























ATTACHMENT A: WEED TREATMENT SUMMARY TABLE







<p>African Boxthorn <i>Lycium ferocissimum</i></p> 	<p>Family: Solanaceae Origin: native to southern Africa Introduction: hedge, ornamental uses Habit: upright and spiny shrub 2-3m tall and 3m across Invades: grasslands, open woodlands, coastal environs, inland waterways, pastures, roadsides, disturbed areas Spread: mainly seed dispersed by birds and other animals, and in water, machinery, garden waste and contaminated soil, sometimes vegetatively from root and stem fragments</p> <table border="1" data-bbox="1094 711 1967 816"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>drill & fill</td> <td></td><td></td><td></td><td>A</td><td>M</td><td></td><td></td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table>	hand weed seedlings				A	M	J	J	A	S	O			cut & swab	J	F	M	A	M	J	J	A	S	O	N	D	drill & fill				A	M			A	S	O	N	D
hand weed seedlings				A	M	J	J	A	S	O																														
cut & swab	J	F	M	A	M	J	J	A	S	O	N	D																												
drill & fill				A	M			A	S	O	N	D																												
<p>Aleppo Pine <i>Pinus halepensis</i></p> 	<p>Family: Pinaceae Origin: native to northern Africa, southern Europe and western Asia Introduction: forestry, windbreaks, ornamental uses Habit: large evergreen tree 5-50m tall Invades: open woodlands, forests, grasslands, roadside, disturbed areas Spread: seed dispersed by wind and birds</p> <table border="1" data-bbox="1094 1214 1967 1313"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>ring bark/cut down saplings</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>drill & fill saplings</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table>	hand weed seedlings				A	M	J	J	A	S	O			ring bark/cut down saplings	J	F	M	A	M	J	J	A	S	O	N	D	drill & fill saplings	J	F	M	A	M	J	J	A	S	O	N	D
hand weed seedlings				A	M	J	J	A	S	O																														
ring bark/cut down saplings	J	F	M	A	M	J	J	A	S	O	N	D																												
drill & fill saplings	J	F	M	A	M	J	J	A	S	O	N	D																												








<p>Artichoke Thistle <i>Cynara cardunculus</i> ssp. <i>flavescens</i></p>	<p>Family: Compositae/Asteraceae Origin: Mediterranean region Introduction: garden ornamental and/or culinary plant Habit: upright herbaceous plant 75-150cm tall growing from basal rosette of leaves, re-grows from underground crown each year Invades: grasslands, open woodlands, crops, roadsides, disturbed sites Spread: seed dispersed by wind and animals</p>																																																						
	<table border="1"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>cut & swab/wipe</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td></td><td></td> </tr> <tr> <td>spot spray</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td><td></td> </tr> </table>	hand weed seedlings					A	M	J								cut & swab/wipe							J	J	A	S	O	N			spot spray							J	J	A	S	O												
hand weed seedlings					A	M	J																																																
cut & swab/wipe							J	J	A	S	O	N																																											
spot spray							J	J	A	S	O																																												
<p>Black Nightshade <i>Solanum nigrum</i></p>	<p>Family: Solanaceae Origin: north-western Africa, Europe, western and central Asia Introduction: likely medicinal Habit: short-lived herbaceous plant up to 1.25m tall but usually shorter Invades: disturbed sites, crops, pastures, roadsides Spread: seed dispersed by birds and other animals</p>																																																						
	<table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td></td><td>J</td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>cut & swab</td> <td></td><td></td><td></td><td></td><td>J</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table>	hand weed					J					M	J	J	A	S	O	N	D	cut & swab					J								A	S	O	N	D																		
hand weed					J					M	J	J	A	S	O	N	D																																						
cut & swab					J								A	S	O	N	D																																						
<p>Boneseed <i>Chrysanthemoides monilifera</i></p>	<p>Family: Compositae/Asteraceae Origin: southern Africa Introduction: garden ornamental, beach and sand stabiliser Habit: upright or spreading shrub usually 1-3m tall and wide Invades: open woodlands, forests, coastal environs, waterways, roadsides and waste areas Spread: seed dispersed by birds and other animals and in water, soil</p>																																																						
	<table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td></td><td>J</td><td>F</td><td>M</td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> <tr> <td>drill & fill</td> <td></td><td>J</td><td>F</td><td>M</td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> </table>	hand weed							A	M	J	J	A	S	O					cut & swab		J	F	M			A	M	J	J	A	S	O	N	D			drill & fill		J	F	M			A	M	J	J	A	S	O	N	D		
hand weed							A	M	J	J	A	S	O																																										
cut & swab		J	F	M			A	M	J	J	A	S	O	N	D																																								
drill & fill		J	F	M			A	M	J	J	A	S	O	N	D																																								









<p>Bridal Creeper <i>Asparagus asparagoides</i> f. <i>asparagoides</i></p>			<p>Family: Liliaceae Origin: southern Africa Introduction: ornamental uses Habit: rhizomatous, perennial bulb species, climbing to 4m, annual leaves Invades: grassy woodlands, heath, forest, rocky escarpments, riparian areas Spread: seed and rhizomes, by birds, diggings, water, machinery</p>																
			hand weed									M	J	J	A	S	O		
			swab/wipe/tongs										J	J	A	S			
			spray – glyphosate										J	J	A	S			
			spray – metsulphuron methyl										J	J	A	S			
<p>Broad-leaf Cotton- bush <i>Gomphocarpus cancellatus</i></p>			<p>Family: Asclepiadaceae Origin: south-western Africa Introduction: ornamental uses, food for Wanderer butterfly larvae Habit: perennial shrub 0.5-1.5m tall, branches grow from an underground fibrous rootstock (lignotuber), exudes milky sap Invades: degraded roadsides, grasslands and grassy woodlands Spread: seeds with feathery tops spread by wind</p>																
			hand weed seedlings													A	S	O	N
			cut & swab	J	F	M	A	M	J	J	A	S	O	N	D				
			drill & fill	J	F	M	A	M	J	J	A	S	O	N	D				
<p>Bucks-horn Plantain <i>Plantago coronopus</i> ssp. <i>coronopus</i></p>			<p>Family: Plantaginaceae Origin: northern Africa, Eurasia Introduction: likely culinary Habit: annual to perennial broadleaf herb forming a rosette Invades: mostly sandy or gravelly soils close to the sea Spread: seed spread by wind</p>																
			hand weed seedlings					A	M	J	J	A	S	O					
			cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D				
			spot spray							M	J	J	A	S	O				




<p>Cape Tulip (One-leaf) <i>Moraea flaccida</i></p>		<p>Family: Iridaceae Origin: southern Africa Introduction: ornamental uses, toxic to stock Habit: corm species with annual leaves and flowers Invades: degraded grasslands and grassy woodlands Spread: corms and seed</p>																																																								
 	<table border="1"> <tr> <td>hand weed not recommended</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>tongs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>spray – metsulphuron methyl</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A</td><td>S</td><td></td><td></td><td></td> </tr> <tr> <td>remove seedheads</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table>		hand weed not recommended								J	A	S	O			tongs								J	A	S	O			spray – metsulphuron methyl									A	S				remove seedheads									A	S	O	N	D
	hand weed not recommended								J	A	S	O																																														
tongs								J	A	S	O																																															
spray – metsulphuron methyl									A	S																																																
remove seedheads									A	S	O	N	D																																													
<p>Cape Weed <i>Arctotheca calendula</i></p>		<p>Family: Compositae/Asteraceae Origin: southern Africa Introduction: likely contaminant of feed and packing, toxic to stock Habit: annual broadleaf herb forming a rosette Invades: overgrazed pasture and degraded grasslands and grassy woodlands Spread: seed spread by wind</p>																																																								
 	<table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td></td><td></td><td></td> </tr> <tr> <td>wipe foliage</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>spot-spray – glyphosate</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td></td><td></td> </tr> </table>		hand weed									M	J	J	A				wipe foliage									M	J	J					spot-spray – glyphosate									M	J	J	A	S										
	hand weed									M	J	J	A																																													
wipe foliage									M	J	J																																															
spot-spray – glyphosate									M	J	J	A	S																																													
<p>Desert Ash <i>Fraxinus rotundifolia</i> ssp. <i>rotundifolia</i></p>		<p>Family: Oleaceae Origin: Mediterranean region and western Asia Introduction: ornamental uses Habit: upright deciduous tree reaching 10-20m high Invades: riparian areas and drainage lines and spreading into woodlands where rainfall exceeds 600mm pa Spread: seed and root suckers, spread by wind, water and in garden refuse</p>																																																								
  	<table border="1"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td>J</td><td>F</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>drill & fill</td> <td>J</td><td>F</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table>		hand weed seedlings										M	J	J	A	S	O			cut & swab	J	F												S	O	N	D	drill & fill	J	F												S	O	N	D		
	hand weed seedlings										M	J	J	A	S	O																																										
cut & swab	J	F												S	O	N	D																																									
drill & fill	J	F												S	O	N	D																																									









<p>False Caper <i>Euphorbia terracina</i></p>  		<p>Family: Euphorbiaceae Origin: Mediterranean Introduction: possibly ornamental uses, toxic to stock Habit: perennial herb to 1m high, exudes milky sap Invades: disturbed sites and coastal dunes Spread: seed ejected explosively from capsule several metres, also spread in water and mud attached to animals and machinery</p>																																																					
		<table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table>	hand weed				A	M	J	J	A	S	O			cut & swab	J	F	M	A	M	J	J	A	S	O	N	D																											
hand weed				A	M	J	J	A	S	O																																													
cut & swab	J	F	M	A	M	J	J	A	S	O	N	D																																											
<p>False Sowthistle <i>Reichardia tingitana</i></p>  		<p>Family: Compositae/Asteraceae Origin: Mediterranean region and western Asia Introduction: likely ornamental uses Habit: short-lived perennial herb Invades: mainly river flats and coastal dunes, also semi-arid woodlands Spread: seed spread by wind</p>																																																					
		<table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td></td><td></td><td></td> </tr> <tr> <td>cut & swab/wipe</td> <td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>A</td><td></td><td></td> </tr> <tr> <td>spray</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td></td><td></td><td></td><td></td> </tr> </table>	hand weed				A	M	J	J	A	S				cut & swab/wipe					M	J	J	A	S	A			spray				A	M	J	J	A																		
hand weed				A	M	J	J	A	S																																														
cut & swab/wipe					M	J	J	A	S	A																																													
spray				A	M	J	J	A																																															
<p>Fennel <i>Foeniculum vulgare</i></p>   		<p>Family: Umbelliferae Origin: Eurasia Introduction: medicinal or culinary uses Habit: perennial herb to 2.5m high Invades: disturbed sites and watercourses Spread: seed</p>																																																					
		<table border="1"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>cut & spot spray</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>slash to reduce seed</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>O</td><td>N</td><td>D</td> </tr> </table>	hand weed seedlings						M	J	J					cut & swab				A	M	J	J	A					cut & spot spray				A	M	J	J	A					slash to reduce seed											O	N	D
hand weed seedlings						M	J	J																																															
cut & swab				A	M	J	J	A																																															
cut & spot spray				A	M	J	J	A																																															
slash to reduce seed											O	N	D																																										

<p>Galenia <i>Aizoon secundum</i> (syn. <i>Galenia secunda</i>)</p>		<p>Family: Aizoaceae Origin: southern Africa Introduction: likely ornamental uses Habit: perennial creeping, herbaceous plant, spreading to 1–2 m wide Invades: coastal dunes, pastures, disturbed sites, semi-arid woodlands Spread: seed spread by wind, water, birds and livestock, in contaminated soil</p>																																																												
		<table border="1"> <tbody> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> <tr> <td>spray glyphosate + penetrant</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> </tbody> </table>	hand weed seedlings							M	J	J	A	S	O			cut & swab	J	F	M	A	M	J	J	A	S	O	N	D			spray glyphosate + penetrant							M	J	J	A	S	O																	
hand weed seedlings							M	J	J	A	S	O																																																		
cut & swab	J	F	M	A	M	J	J	A	S	O	N	D																																																		
spray glyphosate + penetrant							M	J	J	A	S	O																																																		
<p>Gazania <i>Gazania linearis</i></p>		<p>Family: Compositae/Asteraceae Origin: southern Africa Introduction: ornamental uses Habit: perennial herb Invades: coastal dunes, disturbed roadsides, semi-arid woodlands Spread: stolons, rhizomes and to a minor extent by seed, dumping of garden refuse, soil movement by machinery</p>																																																												
		<table border="1"> <tbody> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> <tr> <td>spot spray</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> </tbody> </table>	hand weed seedlings							M	J	J	A	S	O			cut & swab	J	F	M	A	M	J	J	A	S	O	N	D			spot spray				A	M	J	J	A	S	O	N	D																	
hand weed seedlings							M	J	J	A	S	O																																																		
cut & swab	J	F	M	A	M	J	J	A	S	O	N	D																																																		
spot spray				A	M	J	J	A	S	O	N	D																																																		
<p>Guildford-grass / Onion-grass <i>Romulea</i> spp.</p>		<p>Family: Iridaceae Origin: southern Africa Introduction: possibly ornamental uses Habit: corm species with annual leaves Invades: disturbed sites, grasslands and grassy woodlands Spread: seed and bulbils, soil movement by machinery</p>																																																												
		<table border="1"> <tbody> <tr> <td>hand weed</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>tongs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>spray – metsulphuron methyl</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>remove seedheads</td> <td>J</td><td>F</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>N</td><td>D</td> </tr> </tbody> </table>	hand weed									J	A	S	O			tongs									J	A	S	O			spray – metsulphuron methyl									J	A					remove seedheads	J	F											N	D
hand weed									J	A	S	O																																																		
tongs									J	A	S	O																																																		
spray – metsulphuron methyl									J	A																																																				
remove seedheads	J	F											N	D																																																

<p>Horehound <i>Marrubium vulgare</i></p>		 		<p>Family: Labiatae/Lamiaceae Origin: Europe, western Asia, northern Africa Introduction: possibly medicinal or ornamental uses Habit: spreading bushy perennial herb to 75cm high Invades: disturbed sites Spread: seed and stem fragments, seed spread attached to animals, clothing and machinery, garden refuse, stems root at nodes</p>														
				hand weed							M	J	J	A	S	O		
				cut & swab			J	F	M	A	M	J	J	A	S	O	N	D
				spot spray							M	J	J	A	S	O	N	D
<p>Kikuyu <i>Cenchrus clandestinus</i></p>		 		<p>Family: Gramineae/Poaceae Origin: eastern Africa Introduction: turf, soil stabilisation, pasture uses Habit: rhizomatous-stoloniferous perennial grass Invades: disturbed sites, especially near creeklines, drains and waterways Spread: vegetatively, stem fragments in garden refuse and spread in soil by machinery, varieties that produce seed now widely planted</p>														
				hand weed			J	F	M	A	M	J	J	A	S	O	N	D
				spray/wipe			J	F	M						S	O	N	D
<p>Olive <i>Olea europaea ssp. europaea</i></p>		  		<p>Family: Oleaceae Origin: Mediterranean Introduction: ornamental, oil and fruit production Habit: evergreen tree 5-10m high with lignotuber Invades: grasslands and grassy woodlands Spread: seed spread by birds and foxes, suckers freely from the base after disturbance or fire</p>														
				hand weed seedlings								J	J	A	S	O		
				cut below lignotuber			J	F	M	A	M	J	J	A	S	O	N	D
				drill & fill			J	F	M	A	M	J	J	A	S	O	N	D

<p>Onion Weed <i>Asphodelus fistulosus</i></p>			<p>Family: Liliaceae/Asphodelaceae Origin: southern Europe, northern Africa and western Asia Introduction: probably ornamental uses Habit: perennial broadleaf herb Invades: disturbed sites, coastal dunes and semi-arid woodlands Spread: seed spread by soil or water movement and moved in dead plants</p>																																																												
			<table border="1"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td></td> </tr> <tr> <td>cut & swab/wipe</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> <tr> <td>spray – glyphosate</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> <tr> <td>spray – metsulphuron methyl</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> </table>	hand weed seedlings							M	J	J	A	S	O	N		cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D			spray – glyphosate	J	F	M	A	M	J	J	A	S	O	N	D			spray – metsulphuron methyl										A	S	O		
hand weed seedlings							M	J	J	A	S	O	N																																																		
cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D																																																			
spray – glyphosate	J	F	M	A	M	J	J	A	S	O	N	D																																																			
spray – metsulphuron methyl										A	S	O																																																			
<p>Plantain / Ribwort <i>Plantago lanceolata</i></p>			<p>Family: Plantaginaceae Origin: Eurasia Introduction: likely culinary Habit: perennial broadleaf herb forming a rosette Invades: disturbed sites, grasslands, grassy woodlands Spread: seed spread by wind</p>																																																												
			<table border="1"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td><td></td> </tr> <tr> <td>cut & swab/wipe</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> <tr> <td>spot spray</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> </table>	hand weed seedlings					A	M	J	J	A	S	O				cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D			spot spray							M	J	J	A	S	O																	
hand weed seedlings					A	M	J	J	A	S	O																																																				
cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D																																																			
spot spray							M	J	J	A	S	O																																																			
<p>Rice Millet <i>Piptatherum miliaceum</i></p>			<p>Family: Gramineae/Poaceae Origin: Eurasia Introduction: ornamental uses Habit: perennial tussock grass to 1.5m high with caney stems Invades: disturbed sites, riparian areas Spread: seed</p>																																																												
			<table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>J</td><td>A</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>cut & swab/wipe</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td> </tr> <tr> <td>slash</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td></td><td></td> </tr> <tr> <td>spray regrowth</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A</td><td>S</td><td>O</td><td></td><td></td><td></td> </tr> </table>	hand weed								J	J	A					cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D			slash								J	A	S	O	N			spray regrowth									A	S	O			
hand weed								J	J	A																																																					
cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D																																																			
slash								J	A	S	O	N																																																			
spray regrowth									A	S	O																																																				

<p>Scabious <i>Scabiosa atropurpurea</i></p> 	<p>Family: Dipsacaceae Origin: southern Europe Introduction: ornamental uses Habit: perennial broadleaf herb to 80cm high Invades: disturbed sites, grasslands, grassy woodlands, roadsides Spread: seed spread by wind and machinery, especially mowing</p> <table border="1" data-bbox="1094 513 1967 621"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td></td> </tr> <tr> <td>cut & swab/wipe</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>spot spray seedlings</td> <td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> </table>	hand weed seedlings				A	M	J	J	A	S	O	N		cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D	spot spray seedlings					M	J	J	A	S	O															
hand weed seedlings				A	M	J	J	A	S	O	N																																										
cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D																																									
spot spray seedlings					M	J	J	A	S	O																																											
<p>Sea Spurge <i>Euphorbia paralias</i></p> 	<p>Family: Euphorbiaceae Origin: western Europe, Mediterranean, Siberia Introduction: ornamental uses, sand dune stabilisation Habit: perennial herb to 60cm high, exudes milky sap Invades: coastal dunes Spread: seed spread by the seas and in sand, root fragments spread by wave action and earth-moving</p> <table border="1" data-bbox="1094 911 1967 979"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table>	hand weed				A	M	J	J	A	S	O			cut & swab	J	F	M	A	M	J	J	A	S	O	N	D																										
hand weed				A	M	J	J	A	S	O																																											
cut & swab	J	F	M	A	M	J	J	A	S	O	N	D																																									
<p>Short-fruited Wild Turnip <i>Rapistrum rugosum</i> ssp. <i>rugosum</i></p> 	<p>Family: Cruciferae/Brassicaceae Origin: Eurasia and northern Africa Introduction: possibly as a contaminant or as fodder plant Habit: branching annual broadleaf herb to 1m high Invades: disturbed sites, roadsides Spread: seed</p> <table border="1" data-bbox="1094 1203 1967 1341"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td></td><td></td><td></td> </tr> <tr> <td>cut & swab/wipe</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>spray – glyphosate</td> <td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td></td><td></td><td></td> </tr> <tr> <td>spray – metsulphuron methyl</td> <td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td></td><td></td><td></td><td></td> </tr> </table>	hand weed				A	M	J	J	A	S				cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D	spray – glyphosate					M	J	J	A	S				spray – metsulphuron methyl					M	J	J	A				
hand weed				A	M	J	J	A	S																																												
cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D																																									
spray – glyphosate					M	J	J	A	S																																												
spray – metsulphuron methyl					M	J	J	A																																													

<p>Soursob <i>Oxalis pes-caprae</i></p>			<p>Family: Oxalidaceae Origin: southern Africa Introduction: ornamental uses Habit: perennial bulb species with annual leaves Invades: disturbed sites, grasslands, grassy woodlands, forest, riparian areas Spread: bulbs spread by water, animals, soil, garden refuse, during removal</p>																																																																																
			<table border="1"> <tr> <td>hand weed – to exhaust bulb</td> <td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>wipe</td> <td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>spray – glyphosate</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>spray – metsulphuron methyl</td> <td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	hand weed – to exhaust bulb						M	J	J	A							wipe						M	J	J	A	S	O					spray – glyphosate								J	A	S	O					spray – metsulphuron methyl						M	J	J																							
hand weed – to exhaust bulb						M	J	J	A																																																																										
wipe						M	J	J	A	S	O																																																																								
spray – glyphosate								J	A	S	O																																																																								
spray – metsulphuron methyl						M	J	J																																																																											
<p>Three-cornered Garlic <i>Allium triquetrum</i></p>			<p>Family: Liliaceae Origin: Mediterranean Introduction: ornamental uses Habit: perennial bulb species with annual leaves Invades: disturbed sites, drainage lines and waterways Spread: seed and bulbs spread by water, soil, garden refuse, during removal</p>																																																																																
			<table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td></td><td></td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>tongs</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>remove flower/seedhead</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A</td><td>S</td><td>O</td><td></td><td></td><td></td><td></td> </tr> <tr> <td>spray – glyphosate</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>spray – metsulphuron methyl</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>A</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>	hand weed						M	J	J	A	S						tongs								J	A							remove flower/seedhead									A	S	O					spray – glyphosate								J	A							spray – metsulphuron methyl								J	A						
hand weed						M	J	J	A	S																																																																									
tongs								J	A																																																																										
remove flower/seedhead									A	S	O																																																																								
spray – glyphosate								J	A																																																																										
spray – metsulphuron methyl								J	A																																																																										
<p>Trees – various non-local evergreen species e.g. (i) Wattle (<i>Acacia</i> spp.), (ii) Willow Rhus (<i>Searsia lancea</i>)</p>			<p>Family: various including Leguminosae, Anacardiaceae, Myrtaceae Origin: various including other parts of Australia Introduction: often ornamental uses Habit: large woody shrubs and trees Invades: often planted in disturbed sites and woodlands and then reproduce by seed Spread: usually seed spread by wind, animals, soil, slashing, garden refuse</p>																																																																																
			<table border="1"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td><td></td> </tr> <tr> <td>drill & fill</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td><td></td><td></td> </tr> </table>	hand weed seedlings						A	M	J	J	A	S	O				cut & swab	J	F	M	A	M	J	J	A	S	O	N	D				drill & fill	J	F	M	A	M	J	J	A	S	O	N	D																																			
hand weed seedlings						A	M	J	J	A	S	O																																																																							
cut & swab	J	F	M	A	M	J	J	A	S	O	N	D																																																																							
drill & fill	J	F	M	A	M	J	J	A	S	O	N	D																																																																							

<p>Weeping Willow <i>Salix babylonica</i></p> 		<p>Family: Salicaceae Origin: China Introduction: ornamental uses, riverbank stabilisation Habit: deciduous woody tree Invades: riparian areas Spread: seed spread by wind, stem fragments by water, root suckers</p> <table border="1"> <tr> <td>hand weed seedlings</td> <td></td><td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>cut & swab</td> <td>J</td><td>F</td><td>M</td><td></td><td></td><td></td><td></td><td></td><td></td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>drill & fill</td> <td>J</td><td>F</td><td>M</td><td></td><td></td><td></td><td></td><td></td><td></td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>basal bark treatment</td> <td>J</td><td>F</td><td>M</td><td></td><td></td><td></td><td></td><td></td><td></td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table>	hand weed seedlings					A	M	J	J	A	S	O			cut & swab	J	F	M							S	O	N	D	drill & fill	J	F	M							S	O	N	D	basal bark treatment	J	F	M							S	O	N	D
hand weed seedlings					A	M	J	J	A	S	O																																															
cut & swab	J	F	M							S	O	N	D																																													
drill & fill	J	F	M							S	O	N	D																																													
basal bark treatment	J	F	M							S	O	N	D																																													
<p>Annual grasses various species</p> 		<p>Family: Gramineae/Poaceae Origin: various Introduction: cropping, fodder, contaminants, ornamental uses Habit: annual grass tussocks of various sizes up to 2m high Invades: disturbed sites, roadsides, grasslands, grassy woodlands Spread: seed spread by wind, water, soil, mowing, garden refuse</p> <table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td></td><td></td><td></td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td></td> </tr> <tr> <td>slash</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A</td><td>S</td><td>O</td><td>N</td><td></td> </tr> </table>	hand weed							J	J	A	S	O	N		slash									A	S	O	N																													
hand weed							J	J	A	S	O	N																																														
slash									A	S	O	N																																														
<p>Broadleaf weeds various species</p> 		<p>Family: various, including Leguminosae, Compositae/Asteraceae Origin: various Introduction: various including pasture improvement, herbal remedies Habit: annual and perennial broadleaf herbs Invades: disturbed sites, roadsides, grasslands, grassy woodlands Spread: seed spread by wind, water, animals, soil, mowing, garden refuse</p> <table border="1"> <tr> <td>hand weed</td> <td></td><td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td></td><td></td> </tr> <tr> <td>cut & swab/wipe</td> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td></td> </tr> <tr> <td>spot spray</td> <td></td><td></td><td></td><td></td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td></td><td></td><td></td> </tr> </table>	hand weed					A	M	J	J	A	S	O			cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D		spot spray					A	M	J	J	A	S																	
hand weed					A	M	J	J	A	S	O																																															
cut & swab/wipe	J	F	M	A	M	J	J	A	S	O	N	D																																														
spot spray					A	M	J	J	A	S																																																

Notes on hand weeding:

- Carefully hand weed only when the soil is moist, firm the soil back down and replace leaf litter.

Notes on herbicide application (unless otherwise stated, herbicide referred to is glyphosate 360, BFL mainly uses “Weedmaster Duo”):

- Herbicide application is most effective when the target plant is actively growing and not under stress (either too dry or from frost damage).
- Herbicide application is unlikely to be effective on deciduous plants such as blackberry and desert ash when they are dormant.
- Cut & swab with 75ml foam applicator or wipe with Weedbrush using 1 part glyphosate to 5 parts water, adding 2ml dye marker.
- Drill & fill using 1 part glyphosate to 5 parts water, adding 2ml dye marker per 100ml prepared mixture.
- Spot spray using label rate, with most weeds this is 1 part glyphosate to 100 parts water (10ml per litre), add 5ml dye marker per litre of prepared mixture. Adding surfactant may increase efficiency of treatment on waxy or hairy-leaved weeds, BFL uses 2ml of Maxiwet per litre of prepared mixture.
- Bulb and broadleaf weeds can be sprayed with low rate metsulfuron methyl herbicide. Spraying with this herbicide requires calibration of spray unit by operator and BFL runs training workshops in its use. Refer to TFL staff to book into training and for correct rate of application for target weed.

DRAFT