



THE MARINA BUSHCARE ACTION PLAN

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CONTACT INFORMATION

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Reserve Name : Lee St road reserve, 3 separate sites along Culburra Beach including (The Mall St, The Marina (from Nth Crescent Nth to the Bowery and Ocean St car park and beach access area)
Reserve No: CCU276 & CCU226
Land Tenure: SCC
Comm. Land Type: Natural Area – Foreshore

1. BUSHCARE GROUP GOALS

Improve the native biodiversity, dune stabilisation and aesthetic qualities of each site through continued weed removal and appropriate revegetation.

The Marina Culburra Bushcare Group is actively working on four different sites in Culburra (see map 1):

- 1. The Marina**
- 2. Ocean Street**
- 3. Lee Street**
- 4. The Mall**

2. SHOALHAVEN BUSHCARE GROUP ACTIVITIES TABLE (to be in conjunction with attached site map)

NOTE: Priority should be rated as H = High (within 12 months); M = Medium (1-3 years); L = Low

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
<p>1. The Marina</p> <p>Control of noxious species and highly invasive species esp. Coastal Morning Glory (<i>Ipomoea cairica</i>) in area of high infestation south of Mowbray Rd track.</p> <p>Control of environmental weeds (priority given to noxious species) in area of moderate weed infestation south of Mowbray Rd track.</p> <p>Maintenance of plantings.</p> <p>Ongoing weed maintenance.</p>	<p>H</p> <p>M</p> <p>L</p> <p>L</p>	<p>Hand weed Coastal Morning Glory and other species where possible. Scrape & paint Green Cestrum</p> <p>Hand weed. Spray dense areas of weeds where appropriate.</p> <p>Periodic checking & weeding of plants in guards. Removal of guards when established. Replacement of plants where necessary.</p> <p>Periodic sweeps- hand weeding</p>	<p>1-2year</p> <p>1-3year</p> <p>Ongoing -until plants est.</p> <p>Ongoing</p>

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
<p>2. Ocean Street</p> <p>Control of weed grasses (Kikuyu & Buffalo grass) in area adjacent to car park on Ocean Street site.</p> <p>Mulching and planting adjacent to car park on Ocean Street site.</p> <p>Control of highly invasive Climbing Groundsel (<i>Senecio angulatus</i>) at southern end of Ocean Street.</p> <p>Maintenance of plantings</p> <p>Ongoing weed maintenance</p>	<p>H</p> <p>H</p> <p>M</p> <p>L</p> <p>L</p>	<p>Hand remove bulk, then follow-up with glyphosate spray</p> <p>Spread mulch (council provided) by hand. Plant open areas with endemic stock.</p> <p>Hand remove where growing over native plants. Spot spray with glyphosate (1:100) on ground.</p> <p>Periodic checking & weeding of plants in guards. Removal of guards when established. Replacement of plants where necessary.</p> <p>Periodic sweeps – hand weeding</p>	<p>6month</p> <p>1 year</p> <p>1-2year</p> <p>Ongoing -until plants est.</p> <p>Ongoing</p>

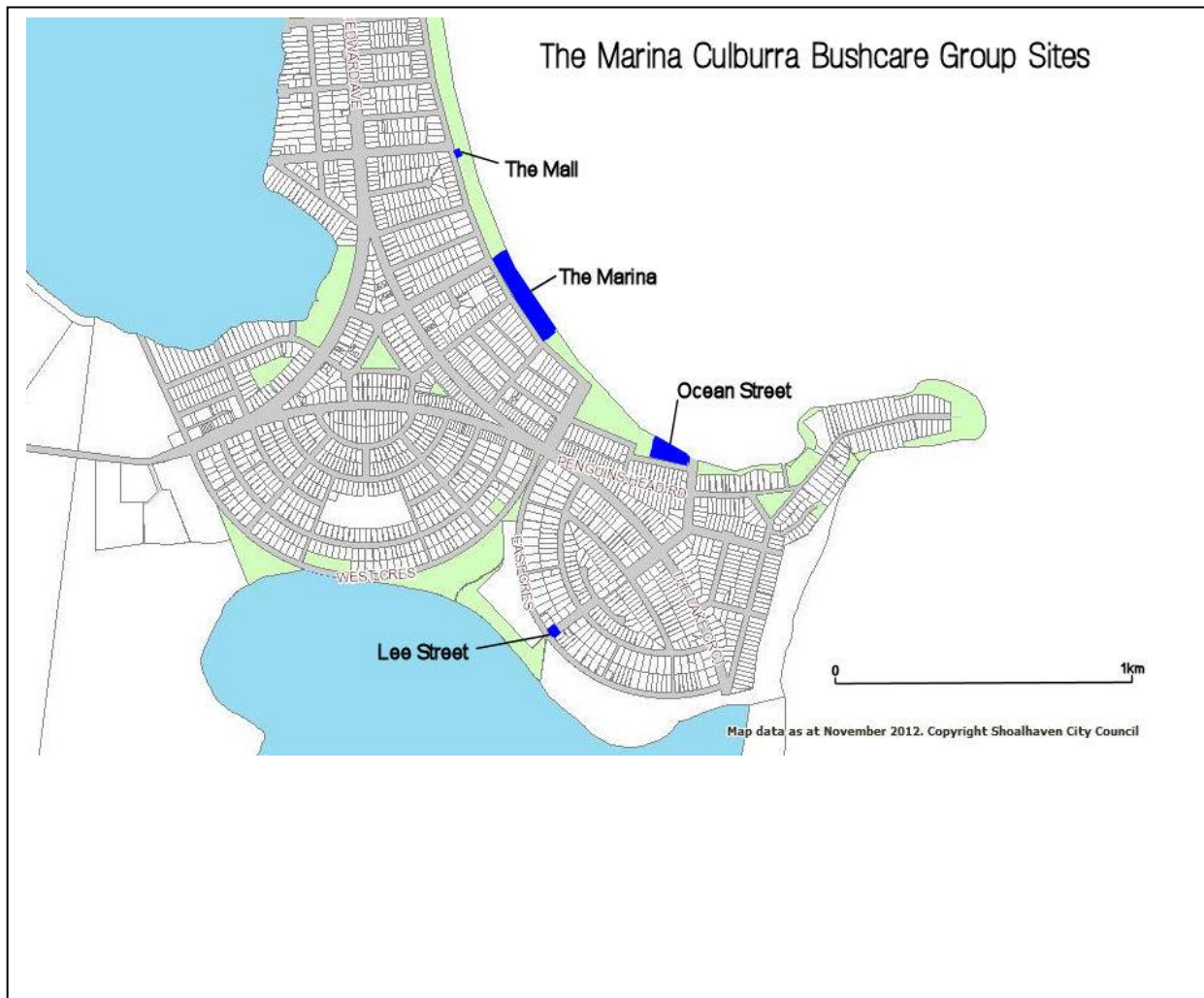
GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
<p>3. Lee Street</p> <p>Maintenance of plantings</p> <p>Ongoing weed maintenance</p>	<p>L</p> <p>L</p>	<p>Periodic checking & weeding of plants in guards. Removal of guards when established. Replacement of plants where necessary.</p> <p>Periodic sweeps – hand weeding</p>	<p>Ongoing -until plants est.</p> <p>Ongoing</p>
<p>4. The Mall</p> <p>Maintenance of plantings</p> <p><i>Note: All revegetation undertaken as part of this Bushcare Plan on foreshore reserve will not impact on the current/existing views/vistas that currently exist and have not been created by the wilful destruction and/or damage to foreshore vegetation. The revegetation works will comply with all state and local government regulations, plans and polices that effect the zoning of the land.</i></p>	<p>L</p>	<p>Periodic checking & weeding of plants in guards. Removal of guards when established. Replacement of plants where necessary.</p>	<p>Ongoing -until plants est.</p>

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME

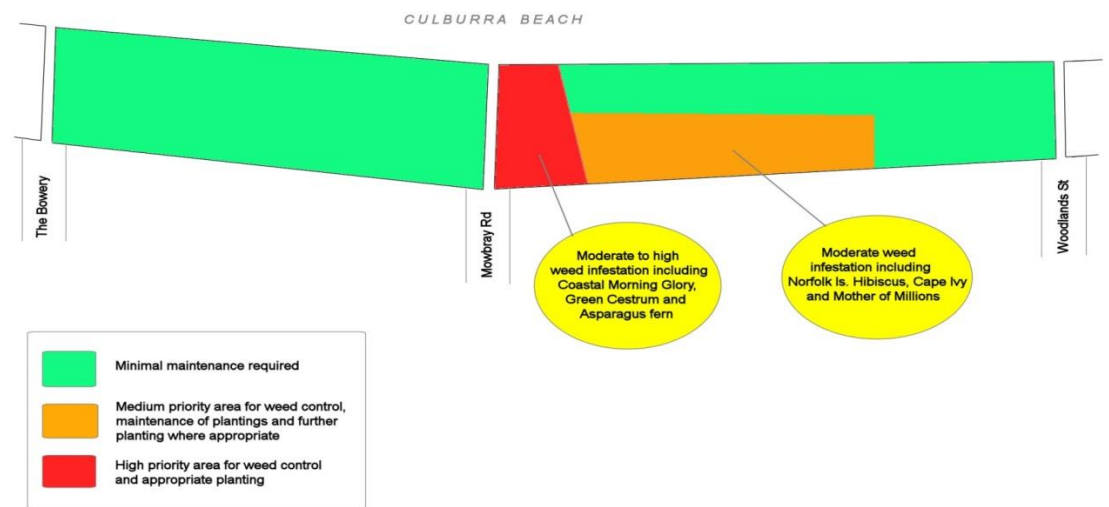
5. BUSHCARE GROUP ACTION PLAN MAP

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Map 1. Overview of The Marina Bushcare Sit



Site 1. The Marina





Site 1. The Marina (southern end) *photo J. Polosak*



Site 2. Ocean Street







Site 3. Lee Street *Photo J.Polosak*



Site 4. The Mall

6. BUSHCARE GROUP OH&S & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	SWMS name included
Manual weed control (cut & paint, scrape and paint etc)	Yes	
Chemical control (spraying of herbicides)	Yes	
Planting	Yes	
Minor construction (walking track, fencing, outdoor furniture)		
Propagation & seed collection	Yes	
Education (school groups, field days etc)		
Other		

7. COUNCIL SUPPORT

- Technical advice and support
- Provision of PPE equipment
- Supply tools, herbicide and materials within the constraints of budget
- Administration support
- Assistance with grant application, administration and management.
- Graphic design and printing assistance
- Assistance with facilitation and negotiation with third parties

8. HAS A SITE HAZARD AND RISK ASSESSMENT BEEN COMPLETED FOR THE BUSHCARE SITE?

Yes X No

9. LIST THE PERSONAL PROTECTION EQUIPMENT REQUIRED FOR VOLUNTEERS WHILST WORKING ON THE SITE

PPE Equipment Required	Date issued
First Aid Kit	2012
Gloves	2013
Sunscreen	2013
Insect repellent	2013

10. POSSIBLE FUTURE FUNDING

Project	Funding source
Assistance with landscape scale control of weeds such as Bitou Bush, Asparagus Fern and Lantana in the Culburra Beach catchment area	Various

11. PLAN WILL BE REVIEWED EVERY THREE YEARS

Next review due:

22./07/2017

12. PLEASE LIST OTHER LOCAL OR REGIONAL MANAGEMENT PLANS OR STRATEGIES THAT THIS PLAN RELATES TO

Name of document	Year it was produced	Produced by
Generic Community Land Plan of Management – Natural Areas	2001	Shoalhaven City Council
Foreshore Reserves Policy	2005	Shoalhaven City Council
Southern Rivers Catchment Action Plan 2013 - 2023	2013	Southern Rivers Catchment Management Authority

13. RECOMMENDED PLANTING/REVEGETATION SPECIES LIST

Sites 1,2 and 4 (The Marina, Ocean Street and The Mall)

NB Only understorey species to be planted at The Mall

OVERSTOREY TREES	
Botanical	Common
<i>Acmena smithii</i>	Lilli Pilli
<i>Casuarina glauca</i>	Swamp She-oak
<i>Leptospermum laevigatum</i>	Coastal Tea tree
SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> spp. <i>sophorae</i>	Coastal Wattle
<i>Correa alba</i>	White Correa
<i>Leucopogon parviflorus</i>	Bearded Heath
<i>Myoporum boninense</i>	Boobialla
UNDERSTOREY (grasses, herbs, climbers)	
Botanical	Common
<i>Cissus antarctica</i>	Kangaroo Grape
<i>Cissus hypoglauca</i>	Water Vine
<i>Lomandra longifolia</i>	Spiny Mat-rush
<i>Rhagodia candolleana</i>	Coastal Saltbush

Site 3 (Lee Street)

OVERSTOREY TREES	
Botanical	Common
<i>Acmena smithii</i>	Lilli Pilli
<i>Casuarina glauca</i>	Swamp She-oak
<i>Leptospermum laevigatum</i>	Coastal Tea tree
<i>Omalanthus populifolius</i>	Bleeding Heart
<i>Trema tomentosa</i>	Poison Peach
SHRUBS	
Botanical	Common
<i>Correa alba</i>	White Correa
UNDERSTOREY (grasses, herbs, climbers)	
Botanical	Common
<i>Cissus antarctica</i>	Kangaroo Grape
<i>Juncus krausii</i>	
<i>Lomandra longifolia</i>	Spiny Mat-rush

14. SITE WEED LIST

1. The Marina		
Noxious (class)	Environmental	Control Method HP= hand pull CP= cut & paint with glyphosate 3:1 SP= spray glyphosate 100:1
Lantana (4 or 5)		HP/CP
Bitou bush (4)		HP/CP
Green cestrum (3)		Scrape & paint glyphosate 1.5:1 / HP seedlings
Bridal creeper (5)		Dig rhizome/ Fungal rust
	Asparagus fern	Dig rhizome
	Coastal Morning glory	HP
	Senna	HP/CP
	Norfolk Island hibiscus	CP/ drill or frill if large
	Mirror bush	CP/ drill or frill if large
	Mother of millions	HP and bag/ spray fluroxypyr (200g/L) at 60ml/10L + surfactant
	Trad	HP and bag/ spray fluroxypyr (200g/L) at 100ml/10L + surfactant
	Japanese honeysuckle	HP/CP/ SP
	Fishbone fern	HP/ SP
	Flowering ivy (<i>Senecio macroglossus</i>)	HP and bag/SP
	Cape ivy	HP and bag/ SP
	Kikuyu	SP
	Buffalo grass	SP
	Ehrharta	HP bag seed/ SP
	Fleabane	HP/ SP
	Scotch thistle	HP/ SP
	Sow thistle	HP/ SP
	Parramatta grass	HP/ SP
	Blowfly grass	
	Hare's tail grass	
	Kurnell curse (pennywort)	
	Acacia saligna	CP
	Yucca	CP
	Nasturtium	HP
	Cape honeysuckle (Tecoma)	HP/CP
	Shade crassula	HP
	South African daisy	HP/ SP
	Heart leaf ice plant (<i>Aptenia cordifolia</i>)	HP
	Marram grass	

2. Ocean Street		
Noxious (class)	Environmental	Control Method
Lantana (4 or 5)		HP/CP
Bitou bush (4)		HP/CP
Blackberry (4)		Dig rhizome/spray Triclopyr as per label instructions
	Asparagus fern	Dig rhizome
	Kikuyu	SP
	Buffalo grass	SP
	Climbing groundsel (<i>Senecio angulatus</i>)	HP and bag/SP
	Moth vine	HP
	Ehrharta	HP bag seed/ SP
	Fleabane	HP/SP
	Spider lily	HP and bag
	Fumaria	HP/SP
	Petty spurge	
	Blowfly grass	
	Scotch thistle	HP/SP
	Kurnell curse (pennywort)	

3. Lee Street		
Noxious (class)	Environmental	Control Method
Lantana (4 or 5)		HP/CP
Blackberry (4)		Dig rhizome/spray Triclopyr as per label instructions
	Japanese honeysuckle	HP/CP/SP
	Asparagus fern	Dig rhizome
	Senna	HP/CP
	Kikuyu	SP
	Jasmine	HP/CP
	Fishbone fern	HP/SP
	Plantain	HP/SP
	Purple top	HP/SP
	Dock	
	Bidens	HP/SP
	Fleabane	HP/SP
	Blowfly grass	
	Shivery grass (<i>Briza minor</i>)	
	Phalaris	HP/SP
	Scotch thistle	HP/SP
	Kurnell curse (pennywort)	

4. The Mall		
Noxious (class)	Environmental	Control Method
Bitou bush (4)		HP/CP
	Turkey rhubarb	Dig tubers/SP
	Asparagus fern	Dig rhizome
	Buffalo grass	SP
	Sow thistle	HP/SP
	Marram grass	
	Fat hen	HP/SP
	Ehrharta	HP bag seed/SP
	Fleabane	HP/SP
	Plantain	HP/SP
	Hare's tail grass	
	Chick weed	
	Dandelion	HP/SP

15. BUSHCARE SITE SPECIES LIST (NATIVE)

15.1. The Marina

OVERSTOREY TREES	
Botanical	Common
<i>Acmena smithii</i>	Lilli Pilli
<i>Banksia oblongifolia</i>	Coastal Banksia
<i>Eucalyptus botryoides</i>	Bangalay
<i>Leptospermum laevigatum</i>	Coastal Tea-tree
<i>Pittosporum undulatum</i>	Sweet Pittosporum

MID STOREY TREES/SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> var. <i>sophorae</i>	
<i>Breynia oblongifolia</i>	Breynia
<i>Correa alba</i>	White Correa
<i>Leucopogon parviflorus</i>	
<i>Monotoca elliptica</i>	Tree Broom-heath
<i>Myoporum boninense</i>	Boobialla
<i>Omalanthus populifolius</i>	Bleeding Heart

SHRUBS	
Botanical	Common
<i>Crinum pedunculatum</i>	Swamp Lily
<i>Isolepis nodosa</i>	
<i>Lomandra longifolia</i>	Spiny mat-rush
<i>Pteridium esculentum</i>	Bracken
<i>Rhagodia candolleana</i>	Coastal saltbush
<i>Urtica incisa</i>	Stinging nettle

UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Actites megalocarpa</i>	Coastal Sowthistle
<i>Austrofestuca littoralis</i>	Coastal Fescue
<i>Cakile edentula</i>	Sea Rocket
<i>Calystegia soldanella</i>	
<i>Carpobrotus glaucescens</i>	Pig Face
<i>Dianella congesta</i>	Coastal Flax Lily
<i>Geranium homeanum</i>	Northern Cranesbill
<i>Pelargonium australe</i>	Coastal Geranium
<i>Scaevola calendulacea</i>	Scented Fan Flower
<i>Senecio hispidulus</i>	Rough Groundsel
<i>Spinifex sericeus</i>	Spinifex
<i>Tetragonia tetraganoides</i>	New Zealand Spinach

UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Cissus antarctica</i>	Kangaroo Grape
<i>Cissus hypoglauca</i>	Water Vine
<i>Clematis aristata</i>	Old Man's Beard
<i>Hibbertia scandens</i>	Golden Guinea Flower
<i>Stephania japonica</i>	Snake Vine

15.2. Ocean Street

OVERSTOREY TREES	
Botanical	Common
<i>Banksia oblongifolia</i>	Coastal Banksia
<i>Casuarina glauca</i>	Swamp She-oak
<i>Leptospermum laevigatum</i>	Coastal Tea-tree

MID STOREY TREES/SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> var. <i>sophorae</i>	Coastal Wattle
<i>Breynia oblongifolia</i>	Breynia
<i>Leucopogon parviflorus</i>	Pigeon Berry Ash
<i>Myoporum boninense</i>	Boobiolla
<i>Omalanthus populifolius</i>	Bleeding Heart

SHRUBS	
Botanical	Common
<i>Isolepis nodosa</i>	Nodding Rush
<i>Lomandra longifolia</i>	Spiny mat-rush
<i>Rhagodia candolleana</i>	Coastal saltbush
<i>Solanum americanum</i>	Nightshade
<i>Urtica incisa</i>	Stinging nettle

UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Actites megalocarpa</i>	Coastal Sowthistle
<i>Cakile edentula</i>	Sea Rocket
<i>Carpobrotus glaucescens</i>	Pig Face
<i>Commelina cyanea</i>	Bind Weed
<i>Dianella congesta</i>	Coastal Flax Lily
<i>Dichondra repens</i>	Kidney Weed
<i>Geranium homeanum</i>	Northern Cranesbill
<i>Imperata cylindrica</i>	Blady grass
<i>Senecio hispidulus</i>	Rough Groundsel
<i>Spinifex sericeus</i>	Spinifex

<i>Tetragonia tetraganoides</i>	New Zealand Spinach
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UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Parsonsia straminea</i>	Common Silk-pod
<i>Eustrephus latifolia</i>	Wombat Berry
<i>Hibbertia scandens</i>	Golden Guinea Flower

15.3. Lee Street

OVERSTOREY TREES	
Botanical	Common
<i>Pittosporum undulatum</i>	Sweet Pittosporum

MID STOREY TREES/SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> var. <i>sophorae</i>	
<i>Acacia mearnsii</i>	Black Wattle
<i>Omalanthus populifolius</i>	Bleeding Heart
<i>Breynia oblongifolia</i>	Breynia

SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> var. <i>sophorae</i>	
<i>Acmena smithii</i>	Lilli Pilli
<i>Banksia oblongifolia</i>	Coastal Banksia
<i>Casuarina glauca</i>	Swamp She-oak
<i>Correa alba</i>	White Correa
<i>Ghania</i> sp.	
<i>Isolepis nodosa</i>	
<i>Juncus krausii</i>	
<i>Leptospermum laevigatum</i>	Coastal Tea-tree
<i>Lomandra longifolia</i>	Spiny mat-rush
<i>Pteridium esculentum</i>	Bracken
<i>Trema tomentosa</i>	Poison Peach

UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Dianella</i> sp.	Flax Lily
<i>Entolasia marginata</i>	
<i>Geranium homeanum</i>	Northern Cranesbill
<i>Microlaena stipoides</i>	Weeping Meadow Grass
<i>Rubus parvifolius</i>	Native Raspberry
<i>Senecio hispidulus</i>	Rough Groundsel
<i>Viola hederacea</i>	Native Violet

UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Celtis antarctica</i>	Kangaroo Grape
<i>Eustrephus latifolia</i>	Wombat Berry

15.4. The Mall

16. OVERSTOREY TREES	
Botanical	Common

MID STOREY TREES/SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> var. <i>sophorae</i>	
<i>Breynia oblongifolia</i>	Breynia
<i>Correa alba</i>	White Correa
<i>Leptospermum laevigatum</i>	Coastal Tea-tree
<i>Leucopogon parviflorus</i>	
<i>Myoporum boninense</i>	Boobialla
<i>Pittosporum undulatum</i>	Sweet Pittosporum

SHRUBS	
Botanical	Common
<i>Lomandra longifolia</i>	Spiny mat-rush
<i>Rhagodia candolleana</i>	Coastal saltbush
<i>Solanum americanum</i>	
<i>Isolepis nodosa</i>	

UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Geranium homeanum</i>	Northern Cranesbill
<i>Dianella congesta</i>	Coastal Flax Lily
<i>Pelargonium australe</i>	Coastal Geranium
<i>Carpobrotus glaucescens</i>	Pig Face
<i>Tetragonia tetraganoides</i>	New Zealand Spinach
<i>Viola hederacea</i>	Native Violet

Bushcare Group Name The Marina Bushcare Group.

Coordinator Name

Signature

Date/.....