

**A discussion document to refine and focus the process**

An Integrated Vegetation Management Plan for  
the Public Open Spaces of Coochiemudlo Island



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## 1. Introduction - a Vision for Coochie

Why plan?

The Maori people call it *Whakapapa*. The Australian Aboriginal peoples call it *The Dreaming*. A rich, informed and meaningful life is inevitably underpinned by how the past, present and future meld into an understanding of our place in the scheme of things.

Reflection is required to gain an understanding about who we are and where we have come from. It is demonstrable foolishness not to learn from the lessons of the past and to apply them to today. Couple that with the best available contemporary knowledge, and the view of the future is less of a mystery, because that view can be based upon reliable and defensible points of reference.

And, we can dream: Our vision is what creates our future. If that vision is destined to affect our natural world and our fellows, we then have a responsibility to make it an informed vision; random and unjustifiable endeavour breeds chaos. That's why we turn to planning.

PLANNING is the key to the door that opens the way to achieving our vision. It is the opposite direction to randomness and chaos. And so to applied-planning; to plan for a sustainable future for Coochiemudlo Island, to take well considered steps towards achieving a vision which can benefit those with an inherent stake-holding in Coochie.

This particular strand of that process, the development of an Integrated Weed Management Plan for the Public Open Spaces of Coochiemudlo Island must be an element of that bigger picture, part of a comprehensive strategic plan for managing Coochie's vegetation and overall future. That plan must be founded upon a desirable and defensible vision, which can be a constant point of

It is suggested that the overall big picture VISION for Coochie should be:

**A healthy balanced natural world, people with a quality sustainable lifestyle, which is underpinned by socio-cultural equitably.**

That vision is in total alignment with the existing "Vision for Coochie", which was developed in November 2008:

*Living in harmony with Nature and each other*

## 2. Stakeholder Groups

Fortunately, our pathway to the 21st Century has provided us with hard-won knowledge derived from a view of well documented failures, where decision-making simply focused on balance-sheet outcomes. Today, defensible planning must be anchored to Quadruple Bottom Line (QBL) determinates (<http://www.sustainable-communities.org.au/home/sustainability/quadruple-bottom-line> - substitute 'cultural' for 'spiritual') which can equip the planning process with a suite of information that provides an integrated and balanced picture. These determinants are based upon

environmental, cultural, social and economic parameters. For the purposes of this discussion paper, it is intended to identify Coochie's stakeholder groups, which are pivotal to this process, through the lens of the QBL framework, as follows:

### 1. Environmental Stakeholders

This group is the group of primary importance to the whole viable future of Coochie, across the board. Be assured, and scientific evidence abounds, that without an understanding of and a deference and commitment to this group, the quality future of all of Coochie's other stakeholder groups will be irrevocably compromised. **This group comprises Coochie's natural biota**, the living organisms - from micro-organisms to whales - that inhabit and rely upon host Coochie's inter-connected terrestrial, intertidal and freshwater drainage network systems.

### 2. Cultural Stakeholders

This group carries the ancient wisdom that enriches human relationships with Coochie. **This group is comprised of the people of the land, sand and sea, the people of the Quandamooka** tribes whose ancestral place includes Coochie and its material and spiritual realm - key elements of their cultural world. This group, and this group's ancient culture and continuing commitment, informs Coochie's contemporary human occupiers about its rich and deep history, and also offers a tangible philosophical platform for the necessary custodial care of Coochie in the context of its human history, with applicability to human behaviour / intervention in today's world.

### 3. Social Stakeholders

**This group is comprised of Coochie's contemporary human interest groups** - permanent and casual residents and the variable visitor community. The resident groups have consciously affiliated with the unique Coochie natural and built world and human community, by choice. Coochie is their home.

Just like the locals, the visitor community is attracted by Coochie's stunningly special assets, which include a quiet, natural world setting, linked to social safety close to the city. Coochie also offers these stakeholders easy access to significant and variable, natural attributes, such as glorious beaches, the Melaleuca Wetland, the west coast mangrove colony and the extensive, largely indigenous, green canopy, along with the diverse inter-tidal and native bird colonies.

### 4. Economic Stakeholders

**This group is comprised of the human community which contributes resources to and receives economic benefit from the vegetated public open spaces of Coochiemudlo Island**. It could be argued that this group could include all of the stakeholder groups above. However, in the strictly economic space, it comprises people, whether a single person, a group or an organisation or agency that contributes particular economically quantifiable resources to the management of the vegetation in the

public open space on Coochiemudlo Island, be the resources monetary, materials, labour, other human skills, information, knowledge, intellectual property and whether directly or indirectly. It also includes parties that derive both direct and indirect economic benefit from the quality existence of this resource; commercial operations which obviously include those businesses linked with tourism and the visitor community. This also extends to educational opportunities provided by the resource under discussion.

### **3. Management Issues and Options - Planning Tools**

To progress the planning process, it is necessary to establish an informed view, and appreciation of the complex range of challenges that have been, are now and will continue to face stakeholders with an interest in achieving positive management outcomes for the vegetation in the public open space on Coochie. It is necessary to develop a comprehensive suite of *issues* that define those challenges, and equally necessary to compile a comprehensive list of *options* for responsive management.

It is the interplay between Management Issues and-Options that provide the substance of this discussion paper. When the issues and options are established, their relative relationships can be assessed / analysed in a way that will provide a reliable and defensible decision-making platform as the basis of charting the way forward towards a precisely targeted strategic management plan for the vegetation in the public open space on Coochie.

### **4. Identification of Management Issues and Management Options**

#### **A. Issues**

Issues being considered have been divided into the four identified QBL categories; Environmental, Cultural, Social and Economic. Under each category is a selected list, which attempts to comprehensively identify all issues at hand within each of those categories.

The issues are sorted, as follows:

## a) Environmental Management Issues - relating to the natural world



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1. Knowledge about the natural history of Coochie, with a focus on the botanical history
2. Knowledge of the current state of the natural environment on Coochie
3. Knowledge of the change and rates of change between 1) and 2) above
4. Knowledge about the ecological relationship between the terrestrial environment and the costal marine (intertidal) area
5. Clarity around the current state of the natural world, in the context of 1) to 4) above, and what can be possible in restorative terms
6. Pests spreading from the Local Authority waste transfer station
7. Local Authority civil works' infrastructure-related adverse impacts
  - Pests spreading from Council waste transfer station
  - Plant pests imported to Coochie on unclean machinery
  - Inappropriate storm water management
  - Inappropriate increase in impervious surfaces

- Unauthorised vegetation removal (Flinders Street sealing and widening project)
  - Toxic paving materials - bituminous-based
  - Use of exotic grasses in drainage channels
8. Local Authority Parks' and Reserves' management and works - adverse impacts
- Disregard of existing operative management instruments, e.g. "Coochiemudlo Island Land Management Plan" - February 2004: Copy available on request. (refer to Appendix 1: Current letter of validation of operative status of this Plan by State Government) and
  - "Redland City Council Pest Management Plan 2012-2016 - Operational Plan [http://www.redland.qld.gov.au/EnvironmentWaste/EnvironmentProtection/Documents/PMPReport%20\\_FINAL\\_Version.pdf](http://www.redland.qld.gov.au/EnvironmentWaste/EnvironmentProtection/Documents/PMPReport%20_FINAL_Version.pdf)
  - Disregard of the value of the local and professional knowledge and commitment of Coastcare in the context of the integrated sustainable management of the vegetation in the public open space on Coochie
  - Disregard of currently accepted 'best practice' for vegetation / weed management (refer to Appendix 2: "Coochiemudlo Coast Care: Interim Weed Management Information - an assemblage of links to current best practices" - 2015)
  - Disregard of holism in related management decisions
  - Lack of long-term planning
  - Observable reluctance to consult; as opposed to direct
  - Reluctance to engage honestly, collaboratively and responsively
  - Over-reliance on herbicides
  - No plans for succession-planting to follow weed management; meaning no forward progress (economically unjustifiable waste of ratepayer funds) and annual destruction of the potentially supportive micro-habitat from the indiscriminate use of herbicide sprays
  - Lack of rational prioritisation of weed management, evidenced by the observable spread and profoundly adverse effects of cats-claw creeper, which has been allowed to colonise unhindered, whilst areas of less criticality have been targeted

9. The current state of eco-system degradation from plant pests (weeds)
10. Seasonal knowledge and characteristics of invading weeds
11. Determination of weed removal priorities
12. Security of rare plants from extinction (includes theft)
13. Appropriate weed removal / management methods - information / knowledge about comprehensive and Coochie-applicable 'best practice'
14. Impacts of bio-toxic sprays on the ecosystem from current weed management practices
15. A restoration planting management plan, compiled in the context of an informed management of natural succession
16. Restoration planting management methods
17. Timely availability of eco-sourced plants for restoration planting, post weed removal
18. Security of new planting from theft
19. Splitting of existing eco-domains into smaller non-viable areas, by tracking and fire-breaks and the uninformed use of fire as a management tool
20. Restoration of species balance (both plant and animal) to harmonise the botanical restoration
21. Weather-related factors: High winds, electrical storms, sea erosion, storm water erosion, fire from lightning strike
22. Human behavioural impacts:
  - Fire
  - Theft of native plants
  - Seriously invasive plants being imported for private gardens
  - Garden escapees
  - Private garden waste (and other waste) dumped in public open space,
  - Erosion from informal walking routes - 'desire lines'
22. Private infrastructure issues:
  - Large house - roof - footprints
  - Excess paving
  - Unsustainable storm water management
23. Disposal of removed weeds
24. The relevance and use of exotic plant species on Coochie at large and in the public open space in particular

**b) Cultural Management Issues - 'traditional' cultural issues, relating to the tribes of Quandamooka- the local indigenous people**



Photo: Shappy archive

1. Knowledge about and respect for the Quandamooka peoples
2. Effective communication with the Quandamooka peoples
3. The development of a robust and trustful relationship with the Quandamooka peoples
4. Knowledge about the traditional cultural history of Coochie
5. Cultural information to directly guide / assist with the management of public open space vegetation on Coochie
6. Direct involvement by the Quandamooka peoples in the overall management of vegetation and related cultural sites in Coochie's public open spaces

### c) Social Management Issues - relating to the issues for the residents, absentee owners and visitors



Photo: Shappy archive

1. Communications with-to the resident / absentee-owner / visitor communities
2. Use of the valuable knowledge of the resident / absentee-owner / visitor communities
3. Direct involvement of the resident / absentee-owner / visitor communities
4. Responsible/ informed behaviour by the resident / absentee-owner / visitor communities towards the integrated sustainable management of the vegetation in the public open space on Coochie
5. Eco-toxins (sprays) with the potential to affect human health
6. Personal safety from fire risk in the public open space from accidental fires and arson
7. Need for a healthy ecosystem to support human health
8. The importance of an understanding of the positive contribution, by the vegetation in the public open space on Coochie, to the standard of human living amenities
9. Plant pests degrading the resident and visitor experience (e.g. cats-claw in the /Community Centre Golf Club environs)

10. The need to achieve community buy-in / 'social license' (<http://sociallicense.com/definition.html> - substitute 'Coast Care' for 'the company') for scientifically robust - defensible - methods of achieving the integrated sustainable management of the vegetation in the public open space on Coochie

**d) Economic Management Issues - relating to financial costs and returns and to the availability of human resources and materials**



Photo: Shappy archive

1. Securing resources
  - a. Financial resources
    - Local government
    - State Government
    - Federal Government
    - Securing grants as a Charitable Trust
    - Donations
    - Funding from other sources (ethical determinants)
  - b. Human resources

- Employment of professionals(Science, planning, management) Quandamooka elders
- Members of Coastcare
- Volunteer labour, e.g. locals, Green Army
- In-kind advice / labour from affiliates
- Visitor labour - Restoration Tourism

c. Materials

- Purchased
- Donated

3. Budgeting

4. Prioritising the staged use of resources

5. The 'asset' of the value of the 'visitor attractiveness' of the vegetation in the public open space on Coochie

6. Direct and indirect commercial benefits: Coochie-sensitive opportunities for Coochie-based tourism companies, to derive visitor community income from the experience provided by the vegetation in Coochie's public open space areas (and contiguous intertidal areas) and its associated management - along with a potential Restoration Tourism option

7. Intellectual property (knowledge) benefits: Educational opportunities, both formal and informal, provided by an intact and unique terrestrial ecosystem (and contiguous intertidal areas) along with its cultural history, and its continued sustainable management challenges

## B Options

The options being considered are divided into seven distinct categories specifically selected by nature of the management challenges at hand and ordered to reflect their logical sequence of response. At the outset of considering each option, the simple question is asked; what is the consequence of taking a 'do nothing approach'?

The options are sorted as follows:

### a) Leadership Options

**DO NOTHING: Fatal to this project - no project.**

1. Project led by Redland City Council (RCC) only
2. Project led by RCC in loose contact with Coastcare
3. Project led by RCC in collaboration with Coastcare

4. Project jointly led by RCC and Coastcare in partnership
5. Project led by a collaborative partnership comprising RCC, Coastcare and the Quandamooka tribes

### **b) Communications' Options**

**DO NOTHING: Non-fatal; seriously disadvantages most management aspects and the project process.**

1. RCC advises the course of action
2. RCC and Coastcare in loose communication about vegetation management
3. Continued management liaison between RCC, Coastcare and the Quandamooka tribes
4. Liaison with other authorities / agencies / NGOs / potential funders
5. Information sharing with:
  - Coochiemudlo community at large
  - Bushcare
  - Tourism operators
  - Other local community groups
6. Advocacy for the development / involvement of Restoration Tourism

### **c) Planning Options**

**DO NOTHING: Non-fatal, possibly; but profound inefficiency and time resource waste from disorganisation**

1. Ad hoc decision-making
2. Plan strategically
3. Support planning with research and enquiry
4. Only plan weed management
5. Only plan for restoration planning
6. Plan for integrated vegetation management involving weed control and restoration work
7. Do not monitor the state of the environmental
8. Set up a number of key location / species related indicators, as the basis of an on-going monitoring programme
9. Review the planning approach at regular intervals

## d) Resources' Options

**DO NOTHING: Fatal to this project - no project.**

1. Only resources to be utilised = RCC budget and staff time
2. Use of RCC budget and staff time along with any of the following labour and expertise and funding resources in all or any considered combination:
  - Funding from Coastcare
  - Labour from Coastcare
  - Materials from Coastcare
  - Expertise from Coastcare members and associates
  - Funding from other sources via Coastcare OLICATIONS
  - Labour from Bushcare
  - Labour from the Coochie community
  - Labour from Restoration Tourism
  - Labour from the Green Army
  - Labour from other sources
  - Materials from other sources
3. Combine RCC and Coastcare resources to manage and maximise all resource use (above) efficiently and to leverage other resources
4. RCC contract the Quandamooka tribes to undertake the project works in collaboration with its partner Coastcare and the various key stakeholders

## e) Weed Management Options

**DO NOTHING: Fatal to this project - progressive degradation of Coochie's natural botanical world and the organisms that that environment hosts.**

1. Continue with the historic and current management regime (outcomes described under Issue a) above, "Environmental Management Issues" - relating to the natural world. Refer to clauses 6, 7, 8, 21 and 22.

2. Continue a 'no-progress' weed control program, with no targeted outcome, beyond simple weed eradication, ie ignoring progressive restoration planting to prevent weed re-colonisation, and of habitat restoration
3. Exercise weed control based upon ad hoc decision making, i.e. no prioritisation of species threat level or area vulnerability or seasonality or the employment of resource use priorities
4. Organise the weed control program from a random starting point and work around the island
5. Disregard the impact that incremental and cumulative chemical use has on the micro-biota of the ground level organic communities and on the soil biota, and the consequent erosion and siltation arising from the inappropriate and isolated use of chemical methods
6. Only use chemical methods for weed control
7. Hand weed as easy and convenient with balance of weed management using chemicals (spray and paint)
8. Maximise hand weeding, with the balance weeding using chemical methods
9. Maximise hand weeding and use chemical where operationally and environmentally justifiable, with a preference for hand application of chemicals and the minimisation of sprays
10. Only use hand weeding methods
11. Run a pilot steam weeding programme, with a view to using it as a tool to minimise the use of chemicals
12. Run a pilot hand weeding only programme, in a selected area, to determine its relative viability - to examine its efficiency and portability
13. Minimise incremental and cumulative chemical use to prevent the progressive degradation of the micro-biota of the ground level organic communities and of the soil biota, and the consequent erosion and siltation arising from the inappropriate and isolated use of chemical methods
14. Research operations wider afield, but with similar circumstances, that have managed to successfully step to a chemical-free weed management approach
15. Set a defensible scientifically and practical operations-based time target for chemical free weed management

## f) Restoration Planting Options

**DO NOTHING: Fatal to this project - prevents the restoration of a viable, ecologically-healthy, integrated natural botanical world and the organisms that that environment hosts.**

1. Plant for seasonality and compatibility with the host - receiving - environment

2. Plant strategically to prevent / minimise weed colonisation
3. Planting to accord with natural succession principles
4. Manage succession to accelerate restoration
5. Develop a restoration planting 'priority planting schedule'
6. Stock the local eco-sourced nursery to accord with succession and priority planting
7. Run a targeted inspection / release / maintenance programme to maximise seedling in-ground survival
8. Undertake a restoration planting monitoring programme

### **g) Re-introduction of Displaced Species to Balance the Ecosystem Options**

**DO NOTHING: Non-fatal; it could be argued to be non-fatal, in regard to outcomes for the present potential environmental condition, however, in absolute terms, it is fatal to restoration efforts towards 'whole ecology'**

1. Disregard the need to undertake the restoration of displaced species
2. Consider the example / principle of returning wolves to the Yellowstone National Park in the USA - <https://www.hcn.org/issues/46.21/have-returning-wolves-really-saved-yellowstone>
3. Conduct research to determine which species; botanical, insect, reptile, animal, etc are currently missing
4. Conduct research to determine the viability of returning species to the vegetation environment of Coochie's public open spaces
5. Conduct research to determine opportunities for the reintroduction of missing species
6. Liaise with other groups who have conducted species restoration projects
7. Develop a pilot project for the introduction of a displaced species, and develop a Coochie intelligence around the outcomes of that pilot, to guide next-step decision making