DOUGLAS SHIRE COUNCIL

Revegetation Plan

Four Mile Beach Esplanade

2015

Operational plan for the revegetation of site specific sections of Four Mile Beach esplanade and adjacent coastal lands.

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Introduction

This Revegetation Plan is for two parcels of land located directly to the north of Four Mile Park. This includes the foreshore land described as L14 SP160319 and the section of the esplanade directly east (refer to Figure 1). These parcels of land have been divided into two separate sections to facilitate different outcomes for each area.

Purpose

This document provides a guide for addressing the illegal clearing of native vegetation in this sensitive natural area and will be used by Council's Natural Areas staff when rehabilitating this area. The document complies with Council's responsibility to manage the site according to the Queensland Coastal Plan which aims to protect native vegetation on coastal land. It also integrates community consultation results on the desired environmental outcome. The document complies with the Port Douglas Waterfront Master Plan, adopted by Council in November 2009, by supporting the following key outcome: "to preserve and enhance areas of existing environmental significance including revegetation to protect dunal systems".

This document does not address the management of coconut palms within the entire Douglas Shire Council area. Associated issues such as public safety, removal, de-nutting and preserving coconut palms are addressed within the Draft Coconut Management Council Coconut Management Plan.

Site location

The site is divided into two sections each with its own revegetation plan. The basis for dividing the two sections along its common boundary is to allow for differences in the landscape's character between the unstable dunal area (Section 1) and the land described as L14 SP160319 (Section 2). Both sections are directly adjacent to remnant vegetation type 7.2.8, which is listed as an environmental significant area.

Douglas Shire Council is the trustee of the esplanade and adjacent coastal lands and is responsible for management of these natural areas.

Figure 1 Site location

Management considerations

Illegal clearing

Following the construction of the adjacent property development, this site has been the target of ongoing illegal clearing of native foreshore vegetation for several years. Mature native trees and seedlings have been destroyed on numerous occasions, presumably to enhance ocean views for the adjacent blocks of land for sale and for the recently constructed residential properties.

Figure 2 Stumps of mature native trees illegally cleared.

Figure 3 A beach almond tree (*Terminailia catappa)* reshooting after being illegally removed.

Foreshore vegetation

The vegetation is described as *Melaleuca leucadendra open forest to woodland on sands of beach origin*, RE type 7.2.8 on the Queensland Government regional ecosystems database. It is listed as essential habitat, remnant vegetation containing of concern regional ecosystems, and the biodiversity status is listed as "Endangered". Section 1 meets the criteria of a sensitive area of unstable dune as there is currently very little native vegetation existing under retained mature coconut palms.

Figure 4 Section 1.

Coconut palms

The site previously contained large numbers of mature coconut palms that had been planted. To enable the area to be rehabilitated with native foreshore species, 49 of these coconut palms were removed in 2012, leaving only those coconuts along the beach edge so as to maintain a visual continuity with the whole of Fourmile Beach. The removal of coconuts is critical essential as coconuts displace native vegetation by smothering seedlings and plants with falling fronds and nuts, and out-compete native plants for sunlight, nutrients and root space.

Figure 5 Coconut palm fronds smother and out-compete native species.

Council recognises that coconut palms contribute to the tropical atmosphere of Port Douglas and are a feature of the majority of Four Mile Beach, therefore any coconut palms that over-hanged or aligned the foreshore were retained to ensure that the area retained its tropical ambiance (refer to Figure 6).

Figure 6 Front lines of coconut palms retained.

Weeds

The site has minor occurrences of invasive pest plant species that require ongoing treatment to avoid the weeds spreading into adjacent remnant vegetation.

Figure 7 Mother-in-laws tongue (*Sanseviera trasciata)* spreading through the understorey.

Figure 8 Rattlepod (*Crotalaria pallida)* occurs abundantly in the area if it is not managed.

Desired outcomes and actions

Section 1

To rehabilitate the dunal area providing connectivity and establishment of foreshore vegetation by:

- Educating nearby residents regarding Council's requirement to act in accordance with the Coastal Protection and Management Act.
- Addressing the issue of illegal clearing for sea views by compromising with filtered views or sea views through gaps in the vegetation.
- Allowing trees to establish in widely spaced groves or with some gaps to allow views and breezes to flow through the vegetation.
- Providing small habitat linkages to improve species survival and encourage the re-colonisation of the dunal system.
- Formalising the access tracks.
- Encouraging community participation and stewardship in the rehabilitation project.

Section 2

To revegetate the area with appropriate suitable native species (as shown in Appendix 1) by:

- Preserving and enhancing the existing remnant vegetation.
- Controlling weeds.
- Encouraging participation from residents to take ownership by maintaining the landscaped area directly in front of their homes.
- Retaining the existing landscaped area between the houses and the fig trees (as shown in Figure 9).

Figure 9 The landscaped area between the fig tree and the houses will be retained.

Appendix 1

List of suitable plant species

Botanical Name	Common Name
Acacia crassicarpa	Northern golden wattle
Acacia mangium	Broadleaf salwood
Acacia oraria	Coastal wattle
Acmena hemilampra	Blush satinash
Aglaia elaeagnoidea	Coastal boodyarra
Alphitonia petriei	Sarsaparilla
Alyxia spicata	Chain fruit
Atractocarpus fitzalanii	Brown gardenia
Barringtonia calyptrata	Mango pine
Beilschmiedia obtusifolia	Blush walnut
Blepharocarya involucrigera	Rose butternut
Brachychiton acerifolius	Illawarra flame tree
Breynia cernua	Fart bush
Calophyllum inophyllum	Beach calophyllum
Calophyllum sil	Blush touriga
Canarium vitiense	Canarium
Carallia brachiata	Corky bark, Fresh water mangrove
Casuarina equisetifolia	Beach casuarina
Cerbera manghas	Dog bane
Chionanthus ramiflora	Native olive
Clerodendrum longiflorum	Long flowered clerodendrum
Colubrina asiatica	Beach berry bush
Cordia subcordata	Sea trumpet
Crinum pedunculatum	Beach lily, Swamp lily
Cupaniopsis anacardioides	Beach Tamarind
Deplanchea tetraphylla	Golden bouquet tree
Dillenia alata	Red beech
Diospyros compacta	Australian ebony
Dodonea viscosa	Hop bush
Elaeodendron melanocarpum	False olive
Eucalyptus plattyphylla	Ghost gum
Euroschinus falcata	Pink poplar
Ficus benjamina	Weeping fig
Ficus drupacea	Drupe fig
Ficus microcarpa	Small fruited fig
Ficus opposita	Sandpaper fig
Ficus racemosa	Cluster fig
Ganophyllum falcatum	Daintree hickory
Glochidion harveyanum	Harvey's buttonwood
Glochidion philippicum	Daintree cheese tree
Gmelina dalrympleana	White beech
Gomphandra australiana	Buff beech
Guioa acutifolia	Glossy tamarind
Haemodorum coccineum	Blood root
Hibiscus tiliaceus	Coast cottonwood

Intsia bijuga	Kwila
Jagera pseudorhus	Foambark
Livistona muelleri	Northern cabbage tree palm
Lophostemon suaveolens	Swamp mahogany, swamp box
Macaranga tanarius	Kamala, Blush macaranga
Mallotus philippensis	Red kamala
Maytenus fasciculiflora	
Melaleuca leucadendra	Weeping paperbark
Melaeuca viridiflora	Broad leaved paperbark
Melia azederach	White cedar
Micromelum minutum	Lime berry
Miliusa brahei	Rasberry jelly plant
Millettia pinnata	Pongamia tree
Mimusops elengi	Red coondoo
Mischocarpus exangulatus	Red bell mischocarp
Morinda citrifolia	Rotten cheesefruit
Pandanus tectorius	Beach pandan
Pittosporum ferrugineum	Rusty pittosporum
Planchonia careya	Cocky apple
Pleiogynium timorense	Burdekin plum
Polyscias elegans	Celerywood
Pouteria chartacea	Thin leaved coondoo
Pouteria obovata	Yellow boxwood
Premna serratifolia	Coastal premna
Ptychosperma elegans	Solitaire palm
Rhus taitensis	Sumac
Scaevola taccada	Beach lettuce
Schefflera actinophylla	Umbrella tree
Scolopia braunii	Brown birch
Sterculia quadrifida	Peanut tree
Syzygium angophoroides	Yarrabah satinash
Tarenna dallachiana	Tree ixora
Terminalia arenicola	Brown damson
Terminalia catappa	Indian almond
Terminalia microcarpa	Damson plum
Terminalia muelleri	Mueller's damson
Thespesia populneoides	Tulip tree
Timonius timon	False fig