

From: **Vivienne Roberts-Thomson** <gvrthomson@gmail.com>

Date: Fri, Oct 20, 2017 at 2:56 PM

Subject: Coastcare response to Coochiemudlo Island Integrated Weed Management Plan (Second draft)

To: [REDACTED]

Cc: [REDACTED]

Dear [REDACTED],

Please find attached Coastcare's response to the first Draft Integrated Weed Management Plan (IWMP) for Coochiemudlo Island with added comment hereunder.

Only minimal cosmetic change was noted in the second Draft Plan.

We resubmit, in the hope decision-makers can effect change that positions Redland City Council with Australia's leading local governments reducing chemical use in public open spaces to protect human health and the environment.

Coastcare has a whole-of-island focus, genuine commitment to work with Council for positive environmental outcomes and currently has a grant submission lodged with the Queensland government for a saturated steam weeder to work with QYAC rangers (with RCC support) towards a more sustainable future.

Although advised at the Focus Group meeting on 29 August that there "was lots of work to do" minimal change was made to the second Draft.

The final paragraph under Further Recommendations, page 32, simply highlights the risk of proposed repetitive chemical treatments (every 4-6 weeks the first year; every 6-8 weeks for year two and so on)

To suggest school groups provide one week's notice before visiting Coochiemudlo or that spraying contractors stop work spasmodically or travelling over at all if groups "visited the whole island" begs the question – what about our safety, our children and unannounced visitors?

We believe the Draft IWMP, above all else fails to meet Key Performance Indicators of the Consultancy brief.

Kind Regards,

Vivienne MOB [0411226363](tel:0411226363)



Extract from Coastcare's first submission -

Please find hereunder copies of emails sent to the Consultant (following a request background information and contacts for saturated steam weeding)

**From:** Jeremy Winer

**Sent:** Monday, July 24, 2017 11:36 PM

**To:** jford@ecosure.com.au

**Cc:** [REDACTED]

**Subject:** Weedtechnics saturated steam effect on soil micro organisms

Hello Jen,

Vivienne from Coochiemudlo Island Coastcare and I have been in discussion over the past couple of years regarding the implementation of the use of our machines for weed control as part of an integrated approach.

From my reading of your comments on the subject I understand that we are in agreement that there is no silver bullet and an integrated approach that adopts a variety of techniques will most likely achieve the vegetation management and restoration targets.

An area that I note you have vocally raised concerns about is the effect on soil microorganism activity and soil fungi. There is no evidence or anecdotes from any of the many organic farmers, council and landcare specialists (more than 100 around Australia) who have been using our technology in the last 10 years of any residual effect on soil mycorrhizal populations or beneficial soil born fungi. There are many anecdotes of the opposite happening.

To kill most plant pathogens and beneficial microbes such as Rhizobium bacteria and mycorrhizal populations the soil temperature must be "raised and held at between 60 – 80°C for 30 minutes." ( KA Hendreck & N. Black (1994 Revised Edition) Growing Media for Ornamental Plants and Turf. Randwick: University of NSW Press.) With our SW weed control on average only the top, 5mm of the soil directly under the head is heated for up to a couple of minute

The green leafy vegetation that has been subjected to thermal shock from the 98-100C water suffers dramatically. The cells within the plant explode, the external coating of the leaf is destroyed, leaving the vegetation to rapidly desiccate and decompose. This decomposition creates a proliferation of beneficial microbes and adds to the soil organic matter content. It is most satisfying to see the rapid growth that the desirable retained vegetation puts on following the destruction and decomposition of the competing vegetation. There is a notable flush of growth as the remnant vegetation take up the subsequent release of available nutrients

in the soil.

It is in stark contrast to the opposite effect that the use of salts, chelators and antibiotics that are contained within herbicides have on soils. Observation shows a decline in soil biology and structure.

In considering soil biology, it can be argued that digging the soil turns biology on its head putting populations of microorganisms out of their natural moisture, air and depth preference; flooding the soil creates anaerobic conditions for a period of time; lightning strikes electrify the entire rhizospheres. All of these events are commonplace, but due to the ability of soil organisms to exponentially multiply rapidly when conditions are favourable, these populations rapidly return to equilibrium. Our method of applying sufficient boiling water to destroy unwanted soft wooded vegetation is less disruptive and arguably beneficial to soil micro organism populations.

Jen, thank you for your time in reading this far. I am available to discuss any of the above and hope that this dispels any concerns that have been raised in regards to the effect our methods have on soil biology. The proof is in the pudding and I invite you to observe any sites where our machines are in use by trained operators.

Regards

**Jeremy Winer**

Managing Director

[+61 420 729 968](tel:+61420729968)

[0420 729968](tel:0420729968)

**From:** Vivienne Roberts-Thomson

**Sent:** Thursday, March 23, 2017 3:53 PM

**To:** Jen Ford

**Cc:** [REDACTED]

**Subject:** weed seminar & site visits - non-chemical trials

Hello Jen,

As an update, [Six member Councils located in Perth's eastern suburbs: City of Bayswater, City of Belmont, Shire of Kalamunda, Shire of Mundaring and the City of Swan, Town of Bassendean](#) operating as the Eastern Metropolitan Regional Council (EMRC) <http://rgang.org.au/steam-weeding.html> have been conducting trials on a number of sites over a period of time (saturated steam, pine oil, pelargonic acid, salt & vinegar solutions as well as competitive planting and mulching).

Results are soon to be released. I spoke to co-ordinator **Karen Warner (Telephone [08 94242216](tel:0894242216))** who would be happy to provide further information and preliminary results.

They seem to attract a lot of government support and there's another workshop in May. Perhaps someone at Redland City Council might like to go?

The EMRC invites you to attend our *Weeding for Wellbeing* seminar and alternative weed management site tour. The aim of the day is to give participants a practical look into methods that are currently being used, discuss their effectiveness and the challenges faced. The workshop is aimed at people working in landcare, park and gardens and horticultural areas within the government, environmental industry and community sectors.

**Guest speakers:**

Josh Byrne

Josh is Gardening Australia's Presenter in Western Australia. His unique and integrated approach to landscape and environmental design combines his academic background in Environmental Science with nearly 20 years hands on experience.

**Jeremy Winer**

Jeremy is the managing director of Weedtechnics - Australia's largest and only specialised non-toxic weeding service provider, focused on helping cities, municipalities, schools, landcare groups, landscape contractors, and corporates across Australia to avoid using chemicals to manage weeds.

**DATE: Friday, 5 May 2017**

**TIME: 8.45 am to 4:30 pm**

**LOCATION: EMRC- 226 Great Eastern Highway, Belmont 6104**

**RSVP: Friday 24 April 2017 by email to [environment@emrc.org.au](mailto:environment@emrc.org.au)  
or via phone [\(08\) 9424 2216](tel:0894242216)**

Last year's workshop - Working with weeds <http://www.emrc.org.au/eastern-region-catchment-management-program.html#weeds> – presentations on alternate weed treatments

Kind Regards

*Vivienne* Mob [0411226363](tel:0411226363)

**From:** Vivienne Roberts-Thomson [<mailto:gvrthomson@gmail.com>]

**Sent:** Tuesday, 21 February 2017 7:44 AM

**To:** Jen Ford <[jford@ecosure.com.au](mailto:jford@ecosure.com.au)>

**Subject:** Saturated steam for weed control

Hi Jen,

Please find hereunder information & links regarding saturated steam as requested.

Mareeba Shire and Cassowary Coast have purchased SW 900 trailer units with 100 m hoses for use in sensitive habitats and town centres. Douglas Shire undertook a four month pilot program across water channels, beach frontage reserves and playgrounds which has expanded into an ongoing rental program. It's all about protecting the Great Barrier Reef Marine Park from run-off

Pilot programs are also being carried out for control of guinea grass and yellow crazy ants.

Discussions are ongoing with several other regional councils in North Queensland

Blue hand steam is the company & there's a Facebook site that has some good examples

<https://www.facebook.com/bluehandsteam/>

Here's an article from the local NRM group - <http://www.terrain.org.au/News-Resources/Latest-News/Fighting-weeds-with-steam> who have been instrumental supporting

<http://www.echo.net.au/2016/09/byron-mayor-gm-heated-exchange-steam-weeding/> There's information from Jeremy Winer [jeremy@weedtechnics.com](mailto:jeremy@weedtechnics.com) under this

online article that explains the Council's earlier purchase of a steam cleaner that wasn't a Weedtechnics saturated steam weeding machine ( Jeremy is a great information resource) Paul Sommers [paul@steamweeders.com.au](mailto:paul@steamweeders.com.au) has a three-year contract as preferred supplier for saturated steam weeding with Byron Shire Council. Paul came to Coochie at the invitation of Parks and Conservation Manager, David Katavic in December 2015.

There's also other detail on our website

<http://coochiemudloislandcoastcare.org.au/projects/vegetation-management/>

City of South of Perth <https://southperth.wa.gov.au/about-us/news-and-publications/news-and-public-notices/news-detail/2017/01/17/environmentally-friendly-weed-control>

One query heard - Are earth worms and other soil organisms affected? ( from the Weedtechnics <http://www.weedtechnics.com/>)

Our saturated steam provides rapid penetration and transfer of heat to any vegetation which the applicator heads pass over. It is non selective on any organisms. A benefit of our economical use of saturated steam and boiling water is that it does not penetrate more than about a ¼", 5mm, into the soil. This has great effect on the crowns of weed species but little effect and no lasting impact on either the roots of your perennial crops, trees, vines etc or your important soil organisms. Earth worms tend to be found lower down in the soil profile, unless there are very wet surface conditions. Our observation is that the destroyed weeds quickly become detritus providing food for a rapid repopulation of soil organisms which helps builds a humus layer in your soil.

To kill most plant pathogens and beneficial microbes such as Rhizobium bacteria and mycorrhizal populations the soil temperature must be "raised and held at between 60 – 80°C for 30 minutes." ( KA Hendreck & N. Black (1994 Revised Edition) Growing Media for Ornamental Plants and Turf. Randwick: University of NSW Press.) With our SW weed control on average only the top ¼", 5mm of the soil directly under the head is heated for a couple of

minutes

We'll continue to feed information as it comes to hand

Kind regards,

Vivienne Roberts-Thomson Mob [0411226363](tel:0411226363)

**From:** Vivienne Roberts-Thomson [mailto:gvrthomson@gmail.com]  
**Sent:** Tuesday, 21 February 2017 12:16 PM  
**To:** [REDACTED]  
**Cc:** Jen Ford; [REDACTED]  
**Subject:** Proposal for Consulting Services - Coochiemudlo Weed Management Plan

Hello [REDACTED],

Thank-you for releasing the **Proposal for Consulting Services – Coochiemudlo Weed Management Plan** last week.

Unfortunately, it arrived after a very positive meeting with consultant, Jen Ford, so we were unable to directly address assertions and omissions that we believe compromise the project at the outset.

In discussions and emails with Council officers over the past two years we had been working towards the development of an Integrated Weed Management Plan that reduced the use of herbicides on the island, however the brief fails to mention this important fact.

From the outset, Cr Hewlett recognised community concern expressed through Coastcare to support a change in weed/vegetation management on the island. We sought better environmental outcomes aligning with best practice in the face of mounting human health concerns over herbicide use, shared by some of Australia's leading insurers.

Please find hereunder some specific issues.

**Background**, page 4 Council claims “disagreement about the techniques and priorities for weed management activities amongst stakeholders has delayed weed control works leading to increased weed infestation that will be more costly to address in future”

- Blaming community does not absolve Council inaction over the years, ie the Cat's Claw creeper, lack of protection for Phaius orchid habitat & asparagus infestations.

The question needs to be asked why did Council choose to stop all work including hand-weeding?

- It is untrue to claim that “ a small minority of island stakeholders have expressed concern about potential health impacts of chemical use for weed control” Coastcare has almost 300 members. Since 2013 we have emailed Council, shared telephone discussions and met with a succession of officers stressing the need for a more holistic approach to vegetation management on Coochie.

There have also been numerous meetings, discussions, newsletters and Facebook posts on the subject with no-one supporting Council herbicide spraying

- If Coastcare had been allowed input, as muted when an “engaged” Integrated Weed Management Plan was on the table in late 2015, the omission of the Heritage Society, Recreation and Golf Clubs under community stakeholder groups wouldn’t have happened. There is no Neighbourhood Watch on island and the inclusion of the Art Group and Library instead of the above three reveals an out-of-touch approach.

Redland City Council has the opportunity to align itself with Australia’s leading local governments, reducing herbicide usage and embracing proven, alternate weed management techniques & technologies to address environmental and human health concerns. We believe, like Councils in Far North Queensland working to reduce pesticide run-off and protect the waters of the Great Barrier Reef, RCC should be using saturated steam to protect the health of our vegetated foreshores and Moreton Bay Marine Park

Please find a link to a web page that’s being continually updated to assist community understanding of the issues <http://coochiemudloislandcoastcare.org.au/projects/vegetation-management/>

We hope closer collaboration with Council, particularly Communications, will enable greater clarity and support development of a Vision that truly reflects the needs of Coochiemudlo Island. This Plan could become a template for the rest of Redland City.

Kind Regards

Vivienne Roberts-Thomson Mob [0411226363](tel:0411226363)







**Coochiemudlo Island Coastcare Inc welcomes the opportunity to provide feedback on the draft Integrated Weed Management Plan (IWMP) for Coochiemudlo Island.**

After three years of discussion between Redland City Council (RCC) and Coastcare, we're pleased to have reached this point and look forward to fine tuning the IWMP over the next few weeks.

This submission aims to highlight some of the aspirations and/or concerns that appear to have been ignored or omitted in the draft IWMP. We trust it will assist deliver an outcome that is applauded by community and RCC.

Also attached is the Proposal for Consulting Services with initial Coastcare response, photographs of comments taken from the community survey and background information on saturated steam requested by the Consultant.

Coastcare looks forward to receiving the minutes of the Focus Group meeting, a second draft and hopefully another meeting before the plan goes to Community then Council.

## **Overview**

Please note specific comments have been kept as succinct as possible. Should further elaboration be required please do not hesitate to contact the President of Coochiemudlo Island Coastcare Inc.

In line with best practice natural resource and catchment management, this Plan should support Redland City Council to protect the receiving waters of the Moreton Bay Marine Park, mirroring efforts in North Queensland to reduce chemical run-off to the Great Barrier Reef. <http://www.sciencedirect.com/science/article/pii/S0025326X14000228>

<http://www.environment.gov.au/minister/frydenberg/media-releases/mr20170830.html>

The draft Plan should:-

- acknowledge health and environmental concerns relating to herbicide use in public open spaces and mounting legislative change led by European nations.
- take account of risk management warnings from leading insurers that has seen many local governments adopt alternate weeding strategies.(Logan City Council offered saturated steam to residents opposed to chemical weed control four years ago and recently ordered its second machine)
- acknowledge the fundamental goal of utilising alternate weed eradication strategies to reduce chemical usage
- address how progressive use of alternate methods of weed control, including saturated steam, can support the approach of chemical-free weeding in the medium term on Coochiemudlo Island.

- offer aspirational goals of a clean, green, healthy environment as a natural vision for Coochie while supporting transition from Council's first option of chemical control. NB. A tourism operator who brings small groups of international visitors to Coochie has requested involvement in restoration activities, following requests from clients who participate in similar activities in other parts of world. "Restoration tourism" is a growing industry and Coastcare has offered support. This should be explored further.

**A couple of alternate approaches** - <http://www.byron.nsw.gov.au/media-releases/2013/11/22/chemical-free-weed-and-pest-control-goal-set-for-5-years>

The Eastern Metropolitan Regional Council (EMRC) is a progressive and innovative regional local government working on behalf of six member Councils located in Perth's eastern suburbs: **City of Bayswater, City of Belmont, Shire of Kalamunda, Shire of Mundaring and the City of Swan, Town of Bassendean.** <http://rgang.org.au/steam-weeding.html>

## Specific feedback

1. The draft plan makes no reference to the results of the community survey undertaken by Council and noted under **4.2 Deliverables** of the consulting brief.

*"Public engagement has gained valuable information on the community's perceptions and weed treatment preferences on the Island. The views on where and how weed control should be approached vary, however it is clear the community are united with a passion to see Coochiemudlo restored with all main weed infestations controlled within a 10 year time-frame"* Page 2

This comment doesn't accurately represent the feeling of the June 10 meeting with the majority of community comments (both written and spoken) about the use of chemical weed control and wish to avoid it. This was acknowledged by the consultant in a private conversation, that it was something the community felt very strongly about this. No one but the consultant mentioned a 10-year timeframe.

Please find photographs of key survey responses displayed at the meeting. We understand there were also on-line submissions received by Communications.

2. The draft plan fails to meet requirements under **Background** of the consulting brief  
*"A small minority of island stakeholders have expressed concern about the potential health impacts of chemical use for weed control. This matter will need to be addressed in the plan"*
3. We believe the plan needs to set out the aspirations of the Quandamooka Yoolooburrabee Aboriginal Corporation, those of residents, land owners and groups charged with environmental care (Coastcare, Bushcare & Golf Club) It needs to acknowledge and respond to important aspirations.
4. Recommendations of the 2004 Coochiemudlo Island Land Management Plan prioritising weed control, including hand-weeding the Emerald Fringe have been ignored. The plan is still recognised as a valid working document by the Queensland

Government but comments at the Focus Group meeting last week reveal Council officers have not referenced the LM Plan for operational works.

[http://web01.redland.qld.gov.au/robo/plans/Coochiemudlo\\_LMP/Coochiemudlo\\_LMP\\_final\\_Dale-dan\\_03-04.htm](http://web01.redland.qld.gov.au/robo/plans/Coochiemudlo_LMP/Coochiemudlo_LMP_final_Dale-dan_03-04.htm)

**Management priorities should reflect the degree of threat, (the plan doesn't reflect this).**

5. Southwest corner – Cats Claw infestation zone **3A** should be addressed as an ongoing priority. Funds should be allocated immediately for operational works. This was highlighted 13 years ago as **HIGH priority** in the 2004 Land Management Plan.
6. The waste transfer station and adjacent wetland fringe **zone 1** is another priority. The issue of runaway garden weeds from dumped green waste will continue to plague the wetlands until properly contained/addressed.
7. It is recognised that no operational works should be undertaken until a full survey of the endangered Phaius orchid habitat is completed and recommendations received from acknowledged experts to minimise disturbance. This follows official identification and tissue sampling by the Queensland Herbarium in 2015. Consideration should be given to confidentiality for preservation purposes

<http://www.environment.gov.au/system/files/resources/e160f3e7-7142-4485-9211-2d1eb5e1cf31/files/draft-guidelines-threatened-orchids.pdf>

<https://www.ehp.qld.gov.au/licences-permits/plants-animals/documents/gl-wl-pp-flora-survey.pdf>

- 8 The western mangroves, zone 4 should incorporate weed control around specific advice from local expert Bruce Wollstein and the cultural requirements and sensitivities of QYAC. Concerns over chemical leachate affecting the environmental values and Water Quality objectives of Moreton Bay should be seriously evaluated with a whole-of-ecosystem risk assessment.

**Case Studies One, Five and Six** hereunder

<http://www.environment.nsw.gov.au/resources/pestsweeds/130486aspsect6.pdf>

support Bruce's approach over 23 years weeding the mangroves that crowning asparagus, while slower, offers a sustainable and more permanent solution in this sensitive area.

The proposed use of spot-spraying "hot mix" - Metsulfuron-methyl plus glyphosate and penetrant/surfactant to the water's edge is not without risk **see Page 52**

<http://www.environment.nsw.gov.au/resources/pestsweeds/130486asparagus.pdf>

- 9 Southern zone **2** encompasses Curlew Creek, the high public usage foreshore and dog off-leash area. Following a discussion with the consultant after the Focus group meeting it was discussed making this "organic". Bi-annual hand-weeding events with Council & community west of barge ramp would be a very positive exercise.

- 10 The draft document should be viewed as part of a comprehensive integrated vegetation management plan for Coochiemudlo which includes restoration of native vegetation in zones affected by previous herbicide spraying. There is growing comment on the loss of understory along Zone 2 (the slopes west of Tageruba and north of Curlew Creek) which has made buildings visible from the bay.

## Omissions

- 11 There are no costings for planned operations, however under **4.1 Scope** there is supposed to be *“A review of control methods and options including cost-benefit analysis and applicability for use on Coochiemudlo Island”*
- 12 There is no reference to the **2004 Coochiemudlo Island Land Management Plan** recommendations for weed control despite the document being referenced by Council in the consultancy brief  
[http://web01.redland.qld.gov.au/robo/plans/Coochiemudlo\\_LMP/Coochiemudlo\\_LMP\\_final\\_Dale-dan\\_03-04.htm](http://web01.redland.qld.gov.au/robo/plans/Coochiemudlo_LMP/Coochiemudlo_LMP_final_Dale-dan_03-04.htm)
- 13 The Laurie Burns Recreation Reserve needs to be included. (RCC personnel have been observed spraying this area, including the Singapore daisy infestation and childrens’ playground without warning signs. We were advised the chemical was glyphosate and work undertaken every three weeks)
- 14 There is no mention of Curlew Creek and surrounding weed issues
- 15 There is no recognition nor consideration given to herbicide spray-free buffer zones for sensitive wetlands and riparian areas which puts a multitude of organisms, fauna and birdlife at risk, as well as native vegetation  
<https://wetlandinfo.ehp.qld.gov.au/resources/static/pdf/resources/reports/buffer-guide/wetland-buffer-guideline-14-04-13.pdf>
- 16 There is an apparent lack of consideration for external funding opportunity to assist weed management e.g. partnering with Coastcare/ QYAC
- 17 Despite requesting information on saturated steam weed control from Coastcare (see correspondence Email 2) there was no follow-up or contact made with other Councils/ operators successfully using this technology
- 18 Lack of discussion with Coastcare relating to the final recommendation on page 30
- 19 The reference to saturated steam doesn’t cover its proven capability over a variety of weeds e.g. metre-high Singapore Daisy and guinea grass are just two.
- 20 Monitoring and review: The latest scientific information and monitoring should be used to review the IWMP and related practises on an annual basis.

## Summation

Over the last three years Coastcare has sought principles for Action and asked Redland City Council to –

- Work collaboratively with a motivated community to share the environmental care

- Support the Ramsar Convention and promote ecologically sustainable action
- Adopt chemical-free buffer zones around the Melaleuca Wetlands, sensitive water courses and fore-dunes.
- Respond with an Integrated Weed Management Plan for the island with minimal chemical use
- Promote alternative weed eradication methods – native regeneration, hand-weeding, bio and thermal control

To date, the draft Integrated Weed Management Plan is focussed on a regime of repetitive herbicide spraying across island – every 4-6 weeks for the first year (average 10 times/annum); every 6-8 weeks for year two ( seven times/annum); every eight weeks for year three (six times); 8-12 weeks for year four ( five times) and then?

Coastcare appreciates the opportunity to respond to the first draft IWMP and hopes the aforementioned comments are addressed in the next draft.

6 September 2017



There are  
at least 48  
known weed  
species on  
the island

### What you said should be the island weed management goals?

- Removal of weeds without causing the risk of erosion.
- Educate all residents on weed just because it flowers doesn't mean it's not a weed
- Eradicate weeds.
- Eradicate by section, NOT by "work for the dole" recipients, but by an efficient RCC Team
- Removal and maintenance by least toxic means (sensitive spraying)
- Encouraging all community involvement
- Non-poison treatments as far as possible.
- Encouragement of residents to care for the environs.
- Assistance for residents in weed management.
- Eliminate weeds from public space to restrict movement on island
- Assist landholders to do the same
- Work towards herbicide free by 2020
- An integrated plan combining eradicating weeds combined with native planting - aim to be herbicide/chemical free ASAP
- Complete removal of weeds which are a pest in both residential and public conservation areas.
- Rehabilitation of vegetation where weeds have been removed.
- Containment of recognized garden plant species.
- Emphasis should be on restoring the natural ecosystems. Some level of infestation is a fact of life.
- Treat the island with ecological sensitivity. Fully trained contractors!
- No poisons. We Value our natural vegetation, fauna, birds, children
- Want council to stop chemical spraying.


For information:

☎ 3829 8999

🌐 [yoursay.redland.qld.gov.au](http://yoursay.redland.qld.gov.au)



**Redland**  
CITY COUNCIL



There are  
at least 48  
known






There are  
at least 48  
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species on  
the island


Page 2

Q: What you said should be island weed management goals?

- Working collaboratively with islanders and aiming for chemical-free treatments To
- eradicate the weeds in a controlled safe manner, thinking of the environment
- We need to work with and management weeds rather than killing with chemicals.
- Chemical free eradication. Natural methods of control, - no spraying, no herbicides
- A plan aiming at a spray free island
- No half-hearted, period attempts and broken promises.
- Coochie has a great problem. The ecosystem must be protected at all cost.
- No chemicals to be sprayed around island foreshores or sensitive wetlands.
- Use of low toxic/residue treatment for large infestation of weeds.
- Replanting of native
- Plans to prevent weed regrowth?
- For council to work collaboratively with existing groups that are already weeding and pruning?
- Educate people,
- Do one area at a time and do it properly
- Halt the invasion by attacking easily controlled species first or using the Bradley method.
- Use best 21st century practice
- Minimise the use of harsh chemicals
- Acknowledgement of need to reduce herbicide usage to safeguard human and environmental health
- clear all ground cover weeds to enable water and ground foraging birds access to food

For information:

 3829 8999

 [yoursay.redland.qld.gov.au](http://yoursay.redland.qld.gov.au)



**Redland**  
CITY COUNCIL



# **Weed Management Plan - Coochiemudlo Island**

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**PROPOSAL REQUEST FOR CONSULTING SERVICES**

**Natural Environment Team  
Environment & Regulation Group  
September 2016**



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## 1.0 Introduction

Coochiemudlo Island is a small inhabited Moreton Bay island siting close to the mainland off Victoria Point Redland City. The island is part of the traditional lands of the Quandamooka people. First European settlement commenced in 1895.

The island is part of a unique natural environment and ecosystem. Located in Moreton Bay Marine Park, the island is home to an important variety of native flora and fauna, including amphibians, melaleuca wetlands, fringing mangroves and a rich diversity of native birds and marine life.

The eradication and effective management of weeds on Coochiemudlo Island is important for the sustainability of the island's environment. It is also a concern shared by island residents who recognise the impact of spreading weeds on island lifestyle, health and amenity.

Combating weeds on the Island is a shared responsibility. It needs community wide involvement and support for the efforts of government, property owners and traditional land owners, as well as environment, catchment and water managers.

Council is seeking to establish a plan of management with a 10 year planning horizon to address weed control activities on the island. There are several stakeholder organisations and individuals outside of Council that have a stake in the management of the weeds on the island.

This project proposes to engage a suitable consultant to prepare a Weed Management Plan for Coochiemudlo Island. The plan will be developed in consultation with stakeholder groups on the island including Coastcare, Bushcare, Progress Association and Council groups including Environment & Regulation and Parks & Conservation. A steering group of stakeholders internal to council will guide the implementation of the project. The Consultant will work with Council to execute an external stakeholder education and feedback process on issues critical to the project.

Once adopted by Council the plan will significantly assist Council to implement more efficient and effective weed management activities reducing long term costs and improving environmental outcomes. Development of this plan may help inform the subsequent city wide pest management planning process that Council intends to undertake in the near future.

## 2.0 Background

Coochiemudlo Island is a valued asset in the environmental network of the Redlands. The island has approximately 48 ha of land in private ownership, most of which approximate urban size land parcels. There are also some larger lots in private and leasehold tenure. The island has an open space\conservation estate comprising some 58 ha. This land is managed by Redlands City Council for sport, recreation and conservation outcomes. There is also an area of 3.2 ha that is set



aside for waste management purposes, water reticulation and sewerage treatment. A public golf course of 9.0 ha, managed by The Isle of Coochie Golf Club is also located on the island.

Over the period of European settlement of the island various non-native species of plants have been introduced. The non-native species have exhibited varying levels of invasiveness. At least 35 identified weed species are currently impacting on parts of the island, including woody weeds that are notoriously difficult to eradicate. If they are not effectively managed now, their spread and impact will become even more difficult and expensive for Council and ratepayers to control.

The community and Council are interested in minimising the environmental impacts of these introduced species, particularly those that have become problematic weeds. The Coochiemudlo Island community contains a number of separate groups and individuals that have an interest in weed management on the island. In 2015 a 2 page operational plan was developed to indicate the weed management activities on the island in the 2015-16 financial year.

(Refer - <https://yoursay.redland.qld.gov.au/coochiemudlo-weed-management>).

Various sectors of the island community have expressed strong views to Council about their priorities and favoured approach to weed management. Disagreement about the techniques and priorities for weed management activities amongst stakeholders has delayed weed control works leading to increased weed infestations that will be more costly to address in future. A small minority of island stakeholders have expressed concern about potential health impacts of chemical use for weed control. This matter will need to be addressed in the plan.

Council is seeking to establish a clear plan to guide the implementing of its weed management operations on Coochiemudlo Island.

### 3.0 Project Objectives

1. Engage island residents and other stakeholders in a meaningful dialogue about how to achieve effective long term weed management issues on Coochiemudlo Island.
2. Identify the best practice methods by which effective control, management and eradication of specific target priority weeds can realistically be achieved on the island.
3. Develop 10-year weed management plan for Coochiemudlo Island with input from all stakeholders that identifies timings, resourcing requirements, responsibilities and control methods for adoption by Council; that may also inform the subsequent development of a city wide pest management plan for the Redlands.

### 3.1 Key Performance Indicators

1. Demonstrable analysis of best practice and value for money weed management strategies that are suitable for application at Coochiemudlo Island.
2. Documentation of practical weed management actions that will deliver significant conservation outcomes for the island.
3. Demonstrable stakeholder support for the implement of the provisions of the plan.

### 3.2 Project stakeholders

#### Project working group

Redland City Council's Environment and Education Unit will coordinate an internal working group to manage, monitor and evaluate the Coochiemudlo Island weed management planning process.

This Group will comprise:

Stakeholder	Interest in project
Environment and Education	Project coordinator
Roads and Drainage	Weeds are located along roads and in drains
Parks and Conservation	Undertake weed management works on Council conservation lands
Communications Engagement and Tourism	Community engagement, issues management and communication support

As part of Council's commitment to the Traditional Owners of the land and waters of Moreton Bay and under Council's obligations under the Aboriginal Cultural Heritage Act 2003 the Quandamooka Yoolooburrabee Aboriginal Corporation will also invited to participate in this working group.



Administrative Release

## Community stakeholders

Community stakeholders and their interests are identified in Appendix 1. This project's community education and engagement program will target these stakeholders and also provide opportunity to any other interested members of the public to participate in this weed management planning process.

## 4.0 Project Scope and Deliverables

### 4.1 Scope

The Coochiemudlo Island Weed Management Plan will deal with weed management actions on Council owned and or controlled lands. It will include all classes of weeds including non-declared plants that are out of place and exhibit signs of invasiveness/ecological suppression. It will also identify the strategy for managing weed infestations on private lands particularly where they are contiguous with Council land.

Step 1 – Identify weed species

Step 2 – Capture information on the extent, threat and treatment priority for each weed species

Step 3 – Describe and evaluate control options

Step 4 – Develop control strategies

Step 5 – Identify Overall Treatment Plans and Develop Schedule of Control Works

The following components are within the scope of the project:

- Detailed field based assessment of weed distribution, density and threat for priority weeds across the island.
- Review of control methods and options (including cost benefit analysis, and applicability) for use on Coochiemudlo Island.
- Identification of areas where different control strategies are advisable.
- Develop a plan for a whole of Island Open Space/Conservation estate weed control plan.

The development of a whole of city weed management plan is not within the scope of this project proposal. However, consideration should be given to how this plan will work within a citywide framework.

The formation of the internal project steering group will be the responsibility of Council. The Consultant will work with Council to form an external focus group to provide stakeholder feedback on issues critical to the project.



## 4.2 Deliverables

The consultant shall provide the following project components:

- Step 1 – Identify weed species
  - Consultation with the working group to review the weed species list for the island
  - Written report on priority weed species
- Step 2 – Capture information on the extent, threat and treatment priority for each weed species
  - Describe the distribution, current level of impact and threat posed by each weed species across the Council's estate and adjacent land holdings
  - Deliver a community engagement and education content following a template provided by RCC and using resources provided by RCC
  - This engagement program will include:
    - face to face meetings with community stakeholder groups identified by RCC
    - Kitchen table talks with other landowners
    - Monitoring Council's online engagement portal
    - Council will provide regular reports from this online portal to the consultant through the engagement period
    - A survey delivered on paper and online
    - Other resident/ stakeholder meetings as required
    - Council will provide necessary resources to conduct these engagement activities including surveys, methodology and collateral
  - Written report on the results of the survey and consultation with stakeholders on weed threat and treatment priorities to RCC
- Step 3 – Describe and evaluate control options
  - Review available information on options for weed management.
  - Use knowledge and research into various weed control options for weeds identified in Step 2 to lead consultation to consider constraints and benefits.
  - Written report on weed control options, methodologies and applications.
- Step 4 – Develop Control Strategies
  - Work with internal and external stakeholders to identify which control strategies are suitable for use with each weed management activity.
  - Identify standard control tools and mechanisms for use on Coochiemudlo Island that can also be consistently applied across the whole of the city

- Identify circumstances where standard control tools might be set aside in favour of other methods
- Written report identifying weed control strategies for all weeds, including evaluation mechanisms to inform ongoing management decisions
- Step 5 – Identify overall treatment plan recommendations and a schedule of control works
  - Written report outlining Island wide treatment plans to 2026 with a schedule of control works

## 5.0 Reporting, Documentation and Consultation

The consultant will communicate regularly with the project manager (Service Manager Environment and Education). Meetings may be, at the discretion of the project manager, by telephone. The purpose of the meetings is to transfer information and clarify technical issues. They will also form the basis for approving progress payments and ensure milestones are met.

Council Unit	Involvement in Project
Environment and Education Unit – Manager	Project coordination
Environment and Education Unit – Bushcare Team	Project delivery support
Parks and Conservation Unit - Manager	Project delivery support
Parks and Conservation Unit - Conservation Team	Project Support
Communication, Engagement and Tourism Section	Project support

### 5.1 Reports

All documentation must be provided in both hard copy (3 copies) and digital format. Digital formats must be in Word, Excel, and Image formats. PDF's must be in both 'print' and 'screen resolutions' formats.

All draft reports shall be subject to review and comment by the project team.

### 5.2 Legislative Considerations

The project must take into account the following legislation:



- Redland City Council:
  - Local Law No. 6 (Protection of Vegetation)
  - Local Law No.3 (Community and Environmental Management)
  - Local Law No. 4 (Local Government Areas, Facilities and Roads)
- Queensland Government:
  - Biosecurity Act 2014
  - Vegetation Management Act 1999
  - Nature Conservation Act 1992
  - Fisheries Act 1994
  - Marine Park Act 2004
  - Aboriginal Cultural Heritage Act 2003

Other planning instruments and policies

Redland City Council:

- Coochiemudlo Island Land Management Plan 2004
- Isle of Coochie Golf Course 2008
- Pest Management Plan 2012-2016
- Conservation Land Management Strategy 2010
  - Statement of Management Intent for Flying-fox roost management in Redland City Council 2015
- Natural Environment Policy (POL 3128)

### 5.3 Mandatory Qualifications

## 6.0 Project Management and Administration

### 6.1 Project Timeframes

RCC require the selected consultancy to meet the following timeframes:

Coochiemudlo Weed Management Program	
Procurement process for external consultant to design and deliver program	September 2016
Pre-start meeting	September 2016
Step 1 – Identify Weed Species	October 2016

Step 2 – Capture information of extent, threat and treatment priority for each weed species	November 2016
Step 3 – Describe and Evaluate Control Options	December 2016
Step 4 – Develop Control Strategies	February 2017
Step 5 – Identify Overall Treatment Plans and Develop Schedule of Control Works	April 2017
Estimated completion date	May 2017

Interim dates and milestones, such as submission of the draft reports, will be finalised during the project inception meeting.

## 6.2 Quotation

The submission should be provided in the written proposal quotation form. The project proposal should:

- Respond to this proposal request and display an understanding of the tasks, deliverables and methodologies of the project
- Provide a cost break down of the major components of the project
- Confirm the capacity to meet the timeframes outlined in Section 6.1
- Briefly outline the suitability of the personal who will be delivering the project (including prior relevant experience in developing weed management plans involving consultation with community groups)

## 6.3 Conditions of Quotation and Contract for Professional Services

Please find enclosed RCC's standard 'Written Quotation Form – Professional Services' and the 'Conditions of Contract for Professional Services'. These are mandatory requirements for the successful consultancy.

## 6.4 Resources

A project budget of up to \$30,000 is available for the completion of this task.

Council will provide staff resources from the key personnel outlined in this document to assist the Consultants to access corporate information to support the project, engage with relevant stakeholders, hold meetings and develop presentation materials to a style/standard required by Council.



## 6.5 Payment

The payment schedule will be negotiated at the prestart meeting.

## 6.6 Submission Details

Submissions must be in writing and emailed to [Ben.mcmullen@redland.qld.gov.au](mailto:Ben.mcmullen@redland.qld.gov.au)

Submissions must be received by close-of-business on 19 September 2016.

## 6.7 Further Enquiries

Further enquiries should be directed to the Ben McMullen, Service Manager Environment and Education Unit. [Ben.mcmullen@redland.qld.gov.au](mailto:Ben.mcmullen@redland.qld.gov.au)

## 6.8 Appendix 1 Community Stakeholder Groups

Stakeholder	Interest
Coochiemuldo Coastcare	Strong interest in vegetation management on island
Coochiemudlo Progress Association	Strong interest in island values
Coochiemuldo Bushcare	Strong interest in habitat restoration and weed management on the island
General Coochiemuldo residents	Strong interest in island values
Healthy Waterways and Catchments	Waterways and terrestrial ecosystems health
Non-resident landowners	Impact of weeds on property, responsibility of maintaining property

Coochiemudlo Art Group	Coochiemudlo heritage and environment
Coochiemudlo Library	Coochiemudlo heritage and culture
Neighbourhood Watch	Social cohesion and resilience

# What is being said about



## Waverley Council (Home of the iconic Bondi Beach)

"Over the past few years Council has been using Weedtechnics in these high-use areas to minimise weeds and maximize environmental protection, with great results. Not only are the weeds being eradicated but there is no chemical run-off into the waterways and no down time to running the program as there are no issues with weather (e.g. wind, rain)."

Waverley Council,  
Greg Holten,  
Divisional Manager Open Spaces Recreation,  
Customer & Community Services



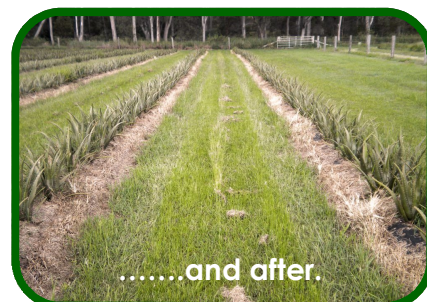
## Hi Tech Aloe Vera (largest producer of Aloe Vera in the Southern Hemisphere.)

"Australian Hi Tech Aloe Vera purchased the Weedtechnics agricultural model SK900 VH. After modifying it to be mounted on our tractor forklift to give us the flexibility we needed for our farming system, we found it to be the perfect solution for killing the weeds along the edges of our plants. Being an Organically Certified farm it was an economically viable option that was required to complete our farming practice. The machine itself is very easy to operate and is economical to run compared with other methods of weed control we have tried in the past. Thanks to Weedtechnics for their great after sales service, they have always been on hand to help us set up a system that now has revolutionized the way we control our weeds on our Organically Certified Farm."

Australian Hi Tech Aloe Vera  
Adrian Crush,  
Farm Manager



Aloe Vera before



.....and after.

## Summit Organics in NSW (Organic salad and herb grower.)

"The Weedtechnics has meant that in some places we have not had to till. We just pull out the crop residue and steam the rest, which saves us time. When we prepare our beds we mulch them before planting, we now find if we get rain once the beds are prepared we can use the steam to kill the weed seed that germinates without having to disturb the mulch layer. The less we disturb the mulch layer the less weeds we get."

It is amazing on the edges where the grass creeps in. We have triple planted our outside beds with coriander and this is the first year we have had a good crop from this bed because we can keep the grass out. Before we were losing 1/2 a metre (18 inches) a month with the grass creeping into the end of the rows. I have been surprised by the weeds it works well on, it kills kikuyu and couch after about 2 treatments."

Summit Organics, Rod Bruin, Owner







Leichhardt Municipal Council has used non toxic weed control throughout our streets, footpaths and parks since 1995

We have had the experience of working with and also trialling a range of thermal treatments. I have found the Steamwand machines, developed and used by Weedtechnics, to be the most effective available.

The Weedtechnics service team have also proven to be the most reliable contractors we have employed for this service. Since Weedtechnics took over the weed management our caller complaint level, regarding weeds in streets, has dropped significantly, saving our staff work and time in managing weed complaints.

Weedtechnics provide regular communication, efficient delivery of service and are responsive to any requests we have. Their operational systems provide a non toxic weed control solution that should be considered by any municipality or city looking to reduce its chemical usage.

Leichhardt Council,  
Vince Cusumano, Manager  
Parks & Streetscapes



The City of Fremantle has used non chemical weed control for a number of years now and Weedtechnics has been the successful tenderer for the past 3 years. The City has had experience with a number of machines with limited success until the Weedtechnics range was brought to Western Australia.

Their portable units have provided the city with the flexibility and convenience of weed control throughout the year regardless of conditions with minimal disruption to pedestrian and vehicular traffic flow. The great advantage for the city is the positive feedback we receive from the community because we are not applying chemicals to our streetscapes which border the ocean and the river and also our complaint levels have dropped to a point where we have not received a complaint for over a year now.

Jonathan Grey and his Western Australian team provide reliable service at regular programmed intervals to the City of Fremantle and their turn around for reactive works is excellent. I would be happy to recommend their service to any organisation looking for chemical free weed eradication alternatives.

City of Fremantle,  
Dion Johnson,  
Works Controller Parks and Landscape