



Shoalhaven
City Council

SHOALHAVEN HEADS BUSHCARE ACTION PLAN

CONTACT INFORMATION

Group Name:	Shoalhaven Heads Bushcare Group
Contact:	Noel Schneider
Address:	6 Wells PI SHOALHAVEN HEADS
Tel:	4448 7680
Email:	nshneider@shoal.net.au
Reserve Name:	Shoalhaven Heads Beach
Reserve No:	NSH149
Land Tenure:	Crown Land
Comm. Land Type:	Crown Land TM/CCM

1. BUSHCARE GROUP GOALS

The Shoalhaven Heads Bushcare Group has been working for fifteen years on the Crown Land Reserve that surrounds the Holiday Haven Tourist Park, concentrating their efforts on the fore-dune and hind-dune areas as well as the Shoalhaven River. Shoalhaven Heads Bushcare Group have undertaken primary weed removal of Lantana, Lions Tail, Bitou Bush, Asparagus Fern, Coral Trees, Turkey Rhubarb and Blackberry across the dunes. Large areas of the Bushcare Group's site are now at the secondary maintenance stage, although there are several weed species that are beyond the groups resources and assistance is required to help the Bushcare group tackles these, those weed species include:

1. *Erythrina X sykesii* - Coral Tree
2. *Acetosa sagittata* – Turkey Rhubarb
3. *Delairea odorata* – Cape Ivy
4. *Bryophyllum delagoens* - Mother of Millions

The other aim of the Bushcare Group is to encourage/stimulate natural regeneration in areas where weed removal has been done over the past three years particularly Lantana.

2. SHOALHAVEN BUSHCARE GROUP ACTION PLAN (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

PLEASE NOTE: To be used with attached weed species maps

GROUP ACTION	PRIORITY	METHOD	TIME
<p>Asparagus Fern (<i>Asparagus densiformis</i>): 1. Bushcare Group to spot spray all Asparagus Fern but hand remove from areas where there may be a chance of damage to native plants from spraying (Zones 3,4,5)</p> <p>Bridal Creeper (<i>Asparagus asparagoids</i>): 2. Bushcare Group and assistance from Council to release Bridal Creeper Rust (<i>Puccinia myrsiphylli</i>) and monitor</p>	<p>H</p>	<p>1. Spot spray with combination Metsulfon Methyl at 1-2g per 10litre + Glyphosate at 200mL per 10 litres</p> <p>2. Liaise with Bushcare Coordinator to obtain rust and follow instructions CSIRO hand out</p>	<p>1. Early spring to Summer</p> <p>2. Late Winter</p>

GROUP ACTION	PRIORITY	METHOD	TIME
<p>Turkey Rhubarb (<i>Acetosa sagittata</i>) and Cape Ivy (<i>Deliera odorata</i>):</p> <ol style="list-style-type: none"> 3. Shoalhaven Bushcare Coordinator to approach Holiday Haven for financial assistance to control large areas of Turkey Rhubarb and Cape Ivy in areas surrounding caravan park (Zones 1,2,3,5,6,7,8 and along river front). 4. Bushcare Group to control Turkey Rhubarb and Cape Ivy in Zones 3,4,5 by spot spraying. 	H	<ol style="list-style-type: none"> 3. Bushcare Coordinator to negotiate with Holiday Haven Parks Manager regarding assistance 4. Spot spray Turkey Rhubarb with Glyphosate at 200ml per 10 litres 	Spring Summer
<p>Mother of Millions (<i>Bryophyllum delagoens</i>)</p> <ol style="list-style-type: none"> 1. Council to spray areas of Mother of Millions in Zone 8 2. Bushcare group to undertaken follow up control of Mother of Millions. 	H	<ol style="list-style-type: none"> 1. Council to engage contractor to spray Mother of Millions 2. Bushcare Group to hand remove small plantlets and bag 	Winter – Spring All year
<p>Invasive Kikuyu/Buffalo Grasses on bushland boundaries:</p> <ol style="list-style-type: none"> 1. Council to spray out kikuyu/buffalo grasses on the boundary of parkland/bushland area near SLSC in zone 3 and mulch. 2. Bushcare to maintain mulched boundary by spot spraying emerging weeds. 3. Bushcare to spot spray invasive Kikuyu on beach tracks between zones 5 & 7 and 6 & 7. 	M	<ol style="list-style-type: none"> 1. Spray edges and heavily mulch 2. Spot spray mulched edge with Glyphosate at 100mL per 10 litres 3. Spray in Winter using Glyphosate at 100ml per 10 litres 	Spring – Summer All year Winter

GROUP ACTION	PRIORITY	METHOD	TIME
<p>Lantana (<i>Lantana camara</i>)</p> <ol style="list-style-type: none"> 1. Bushcare Group to follow up control of all re-growth in areas where Lantana has been previously removed (Zones 2,3,4,5,6,) 2. Bushcare Group NOT to remove Lantana in Zones 1,7 and 8 until Turkey Rhubarb and Cape Ivy have been controlled. 3. Council to undertake controlled burn and follow up with Lantana control. Bushcare group to follow up with secondary weed control targeting: <ol style="list-style-type: none"> a. Lantana re-growth b. Moth Vine c. Banana passion fruit d. Wild Tobbaco Plant 	<p>1.H 2. L</p> <p>M</p> <p>L</p>	<ol style="list-style-type: none"> 1. Spot spray re growth Lantana using Glyphosate at 100ml per 10 litres or hand pull 2. Cut and paint 3. Council to employ contractors and Bushcare to spot spray , cut and paint and hand pulling 	<p>Spring – Summer</p> <p>All year All year</p>
<p>Lions Tail (<i>Leonurus subiricus</i>)</p> <ol style="list-style-type: none"> 1. Bushcare Group to continue to undertake follow up control of Lions Tail (Zones 6 & 7) 		<ol style="list-style-type: none"> 1. Hand pull or cut and paint larger ones 	<p>Spring – Summer</p>
<p>Coral Trees (<i>Erythrina X sykesii</i>)</p> <ol style="list-style-type: none"> 1. Bushcare Group to continue to drill and direct inject Coral Trees that are not overhanging any public access ways or open spaces. 2. Council to remove Coral Trees that may be a risk hazard to the public. 	<p>H</p>	<ol style="list-style-type: none"> 1. Drill holes in to 10mm right around trunk and fill with neat Glyphosate 2. Council Tree Management Officer to access risk of each tree and make recommendations for removal 	<p>Autumn – Winter</p> <p>Spring 2010</p>
<p>Bitou Bush (<i>Chrysanthemoides monilifera</i>)</p> <ol style="list-style-type: none"> 1. Bushcare Group to work with Council’s Bitou Bush Control Officer to assist with the control and removal of Bitou Bush across the site. 	<p>M</p>	<ol style="list-style-type: none"> 1. Council’s Bitou Bush Control Officer to liaise with Bushcare Group coordinator in regard to control program for Bitou on site 	<p>Winter</p>
<p>Blackberry (<i>Rubus fruticosus (agg.spp.)</i>)</p> <ol style="list-style-type: none"> 1. Council’s Noxious weeds section to control Blackberry within the zone. 		<ol style="list-style-type: none"> 1. Liaise with Noxious Weeds 	<p>Autumn-Spring</p>

GROUP ACTION	PRIORITY	METHOD	TIME
<p>Regeneration of previously cleared areas</p> <ol style="list-style-type: none"> Council to work with Bushcare Group and Rural Fire Service to undertake a combination of pile burns and small ecological burns in zones 3,4,5 to stimulate germination of native seeds already in the soil strata. 	M	<ol style="list-style-type: none"> Bushcare Coordinator to coordinate pile burns. 	Winter
<p>Remnant patch of Bushland – Jerry Bailey Reserve</p> <ol style="list-style-type: none"> Bushcare group to target small Madeira Vine infestation and isolated one off Lantana /Bitou Bush patches that occur in the remnant. Council to spray Asparagus fern and Mother of Millions. Bushcare group to distribute “Being a Bush Friendly Neighbour” brochure and install temporary “No Dumping of Garden Waste” signs in reserve 	L	<ol style="list-style-type: none"> Scrape and paint stems and dispose of tubers from site. Contractors to spray Mother of Millions and Asparagus fern Council to supply brochures and signs 	<ol style="list-style-type: none"> 2010 2010 and On going 2010

**3. BUSHCARE GROUP ACTION PLAN MAP 1
SHOALHAVEN HEADS BUSHCARE GROUP SITE MAP SHOWING MANAGEMENT ZONES**



- KEY TO ZONES**
- Zone 1 – Caravan Park Entrance to River Rd
 - Zone 2 – Wetland area from MacIntosh St to foot track
 - Zone 3 – Dune area from SLSC to 1st Beach access track
 - Zone 4 - Dune area from 1st Beach access track to 2nd Beach access track.
 - Zone 5 – 2nd Beach access track to vehicle access track at River Rd car park
 - Zone 6 – Vehicle access track to bird viewing area track
 - Zone 7 - Bird viewing access track to 2nd Beach access track.
 - Zone 8 – Sand spit area

BUSHCARE GROUP ACTION PLAN MAP 2






- KEY TO ZONES**
- Zone 9 – Small bushland remnant in Jerry Bailey Reserves
 - Zone 10 – Swamp Oak Forest and Swamp Mahogany Forest remnant between Berry canal and Tall Timbers Caravan Park

LANTANA AND BITOU BUSH MAP 1





Key

-  Areas where Lantana has previously been removed
-  Areas where Lantana hasn't been controlled
-  Bitou Bush that group will control

LANTANA AND BITOU BUSH MAP 2






Key

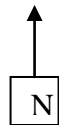
-  Area of Lantana untreated
-  Area of Asparagus fern, Mother of Millions, Madeira Vive, Lantana and garden escapee's

CORAL TREE, BLACKBERRY AND LIONS TAIL MAP



KEY


-  Lions Tail
-  Locations of Coral Tree
-  Blackberry

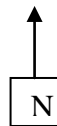


ASPARAGUS FERN AND BRIDAL CREEPER MAP



KEY


 Locations of Asparagus Fern & Bridal Creeper

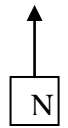


TURKEY RHUBARB AND CAPE IVY MAP



KEY



 Turkey Rhubarb and Cape Ivy locations

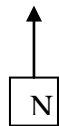


MOTHER OF MILLIONS & KIKIYU GRASS MAP



KEY

-  Mother of Millions
-  Kikuyu/Buffero grass invading dune bushland areas



4. BUSHCARE GROUP OH&S & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	SWMS name included
Manual weed control (cut & paint, scrape and paint etc)	√	SWMS NR060
Chemical control (spraying of herbicides)	√	SWMS NR040
Planting	√	SWMS NR030
Minor construction (walking track, fencing, outdoor furniture)		
Propagation & seed collection		
Education (school groups, field days etc)	√	NA
Other		

5. COUNCIL SUPPORT

- a. Rabbit control
- b. Weed control of Turkey Rhubarb in zones 1,2,3,5,6,7,8 and along river front
- c. Assist with control of Blackberry, Bitou Bush and Mother of Millions
- d. Spray out Buffalo Grass on parkland/bushland boundary in zone 3
- e. Removal of Coral Trees that are deemed a public risk
- f. Assist with application process for ecological burns

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

Yes √

Attach a copy of the site/s risk assessment to the plan.

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

PPE Equipment Required	Date issued
First Aid Kit	Jan 2007
Gloves	Jan 2007
Sunscreen	Jan 2007
Insect repellent	Jan 2007

8. POSSIBLE FUTURE FUNDING

Project	Funding source
On going dune restoration and expansion of area	SRCMA and Federal Grants

9. PLAN WILL BE REVIEWED EVERY THREE YEARS – NEXT REVIEW DUE: APRIL 2013

The group should review a summary of the Bushcare Policy & Procedures at the time of each annual review

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

Name of document	Year it was produced	Produced by
Natural Areas Generic Plan of Management	2001	Shoalhaven City Council
Lower Shoalhaven River Flood Study	1990	NSW Dept of Public Works
Shoalhaven River Entrance Management Plan	2006	Shoalhaven City Council
Shoalhaven Foreshore Reserves Policy	2005	Shoalhaven City Council
Draft Shoalhaven Coastal Management Plan		Shoalhaven City Council

11. SUGGESTED SPECIES LIST FOR FUTURE SITE REVEGETATION

OVERSTOREY TREES	
Botanical	Common
<i>Acmena smithii</i>	Lilli Pilli
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Banksia serrata</i>	Saw Tooth Banksia
<i>Casuarina glauca</i>	She Oak
<i>Eucalyptus botryoides</i>	Bangalay Gum
SHRUBS	
Botanical	Common
<i>Acacia longifolia</i>	Sydney Golden Wattle
<i>Acacia longifolia spp sophorae</i>	Coastal Wattle
<i>Breynia oblongifolia</i>	Coffee Bush
<i>Leptospermum laevigatum</i>	Coastal Tea Tree

<i>Monotoca elliptica</i>	Tree Broom Heath
<i>Notelaea longifolia</i>	Mock Olive
<i>Pittosporum revolutum</i>	Rough Pittosporum
UNDERSTOREY (grasses, herbs, climbers)	
Botanical	Common
<i>Billardiera scandens</i>	Apple dumpling vine
<i>Carex longebrachiata</i>	Drooping Sedge
<i>Commelina cyanea</i>	Native Wandering Jew
<i>Dianella caerulea</i> var. <i>caerulea</i>	Native Blue Flax Lily
<i>Hardenbergia violacea</i>	Wandering Postman
<i>Hibbertia scandens</i>	Golden Guinea Flower
<i>Kennedia rubicunda</i>	Dusty Coral Pea
<i>Lomandra longifolia</i>	Matt Rush
<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
<i>Themeda australis</i>	Kangaroo Grass
<i>Viola hederacea</i>	Native Violet

12. SITE WEED LIST

Noxious	Other	Control Method
Bitou Bush		Spray with 1:100 Glyphosate in winter or cut and paint
Blackberry		Spray with a selective herbicide
Lantana		Cut and paint (leave dead canes on site to break down)
	Asparagus Fern	Remove crown by manual digging and bag or spot spray with 1:100 Glyphosate + wetting agent
	Bridal Creeper	Spot spray with 1:100 Glyphosate
	Cape Ivy	Spot spray with 1:100 Glyphosate
	Kikuyu/Buffalo Grass	Spray with 1:100 Glyphosate in winter
	Lions Tail	Cut and paint (leave dead canes on site to break down)
	Mother of Millions	Hand removal and bag all plants/remove from site or spot spray with a selective herbicide
	Turkey Rhubarb	Spot spray with 1:100 Glyphosate

ATTACHMENT: Group support and skill development needs. This information helps to identify gaps that may exist between what the group require to function effectively and what the group has available. **This focuses on the group, overall, not individual members.**

<i>Tick one box only</i>	We are absolute beginners – don't know a great deal	We know a bit – enough to get by most of the time	We know quite a lot – and we know when to seek help	There's probably not much more we can learn on this	Comments
OH&S – develop and follow risk assessment					
Develop and/ or monitor Action Plan					
Plant identification – local native plants					
Weed identification & control methods					
Bush regeneration methods					
Seed collection & propagation					
Group planning and decision making					
Managing neighbour relations					
Community education – schools, neighbours etc					
Volunteer/ group member recruitment					
Preparing grant applications					

List below the 10 most common plants that are indigenous to the area.	List below the 10 most common plants that are <i>not</i> indigenous to the area.
Can all of the group regular volunteers identify these? YES NO circle one	Can all of the group regular volunteers identify these? YES NO circle one

Bushcare Group Name **Coordinator Name** **Signature**.....**Date**...../...../.....