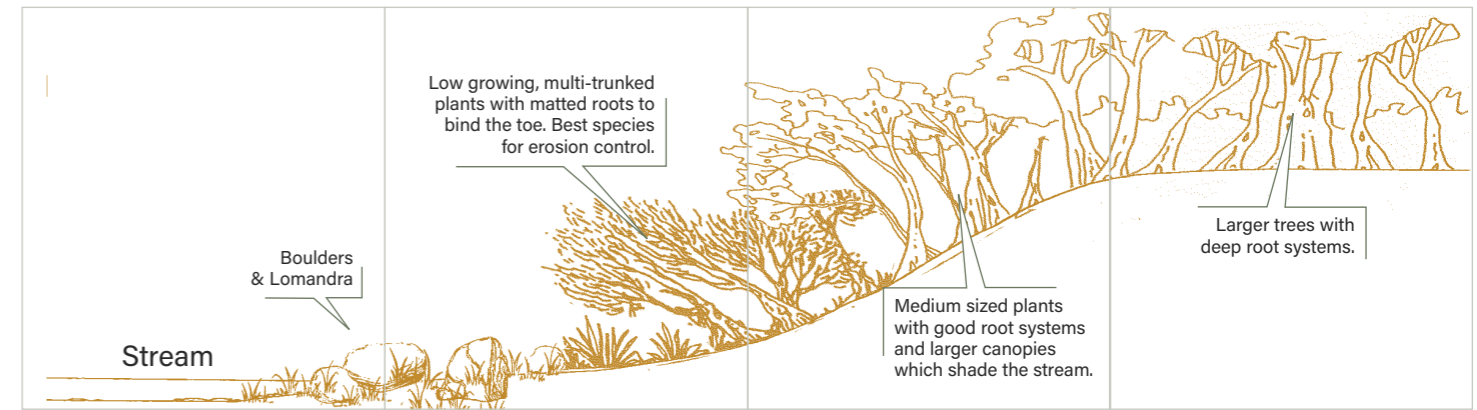


# Revegetating Streams in the Brunswick Catchment

A guide to species selection and planting methods



	Bank Toe	Middle Bank	Upper Bank
<b>Upper Brunswick Catchment</b>  includes <ul style="list-style-type: none"> <li>• Stony Creek, Coolamon Creek, Upper Blindmouth Creek and Upper Maori Creek at Upper Main Arm</li> <li>• Upper Lacks Creek at Middle Pocket</li> <li>• Upper Marshalls Creek at The Pocket</li> <li>• Upper Mullumbimby Creek, and Stones Creek at Mullumbimby</li> <li>• Upper Yelgun Creek</li> <li>• Upper reaches of all tributaries</li> </ul>	<i>Acmena smithii</i> (now <i>Syzygium smithii</i> )	<b><i>Acmena smithii</i></b> (now <i>Syzygium smithii</i> )	<i>Acmena ingens</i>
	<b><i>Acmena smithii var minor</i></b>	<i>Acronychia oblongifolia</i>	<b><i>Alphitonia excelsa</i></b>
	<i>Alocasia brisbanensis</i>	<b><i>Argyrodendron trifoliolatum</i></b>	<i>Alpinia caerulea</i>
	<b><i>Callistemon viminalis</i></b> <small>syn. <i>Melaleuca viminalis</i></small>	<b><i>Arytera distylis</i></b>	<b><i>Aphananthe philippinensis</i></b>
	<b><i>Casuarina cunninghamiana</i></b>	<i>Breynia oblongifolia</i>	<b><i>Argyrodendron trifoliolatum</i></b>
	<i>Elaeocarpus grandis</i>	<i>Bridelia exaltata</i>	<b><i>Araucaria cunninghamii</i></b>
	<i>Ficus coronata</i>	<i>Carex appressa</i>	<i>Breynia oblongifolia</i>
	<b><i>Glochidion ferdinandi</i></b>	<b><i>Commersonia bartramia</i></b>	<i>Castanospermum australe</i>
	<i>Helmholtzia glaberrima</i>	<i>Cordyline petiolaris</i>	<b><i>Cinnamomum oliveri</i></b>
	<b><i>Lomandra hystrix</i></b>	<i>Cordyline rubra</i>	<b><i>Commersonia bartramia</i></b>
	<i>Syzygium australe</i>	<i>Dianella caerulea</i>	<i>Cordyline petiolaris</i>
	<b><i>Tristaniopsis laurina</i></b>	<i>Elaeocarpus grandis</i>	<i>Cordyline rubra</i>
	<b><i>Waterhousia floribunda</i></b> <small>(now <i>Syzygium floribundum</i>)</small>	<i>Endiandra pubens</i>	<i>Cryptocarya laevigata</i>
		<i>Ficus coronata</i>	<b><i>Cryptocarya obovata</i></b>
		<i>Ficus watkinsiana</i>	<i>Cupaniopsis newmanii</i>
		<i>Flindersia schottiana</i>	<i>Dianella caerulea</i>
		<i>Gahnia aspera</i>	<b><i>Diploglottis cunninghamii</i></b>
		<b><i>Glochidion ferdinandi</i></b>	<i>Elattostachys nervosa</i>
		<i>Hymenosporum flavum</i>	<i>Endiandra pubens</i>
		<i>Jagera pseudorhus var. pseudorhus forma pseudorhus</i>	<b><i>Ficus coronata</i></b>
	<i>Litsea reticulata</i>	<b><i>Ficus watkinsiana</i></b>	
	<b><i>Lomandra hystrix</i></b>	<i>Flindersia australis</i>	
	<i>Macaranga tanarius</i>	<b><i>Flindersia schottiana</i></b>	
	<i>Phyllanthus microcladus</i>	<i>Gahnia aspera</i>	
	<i>Pollia crispata</i>	<b><i>Glochidion ferdinandi</i></b>	
	<i>Sloanea australis</i>	<i>Gmelina leichhardtii</i>	
	<b><i>Streblus brunonianus</i></b>	<i>Gossia bidwillii</i>	
	<i>Synoum glandulosum</i>	<i>Jagera pseudorhus</i>	
	<i>Syzygium moorei</i>	<i>Litsea reticulata</i>	
	<b><i>Syzygium australe</i></b>	<b><i>Mallotus philippensis</i></b>	
	<b><i>Syzygium francisii</i></b>	<i>Pollia crispata</i>	
	<b><i>Tristaniopsis laurina</i></b>	<i>Polyscias elegans</i>	
	<b><i>Waterhousia floribunda</i></b> <small>(now <i>Syzygium floribundum</i>)</small>	<b><i>Streblus brunonianus</i></b>	
	<i>Wilkiea huegeliana</i>	<i>Synoum glandulosum</i>	
		<i>Syzygium moorei</i>	
		<b><i>Syzygium australe</i></b>	
		<b><i>Syzygium francisii</i></b>	
		<b><i>Toona ciliata</i></b> syn. <i>Toona australis</i>	
		<i>Wilkiea austroqueenslandica</i>	

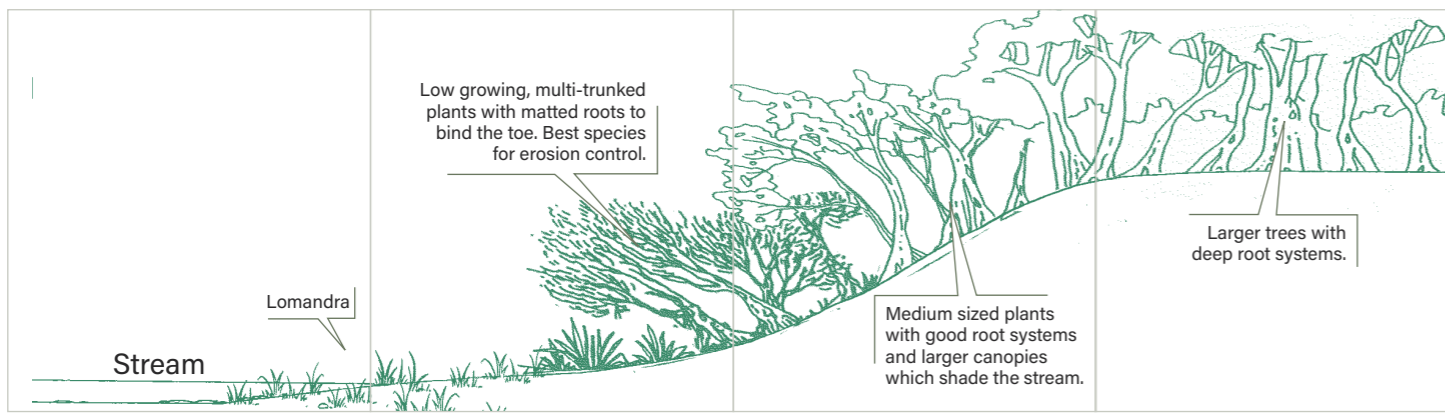
Brunswick Valley Landcare acknowledges the Traditional Owners of the Brunswick River Catchment - the Arakwal people and the Minjungbal people of the Bundjalung Nation and pay our respects to elders past and present.

This publication is a collaboration between Byron Shire Council and Brunswick Valley Landcare. It is an updated and revised edition of the original "Revegetating Streams of the Brunswick Catchment" authored by A. Raine, J. Golding, J Gardiner (1997). The species list revisions and expansions are informed by ground-truthed surveys undertaken by local ecologists over the previous two decades.

The health of our rivers and streams are in stark focus following the floods of 2022. Revegetation outcomes will be enhanced by a greater diversity of species planted. The almost trebled number of species listed here are offered as a guide to give landholders choice, subject to local availability.

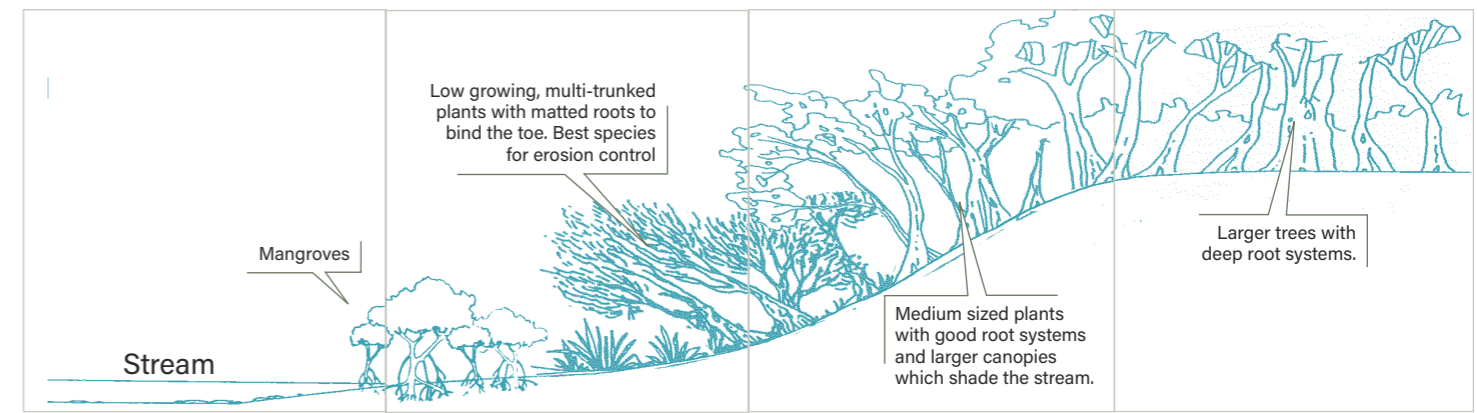
Updated species advice by: Joanne Green, Liz Caddick, Dave Filipczyk and John McVicar.

**\*Bold** indicates foundation species for riverbank restoration - they create form and structure for a diverse plant community.



	Bank Toe	Middle Bank	Upper Bank
<b>Middle Brunswick Catchment</b> includes <ul style="list-style-type: none"> <li>• Durrumbul</li> <li>• Ewingsdale</li> <li>• Main Arm</li> <li>• Middle Kings Creek and Pipeclay Creek at Myocum</li> <li>• Middle Marshalls Creek at The Pocket</li> <li>• Middle Mullumbimby Creek, Middle Stones Creek and Yankee Creek at Mullumbimby</li> <li>• Non tidal areas of Tyagarah Creek</li> <li>• Upper Kings Creek at Myocum</li> <li>• Yelgun</li> </ul>	<i>Acmena smithii</i> (now <i>Syzygium smithii</i> )	<b><i>Acmena smithii</i></b> (now <i>Syzygium smithii</i> )	<b><i>Acmena ingens</i></b>
	<b><i>Acmena smithii</i> var <i>minor</i></b>	<i>Alectryon subcinereus</i>	<b><i>Alphitonia excelsa</i></b>
	<i>Arytera distylis</i>	<i>Alphitonia excelsa</i>	<b><i>Araucaria cunninghamii</i></b>
	<b><i>Lomandra hystrix</i></b>	<i>Alpinia caerulea</i>	<i>Aphananthe philippinensis</i>
	<b><i>Syzygium australe</i></b>	<i>Archontophoenix cunninghamiana</i>	<b><i>Argyrodendron trifoliolatum</i></b>
	<b><i>Tristaniopsis laurina</i></b>	<i>Breynia oblongifolia</i>	<b><i>Castanospermum australe</i></b>
	<b><i>Waterhousia floribunda</i></b> (now <i>Syzygium floribundum</i> )	<b><i>Bridelia exaltata</i></b>	<i>Cinnamomum oliveri</i>
		<i>Carex appressa</i>	<i>Clerodendrum floribundum</i>
		<i>Castanospermum australe</i>	<b><i>Commersonia bartramia</i></b>
		<i>Clerodendrum floribundum</i>	<i>Cordyline petiolaris</i>
		<b><i>Commersonia bartramia</i></b>	<i>Cordyline rubra</i>
		<i>Cordyline petiolaris</i>	<i>Cryptocarya laevigata</i>
		<i>Cordyline rubra</i>	<b><i>Diploglottis cunninghamii</i></b>
		<i>Cupaniopsis newmanii</i>	<b><i>Elattostachys nervosa</i></b>
		<b><i>Dianella caerulea</i></b>	<i>Endiandra pubens</i>
		<b><i>Endiandra pubens</i></b>	<b><i>Ficus coronata</i></b>
		<b><i>Ficus coronata</i></b>	<i>Ficus watkinsiana</i>
		<i>Ficus watkinsiana</i>	<b><i>Flindersia australis</i></b>
		<i>Flindersia schottiana</i>	<b><i>Flindersia schottiana</i></b>
		<b><i>Glochidion ferdinandi</i></b>	<i>Floydia praealta</i>
	<b><i>Hymenosporum flavum</i></b>	<b><i>Glochidion ferdinandi</i></b>	
	<i>Jagera pseudorhus</i>	<b><i>Gmelina leichhardtii</i></b>	
	<i>Litsea reticulata</i>	<i>Gossia bidwillii</i>	
	<i>Macaranga tanarius</i>	<i>Guioa semiglauc</i>	
	<i>Melicope micrococca</i>	<i>Hymenosporum flavum</i>	
	<i>Mischocarpus pyriformis</i>	<i>Lophostemon confertus</i>	
	<b><i>Sloanea australis</i></b>	<b><i>Mallotus philippensis</i></b>	
	<i>Streblus brunonianus</i>	<i>Phyllanthus microcladus</i>	
	<b><i>Syzygium francisii</i></b>	<b><i>Streblus brunonianus</i></b>	
	<b><i>Wilkiea huegeliana</i></b>	<i>Syzygium moorei</i>	
		<b><i>Syzygium francisii</i></b>	
		<i>Toechima dasyrrhache</i>	
		<b><i>Toona ciliata</i></b> syn. <i>Toona australis</i>	
		<i>Wilkiea huegeliana</i>	

\***Bold** indicates foundation species for riverbank restoration - they create form and structure for a diverse plant community.



	Bank Toe	Middle Bank	Upper Bank
<b>Lower Brunswick Catchment (tidal)</b> includes <ul style="list-style-type: none"> <li>• Brunswick Heads</li> <li>• Lower Marshalls Creek at Ocean Shores and New Brighton</li> <li>• Lower Brunswick River at Mullumbimby</li> <li>• Tidal areas of Belongil Creek at Byron Bay</li> <li>• Tallows Creek at Suffolk Park</li> <li>• Tidal areas of Tyagarah</li> </ul>	<b><i>Acrostichum speciosum</i></b>	<i>Bridelia exaltata</i>	<i>Acacia disparrima</i>
	<b><i>Aegiceras corniculatum</i></b>	<b><i>Callistemon salignus</i></b>	<i>Acacia melanoxylon</i>
	<i>Alocasia brisbanensis</i>	<i>Clerodendrum floribundum</i>	<i>Acmena smithii</i> (now <i>Syzygium smithii</i> )
	<b><i>Avicennia marina</i></b>	<b><i>Commersonia bartramia</i></b>	<i>Allocasuarina littoralis</i>
	<b><i>Casuarina glauca</i></b>	<i>Cordyline congesta</i>	<i>Alphitonia excelsa</i>
	<i>Crinum pedunculatum</i>	<b><i>Cupaniopsis anacardioides</i></b>	<i>Alpinia caerulea</i>
	<i>Cupaniopsis anacardioides</i>	<b><i>Ficus coronata</i></b>	<i>Bridelia exaltata</i>
	<i>Ghania clarkei</i>	<b><i>Glochidion sumatranum</i></b>	<b><i>Callistemon salignus</i></b>
	<b><i>Hibiscus tiliaceus</i></b>	<i>Litsea australis</i>	<i>Carex appressa</i>
	<i>Livistona australis</i>	<b><i>Lophostemon suaveolens</i></b>	<i>Casuarina glauca</i>
		<b><i>Melaleuca quinquenervia</i></b>	<i>Clerodendrum floribundum</i>
		<b><i>Melicope elleryana</i></b>	<i>Commersonia bartramia</i>
		<i>Myoporum acuminatum</i>	<i>Cordyline congesta</i>
		<i>Streblus brunonianus</i>	<i>Cordyline stricta</i>
			<b><i>Corymbia intermedia</i></b>
			<i>Cupaniopsis anacardioides</i>
			<i>Dianella caerulea</i>
			<b><i>Eucalyptus robusta</i></b>
			<b><i>Eucalyptus tereticornis</i></b>
			<i>Ficus coronata</i>
		<b><i>Glochidion sumatranum</i></b>	
		<i>Livistona australis</i>	
		<b><i>Lomandra longifolia</i></b>	
		<b><i>Lophostemon confertus</i></b>	
		<i>Lophostemon suaveolens</i>	
		<i>Mallotus philippensis</i>	
		<b><i>Melaleuca quinquenervia</i></b>	
		<b><i>Melicope elleryana</i></b>	
		<i>Myoporum acuminatum</i>	

\***Bold** indicates foundation species for riverbank restoration - they create form and structure for a diverse plant community.

RAINFOREST		Sclerophyll / Eucalyptus dominant										
CATCHMENT POSITION - see map on page 12. Check reference communities for all sites for suitable species.												
Upper catchment - fresh	Middle catchment - fresh	Lower catchment - tidal, brackish	Lower catchment - estuarine	Botanical name	Common name	Description	Aver. height range	Fast growing, pioneer, sun loving	Medium growth rate	Slow, long lived, often shade tolerant	Wildlife	Bank zone
				<i>Acacia disparima</i>	Southern Salwood	Tree or shrub, fast growing for site cover, important food source for gliders birds & other fauna.	3-12m	x			Important for nectar feeders	Upper
				<i>Acacia melanoxylon</i>	Blackwood	Medium size, useful pioneer on frosty sites, but Blackwood may be competitive & require removal to allow regeneration.	10-12m	x			Attracts insectivores	Upper
				<i>Acmena ingens</i>	Red Apple	Tall rainforest tree with red fruit. Fast growing canopy species for rainforest regeneration.	10-20m		x		Fruit feeds rainforest birds	Upper
				<b><i>Acmena smithii</i></b>	<b>Lilly Pilly</b>	Common rainforest midstorey with white to mauve fruit. Small-leaved form important riparian species.	5-10m		x		Fruit feeds rainforest birds	Toe / Middle
				<b><i>Acmena smithii var minor</i></b>	<b>Lilly Pilly</b>	Common rainforest tree white fruit. Small-leaved form important riparian species for toe & bank stabilisation.	5-10m		x		Fruit feeds rainforest birds	Toe
				<i>Acronychia oblongifolia</i>	Common Acronychia	Shiny foliage on medium tree. In all rainforest types, white fruits. Important diversity species in plantings, good edge species.	5-10m			x	Fruit feeds rainforest birds	Upper
				<b><i>Acrostichum speciosum</i></b>	<b>Mangrove Fern</b>	Major fern in mangroves, leathery leaves, salt tolerant but also grows in brackish areas of estuary. Can be transplanted when very young or propagated in wet warm conditions.	1-2m		x			Toe
				<i>Adiantum hispidulum</i>	Rough Maidenhair	Rainforest understorey fern, hardy for established riverbanks in shade.	10-30cm		x			Upper / Middle
				<b><i>Aegiceras corniculatum</i></b>	<b>River Mangrove</b>	Small mangrove on edge of creek, salt tolerant but also grows in brackish areas of estuary. Encourage propagules on river bank edges, can be transplanted when very young.	2-5m		x		Pollen attracts insects and butterflies. Important fish habitat.	Toe
				<i>Alectryon subcinerus</i>	Wild Quince	Small tree, with attractive fruits. Leaves with lighter grey underside. Hardy rainforest species useful for dry coastal sites.	5-10m			x	Fruit attracts rainforest birds and butterflies	Upper / Middle
				<i>Alocasia brisbanensis</i>	Cunjevoi	Large fleshy leaves, freshwater creeks & riverbanks, drainage lines in rainforest. Sometimes mangroves.	1-2m		x			Toe
				<i>Allocasuarina littoralis</i>	Black Oak	Tree with soft needle-like growth important food source for Glossy Black-Cockatoo.	10-12m		x		Important food source for Glossy Black-Cockatoo	Upper
				<i>Alphitonia excelsa</i>	Red Ash	Large tree in many types of forest, rainforest, wet sclerophyll, tolerant of wide range of conditions, fire sensitive.	10-20m	x			Fruit feeds birds	Upper / Middle
				<i>Alpinia caerulea</i>	Native Ginger	Fleshy leaves & stem with white flowers & blue fruit, important understorey plant in all types of forest.	1-2m	x			Fruit feeds birds	Upper / Middle
				<b><i>Araucaria cunninghamii</i></b>	<b>Hoop Pine</b>	Large iconic rainforest tree with pointed needles & cones.	10-30m			x	Fruit feeds birds	Upper / Middle
				<b><i>Aphananthe philippinensis</i></b>	<b>Rough-leaved Elm</b>	Rainforest tree with dense dark crown, stiff holly like leaves & rough flaky bark. Important riverbank tree in gallery, dry & subtropical rainforest.	10-20m			x	Fruit feeds birds	Upper
				<i>Archontophoenix cunninghamiana</i>	Bangalow Palm	Tall feather palm with red fruit, green underside with tiny brown hairs on midvein. Common in wet areas, may require shade to establish or plant bigger plants.	10-20m			x	Fruit feeds birds	Toe
				<b><i>Argyrodendron trifoliolatum</i></b>	<b>White Booyong</b>	Medium to tall rainforest tree with leaflets arranged in threes & a bronze under-surface. Winged fruit in autumn. Major species in subtropical rainforest, may require shade to establish.	10-20m			x	Fruit attracts rainforest birds	Toe / Middle / Upper

				<i>Arytera distylis</i>	<b>Twin-leaved Coogera</b>	Attractive pink new growth, yellow fruits, likes lower slope position on creek banks, major species in subtropical rainforest, may require shade to establish.	5-10m		x		Fruit feed birds	Toe
				<i>Avicennia marina</i>	Grey Mangrove	Taller Mangrove with grey underside of leaf.	5-10m	x			Habitat creation plant for aquatic life. Provides important fish habitat.	Toe
				<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	Large deciduous / semi-deciduous tree with broad canopy spread. Showy red flowers.	10-25m		x			Upper
				<i>Breynia oblongifolia</i>	Coffee Bush	Shrub to 3m high, tolerates wide variety of soils & environments.	3m	x			Fruit feed birds	Upper
				<i>Bridelia exaltata</i>	Brush Ironbark	Medium sized tree, can be up to 35m, bark dark brown & coarsely fissured, tough. Common in dry rainforest & on margins. Also in riverine rainforest.	10-12m		x		Fruit feed birds	Middle
				<b><i>Callistemon salignus</i></b> <i>syn. Melaleuca saligna</i>	<b>Willow Bottlebrush</b>	Medium tree with papery bark, pink new growth & white bottlebrush flowers. Very hardy. Important species for poorly drained creek lines, brackish & freshwater sites	5-10m	x			Flowers are nectar for birds, flying foxes, and insects.	Toe
				<b><i>Callistemon viminalis</i></b> <i>syn. Melaleuca viminalis</i>	<b>Red Weeping Bottlebrush</b>	Multi-stemmed tree with hard furrowed bark & red bottle-brush flowers. Very hardy. Major species in subtropical rainforest, may require shade to establish.	5-10m	x			Important nectar plant for fauna	Toe / Middle
				<i>Carex appressa</i>	Tall Sedge	Fine foliage, sharp, with taller flowering & fruiting spikes. Useful for bank stabilisation including landslips.	1-2m	x			Attracts insects and butterflies	Middle
				<i>Carronia multiseptalea</i>	Carronia	Common woody vine in rainforest with long leaves to 20cm. Important climber in rainforest for Pink Underwing Moth.	vine		x		Pink Underwing Moth	Upper
				<i>Castanospermum australe</i>	Black Bean	A dense-crowned rainforest tree with dark green leaves. Produces orange/red flowers on branches followed by large pods. Tap-rooted, good species for upper bank.	10-20m	x			Fruit feeds birds	Upper
				<b><i>Casuarina cunninghamiana</i></b>	<b>River Oak</b>	Tall fine foliated tree with cone-like fruits. Important river bank coloniser & stabiliser. Fixes nitrogen. Good canopy cover species for rainforest regeneration. Direct seeding. Used for drought fodder.	10-20m	x			Habitat creation plant	Toe / Middle
				<b><i>Casuarina glauca</i></b>	<b>Swamp Oak</b>	Tall fine foliated tree with cone-like fruits. Important river bank coloniser & stabiliser. Fixes nitrogen. Good canopy cover species for rainforest regeneration. Direct seeding. Used for drought fodder.	10-20m	x			Seed is eaten by birds including Red-browed Finch	Toe / Middle
				<i>Centella asiatica</i>	Indian Pennywort	Groundcover in all forest type that will often come up when more invasive grasses are removed.	10cm		x		Butterfly plant	Upper
				<i>Christella dentata</i>	Binung	Native fern in all forest types, useful for understorey development on riverbanks.	1-2m	x			Shelter for small birds	Upper
				<b><i>Cinnamomum oliveri</i></b>	<b>Oliver's Sassafras</b>	Large tree with shiny leaves. Compact, neat canopy tendency. Foliage has smell of sassafras when crushed.	10-15m			x	Campnor Laurel replacement species	Upper
				<i>Clerodendrum floribundum</i>	Smooth Clerodendrum	Small tree, with attractive fruits. Good midstorey component of riverbank rainforest planting.	5-10m		x		Fruit feed birds	Upper / Middle
				<i>Commelina cyanea</i>	Native Commelina	Native groundcover with blue flowers. Important understorey species on rainforest riverbanks.	10-30cm	x			Butterfly plant	Upper / Middle
				<b><i>Commersonia bartramia</i></b>	<b>Brown Kurrajong</b>	Small tree, with large toothed, rusty haired leaves & attractive sprays of small white flowers in summer. Important component of all plantings on riverbanks, provides shade & cover for slower species.	5-10m	x			Flowers attract insects	Upper / Middle

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RAINFOREST		Sclerophyll / Eucalyptus dominant		CATCHMENT POSITION - see map on page 12. Check reference communities for all sites for suitable species.									
Upper catchment - fresh	Middle catchment - fresh	Lower catchment - tidal, brackish	Lower catchment - estuarine	Botanical name	Common name	Description	Aver. height range	Fast growing, pioneer, sun loving	Medium growth rate	Slow, long lived, often shade tolerant	Wildlife	Bank zone	
				<i>Cordyline congesta</i>	Red-fruited Palm Lily	Medium understory palm-like with red fruit. Coastal, useful understory for poorly drained sites, bank stabilisation.	1-2m		x		Flowers attract insects	Upper / Middle	
				<i>Cordyline petiolaris</i>	Broad-leaved Palm Lily	Understorey palm-like species with red fruit and large wide leaves. Important understory species in subtropical rainforest.	2-5m		x		Flowers attract insects	Upper / Middle	
				<i>Cordyline rubra</i>	Palm Lily	Understorey palm-like species with red fruit and smaller leaves than <i>C. petiolaris</i> .	1-2m		x		Flowers attract insects	Upper / Middle	
				<i>Cordyline stricta</i>	Narrow-leaved Palm Lily	Understorey palm-like species with black fruit & large wide leaves. More common in sclerophyll forest, hardy midstorey species.	2-3m		x		Flowers attract insects	Upper / Middle	
				<b><i>Corymbia intermedia</i></b>	<b>Pink Bloodwood</b>	White flowering Eucalypt with tessellated bark, important food tree for many species.	10-20m		x		Important for nectar feeders	Upper	
				<i>Crinum pedunculatum</i>	Swamp Lily	White flowers, major understory species in mangroves. Saline soil tolerant, but also in fresh.	1-2m		x		Flowers attract insects	Toe	
				<i>Cryptocarya laevigata</i>	Glossy Laurel	Medium understory laurel like, with attractive red fruit, good for shaded sites.	2-5m		x		Fruit feeds rainforest birds	Upper	
				<b><i>Cryptocarya obovata</i></b>	<b>Pepperberry</b>	Medium to tall densely-crowned rainforest tree with hairy new growth & dark leaves. Important component of all plantings on riverbanks, provides shade & cover for slower species.	10-20m	x			Fruit feeds rainforest birds	Upper	
				<b><i>Cupaniopsis anacardioides</i></b>	<b>Tuckeroo</b>	Broad glossy deep green foliage, provides very shady crown cover. Iconic coastal rainforest tree. Hardy in coastal plantings. Popular street-scaping tree.	5-10m		x		Birds attached to fleshy covering (aril) of seeds	Upper	
				<i>Cupaniopsis newmanii</i>	Long-leaved Tuckeroo	Midstorey species with narrow upright habit, long compound leaves, pinkish white flowers & yellow fruits. Attractive pink new growth.	5-10m		x		Fruit feeds birds	Upper	
				<b><i>Dianella caerulea</i></b>	<b>Blue Flax Lily</b>	Ground cover for riverbanks with blue flowers and fruits. Good habitat for ground fauna. Extensive mat-like root system.	0.5m		x		Fruit feed birds	Toe	
				<b><i>Diploglottis australis</i> syn. <i>Diploglottis cunninghamii</i></b>	<b>Native Tamarind</b>	Attractive, tall rainforest tree with very large compound leaves & rusty hairy new growth. May require some shelter to establish. Edible fruits.	10-20m		x		Fruit feed birds	Upper	
				<i>Elaeocarpus grandis</i>	Blue Quandong	Tall buttressed rainforest tree with sparse canopy, often occasional red leaf & blue fruits on ground. Major river-bank stabilising species in upper catchment rainforest.	10-20m	x			Fruit feeds birds	Toe / Middle	
				<b><i>Elaeostachys nervosa</i></b>	<b>Beetroot Tree</b>	Attractive rainforest tree with red new growth. Important species to add diversity to subtropical rainforest riverbanks.	5-10m		x		Fruit feeds birds	Upper / Middle	
				<i>Embellia australiana</i>	Embellia	Understorey species in subtropical rainforest.	climber				Flowers attract insects.	Upper	
				<b><i>Endiandra pubens</i></b>	<b>Hairy Walnut</b>	Bushy tree with rusty red new growth. Large red fruit. Important riverbank midstorey species.	5-10m		x		Flowers are nectar and trees are food source for birds, insects and other fauna.	Upper / Middle	
				<i>Eucalyptus grandis</i>	Flooded Gum	Very large tree with white bark & usually a skirt of darker bark at base of trunk.	20-35m	x			Flowers are nectar and trees are food source for birds, insects and other fauna.	Upper / Middle	
				<i>Eucalyptus pilularis</i>	Blackbutt	Very large tree with white bark & usually a skirt of darker bark about half way up the trunk.	20-35m	x			Flowers are nectar and trees are food source for birds, insects and other fauna.	Upper / Middle	

				<b><i>Eucalyptus robusta</i></b>	<b>Swamp Mahogany</b>	Medium to tall tree with large broad leaves, sometimes with the occasional red leaf, large woody fruit capsules & brown, soft stringy bark. Koala food tree, likes swampy sites, often grows with paperbarks.	10-20m	x			Primary food tree for koala, nectar for bees and birds	Upper / Middle
				<i>Eucalyptus siderophloia</i>	Grey Ironbark	Medium to tall eucalypt with thick black bark often grows in wet forest. Very hardy.	10-20m	x			Important nectar and food sources for flying fox, gliders and nectar loving fauna.	Upper / Middle
				<b><i>Eucalyptus tereticornis</i></b>	<b>Forest Redgum</b>	Medium to tall eucalypt with patchy white-greyish bark. Often grows on alluvial floodplains. Very hardy.	10-30m	x			Primary food tree for koala, nectar for bees and flying foxes.	Upper / Middle
				<b><i>Ficus coronata</i></b>	<b>Creek Sandpaper Fig</b>	Small bushy tree with sandpapery leaves & hairy fruits produced on the trunk & branches. Hardy.	5-10m	x	x		Fruit feed birds, mammals and flying foxes.	Upper / Middle
				<b><i>Ficus watkinsiana</i></b>	<b>Strangling Fig</b>	Large trees with buttress roots & spreading canopy.	20-35m	x			Fruit feed birds, mammals and flying foxes.	Upper / Middle
				<b><i>Flindersia australis</i></b>	<b>Teak</b>	Large crown with showy white flowers & attractive shaped seed capsules.	10-20m			x	Flowers are nectar and trees are food source for birds, insects and other fauna.	Upper
				<i>Flindersia bennettii</i>	Bennetts Ash	Large crown with showy white flowers & attractive shaped seed capsules.	10-20m		x		Flowers are nectar and trees are food source for birds, insects and other fauna.	Upper
				<b><i>Flindersia schottiana</i></b>	<b>Cudgerie</b>	Tall tree with open canopy. Very hardy. Very fast growing tree which is ideal for rainforest regeneration.	10-20m	x			Flowers are nectar for birds, insects and other fauna.	Upper / Middle
				<i>Floydia praealta</i>	Ball Nut	Rare tree in subtropical rainforest, white flowers & brown fruits. Related to Macadamia.	10-12m			x	Flowers are nectar and trees are food source for birds, insects and other fauna.	Upper
				<i>Gahnia aspera</i>	Rough Saw-sedge	Red fruit, sharp edge on strappy leaves. Useful species to plant with Eucalypts.	1m		x		Butterfly plant	Upper / Middle
				<b><i>Glochidion terdinandi</i></b>	<b>Cheese Tree</b>	Small to medium rainforest tree with spreading canopy & attractive foliage, fruit which looks like small cheeses. Hardy. Important creek bank stabilising species for freshwater sites.	5-10m	x			Fruit feeds birds	Toe / Middle / Upper
				<b><i>Glochidion sumatranum</i></b>	<b>Umbrella Cheese Tree</b>	Medium rainforest tree with spreading canopy. Fruit resemble small cheese, red aril-covered fruit. Important creek bank stabilising species for brackish sites, mainly coastal.	10-20m	x			Fruit feeds birds	Upper / Middle
				<b><i>Gmelina leichhardtii</i></b>	<b>White Beech</b>	Large tree in many types of forest & rainforest. Attractive flowers and blue fruits.	10-20m	x			Flowers are attractive to many species including birds and insects.	Upper
				<i>Gossia bidwillii</i>	Python Tree	Very attractive bark. Small tree with white flowers. Good diversity species in freshwater and dry sites.	5-10m			x	Flowers feed birds.	Upper
				<i>Grevillea robusta</i>	Silky Oak	Attractive tall tree with yellow flowers. Hardy in dry sites.	10-20m	x			Important nectar species for birds, bats and butterflies.	Upper
				<i>Guioa semiglauca</i>	Guioa	Common tree in all types of rainforest. White flowers & black seeds. Pioneer tree for all sites.	5-10m	x			Attracts insects and butterflies	Upper
				<i>Helmholtzia glaberrima</i>	Stream Lily	White flowers, needs moist shaded site.	1-2m			x	Attracts insects and butterflies	Toe
				<b><i>Hibiscus tiliaceus</i></b>	<b>Cottonwood</b>	Small to medium littoral rainforest tree with spreading canopy, attractive yellow/orange hibiscus flowers. Fantastic root system for stabilising riverbanks, considered a mangrove, will tolerate saline water.	10-20m	x			Attracts insects and butterflies	Toe

**\*Bold indicates foundation species for riverbank restoration - they create form and structure for a diverse plant community.**

RAINFOREST		Sclerophyll / Eucalyptus dominant		CATCHMENT POSITION - see map on page 12. Check reference communities for all sites for suitable species.											
Upper catchment - fresh	Middle catchment - fresh	Lower catchment - tidal, brackish	Lower catchment - estuarine	Botanical name	Common name	Description	Aver. height range	Fast growing, pioneer, sun loving	Medium growth rate	Slow, long lived, often shade tolerant	Wildlife	Bank zone			
				<i>Hymenosporum flavum</i>	Native Frangipani	Small rainforest tree producing numerous yellow & white flowers in spring. Frost hardy, scented flowers.	5-10m	x			Attracts insects and butterflies	Upper / Middle			
				<i>Hypolepis muelleri</i>	Harsh Ground Fern	Understorey fern in all forest types. Often colonises in regeneration sites.	50cm-1m		x		Good cover for small mammals and birds	Upper / Middle			
				<i>Jagera pseudorhus</i> var. <i>pseudorhus</i>	Foambark	Pioneer rainforest tree with fernlike foliage & hairy orange fruit.	5-10m	x			Fruit feeds birds	Upper / Middle			
				<i>Litsea australis</i>	Southern Brown Bolly Gum	Widespread Native Laurel with black fruit. Grows in all types of rainforest from sea level to 700m.	10-20m		x		Fruit feeds birds	Middle			
				<i>Litsea reticulata</i>	Bolly Gum	Large Native Laurel with black fruit, subtropical rainforest tree.	20-35m		x		Fruit feeds birds	Upper / Middle			
				<b><i>Lomandra hystrix</i></b>	<b>Creek Mat-rush</b>	Small grass-like plant with spiky flowers. Hardy for bank toe, tolerates fast flowing water & shade.	1m		x	x	Butterfly plant	Toe			
				<b><i>Lomandra longifolia</i></b>	<b>Mat-rush</b>	Grass-like plant tolerant of dry open conditions. Bank stabilising in open forest & landslips.	1-2m		x		Butterfly plant	Toe / Middle			
				<i>Lophostemon confertus</i>	<b>Brush Box</b>	Large tree in many types of forest, rainforest & wet sclerophyll. Important component of wet sclerophyll plantings on riverbanks. Grows from coast to inland.	10-30m	x			Important for nectar feeders	Upper / Middle			
				<i>Lophostemon suaveolens</i>	<b>Swamp Box</b>	Small bushy tree, white flowers in sclerophyll forest.	10-20m		x		Koala feed tree	Upper / Middle			
				<i>Macaranga tanarius</i>	Macaranga	Small to medium rainforest tree with spreading canopy, tiny green/yellow flowers & black fruits. Common regrowth species, fast growing for bare sites.	3-5m	x			Fruit feeds birds	Upper / Middle			
				<b><i>Mallotus philippensis</i></b>	<b>Red Kamala</b>	Medium bushy tree with hard red capsules. Common regrowth species, fast growing for bare sites.	5-10m	x			Attracts insects and butterflies	Upper			
				<b><i>Melaieuca quinquenervia</i></b>	<b>Broad-leaved Paperbark</b>	Dominant Paperbark in swampy sites. White flowers & leaves with 5 veins. Important species for poorly drained creek lines, brackish & freshwater sites.	5-10m	x			Flowers are nectar for birds, flying foxes and insects.	Toe			
				<b><i>Melicope elleryana</i></b>	<b>Pink Evodia</b>	Widespread rainforest tree tolerant of swampy sites. Pink flowers & black seeds. Important species for poorly drained creek lines, brackish & freshwater sites	5-10m	x			Flowers are nectar for birds, flying foxes and insects	Middle			
				<i>Melicope micrococca</i>	Hairy-leaved Doughwood	Common tree in all types of rainforest. White flowers & black seeds.	5-10m	x			Flowers are nectar for birds, flying foxes and insects	Upper / Middle			
				<i>Mischocarpus pyriformis</i>	Yellow Pear Fruit	Large shiny green leaves & bunches of tiny yellow pear shaped fruit, opening to red aril & black seeds. Important creek bank species in tidal zones.	10-20m		x	x	Fruit feeds birds	Middle			
				<i>Myoporum acuminatum</i>	Swamp Boobialla	Shrub or small tree growing near mangroves & in coastal rainforest. Hardy plant for widespread plantings on coastal creek.	5-10m	x			Attracts insects and butterflies	Middle			
				<i>Neolitsea australiensis</i>	Green Bolly Gum	Native Laurel, widespread midstorey tree in all rainforest types. Important creek bank stabilising species for freshwater sites.	5-10m		x		Fruit feeds birds	Upper / Middle			
				<i>Neolitsea dealbata</i>	White Bolly Gum	Native Laurel, widespread midstorey tree in all rainforest types. Important creek bank stabilising species for freshwater sites. Common species in the upper catchment rainforest.	5-10m		x		Fruit feeds birds	Upper / Middle			
				<i>Phyllanthus microcladus</i>	Phyllanthus	Rare understorey plant in Brunswick Catchment. Fine foliage & shrubby habit. Can be included in plantings along Brunswick River.	1-2m		x		Attracts insects and butterflies	Upper / Middle			

				<i>Pitiosporum rhombifolium</i>	Orange-berried Pitiosporum	Medium to large tree with shiny leaves & bunches of orange fruits in season. Important diversity species for riparian plantings.	5-10m		x		Fruit feeds birds	Upper
				<i>Pittosporum undulatum</i>	Sweet Pittosporum	Small rainforest tree producing numerous scented white flowers. Hardy & tolerant of dry conditions.	2-5m		x		Fruit feeds birds	Upper
				<i>Pollia crispata</i>	Pollia	Understorey plant in subtropical rainforest types. Good ground cover on wet creek banks.	50cm			x	Butterfly plant	Upper / Middle
				<i>Polyscias elegans</i>	Celery Wood	Fast growing pioneer tree in rainforest, attractive foliage. Good pioneer on rainforest sites, will tolerate some shade.	5-10m	x			Fruit feeds birds	Upper
				<i>Sarcocortex stipata</i>	Steelwood	Widespread large tree in all types of rainforest. White flowers, pink/red fruit with yellow aril & black seeds. Edges in rainforest. White bell flowers. Shade tolerant.	10-20m		x		Fruit feeds birds	Upper
				<b><i>Sloanea australis</i></b>	<b>Maidens Blush</b>	Large leaves & pink new growth. Common tree on creek edges in rainforest. White bell flowers. Shade tolerant.	5-10m			x	Fruit feeds birds	Middle
				<b><i>Streblus brunonianus</i></b>	<b>Whalebone Tree</b>	Small rainforest tree, white flower, small green fruits in summer/autumn. Hardy plant for widespread plantings on creek banks, some drought-tolerance.	5-10m		x		Fruit feeds birds	Upper / Middle
				<i>Synoum glandulosum</i>	Scentless Rosewood	Common tree in all types of rainforest, gullies and edges of open forest. White flowers & brown seeds with red aril & fawn capsule. Good early fruiting tree for diversity in creek plantings.	5-10m		x		Fruit feeds birds	Upper / Middle
				<i>Syzygium moorei</i>	Coolamon	Large iconic rainforest tree with clusters of pink flowers on branches, followed by large white fruit. Likes the high bank in riparian plantings.	10-20m		x		Fruit feeds birds	Upper / Middle
				<b><i>Syzygium australe</i></b>	<b>Brush Cherry</b>	Important riparian tree in many forest types, rare in wild. Look for non cultivated forms for plantings.	5-10m		x		Fruit feeds birds	Toe / Middle / Upper
				<b><i>Syzygium francisii</i></b>	<b>Giant Water Gum</b>	Large iconic rainforest tree with clusters of white flowers, followed by blue fruit. Important creek bank stabilising species for freshwater sites.	10-20m		x		Fruit feeds birds	Upper / Middle
				<i>Toechima dasyrrhache</i>	Blunt-leaved Steelwood	Rare tree in subtropical & dry rainforest. White flowers & yellow fruits with black seeds. Important diversity species for riparian plantings north of Nightcap.	5-10m		x		Fruit feeds birds	Upper
				<b><i>Toona australis</i></b>	<b>Red Cedar</b>	Large iconic rainforest tree, deciduous in winter, with clusters of white flowers, followed by winged seeds. Plant in close plantings with other rainforest trees to avoid tip moth.	10-20m				Bark is host to epiphytes which provide shelter for reptiles	Upper
				<b><i>Tristaniopsis laurina</i></b>	<b>Kanooka</b>	Small bushy tree often leaning over creeks. Hardy to high flows. Important creek bank stabilising species for freshwater sites.	5-10m			x	Flowers are nectar for birds, flying foxes, and insects.	Toe
				<b><i>Waterhousia floribunda</i></b> (now <i>Syzygium floribundum</i> )	<b>Weeping Lilly-pilly</b>	Dominant riverbank species with white flowers & fruits. Important creek bank stabilising species for freshwater sites.	10-20m			x	Flowers are nectar for birds, flying foxes, and insects.	Toe
				<b><i>Wilkiea huegeliana</i></b>	<b>Veiny Wilkiea</b>	Important riparian tree in many forest types. Important diversity species for riparian plantings.	2-5m			x	Food plant for Regent Skipper Butterfly	Upper / Middle
				<i>Wilkiea austroqueenslandica</i>	Smooth Wilkiea	Midstorey rainforest tree with black fruits. Important diversity species for riparian plantings.	2-5m			x	Butterfly plant	Upper

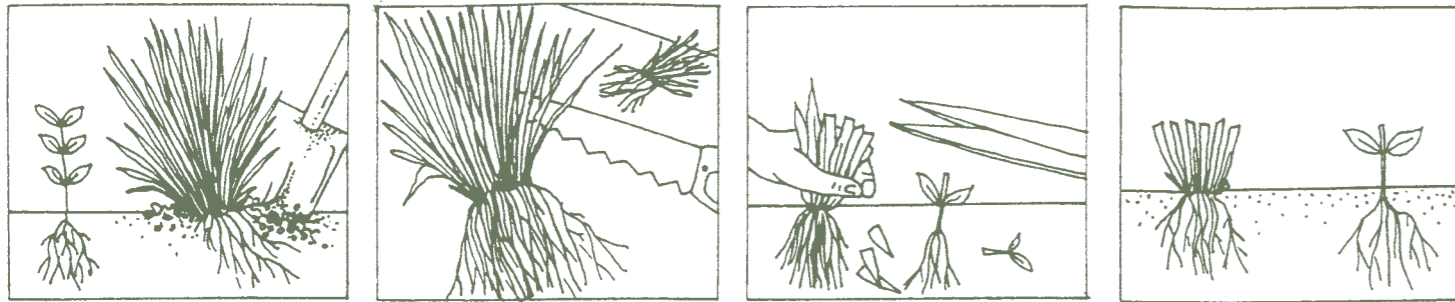
**\*Bold** indicates foundation species for riverbank restoration - they create form and structure for a diverse plant community.

# How do I plant my selected species?

## 1 Division or direct transplant

Mature clumps of lomandra or water grasses can be dug up, divided and directly transplanted to moist soil or gravel. Seedlings of riparian species can sometimes be directly transplanted from site to site.

Most suitable for: TOE

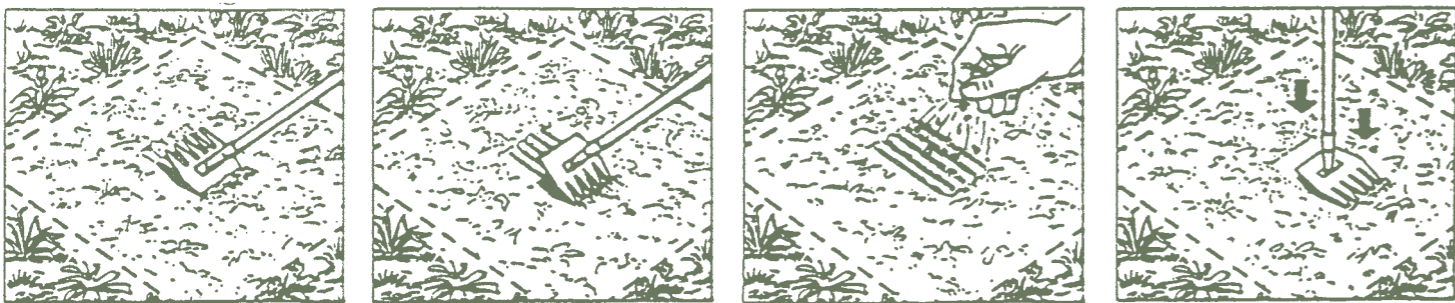


1. Dig up seedling or clump.
2. Divide clump with saw, mattock or tomahawk.
3. Cut off tops of leaves or stem to reduce transplant shock.
4. Plant in moist soil or gravel.

## 2 Direct seeding

The seed of some species (eg: Bottlebrush, Tea-tree, Lomandra and Water Gum) can be directly sown on site. Seed must be sown in moist, weed-free sand or gravel. The gravel is levelled no higher than 100mm above water level against the bank toe. Using this method we are reproducing the natural conditions which allow plants such as River Oaks, Tea-tree and Bottlebrush to densely colonise gravel bars. The aim is to achieve dense colonisation, so seeding rates of up to 0.5 grams per square metre of gravel can be used.

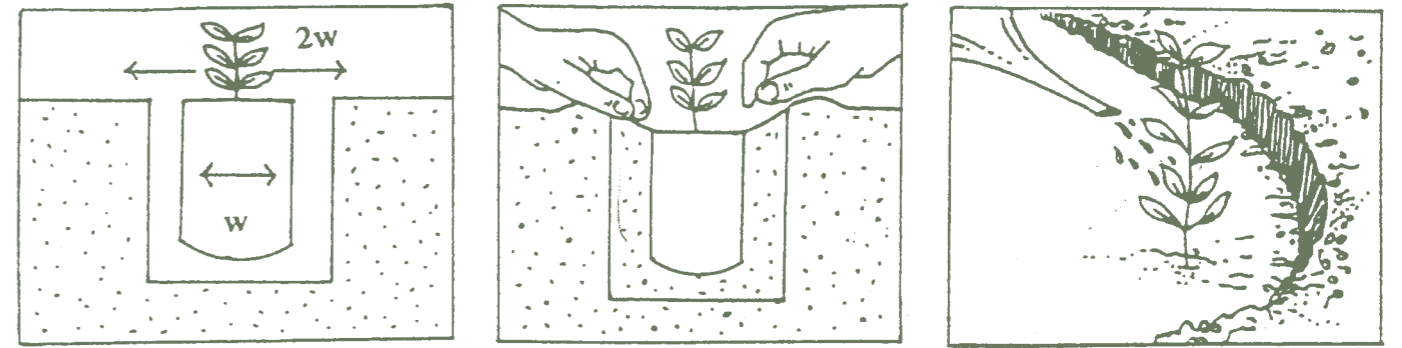
Most suitable for: TOE (gravel needs to be moist)



1. Scrape the surface to remove any weeds or weed seed.
2. Rake to prepare the seed bed and bring fine particles to the surface.
3. Mix the seed with moist sand and broadcast over the surface.
4. For fine seed, tamp the surface. For coarse seed rake then tamp.

## 3 Standard tubestock

1. Plant when soil is moist and there is no danger of frost.



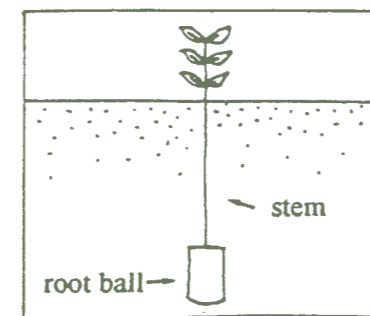
2. Dig hole twice the width of the pot.
3. **IMPORTANT:** After planting, firm the soil to remove air pockets. If planting in coarser materials, place some fine sand in the planting hole.
4. Water in well. A slight depression left around the plant will allow water to get where it is needed.
5. Give follow-up water and weed control where needed. Weeds, especially grass, slow growth by taking water and nutrients.
6. Check trees regularly for damage. Stake and guard where needed to prevent browsing by animals.
7. Mulching helps conserve water and suppress weeds.

## 4 Other specialised methods

The use of **long-stem planting** has been shown to be beneficial on sandy and well draining riparian sites. It involves planting tubestock at a greater depth than the pot soil level. This can allow more root growth to occur from the nodes located along the stem. This can add to the stability of a plant. However it is only recommended in sandy soil, not swampy sites.

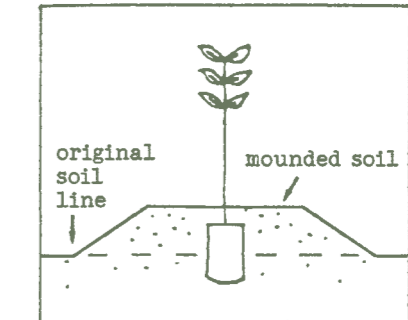
The use of **mound planting** has shown to be beneficial on waterlogged and swampy sites. It involves planting tubestock into a mound of soil to raise the pot soil level above the ground soil level. This can prevent the roots from rotting if subjected to extended inundation.

Most suitable for: TOE/MIDDLE BANK



Long-stem planting in sand. Root growth occurs from the nodes located along the stem.

Most suitable for: SWAMPY SITES



Mound planting on swampy sites which may be subject to extended inundation.







## Healthy upper catchment attributes

Shade on the water controls water temperature and water quality for aquatic life. Features tall strong rooted trees. Rocky pools in dry times.

Dense tree canopy, often closing over the stream, shading the water. Buttressed roots control erosion from fast flowing water and hold large boulders.

Vegetation diversity is high and often shade tolerant. The toe can be very rocky or vegetated by shade-loving species.



## Healthy middle catchment attributes

These are the streams on the floodplain. Shade on the water controls water quality for aquatic life. Features tall, strong, fibrous rooted, flood resilient trees in alluvial soils.

Stream is wider than the upper catchment with slower flowing freshwater, often reducing to pools in dry times. Carries and slows large flows of water in floods from the streams above.

The toe is protected by a dense growth of *Lomandra hystrix* or similar grass-like plants and fibrous roots of larger canopy trees.



## Healthy lower catchment (including tidal mangroves)

The stream widens and becomes slow flowing and tidal in the estuary. Saltwater becomes a major influence for water quality.

Vegetation is salt tolerant. Large deep rooted trees with grasses and shrubs, shade and maintain upper bank stability. Mangroves line toe of bank and create sediment depositional areas and habitat. Mangroves also help to buffer land from ocean storm surges.

