

13922/13974

REVEGETATION MANAGEMENT PLAN

This plan should be read in conjunction with Exhibit 4 Indicative Structure Plan, Exhibit 5 SEPP 26 Buffer Treatment and Exhibit 6 – Indicative Cross Section through SEPP 26 Littoral Rainforest. This Management Plan provides detail on the work to be undertaken in the nominated revegetation area associated with the State Environmental Planning Policy (SEPP) 26, including plant establishment and ongoing maintenance.

1 Objectives of Revegetation Works

The primary objectives of revegetation works are as follows:

- To provide effective environmental protection to SEPP 26 Littoral Rainforest to the immediate east of the revegetation area.
- To utilise plant species that have been identified in the neighbouring SEPP 26 Littoral Rainforest community such that, in the long-term, revegetation works provide both protection to the existing Littoral Rainforest Community and a meaningful extension to it.

2 Plant Species to be Utilised in Revegetation Works

A suitable plant species list has been derived through:

- An examination of the list of plant species identical in the neighbouring SEPP 26 Littoral Rainforest area, as contained in Appendix 1 of the Flora and Fauna Survey of the subject site (Peter Parker, May 2002).
- Discussions with Peter Parker with respect to the selection of appropriate plant species for revegetation works.
- On site discussions with David Filipczyk, a local bush regeneration expert.

Littoral Rainforest plant species to be utilised in regeneration works will include, but will not necessarily be limited to the following:

LITTORAL RAINFOREST REVEGETATION PLANT SPECIES	
<i>Acmena hemilampra</i>	broad-leaved lilly pilly
<i>Acmena smithii</i>	lilly pilly
<i>Acronychia imperforata</i>	beach acronychia
<i>Alectryon coriaceus</i>	beach alectryon
<i>Alocasia brisbanensis</i>	cunjevoi
<i>Alphitonia excelsa</i>	red ash
<i>Archontopheonix cunninghamiana</i>	bangalow palm
<i>Clerodendrum floribundum</i>	smooth clerodendrum
<i>Commersonia bartramia</i>	brown kurrajong
<i>Cordyline stricta</i>	narrow-leaf palm lily
<i>Crinum pedunculatum</i>	swamp lily
<i>Cryptocarya rigida</i>	rose maple
<i>Cryptocarya triplinervis</i> var. <i>triplinervis</i>	three-veined cryptocarya
<i>Elaeocarpus obovatus</i>	hard quandong
<i>Ficus rubiginosa</i>	rusty fig
<i>Glochidion ferdinandii</i> var. <i>ferdinandii</i>	cheese tree
<i>Guioa semiglauc</i>	guioa
<i>Livistona australis</i>	cabbage palm
<i>Neolitsea australiensis</i>	green bollygum
<i>Omalanthus populifolius</i>	bleeding heart
<i>Rhodamnia rubescens</i>	brush turpentine
<i>Synonim glandulosum</i>	scentless rosewood
<i>Tristaniopsis laurina</i>	water-gum

Given that the existing SEPP 26 Littoral Rainforest vegetation (and to some extent topography) provides excellent wind protection for the nominated revegetation area it was not considered necessary to undertake revegetation works strictly in accordance with generally accepted practice, that being to nominate a primary (pioneering) plant species list and a secondary planting species list. Rather, in this case, it was considered that all active planting works could be initiated in one stage, and supplemented over time with new planting as necessary, to promote optimal overall growth.

3 Revegetation Works

Revegetation works will be carried out over a 6 year timeframe, as follows:

- Seed collection and Preparation

Seed collection and propagation from the neighbouring SEPP26 Littoral Rainforest area will be undertaken over a 6-12 month period. These works will aim to maximize the diversity of plant species, including plant species from the above list. Where plant germination is not successful, supplementary imported planting may be considered, but only as a last resort. Plants will be grown from germination to tubestock size, prior to planting.

- Planting Times

Actual planting works shall commence in spring or summer and at a time when existing soil moisture levels are high.

- Preparatory Works

- 1 Commence weed removal of weed species (including Lantana, Bitou Bush, Cassia sp) against the existing SEPP 26 edge. Weed removal will include a combination of non-residual weedicide application and hand grubbing. No heavy machinery is to be used.
- 2 Fencing off of all areas to be revegetated - Fencing will be a minimum of 2 metres high and will be designed such as to prevent access by humans and foraging animals, including deer, kangaroos and swamp wallabies. Locked gated access will be provided for the purposes of maintenance only.
- 3 Slashing existing grassed areas to minimise grass cover at the time of planting

- Planting Works

- All plants will be tubestock.
- Planting holes will be a minimum 300 x 300 depth.
- An application of non-residual weedicide will be applied to grass cover within 400 mm radius of the planting hole prior to placement of weedmat and planting.
- All plants will be planted with an approved 600 x 600 mm weedmat, treeguard and bamboo stakes. (A recommended supplier for this material is Treemax – 03 9574 8600)
- A slow release fertiliser tablet and water crystals will be placed at the base of each hole prior to planting.
- Plants will be planted at a rate of one (1) plant per 2 m².
- Plant species will be mixed to maximize the diversity of planting generally.
- In the event that planting takes place in less than optimal soil moisture conditions, all plants will receive a minimum five (5) litres of water at the time of planting. The actual quantity of water will be subject to existing weather conditions.

4 Maintenance Works

All revegetation works will be maintained for a minimum five (5) year period from the time of planting.

Maintenance works will be undertaken so as to:

- Optimise the health and growth rate of planted plants.
- To minimise the growth of grass and weed.

Maintenance works shall include but will not be limited to:

- Watering to sustain optimal levels of plant growth. Watering will largely be dictated by prevailing weather conditions but, in times of low rainfall, will comprise a fortnightly application of two (2) litres per plant for at least the first six (6) months of plant establishment.
- Maintaining low grass and weed levels between plants by slashing a minimum three (3) times annually.
- Ongoing maintenance of fences so as to protect plants from humans and foraging animals.
- Replacement of dead or dying plants after six (6) months of initial planting works.
- Replacement of dead and dying plants on a 12 monthly interval thereafter.

5 Revegetation Works Contractor

Revegetation works will be undertaken by a suitably qualified revegetation contractor. The contractor will be required to demonstrate a high level of experience and competency at the time of engagement.

6 Revegetation Work Detailed Design and Construction

All revegetation works will be required to be designed by a suitably qualified consultant (a Landscape Architect or a Landscape Designer with demonstrated experience in the field of revegetation works design).

A suitably qualified consultant (as above) will be required to be engaged to monitor the progress of all revegetation works, including ongoing maintenance work.