stillingifolius	Dwarf Bleeding Heart	SS	NT	1&2	PS\SH			
Pandorea jasminoides	Bower of Beauty	V	NT	1,2&3	S\PS	NS		
Pandorea pandorana	Wonga Vine	V		1,2&3	S\PS	NS		
Pilidiostigma glabrum	Plum Myrtle	MS	NT	1 2	PS\SH			
Tabernaemontana pandacaqui	Banana Bush	MS	NT	1234	S\PS	NS		T
Viola betonicifolia	Betony Leaved Violet	GC	NT	1234	S\PS			
Viola hederacea	Native Violet	GC	NT	1234	PS\SH			

9. Undesirable Plant Species

9.1 There are a number of plants that should not be planted due to their undesirable characteristics. Such characteristics include—

a) Invasive habits;

b) Potential to become bushland weeds;

c) Unfortunate/uncontrollable growth characteristics;

d) Environmental impact on other native species;

e) Maintenance difficulty; and

f) Displacement of natural landscape character

9.2 Listed below are species that are not acceptable for inclusion in landscape plans that require Council approval, and their use elsewhere is discouraged. Those species marked with an asterisk (*) are highly invasive through vegetative reproduction and rampant growth habit. They should be removed where possible and should NEVER be disposed of as garden waste in bushland.

Table 9.1—Undesirable Plant Species

Botanical Name	Common Name
Agave sp.	
Ageratum housanianum	Billygoat Weed
*Anredera cordifolia**	Madiera Vine
*Aristolochia durior**	Dutchman's Pipe
*Aristolochia elegans**	
*Aristolochia macrophylla** Exotic species of *Aristolochia* is poisonous to the Richmond Birdwing butterflies	
*Asparagus africanus**	Climbing Asparagus Fern
*Asparagus plumose**	Climbing Asparagus Fern
*Asparagus aethiopicus var. Sprengeri**	Basket Asparagus Fern
Baccarus halimifolia	Groundsel
Bambusa spp	Bamboo all varieties
Bougainvillea spp	Bougainvillea
Buddleja madagascariensis	Buddleja

*Bryophyllum spp**	Mother of Millions
Cabomba caroliniana (aquatic)	Cabomba
Callisia fragrans	Purple succulent
Cabomba caroliniana	Cabomba, Fanwort
Canna indica	
*Cardiospermum grandiflorum**	Balloon Vine
Cassia obtusifolia	Sicklepod
Celtis sinesis	Chinese Elm
Cinnamomum champhora	Camphor Laurel
Coffee arabica	Coffee
Cortaderia silloana	Pampas Grass
Corymbia torelliana	Cadaghi Gum
Desmodium uncinatum	Silver-leaved Desmodium
Diospyros kaki	Persimmon Tree
Duranta repens	Butterfly Bush
Egeria densa (aquatic)	Dense waterweed
Eichhornia crassipes (aquatic)	Water hyacinth
Elodea canadensis (aquatic)	Elodea
Eriobatrya japonica	Loquat
Erythrina crista-galli	Coral tree
Eugenia unifolora	Brazilian cherry
Euphorbia cyathophora	Dwarf Poinsettia
Ficus benjamina	Weeping fig
Ficus elastica	Rubber Tree
Fraxinus griffithi	Himalayan Ash
Fraxinus ornus	Ash
*Gloriosa superba**	Glory Lily
Gomphocarpus physocarpus	Balloon Cotton
Hygrophila costata	Hygrophila
Impatiens sp.	Balsam
*Ipomoea acuminata**	
*Ipomoea cirica**	Mile a Minute
*Ipomoea indica**	Morning Glory
Jacaranda mimosifloria	Jacaranda
Koelreuteria elegans	Golden Rain Tree
Lantana camara	Lantana
Lantana montevidensis	Creeping Lantana
Leucaena spp	Leucaena
Ligustrum lucidum	Broad Leaf Privet
Ligustrum sinense	Small Leaf Privet
*Lonicera japonica**	Honeysuckle
*Macfadyena unguis-cati**	Cats Claw Creeper
Macroptilium atropurpureum	Siratro
Macrotyloma axillare	Archer axillaries
Murraya paniculata	Mock Orange
Nephrolepis cordifolia	Fishbone Fern
Ochna serrulata	Ochna
*Passiflora spp**	Passionfruit vines
Paulownia tomentose	Paulownia
Pereskia aculeate	Leaf cactus
Phyla canescens	Lippia, Condamine couch
Pinus spp	Exotic pine trees
Pistia stratoides (aquatic)	Water lettuce
Pyrostegia venusta	Orange trumpet vine
Radermachera sinica	Asian Bell Tree
Rhapiolepis indica	Indian Hawthorn
Salvinia molesta (aquatic)	Salvinia
Sansevieria trifasciata	Mother in Laws Tongue
Schefflera actinophylla	Umbrella Tree
Schinus molle	Pepper Tree
Schinus terebinthifolia	Broad Leaf Pepper Tree

Senna pendula var. glabra	Easter Cassia
Senna floribunda	Winter Cassia
Spathodea campanulata (fallen flowers are a hazard to pedestrians in paved areas)	African Tulip Tree
*Sphagneticola trilobata**	Singapore Daisy
Sporobolus spp.	Giant Rat's Tail Grass
Syagrus romanzoffiana	Cocos Palm
Tecoma stans	Yellow Bells
Tipuana tipu	Tipuana
Tithonia diversifolia	Japanese Sunflower
*Thunbergia alata**	Black-eyed Susan
Thunbergia grandiflora	Blue thunbergia
*Tradescantia fluminense**	Wandering Jew
Zebrina pendula	Wandering Jew
And all declared weeds	

10. Koala Food Trees

10.1 Following is a list suitable koala food trees where:

P denotes primary food source

S denotes secondary food source

10.2 The Australian Koala Foundation has listed other species suitable as "Preferred Koala Shelter Trees".

10.3 Observation has shown the species below marked by an asterisk (*) are particularly well used by the local koala population.

10.4 Several areas of Noosa Shire represent important habitat and corridors for koalas, and additional planting of primary koala food trees and habitat trees is sought in these areas.

10.5 The taller species of the eucalypts should only be used in large open areas and koala food trees should not be planted in close proximity to major roads. All of the species below are native to the Sunshine Coast and Cooloola area.

Table 10.1—Koala Food Trees

Botanical Name	Common Name	
Acacia aulacocarpa	Hickory Wattle	
Acacia melanoxylon	Blackwood	
Callitris columellaris	Cooloola Cypress Pine	
Corymbia maculata	Spotted Gum	S
Corymbia gummifera	Red Bloodwood	S
Corymbia intermdia	Pink Bloodwood	
Corymbia tessellaris	Moreton Bay Ash	
Eucalyptus acmenioides	White Mahogany	S
Eucalyptus cloeziana	Gympie Messmate	
Eucalyptus crebra	Narrow-leaved ironbark	
Eucalyptus grandis	Flooded Gum	S
Eucalyptus microcorys	Tallow wood	P*
Eucalyptus pilularis	Blackbutt	
Eucalyptus propinqua	Grey Gum	S
Eucalyptus racemosa	Scribbly Gum	S
Eucalyptus resinifera	Red Mahogany (Red Stringybark)	S
Eucalyptus robusta	Swamp Mahogany	P*
Eucalyptus seeana	Narrow Leaved Red Gum	
Eucalyptus siderophloia	Grey Ironbark	S

Botanical Name	Common Name	
Eucalyptus tereticornis	Queensland Blue Gum (Forest Red Gum)	P*
Eucalyptus umbra	Shade Mahogany	
Lophostemon confertus	Brush Box	
Lophostemon suaveolens	Swamp Box	
Melaleuca quinquenervia	Swamp Paperbark	

11. Design Guidelines for Development

11.1 Successful landscape design can achieve a favourable setting for buildings and enhance the environment and ambience for both residents and neighbourhoods.

11.2 Landscape design should take into account existing site conditions including:

a) Existing vegetation,

b) Aspect,

c) Soil type and conditions,

d) Pedestrian and vehicular circulation / access,

e) Communal and private open spaces,

f) Shade and sunlight, and

g) Utility areas.

11.3 Developers and their design teams should also look beyond the boundaries of the site and consider external influences such as:

a) Character of the surrounding neighbourhood,

b) Existing vegetation,

c) Desirable and undesirable views,

d) Outlooks from neighbouring locations,

e) Noise sources such as busy roads, and

f) Connectivity within the locality.

11.4 Obviously different types of landscape treatments are required for different types of development that occur throughout the Shire (eg housing, commercial, industrial, roads and recreation). The Landscaping Code with *The Noosa Plan 2005* includes various specific outcomes and probable solutions in relation to landscape treatments for the various types of development. Other aspects to consider in landscape design are outlined below.

Other Aspects to Consider in Landscape Design

12. Entrances to Town/Communities

12.1 As the first impression of a town is gained from its approaches, landscape treatment of these areas is vital.

12.2 Mounding and mass plantings of large-growing trees within the road reserve signals entry to a new community, as well as screening unsightly land uses which often occur in the outskirts of town. Vegetation types should be based on the species occurring naturally in the particular area in order to differentiate communities. However some non-local species have historical significance to particular towns and consideration may be given to the inclusion of these species in plant selections.

13. Palms

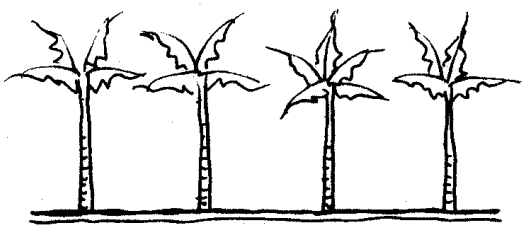
13.1 Within Noosa Shire palms generally occur in natural settings in gullies and along creek lines. Where palms do occur naturally, they are generally in groups or clumps with other native species.

13.2 Consequently, the use of palms as major elements in landscaping schemes is not encouraged.

13.3 Canopy trees with narrow trunks and vines supported on fences or screens are more appropriate than palms in narrow gardens.

Figure 13-1 Palms

NOT RECOMMENDED



RECOMMENDED

13.4 Where palms are used, for example around pool areas or a water feature within a development, they should be planted in clumps or groups with other native species, listed in this policy. Sentinel planting of palms is inappropriate (ie. individual palms standing guard to either side of a building/structure.

13.5 The use of palms in side or rear setback areas is also inappropriate, as they do not provide sufficient foliage to screen and soften buildings.

14. Understorey

14.1 Creative use of ground covers and understorey plants is important to achieve an overall landscaped effect. The use of native grasses for both gardens and open space areas is encouraged particularly for developments in or adjoining remnant bushland.

14.2 Mulched planted areas are often a better landscape solution than turfed open areas - refer to Figure 14-1.

14.3 Where areas are to be grassed, native grasses are desirable due to their resistance to drought, pests and disease, their low maintenance, their significantly lower nutrient and water requirements, and their distinctive Australian attributes of texture, colour and form, compared with the artificial “high nutrient” greenness of turf grasses.

Figure 14-1 Low Plants and Grasses in a Mulched Area

15. Wet Areas

15.1 These areas include irrigation areas for domestic sewerage treatment plants, areas downstream of septic trenches, overland flow paths, creek banks and damp spots in general.

15.2 The use of species whose root systems can tolerate damp conditions is essential. Use of these species will also aid in uptake of excess water and nutrients.

15.3 Planting in wet areas assists with the prevention of erosion. Sections 5 - 8 identify species suitable for planting in wet areas.

Figure 15-1 Native grasses used to stabilise creek bank

16. Planting To Restore Habitat

16.1 In the past, large areas of formal habitat have been destroyed to make way for farming and development in Noosa. In order to protect biodiversity it is important that revegetation and landscaping incorporate native species that are important either as food or habitat for local faunal species.

16.2 There are a number of species that should not be planted due to their undesirable characteristics. Such characteristics include:

a) Invasive growth;

b) Potential to become bushland weeds by production of large quantities of seeds or edible fruits which are disseminated by birds and bats, ability to grow by vegetative reproduction, absence of natural predators;

c) Environmental impact on native species;

d) Maintenance difficulty;

e) Displacement of natural landscape character; and

f) Poisonous/hazardous to native fauna.

16.3 These species are listed in section 9 and are not to be used in a landscaping project that requires approval. Their use is also discouraged in schemes that do not require Council approval. Under no circumstances should garden waste of these species be dumped anywhere but a Council tip. Species such as Singapore Daisy are having a major impact on the integrity of bushland areas adjacent to urban development.

16.4 Planting and weed removal may be required to restore habitat where development has encroached upon remnant native bushland, commonly located along watercourses. Often escaped garden plants, some of which can dominate the native vegetation, invade the bushland, particularly its edges. Dumping of garden waste in adjacent bushland also causes degradation of the natural vegetation and all such waste should be disposed of thoughtfully.

17. Planting Size

17.1 The selected planting size will vary depending upon the nature of the development, availability of plant species, the type of plant and any specific conditions contained within a development approval. It is recognised that some plant species grow better from smaller containers for example Eucalypts and Brush box grow best from a 200mm pot. In each case, root systems are to be sturdily established in container to ensure expected plant size is congruous with size of pot. As a general guide the following minimum pot sizes apply:

17.2 Regardless of pot size, it is essential that plants have not become root bound.

Type of Plant	Minimum Pot Size
Street and feature trees	45 litre (75 litre for prominent areas)
Trees generally	25 litre
Tall, slow growing or feature shrubs	200mm
Shrubs generally	150mm
Ground covers, climbers & tufted plants	140mm

18. Layout - Plant Density & Grouping

18.1 The plant density will vary depending on the type of landscape character being created for example rainforest areas have a much higher density of trees and understorey than an open woodland setting.

18.2 Obviously a denser rate of planting is required when attempting to create visual buffers or windbreaks. This can be more successfully achieved by layering of planting from low at the edges towards taller planting at the centre. A similar method can be employed in softening of fence lines or walls

18.3 Planting designs should be based on informal layouts of tree groupings or clusters with understorey layers of shrubs and ground covers at an appropriate density with the entire planting area covered with a layer of mulch.

18.4 Apart from the aesthetics of these groupings, plants thrive in groups and in mulched areas, rather than in lawn. The grouping and mulching provides protection for plants, avoids damage (from builders and whipper-snipers), conserves water and is easier to maintain.

Figure 18-1 Group Planting

18.5 As a general guide the following separation between plants would be appropriate:

a) Trees 5m apart

b) Larger shrubs 2m apart

c) Groundcovers 0.5 - 1.0m apart

18.6 To create a visual buffer the following separations between plants may be more appropriate:

a) Trees 2m apart

b) Larger shrubs 1m apart

c) Groundcovers 0.5 - 1m apart

19. Structures/Materials

19.1 Creative landscape works can effectively combine structures with planting. The use of timber slatted screens, pergolas, planters, sleeper walls, pervious paving, rockwork etc in combination with planting is encouraged.

19.2 Concrete retaining structures such as crib block walls are generally not desirable, as the materials do not integrate as well with natural vegetation as timber and local stone. Further, it can take considerable time to soften the look of concrete walls.

19.3 Utilisation of 'bio-engineering' techniques in preference to more traditional engineering forms is also encouraged (eg vegetated swales to drainage lines rather than concrete-lined drains).

Figure 19-1 Retaining Walls

NOT RECOMMENDED

RECOMMENDED

19.4 Tree grates provide for water and natural air movement however are not to be used as a drain.

Figure 19-2 Tree Grates Provide for Water and Natural Air Movement

20. Design for Low Maintenance

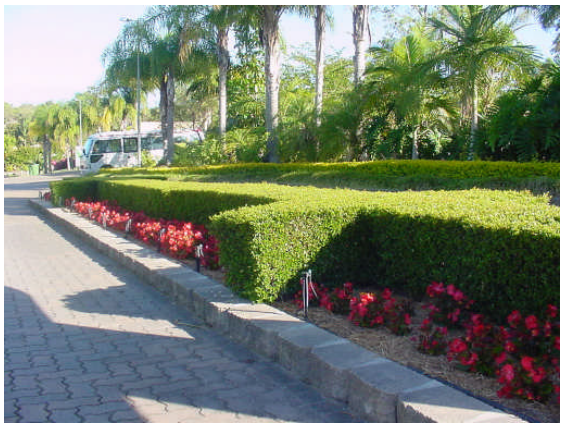
20.1 Landscaping schemes should be designed with consideration to maintenance requirements. Landscaping with simple maintenance requirements will achieve a better long-term result. Careful preparation of garden areas prior to planting is also essential for successful growth of plants. Refer to section 20.

20.2 Local species are better suited to the local environment and therefore have lower maintenance requirements. In addition, extensive use of mulched areas provides a better growing environment for plants, suppresses weeds and retains water. Re-mulching at regular intervals, particularly in high use areas, will be a necessary component of any on-going maintenance programs.

20.3 In some instances landscaping may become Council's responsibility to maintain (eg. parks).

20.4 Landscaping works with high maintenance requirements in such areas will not be accepted.

Figure 20-1 Hedges are <u>not</u> desirable as they require high maintenance and do not form part of Noosa Shire's natural landscape



21. Services – Waste Bins

21.1 In accordance with the Environmental Protection (Waste Management) Regulation 2000 and Policy 2000 waste bins are to be provided for particular developments.

21.2 Waste bin storage areas and bin wash down areas are to be effectively screened from public view using creative landscaping techniques - refer to section 19.

On-site landscaping is not to interfere with pedestrian and vehicular access to waste bins.

22. Planting in Vicinity of Sewers and Manholes

22.1 Tree roots can infiltrate household drains and sewer mains causing blockages and damage to pipes. **Nothing** should be planted within 2 metres of a sewer manhole so that access to the manhole is not impeded. The following species are best kept well away from underground pipes, sewer manholes, and water meters:

- Gum trees (particularly those species that grow into large trees)
- Fig trees
- Rubber trees
- Lilly Pilly trees

- Umbrella trees (an environmental weed in this area)

22.2 List of suitable native plants for planting near sewers and manholes (examples only)

Species name	Variety	Growth habit
Callistemon	Wilderness White	weeping shrub 3m x 2m
Callistemon	Wildfire	bushy, weeping shrub 4.5m x 3m
Callistemon	Taree Pink	3m x 2m
Callistemon	Little John	dwarf, compact shrub 1.5m x 1.5m
Callistemon	Candy Pink	2.5m x 2m
Callistemon	Captain Cook	2m x 1.5m
Callistemon	Eureka	4m x 1.5m
Callistemon	Firebrand	compact shrub with arching branches 2m x 1.5m
Grevillea	Coastal Glow, Elegance, Firesprite, Kay Williams, Misty Pink & Strawberry Blonde	3m x 2m
Grevillea	Coconut Ice, Bon Accord, Golden Lyre, Ned Kelly, Orange Marmalade, Robyn Gordon, Splendor & Superb	2m x 1.5m
Grevillea	Little Miss Muffet, Scarlet Sprite	1.5m x 1m
Grevillea	Honey Gem, Majestic, Moonlight, Pink Surprise, Sandra Gordon & Sylvia	4m x 2m
Leptospermum	Brachyandrum	dense weeping medium shrub 3m x 1.5m
Leptospermum	Cardwell	bushy weeping shrub 2m x 1.5m
Leptospermum	Pacific Beauty	1m x 1.5
Leptospermum petersonii	Lemon scented Tea Tree	4m x 3m
Leptospermum	Pink Cascade	compact shrub 80cm x 1.5m
Lomandra hystrix		tufted, weeping grass plant 1m x 50cm
Melaleuca	Claret Tops	compact shrub 1.5m x 1m
Melaleuca	Nodosa	compact shrub 3m x 1.5m
Melaleuca	Sea Foam	bushy shrub 2m x 1m
Melaleuca	Snowflake	compact shrub 1.5m x 1m
Melaleuca	Thymifolia	spreading shrub 75cm x 1.5m
Pultenea villosa		weeping shrub 1.5m x 2m
Westringia	Fruticosa	bushy shrub 2m x 1.5m
Westringia	Wynyabbie Gem	bushy shrub 2m x 1.5m
Xanthostemon	Fairhill Gold	compact shrub 3m x 2.5m
Acronychia imperforata	Fraser Island Apple	bushy shrub 3m x 1.5m
Alectryon coriaceus	Beach Bird's Eye	bushy shrub 3m x 2m
Banksia ericifolia	Heath Banksia	large bushy shrub 4m x 2m
Banksia spinulosa	Hairpin Banksia	medium upright shrub 2m x 1.5m

Baeckea virgata	Twiggy Baeckea	hardy, compact shrub 3m x 2m

Planting Techniques

23. Preparation of Garden Beds For Public Land Including Road Reserves and Parks

23.1 Careful preparation of garden areas prior to planting is essential to successful growth of plants, particularly where planting areas are adjacent to road or building construction works.

23.2 The following points should be observed:

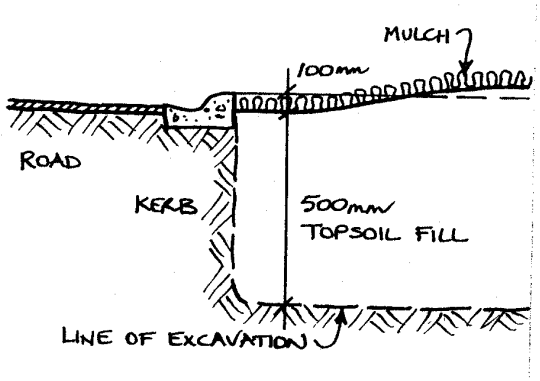
a) Soil used is to comply with the Australian Standard (AS 4410) - Soil for Landscaping and Gardens;

b) Soil imported to garden beds should have similar soil structure to that existing in the area;

c) Remove all weeds, debris, rubbish, grass, etc. from areas to be planted;

d) In conjunction with roadwork, remove all bitumen and road base from areas to be planted to a depth of 600mm from top of kerb. Refer to Figure 23 1~~Figure 23 1~~~~Figure 23 1~~~~Figure 23 1~~~~Figure 23 1~~;

Figure 23 1
Excavate to a depth of 600mm where garden beds are to be formed beside roadways and fill with topsoil to 100mm below top of kerb to allow for depth of mulch



e) Add topsoil (preferably local soil) as required, form garden beds and spread any stockpiled topsoil to finished levels;

f) Any imported topsoil to be free of large stones, weeds, sticks, rubbish, material toxic to plant growth, Nut Grass & Oxalis, and declared pests such as fire ants;

g) Beds adjacent to hard areas to finish 100mm below paved level or top of kerb to allow for depth of mulch;

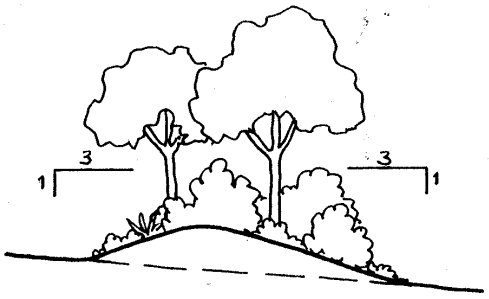
h) Garden beds should be left for one month prior to planting to allow the treatment of weeds contained in the soil and to allow for regeneration of natural seeds;

i) When constructing mounding or banks, highly compacted fill material in the top 600mm should be avoided as this can impede root penetration and the successful growth of plants; and

j) Maintain maximum fall of 1:3 to ensure stability of mulch on slopes and allow for access for maintenance - refer to Figure 23-2.

Figure 23 2

Form mounds and banks to maximum slope of 1:3 for stability and ease of maintenance



24. Planting Procedures

24.1 Correct planting procedures ensure greater success in establishment of landscapes. The following points should be complied with:

a) Do not plant in extreme hot, cold or atmospheric disturbances;

b) Dig separate holes for each plant, 100mm wider & deeper than container. Loosen soil at base of holes a further 150mm depth. Fill holes with water & allow water to drain away;

c) Position plant in centre of hole, set & backfill, retaining original soil level of container. Only tease out roots if root ball is compacted or pot-bound;

Figure 23-1 Planting in level areas

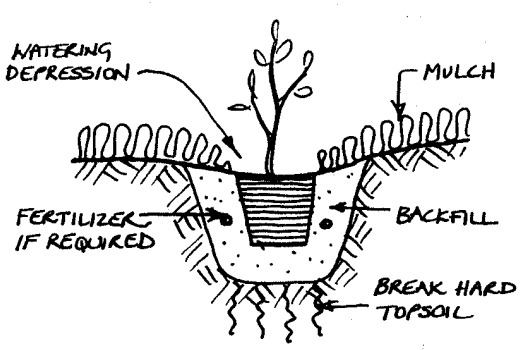
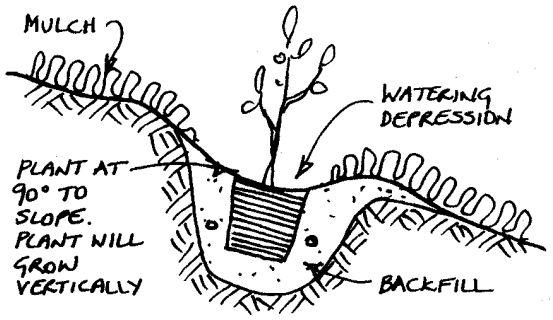


Figure 23-2 Planting on slopes



d) Incorporate suitable fertiliser and/or water crystals, if required, at time of backfilling - refer to section 25;

e) Gently & firmly tap down around root ball, leaving a shallow watering depression. Water immediately and thoroughly using minimum 5 litres per plant;

f) Mulch after planting (and installation of irrigation if applicable) - refer to section 24 Mulch types;

g) Where mulch is already in place, it should be raked back from well around the area and the hole dug. Excess soil should be removed or spread prior to replacing mulch to prevent mixing of the two mediums; and

h) Plants that are severely root bound are not to be used.

25. Mulch types

25.1 Mulching of planted areas conserves water by retaining soil moisture, maintains even soil temperature, reduces erosion, compaction and root disturbance, and suppresses weed growth.

25.2 Mulch should be spread over entire planted area at a depth of 75 to 100mm and be kept 50mm from stems of plants to avoid collar rot.

25.3 The use of polythene film under mulch is not recommended as it prevents air and moisture from penetrating the soil and kills soil organisms. Use thick layers of wetted newspaper or cardboard under mulch in weed infested areas.

25.4 Ground covers provide living mulch once established.

Suggested Mulch Types:

Steep Areas or Embankments	Hoop Pine mulch
High Profile Areas	Forest Blend or Bush mulch
Road Islands and Gardens	Forest Blend or Bush mulch

26. Soil Nutrients and Fertilising

26.1 Soils in the Noosa Shire are generally acid, low in nutrients and well suited to the growth of native plants. Care is needed when using any fertilisers. Adverse effects on water quality can occur as unused nutrients penetrate waterways via runoff and by leaching into the water table. Phosphorous is especially damaging to water quality.

26.2 Fertilisers can be damaging to some plants. For instance, fertilisers with phosphorus content should be avoided for species in the Proteaceae family, which includes, Banksia, Grevillea and Hakea.

26.3 Acacia species produce nitrogen-fixing nodules and nitrogenous fertilisers can be harmful for these plants. These affects can be aggravated by sandy soils.

26.4 Avoid “Complete Fertilisers” on native plantings**.** Incorrectly applied fast-acting, usually inorganic, fertilisers can “burn” roots. Increased soil nitrogen can stimulate growth of pathogenic (destructive) soil fungi. High levels of potassium can interfere with a plant’s capacity to absorb magnesium.

26.5 Use of fertilisers on gardens in or adjoining bushlands needs care. Native plant communities are adapted to low soil nutrient levels and increasing these can lead to heavy weed infestation.

26.6 The most beneficial way to improve nutrient status is to de-compact and aerate soils. Plants cannot absorb fertiliser if the soil is compacted. If fertilisers are deemed necessary, use specially prepared mixes for native plants.

26.7 Fertiliser tablets should only be added to the base of the tree or shrub.

27. Water Crystals

27.1 Water Crystals should be placed in soil that is already wet.

27.2 Sandy Soils - Mix 10 grams or one teaspoon of water crystals to 10 litres of water or 1 bucket of soil mixed well and added as back fill around the plant. This is for a 200mm pot. Note: Sandy Soils can also be improved by mixing peat through the soil and watering well prior to planting.

27.3 Clay Soils - Heavy clay soils would not require water crystals.

28. Watering Systems

28.1 In general Council does not encourage the use of water systems, but rather prefers native plants that grow naturally in the area and therefore do not require the use of a water system. However where the design requires a water system the intent of design for the watering system shall be to provide a functioning sprinkler and/or drip irrigation system that will deliver water for optimum plant growth. Advice on irrigation design can be sought from a specialist supplier/installer.

28.2 In areas connected to reticulated water supply watering systems should only be added to gardens where meters are installed. (Note: Plumbing approval is required for a system that connects to any reticulated water service including non-potable water supplies).

29. Watering Plants

29.1 Thoroughly water immediately after planting with minimum 5 litres per plant to remove air, settle soil around roots and to activate water crystals. Deep watering encourages strong deep root growth and is preferred to more regular shallow watering.

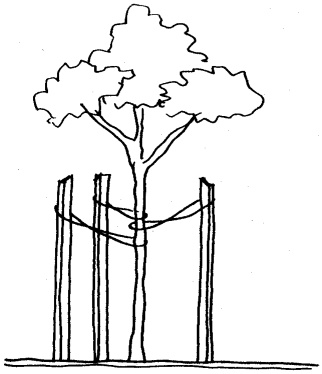
29.2 Watering should be carried out on a daily basis for three days after planting followed by twice weekly for two weeks and then as required according to rainfall, weather conditions and nature of the soil.

30. Staking of Trees

30.1 Staking is necessary only if plants are exposed to strong winds or subject to damage from adjacent works. Staking can cause plants to rely on support other than their own stems, resulting in a weaker plant.

30.2 The preferred method is to place three stakes around the plant beyond the root ball and secure loosely with plastic ring-lock or hessian ties so that the plants move freely within the enclosure.

Figure 29-1 Preferred method of staking trees



30.3 Large transplanted trees require guying and staking until the roots are well established in the natural ground. It is suggested that a specialist carry out the staking in these instances.

31. Establishment

31.1 Following completion of landscape works, on-going maintenance is required to ensure successful establishment of planting. The following points should be complied with:

a) Any inferior or damaged plant material should be replaced;

b) All necessary weeding, watering and pruning should be undertaken to ensure healthy growth. Continue pruning as necessary for maintenance of sight lines and shaping of plants;

c) Mulch should be kept in place and be replenished as necessary;

d) Irrigation systems should be maintained in operational order; and

e) All debris should be disposed of in a thoughtful manner.

Council Works

32. Implementation of this Policy

32.1 The development and maintenance of public spaces in accordance with this policy is important due to their extensive areas, high visibility and contribution to local character values.

32.2 The implementation of this policy relies upon Council undertaking works within parks, road reserves and other public places to offer some direction to private development and to ensure integration of such works with the natural environment and private development sites.

32.3 Council will utilise these guidelines in designing planting schemes for such areas. It will also ensure advanced and semi-advanced trees are established in street planting programmes.

33. Plant Species Selection

33.1 Species for Council works are to be consistent with the plant species lists in this policy including for:

a) footpaths adjacent to commercial development; and

b) parks used for active pursuits.

33.2 There may be some variation to the plant species referred to in this policy however such variations shall be minor to the overall scheme and should have a relationship to the existing or preferred character of the area.

34. Plant Ordering

34.1 When ordering plant species for Council landscaping projects Council staff will ensure that:

a) Plants are ordered well in advance to ensure availability of required numbers and sizes;

b) Plants are well-formed, hardened-off stock, well-branched & foliated, true to type;

c) The root system is sturdily established in container with no large roots extending and not root bound;

d) Form & habit are normal for species scheduled & pruning scars to be clean cut;

e) Leaves are of normal shape colour & texture with minimal physical damage;

f) Plants are free of living insect pests and free from any disease or physical injury;

g) Containers are free of weeds; and

h) All plants are delivered to site clearly & accurately labelled. Containers to be maintained on site until planted.

35. Priorities

35.1 Works in publicly controlled areas that require remedial landscaping and the planting of road reserve areas will receive priority. Remedial works will take the form of upgrading existing works in accordance with these guidelines. The reinforcement of existing plantings with species that reflect the natural character will also be carried out.

35.2 The road reserve areas of the highest priority comprise the major tourist routes and approaches to townships and entrances to the Shire.

35.3 When undertaking work on road reserves Council will:

a) Retain and build upon existing significant road reserve vegetation on approaches to townships and entrances to the Shire;

b) Limit road widening / clearing of vegetation on main entrance roads;

c) Limit new access roads from properties;

d) Use species that present appropriate character; and

e) Retain and reinforce existing vegetation along road reserves to ensure that rural roads present a tree canopy cover.

POLICY HISTORY:
PSP03 was adopted on 3 November 2005 and took effect 3 February 2006
It is based on a superseded planning scheme policy dating back to 1991. Minor amendments were made on 1 November 2007 to Section 5 and Tables 6.1, 7.1 and 9.1.