VINCENTIA BUSHCARE ACTION PLAN
VIOLET CLARKE & ORION BEACH RESERVES

Document Number: D13/63908 • **Adopted:** 24 September 2013 • **Minute Number:** MIN13.990 • **File:** 26280E • **Produced By:** Planning & Development Services Group • **Review Date**: 24 September 2016

CONTACT INFORMATION

Group Name:	Vincentia Bushcare Group
Contact:	Barbara Liddle
Reserve Name:	Violet Clarke & Orion Beach
Reserve Number:	BVI508, BVI512, BVI622 & BVI623
Land Tenure:	SCC& Crown TM
Comm. Land Type:	Park and Natural Area

1. BUSHCARE GROUP GOALS

The goals of the Bushcare Action Plan are as follows:

1. To improve the biodiversity of the remnant vegetation of Violet Clarke and Orion Beach Reserves, that provides habitat for local fauna, including the state listed endangered Eastern Bristle Bird (Dasyornis brachypterus) and the vulnerable Giant Burrowing Frog (*Heleioporus australiacus)*
2. Staged removal and control of invasive exotic vegetation to encourage recruitment of native vegetation within the reserves.
3. Raise community awareness of the biodiversity values of the reserves and how local residents can reduce their impacts on the local biodiversity.
4. Build the capacity of the Bushcare Group to restore the reserve's biodiversity.

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
Vincentia Bushcare, with support from Shoalhaven Council apply for grant funding to assist the Bushcare Group with the restoration works at Orion Beach and Violet Clarke Reserves.	H	Vincentia Bushcare to apply for funding with Council the grant administrator/manager	April 2012 **Completed**
Hold an information day for interested residents and other s to be part of the Bushcare Group	H	On site BBQ and education	Nov 2012 **Completed**
STAGE 1 – VIOLET CLARKE RESERVE			
Map locations of weed species and densities using GPS and produce a weed species map (as per appendix 1)	H	Shoalhaven Council's Bushcare Coordinator to undertake weed mapping as in-kind support for grant project	Dec 2012 **Completed**
Prepare a bushland restoration plan for Violet Clarke Reserve	H	Shoalhaven Council and Vincentia Bushcare Group prepare draft Bushcare Group Action Plan for final approval by Council	March 2013
Seek quotes from suitably qualified and experienced bush regeneration companies to undertake primary weed removal/control as per the recommendations in this plan	H	Shoalhaven Council to seek quotes and jointly select company to undertake bush regeneration works	March 2013
• Bush regeneration contractor to undertake primary control of all Kahili Ginger Lily (*Hedychium gardnerianum*) within the Violet Clarke Reserve • Bushcare Group to undertake follow up control of Kahili Ginger Lily (*Hedychium gardnerianum*) via manual removal of re-growth rhizomes (see	H	• Larger, dense infestations should be slashed and regrowth sprayed with Metsulfuron -methyl at recommended rates • Smaller isolated plants can be manually removed by digging out rhizomes and removing from site. All seed should also be cut off and removed from site (for further	2013 on going (Spraying should be done during Spring-Summer)

GROUP ACTION	PRIORITY	METHOD	TIME
appendix 6 “Bush Regeneration Information Sheet” NSW National Trust)		technical details on control see attached : Csurhes S & Hannan-Jones M, (August 2008), *Pest Plant Risk Assessment, Kahili Ginger, Hedychium gardnerianum - White Ginger, Hedychium coronarium – Yellow Ginger, Hedychium flavescens* – Biosecurity Queensland, Department Primary Industry and Fisheries	
• Bush regeneration contractor to undertake primary control of all Winter Senna (*Senna pendula var. glabrata*) infestations within the reserve • Bushcare Group to undertake follow up control of re-growth Winter Senna (*Senna pendula var. glabrata*) infestations within the reserve	H	• Larger plants should be cut and painted with glyphosate and smaller plants/infestations can be sprayed with Metsulfron-methyl at recommended rates • Hand pull smaller plants or cut and paint larger plants, bag and remove all seeds from site. (see appendix 7 “Bush regeneration information fact sheet”, NSW National Trust”	2013 2013 on going
• Bush regeneration contractor to undertake primary control of all dense infestations of Japanese Honeysuckle (*Lonicera japonica*) within the reserve • Bushcare Group to undertake follow-up control of isolated plants and re-growth Japanese Honeysuckle (*Lonicera japonica*) within the reserve	H	• Climbing plants over one metre to be stemmed scraped with Glyphosate and left in situ on site • Dense ground covers should be sprayed with Glyphosate (360g/L) at 1:100 ratio • Follow-up treatment can be done via the following methods: o Spot spraying with Glyphosate (360g/L) at 1:100 ratio o Hand pulling individual plants (See appendix 8 “bush regeneration fact	2013 2013 on going

GROUP ACTION	PRIORITY	METHOD	TIME
		sheet", NSW National Trust) o Scrape and paint (See appendix 5 "bush regeneration fact sheet", NSW National Trust)	
Bush regeneration contractors to undertake targeted control of priority weed species within the green zones of attached Violet Clarke weed map as follows: • Green Cestrum (*Cestrum parqui*) which is classified as class 3 noxious weed in the Shoalhaven • Pampas Grass (Corderia spp.) which is class 4 noxious weed in the Shoalhaven • Formosan Lily (*Liliium formosanum)* • Mickey Mouse Plan (*Ochna serrulata*) The Bushcare Group, with assistance from Council, can undertake a staged control/removal of large stands of Fishbone Fern (*Nephrolepis cordifolia)* that occur on the urban/bushland interface. Control should only be undertaken once cooperation in removing any plants from the adjoining residential private properties is sought	M L	• A combination of manual and chemical control should be undertaken by contractors as per best practise • Bushcare Group and Council should make direct contact with identified adjoining property owners to gain support before undertaking a staged control of large infestations Fishbone Fern (*Nephrolepis cordifolia)* and re-planting with native ground covers (Training of volunteers should be provided on identification of the native grounds ferns such as *Doodia spp*. and *Blechnum spp* which look like *Nephrolepis cordifolia (Fish Bone Fern)*	2013 – On going
Bushcare Group and Council to hold regular community BBQ and walk highlighting improvements made to the site and use as an opportunity to provide education. Address dumping,	M	Volunteers and Council staff – distribute pamphlets, use local media, onsite gatherings, consider plant giveaways and face to face awareness raising opportunities	Annually

GROUP ACTION	PRIORITY	METHOD	TIME
encroachment and potentially invasive ornamental garden plant issues			
Encourage private landowners adjacent to the reserve to replace invasive garden plants	L	Plant replacement schemes, provide information on invasive ornamental garden plants via the “Grow Me Instead” booklets	Annually
Monitor the site annually for Bitou Bush (*Chrysanthemoides monolifera spp monolifera*) and Lantana (*Lantana camara*)	H	Volunteers and Council staff	Annually
Bushcare Group to undertake monitoring of improvement over time to assess regeneration	H	Council staff to train Bushcare volunteers in vegetation monitoring and setting up photo monitoring points	Annually
Rubbish removal	L	Volunteers to collect opportunistically. Green waste management to be discussed with adjoining land owners by SCC staff. Consider participating in Clean Up Australia Day	Ongoing
Work with Vincentia Golf Club members and board to raise the club’s awareness of the biodiversity values of the reserve/ vegetation.	M	• Design and produce fact sheet for project and distribute to Vincentia Golf Club and surrounding residents. • Contact Vincentia Golf Club President requesting to speak to club board meeting about project and how the Club and Council Bushcare Group can assist each other in managing the remanent vegetation.	2013/14
STAGE 2 & 3 – ORION BEACH RESERVE			
Map locations of weed species and densities using	H	Shoalhaven Council to undertake weed	Dec

GROUP ACTION	PRIORITY	METHOD	TIME
GPS and produce a weed species map (as per appendices 2, 3, 4,)		mapping	2012(complete?)
Prepare a Bushcare Group Action Plan for Orion Beach crown reserve	H	Shoalhaven Council and Vincentia Bushcare Group prepare draft Bushcare Group Action Plan for final approval by Council	March 2013
All bush regeneration work in the reserve should follow the following principles: 1. Allow the rate of recruitment/regeneration of native understory vegetation to dictate the rate of control/removal of weeds. 2. Do not over clear slopes, especially around stormwater outlets and sandy soils to avoid erosion. 3. Ensure all contractors, Council staff and volunteers are trained in bush regeneration/weed control on the reserve and are able to identify weed species from native plants before they commence work. 4. In areas where weed density is over 50% of the ground cover ensure that revegetation and soil stabilisation is planned before primary weed control takes place. Bushcare volunteers NOT to work on steep slopes. ***Note: Refer to Appendices 2,3, & 4 for weed species maps***			
Asparagus athiopicus (Ground Asparagus Fern) 1. Council Bushcare Coordinator and Bushcare Group to undertake assessment of the erosion potential of areas targeted for weed control and implement erosion control measures such as brush matting/geo fabric before undertaking weed control 2. Following weed density mapping, bush regenerators be employed to work at areas of *Asparagus aethiopicus* from the western and eastern ends of the linear reserve towards the mid section where there are medium density infestations at the rear of 306 to 322B Elizabeth	H H	1. Staff and volunteers undertake on site assessment 2. Chemical control of *Asparagus aethiopicus* using Metsulfuron-methyl at recommended rate as per label. Isolated plants can be crowned out and the crown bagged and removed from site 3. Allow seedlings to germinate to a height of 10-15cm before spot spraying (with Metsulfuron-methyl at recommended rate as per label) or use manual crowning, (ensuring that crown is bagged and removed from site)	2013 2013 2013 on going

GROUP ACTION	PRIORITY	METHOD	TIME
Drive 3. Bushcare Group to follow up areas of medium and light density areas and undertake follow up control – Bushcare volunteers are NOT to work on steep slopes 4. Bushcare Group to monitor regeneration following initial control and, if required, collect seed and cuttings of *Rhagodia candolleana* (Seablite) and *Lomandra longifolia* (Spiny Matt Rush) to propagate at the community nursery for re-vegetation in these areas	H H	4. Bushcare Group and Council to establish photo points to monitor regeneration and, if need be, seek assistance from Council to collect seeds and cuttings	2014 on going
Senna pendula spp glabrata (Cassia), *Lonicera japonica (*Japanese Honeysuckle), *Ipomea indica* (Morning Glory) and Lilium formosanum (Formosa Lily) – For weed locations see appendix 2 1. Contract bush regenerators to undertake primary weed control using a combination of manual and chemical control of these weed species in the following priority order: a) *Senna pendula spp glabrata* (Cassia) b) *Acetosa sagittata* (Turkey Rhubarb) c) *Lonicera japonica (*Japanese Honeysuckle) d) *Ipomea indica* (Morning Glory) 2. Bushcare Group to undertake follow up control of all four weed species and if necessary	 a) H b) H c) H d) M H	a) Cut and paint with 1/3 Glyphosate (360g/L) and water (see attached Bush Regeneration Fact Sheets – appendix 7) b) Spot spray with glyphosate 360g/L at rate of 1:100 c) All climbing over a 1 metre in height stemmed scraped and painted with Glyphosate (360g/L) Spray dense infestations with Gyphosate (360g/L) with 1:100 ratio (see appendix 5) d) All weed vines climbing over a 1 metre in height to be stem scraped and painted	2013 on going

GROUP ACTION	PRIORITY	METHOD	TIME
undertake revegetation with native vines and scramblers such as per suggested species planting/revegetation list in plan – Bushcare volunteers must NOT to work on steep slopes		with Glyphosate (360g/L) Spray dense infestations with Gyphosate (360g/L) with 1:100 ratio (see appendix 5)	
Nephrolpsis cordifolia (Fishbone Fern), *Acestosa sagittata* (Turkey Rhubarb) and other Garden Escape weeds Bush regenerators should undertake a staged weed control program of the above species with the following priority:			
a) There are only small isolated infestations of *Acestosa sagittata* (Turkey Rhubarb). These should be fully controlled and suppressed as the number one priority as this weed is spread by wind borne seed	H	a) Spot spray with Glyphosate (360g/L) at recommended rates as per label, ensure that follow-up treatment is undertaken when the rhizomes germinate	2013
b) Bushcare Group and Council need to undertake a risk versus benefit assessment of the control/removal of the large infestation of *Nephrolpsis cordifolia* (Fishbone Fern) on the reserve at the rear of 352/354 Elizabeth Drive as this plants contains large rhizomes and tubers which will be providing soil stability. Any removal/control of these rhizomes and tubers could reduce soil stability and lead to erosion	L	b) Undertake risk assessment following results of other weed species control efforts	2015
c) The garden escape weeds are to be		c) Consult directly with adjoining residents	

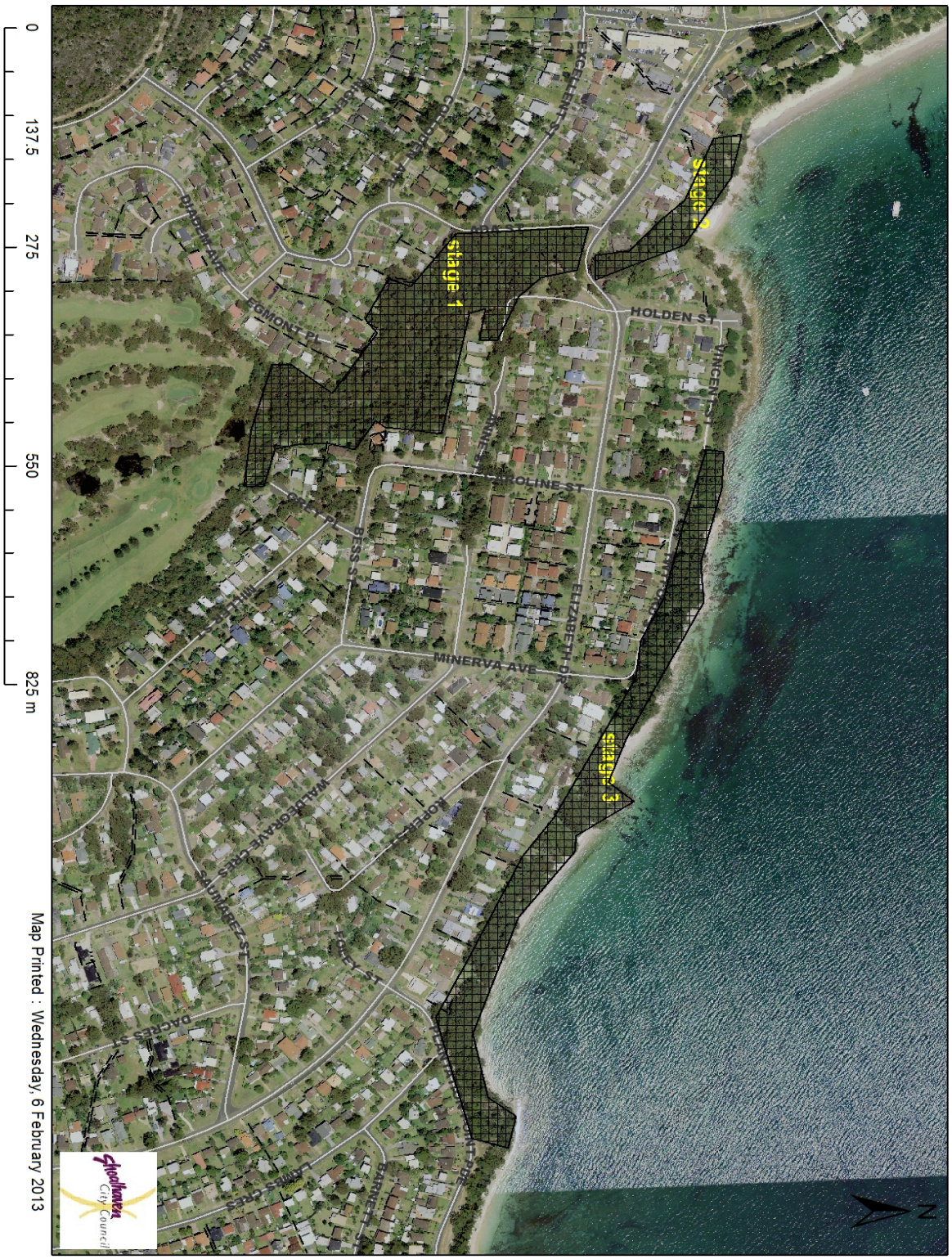
GROUP ACTION	PRIORITY	METHOD	TIME
removed/controlled on a needs be opportunistic time frame in direct consultation with adjoining residents	L	before controlling garden escape weeds to raise awareness of potential of some garden plants to be invasive through distribution of “Grow Me Instead’ booklet and native plant giveaways	On going
Beach access tracks – There are currently 12 beach access tracks on the reserve, covering a stretch of beach 810 metres in length. Three access tracks are formalised and maintained by Council. The remainder are informal beach access tracks			
1. Council to directly consult with adjoining property owners to consolidate the number of beach access tracks and developed some shared paths so as to reduce fragmentation of remaining bushland and the on-going spread of weeds	M	1. Identify erosive access tracks for possible closure and those to be used as shared paths and meet with residents on site to discuss closures	2014
2. Bushcare Group to revegetate access tracks that are closed.	M	2. Rehabilitation might be a combination re-vegetation/direct seeding/brush matting/ coir® or jute® matting	2015 - 2016

Violet Clarke and Orion Beach sub-catchment site access/weed species location table (to be used in conjunction with the plans weed species maps.

Sub-catchment and/or location	Access Information	Specific Weed Species Information	Additional Comments – Priorities
Violet Clarke Reserve			
Anne St	Access is easy and volunteers should work in this area	Honeysuckle, asparagus and Crassula should be the target weeds with other weeds opportunistically remove as the group works through the area.	Volunteers should move in a northerly direction. Priority – high for volunteers, low for contractors
Anne to Bess Street	Access becomes more difficult and the boundary between the private property and the Reserve is not clear	Contractors should be used in this area to control fishbone, honeysuckle, ivy, senna and ginger	There are numerous garden escapes in the area and resident education will be a crucial component of success in this sector. Volunteers could consider secondary weeding here once access is more secure and boundary lines are in place. Priority – medium for contractors and low for volunteers.
Bess St to Golf Course	Access is difficult	Ginger, honeysuckle, senna, bitou, lantana, fishbone and paspalum should be treated by contractors	Golf course needs to be included in education programs. Dumping and clearing are both issues. Priority – high for contractors and low for volunteers. Education high.
Egmont Place	Access varies and is easy in some parts and difficult in others	Ginger, honeysuckle, fishbone are issues that contractors should treat as well as bamboo, pampas grass and ivy.	Adjoining residents need to be included in education programs and encouraged to join the volunteer group. Dumping and encroachment are both issues. Residents may see

			this area as a priority because it is part of their immediate vicinity. Priority – high for contractors and medium for volunteers depending on local interest. Education high.
Ada St	Access is fairly easy.	Volunteers could work very effectively here on Senna using cut and paint techniques. Montbretia and honeysuckle are also issues. Contactors should be used to remove the ginger in this area	Priority – high for volunteers and low for contractors
Orion Beach Foreshore Reserve			
Nth of Elizabeth St	Access from the beach is easy but below Elizabeth Drive access is possible via small track	Asparagus Fern, Lantana, Honeysuckle, Senna	Private property boundaries need to confirmed and access should done in direct consultation with neighbouring property owners.
Orion Beach East	Access mostly difficult.	Contractors to work on keystone weed species, volunteers to do follow up where they can access the site safely. This is generally at the bottom of the slope and at the top. The grade is generally too steep in the mid sections for access and contractors should be used for these areas	Priority – high for contractors in difficult areas on keystone species and medium for volunteers. Resident education high
Orion Beach West	Access varies and is easiest at the most western edge	Strategy as above.	Strategy as above.

3. BUSHCARE GROUP ACTION PLAN MAP
VIOLET CLARKE AND ORION BEACH RESERVES – BUSH REGENERATION MASTER MAP



4. BUSHCARE GROUP WHS & EQUIPMENT REQUIREMENTS

Type of Activity	Yes	SWMS name included
Manual weed control (cut & paint, scrape and paint etc)	x	SWMS NR060
Chemical control (spraying of herbicides)	x	SWMS NR040
Planting	x	SWMS NR030
Propagation & seed collection	x	SWMS NR030

5. COUNCIL SUPPORT

a) Community education – assistance with flyer design and printing
b) Project and contractor management
c) GPS mapping of weeds (training)
d) Grant administration and contractor management
e) Supply tools and PPE within budgetary constraints
f) Provision of Bushcare Field Officer to work three hours per month to provide on-site training in bush regeneration skills and techniques

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

Yes

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

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

8. POSSIBLE FUTURE FUNDING

Project	Funding source
On-going restoration works	Various State and Federal grants

9. PLAN WILL BE REVIEWED EVERY THREE YEARS

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 Plan of Management Community Land Natural Areas Reserves	2001	SCC – Natural Resources and Floodplain Unit
Noxious and Environmental Weed Control Handbook	5th Edition	NSW Department Primary Industries
Foreshore Reserve Policy	2012	SCC
Weed Management Plan for Orions Beach	2012	Proust Bushland Services
Asset Management Plan-Coastal and Estuary Assets (POL12/58)	2012	SCC
Round the Bay Walk	2013	SCC
Draft Coastal Zone Management Plan for the Sholahaven Coastline	2012	SCC (Umwelt)

11. RECOMMENDED PLANTING/REVEGETATION SPECIES LIST

OVERSTOREY TREES	
Botanical	**Common**
Callicoma serrata	Black Wattle
Casuarina glauca	She Oak
Elaeocarpus reticulatus	Blueberry Ash
SHRUBS	
Botanical	**Common**
Baekea imbricata	Winged Heath Myrtle
Hakea sericea	Willow Hakea
Kunzea ambigua	Tick Bush
Melaleuca squarrosa	Scented Paperbark
Myoporum boninense	Coastal Boobialla
Pultenaea daphnoides	Large Leaf Bush-pea
UNDERSTOREY (grasses, herbs, climbers)	
Botanical	**Common**
Dianella caerulea	Native Flax
Hibbertia scandens	Guinea Flower
Lomandra longifolia	Mat Rush
Patersonia sericea	Purple Flag
Themeda australis	Kangaroo Grass
Rhagodia condolleana	Seablite

Violet Clarke

As the weeds are removed, natural regeneration should be encouraged. Most of the weeds are on the edge and the inner areas are in good shape. If planting is required and or the residents and volunteers want to plant, only species found on site should be used. Seed should be collected from the site and propagated in the Bushcare nursery facility by the volunteers. Plant giveaways should be considered where weeds are removed from private gardens.

Orion Beach

This site is more likely to need revegetating particularly along the access points and the resident boundaries. Planting should be undertaken as weeds are removed from the boundaries. Direct consultation with the residents.

12. SITE WEED LIST - See detail attached and Proust Report

Species	Infestation	Action	Priority
Kahilia Ginger *Hedychium gardnerainum*	High – throughout the site	Use contractors, commence at the southern end and work northward down drainage	High

		lines. Volunteers to remove small plants where safe in areas they are working.	
Fishbone Fern *Nephrolepis cordifolia*	High – throughout site	Spray using contractors, working south to north and east to west. Volunteers to do follow up hand removal where access is safe.	High
Honeysuckle *Lonicera japonica*	High – throughout the site	Spray using contractors, target opportunistically when treating the above weeds. Volunteer to target where access is possible.	High
Senna	Medium – throughout site	Cut and Paint. Contractors in southern sector and where access is limited. Volunteers work in the Ada St sector (cut and paint) and remove seed in Autumn where plants can be easily accessed.	High
Ivy *Hedera sp*	Medium-sporadic around Bess St, Excellent St and Egmont Place.	Use contractors to control all.	High
Formosan Lily *Lilium formosanum*	Medium – sporadic around edges	Mostly can be controlled by volunteers using hand removal and cut and paint.	Med
Mother of Millions *Bryophyllum sp.*	Low – Bess St	Hand removal by volunteers.	High
Asparagus Fern *Asparagus aethiopicus*	Medium – sporadic throughout site	Opportunistically by contractors and volunteers.	Med
Montbretia *Crocosmia x crocosmiiflora*	Medium – along drainage lines	Opportunistically by volunteers.	Low
Pampas Grass *Cortaderia sp.*	Low 3 clumps around Egmont Place	Contractors.	High
Spider Plant *Chlorophytum comosum*	Low – one patch south of Egmont	Hand removal by volunteers.	Med
Bamboo *Phyllostachys*	Low – one patch north	Contractors.	Med

aurea	of Egmont		
Wandering Creeper *Tradescantia fluminensis*	Medium – generally below Egmont	Opportunistically by contractors and volunteers.	Med
Cape Ivy *Delairea odorata*	Low – far northern sector, below Bess St	Opportunistically by contractors and volunteers.	Med
Daisy *Osteospermum fruticosum*	Low – east side Bess St	Hand removal by volunteers.	Low
Bluebell Creeper *Sollya heterophylla*	Low – occasional in northern sector	Opportunistically by contractors and volunteers.	Low
Passionfruit *Passiflora sp.*	Low – northern end	Opportunistically by contractors and volunteers.	Low
Paspalum *Paspalum sp.*	Low – northern end	Opportunistically by contractors and volunteers.	Low
Seaside Daisy *Erigeron karvinskianus*	Low – Anne St	Hand removal by volunteers.	Low
Agave *Agave sp.*	Low – below Egmont Place	Poison or hand removal by volunteers.	Low
Crassula *Crassula multicava*	Low – Anne St, Bess St	Hand removal by volunteers	Low
Mickey Mouse plant *Ochna serrulata*	Low	Cut and paint opportunistically by contractors and volunteers.	Low
Salvinia *Salvinia molesta*	Low	Occasionally washing through the site from the golf course – alert Golf Course management.	Low

13. BUSHCARE SITE SPECIES LIST – see detail attached

Family	Genus/Species	Common Name
PSILOPSIDA		
Selaginellaceae	*Selaginella uliginosa*	Swamp Selaginella
FILICOPSIDA		
Aspleniaceae	*Asplenium australasicum*	Bird's Nest Fern
Blechnaceae	*Blechnum sp*	
Cyatheaceae	*Cyathea australis*	Rough Tree Fern

Dennstaedtiaeae	*Pteridium esculentum*	Bracken
Gleicheniaceae	*Gleichenia dicarpa*	Coral Fern
MAGNOLIOPSIDA	**DICOTYLEDONS**	
Apaiceae	*Actinotus helianthi*	Flannel Flower
	Xanthosia pilosa	Woolly Xanthosia
Convolvulaceae	*Dichondra repens*	Kidney Weed
Casuarinaceae	*Casuarina glauca*	She Oak
	Allocasuarina littoralis	Black She Oak
Cunoniaceae	*Callicoma serratifolia*	Black Wattle
Dilleniaceae	*Hibbertia aspera*	
	Hibbertia scandens	Golden Guinea Flower
Droseraceae	*Drosera spathulata*	Sundew
Epacridaceae	*Epacris microphylla*	Coral Heath
	Leucopogon ericoides	Bearded Heath
	Monotoca elliptica	Pigeon Berry
Elaeocarpaceae	*Elaeocarpus reticulatus*	Blueberry Ash
Euphorbiaceae	*Glochidion fernandi*	Cheese Tree
	Omalanthus populifolius	Bleeding Heart
Fabaceae: Mimosoideae	*Acacia binervata*	Two-veined Hickory
	Acacia fimbriata	Fringed Wattle
	Acacia longifolia	Sydney Golden Wattle
	Acacia mearnsii	Black Wattle
	Acacia ulicifolia	Prickly Moses
Fabaceae Papilionaceae	*Aotus ericoides*	Aotus
	Glycine clandestina	Love Creeper
	Gompholobium latifolium	Broad-leaf Wedge Pea
	Hardenbergia violacea	Hardenbergia
	Pultenaea daphnoides	Large leaf Bush-pea
Goodeniaceae	*Dampiera stricta*	N/A
Haloragaceae	*Gonocarpus teucrioides*	Raspwort
Menispermaceae	*Stephania japonica*	Snake Vine
Myoporaceae	*Myoporum boninense*	Boobialla
Myrtaceae	*Babingtonia pluriflora*	N/A
	Baeckea imbricata	Heath Myrtle

	Corymbia gummifera	Bloodwood
	Eucalyptus botryoides	Bangalay
	Eucalyptus pilularis	Blackbutt
	Eucalyptus sclerophylla	Scribbly Gum
	Eucalyptus sieberi	Silver-top Ash
	Eucalyptus sieberi	Silver Top Ash
	Kunzea ambigua	Tick Bush
	Leptospermum polygalifolium	Lemon-scented Tea-tree
	Melaleuca hypericifolia	Hillock Bush
	Melaleuca squarrosa	Scented Paperbark
Oleaceae	*Notelaea longifolia*	Mock Olive
Pittosporaceae	*Billardiera scandens*	Apple Berry
	Pittosporum undulatum	Sweet pittosporum
Proteaceae	*Banksia ericifolia*	Heath-leaved Banksia
	Banksia serrata	Old Man Banksia
	Banksia spinulosa	Hair-pin Banksia
	Hakea sericea	Bushy Needlebush
	Hakea teretifolia	Dagger Hakea
	Lomatia ilicifolia	Holly-leaved Lomatia
	Persoonia levis	Broad-leaved Geebung
Ranunculaceae	*Clematis aristata*	Old Man’s Beard
Rubiaceae	*Pomax umbellata*	Pomax
Stylidiaceae	*Stylidium graminifolium*	Trigger Plant
Thymelaeaceae	*Pimelea linifolia*	Rice Flower
MAGNOLIOPSIDA	**DICOTYLEDONS**	
Cyperaceae	*Gahnia sp*	
Iridaceae	*Patersonia sericea*	Silky Purple Flag
Lomandraceae	*Lomandra longifolia*	Mat Rush
	Lomandra glauca	Pale Mat Rush
	Lomandra multiflora	May-flowered Mat Rush
Philesiaceae	*Eustrephus latifolius*	Wombat Berry
Phormiaceae	*Dianella caerulea*	Blue Flax Lily
Poaceae	*Andropogon virginicus**	Whiskey Grass
	Anisopogon avenaceus	Oat Speargrass
	Entolasia stricta	Wiry Panic

	Imperata cylindrica	Blady grass
	Oplismenus aemulus	Basket Grass
	Panicum simile	Two Colour Panic
	Themeda australis	Kangaroo Grass
Restionaceae	*Baloskion tetraphyllum*	Restio
Smilacaceae	*Smilax glyciphylla*	Sarsaparilla
Typhaceae	*Typha sp.*	Bull-rush
Xanthorrhoeaceae	*Xanthorrhoea sp.*	Grass Tree

2. Refer to Proust Report July 2012 – Bushland Management Plan for Orions Beach for detailed weed list on this site.

Please note: The above lists do not contain everything on site. These lists are dynamic and should be built on by the volunteers as their knowledge of native species grows.

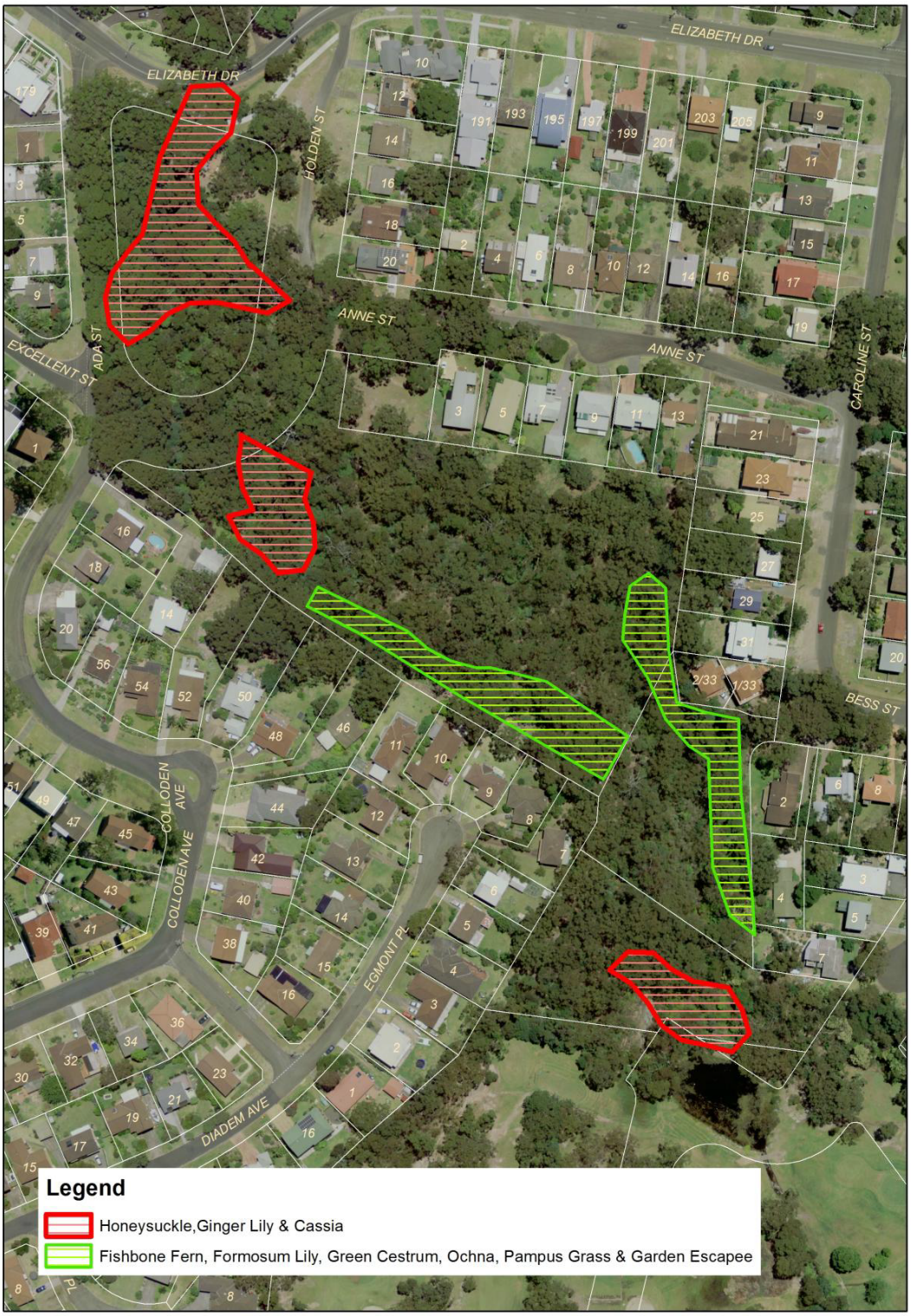
Bushcare Group Name: .....

Coordinator Name:.....

Signature: .....

Date: ...../ ...../ .....

Appendix 1
Violet Clarke Reserve Weed Species Map



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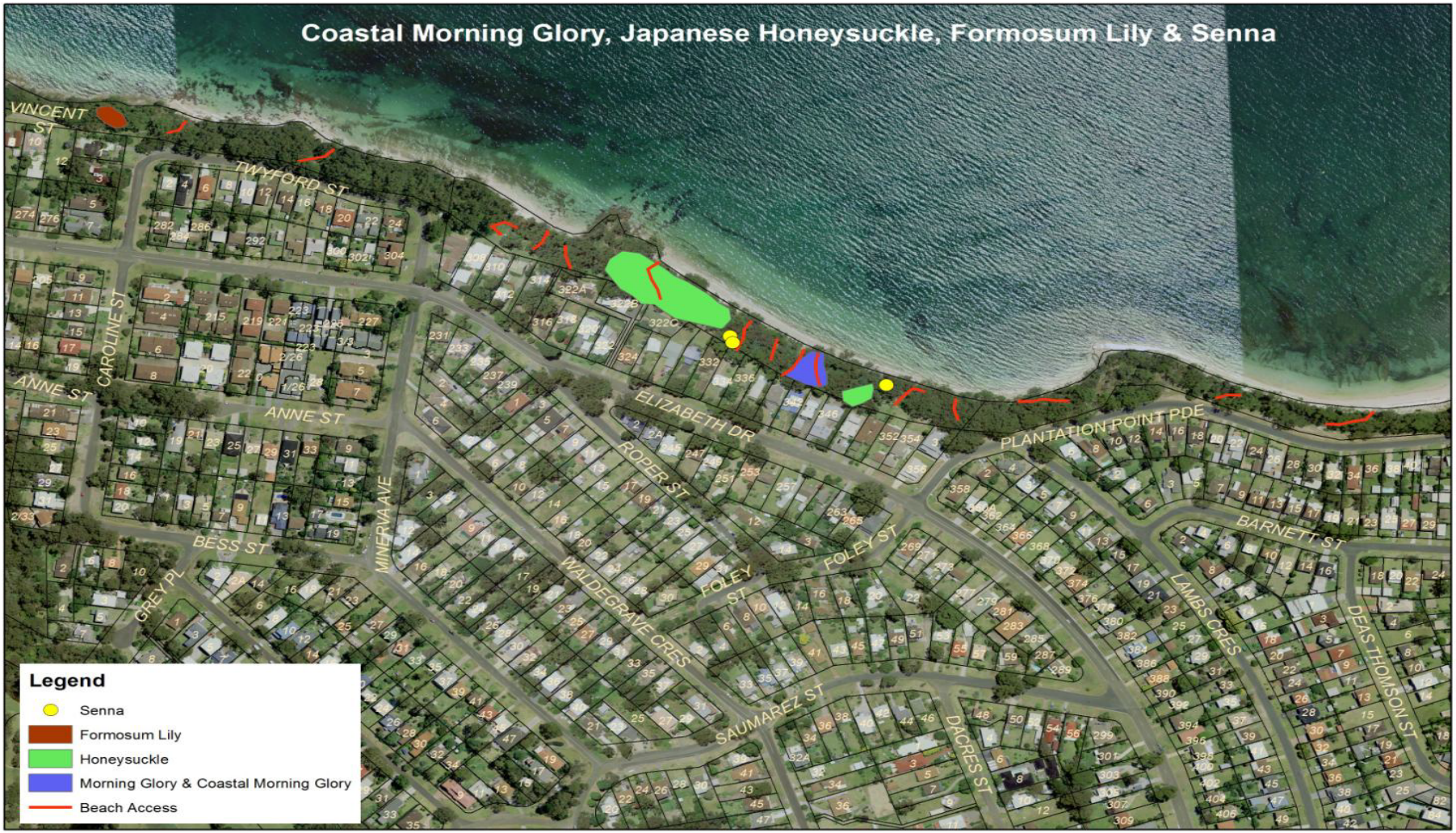
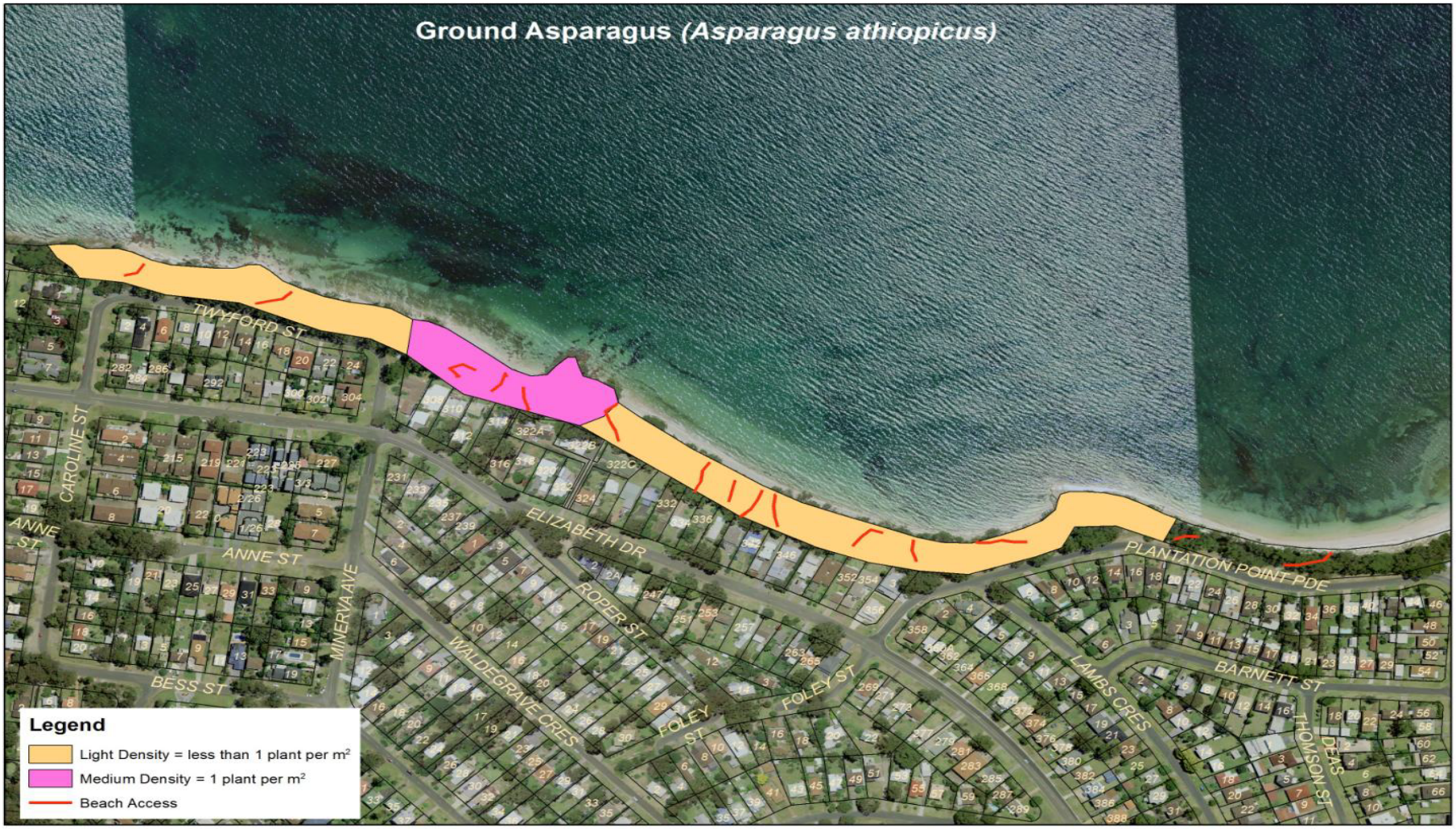
ppendix 2:
Orion Beach Reserve *Ipomea Indica, Senna pendula spp glabrata, Lonicera japonica & Lillium formosanum* Mapping



Appendix 3:
Orion Beach Reserve Asparagus athiopicus (Ground Asparagus Fern) Mapping



Appendix 4:
Orion Beach Reserve *Nephrolpsis cordifolia* (Fishbone Fern) and Garden Escapee Weeds Mapping

Appendix 5: Walking Track at Orion Beach Reserve – Closure and Rehabilitation

Appendix 6:
Bush Regeneration Information Sheet – Control of Vines and Scramblers

BUSH REGENERATION INFORMATION SHEET

Control of Vines and Scramblers

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

METHODS OF REMOVAL

❶ *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.

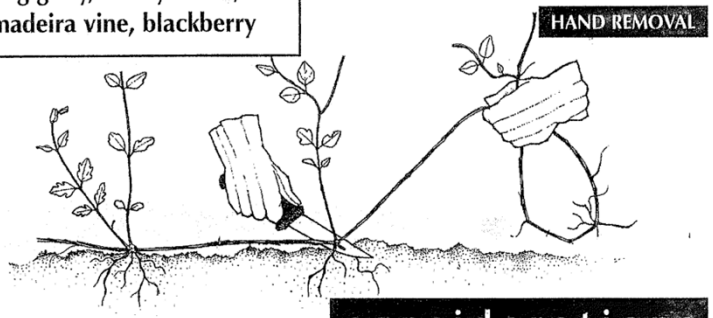
STEP 3 The major root systems need to be removed manually or scrape/cut and painted with herbicide.

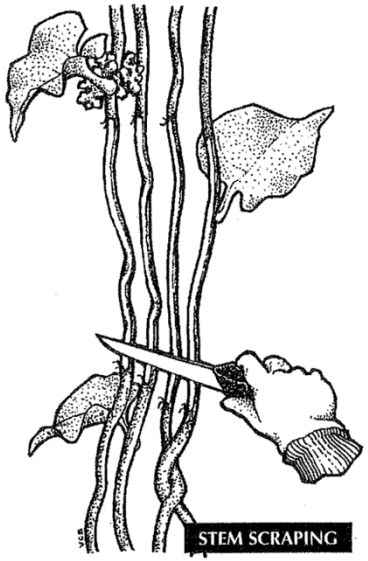
STEP 4 Bag any reproductive parts.

❷ *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.





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.

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Appendix 7:
Bush Regeneration Information Sheet – Control of Weeds with Underground Reproductive Structures

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BUSH REGENERATION INFORMATION SHEET

Control of Weeds with Underground Reproductive Structures cont..

METHODS OF REMOVAL

❸ *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.

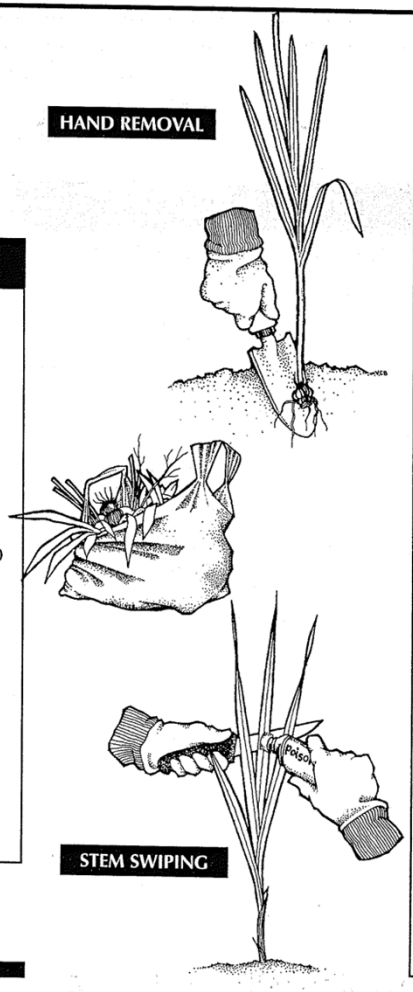
STEP 2 Dig down next to the stem until the bulb or tuber is reached.

STEP 3 Remove plant and carefully bag the bulb or tuber.

❹ *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.



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 ?

Appendix 8:
Bush Regeneration Information Sheet – Control of Woody Weeds

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BUSH REGENERATION INFORMATION SHEET

Control of Woody Weeds

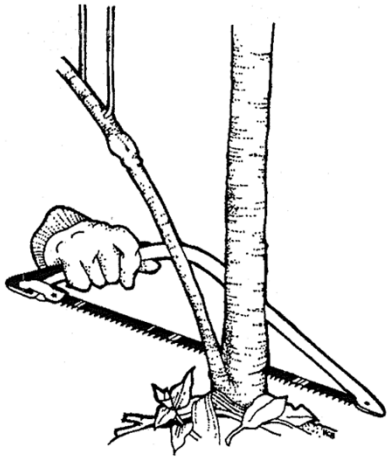
Examples of woody weeds include:
- lantana, bitou bush, cotoneaster, privet (cut and paint)
- camphor laurel, Mickey Mouse bush (ochna) and cassia/senna (stem scrape)

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.

Appendix 9:
Bush Regeneration Information Sheet – Control of Small Hand-pullable Plants

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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

METHODS OF REMOVAL

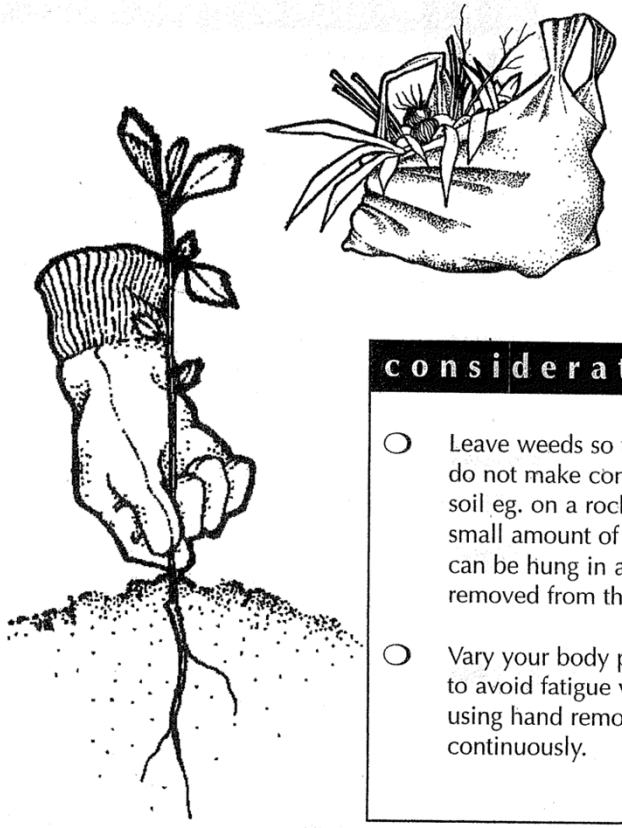
1 ***HAND REMOVAL (Minimal Disturbance)***

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

STEP 2 Grasp stem at ground level.

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

STEP 4 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.
- Vary your body position to avoid fatigue when using hand removal continuously.