



NORTH HEAD - ULLADULLA BUSHCARE ACTION PLAN

CONTACT INFORMATION

Group Name: North Head (Ulladulla) Bushcare Group

Contact: Peter Lloyd Address: 57 Leo Drive Tel: 4454 2082

Email: N/A

Reserve Name: North Head **Reserve No:** SUL944

Land Tenure: Crown Land – CC/Trust

1. BUSHCARE GROUP GOALS

The goals of the North Head Bushcare Group are as follows:

- 1. To maintain and improve the biodiversity of the North Head by undertaking bush regeneration activities
- 2. Monitor the effects fire regimes on the headland's heathland ecology
- 3. Improve local awareness and public interest in the headlands natural and cultural values and attract new volunteers to group
- 4. Keep the area clean and tidy

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	PRIORITY	METHOD	TIME	
BUSH REGENERATION/WEED CONTROL AND VEGETATION MONITORING				
1. Area 1 – Prescribed Burn Area - Actions a. Spot spray or hand remove annual weeds, on the walking track edges, open areas and slashed fire break, prioritising the following species: i. Parramatta Grass ii. Fleabane iii. Whiskey grass iv. Scotch and Sow Thistle v. Paspalum	M	a. Spot spraying all annual weeds to be done using rate of 1% of glyphosate (roundup). Annual weeds that are hand removed should be left on site unless they are seeding (See attached Bush Regeneration Info Sheet)	Spraying in Spring/Summer & On going	
vi. Purple Top b. Hand removal, spray and cut or scrape and paint perennial weeds targeting the following species: i. Lantana ii. Ink Weed iii. Montbretia iv. Turkey Rhubarb v. Ink Weed	Н	 b. Undertake the following control methods for the weed species: i. Hand pull small Lantana, Ink Weed, Montbretia or cut and paint larger Ink Weed plants, (See attached Bush Regeneration Info Sheets – Control of Woody Weeds) ii. Scrape and paint small 	All year	

GROUP ACTION	PRIORITY	METHOD	TIME
vi. Blackberry		Blackberry plants, larger plants report to Council	
c. Council and Bushcare group to undertake monitoring of the vegetation within the burnt area of the headland, to determine if the presence of Allocasuarina spp are reducing the diversity of the regenerating native heathland species	M	Council Bushcare Coordinator to assist the Bushcare Group with training in establishment and monitoring techniques using the following methods:	On going
d. Support of any future proposal to undertake prescribed burns by SCC on North Head	М	i. Set up of 2 x 4mx 4m plots (control plot and a active	On going
e. Support for cooperative research project between SCC, University of Wollongong and North Head into effects of fires and what fire regimes are required to improve the biodiversity of the North Head heathland vegetation		plot) ii. GPS plots Using vegetation condition monitoring sheets to measure vegetation cover and abundance	Summer

GROUP ACTION	PRIORITY	METHOD	TIME
Area 2 - Unburnt Area (including car park planted area) – Actions		Spot spraying all annual weeds to be done using rate of 1% of glyphosate	As required
 a. Spot spray and hand control of annual weeds as per Area 1, including the following species: 	M	(roundup). Annual weeds that are hand removed	
i. Blackberry Nightshade		should be left on site unless	
ii. Wild Aster		they are seeding (See attached Bush Regeneration	
iii. Winter Grass		Info Sheet).	
iv. Dandelion			
v. Plantain			
vi. Kikuyu Grass		h Cut had a of alout and duin	
b. Control of Formosan Lily along track edges using cut and drip method	Н	b. Cut base of plant and drip neat glyphosate onto stem	
c. Control of other perennial weeds as per Area 1	M	c. As per Area 1	
d. Undertake additional and replacement planting in and around the reserve entrance car-park as required	L	d. Use attached species list for plant selection	
WALK	ING TRACK		
 Bushcare Group to prune back hazardous overhanging branches or smaller fallen debris that is restricting access. Report larger fallen debris to Council Bushcare Coordinator 	M	Only prune back vegetation debris to no more then 200mm from track edge	Prune up to 50mm in diameter

GROUP ACTION	PRIORITY	METHOD	TIME		
PUBLIC AWRENESS AND R	PUBLIC AWRENESS AND RECRUITMENT OF VOLUNTEERS				
 a. Continued encouragement and recruitment of volunteers b. Working with Ulladulla Tourism Chamber and others to promote the walking track c. Installation of Bushcare Group sign at the entrance car park 	M	 a. Word of mouth and local press releases and recruitment through other means b. Seek support from Ulladulla Tourism Chamber c. Council to install Bushcare Group sign at One Track for All entrance 	2011 -13		
d. Undertake regular clean ups of rubbish throughout headland as required	M	d. Bushcare to undertake clean up with bags, gloves, tongs and sharps container provided by Council (Do not remove asbestos)	On Going		

3. NORTH HEAD – ULLADULLA BUSHCARE GROUP ACTION PLAN MAP



Map Key
Monitoring Plots/Photo Points ★

4. BUSHCARE GROUP WHS & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	SWMS name included
Manual weed control (cut & paint, scrape and paint etc)	V	SWMS NR060
Chemical control (spraying of herbicides)	V	SWMS NR040
Planting	V	SWMSNR030
Minor construction (walking track, fencing, outdoor furniture)		
Propagation & seed collection		
Education (school groups, field days etc)		
Other		

5. COUNCIL SUPPORT

- a) Install "Bushcare Group working on this reserve" sign
- b) Technical advise and training
- c) Tools and equipment
- d) Grant application and management support
- e) Printing
- f) One Bushcare Support Trainer to assist the group on site for 4 hours per month
- g) Plants
- h) Herbicide

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	2011
Gloves	2011
Sunscreen	2011

8. POSSIBLE FUTURE FUNDING

Project	Funding source
Further expansion of the previous ecological burn and research into result and fire regimes for heathland	Shoalhaven City Council, UOW, RFS and NSW Fire Service

9. PLAN WILL BE REVIEWED EVERY THREE YEARS

Next review due:

23 October 2015

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
Generic Community Land Plan of Management - Natural Areas	2001	SCC
Foreshore Reserves Policy	2005	SCC

11. BUSHCARE SITE SPECIES LIST

OVERSTOREY TREES		
Botanical	Common	
Allocasuarina distyla	She-oak	
Allocasuarina littoralis	Black She-oak	
Allocasuarina paludosa	She-oak	
Banksia integrifolia ssp. integrifolia	Coastal Banksia	
Corymbia gummifera	Bloodwood	
Eucalyptus botryoides	Bangalay	
Eucalyptus consideniana	Yertchuk	
Eucalyptus imitans	Illawarra stringybark	

SHRUBS		
Botanical	Common	
Acacia longifolia var. longifolia	Sydney Golden Wattle	
Acacia longifolia var. sophorae	Coastal Wattle	
Acacia mearnsii	Black Wattle	
Acacia myrtifolia	Myrtle Wattle	
Acacia saligna	Golden Wreath Wattle	
Acacia suaveolens	Sweet-scented Wattle	
Acacia ulicifolia	Prickly Moses or Juniper Wattle	
Baeckea imbricata	Coastal Baeckea	
Banksia ericifolia ssp. ericifolia	Heath-leaved Banksia	
Boronia polygalifolia	Dwarf Baronia	
Bossiaea prostrata	Coastal Banksia	
Bossiaea scolopendria	Plank Plant	
Breynia oblongifolia	Hairpin Banksia	
Dampiera stricta	Blue Dampiera	
Desmodium rhytidophyllum	Hairy Trefoil	
Dillwynia retorta ssp. retorta	Heathy Parrot Pea	
Dodonaea triquetra	Common Hop Bush	
Elaeocarpus reticulatus	Blueberry Ash	
Goodenia heterophylla ssp.		
eglandulosa	Hop-Goodenia	
Goodenia ovata	Star-haired Goodenia	
Goodenia stelligera	Broad-leafed Hakea	
Hakea dactyloides	Bushy Needlebush	
Hakea sericea	Dagger Hakea	
Lambertia formosa	Woolly Tea-tree	
Leptospermum grandifolium	Prickly Tea-tree	
Leptospermum juniperinum	Coastal Tea-tree	
Leptospermum laevigatum	Tea-tree	
Leptospermum squarrosum	Coastal Bearded Heath	
Leucopogon parviflorus	Lobelia	
Lobelia alata	Holly Lomatia	

Lomatia ilicifolia	Giant or Bracelet Honeymyrtle
Melaleuca armillaris ssp. armillaris	Hillock Bush
Melaleuca hypericifolia	Hillock Bush
Micrantheum eridoides	Purple Mirbelia
Mirbelia speciosa ssp. speciosa	Woolly Tea-tree
	Smooth Geebung or Wide-leaf
Parsonsia straminea	Geebung
	Smooth Geebung or Wide-leaf
Persoonia levis	Geebung
Persoonia mollis ssp. caleyi	Geebung
Petrophile sessilis	Conesticks
Phyllanthus hirtellus	Thyme Spurge
Pimelea linifolia ssp. linifolia	Rice Flower
Pittosporum undulatum	Sweet Pittosporum
Pultenaea daphnoides	Large-leafed Bush Pea
Pultenaea flexilis	Graceful Bush-Pea
Pultenaea linophylla	Small-leafed Bush Pea
Westringia fruticosa	Coast Rosemary
Zieria smithii	Sandfly Zieria

UNDERSTOREY (grasses, herbs, orchids)		
Botanical	Common	
Actinotus helianthi	Flannel Flower	
Actinotus minor	Lesser Flannel Flower	
Adiantum aethiopicum	Common Maidenhair Fern	
Adiantum aethiopicum	Fishbone Water Fern	
Anisopogon avenaceus	Oat Speargrass	
Aristida vagans	Three-awned Speargrass	
Baloskian gracile	Cord-rush	
Blandfordia nobilis	Christmas Bells	
Blechnum nudum	Fishbone Water Fern	
Brunoniella pumilio	Dwarf Trumpet	
Burchardia umbellata	Milkmaids	
Calochilus campestris	Copper Beard Orchid	
Caustis recurvata var. recurvata	N/A	
Comesperma sphaerocarpum	Fairies' Wings	
Commelina cyanea	Creeping Christian or Scurvy Weed	
Convolvulus erubescens	Blushing Bindweed	
Cryptostylis erecta	Hooded Orchid	
Cryptostylis subulata	Large Tongue Orchid or Duck Orchid	
Cyathea cunninghamii	Slender Tree Fern	
Cymbidium suave	Snake Flower or Tree Orchid	
Dianella caerulea var. caerulea	Blue Flax Lily	
Dianella caerulea var. producta	Blue Flax Lily	
Dipodium variegatum	Hyacinth Orchid	
Diuris aurea	Golden Donkeytail Orchid	
Drosera peltata	Sundew	
Drosera spathulata	Common Sundew or Rosy Sundew	

Epacris microphylla var. microphylla	Coral Heath
Gahnia radula	Saw Sedge or Sword Grass
Gahnia sieberana	Saw Sedge
Gleichenia dicarpa	Pouched Coral Fern
Glossodia minor	Waxlips
Glycine clandestina	Love Creeper or Twinning Glycine
Glycine microphylla	Love Creeper
Helichrysum collinum	Yellow Everlastings or Paper-daisies
Hibbertia cistiflora ssp. cistiflora	Tellew Everlastings of Fuper datales
Hibbertia empetrifolia ssp.empetrifolia	Trailing Guinea Flower
This series emperiment depremperment	Spade Flowers, Ladies Slipper, or
Hybanthus vernonii ssp. vernonii	Slender Violet
Hypoxis hygrometrica ssp.	Clerider Fleret
hygrometrica	Yellow Stars
Imperata cylindrica var. major	Blady Grass
Juncus planifolius	Broad-leaf Rush
Lagenifera stipitata	Druce
Lepidosperma laterale	Sword-sedge
Lepyrodia scariosa	Scale Rush
Lindsaea linearis	Screw Fern
Lomandra brevis	Tufted Matt Rush
Lomandra filiformis ssp. coriacea	Wattle Matt Rush
Lomandra glauca ssp. glauca	Pale Matt Rush
Lomandra longifolia	Matt Rush
Lomandra multiflora ssp. multiflora	Many Flowered Matt Rush
Lomandra obliqua	Fish Bones
Lycopodiella cernua	Cliff Clubmoss
Lyperanthus suaveolens	Brown Beaks
Microtus parviflora	Slender Onion Orchid
Mitrasacme polymorpha	Mitrewort
Notodanthonia longifolia	Wallaby Grass
Olearia viscidula	Daisy Bush
Olearia viscidula	Daisy Bush
Opercularia aspera	Thin Stink Weed
Opercularia varia	Stinkweed
Orthoceras strictum	Bird's Mouth Orchid or Horned Orchid
Oxalis rubens	N/A
Ozothamnus diosmifolium	Everlasting or Paper Daisy
Panicum simile	Two Colour Panic
Parsonsia straminea	Monkey Rope or Common Silkpod
Patersonia sericea	Short Purple Flag
Plantago debilis	Slender Plantain
Polymeria calycina	Swamp Bindweed
Prasophyllum flavum	Yellow Leek Orchid
Pratia purpurascens	White Root
Pratia purpurascens Pteridium esculentum	Bracken
Ptilothrix deusta	
	Sedge
Ranunculus lappaceus var.	Pough Groundeel
lappaceus Schizaea bifida	Rough Groundsel
	Forked Comb Fern
Selaginella uliginosa	Common Maidenhair Fern

Senecio hispidulus var. dissectus	Rough Groundsel
Smilax glyciphylla	Native Sarsaparilla
Solanum pungetium	Eastern Nightshade
Sowerbaea juncea	Vanilla Lily
Sphaerolobium vimineum	Leafless Globe-pea
Spiranthes sinensis	Austral Ladies Tresses
Stackhousia nuda	N/A
Stackhousia viminea	Grass Trigger Plant
Stylidium graminifolium	Rough Groundsel
Thelionema caespitosa	Tufted Blue Lily
Thelionema umbellata	N/A
Thelymitra carnea	Pink Sun Orchid
Thelymitra ixioides	Spotted or Blue Sun Orchids
Themeda australis	Kangaroo Grass
Thysanotus tuberosus	Fringe Lily
Veronica plebeia	Speedwell
Viola hederacea	Native Violet
Viola sieberana	Tiny Violet

UNDERSTOREY (vines & climbers)		
Botanical	Common	
Hibbertia scandens	Golden Guinea Flower	
Kennedia prostrata	Running Postman	
Kennedia rubicunda	Dusky Coral Pea	
Eustrephus latifolius	Wombat Berry	
Billardiera scandens var. scandens	Apple Berry or Dumplings	
Parsonsia straminea	Monkey Rope Vine	

12. SITE WEED LIST

Noxious	Environmental
	Blackberry nightshade (Solanum nigrum)
	Dandelion (Taraxacum sp)
	Fleabane (Conzea bonearensis)
	Formosan Lily (Lillium formosanum)
	Ink Weed (Phytolacca octandra)
	Paramatta grass (Sporobolus africanus)
	Paspalum (Paspalum dilatum)
	Purple Top (Verbena litoralis)
	Scotch thistle (Onopordum acanthium)
	Sow Thistle (Sonchus oleraceus)
	Turkey Rhubarb (Acetosa sagitata)
	Whiskey Grass (Andropogon virginicus)
	Wild Aster (Symphyotrichum subulatum)
	Winter Grass (Poa annua)
Blackberry (Rubus fruiticosus)	
Lantana (Lantana camara)	

Bushcare Group Name	North Head - Ulladulla
Coordinator Name Pete	r Loyd
Signature	
Date/	

Attachments – Bush Regeneration Information Sheets (National Trust)

- 1. Control of Weeds with Underground Reproduction Structures,
- 2. Control of Vines and Scramblers
- 3. Control of Small Hand Pullable Plants,
- 4. Control of Woody Weeds



BUSH REGENERATION INFORMATION SHEET

Control of Small Hand-pullable Plants

- To Control: Small soft weeds eg. fleabane, crofton weed, small grasses
 - Seedlings of any weeds including privet, lantana, moth vine



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STEP 4

Australian Association of Bush Regenerators

METHODS OF REMOVAL

HAND REMOVAL (Minimal Disturbance)

STEP 1 Gently remove any seeds or fruits and carefully place into a bag.

STEP 2 Grasp stem at ground level.

S.TEP 3 Rock plant backwards and forwards to loosen roots, and pull out gently.

> Carefully tap the roots to dislodge any soil. Replace disturbed soil and pat down.

considerations

- Leave weeds so that roots do not make contact with soil eg. on a rock - a small amount of debris can be hung in a tree or removed from the site.
- 0 Vary your body position to avoid fatigue when using hand removal continuously.





Control of Weeds with Underground Reproductive Structures

- Examples: Weeds with Tap roots catsear, dandelion
 - Rhizomes asparagus fern, ginger plant
 - Bulbs and corms oxalis, onion weed, watsonia, freesias, montbretia
 - Tubers madiera vine, arrow head vine



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STEP 2



Australian Association of Bush Regenerators

METHODS OF REMOVAL

1 HAND REMOVAL OF PLANTS WITH A TAPROOT Examples: Paddy's lucerne, dandelion

Gently remove and bag seeds or fruit. STEP 1

> Push a narrow trowel or knife into the ground next to the taproot. Carefully loosen soil. Repeat this step around the taproot.

Grasp stem at ground level, rock plant back STEP 3 wards and forwards and pull gently.

STEP 4 Gently tap the roots to dislodge soil. Replace disturbed soil and lightly pat down.

2 CROWNING (Many grasses can be crowned) Example: asparagus fern

Gently remove and bag stems with seed or fruit. STEP 1

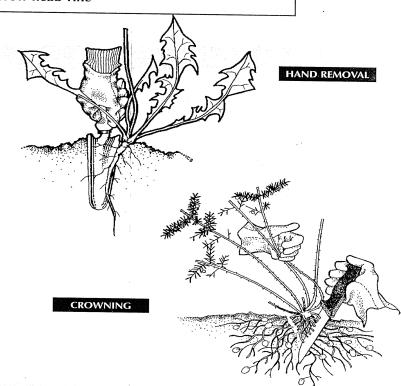
STEP 2 Grasp the leaves or stems together so that the base of the plant is visible.

STEP 3 Insert, at an angle, a knife or lever, close to the

"crown".

STEP 4 Cut through all the roots around the crown.

STEP 5 Remove and bag the crown.







Control of Woody Weeds

Examples of woody weeds include:

- lantana, bitou bush, cotoneaster, privet (cut and paint)
- camphor laurel, Mickey Mouse bush (ochna) and cassia/senna (stem scrape)

METHODS OF REMOVAL

1 CUT AND PAINT —Useful for small to medium sized woody weeds up to 10cm basal diameter

STEP 1

Make a horizontal cut as close to the ground as possible with secateurs, loppers or a bush saw.

STEP 2

Immediately apply herbicide to the exposed flat stump surface.

SAFETY CONSIDERATIONS

The following general precautions should be made when using herbicides:

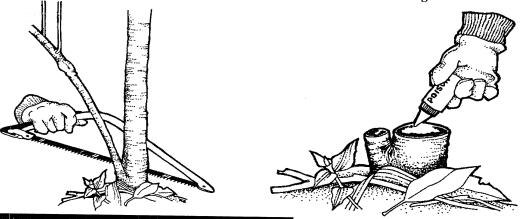
- Read the label before opening the container and follow the instructions.
- Wear protective clothing as directed on the label.
- Wash hands after use and before eating or smoking.



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considerations

- Cuts should be horizontal to prevent herbicide from running off the stump.
 Sharp angle cuts are hazardous.
- Herbicide must be applied immediately before the plant cells close and translocation of herbicide ceases.
- If plants resprout, cut and paint the shoots after sufficient regrowth has occurred.
- Stem scraping can be more effective on some woody weeds.



Control of Vines and Scramblers

Examples of vines include: • balloon vine, morning glory, honeysuckle, cape ivy, jasmine, madeira vine, blackberry

METHODS OF REMOVAL



STEP 1

Take hold of one runner and gently pull it along the ground towards you.

STEP 2

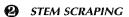
Check points of resistance where fibrous roots grow from the nodes. Cut roots with a knife or dig out with a trowel and continue to follow the runner.

STEP 3

The major root systems need to be removed manually or scrape/cut and painted with herbicide.

STEP 4

Bag any reproductive parts.



STEP 1

With a knife, scrape 15 to 30 cm of the stem to reach the layer below the bark/outer layer.

STEP 2

Immediately apply herbicide along the length of the scrape.



considerations

HAND REMOVAL

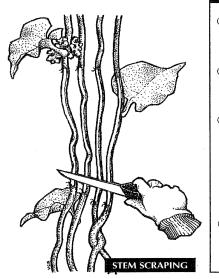
- A maximum of half the stem diameter should be scraped. Do not ring bark.
- Larger stems (>1cm) \bigcirc should have two scrapes opposite each other.
- Aerial tubers on madeira vine should die with the plant when stem scraping is used. Those that fall from the plant in the scraping process need to be bagged.
- Vines can be left hanging in trees after treatment.



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Map - Location of monitoring sites

