



BROUGHTON VALE BUSHCARE ACTION PLAN

Document Number: D17/116864. **Adopted:** 27/3/2018 **Minute Number:** MIN18.222 **File:** 1835E – **Produced By:** Planning, Environment & Development Group - **Review Date:** 27/3/2021

CONTACT INFORMATION

Group Name:	Broughton Vale Bushcare Group
Contact:	Kelvin Officer
Address:	23 Boundary Road, Broughton Vale NSW 2535
Telephone:	4464 2925
Email:	kofficer@mohc.com.au
Reserve Name:	Broughton Vale
Reserve Number:	NBR001 and NBR002
Land Tenure:	Shoalhaven City Council
Comm. Land Type:	Public Reserve

1. BUSHCARE GROUP GOALS

The Broughton Vale Bushcare Group's goal is to continue the rehabilitation and maintenance of the section of Broughton Mill Creek adjacent to the Council Reserves NBR001 and NBR002 in addition to rehabilitating the southern end of the Council Reserve NBR002 (immediately north of the junction between Broughton Vale Road and Hillandale Road).

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
Regeneration and Revegetation of approximately 2500m ² of the western boundary of the Council Reserve to enhance and support the riparian zone of Broughton Mill Creek.	

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
1. Maintain existing plantings	M	<p>Hand weed, spot spray with Glyphosate and mow grass (Kikuyu) edge as appropriate.</p> <p>Council to assist with spraying and/or Provide opportunity for group representative(s) to undertake Chemical Applications training and accreditation.</p> <p>Council to inspect and authorise Ride-on mower for use in maintenance.</p>	<p>On going</p> <p>Needs basis</p> <p>ASAP</p> <p>ASAP</p>
2. Control and removal of environmental and noxious weeds in and around planting areas	H	Treat weeds as per Bushcare Site Weed List and Control Methods	On Going
3. Undertake weed control between Broughton Mill Creek and Broughton Vale Road in disturbed area (as per map)	M	Treat weeds as per Bushcare Site Weed List and Control Methods – focus on woody weeds as a priority.	2017-2018

GROUP ACTION (these should relate to your project description)	PRIORITY	METHOD	TIME
<p>4. Undertake infill plantings where needed through existing planting; and</p> <p>5. Revegetate between Broughton Mill Creek and Broughton Vale Road in disturbed area (as per map)</p>	M	<p>Prepare sites prior to planting, including weed removal, spot spraying exotic grass with Glyphosate (as per label recommendations or APVMA Permit) and determining appropriate plant types for location.</p> <p>Council to provide water crystals, stakes and guards as required, and assistance with sourcing and/or propagating plants if needed.</p> <p>Collect seed from endemic species at site for propagation by Bushcare nursery</p>	Planting in Autumn-Winter
<p>6. Undertake bush regeneration at southern end of the Council Reserve NBR002 (immediately north of the junction between Broughton Vale Road and Hillandale Road).</p>	L	<p>Treat weeds as per Bushcare Site Weed List and Control Methods – focus on woody weeds as a priority.</p>	2017-2020

4. BUSHCARE GROUP ACTION PLAN MAP



5. BUSHCARE GROUP WHS & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	SWMS name included
Manual weed control (cut & paint, scrape and paint etc.)	√	
Chemical control (spraying of herbicides)	√	SWI129
Planting	√	
Minor construction (walking track, fencing, outdoor furniture)		
Propagation & seed collection	√	
Education (school groups, field days etc.)		
Other – Mowing of exotic grass (kikuyu) edges	√	SWI150

6. COUNCIL SUPPORT

Technical advice and support;

- Tools and First Aid Kit;
- Materials e.g. Glyphosate, dripper bottles, plant guards and stakes (within limit of budget);
- Assistance with sourcing and/or propagating plants;
- Council to assist with spraying of herbicide and/or provide opportunity for group representative(s) to undertake Chemical Applications training and accreditation; and
- Council to inspect and authorise Ride-on mower for use in maintenance.

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

Yes √ No

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

PPE Equipment Required	Date issued
First Aid Kit	Apr 2017
Gloves	Apr 2017
Sunscreen	Apr 2017
Insect repellent	Apr 2017

9. POSSIBLE FUTURE FUNDING

Project	Funding source

10. PLAN WILL BE REVIEWED EVERY THREE YEARS

Next review due: 27/3/2021

11. 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
Broughton Vale Parkcare Action Plan	2013	SCC

12. BUSHCARE SITE RECOMMENDED PLANTING/REVEGETATION SPECIES LIST

OVERSTOREY TREES	
Botanical	Common
<i>Acacia binervata</i>	Two-veined Hickory
<i>Acacia melanoxylon</i>	Blackwood
<i>Acmena smithii</i>	Lilly pilly
<i>Arcontophoenix cunninghamiana</i>	Bangalow Palm
<i>Backhousia myrtifolia</i>	Grey Myrtle
<i>Casuarina cunninghamiana</i>	River Oak
<i>Cryptocarya glaucescens</i>	Native Laurel
<i>Glochidion ferdinandi</i>	Cheese Tree
<i>Livistona australis</i>	Cabbage Palm
<i>Syzigium australe</i>	Brush Cherry
SHRUBS	
Botanical	Common
<i>Clerodendrum tomentosum</i>	Hairy Clerodendrum
<i>Ficus coronata</i>	Sandpaper Fig
<i>Guioa semiglauca</i>	Guioa
<i>Homalanthus populifolius</i>	Bleeding Heart
<i>Streblus brunoianus</i>	Whalebone tree
<i>Trema aspera</i>	Poison Peach
UNDERSTOREY (grasses, herbs, climbers)	
Botanical	Common
<i>Lomandra longifolia</i>	Mat rush
<i>Carex longibrachiata</i>	

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

NOTE: ALL HERBICIDE CONCENTRATIONS AND APPLICATIONS TO BE ACCORDING TO LABEL OR APVMA (AUSTRALIAN PESTICIDES & VETERINARY MEDICINES AUTHORITY) OFF-LABEL PERMITS.

See attached Bush Regeneration Fact Sheets for more information on control of different weed types

Noxious	Environmental	Control Method
<i>Ageratina adenophora</i> (Crofton Weed)	Trial Introduction of biological control agent	Hand pull and raft or bag materials. Spot spray with Glyphosate – DO NOT Spray over or immediately adjacent to water courses

Noxious	Environmental	Control Method
<i>Ageratina riparia</i> (Mistflower)		Hand pull and raft or bag materials. Spot spray with Glyphosate – DO NOT Spray over or immediately adjacent to water courses
<i>Lantana camara</i> (Lantana)		Hand pull smaller plants. Cut & paint larger plants with Glyphosate. Keep cut material off ground.
<i>Ligustrum lucidum</i> (Large-leaf Privet)		Hand pull smaller plants. Cut & paint larger plants with Glyphosate. Keep cut material off ground. Stem inject trees with Glyphosate.
<i>Ligustrum sinense</i> (Small-leaf Privet)		Hand pull smaller plants. Cut & paint larger plants with Glyphosate. Keep cut material off ground. Stem inject trees with Glyphosate.
<i>Senecio madagascariensis</i> (Fireweed)		Hand remove and bag flower heads. Spot spray with Glyphosate.
	<i>Araujia sericifera</i> (Moth Vine)	Hand pull stems. Bag fruit as much as possible. Does not respond well to herbicide.
	<i>Bidens pilosa</i> (Cobbler's Pegs)	Hand pull or spot spray with Glyphosate.
	<i>Canna x generalis</i> (Canna Lily)	Dig out or cut & paint with Glyphosate.
	<i>Cirsium vulgare</i> (Spear Thistle)	Dig out or spot spray with Glyphosate.
	<i>Conyza</i> spp. (Fleabane)	Hand weed or spot spray with Glyphosate.
	<i>Delairea odorata</i> (Cape Ivy)	Hand remove – bagging all plant parts or spot spray with Glyphosate.
	<i>Erythrina x sykesii</i> (Coral Tree)	Hand pull smaller plants. Cut & paint larger plants with Glyphosate. Keep cut material off ground. Stem inject trees with Glyphosate.
	<i>Paspalum dilatatum</i> (Caterpillar grass)	Dig out or spot spray with Glyphosate.
	<i>Paspalum urvillei</i> (Vasey Grass)	Dig out or spot spray with Glyphosate.
	<i>Pennisetum clandestinum</i> (Kikuyu)	Spray with Glyphosate all year, but preferably in winter to minimise damage to native plants.
	<i>Physalis peruviana</i> (Cape Gooseberry)	Hand weed or spot spray with Glyphosate.

Noxious	Environmental	Control Method
	<i>Phytolacca octandra</i> (Ink Weed)	Dig out (has tuberous root), cut & paint with Glyphosate, or spot spray with Glyphosate.
	<i>Senna pendula</i> var <i>glabra</i> (Cassia)	Hand pull smaller plants. Cut and paint larger plants with Glyphosate. Bag seed pods if possible.
	<i>Setaria</i> spp (Pigeon grass)	Hand weed or spot spray with Glyphosate.
	<i>Sida rhombifolia</i> (Paddy's Lucerne)	Hand pull or cut & paint plants with Glyphosate
	<i>Solanum mauritianum</i> (Wild Tobacco Tree)	Hand pull smaller plants. Cut & paint larger plants with Glyphosate.
	<i>Solanum nigrum</i> or <i>S.chenopodioides</i> (Blackberry Nightshade / Whitetip Nightshade)	Hand weed or spot spray with Glyphosate.
	<i>Solanum pseudocapsicum</i> (Madeira Winter Cherry)	Hand pull or cut & paint plants with Glyphosate
	<i>Tradescantia fluminensis</i> (Trad / Wandering Jew)	Rake up and solarise under black plastic where dense. Hand-weed where scattered and bag and remove all plant parts.
	<i>Verbena bonariensis</i> (Purple Top)	Hand pull or cut & paint plants with Glyphosate

14. BUSHCARE SITE SPECIES LIST (The following species have been recorded on the site)

OVERSTOREY TREES	
Botanical	Common
<i>Acacia binervata</i>	Two-veined Hickory
<i>Acacia longifolia</i> var <i>longifolia</i>	Sydney Golden Wattle
<i>Acacia melanoxylon</i>	Blackwood
<i>Acmena smithii</i>	Lilly pilly
<i>Backhousia myrtifolia</i>	Grey Myrtle
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Brachychiton acerifolium</i>	Illawarra Flame Tree
<i>Casuarina cunninghamiana</i>	River Oak
<i>Callistemon salignus</i>	Willow Bottlebrush
<i>Cryptocarya glaucescens</i>	Native laurel

Botanical	Common
<i>Ehretia acuminata</i>	Koda
<i>Eucalyptus quadrangulata</i>	White topped box
<i>Eucalyptus saligna x botryoides</i>	
<i>Glochidion ferdinandi</i>	Cheese Tree
<i>Melia azederach</i>	White Cedar
<i>Pittosporum undulatum</i>	Sweet Pittosporum
<i>Syncarpia glomulifera</i>	Turpentine
<i>Syzygium australe</i>	Brush Cherry
<i>Tristaniopsis laurina</i>	Water gum
SHRUBS	
Botanical	Common
<i>Acacia mearnsii</i>	Black Wattle
<i>Bursaria spinulosa</i>	Blackthorn
<i>Callistemon citrinus</i>	Crimson bottlebrush
<i>Clerodendrum tomentosum</i>	Hairy Clerodendrum
<i>Ficus coronata</i>	Sandpaper Fig
<i>Guioa semiglauca</i>	Guioa
<i>Homalanthus populifolius</i>	Bleeding heart
<i>Melicytus dentatus (Hymenanthera dentata)</i>	Tree Violet
<i>Streblus brunoianus</i>	Whalebone tree
<i>Trema tomentosa</i>	Poison Peach
UNDERSTOREY (grasses, herbs, orchids)	
Botanical	Common
<i>Calochlaena dubia</i>	Rainbow fern
<i>Carex longibrachiata</i>	
<i>Commelina cyanea</i>	
<i>Hypolepis muelleri</i>	Harsh Ground fern
<i>Lomandra longifolia</i>	Mat Rush
<i>Microlaena stipoides</i>	Weeping Meadow grass
<i>Oplismenus aemulus</i>	Basket grass
<i>Oplismenus imbecillis</i>	Basket grass
<i>Ranunculus plebius</i>	Forest Buttercup
<i>Sigesbeckia orientalis</i>	Indian weed
<i>Stellaria flaccida</i>	Starwort
<i>Urtica incisa</i>	Stinging Nettle
UNDERSTOREY (vines & climbers)	
Botanical	Common
<i>Calystegia marginata</i>	
<i>Parsonsia straminea</i>	Common Silkpod
<i>Pyrrosia rupestris</i>	Rock-felt fern

Attachments: NSW National Trust Bush Regeneration Fact Sheets (Control of Woody Weeds; Control of Small Hand-pullable Weeds; Control of Vines and Scramblers; Control of Weeds with Underground Reproductive Structures)



NATIONAL TRUST



NSW NATIONAL PARKS AND WILDLIFE SERVICE



Australian Association of Bush Regenerators

BUSH REGENERATION INFORMATION SHEET

Control of Woody Weeds

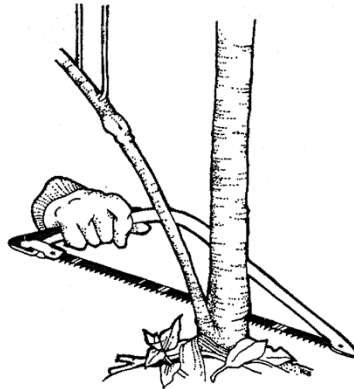
Examples of woody weeds include:

- 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.

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



NATIONAL TRUST



NSW
NATIONAL
PARKS AND
WILDLIFE
SERVICE



Australian
Association
of Bush
Regenerators

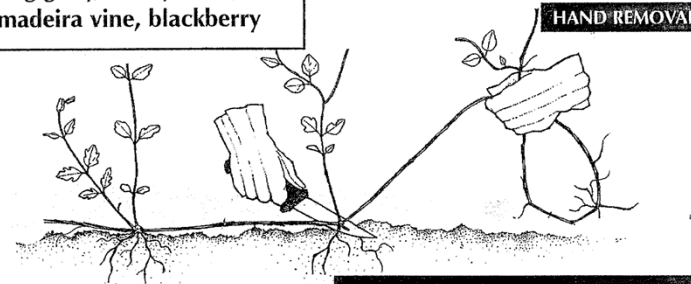
METHODS OF REMOVAL

1 HAND REMOVAL

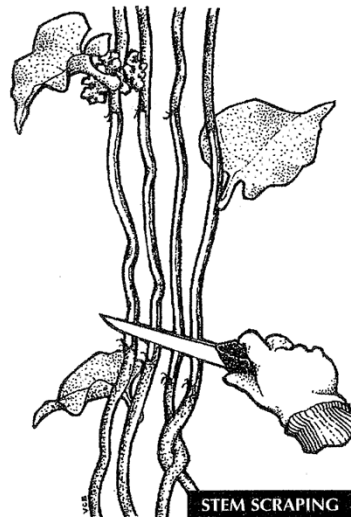
- STEP 1** Take hold of one runner and gently pull it along the ground towards you.
- STEP 2** Check points of resistance where fibrous roots grow from the nodes. Cut roots with a knife or dig out with a trowel and continue to follow the runner.
- STEP 3** The major root systems need to be removed manually or scrape/cut and painted with herbicide.
- STEP 4** Bag any reproductive parts.

2 STEM SCRAPING

- 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.



HAND REMOVAL



STEM SCRAPING

considerations

- A maximum of half the stem diameter should be scraped. Do not ring bark.
- Larger stems (>1cm) 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.

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

METHODS OF REMOVAL

1 HAND REMOVAL OF PLANTS WITH A TAPROOT

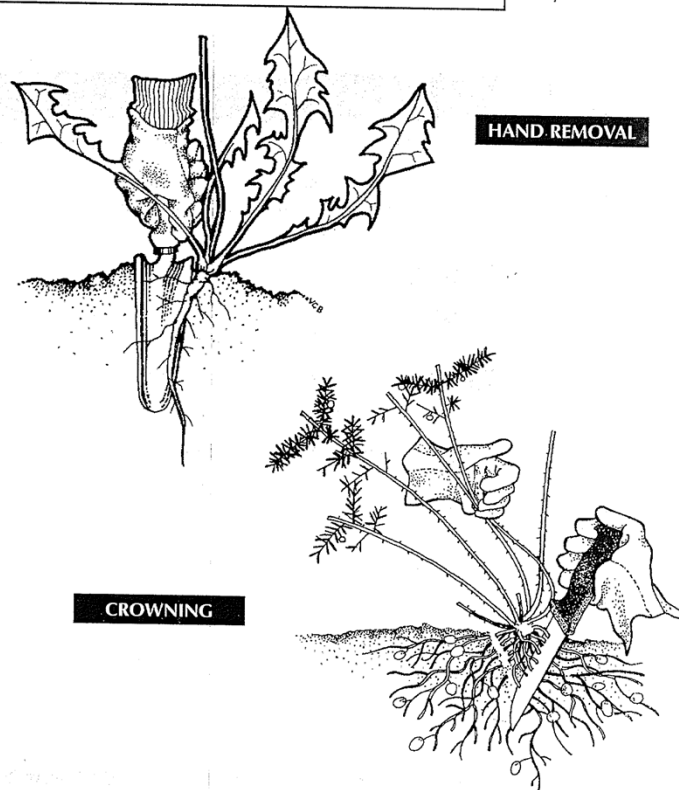
Examples: Paddy's lucerne, dandelion

- STEP 1** Gently remove and bag seeds or fruit.
- STEP 2** Push a narrow trowel or knife into the ground next to the taproot. Carefully loosen soil. Repeat this step around the taproot.
- STEP 3** Grasp stem at ground level, rock plant back 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

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



NATIONAL TRUST



NSW
NATIONAL
PARKS AND
WILDLIFE
SERVICE



Australian
Association
of Bush
Regenerators

Control of Weeds with Underground Reproductive Structures cont..



NATIONAL TRUST



NSW
NATIONAL
PARKS AND
WILDLIFE
SERVICE



Australian
Association
of Bush
Regenerators

METHODS OF REMOVAL

③ REMOVAL OF PLANTS WITH BULBS, CORMS OR TUBERS

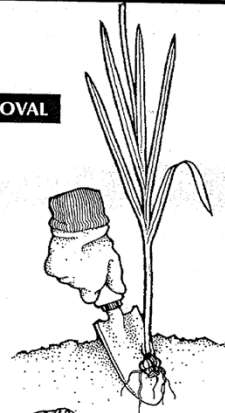
Examples: onion weed, watsonia, arrowhead
vine, montbretia

- STEP 1:** Move leaf litter away from base of plant.
- STEP 2:** Dig down next to the stem until the bulb or tuber is reached.
- STEP 3:** Remove plant and carefully bag the bulb or tuber.

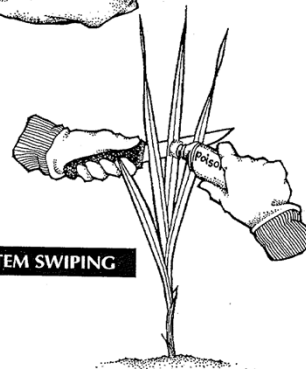
④ HERBICIDE TREATMENT - STEM SWIPING

- STEP 1:** Gently remove any seed or fruit and carefully place into a bag.
- STEP 2:** Using a herbicide applicator, swipe the stems/leaves.

HAND REMOVAL



STEM SWIPING



considerations

- Further digging may be required for plants with more than one tuber (e.g. arrow head vine).
- Some bulbs (e.g. oxalis, onion weed) may have small bulbils attached or present in the soil around it. These need to be removed.
- It may be quicker and more effective to dig out the weed.
- Make sure native plants and seedlings will not be affected.
- Learn and understand how the herbicide works - for bulb and corm species the most effective time is after flowering and before fruit is set.
- Have you addressed all safety issues ?