

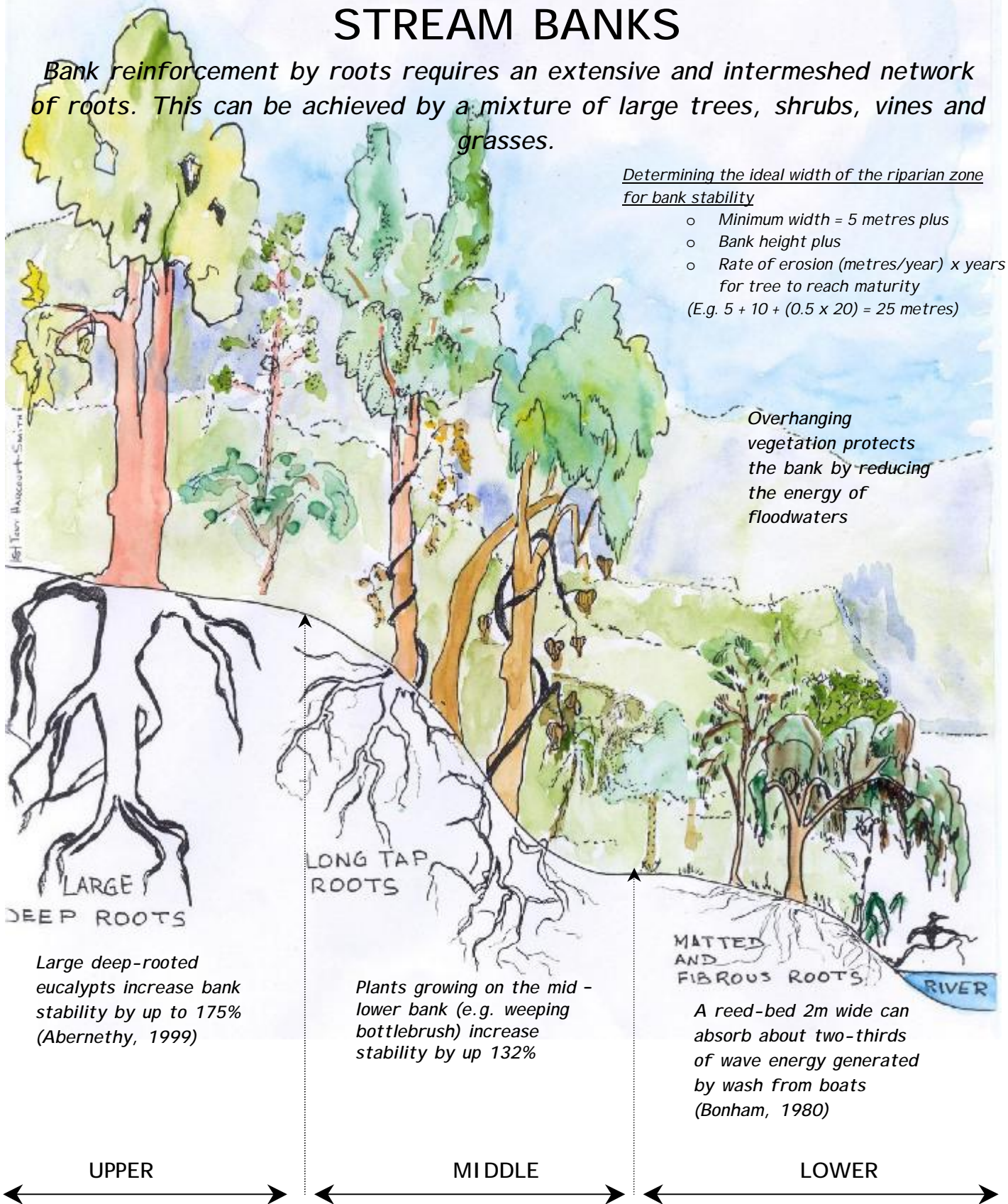
STABILITY & LOCATION OF SPECIES ON STREAM BANKS

Bank reinforcement by roots requires an extensive and intermeshed network of roots. This can be achieved by a mixture of large trees, shrubs, vines and grasses.

Determining the ideal width of the riparian zone for bank stability

- o Minimum width = 5 metres plus
 - o Bank height plus
 - o Rate of erosion (metres/year) x years for tree to reach maturity
- (E.g. $5 + 10 + (0.5 \times 20) = 25$ metres)

Overhanging vegetation protects the bank by reducing the energy of floodwaters



Riverbank Vegetation has a major impact on bank stability, channel shape and health of the waterway. Vegetation reduces flow velocity, improves bank stability by binding bank material, filters nutrients, traps sediments, moderates water temperature fluctuations and light conditions, improves habitats for all in-stream inhabitants and enhances social amenity.

This is a small selection of native scrub plants which occur along the freshwater lower reaches of the Mary River

Top bank	Middle bank	Lower bank
<i>Araucaria cunninghamii</i> - hoop pine	<i>Acacia aulacocarpa</i> - brown salwood, <i>Alphitonia excelsa</i> - soap tree	<i>Callistemon viminalis</i> - weeping bottlebrush
<i>Argyrodendron trifoliolatum</i> - brown tulip oak	<i>Alyxia ruscifolia</i> - chain fruit <i>Aphananthe philippinensis</i> - rough-leaved elm	<i>Casuarina cunninghamii</i> - river sheoak
<i>Cassia brewsteri</i> - Leichhardt bean, laburnum	<i>Arytera species</i> - native tamarinds <i>Canthium odoratum</i> - shiny-leaved canthium	<i>Ficus coronata</i> - sandpaper fig <i>Lomandra hystrix</i> - matrush <i>Lomandra longifolia</i> - matrush
<i>Cupaniopsis parvifolia</i> - green leaved tamarind	<i>Castanospermum australe</i> - blackbean <i>Commersonia bartramia</i> - brown kurrajong	<i>Melaleuca linarifolia</i> - snow in summer <i>Syzygium australe</i> - scrub cherry
<i>Euroschinus falcata</i> - pink poplar	<i>Cordyline species</i> - palm lilies <i>Cryptocarya species</i> - native laurels	<i>Waterhousia floribunda</i> - weeping lily pilli
<i>Eucalyptus tereticornis</i> - blue gum	<i>Diospyros species</i> - native ebonies <i>Dysoxylum gaudichaudianum</i> - ivory mahogany	
<i>Ficus macrophylla</i> - Moreton Bay fig	<i>Elaeocarpus obovatus</i> - hard quandong <i>Ficus fraseri</i> - sandpaper fig <i>Ficus racemosa</i> - cluster fig	
<i>Flindersia australis</i> - crow's ash <i>Grevillea robusta</i> - silky oak	<i>Flindersia schottiana</i> - bumpy ash <i>Glochidion summatranum</i> - buttonwood <i>Harpullia hillii</i> - tulipwood	
<i>Lophostemon suaveolens</i> - swamp mahogany	<i>Hymenosporum flavum</i> - native frangipani <i>Jagera pseudorhus</i> - foambark	
<i>Mallotus philippensis</i> - red kamala	<i>Mallotus claoxyloides</i> - green kamala <i>Oplismenus aemulus</i> - creeping beard grass	
<i>Melia azederach</i> - white cedar <i>Parachidendron pruinatum</i> - snow wood	<i>Pandorea pandorana</i> - wonga vine <i>Pavetta australiensis</i> - pavetta, <i>Streblus brunonianus</i> - whalebone tree	
<i>Pittosporum rhombifolium</i> - diamond leaf pittosporum <i>Polyscias elegans</i> - celerywood <i>Pouteria pohlmaniana</i> - yellow boxwood	<i>Syzygium francisii</i> - giant water gum <i>Tabernaemontana pandacqui</i> - banana bush	
<i>Sterculia quadrifida</i> - peanut tree <i>Toona ciliata</i> - red cedar		Note: Some species occur in adjacent zones.

For further information call:

Greening Australia Queensland (Tiaro Office), Ph: (07) 4129 2012

Department of Natural Resources Rivercare Officer, Ph: (07) 5480 6238