

Western Washington Invasive Weed Management Calendar  
King County Noxious Weed Control Program  
DRAFT

Please note: This draft weed maintenance calendar is meant as a summary of general guidelines for use by restoration or vegetation management professionals who are working to limit the impact of invasives on natural area restoration projects. For each weed, each row represents one management approach. When using herbicides, always follow the label of the product being used. Herbicide suggestions in this document should not be followed if they contradict the label on the product being used. Make sure to follow all local, state or federal regulations that apply to the particular project site. It is most effective to use an integrated vegetation management strategy. Always make sure that the benefits of the activity outweigh the impacts.

Sorted by Latin Name		MINIMUM TREATMENT DURATION	WINTER		SPRING			SUMMER			FALL						
WEED NAME	LATIN NAME		PLANT TYPE/TREATMENT	December	January	February	March	April	May	June	July	August	September	October	November		
Butterfly Bush	<i>Buddleia davidii</i>	Tall deciduous shrub						New leaves emerge			Flowering		Flower/Seed				
		Manual		Dig up (weed wrench might work)													
		Chemical								Triclopyr foliar spray			Basal or cut stump				
												Glyphosate, foliar or cut stump					
Bindweed or Morning Glory	<i>Calystegia sepium</i> or <i>Convolvulus arvensis</i>	Herbaceous Perennial			Emerge			Flower					Seed				
		Mechanical	>2 years			Cut or pull; remove fragments	Cut or pull; remove fragments	Cut or pull; remove fragments	Cut or pull; remove fragments	Cut or pull; remove fragments	Cut or pull; remove fragments	Cut or pull; remove fragments	Cut or pull; remove fragments	Cut or pull; remove fragments	Heavily mulch infested area		
		Shade	3 to 5 years	Cover infested area with landscape fabric or cardboard/woodchips - need to maintain cover so plants get no light over whole population; watch surrounding area for plants (at least 5-10 feet from infested area)													
		Chemical	>2 years							Spray or wipe on dicamba (at bud stage) or triclopyr (full flower). Unwind from desirable vegetation before spraying.		Spray or wipe on glyphosate (full bloom to early seed) or 2,4-D+dicamba (post bloom-follow up in spring); when re-treating, wait until stems are > 12 inch long					
		Mechanical + Chemical						Cut plants and spray/wipe on glyphosate when regrowth > 12 inches									
Spotted Knapweed*	<i>Centaurea biebersteinii</i>	Herbaceous Perennial				Rosettes		Flowers			Flowering/Seed						
		Manual or Mechanical		Dig up; in compacted soils will need to use fork tool or digging knife; most effective when soil is moist													
		Chemical						2,4-D or triclopyr	2,4-D + dicamba or triclopyr or glyphosate								
Canada Thistle	<i>Cirsium arvense</i>	Herbaceous Perennial				most seeds germinate/new shoots on existing roots (rosettes)	rosettes	bolting	flower		flower/seeds/move energy to roots	seeds/move energy to roots	some germination/overwintering rosettes				

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WEED NAME	LATIN NAME		PLANT TYPE/ TREATMENT	December	January	February	March	April	May	June	July	August	September	October	November
		Manual or Mechanical	>2 years				pull/mow every 3-4 weeks	pull/mow every 3-4 weeks	pull/mow every 3-4 weeks	pull/mow every 3-4 weeks	pull/mow every 3-4 weeks	pull/mow every 3-4 weeks	pull/mow every 3-4 weeks		
		Cultural					Cut and Sheet Mulch						Cut and Sheet Mulch		
		Chemical					Foliar spot spray: 2,4-D, dicamba					Foliar spot spray: glyphosate			
		Mechanical + Chemical								cut late July	spray regrowth late August: glyphosate				
<b>Bull Thistle</b>	<i>Cirsium vulgare</i>	<b>Herbaceous Biennial</b>					Emerge		Flower		Flower/Seed	Seed/Emerge			
		Manual or Mechanical						Cut below crown, mow, or dig up shortly before flowering							
		Chemical					Foliar spot 2,4-D; dicamba; triclopyr; glyphosate		Foliar glyphosate before flower			Foliar spot 2,4-D; dicamba; triclopyr; glyphosate			
<b>Old Man's Beard</b>	<i>Clematis vitalba</i>	<b>Climbing deciduous vine</b>					Emerge		Flowering			Seeds			
		Manual				pull young plants up/cut mature stems at ground; dig up roots									
		Chemical	about 2 years						cut stems and wipe on glyphosate, triclopyr or metsulfuron concentrate						
		Mechanical+ Chemical					Apply herbicide to regrowth in spring					Cut stems in fall			
<b>Poison-hemlock</b>	<i>Conium maculatum</i>	<b>Herbaceous Biennial</b>		germinate		rosettes		bolting	flowering		seed set	germinate			
		Manual		pull plants by hand or dig up roots when soil is moist				Cut to below crown (1-3 inches)							
		Mechanical					mow to 3-4 inches (early in month)	mow to 3-4 inches							
		Chemical					spray before flowering (2,4-D, triclopyr, dicamba, glyphosate)								
<b>Scotch Broom</b>	<i>Cytisus scoparius</i>	<b>Large shrub; deciduous leaves, evergreen stems</b>		veg growth		buds/leafing out	Flowers			Seeds			veg growth		
		Manual		pull small plants; weed wrench large plants									pull small plants, weed wrench large plants		

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WEED NAME	LATIN NAME		PLANT TYPE/TREATMENT	December	January	February	March	April	May	June	July	August	September	October
		Mechanical							Cut mature stands with saws or other tools					
		Chemical				Foliar spray (triclopyr, 2,4-D, glyphosate)								
<b>Herb Robert</b>	<b><i>Geranium robertianum</i></b>	<b>Herbaceous Annual</b>		rosettes		seedlings/rosettes			flowering/seedlings			seedlings	rosettes	
		Manual			pull plants and mulch bare areas		pull plants and mulch bare areas		pull plants and mulch bare areas	pull plants and mulch bare areas	pull plants and mulch bare areas		pull plants and mulch bare areas	pull plants and mulch bare areas
		Chemical				glyphosate on large patches of small seedlings				glyphosate on large patches of small seedlings				glyphosate on large patches of small seedlings
<b>English Ivy</b>	<b><i>Hedera hibernica, H. helix</i></b>	<b>Evergreen woody vine</b>		Berry/Seed			Vegetative					Flower	Berry/Seed	
		Manual or Mechanical	2 years	Dig up or pull up roots of accessible plants; Cut off vines (girdle) from base of trees										
		Cultural				Mulch to depth of 8 inches								
		Chemical (winter/fall)			glyphosate or mix of glyphosate and triclopyr on sunny day, temp >50 degrees F		glyphosate on young plants with 2-4 newly expanded leaves						hand pull or spray regrowth with glyphosate or triclopyr	
		Chemical (triclopyr)									triclopyr & surfactant; more effective right after string trimming			
		Chemical (2,4-D)								2,4-D foliar		2,4-D foliar on regrowth		
<b>Hawkweed*</b>	<b><i>Hieracium sp.</i></b>	<b>Herbaceous Perennial</b>							Bud/Flower		Flower/Seed			
		Manual or Mechanical				Dig up including roots and runners								
						Remove and discard flowers								
		Shading				cover with landscape fabric or black plastic								
		Chemical				Foliar - before flowers open (triclopyr - Garlon)								

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WEED NAME	LATIN NAME		PLANT TYPE/TREATMENT	December	January	February	March	April	May	June	July	August	September	
English Holly	<i>Ilex aquifolium</i>	Evergreen shrub or tree; often multi-stemmed			New growth				Flowering			Berries/Seed		
		Manual	Pull or dig up small plants; use weed wrench on large plants									Pull or dig up small plants; use weed wrench on large plants		
		Mechanical + Chemical				Cut trunk as close to the ground as possible and apply concentrated triclopyr or glyphosate within 20-30 seconds. On large trunks only the outer edge needs to be cut and treated.								
Policeman's Helmet*	<i>Impatiens glandulifera</i>	Herbaceous Annual					Emerge		Flower		Flower/Seed			
		Manual or Mechanical							Pull or weed whack before seeds mature; compost on tarps					
		Chemical						If infest is too large too pull, spray young plants with glyphosate						
Perennial pepperweed*	<i>Lepidium latifolium</i>	Herbaceous Perennial					Emerge		Flower		Flower/Seed			
		Manual						Pull or dig plants growing in sand or loose soil						
		Mechanical + Chemical						Mowing followed by applications of 2,4-D or glyphosate with appropriate surfactants to resprouts						
		Chemical					Up through bloom stage (Chlorsulfuron with surfactant)					Chlorsulfuron with surfactant- Fall treatment		
Garden Loosestrife*	<i>Lysimachia vulgaris</i>	Herbaceous Perennial						Emerge		Flower	Flower/Seed			
		Manual or Mechanical						Cut at base/dig up where possible						
		Chemical						Foliar: Triclopyr or glyphosate, aquatic formulation with suitable surfactant (need permit.license)						
Purple Loosestrife*	<i>Lythrum salicaria</i>	Herbaceous Perennial						Emerges		Flower	Flower/Seed	Seed		

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		Manual or Mechanical	over 5 years								Pull small plants; Cut large plants at base			
		Chemical	2-3 years								Foliar spray: glyphosate or triclopyr, aquatic formulation (need permit, license)			
		Biocontrol	Up to 5 years before significant decrease in plant density						Release galerucella beetles on large stands		Release galerucella beetles on large stands			
<b>Reed Canary Grass</b>	<i>Phalaris arundinacea</i>	<b>Perennial grass</b>					shoots emerge from seeds or rhizomes	flowers start forming	flower stage; peak of veg. growth	flowers/seeds	seeds; veg. growth slows down; stems collapse (2nd vegetative growth following rains in September/October)			
		Manual	at least 5 yrs					hand pull/dig over whole population		hand pull/dig over whole population		hand pull/dig over whole population		
		Mechanical	5 to 10 years					mow	mow	mow	mow		mow	
		Mechanical + Shade	at least 1 year					mow and cover with either woven geotextile fabric or woven plastic fabric (held down with spikes) or with a combination of several layers of cardboard covered with 4-6 inches woodchips (no woodchips on plastic fabrics or sheeting)						
		Flooding	1 to 3 yrs				Inundation for whole growing season							
		Mechanical + Chemical	1 to 2 years								mow fields before seeds mature	spray glyphosate when regrowth is 1 ft tall; wait 2 weeks; mow; spray again when it is about 1 ft tall		
		Chemical	1 year for small patches; 2 or more years for large infestations				spray glyphosate on young shoots (less damage to native grasses)				foliar spray glyphosate (before summer dormancy)		foliar spray regrowth with glyphosate (till 2-3 weeks after spray for improved control)	
<b>Knotweed</b>	<i>Polygonum cuspidatum, P. bohemicum, P. sachalinense</i>	<b>Tall rhizomatous perennial</b>						plants emerge	rapid growth		Flower		Seed	Canes die back
		Mechanical alone	at least 5 years					cut twice	cut twice	cut twice	cut twice	cut twice	cut once	cut once; then cover area with cardboard and deep mulch

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		Mechanical + Shade	5 years; can plant in area after 3 years								cut to ground and cover with landscape fabric; stake down and monitor for growth at the edges				
		Mechanical + Chemical									cut once	spray when about 3ft: glyphosate, triclopyr or imazapyr			
		Chemical alone	at least 2 years									inject stems >1/2 inch with glyphosate; foliar spray or wipe on smaller plants and large upland patches (glyphosate, triclopyr or imazapyr)			
<b>English Laurel</b>	<i>Prunus laurocerasus</i>	<b>Evergreen shrub or small tree</b>							Flowers			Seeds			
		Manual		Pull or dig up small plants; use weed wrench on large plants									Pull or dig up small plants; use weed wrench on large plants		
		Mechanical + Chemical					Cut trunk as close to the ground as possible and apply concentrated triclopyr or glyphosate within 20-30 seconds								
<b>Blackberry (Himalayan and Cutleaf)</b>	<i>Rubus armeniacus, R. discolor, R. laciniatus</i>	<b>Cane-producing shrub; roots at nodes</b>			New growth			Flowers			Berries/Seeds				
		Manual/Mechanical	at least 2 yrs	Cut canes/grub out crowns when soil is moist					Dig or cut regrowth			Grub out roots when soil is moist			
		Mechanical alone	> 2 years			clear mechanically				clear mechanically (if only once: when flowers form)			clear mechanically		
		Mechanical + Chemical							clear mechanically				foliar spray regrowth: triclopyr or glyphosate		
		Chemical: cut stump						Cut large canes and spot spray glyphosate or triclopyr immediately after cutting			Check area and repeat if necessary				
		Cultural											Mulch area after blackberries are cleared to		

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													prevent erosion and re-invasion		
		Chemical							Foliar spray triclopyr when plants are actively growing				Foliar spray glyphosate when canes are actively growing and after berries are formed; NOTE: post sprayed areas or control access to sprayed bushes	Clear dead canes, stabilize area to prevent possible erosion	
<b>Tansy Ragwort*</b>	<i>Senecio jacobaea</i>	<b>Herbaceous biennial</b>					Rosettes	Bud/Flower	Flower	Flower/Seed	Seed/Rosettes	Rosettes			
		Manual or Mechanical					Dig up rosettes if soil is moist		pull and bag flowering stems			Dig up rosettes if soil is moist			
		Chemical					2,4-D on rosettes	2,4-D+dicamba or triclopyr			2,4-D or triclopyr on rosettes				
<b>Bittersweet Nightshade</b>	<i>Solanum dulcamara</i>	<b>Semi- woody vine</b>						Flower			Seed				
		Manual or Mechanical	Dig up plants in winter when possible to avoid damaging other plants				Dig, cut, pull or mow several times / season								
		Chemical					Information limited. Spray or wipe on, late bud to early flower (glyphosate, triclopyr or dicamba+2,4-D); plan to spray any regrowth								
<b>Perennial Sowthistle*</b>	<i>Sonchus arvensis</i>	<b>Herbaceous Perennial</b>					seedlings/rosettes			Flower	Seed				
		Manual or Mechanical	Dig up including roots and runners												
			Remove and discard flowers												
		Shading	cover with landscape fabric or black plastic												
		Chemical	Foliar - Actively growing plants before bud stage (aminopyralid) and at bud stage before flowers open (2,4-D) . Plan to spray regrowth and beware of permit/license restrictions in coastal and wet areas												

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WEED NAME	LATIN NAME		PLANT TYPE/TREATMENT	December	January	February	March	April	May	June	July	August	September	October
<b>Common Tansy</b>	<i>Tanacetum vulgare</i>	<b>Herbaceous Perennial</b>			Emerge			Flower			Flower/Seed			
		Manual			Dig up						dig up, cut & bag seed head			
		Mechanical					mow/cut before bud stage		cut regrowth		cut regrowth		cut regrowth	
		Chemical		>1 yr			Spot spray metsulfuron or wipe 2,4-D on actively growing plants				Wipe on glyphosate during flower/seed set (not as effective as metsulfuron) - cut & bag flower/seed heads			
<b>Gorse*</b>	<i>Ulex europaeus</i>	<b>Single to multi-stemmed, spiny shrub</b>				Bud	Flower			Seeds				
		Manual or Mechanical			Digging small plants							Digging small plants		
		Chemical							Foliar or cut stump; after bloom drop (2,4-D+triclopyr; metsulfuron, glyphosae or dicamba)					

\* These weeds are required for control in King County under State Law RCW 17.10.