

## 5.8. DRAFT COCONUT MANAGEMENT PLAN

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**GENERAL MANAGER:** Michael Kriedemann, Acting General Manager Operations  
**DEPARTMENT:** Infrastructure Services

### RECOMMENDATION

**That Council adopt the Coconut Management Plan and the Coconut Management Action Plan 2015/2016.**

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### EXECUTIVE SUMMARY

The Coconut Management Plan ("Plan") was developed by the Douglas Shire Council ("Council") to define the objectives and document the goals of managing coconut palms effectively on Council controlled lands. The plan aims to identify the role that coconut palms play in specific locations through an assessment and classification based process. The Plan provides Council with a comprehensive understanding of the challenges and opportunities faces in order to preserve and enhance that contribution.

The Plan addresses issues such as hazard identification, risk assessment, palm distribution, environmental impact and the associated costs of coconut management. The Plan establishes a framework to implement and track the progress of Council's coconut management for social, economic and environmental benefits. Importantly, the Plan provides Council officers with a policy, procedures and an assessment tool for managing coconuts. The plan represents a snapshot of what is known about the distribution of mature coconuts on Council controlled lands within the Douglas Shire area and is current as at April 2015.

The community has high expectations that the tropical appeal that coconut palms bring to the Douglas Shire must be protected. This community expectation is based on the economic value that coconuts add to the tourism industry. The Plan will have no impact on the tropical appeal of Douglas, as the Plan enables coconuts to be assessed, protected and even planted in places of high value.

In finalising the Plan, Council undertook an extensive community engagement process. This engagement process included the following actions:

- Plan released for public comment on Council's website 22 June 2015;
- Public submission period extended and closed 20 July 2015;
- Plan featured in full page article in the Gazette Newspaper published on 9 July 2015;
- Public notices in the *Daintree Matters* section of the Gazette Newspaper published 7 July 2015;
- Various information posted on Council's Facebook page;
- General Manager Operations conducted an ABC Radio Interview 2 July 2015 and Channel 7 News 3 July 2015; and
- Information session was held at the Daintree Community Forum 23 July 2015.

Key Messages from the Community Engagement are:

- The coconut plays a significant role in promoting the area as a tropical destination for the tourism industry;
- People expect to see coconut palms in Douglas, especially in Port Douglas;
- Concern that Council may not implement the plan respectfully and the community assumption is that Council will remove the majority of coconuts which will affect the tropical feel of the area;
- Coconuts should be better managed in areas of environmental significance;
- Coconuts are a valuable resource going to waste and there are many opportunities for utilizing coconuts as a resource. Requests were received from private businesses to take over coconut management; and
- Protect our critically endangered littoral rainforests from the impacts of coconuts.

Council received 71 written submissions during the public consultation period. The submissions were categorised into 3 groups:

- Submissions that clearly stated that they accept / support the plan;
- Submissions that clearly stated that they reject / oppose the plan;
- Submissions that did not clearly state their opinion either way.

Support	Oppose	Unclear
22	19	28

A further two submissions were not included in the count as they were second submissions from individuals wanting to provide additional information to their first submission. Given the above responses the community is clearly divided on this issue.

Council has listened to the community feedback on the draft Plan and has re-written sections of the Plan to clarify the goals and management processes. In order to transparently document the actions Council intends to take in the 2015/2016 financial year, Council has created a *Coconut Management Action Plan 2015/2016*, which sets out the projects where Council will focus its efforts. Through the action plan, Council will:

- Continue to de-nut a total of 1,452 coconut palms,
- Remove 14 high risk specimens for public safety;
- Undertake two restoration projects; and
- Undertake a pilot program and enter into landholder maintenance agreements with Newell Beach residents.

**BACKGROUND**

For many years Council has been faced with the challenge of managing coconuts, particularly in trying to reduce the number of high risk specimens. Most often the removal of these beautiful, useful but inappropriately planted palms has caused a great deal of concern and anguish within the local community.

In 1997, Council introduced a de-nutting program to reduce its exposure to public liability claims, protect visitors and the public from falling nuts. This initial program established a de-nutting run of 847 palms. The de-nutting program is a high cost management approach and the number of coconut palms on Council’s de-nutting program has steadily increased to 1,369 trees, de-nutted twice annually. The current cost of this de-nutting program has more than doubled in this time.

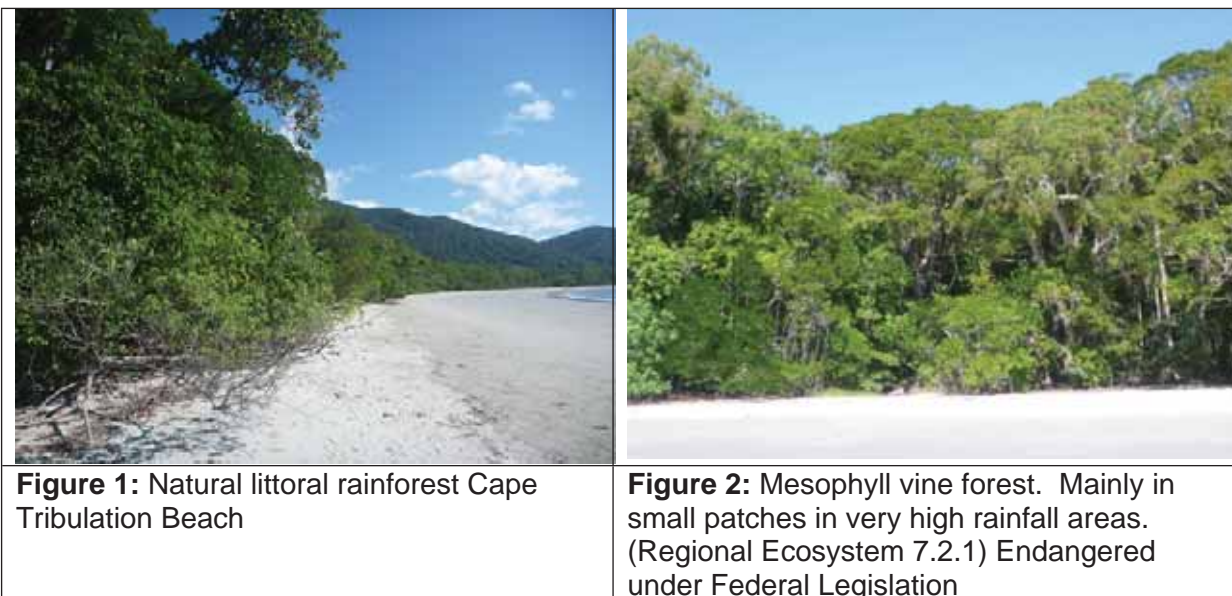
At the time of drafting the Plan the de-nutting was conducted under an existing Preferred Supplier Arrangement 2336 *De-nutting of Coconuts*. This arrangement has now expired, resulting in a substantial increase to coconut maintenance costs in 2015.

The most recent de-nutting program conducted in early 2015 cost \$99,300 and the follow up program later this year is estimated to cost a similar figure. In addition, approximately \$60,000 is being spent each year in removing fallen palms, fronds and fruit from parks, roads, paths, beaches and storm water drains.

The current cost of coconut maintenance has now increased to around \$250,000 annually and it is expected that these costs will continue to increase over time as there are numerous coconut palms that will need to be included in the de-nutting program in the near future. The ever increasing numbers of palms has prompted Council staff to conduct an extensive audit of coconut palms and undertake a review of its policy and procedures regarding the management of coconut palms on Council controlled lands.

The Douglas Shire is known as “the place where the rainforest meets the reef” due to our many areas north of the Daintree River which have long been considered pristine examples of natural coastal vegetation. Coconuts have spread into and will continue to spread throughout the Shire’s World Heritage listed areas, significantly impacting on the endangered littoral rainforest and coastal vine thicket ecological communities that are listed as critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The figures below show examples of the littoral rainforest protected under the EPBC Act and also the destructive nature of the coconut palm if allowed to continue unchecked along the Douglas coastline.





**Figure 3:** Coconut monoculture Four Mile Beach



**Figure 4:** Coconuts displacing the natural coastal vegetation without management

Without a Coconut Management Plan and an effective management framework the coconut's invasive nature will continue to degrade our Shire's valuable natural assets.

## COMMENT

The recent coconut audit found that there are approximately 11,639 specimens of coconut palms growing on public land across the Shire. At present the de-nutting program covers only 1,369 high-risk specimens growing on Council controlled lands. It is estimated that there are approximately 2,800 additional specimens that could be considered high-risk and that are not yet included in the de-nutting program.

The Plan provides Council officers with the necessary tools to classify coconut palms. The palms are assessed based on their location, the risk they pose and their overall condition. The assessment tools are necessary for ensuring effective and efficient operational and maintenance based activities.

The plan includes provisions for stakeholders to appeal against the removal of coconut palms (unless classified as a safety risk) and to enter into maintenance agreements with Council to take over the maintenance (de-nutting) of certain palms.

The Plan enables coconuts to be assessed and protected in places of high value and also allows for the planting of replacement palms in these areas.

The plan provides all stakeholders a clear policy direction and a documented process in order to make informed decisions regarding coconut management.

## PROPOSAL

### Options

- 1. It is recommended that Council adopt the Coconut Management Plan and Coconut Management Action Plan 2015/2016.**

Adopting the Plan will ensure there is an appropriate and clear direction for the management and maintenance of coconuts on Council controlled lands. Such management will lower the risk of injury and ensure that important natural areas are protected.

The Coconut Management Action Plan 2015/2016 sets out the projects where Council will focus its efforts.

**2. Council may decide not to adopt the Coconut Management Plan and Coconut Management Action Plan 2015/2016.**

Failure to adopt the Coconut Management Plan and Coconut Management Action Plan 2015/2016 will result in a higher than necessary exposure to public liability claims. The associated costs of managing coconut palms in public and natural areas will continue to increase over time.

## **FINANCIAL/RESOURCE IMPLICATIONS**

The current cost of coconut management is approximately \$252,000 per year. The cost of effective coconut management is expected to rise in the future if the Plan is not adopted.

It is not envisaged that additional staff or resources will be required in the implementation of the Plan. All inspections and assessments will remain the responsibility of the Open Spaces Team Leaders.

The additional workload required in maintaining a coconut register / maintenance agreement database will be absorbed into existing positions in the Open Spaces team.

## **RISK MANAGEMENT IMPLICATIONS**

The plan provides the tools for council officers to undertake condition and risk assessments. This documentation is vital in ensuring Council's responsibilities to public health and safety, meeting auditing requirements and ultimately reducing Council's exposure to public liability claims. Council must be able to demonstrate that it has inspection processes and procedures in place to eliminate hazards (wherever possible) across the Shire.

The recent coconut audit found that there are approximately 11,639 specimens of coconut palms growing on public land. It is estimated that there are approximately 2,800 additional specimens that could be considered high-risk and that are not yet included in the de-nutting program.

In the past 12 months council officers have dealt with 84 customer requests specifically relating to coconuts. This plan will provide officers with a decision making tool to ensure a consistent assessment methodology is implemented.

Climate change projections for Australia include increased temperature, sea level rise, changing rainfall patterns and more frequent and intense extreme climatic events (Australian Greenhouse Office, 2007). Predicted impacts on the beach, fore dune and coastal wetland environments include increased vulnerability of beach and dune systems due to coastal erosion, shoreline recession, and saltwater intrusion (*State Coastal Management Plan, 2001*). In the sand dune environment, non-native species such as Coconut palms (*Cocos nucifera*) do not reduce wind erosion and accelerate wave erosion when they fall (Beach Protection Authority of Queensland, 1981).

The maintenance of a well vegetated dune system provides the best protection against sea level rise, shoreline erosion and storm surge events (Australian Greenhouse Office, 2007). The coconut management plan is a step in the right direction to address climate change issues through promoting the maintenance of well-vegetated dune systems, and identifying potential buffer zones of coastal vegetation.

## SUSTAINABILITY IMPLICATIONS

**Economic:** The current cost of coconut management is approximately \$252,000 per year and is expected to rise into the future.

Highlighted in many of the public submissions was the fact that in most parts of the world where coconuts exist, they have become a valuable economic resource. The draft Coconut Management Plan is a starting point for effective coconut management. Council, where appropriate, should encourage proposals from private business to utilise this resource and future reviews of Council's Plan will consider allowing private business involvement as a way of offsetting maintenance costs.

**Environmental:** Queensland's *Vegetation Management Act (1999)* uses a Regional Ecosystem classification system to describe remnant vegetation communities and to provide their conservation status. Virtually all foreshore Regional Ecosystems across the Douglas Shire are either 'endangered' or 'of concern'. Legislation providing protection to remnant vegetation in the coastal zone include the Federal *Environment Protection and Biodiversity Conservation Act (1999)*; Queensland's *Vegetation Management Act (1999)*.

The Plan raises concerns about coconut tree impacts on EPBC-listed littoral rainforest. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Terrain Natural Resources and Mines (NRM) *2014 Mapping Littoral Rainforest & Coastal Vine Thickets of Eastern Australia in the Wet Tropics: Mission Beach Pilot Study* identified coconut trees (*Cocos nucifera*) as transformer weeds in littoral rainforest in the pilot area, and recommended that transformer species in littoral rainforests in the Wet Tropics be given appropriate weight by government in considering funding applications for control.

The Douglas region contains many examples of Littoral Rainforest, an EPBC listed coastal vegetation community shared along the eastern Australian coast. The littoral rainforest provides specific character and significance in the Wet Tropics and Douglas area as it provides much of the essential 'where the rainforest meets the reef' character for which the region is famous.

The failure of the management of coconut palms in these ecosystems is advocating the demise of a critically endangered ecosystem.

**Social:**

The Plan is the first phase of improving Council's coconut management systems and procedures. Significant consultation with the community in Douglas has occurred. Improved systems will allow council to track progress, detail measurable outcomes and set clear and specific goals. The risk and condition assessment tools for making decisions will allow Council staff to deliver services efficiently, provide accountability and engagement with the community.

Importantly the Plan recognises the aesthetic and symbolic importance of the coconut palm in certain areas and also allows for public participation in the maintenance of palms in locations where they might ordinarily be removed.

## CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

### Corporate Plan 2014-2019 Initiatives:

#### Theme 3 - Improve Environmental Performance

*3.1.3 - Develop management plans for Council's parks and reserves including coastal reserves and foreshore areas.*

### Operational Plan 2014-2015 Actions:

*I1 – Plan to enhance and preserve the natural environment – Coconut Management Policy*

## COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

<b>Asset-Owner</b>	Meeting the responsibilities associated with owning or being the custodian of assets such as infrastructure.
<b>Facilitator</b>	Bringing people together to develop solutions to problems
<b>Fully-Responsible</b>	Delivering a program or activity for another organisation (usually another level of government).
<b>Information Provider</b>	Bringing people together to develop solutions to problems.

## CONSULTATION

**Internal:** Nil

**External:** Council undertook an extensive community engagement process. This engagement process included the following actions:

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- Coconuts are a valuable resource going to waste and there are many opportunities for utilizing coconuts as a resource. Requests were received from private businesses to take over coconut management; and
- Protect our critically endangered littoral rainforests from the impacts of coconuts.

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- Continue to de-nut a total of 1,452 coconut palms,
- Remove 14 high risk specimens for public safety;
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- Undertake a pilot program and enter into landholder



maintenance agreements with Newell Beach residents.

## **ATTACHMENTS**

Attachment 1 - Coconut Management Plan

Attachment 2 - Coconut Management Action Plan 2015/2016

Coconut  
Management Plan





Port Douglas Area- Four Mile Beach .....	36
Port Douglas Area – Island Point .....	37
Central Area – Ocean View Road .....	38
Central Area – Captain Cook Hwy – South Mossman.....	39
Central Area – Mossman.....	40
Central Area – Finlayvale Road.....	41
Central Area – Cooya Beach (Southern End).....	42
Central Area – Cooya Beach (Northern End) .....	43
Central Area – North Mossman .....	44
Central Area – Newell Beach .....	45
Central Area – Newell Beach – Saltwater Creek to Rocky Point.....	46
Central Area – Bamboo Creek Road.....	47
Central Area – Rocky Point to New Wonga.....	48
Central Area – Old Wonga to Vixies Road .....	49
Central Area – Wonga Beach- Vixies Road to Helen’s Creek .....	50
Central Area – Wonga beach – Helen’s Creek to Daintree River .....	51
Northern Area – Daintree Village.....	52
Northern Area – Cape Kimberley .....	53
Northern Area – Cow Bay Beach .....	54
Northern Area – Thorntons Beach.....	55
Northern Area – Noah’s Beach.....	56
Northern Area – Coconut Beach .....	57
Northern Area – Myall Beach .....	58
Northern Area – Cape Tribulation Beach.....	59
Northern Area – Emmagen Beach .....	60
Northern Area – South Cowie Beach .....	61
Northern Area – Cowie Beach.....	62
Northern Area – Streetscape Cape Tribulation.....	63



# Part 1

## Summary

This Coconut Management Plan was developed by the Douglas Shire Council (DSC) to define and document the goals and objectives of the Douglas Shire Council in managing coconuts effectively on council controlled lands. The plan aims to identify the role that coconut palms play in any specific location through assessment and classification based on their location and contribution to a given area. The Coconut Management Plan provides council with a comprehensive understanding of what is required to preserve and enhance that contribution.

The plan also addresses issues such as potential risk, distribution, impacts and associated costs of coconut management. The plan aims to establish a framework to implement and track the progress of council's coconut management for social, economic and environmental outcomes. The plan represents a snapshot of what is known about the distribution of mature coconuts on council controlled lands within the Douglas area and is current as at April 2015.

## Introduction

Over the past ten years many Local Governments have had to face the issue of coconut management. Many have chosen to remove all dangerous specimens while others have settled on a program of targeted removal and de-nutting, while other have adopted the more expensive option of de-nutting only.

For many years DSC has been faced with the challenge of how the number of high risk specimens could be managed. Most often the removal of these beautiful, useful but inappropriately planted trees has caused a great deal of concern and anguish within the local community.

To reduce its exposure to public liability claims and to protect visitors and the public the Douglas Shire Council has conducted a de-nutting program, which covered some 847 specimens. This program has been in place since 1997 and is a high cost management approach. The number of coconut trees on Council's de-nutting program has steadily increased to 1,369 (2014) trees being de nutted twice annually. This figure has increased in recent times to 1,452 palms identified to be de nutted over the 2015/2016 maintenance period.

The current cost of this de-nutting program each year has more than doubled in this time to \$192,000 with an additional \$60,000 (approximately) being spent each year in removing fallen trees, fronds and fruit from parks, roads, paths, beaches and storm water drains.

These costs will continue to increase with time and there are numerous other specimens of coconuts that will need to be included in the de-nutting program. This has prompted DSC to conduct an extensive audit of its coconuts and undertake a review of its policy and procedures regarding the management of coconuts on council controlled lands.





Consideration must be given to the critically endangered status of our foreshore vegetation, much of which is highly significant or threatened by both coastal development and natural processes. The Douglas region contains many examples of Littoral Rainforest, listed as a critically endangered ecological community under the Australian Governments *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*.

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Terrain NRM’s 2014 *Mapping Littoral Rainforest & Coastal Vine Thickets of Eastern Australia in the Wet Tropics: Mission Beach Pilot Study* identified coconut trees (*Cocos nucifera*) as transformer weeds in littoral rainforest and recommended that transformer species in littoral rainforests in the Wet Tropics be given appropriate weight by government in considering funding applications for control.

The Commonwealth Listing Advice on Littoral Rainforest and Coastal Vine Thickets of Eastern Australia identifies transformer weeds as a threat:

*The establishment of transformer weeds in littoral rainforest patches can have a significantly detrimental effect. Transformer weeds are highly invasive taxa with the potential to seriously alter the structure and function of the ecological community. Whilst it is accepted that the ecological community can tolerate a significant amount of weed cover due to its relative resilience, if left unchecked, such weeds will eventually take over and destroy the affected patch.*

Coconuts are a popular food source for the white tailed rat *Uromys caudimaculatus*, a creature that is classed as a coconut busting machine. Without any human intervention the white tail rats convert coconuts into perfect mosquito breeding receptacles. *Aedes aegypti*, *Aedes notoscriptus* and *Culex quinquefasciatus* are just 3 dangerous mosquitoes capable of using these coconuts as breeding receptacles. Between them these 3 mosquitoes are capable of carrying serious arbovirus including Dengue, Ross River fever and Barmah Forest virus. The white tail rat is a recognised vector for the lethal disease leptospirosis in this region. Many beach communities also sustain significant populations of the pest species black rat (*Rattus rattus*) thanks to the shelter and food provided by coconuts.



White tailed rat *Uromys caudimaculatus*

Photo courtesy of Russell Constable



Photo of chewed nut, perfect mosquito breeding receptacle



Photo courtesy of Russell Constable

The risk of serious injury or death from being hit by falling fruit is real with many anecdotal stories telling of near misses. Falling fronds also represent a danger as do fruit dislodged by cyclonic winds.

The danger imposed by falling nuts is usually managed by the removal of the offending tree or by a de-nutting program, which usually involves removal of the developing inflorescence or immature fruit before they become developed enough to pose a danger. This combined with the removal of fallen fronds and nuts from lawns, paths, roads and stormwater drains is an expensive and time-consuming ongoing activity.

The recent coconut audit found that there are approximately 11,639 specimens of coconut palms growing in places where the falling fruit had the potential to cause personal injury to members of the public. The audit included specimens growing on Council controlled land and specimens growing on land in private ownership where such trees were growing in positions close to or overhanging areas to which members of the public had legal access. Council and the owner of the land on which the specimens are growing may be jointly responsible for any personal injury claims caused by falling fruit. The audit found that there were 438 fruiting specimens in this situation and that there were approximately 8,491 fruiting specimens on Council controlled lands. The total number of fruiting specimens in the area surveyed was 8,929.

At present the de-nutting program covers only 1,369 high-risk specimens growing on Council controlled lands. It has been estimated that there are approximately another 2,800 specimens that could be considered high-risk. The remaining 7,470 specimens are at this point in time considered to be a low-risk but this may change with future developments and increases in visitor numbers. The cost of the current de-nutting program is approximately \$192,000 per year. The cost of removing fallen trees, leaves, fruit and nuts from lawns, paths, roads, beaches and stormwater drains is approximately \$60,000 per year.

The audit also found that there were some 2,710 non-bearing specimens with 138 occurring on private land and 2,572 on Council controlled land (this figure does not include seedlings, some of which will die from natural causes before they reach a fruiting age). The cost of de-nutting only a percentage of these trees would be a significant and on-going cost once these palms begin fruit production. Coconut





palms take between four and ten years to bear fruit depending on the variety and reach their maximum fruit bearing potential at about twenty-five years of age. This full fruit bearing potential can be maintained for between forty and forty-five years, after which fruit production slowly declines until the death of the tree. Coconuts can live for in excess of one hundred years. Mature trees can produce between forty and eighty fruit per year depending on the variety.



Photo – Coconut denutting at Rex Smeal Park 2015



## Table of Results – Coconut Audit 2014

### Coconut Audit 2014

#### Summary of data

Area	Location	Private Bearing	Private Non Bearing	Public Bearing	Public Non - bearing	Total	Denutted	Classification
Port Douglas Area	Port Douglas / Esplanade	255	75	2273	1220	<b>3823</b>	592	
	Craiglie	8	4	8	1	<b>21</b>	3	3
	Ferrero Rd		2	9	7	<b>18</b>		
Southern Area	Mowbray valley	2	5	27	18	<b>52</b>		3
	Yule Point				1	<b>1</b>		2
	Pebbly Beach	1	3	76	48	<b>128</b>		2,3
	Oak Beach	3	5	249	103	<b>360</b>	10	2,3,4
	Pretty Beach			14		<b>14</b>		4
	Turtle Cove	16	0	5	3	<b>24</b>		1
	Wangetti			42	6	<b>48</b>		2,3,4
Central Area	Ocean View Road	1		44	24	<b>69</b>		3
	Killaloe	16	3	5	5	<b>29</b>		3
	Warners Rd	3	3	4		<b>10</b>		3
	Upper Cassowary Rd				7	<b>7</b>		3
	Shannonvale - Borzi Rd	4	2	13	1	<b>20</b>		3
	Captain Cook Hwy – South Mossman			8		<b>8</b>		3
	Mossman	6	7	22	7	<b>42</b>	17	3
	Finlayvale Rd	2	1	3	3	<b>9</b>		3
	Santacatarina Rd	15				<b>15</b>		3
	North Mossman		4	10		<b>14</b>		2
	Cooya Beach	12	15	458	119	<b>604</b>	282	1,3,4
	Newell Beach	16		413	46	<b>475</b>	157	2,3
	Bells Rd			3		<b>3</b>		3
	Mossman Daintree Rd	6		21	1	<b>28</b>		3
	Sciacca Rd	2		4		<b>6</b>		3
	Bamboo Creek Rd	1		28	1	<b>30</b>		3
	Kingston Rd		1			<b>1</b>		3
	Kahana Rd	1		1	3	<b>5</b>		3
	Whyanbeel Rd	8		1		<b>9</b>		3
	Wonga Beach	27	3	3097	538	<b>3665</b>	272	2,3,4
Northern Area	Daintree River / Village	10		16	1	<b>27</b>	4	3
	Daintree River / Ferry	1		30	2	<b>33</b>	19	3
	Cape Kimberely Beach			156	24	<b>180</b>		2,4
	Cow Bay			14	14	<b>28</b>		2,4
	Thorntons Beach			67	8	<b>75</b>	1	2,4
	South Noah's Beach			54	2	<b>56</b>		4
	Noah's Beach			23		<b>23</b>		2
	Coconut Beach			397	76	<b>473</b>		2
	Myall Beach	3		380	115	<b>498</b>		2
	Cape Tribulation Beach			51	19	<b>70</b>	12	2
	Emmagen Beach			4		<b>4</b>		4
	South Cowie Beach			94	19	<b>113</b>		2
	Cowie Beach			273	92	<b>365</b>		4
	Nicole Drive	7		38	6	<b>51</b>		3
	Camelot Cl	1	2	9		<b>12</b>		3
	Cape Tribulation Rd	5		24	15	<b>44</b>		3
	Stonewood Rd	1				<b>1</b>		3
Tea Tree Rd	1				<b>1</b>		3	
Mahogany Rd			1	1	<b>2</b>		3	

Maple Rd			1	3	4	3
George Rd		1			1	3
Forest Creek Rd	4	2	5	2	13	3
Thornton Peak Drive			3	1	4	3
Carbeen Rd			10		10	3
Cedar Rd			1		1	3
Silver Ash Rd				1	1	3
Bloodwood Rd			1	8	9	3
Buchanan Creek Rd			1	1	2	
<b>Total</b>	<b>438</b>	<b>138</b>	<b>8491</b>	<b>2572</b>	<b>11639</b>	<b>1369</b>

## Facts & Statistics

- *Coconuts can live for over 100 years;*
- *1 mature tree can produce up to 80 fruits per year;*
- *Douglas Shire has 8,491 fruit bearing coconuts on council controlled lands. That's approximately 679,280 nuts each year;*
- *In many parts of the world coconuts are an extremely valuable crop. Some of the Coconut products include; water, oil, filtration, lauric acid, biodiesel, milk, fibre, husks and shells; and*
- *Coconuts cost the Douglas ratepayers \$250,000 per year to maintain the current service level.*



## Part 2

### Council Policy

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**DOUGLAS SHIRE COUNCIL**

**NO.** Enter #

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#### General Policy

Coconut Management Policy

#### Intent

Provide clear direction regarding the management and maintenance of coconut palms (*Cocos nucifera*) on Council-controlled land.

#### Scope

This policy applies to all Council-controlled land within the Douglas Shire Council (DSC) area.

This policy should be read in conjunction with:

- Local Law No. 4 (Local Government Controlled Areas, Facilities and Roads) 2011;
- Council's Planning Scheme Policy No. 4:03:02, Policy No 7 Landscaping;
- General Policy No. 01:04:10 – Vegetation on Council's Controlled Land - Planting, Removal and Maintenance;
- Administration Instruction No. 02:02:09 – Dealing with vegetation matters on Council Controlled Land;
- Preferred Suppliers Arrangement 2336 – Denutting of Coconut Trees – Schedule of Trees;
- Coconut Palm maintenance agreement;
- International Society of Arboriculture Tree Risk Categorization; and
- DSC Coconut Palm assessment tool.

#### Purpose

It is recognised that coconut palms are an integral component of the aesthetics within the shire and provide benefits in relation to the look and feel of the tropical environment as well as providing benefits to the tourism industry.

This policy aims to provide a practical and balanced approach to coconut management that addresses issues concerning risk mitigation, financial responsibility, conservation, aesthetics and plant maintenance and health.

This policy also aims to adopt a consistent approach towards the improvement of the larger urban forest by addressing the role that coconut palms play in any specific location through assessment and classification based on their location and contribution to a given area.

**PROVISIONS**

**1. General**

Due to the large number of coconut palms managed by Douglas Shire Council, it is important as a responsible land manager, that coconut palms are assessed and classified in relation to the following factors:

- Potential to cause harm or damage (based on location);
- Ease of maintenance;
- Practical, aesthetic and tourism values;
- Benefits provided in the larger urban forest;
- Possible damage caused in natural areas; and
- Customer Request Management records.

Based on the assessments and classifications, Council will take appropriate maintenance and management actions. Refer to Table 1 - Management options based on location classification and Appendix 2 – Douglas Shire Council Coconut Palm assessment tool.

**2. Risk Management**

Due to the risk associated with falling nuts and fronds, all palms selected to be retained in high occupancy locations must be maintained on a twice yearly basis through removal of dead and dying fronds and the removal of inflorescences and developing nuts.

Those palms selected for removal in high occupancy locations must be maintained as described above until such time as removal takes place. If these palms are not maintained, the cost of reactive maintenance increases exponentially the longer the nuts are left on the palm and the associated risk increase is a liability concern.

If coconut palms are found to have structural defects and/or disease infestation they will be removed.

If coconut palms have grown too tall to make climbing impracticable or unsafe (to perform maintenance functions) then the palm will be removed.

**3. Establishment**

For reasons of risk mitigation and financial responsibility Council will not support an increase in coconut palm numbers.

The planting of any coconut palm on a street verge, within any park, reserve or land controlled or managed by Council is not permitted except as prescribed below.

Residents are encouraged to plant other vegetation as prescribed in General Policy No. 1:04:10 - Vegetation on Council Controlled Land: planting, removal and maintenance (*Provision 1. Vegetation planting and landscaping*).

Establishment of new coconut palm seedlings will only be allowed under the following circumstances:

- To replace a coconut palm that has been selected as a feature palm for retention and that palm has to be removed for one of the reasons cited above, (e.g. it becomes unsafe to climb or diseased); or
- Where a coconut palm that has been selected as a feature palm for retention has failed or been damaged as a result of a severe weather event; or



- A selected replacement for the purpose of aesthetic improvement (Note: Climbing spikes leave scars on palms and should not be used on palms that have not been previously spiked).

**4. Maintenance**

All palms selected for retention must be serviced twice per year as per relevant maintenance criteria. Where this is not possible or feasible due to budgetary constraints, practicability or due to classification as low risk of causing harm (i.e. low traffic/occupancy areas), Council will:

- Remove/Selectively thin out the palms; or
- Retain/Erect warning signs regarding the potential for falling nuts.

Where palms are assessed to be in low occupancy areas and not marked for removal in the near future, the area underneath the palms should be serviced to prevent the germination of fallen nuts (i.e. regular inspections carried out to remove fallen nuts and termination of any germinated nuts).

**5. Removal or retention**

All palms will be classified into management classes based on their location. The location relates to and informs the risk of harm or damage from coconuts and fronds, aesthetic value, value in the urban forest, damage to natural areas and cost benefits. For more details on the classifications please refer to Appendix 1 – International Society of Arboriculture Tree Risk Categorization & Appendix 2 – DSC Coconut Palm Assessment Tool.

Based on this assessment, the following management options will be used:

**Table 1: Management options based on location classification** (Refer: Appendix 2 – Douglas Shire Council Coconut Palm Assessment Tool)

Class	Location	Value	Risk	Actions
1	High occupancy / use – Beaches / Esplanades / Foreshores / Parks  Special interest streetscapes	High aesthetic / tourism	Traffic & pedestrians movements are “High”	Retain and maintain
2	Low occupancy / use – Beaches / Esplanades / Foreshores / Parks	Medium / Low aesthetic  Low urban forest value	Traffic & pedestrians movements are “Low”	Remove or Retain with signage
3	Streetscapes (excludes classes 1 & 2)	Low aesthetic / urban forest value	People – Moderate Property - High	Remove or Retain by Agreement
4	Littoral rainforest & coastal vine thickets (excludes classes 1 & 2)	Detrimental	People - Low Environment – High	Remove and rehabilitate

For those palms retained, their condition and density must be assessed in order to ascertain whether they should be retained as is, removed to benefit other palms or replaced as part of a site improvement regime.



**Table 2: Management options based on condition and density assessment (Refer: Appendix 2 – Douglas Shire Council Coconut Palm Assessment Tool)**

Assessment	Action – Retain / Remove / Replace
Healthy with good stability - spiked	Twice annual service
Healthy with good stability – not spiked	Twice annual service (No future spiking)
Defective, damaged, diseased, dangerous	Remove & replant (No future spiking)
Aesthetically poor due to spiking rot pockets	Replace with seedling (No future spiking)
Dense clumps or groupings	Consider thinning and replanting elsewhere

Where palms are to be removed, relevant public notification and/or consultation will be carried out in accordance with other tree removal procedures.

High risk palms removed for safety reasons will not require public consultation, only notification.

**6. Appeal against removal**

Where residents or businesses do not support the removal of coconut palms (excluding high risk palms) Council may consider entering into a coconut maintenance agreement (Appendix 3 - Coconut Palm maintenance agreement) where the property owner agrees to take over maintenance of the palm as per Council standards for coconut palm maintenance (at their own cost).

Even if a Coconut Palm Maintenance Agreement is in place, public liability remains with Council. Given this public liability responsibility, Council will perform twice annual inspections in accordance with the coconut maintenance schedules. Should Council find upon inspection that the palm is not being serviced as per the conditions set out in the agreement, Council will send the resident a reminder of their agreed maintenance responsibilities allowing a **two-week grace period** for maintenance to be carried out. If maintenance is not carried out by the resident within this timeframe, the palm will be removed as per the original plan.

Should the resident move away, Council will become aware of this fact upon the next inspection period when the new resident receives the notice to arrange the maintenance work.

Council will notify the new resident of the previous agreement and either renegotiate a maintenance agreement with the new owner or proceed to remove the coconut palm.

All palms retained in this fashion are to be registered on the Douglas Shire Council Coconut Database.

**7. Replacement**

New seedlings may be allowed to grow underneath coconut palms that have been selected for replacement (Refer to Table 2 & Appendix 2 – Douglas Shire Council Coconut Palm Assessment Tool). This can be carried out in any one of the following ways:

- Planting a seedling that has been germinated in a nursery;



- Placement of two to three viable nuts in the location of the new palm and as soon as germination and establishment occurs, the strongest plant is selected for retention and the others are removed; or
- Transplanting of a juvenile palm from another location as a more advanced specimen.

All replacement palms are to be recorded on the Douglas Shire Council Coconut Database.

All new and other palms that have not been spiked previously may not be spiked in the future. Over time this will allow for improved aesthetics of those palms selected for retention.









- a. Very Low
  - b. Low
  - c. Medium
  - d. High
5. For each failure mode, estimate consequences of failure(Matrix 1: Likelihood matrix):
- a. Unlikely
  - b. Somewhat likely
  - c. Likely
  - d. Very Likely
6. For each failure mode, estimate consequences of failure
- a. Negligible
  - b. Minor
  - c. Significant
  - d. Severe
7. For each failure mode, designate the risk (Matrix 2: Risk Rating Matrix)
- a. Low
  - b. Moderate
  - c. High
  - d. Extreme

**Matrix 1: Likelihood matrix**

Likelihood of Failure	Likelihood of Impacting Target			
	Very Low	Low	Medium	High
<b>Imminent</b>	Unlikely	Somewhat likely	Likely	Very Likely
<b>Probable</b>	Unlikely	Unlikely	Somewhat likely	Likely
<b>Possible</b>	Unlikely	Unlikely	Unlikely	Somewhat likely
<b>Improbable</b>	Unlikely	Unlikely	Unlikely	Unlikely

**Matrix 2: Risk Rating Matrix**

Likelihood of Failure & Impact	Consequences of Failure			
	Negligible	Minor	Significant	Severe
<b>Very Likely</b>	Low	Moderate	High	Extreme
<b>Likely</b>	Low	Moderate	High	High
<b>Somewhat likely</b>	Low	Low	Moderate	Moderate
<b>Unlikely</b>	Low	Low	Low	Low



## Explanation of terms

### Likelihood of Failure

**Improbable:** The tree or branch is not likely to fail during normal weather conditions and may not fail in many severe weather conditions within the specified time frame.

**Possible:** Failure could occur, but is unlikely during normal weather conditions within the specified time frame.

**Probable:** Failure may be expected under normal weather conditions within the specified time frame.

**Imminent:** Failure has started or is most likely to occur in the near future, even if there is no significant wind or increased load. This is an infrequent occurrence for a risk assessor to encounter and may require immediate action to protect people from harm.

### Likelihood of Impacting a Target

**Very Low:** The likelihood of the failed tree or part impacting the specified target is remote. This is the case in a rarely used site fully exposed to the assessed tree (rare occupancy, no protection) or an occasionally used site that is partially protected by trees or structures (occasional occupancy, moderate protection).

**Low:** It is not likely that the failed tree or part will impact the target. This is the case in an occasionally used area that is fully exposed to the assessed tree, a frequently used area that is partially exposed to the assessed tree, or a constant target that is well protected from the assessed tree.

**Medium:** The failed tree or part is as likely to impact the target as not. This is the case in a frequently used area that is fully exposed on one side to the assessed tree or a constantly occupied area that is partially protected from the assessed tree. Examples include a suburban street next to the assessed street tree or a house that is partially protected from the assessed tree by an intervening tree.

**High:** The failed tree or part will most likely impact the target. This is the case when a fixed target is fully exposed to the likely failure (constant occupancy, no protection) or the likely failure is over a high-use road or walkway with an adjacent street tree (frequent occupancy).

### Occupancy Rates

**Constant occupancy:** A target is present at nearly all times, 24 hours a day, 7 days a week

**Frequent occupancy:** The target zone is occupied for a large portion of a day or week

**Occasional occupancy:** The target Zone is occupied by people or targets infrequently or irregularly.



**Rare occupancy:** The target zone is not commonly used by people.

### Consequences of Failure

Consequences of failure and impact are categorized based on the value of the target and harm that may be done to it.

The consequences of failure and impact also depend, in part, on the tree or tree part size, fall characteristics, fall distance, and any factors that may protect the risk target from harm.

The consequences of failure can be categorized using the following guidelines:

**Negligible:** Consequences that involve low-value property damage or disruption that can be replaced or repaired; they do not involve personal injury. Examples of negligible consequences include:

- A small branch striking a fence
- A medium sized branch striking a shrub bed
- A large part striking a structure and causing low monetary damage
- Disruption of power to landscape lighting

**Minor:** Consequences that involve low to moderate property damage, small disruptions to traffic or a communication utility, or very minor injury. Examples of minor consequences include:

- A small branch striking a house roof from a high height
- A medium-sized branch striking a deck from a moderate height
- A large part striking a structure and causing moderate monetary damage
- Short-term disruption of power at a service drop to a house
- Temporary disruption of traffic on a neighbourhood street

**Significant:** Consequences that involve property damage of moderate to high value, considerable disruption, or personal injury. Examples of significant consequences include:

- A medium-sized part striking an unoccupied new vehicle from a moderate or high height.
- A large part striking a structure and resulting in high monetary damage
- Disruption of distribution primary of secondary voltage power lines, including individual services and street-lighting circuits
- Disruption of traffic on a secondary street

**Severe:** Consequences that could involve serious injury or death, damage to high-value property, or disruption of important activities. Examples of severe consequences include:

- Injury to a person that may result in hospitalization
- A medium-sized part striking an occupied vehicle
- A large part striking an occupied house
- Serious disruption of high-voltage distribution and transmission power line
- Disruption of arterial traffic or motorways

**Example:** The consequences of a medium-sized dead branch striking a house would be *minor*, the consequences of that branch striking an unoccupied new car would be *significant*, and the consequences of it impacting the driver would be *severe*.



The consequences are combined with the likelihood of failure and impact to determine the risk ratings.

### Levels of Risk

**Extreme:** Failure is imminent with a high likelihood of impacting the target and the consequences of the failure are severe. The assessor should recommend that mitigation measures be taken as soon as possible. In some cases, this may mean immediate restriction of access to the target zone to avoid injury to people.

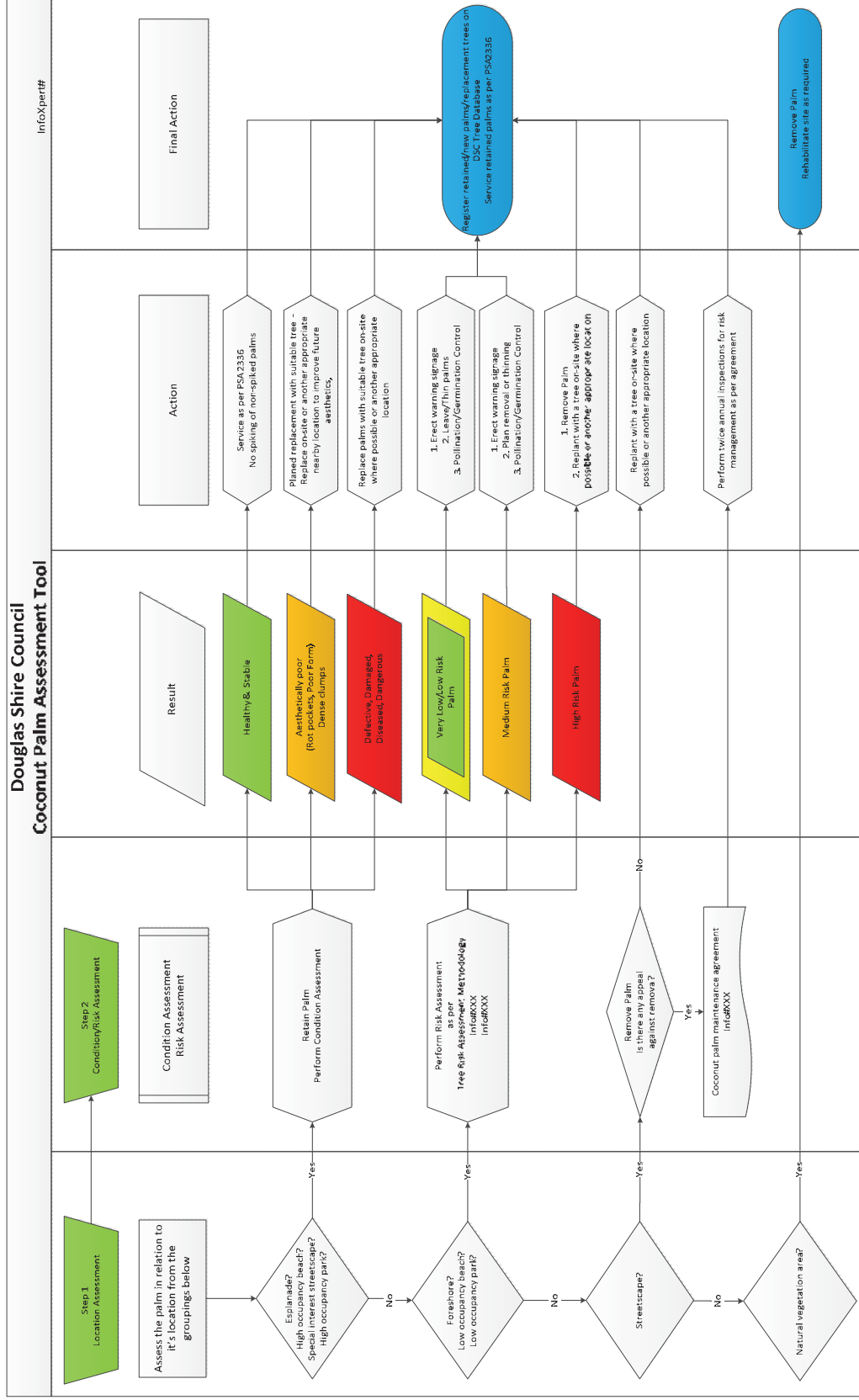
**High:** Consequences are significant and the likelihood is very likely or likely, or consequences are severe and likelihood is likely. The assessor should recommend mitigation matters to be taken.

**Moderate:** Consequences are minor and likelihood is very likely, or likelihood is somewhat likely and consequences are significant or severe. The assessor may recommend mitigation and/or retaining and monitoring.

**Low:** Consequences are negligible and likelihood is unlikely, or consequences are minor and likelihood is somewhat likely. Mitigation or maintenance measures may be appropriate for some trees, but the priority for action is low. Assessors may recommend retaining and monitoring these trees, as well as mitigation that does not involve the removal of the tree.



## Appendix 2 – Douglas Shire Council Coconut Palm assessment tool



### Appendix 3 - Coconut Palm Maintenance Agreement

-----

**ENQUIRIES:** Enter Enquiry Person  
**PHONE:** Enter Enquiry Phone  
**YOUR REF:** Enter "Your Reference"  
**OUR REF:** Document Number

Enter Date DD Month YYYY

Enter Address

Dear Enter Name

**RE: Coconut Palm Maintenance Agreement for (Insert Address)**

Douglas Shire Council places great value on street and park trees (including palms) as an asset to the region for a range of reasons such as aesthetics, public amenity and shading.

Some of Council's responsibilities as the custodian of trees on public land is ensuring public safety and preventing damage to infrastructure, services and property.

As part of Council's risk mitigation measures under Council General Policy # (to be confirmed), coconut palms (*Cocos nucifera*) that pose an unacceptable risk of injury or damage to property should be removed and replaced with trees in appropriate locations.

The coconut palm on the Council verge in front of your property at (insert address) has been assessed as a high risk tree. In consideration of individual ratepayers' preferences, Council has made provision for you to take over maintenance of the palms as prescribed below.

In this instance it has been noted that you wish to appeal against the removal of this coconut palm and agree to take over maintenance of the palm.

Council must inform you that if the Coconut Palm is to be retained it will be monitored and you will be required to maintain it to the satisfaction of the General Manager Operations and subject to the following conditions:

1. The Coconut palm/s must be de-nutted and de-fronded twice per year or upon Council request and to Council standards (to be provided to you prior to signing of this agreement).
2. If upon inspection Council finds that the maintenance of the palms is not being performed or is not up to standard, you will be notified in writing to rectify the situation within two weeks. Should you fail to rectify the situation, Council retains the right to remove the palm and replant it with a suitable street tree.





(Address) .....

(Location of palm/s).....

I have read the conditions set out as per the letter above and confirm that I agree to maintain the coconut palm/s as per the conditions in order to retain it/them.

Signed

\_\_\_\_\_  
(Resident's Name)

\_\_\_\_\_  
(Date)

◆◆◆◆◆

**This policy is to remain in force until otherwise determined by Council.**

**General Manager Responsible for Review:    General Manager Operations**

**ADOPTED:** [Click here to enter a date.](#)

**DUE FOR REVISION:** [Click here to enter a date.](#)

**REVOKED/SUPERSEDED:** [Click here to enter a date.](#)

## Appendix 4: All Districts coconut location Distribution / Classification maps

### Southern Area – Wangetti Beach



Southern Area –Turtle Cove



Southern Area – Pretty Beach



Southern Area – Oak Beach



### Southern Area – Oak Beach – Reynolds Road



Southern Area – Oak Beach – Northern end (Thala Beach)





Southern Area – Pebbly Beach



### Southern Area – Mowbray Valley – Spring Creek Road





### Port Douglas Area – Craiglie



### Port Douglas Area – Four Mile



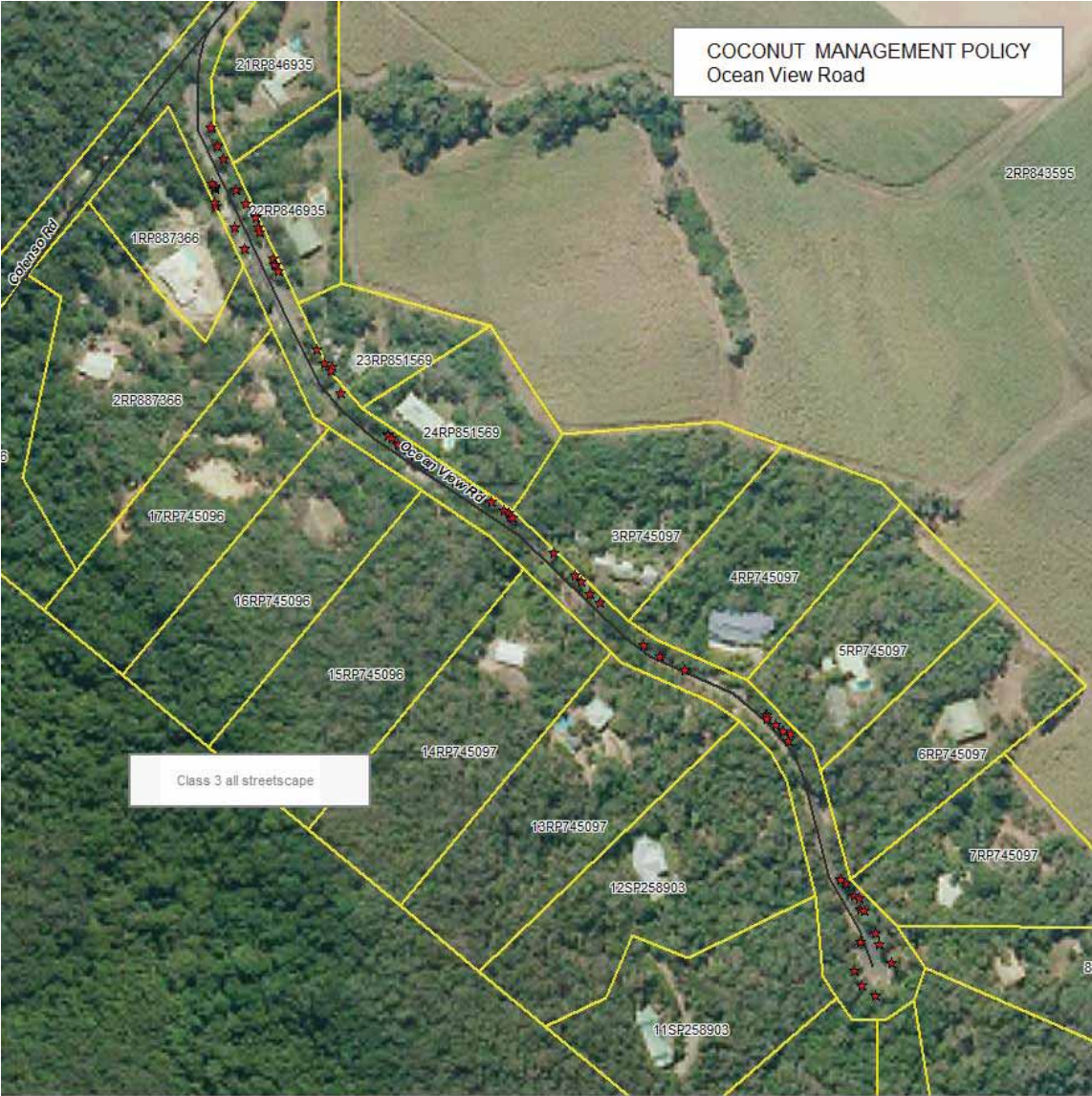
### Port Douglas Area- Four Mile Beach



### Port Douglas Area – Island Point



Central Area – Ocean View Road





### Central Area – Captain Cook Hwy – South Mossman





Central Area – Finlayvale Road





### Central Area – Cooya Beach (Northern End)



Central Area – North Mossman



### Central Area – Newell Beach



### Central Area – Newell Beach – Saltwater Creek to Rocky Point





### Central Area – Bamboo Creek Road



Central Area – Rocky Point to New Wonga





### Central Area – Wonga Beach- Vixies Road to Helen’s Creek



**Central Area – Wonga beach – Helen’s Creek to Daintree River**





### Northern Area – Cape Kimberley



### Northern Area – Cow Bay Beach





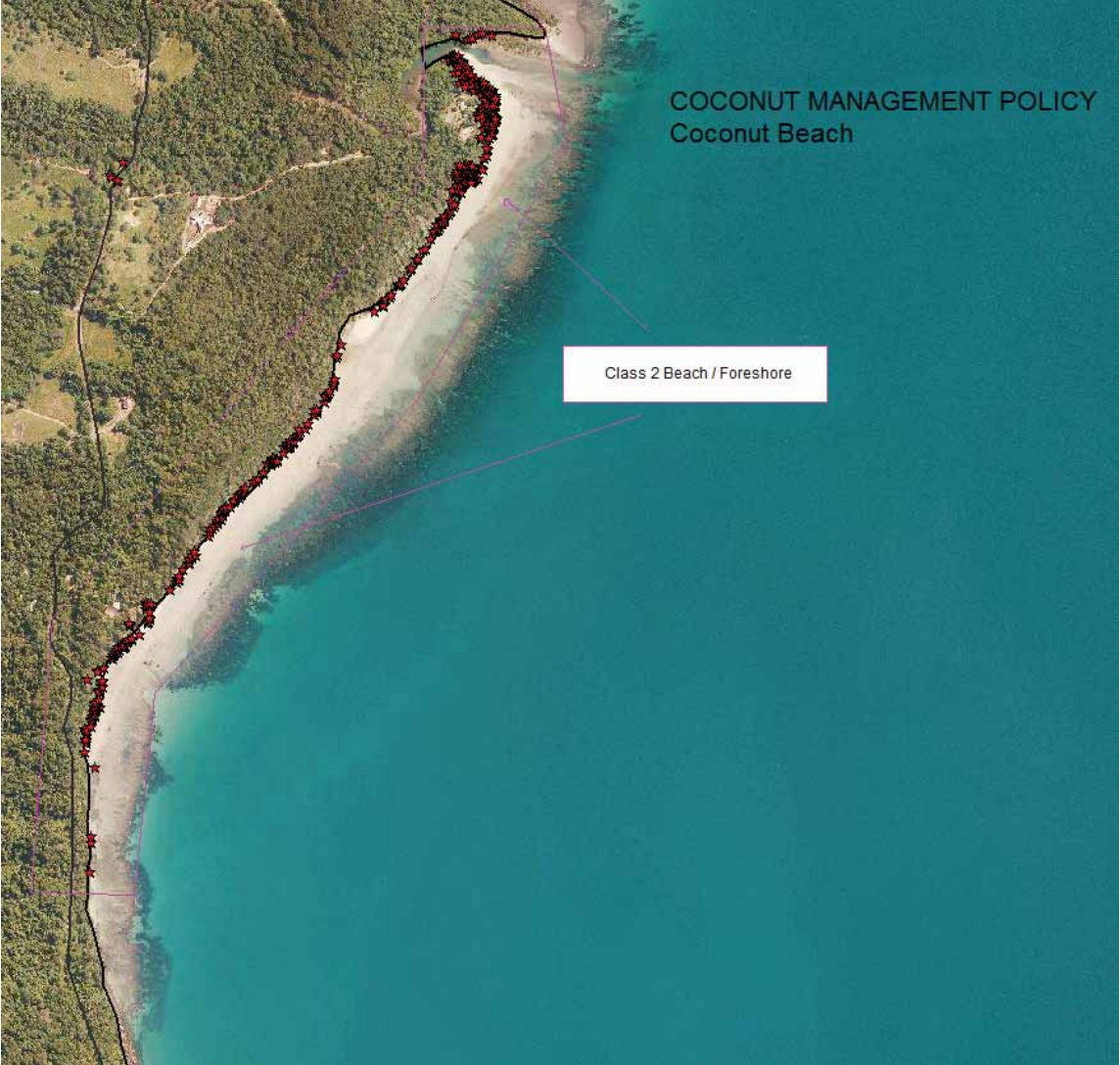
Northern Area – Thorntons Beach



Northern Area – Noah’s Beach



Northern Area – Coconut Beach



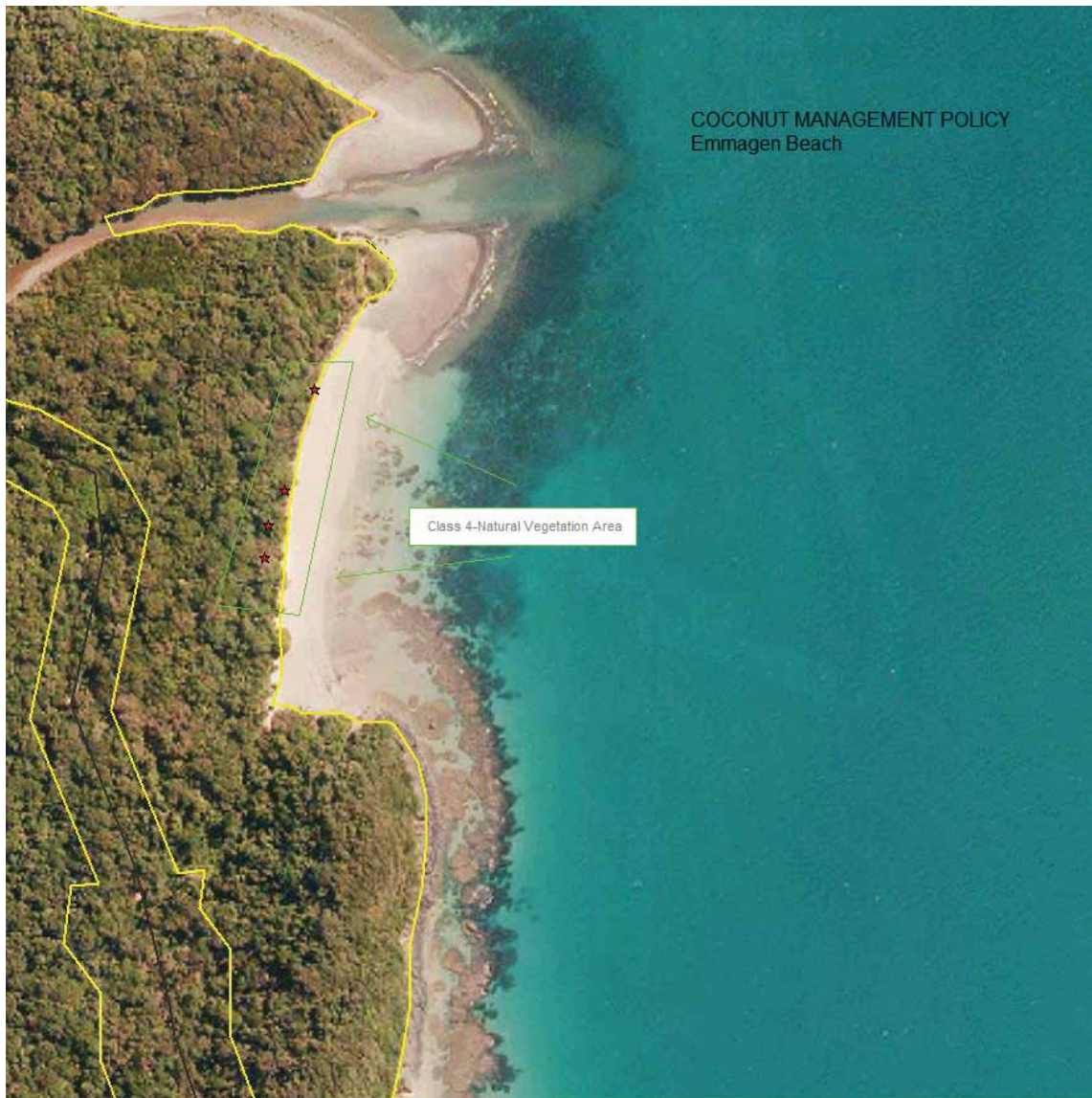
Northern Area – Myall Beach



Northern Area – Cape Tribulation Beach



### Northern Area – Emmagen Beach



Northern Area – South Cowie Beach



### Northern Area – Cowie Beach





Northern Area – Streetscape Cape Tribulation





**COCONUT MANAGEMENT ACTION PLAN**  
**2015/2016**





**Table 1 - Coconut De-nutting Program**

Area	Address	Location	No. of trees
<b>Port Douglas</b>			
1	Capt Cook Highway	Near Paws & Claws	3
2	Nautilus St	Centre Island between Mitre and Reef Sts	33
3	Cowrie/Helmet Sts	Foreshore area between Cowrie & Helmet Sts	76
4	Barrier St	Cnr with Tropic Court.	1
5	Barrier St	Four Mile Park including Outrigger access northern side	20
6	Pecton Ave	Footpath	4
7	Triton Cres	Footpath	1
8	Little Reef St	East side	11
9	Port Douglas Road	Outside Medical Centre on cnr with Barrier St	3
10	Solander Blvd	Bruno Reidwig Park	54
11	Davidson St Service Road	Port to Mahogany includes 2 south of Fire Station	15
12	Ti Tree St	Cnr with Mahogany and in Ti tree St	5
13	Grant St	Rotary Park	2
14	Warner St	Between Grant & Wharf Sts	1
15	Wharf St	Over path Adjacent to Coast Guard Only	1
16	Wharf St	Rex Smeal Park includes Little Cove	37
17	Wharf St	Market Park	85
18	Wharf St	Market Park Carpark	5
19	Dixie St	Park next to Sugar Wharf	33
20	Ashford Ave	Park next to Boatramp	3
21	Ashford Ave	Boat ramp next to Combines Club	5
22	Macrossan St	Jalun Park	34
23	Macrossan St	Davidson St to Jalun Park	18
24	Port Douglas Esplanade	Macrossan to Mowbray Sts including near Toilets	81
25	Garrick St	Macrossan to Sand St	28
26	Garrick St	Jalunbu Park	6
27	Garrick St	Southern end beach access	5
28	Sand St	Tide to Beryl Sts	9
29	Sand St	Southern Beach access	1
30	Davidson St	Reynolds Park near CWA Hall	6
31	Beryl St	Central Plaza	9
32	Davidson St	Mowbray to Macrossan Sts	9
33	Port Douglas Road	In front of QT	24
<b>Oak Beach</b>			
34	Oak Beach Rd	Northern Car park beach access	10
35	Oak Beach Rd	Pathway between Nos. 15 & 17	14
<b>Killaloe</b>	<b>Killaloe</b>		
36	Oceanview Rd		40
<b>Cooya Beach</b>			
	Bougainvillea St	Foreshore area / Esplanade	305
	Albatross Cl	On corner in front of flats	3



Area	Address	Location	No. of trees
<b>Newell Beach</b>			
	Esplanade	Mown area of foreshore	144
	Rankin St	Boat ramp car park	9
	Marine Pde	Outside number 9 Executive Retreat	1
<b>Rocky Point</b>			
	Daintree Rd	Park opposite Rocky Point School Road	8
	Daintree Rd	Boat ramp car park	1
<b>Wonga Beach</b>			
	New Wonga Esplanade	Foreshore area	170
	Old Wonga Esplanade	Foreshore area	95
	Oleander Drv	Opposite Yarun Cl	2
	Oleander Drv	Corner of Oleander Drv and Marlin Drv	2
<b>Daintree Ferry</b>			
	Southern ramp	Both sides of ramp	9
	Northern ramp	Near boat loading bay	3
<b>Cape Tribulation</b>			
	Cape Tribulation Rd	Beach access old Coconut Beach Resort	2
	Cape Tribulation Rd	Southern Bank of Thompson Creek causeway	3
	Cape Tribulation Rd	In front of Whet Restaurant	3
<b>Total</b>			<b>1452</b>

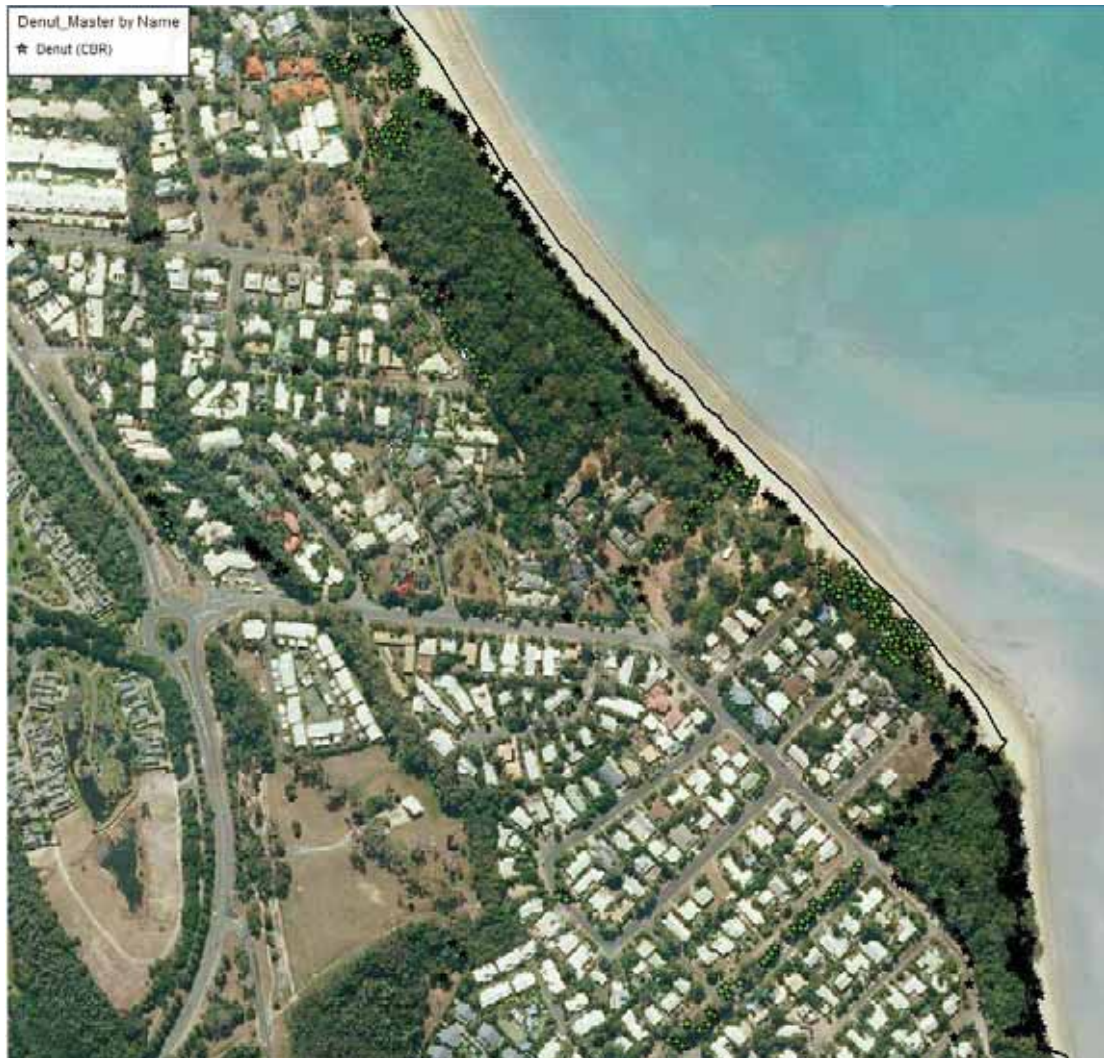


**FIGURE 1 – Area map locations of Coconuts to be de-nutted**

**Map 1 - Port Douglas CBD**



## Map 2 - Four Mile Area





### Map 3 - Oak Beach

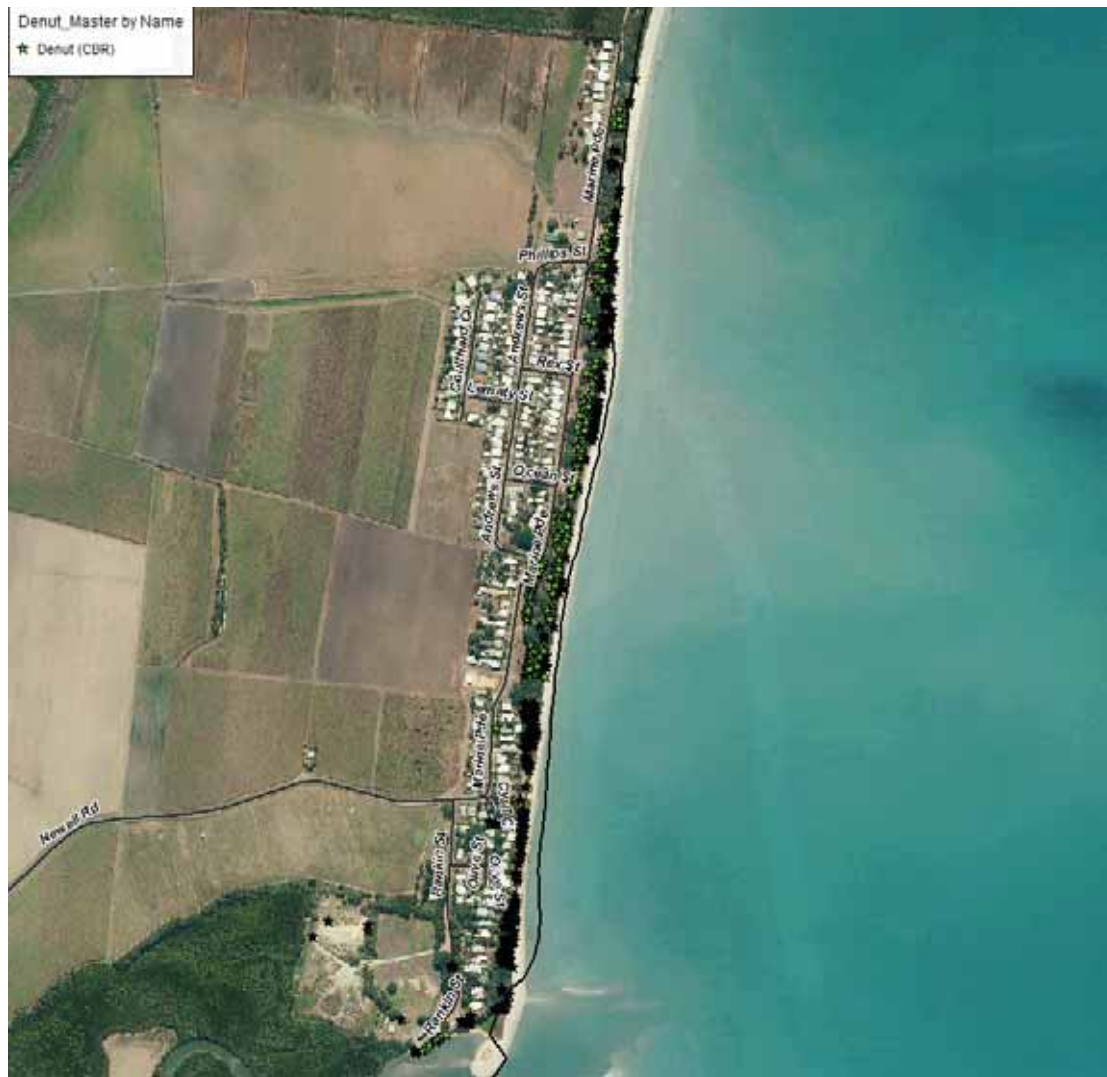


## Map 4 - Killaloe Area - Ocean View Road





## Map 6 - Newell Beach



## Map 7- Wonga Beach



## Map 8 - Rocky Point





## Map 10 - Cape Tribulation









**Figure 3 – Termite infested coconut Old Wonga Esplanade**



**Figure 4 - Vine covered coconut unsafe to climb Old Wonga Esplanade**



**Figure 5 – Rotten base of coconut Old Wonga Esplanade**



**Figure 6 - Coconuts overhanging powerlines Old Wonga Esplanade**



## FIGURE 2 – Location maps of coconuts to be removed

### Map 11- Wonga Beach Area -Gardenia Close and Janbal Street





### Map 13 Wonga Beach Area-Esplanade



Map 14 - Port Douglas Area - Murphy Street





The priority location is at the southern end of Newell beach. Landowners will receive a mail out from council with the aim of formalising coconut maintenance arrangements between the parties. Many landholders at this location currently already pay to maintain the coconut palms. Formalising this arrangement confirms the palms will be retained and registered in the database.





Map 15- Newell Beach Area





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# Revegetation Plan

## Four Mile Beach Esplanade

2015

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









**Figure 2** Stumps of mature native trees illegally cleared.



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









**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.













## Define the project

The revegetation plan consisted of removing approximately 50 coconut palms and replanting the site with 3,000 native plants. Removal of the palms was critical to the success of the revegetation plan as the density of the palms was such that any understory species could not benefit from solar nutrition or rainfall. In addition, large palm fronds or coconuts falling on the new plants could damage them and significantly hamper their chance of survival and growth. In revegetation exercises of this nature the initial planting numbers appear large but this is to allow for some natural attrition.

One of the considerations given to the timing of the revegetation works was the impact on the tourism sector and environmental conditions. The coconut removal and replanting was therefore scheduled to be undertaken during the wet season between late January and late March, as this is a low tourism period and the wet conditions would enhance planting growth. Based on the revegetation project undertaken at Rocky Point, it would be expected that within twelve months the new plantings will have a significant positive visual impact.

## Engagement goals

Douglas Shire Council must provide sufficient information to all stakeholders regarding the proposed project so that the scope of the proposal is fully comprehended and the advantages and disadvantages understood.

## Key project messages

- To provide timely, consistent and clear information to all stakeholders regarding the project.
- To report outcomes of consultation and stakeholder engagement.
- The key message and benefits of the project are –

## Area of interest

The subject site (Lot 14 on SP160319) is a **Reserve for Beach Protection and Coastal Management** purposes managed by Council on the State's behalf as well as incorporating the Esplanade on the southern end of Four Mile Beach. It is also adjacent to Four Mile Park and the Esplanade on the southern end of Four Mile Beach, Port Douglas. The Reserve is positioned between the foreshore and private residences that form part of The Beach Front (The Sands), Port Douglas.

## Identifying the stakeholders

### Internal stakeholders

- Paul Hoyer –General Manager Operations



- Michael Kriedemann – Manager Infrastructure
- Peter Logan – Coordinator Open Spaces
- Sean Cooper– Team Leader Open Spaces Port Douglas
- Greg McLean – Media and Communications Officer
- DSC Frontline Services

### Mayor and Councillors

- Mayor Julia Leu
- Cr Abigail Noli
- Cr David Carey
- Cr Terry Melchert
- Cr Bruce Clarke

### External stakeholders

- Residents of Lot 14
- Broader Community
- Douglas Shire Sustainability Group
- Port Douglas Tourism
- Film Industry Association
- Department Of Environment Protection & Heritage
- Terrain NRM
- TO's

### Level of engagement

This campaign will **inform/educate**.

**Inform / educate** – to provide balanced and objective information on Council policies, plans, strategies and decisions. The outcome is an informed community which is therefore better able to contribute to Council participation processes. The success of this project will also require behavioral change by surrounding residents.

### Techniques – launch consultation April 2016

Technique	Level of engagement	Description	Key Messages	Stakeholder Audience	Timeframe	Responsibility
Letter drop	Inform / educate	Letter & fact sheet to key user groups.	Brief outline of project.	As per stakeholder list	Commencement of public consultation phase	DSC –project manager
Advertising – council column in Mossman Gazette	inform/educate	Outline project.	Brief outline of project – fact sheet	General Pt Douglas community	Commencement of consultation phase	DSC - project manager
DSC Website	Inform / educate	Webpage outlining project – fact sheet	Brief outline of project – fact sheet	All users	Consultation phase	DSC - project manager
Media Release / Council Column	Inform / educate	Announcement	Brief outline of project – fact sheet	General Port Douglas community	After consultation phase	DSC - project manager





### **Available resources**

CEO Unit - Letter & DSC website.  
CEO Unit - Advertising - Council Column in Mossman gazette.  
Press release for key milestones (completed project)

### **Budget allocation**

No separate budget allocation  
Advertising: Mossman Gazette. An advertisement to run in both publications at start of PC process. Approximately \$600.  
Letter drop: Incorporated into branch overheads

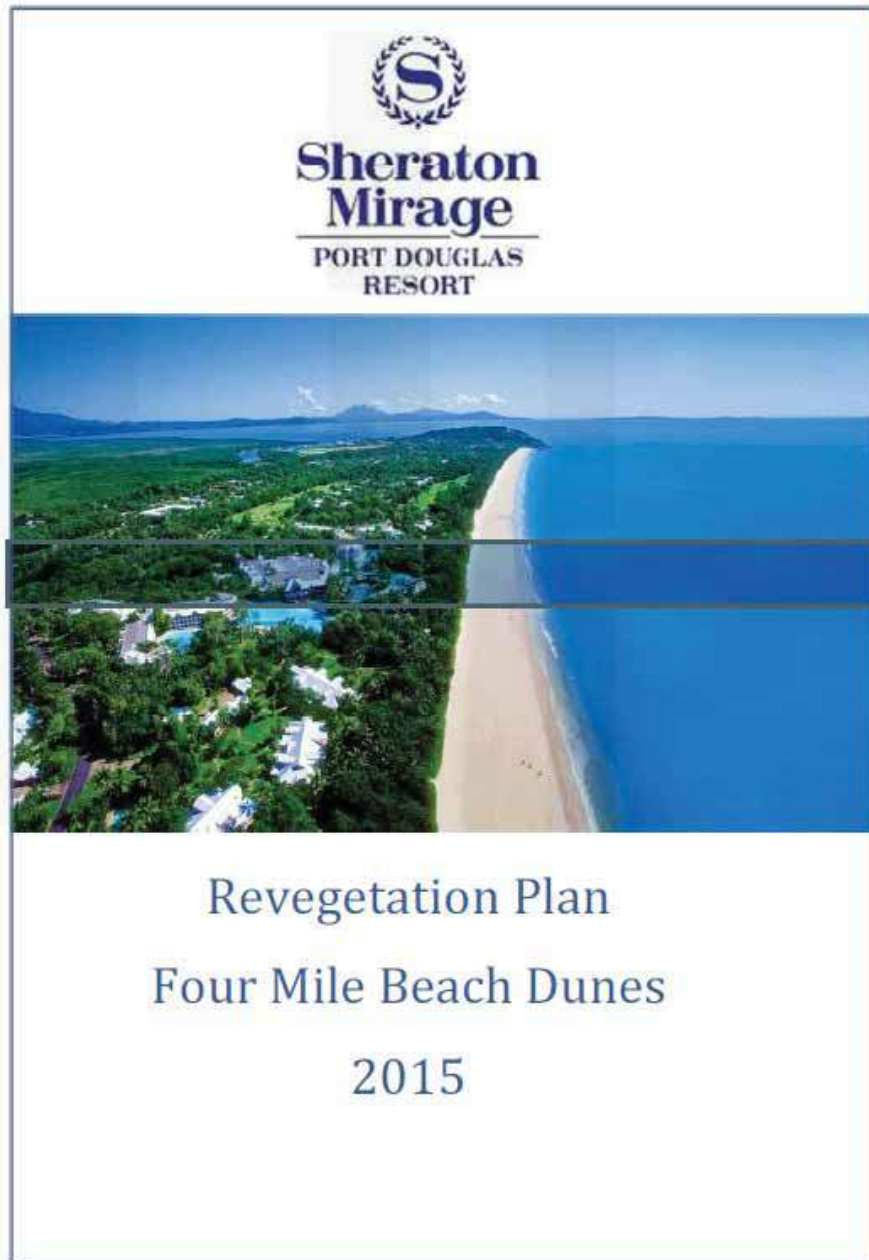
### **Monitoring, feedback & evaluation**

Feedback from residents and ratepayers throughout the consultation phase will be monitored, collated and reported.



APPENDIX 3 – REVEGETATION PLAN SHERATON MIRAGE

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**Table of contents**

Introduction ..... 2

Purpose ..... 2

Site Location ..... 2

Sheraton Mirage Port Douglas Resort – Dune Area ..... 2

Scope of Works ..... 3

    Stage 1 – Clean-up of waste vegetation ..... 3

    Stage 2 – Revegetation ..... 4

    Stage 3 – Coconut Management ..... 5

Ongoing Management ..... 5

Desired Outcome ..... 5

Appendix 1

    List of suitable plant species for Four Mile Beach dune area.

**Sheraton**





**Introduction**

This Revegetation Plan is for the land located directly adjacent to the Sheraton Mirage Port Douglas Resort. This includes the foreshore land directly east of the Resort as indicated in Figure 1. This area has been divided into three separate sections.



Section 1                      Section 2                      Section 3

*Figure 1: The three sections of foreshore and dunal area to be covered in the scope of works*

**Purpose**

This document addresses the legal clearing of invasive pest plant species that require ongoing treatment to avoid the weeds spreading into adjacent remnant vegetation. The revegetation of the area will be in line with the Douglas Shire Council recommendations and provision of appropriate plant stock.

**Site Location**

As stated and indicated above, the site has been divided into 3 sections which are all covered by this revegetation plan so as to keep the natural continuous appearance of the foreshore.

The site is owned by Fullmarr Hotels NQ Pty Ltd trading as Sheraton Mirage Port Douglas Resort and referred to in the Deed of Grant of Land First Schedule as Lot 133 on Plan SR819 in the County of Solander Parish of Salisbury and Town of Port Douglas.

**Sheraton**





**Sheraton Mirage Port Douglas Resort - Dune Area**

Sheraton Mirage Port Douglas Resort plans to restore the dune area adjoining Four Mile Beach to enhance the beach as well as the Resort grounds. The works will involve clearing out all unsightly, fallen leaves, branches and fronds.

The area involved is along the dune extending from the Wedding Chapel pathway through to the beach access pathway at the northern end of the Resort side of the northern Mirage Villa boundary.

The works will require some removal of branches and unwanted vegetation as identified by the Douglas Shire Council during discussions on 13 August 2015 and as outlined in Simon Clarke’s letter of 21 August 2015. The area will be completed in the 3 suggested stages and Council is to provide restocking vegetation with plants suitable to regenerate the dune in line with the Coastal Management Plan.

It is proposed that the Sheraton Mirage Port Douglas Resort grounds team will commence the required works once agreement is reached. Work will be carried out in stages and distinct sections so as to limit the impact of the program and provide a gradual but timely improvement to the foreshore and dune area.

**Scope of Works**

Stage 1. - Clean-up of waste vegetation.

From discussions with local council representatives it has been recommended that the work to clean out the abundance of waste vegetation from in the dune area is to be completed in three sections.



*Figure 2 – Southern beach access*

**Sheraton**





*Fig 3 Central beach access*



*Figure 4 Northern beach access*

Completing the works in three sections will limit the overall impact on the area and allow the Council to advise on the revegetation program and work to be completed before moving to the next section.

Clearing the existing access pathways to the beach is also part of these works.

Items of vegetation to be cleaned out include the removal of all fallen leaves, fronds, dead vegetation, coconuts fruit and dangerous and/or unstable branches together with unwanted vegetation as identified on site with Council.

**Sheraton**





*Figure 5. Fallen fronds on dunes behind Four Mile Beach*

**Stage 2 – Revegetation**

Once the clearing of each section has been completed, the Resort will request involvement of the Douglas Shire Council to inspect the site and determine the appropriate ground cover required for the long term sustainability of the dune area whilst gaining the best possibly aesthetics from the Resort side.

**Stage 3 - Coconut Management**

The Resort will consider a Coconut Management Plan. This plan will come into effect once the revegetated areas are completed, in line with Council’s research and guidelines.

**Ongoing Management**

The Resort grounds team will remove fallen fronds and invasive pest plant species on a regular basis. The general clearing of rubbish from the area will be undertaken on as needed by Resort staff. This continual maintenance of the dunal area will allow the indigenous plantings to take hold and flourish.

**Desired Outcome**

To maintain the tropical ambiance of Port Douglas in general and the Resort and Four Mile Beach in particular, it is intended to retain all healthy coconut trees. The native vegetation will survive with the careful management of this sensitive area.

The future removal of damaged and/or dangerous coconut trees will only be done following consultation with Douglas Shire Council.

**Sheraton**





It is the intention of the Resort owners and management team to return the dune area of Four Mile Beach to a safe, picturesque, environmentally friendly and natural state.

**Sheraton**







Appendix 1.

Copy for information only as noted by Cairns Regional Council Revegetation Plan, Four Mile Beach Esplanade 2013.

List of suitable plant species for Four Mile Beach dune area

Botanical Name	Common Name
<i>Acacia crassicaarpa</i>	Northern golden wattle
<i>Acacia mangium</i>	Broadleaf salwood
<i>Acacia oraria</i>	Coastal wattle
<i>Acmena hemilampra</i>	Blush satinash
<i>Aglaiia elaeagnoidea</i>	Costal boodyarra
<i>Alphitonia petrei</i>	Sarsaparilla
<i>Alyxia spicata</i>	Chain fruit
<i>Atractocarpus fitzalanii</i>	Brown gardenia
<i>Barringtonia calyptate</i>	Mango pine
<i>Beilschmiedia obtusifolia</i>	Blush walnut
<i>Blepharocarya involucrigera</i>	Rose butternut
<i>Brachychiton acerifolius</i>	Illawarra flame tree
<i>Breynia cemeua</i>	Fart bush
<i>Calophyllum inophyllum</i>	Beach calophyllum
<i>Calophyllum sil</i>	Blush touriga
<i>Canarium vitiense</i>	Canarium
<i>Carallia brachiata</i>	Corky bark, Fresh water mangrove
<i>Casuarina equisetifolia</i>	Beach casuarina
<i>Cerbera manghas</i>	Dog bane
<i>Chionanthus ramiflora</i>	Native olive
<i>Clerodendrum longiflorum</i>	Long flowered clerodendrum
<i>Colubrina asiatica</i>	Beach berry bush
<i>Cordia subcordata</i>	Sea trumpet
<i>Crinum pedunculatum</i>	Beach lily, Swamp lily
<i>Cupaniopsis anacardioides</i>	Beach Tamarind
<i>Deplanchea tetraphylla</i>	Golden bouquet tree
<i>Dillenia alata</i>	Red beech
<i>Diospyros compacta</i>	Australian ebony
<i>Dodonea viscosa</i>	Hop bush
<i>Elaeodendron melanocarpum</i>	False olive
<i>Eucalyptus platyphylla</i>	Ghost gum
<i>Euroschinus falcate</i>	Pink poplar
<i>Ficus benjamina</i>	Weeping fig
<i>Ficus drupacea</i>	Drupe fig
<i>Ficus macrocarpa</i>	Small fruited fig
<i>Ficus opposita</i>	Sandpaper fig
<i>Ficus racemosa</i>	Cluster fig
<i>Ganophyllum falcatum</i>	Daintree hickory
<i>Glochidion harveyanum</i>	Harvey's buttonwood
<i>Glochidion philippicum</i>	Daintree cheese tree
<i>Gmelina dalrympleana</i>	White beech

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Botanical Name	Common Name
<i>Gomphandra Australiana</i>	Buff beech
<i>Guioa acutifolia</i>	Glossy tamarind
<i>Haemodorum coccineum</i>	Blood root
<i>Hibiscus tiliaceus</i>	Coast cottonwood
<i>Intsia bijuga</i>	Kwila
<i>Jagera pseudorhus</i>	Foambark
<i>Livistona muelleri</i>	Northern cabbage tree palm
<i>Lophostemon suaveolens</i>	Swamp mahogany, swamp box
<i>Macaranga tanarius</i>	Kamala, Blush macaranga
<i>Mallotus philippensis</i>	Red kamala
<i>Maytenus fasciculiflora</i>	Orange bark
<i>Melaleuca leucadendra</i>	Weeping paperbark
<i>Melaleuca viridiflora</i>	Broad leaved paperbark
<i>Melia azederach</i>	White cedar
<i>Micromelum minutum</i>	Lime berry
<i>Milusa brahei</i>	Raspberry jelly plant
<i>Millettia pinnata</i>	Pongamia tree
<i>Mimusops elengi</i>	Red coonoo
<i>Mischocarpus exangulatus</i>	Red bell mischocarp
<i>Morinda citrifolia</i>	Rotten cheese fruit
<i>Pandanus tectorius</i>	Beach pandan
<i>Pittosporum ferrugineum</i>	Rusty pittosporum
<i>Planchonia careya</i>	Cocky apple
<i>Pleogyynium timorensis</i>	Burdekin plum
<i>Polyscias elegans</i>	Celerywood
<i>Pouteria chartacea</i>	Thin leaved coonoo
<i>Pouteria obovata</i>	Yellow boxwooe
<i>Premna serratifolia</i>	Coastal premna
<i>Ptychosprma elegans</i>	Solitaire palm
<i>Phus taitensis</i>	Sumac
<i>Scaevola taccada</i>	Beach lettuce
<i>Schefflera actinophylla</i>	Umbrella tree
<i>Scolopia braunii</i>	Brown birch
<i>Sterculia quadrifida</i>	Peanut tree
<i>Syzigium angophoroides</i>	Yarrabah satinash
<i>Tarenna dallachiana</i>	Tree ixora
<i>Terminalia arenicola</i>	Brown damson
<i>Terminalia catappa</i>	Indian almond
<i>Terminalia macrocarpa</i>	Damson plum
<i>Terminalia muelleri</i>	Mueller's damson
<i>Thespesia populneoides</i>	Tulip tree
<i>Timonium timon</i>	False fig

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