



LAKE CONJOLA BUSHCARE ACTION PLAN – REVIEW 2016

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Group Name: Conjola Bushcare
Reserve Name: Lake Conjola, Pattimores Lagoon and Valley Drive Reserve
Reserve Number: **SLC912, SLC787 & SLC784**
Land Tenure: Crown TM, SCC, NSW OEH
Comm. Land Type: Natural Area

1. BUSHCARE GROUP GOALS

The goals of the Conjola Bushcare Group are as follows:

1. Increase biodiversity at the three Bushcare sites through weed control and natural regeneration.
2. Control the following weeds through Bush Regeneration techniques including hand spray, hand pull, cut and paint:
 - a. Bitou bush
 - b. Ground Asparagus
 - c. Climbing Asparagus
 - d. Moth Vine
 - e. Boneseed
3. Natural regeneration is occurring throughout site, and is to be assisted where required.
4. Co-ordinate with NPWS re weed control on neighbouring land owned and managed by NSW Office of Environment and Heritage in Conjola National Park & Narrawallee Nature Reserve.
5. Recruit more volunteers to the Conjola Bushcare Group.

2. BUSHCARE GROUP ACHEIVEMENTS TO DATE – (What successes has your Bushcare Group achieved in relation to your achieving the goals and actions in your current Bushcare Group Action Plan and what lessons or new skills/knowledge have you learnt from these achievements?)

Successes/Goals/Actions achieved to date	Lessons learnt
Restoration of 74 hectares of Bangalay Sand Forest Complex, which is listed as an Endangered Ecological Community under the NSW Threatened Species Conservation Act 1995.	The group have learnt the importance of secondary follow up weed control to ensure the control of secondary weed infestations.
Control of noxious and environmental weeds across 146 hectares of coastal dune and woodland vegetation on public land over 18 years.	The group have learnt the importance of secondary follow up weed control to ensure the control of secondary weed infestations.

3. 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>Site 1 – Conjola Beach and Narrawallee Nature Reserve (see map) CURRENT AND EXISTING ACTIONS</p> <ol style="list-style-type: none"> 1. Undertake follow up control of environmental and noxious weeds across the site targeting the following priority weed species: <ol style="list-style-type: none"> a. <i>Chrysanthemoides monilifera</i> sub. sp rotunda (Bitou Bush); b. <i>Asparagus aethiopicus</i> (Ground Asparagus Fern); c. <i>Asparagus plumosus</i> (Climbing Asparagus); d. <i>Araujia sericifera</i> (Moth Vine); e. <i>Cortaderia selloana</i> (Pampass Grass); and f. <i>Chrysanthemoides monilifera sub sp monilifera</i> (Boneseed). 2. Work cooperatively with NPWS staff to undertake weed control on land owned by NSW OEH. 3. Work with the owner of Lot 2 DP 1126343 on the Eastern side of Pattimores Lagoon to undertake control of environmental and noxious weeds. Targeting the following priority weed species: <ol style="list-style-type: none"> a. <i>Chrysanthemoides monilifera spp. rotunda</i> (Bitou Bush); and b. <i>Senna pendula spp pendula</i> (Cassia). 	<ol style="list-style-type: none"> 1. H 2. H 3. H 	<p>CURRENT AND EXISTING ACTIONS</p> <ol style="list-style-type: none"> 1. Undertake a combination of manual and chemical control using best practise management control for each weed species. 2. Shoalhaven Bushcare Coordinator to contact NPWS staff to arrange for authority to work on their land for the Bushcare Group. 3. Council to write to landholder to seek permission for staff and volunteers to undertake weed control on their land. 	<ol style="list-style-type: none"> 1. On-going 2. 2016 and onwards 3. 2016

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
<p>Site 2 – Pattimores Lagoon (See map) CURRENT AND EXISTING ACTIONS</p> <ol style="list-style-type: none"> 1. Undertake follow up control of environmental and noxious weeds across the site targeting the following priority weed species: <ol style="list-style-type: none"> a. <i>Chrysanthemoides monilifera</i> sub. sp rotunda (Bitou Bush); b. <i>Asparagus aethiopicus</i> (Ground Asparagus Fern); c. <i>Ochna serrulata</i> (Micky Mouse Plant); and d. <i>Senna pendula</i> spp <i>pendula</i> (Cassia). <p>NEW ACTIONS</p> <ol style="list-style-type: none"> 1. Undertake an awareness raising program amongst local residents to reduce property owners from growing invasive plants in their gardens and dumping garden waste in the reserve. 	<ol style="list-style-type: none"> 1. M 	<p>CURRENT AND EXISTING ACTIONS</p> <ol style="list-style-type: none"> 1. Undertake a combination of manual and chemical control using best practise management control for each weed species. <p>NEW ACTIONS</p> <ol style="list-style-type: none"> 1. Undertake letterbox drop of local residents. 	<ol style="list-style-type: none"> 1. On-going 2. As needed
<p>Site 3 – Conjola Park Creek (See map) CURRENT AND EXISTING ACTIONS</p> <ol style="list-style-type: none"> 1. Undertake follow up control of environmental and noxious weeds across the site targeting the following priority weed species: <ol style="list-style-type: none"> a. <i>Asparagus aethiopicus</i> (Ground Asparagus Fern) b. <i>Senna pendula</i> spp <i>pendula</i> (Cassia) c. <i>Acetosa sagittata</i> (Turkey Rhubarb) d. <i>Rubus fruticosus</i> (Blackberry) e. <i>Jasminum polyanthum</i> (Climbing Jasmine) 	<ol style="list-style-type: none"> 1. M 	<p>CURRENT AND EXISTING ACTIONS</p> <ol style="list-style-type: none"> 1. Undertake a combination of manual and chemical control using best practise management control for each weed species. 	<ol style="list-style-type: none"> 1. On-going

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
NEW ACTIONS 1. Contact the owner of 18 Lakeside Drive to seek their cooperation in maintaining a healthy remnant of vegetation along the creek Northern bank.	1. M	NEW ACTIONS 1. Council to write to land owner.	1. 2016
Site 4 – West Conjola Park, Conjola National Park CURRENT AND EXISTING ACTIONS 1. Work with NPWS to undertake control of isolated infestations of <i>Chrysanthemoides monilifera sub sp monilifera</i> (Boneseed).	1. H	CURRENT AND EXISTING ACTIONS 1. Undertake a combination of manual and chemical control.	1. On-going
Volunteer Recruitment NEW ACTIONS 1. Canvas the local Conjola community via letter box drop and notice in the local store to hold an open day for the Bushcare Group holding a site tour and talk of work completed to recruit new volunteers.	1. H	1. Council to prepare flyers and hold an introduction day with a tour of the Bushcare site.	1. 2016

4. CONJOLA BUSHCARE GROUP ACTION PLAN MAP – SITE 1 CONJOLA BEACH & NARRAWALLEE NATURE RESERVE



5. CONJOLA BUSHCARE GROUP ACTION PLAN MAP – SITE 2 PATTIMORES LAGOON



6. CONJOLA BUSHCARE GROUP ACTION PLAN MAP – SITE 3 CONJOLA PARK CREEK



7. CONJOLA BUSHCARE ACTION PLAN MAP – SITE 4 CONJOLA NATIONAL PARK, WEST CONJOLA



0 112.5 225 450 675 m

Map Printed : Tuesday, February 9, 2016

Conjola Bushcare Site 4

8. BUSHCARE GROUP WHS & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	SWMS name included
Manual weed control (cut & paint, scrape and paint etc.)	√	SWMS1276
Chemical control (spraying of herbicides)	√	SWMS1276
Planting	√	SWMS1265

9. COUNCIL SUPPORT

Shoalhaven Council will provide the following support:

- Materials and equipment within budget constraints;
- Grant application and management support;
- Printing and graphic design services;
- One Bushcare Support Trainer to assist the group on site 3 hours per month for 11 months per year; and
- Some assistance with pest plant control as resources permit.

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

Yes No

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

PPE Equipment Required	Date issued
First Aid Kit	2016
Gloves	2016
Sunscreen	2016
Insect repellent	2016

12. POSSIBLE FUTURE FUNDING

Project	Funding source
Assistance with on-going weed control and bushland restoration	Various

13. 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	2013	Shoalhaven City Council
Lake Conjola Estuary Management Plan Review	2015	Shoalhaven City Council

14. BUSHCARE SITE RECOMMENDED PLANTING/REVEGETATION SPECIES LIST

OVERSTOREY TREES	
Botanical	Common
<i>Acacia mearnsii</i>	Black Wattle
<i>Acmena smithii</i>	Lilly Pilly
<i>Casuarina glauca</i>	Swamp Oak
<i>Eucalyptus botryoides</i>	Bangalay
SHRUBS	
Botanical	Common
<i>Melaleuca ericifolia</i>	Swamp Paperbark
<i>Pittosporum revolutum</i>	Rough Fruited Pittosporum
<i>Pittosporum undulatum</i>	Native Daphne
<i>Myrsine variabilis</i>	Brush Muttonwood
<i>Trema aspera</i>	Native Peach
UNDERSTOREY (grasses, herbs, climbers)	
Botanical	Common
<i>Aphanopetalum resinsum</i>	Gum Vine
<i>Clematis aristata</i>	Old Man's Beard
<i>Hibbertia scandens</i>	Native Guinea Flower
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Microlaena stipoides</i>	Weeping Grass
<i>Oplismenus aemulus</i>	Basket Grass
<i>Parsonsia straminea</i>	Silkpod Vine
<i>Rubus rosifolius</i>	Native Raspberry

15. BUSHCARE SITE WEED LIST (The following weeds have been recorded on the site)

Noxious	Environmental	Control Method
<i>Chrysanthemoides monilifera sub. rotunda</i> (Bitou Bush)		Spot spray with 1:100 glyphosate360:water or cut and paint large isolated plants with 1:3 glyphosate360:water
<i>Chrysanthemoides monilifera sub. monilifera</i> (Boneseed)		Spot spray with 1:100 glyphosate360:water or cut and paint large isolated plants with 1:3 glyphosate360:water
<i>Asparagus aethiopicus</i> (Ground Asparagus Fern)		Isolated plants can be manually removed by digging out the rhizome and placing in bag and removing from site. Larger infestations can be chemically controlled
<i>Asparagus plumosus</i> (Climbing Asparagus)		Isolated plants can be manually removed by digging out the rhizome and placing in bag and removing from site. Larger infestations can be chemically controlled
<i>Rubus fruticosus</i> (Blackberry)		Scrape and paint canes with 1:3 ratio of glyphosate360:water or chemically control
	<i>Araujia sericifera</i> (Moth Vine)	Hand pull plants and leave on site
	<i>Cortaderia selloana</i> (Pampass Grass)	Chemical control
	<i>Senna pendula spp pendula</i> (Cassia)	Cut and paint larger plants with 1:3 ratio of glyphosate360:water or hand pull smaller plants
	<i>Acetosa sagittata</i> (Turkey Rhubarb)	Chemical control
	<i>Conyza bonariensis</i> (Flebane)	Hand pull
	<i>Sida rhombifolia</i> (Paddy's Lucerne)	Hand pull
	<i>Jasminum polyanthum</i> (Climbing Jasmine)	Chemical control

16. CONJOLA BEACH DUNES BUSHCARE SITE SPECIES LIST (*The following species have been recorded on the site using a 50 metre vegetation transect see appendix 1 for location details*)

OVERSTOREY TREES	
Botanical	Common
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Banksia serrata</i>	Saw-toothed Banksia
<i>Corymbia gummifera</i>	Bloodwood
<i>Eucalyptus botryoides</i>	Bangalay
<i>Eucalyptus pilularis</i>	Blackbutt
SHRUBS	
Botanical	Common
<i>Acacia implexa</i>	Hickory
<i>Acacia longifolia ssp. longifolia</i>	Sydney Golden Wattle
<i>Acacia maidenii</i>	Maidens Blush
<i>Breynia oblongifolia</i>	Coffee Bush
<i>Glochidion ferdinandi</i>	Cheese Tree
<i>Leucopogon lanceolatus</i>	Lance Beard Heath
<i>Leucopogon parviflorus</i>	Coastal Beard Heath
<i>Monotoca elliptica</i>	Tree Broom Heath
<i>Solanum stelligerum</i>	Devils Neddles
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Austrofestuca littoralis</i>	Beach Fescue
<i>Centella asiatica</i>	Centella
<i>Commelina cyanea</i>	Scurvy Weed
<i>Coronidium oxylepis</i>	Paper Daisy
<i>Dichondra repens</i>	Kidney Weed
<i>Ficinia nodosa</i>	Knobbly Club Rush
<i>Gastrodia sesamoides</i>	Bootlace Orchid
<i>Gonocarpus micranthus spp. micranthus</i>	Raspwort
<i>Hibbertia diffusa</i>	Wedge Guinea Flower
<i>Hibbertia linearis</i>	Showy Guinea Flower
<i>Imperata cylindrica</i>	Blady Grass
<i>Lepidosperma laterale</i>	Sword Sedge
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Microlaena stipoides</i>	Weeping Grass
<i>Oplismenus aemulus</i>	Basket Grass
<i>Oxalis rubens</i>	Native Oxalis
<i>Pelargonium australe</i>	Coastal Geranium
<i>Pratia purpurascens</i>	Whiteroot
<i>Pteridium esculentum</i>	Bracken Fern
<i>Spinifex sericeus</i>	Coastal Spinifex
<i>Viola hederacea</i>	Ivy-leaf Violet
UNDERSTOREY (vines & climbers)	

Botanical	Common
<i>Clematis aristata</i>	Old Man's Beard
<i>Eustrephus latifolius</i>	Wombat Berry
<i>Marsdenia rostrata</i>	Milkpod Vine
<i>Stephania japonica</i>	Snake Vine

17. CONJOLA PARK BUSHCARE SITE SPECIES LIST (*The following species have been recorded on the site using a 50 metre vegetation transect see appendix 2 for location details*)

OVERSTOREY TREES	
Botanical	Common
<i>Acacia mearnsii</i>	Black Wattle
<i>Acmena smithii</i>	Lilli Pilli
<i>Casuarina glauca</i>	Swamp Oak
<i>Eucalyptus botryoides</i>	Bangalay
SHRUBS	
Botanical	Common
<i>Cassine australis</i>	Red Fruited Plumb
<i>Melaleuca ericifolia</i>	Swamp Paperbark
<i>Pittosporum revolutum</i>	Rough Fruited Pittosporum
<i>Pittosporum undulatum</i>	Native Daphne
<i>Myrsin variabilis</i>	Brush Muttonwood
<i>Trema aspera</i>	Native Peach
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Einadia hastata</i>	
<i>Histiopteris incisa</i>	Batswing Fern
<i>Microlaena stipoides</i>	Weeping Grass
<i>Oplismenus aemulus</i>	Basket Grass
<i>Plectranthus parviflorus</i>	Cockspur Flower
<i>Senecio linearifolius</i>	Native Groundsel
UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Aphanopetalum resinsum</i>	Gum Vine
<i>Clematis aristata</i>	Old Man's Beard
<i>Hibbertia scandens</i>	Native Guinea Flower
<i>Parsonsia straminea</i>	Silkpod Vine
<i>Rubus rosifolius</i>	Native Raspberry
<i>Stephania japonica</i>	Snake Vine

18. PADDIMORES LAGOON BUSHCARE SITE SPECIES LIST (*The following species have been recorded on the site using a 50 metre vegetation transect see appendix 1 for location details*)

OVERSTOREY TREES	
Botanical	Common
<i>Casuarina glauca</i>	Swamp Oak
<i>Eucalyptus botryoides</i>	Bangalay
SHRUBS	
Botanical	Common
<i>Acacia longifolia</i> ssp. <i>longifolia</i>	Sydney Golden Wattle
<i>Allocasuarina littoralis</i>	Forest She Oak
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Melaleuca ericifolia</i>	Swamp Paperbark
<i>Melaleuca hypericifolia</i>	Hillock Bush
<i>Pittosporum revolutum</i>	Rough Fruited Pittosporum
<i>Pittosporum undulatum</i>	Native Daphne
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Baumea juncea</i>	Twig Rush
<i>Centella asiatica</i>	Centella
<i>Cynoden dactylon</i>	Common Couch
<i>Ficinia nodosa</i>	Knobbly Club Rush
<i>Lepidosperma limicola</i>	
<i>Lobelia alata</i>	Lobelia
<i>Lomandra longifolia</i>	Spiny Matt Rush
<i>Oplismenus aemulus</i>	Basket Grass
<i>Phragmites australis</i>	Phragmites
<i>Pteridium esculentum</i>	Bracken Fern
UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Cassytha pubescens</i>	Devils Twine
<i>Hibbertia scandens</i>	Native Guinea Flower
<i>Stephania japonica</i>	Snake Vine

Appendix 1 – Location of 50 metre vegetation transects – Conjola Beach dunes and Paddimores Lagoon



Appendix 2 – Location of 50 metre vegetation at West Conjola

