

## Waiheke Ecological Restoration Works Programme

Note: Green colour blocks indicate works occurring within the month.

Site name	Suburb	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Anzac Bay Reserve	Ostend												
	Awaawaroa												
Awaawaroa Wetland Reserve	Bay												
Church Bay Esplanade Reserve	Oneroa												
Days Landing	Orapiu												
Glen Brook Reserve	Omiha												
Goodwin South Reserve	Oneroa												
Hekerua Bay Reserve	Oneroa												
Hunterville Reserve	Orapiu												
Karaka Reserve	Waiheke Island												
Kennedy Point Reserve	Surfdale												
Kennedy Reserve	Surfdale												
Kuakarau Bay Forest	Te Whau												
Little Oneroa Reserve	Oneroa												
Mawhitipana Reserve	Palm Beach												
Newton Reserve	Oneroa												
Okoka Bay Dead Dog Walkway	Te Whau												
Omiha Beach Reserve	Oneroa												
Onetangi Cemetery	Onetangi												
Onetangi Sports Park													
(Rangihoua)	Oneroa												
Owhanake Matiatia Walkway	Oneroa												
Owhanake Reserve	Oneroa												
Palm Beach Reserve	Palm Beach												
Park Point Walkway	Park Point												

Putiki Reserve	Waiheke Island						
Squirells Reserve	Orapiu						
Tawaipareira Reserve	Ostend						
Te Aroha Reserve Accessway	Waiheke Island						
Te Matuku Bay Esplanade Res							
1	Te Matuka						
Te Matuku Spit	Orapiu						
Te Matuku Stockyard Reserve	Te Matuka						
Te Matuku To Awaroa Walkway	Orapiu						
Te Toki Reserve	Ostend						
Te Uri Karaka Te Waera							
Reserve	Oneroa						
Te Whau Esplanade Reserve 1	Omiha						
Third Reserve	Onetangi						
Trig Hill Farm Reserve	Onetangi						
Victoria Reserve	Onetangi						
Waiheke Cemetery Reserve	Te Matuka						
Waiheke Island Reserve	Waiheke Island						
Wairua South Reserve	Omiha						
Wharf Reserve - Waiheke	Ostend						
Wilma Foreshore Reserve	Ostend						

## Waiheke Target Pest Plant Species Agrichemical Minimisation Control Methodologies - September 2017

This is an indicative list of species. Others may be added if appropriate.

Scientific name	Common name	Waiheke proposed eco contract methodology	Agrichemical application timing	Identification image All images (unless stated otherwise) sourced from Auckland Council
Acacia mearnsii	Black Wattle	<ol> <li>Hand pull seedlings minimising soil disturbance.</li> <li>Ringbark trees; ensure danger to public from falling branches is minimised. Paint ringbarked area immediately - Cut 'N' Paste Original (Glyphosate).</li> <li>Where trees have been felled, paint stump - Cut 'N' Paste Original</li> <li>No foliar spraying will be conducted</li> </ol>		
Agapanthus praecox.	Agapanthus	<ol> <li>Dig out isolated plants, removing all bulbs/rhizomes. Hang plants off ground</li> <li>Slash leaves close to ground and paint fresh stump - Cut 'N' Paste Met Gel</li> <li>No foliar spraying will be conducted</li> </ol>	Spring - Summer	

Allocasuarina sp.	She-oak	<ol> <li>Hand pull small plants.</li> <li>Cut larger trees and stump paint - Cut 'N' Paste Met Gel.</li> </ol>	All year	
Araujia hortorum	Moth plant	<ol> <li>Dig and pull out all seedlings.</li> <li>Cut near ground and stump paint - Cut 'N' Paste Picloram (43g/kg Picloram).</li> <li>Foliar spraying will be conducted only as a last resort, e.g. Esplanade reserves which are steep perhaps requiring abseiling and on mass seedlings and/ or juveniles where a foliar application may be the best solution e.g. over gorse, amongst blackberry, etc, or just at such a large scale where resource or community group support may not be available? Metsulfuron 5g/10L plus organosilicone</li> </ol>	Spring - Autumn	
Asparagus asparagoides	Smilax	<ol> <li>Grub out small scattered plants.</li> <li>Weed wipe small infestations (300ml (3%) Glyphosate+ 10ml penetrant) or Cut 'N' Paste Original (Glyphosate) .</li> <li>No foliar spraying will be conducted, unless weed wiping proves innefective in year one. In this case, Spring-early summer, cut vines</li> </ol>	Spring - Summer	

			60cm above ground, spray lightly (20ml glyphosate/L) No Added penetrant or surfactant.		
Asparagus scandens and Asparagus aethiopicus	Climbing Asparagus and Bushy Asparagus (latter a containment species recently discovered at Onetangi by Deryn Dromgoole)	2.	Small isolated individuals Cut 'N' Paste Original (Glyphosate) - wipe on with Nitrile glove Weed wipe small infestations (test 300ml glyphosate/1L water, no penetrant, or Cut 'N' Paste Original (Glyphosate) - wipe on with Nitrile glove total coverage not required). If unsucessful 2% glyphosate no oganosilicone if around trees and 1% glyphosate with 0.1% organosilicone if away from tree trunks Cut or pull vines 60cm above ground, spray lightly, 50ml (0.5%) Glyphosate. No Added penetrant or surfactant	Spring - Summer	
Chrysanthemoides monilifera	Boneseed		Hand pull all but the largest plants before seeding. Cut larger plants and stump paint with - Cut 'N' Paste Original (Glyphosate). No foliar spraying will be conducted	All year	

Cortaderia	Pampas Grass	1. Gi	rub out small individual isolated	Summer - Autumn	
selloana		ind	dividual plants.		
		2. W	/eed wipe small plants all year		
		ro	ound (200ml glyphosate + 2ml		
		pe	enetrant/1L)		
			crub bar large or cut n stump treat		
			maller dense infestations with Cut		
			l' Paste Original. Spray dense sites		ALL DESIGNATION OF THE SECOND
			here non-target damage is unlikely		
		`	00ml 1% glyphosate + 20ml		
-	_	•	enetrant/10L).	_	
Cotoneaster spp.	Cotoneaster		and pull seedlings	Summer - Autumn	- mati
			ut and paint stems - Cut 'N' Paste		
			letGel.		
			rill big stems, 'feather' bark and		
			aint - Cut 'N' Paste Metgel		
Dalairea adareta	Composition		o foliar spraying will be conducted	Consider an Company of	
Delairea odorata	German Ivy		and pull or dig out scattered plants	Spring - Summer	
			nd seedlings. Hang pulled plants in		
			earby vegetation off the ground. ut and paint stems - Cut 'N' Paste		
			riginal (Glyphosate).		
			ut stems below waist height, spray		
			elow this point (100ml		
			yphosate+20ml penetrant/10L).		
Erica lusitanica	Spanish Heath	٠.	and pull seedlings.	All year	the state of
	5,500		aint stump - Cut 'N' Paste		
			icloram (43g/kg Picloram).		

Gazania sp.	Gazania	<ol> <li>Dig out small infestations.</li> <li>No foliar spraying will be conducted         <ul> <li>.</li> </ul> </li> </ol>	All year	
Hedychium gardnerianum	Wild Ginger	<ol> <li>Slash stems and dig out all rhizomes. Young seedlings can be hand pulled, taking care to remove strings of rhizomes.</li> <li>Cut above pink "collar" at base and stump paint - Cut 'N' Paste Metgel.</li> <li>No foliar spraying will be conducted</li> </ol>	Spring - Autumn	
Jasminum polyanthum	Jasmine	<ol> <li>Prune vines as close to original stem as possible, gathering a bunch of vines together and tying twice cutting between and pasting the cut ends on both cut bunches then paint cut stem - Cut 'N' Paste Met Gel. Hang cut stems off ground where possible to prevent resprouting.</li> <li>Cut back and spray regrowth Cut back and spray regrowth in summer (5g metsulfuron+10ml penetrant/10L</li> </ol>	Spring - Summer	

Ligustrum spp	Chinese privet & tree privet	<ol> <li>Hand pull seedlings.</li> <li>Cut larger trees and stump paint - Cut 'N' Paste Met Gel.</li> <li>Drill holes every 200mm and fill - Cut 'N' Paste Original</li> </ol>	All year	
		Hand pull small plants.		
Lonicera japonica	Tradescantia	<ol> <li>Cut and dig roots out. Leave so that cut sections are not touching soil</li> <li>Cut and paint - Cut 'N' Paste Picloram (43g/kg Picloram).</li> <li>Large vines can be cut at head height and sprayed below this (200ml Glyphosate + 20ml penetrantL).</li> <li>For sites heavily infested but of lower priority liaise with Council biosecurity re biocontrols</li> </ol>	Summer - Autum	
Paraserianthes lophantha	Brush Wattle	<ol> <li>Hand pull seedlings.</li> <li>Cut larger trees and stump paint - Cut 'N' Paste Met Gel.</li> <li>Drill holes every 200mm and fill -</li> </ol>	All year	

		Cut 'N' Paste Original		
Polygala myrtifolia	Sweet Pea Shrub	<ol> <li>Hand pull small plants.</li> <li>Stump paint all year round - Cut 'N'         Paste Original (Glyphosate).     </li> </ol>	All year	
Populus sp.	Poplar	<ol> <li>No foliar spraying will be conducted. Hand pull small plants.</li> <li>For larger plants, either frill larger plants (feather cut bark) Cut and stump paint - Cut 'N' Paste Original (Glyphosate).</li> </ol>	Spring - summer	
Pseudosasa sp	Bamboo	<ol> <li>Dig out and dispose small individual planes</li> <li>Cut down close to ground apply immediately apply - Cut 'N' Paste Bamboo Killer (Glyphosate)</li> </ol>	Spring	
Rhamnus alaternus	Evergreen Buckthorn	<ol> <li>In large infestated areas report it immediately to the Auckland Council Biosecurity team, who will arrange for its control at their expense.</li> <li>Cut and stump paint - Cut 'N' Paste Met Gel. Hang cut material whenever possible to avoid resprouting.</li> </ol>	Spring - Autumn	

		3. No foliar spraying will be conducted		
Rubus fruiticosus agg	Blackberry	<ol> <li>Dig out small patches.</li> <li>Stem scrape and paint - Cut 'N'         Paste Original (Glyphosate)</li> <li>Cut and paint - Cut 'N' Paste         Original (Glyphosate). Only for small         patches.</li> <li>No foliar spraying will be conducted</li> </ol>	Summer	
Salix spp	Willow	<ol> <li>Hand pull small plants taking care to remove all parts.</li> <li>Cut or drill every 100 mm around trunk diameter and fill each cut/hole - Cut 'N' Paste Original (Glyphosate).</li> <li>Frill (feather cut bark) and paint - Cut 'N' Paste Original summer.</li> <li>No foliar spraying will be conducted</li> </ol>	Spring - early summer	
Solanum mauritianum	Wooly Nightshade	<ol> <li>Pull up all small plants. Where these are hard to pull tiny stems- smear the top leaves with Cut n Paste Original</li> <li>Cut and stump paint or frill - Cut 'N' Paste Original</li> <li>Make 2 cuts either side of stem and fill each cut with - Cut 'N' Paste Picloram.</li> <li>No foliar spraying will be conducted</li> </ol>	All year	

Tradescantia	Tradescantia	1. Weedmat small discrete infestations	Summer	
fluminensis		for several months.		
		2. Weed wipe small infestations with		
		Cut n Paste Original. Follow up		
		within 2-3 months before plant		
		recovers. 2-3 treatments needed for		
		total control.		
		For sites heavily infested but of lower		
		priority liaise with Council biosecurity re		
		biocontrols . Spray larger areas (300ml		
		glyphosate + 30ml penetrant/10L).		
		Should give 90+% kill. Follow up as		
		above.		
Ulex europeaus	Gorse	Introduce biocontrol agents	Spring - Summer	
		wherever possible.		Ne de
		2. Hand pull seedlings and small		
		plants.		
		3. Cut and stump paint - Cut 'N' Paste		
		Picloram (43g/kg Picloram).		
		4. No foliar spraying will be conducted		
Vinca Major	Blue Periwinkle	Weedmat small discreet infestations	Summer	
		for 6 months or more, check edges		
		for creeping stems.		
		2. Hand pull small isolated infestations		
		removing all plant material including		
		runners. Repeat regularly.		
		Weed wipe small isolated		
		infestations, all year round (300ml		
		glyphosate + 2ml penetrant/1L).		

		4.	Spray all year round (200ml glyphosate + 20ml penetrant/10L). Requires constant follow up, spray regrowth (300ml glyphosate + 20ml penetrant/10L).		
Zantedeschia aethiopica	Arum Lily		Slash tops and dig out tubers. Removing all material Cut and stump paint - Cut 'N' Paste Met Gel Weed wipe Cut 'N' Paste Met Gel No foliar spraying will be conducted	Spring Summer	

## **Application methods for Waiheke pest plant species**

Trade name	Active constituent	Application methods proposed	Species to be used on
Cut n Paste Bamboo Killer	Glyphosate	Cut stump and direct application	Bamboo
Cut n Paste Original	Glyphosate	Cut stump and direct application	Black Wattle, Boneseed, German Ivy, Sweet Pea Shrub, Poplar, Blackberry, Willow, Woolly Nightshade, Privet
		Weed Wiper direct application to foliage	Smilax, Climbing Asparagus,

		Drill and fill direct application	Black Wattle, Brush Wattle, Willow, privet
		Stem scrape and direct application	Blackberry
Weedmaster	Glyphosate	Targeted Foliar Spraying	Pampas Grass, Climbing Asparagus, German Ivy, Japanese Honeysuckle, Tradescantia
Cut n Paste Met Gel	Metsulfuron-methyl	Cut stump and direct application	She-oak, Cotoneaster, Wild Ginger, Jasmine, Brush Wattle, privet, Evergreen Buckthorn (Rhamnus), Arum Lily, Agapanthus
		Drill and fill direct application	Cotoneaster
		Weed Wiper direct application to foliage	Arum Lily, Smilax
Associate	Metsulfuron-methyl	Target Foliar Spraying	Moth plant, Jasmine
Cut n Paste Picloram Gel	Picloram	Cut stump and direct application	Woolly Nightshade, Gorse, Moth Plant, Spanish Heath, Japanese Honeysuckle,
		Drill and fill direct application	Woolly Nightshade