



Weed Management Guidelines: Presidio Area B Native Plant Community Zone

Purpose and Scope

This document sets weed management guidelines for the Presidio Area B Native Plant Community zone as defined in the Presidio of San Francisco Vegetation Management Plan. These areas are preserved or restored native vegetation and serve as habitat for wildlife. Restoration efforts are managed by Presidio Natural Resources staff. Invasive species removal is a primary management concern, and species-specific techniques that are most effective for control and least harmful to the surrounding ecosystem are used. In most cases, manual removal techniques are used. However, some species are not effectively controlled using manual methods. For example, some species can resprout from cut stumps or stems, and some require frequent soil disturbance to remove root structures. In such cases, the use of low-toxicity herbicides may be the preferable management method.

The Presidio Trust Management Plan calls for the use of Integrated Pest Management (IPM) in the Presidio. IPM is an ecosystem-based strategy that focuses on long-term prevention of pests and their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant plant varieties. Pesticides are used according to established guidelines, and treatments are made with the goal of removing only the target pest. Pest control materials are selected and applied in a manner that minimizes risks to human health, non-target organisms, and the environment. The intent of these weed management guidelines is to preserve the natural resources of the Presidio and protect the health and safety of Presidio tenants and visitors.

These guidelines may be updated and improved as weed management needs change or new technologies and practices become available. This document shall be reviewed at least every three years by Presidio Trust staff to determine if it should be amended to accommodate the use of new IPM techniques, to permit the use of new low-risk pesticides, or to prohibit the use of currently used pesticides.

Weed Control Methods

The following tables outline acceptable weed control methods for invasive weeds in the Native Plant Community Zone in Area B of the Presidio. Some of these species can be successfully controlled without the use of herbicide. Some will require a combination of manual and herbicidal methods, while others will require herbicide application for control. Successful weed control measures for the major weed species encountered in Presidio restoration sites are well established, and presented in Table 1. Other species are grouped by growth habit, and presented in Table 2.

The non-chemical weed control methods listed in the following tables are not exhaustive. Any non-chemical weed control measure may be used as long as the project manager deems it appropriate for the weed species and site.

These guidelines do not require that herbicide be used in any project, but do list the threshold level above which herbicide use is allowed. These threshold levels were set based on knowledge of weed species growth habits, degree of difficulty to remove by hand, and field experience. If field monitoring suggests these thresholds should be changed, these guidelines can be revised after review by the IPM Coordinator, the Presidio Trust NEPA Compliance Manager, and a representative from the Presidio Trust Natural Resources department.

Approved Herbicides

There is a significant range of toxicities and risks associated with the herbicides approved for use in California. With IPM, pesticides are used when non-chemical control has proven ineffective or unfeasible, and in such cases, the least-toxic effective pesticide is used. In order to avoid high-toxicity materials, the following types of herbicide have been excluded from this policy:

- Herbicides listed on the CA Proposition 65 list of known human carcinogens and reproductive toxins.
- Herbicides that are known developmental toxins.
- Herbicides that are cholinesterase inhibitors.
- Herbicides categorized by California Department of Pesticide Regulation as known groundwater contaminants.
- Herbicides categorized by California Department of Pesticide Regulation as Restricted Use pesticides.
- Herbicides with a high acute toxicity to humans, birds, fish, or non-target insects.

The herbicides in the following table do not fall within the above categories, and as indicated in the tables listing control options, are approved for use in Presidio Area B restoration areas. These herbicides present the lowest risk to park tenants, visitors, and wildlife, and address weed management needs which cannot feasibly be met with non-chemical methods alone.

Herbicides approved for use in Presidio Area B Native Plant Community Zone	
Herbicide Name	Active Ingredient
Aquamaster	glyphosate
Ecoexempt HC	eugenol and 2-Phenethyl Propionate
Garlon4	triclopyr ester
Greenery Brush-Weeds and Grass Herbicide	citric acid
Roundup Pro	glyphosate

As new products become available, or as restoration managers request the use of a previously unlisted low-toxicity herbicide, the Presidio Trust IPM Coordinator will update the list as needed.

Table 1. Control methods for common invasive weed species			
Species Name	Common Name	Control Methods	Herbicide Use Threshold
<i>Acacia</i> spp	acacia	<ul style="list-style-type: none"> Remove with weed wrench Cut to stump. Paint stump within two minutes with 50% solution Roundup Pro or Aquamaster. Apply the herbicide to exposed cambium. 	Use herbicide only when acacia are too big to be removed with a weed wrench.
<i>Arctotheca calendula</i>	Cape weed	<ul style="list-style-type: none"> Hand-removal, being sure to remove crown and roots of plants Solarization with black landscape fabric for at least 1.5 years Scraping with heavy equipment followed by annual hand-removal of resprouts. 	
<i>Brassica</i> spp. & <i>Hirschfeldia</i> spp.	mustard	<ul style="list-style-type: none"> Hand pull Brush cut before seed-set Foliar spray with 2% Roundup or Aquamaster 	Use herbicide only when 500 or more individuals of an invasive weed species are present per acre in a project site.
<i>Carpobrotus edulis</i>	iceplant	<ul style="list-style-type: none"> Hand-pull 	
<i>Conium maculatum</i>	poison hemlock	<ul style="list-style-type: none"> Hand-pull Cut, wait for new growth to start, and foliar spray with 2% Roundup or Aquamaster 	Use herbicide only when 500 or more individuals of an invasive weed species are present per acre in a project site.
<i>Cortaderia jubata</i> Or <i>Cortaderia selloana</i>	jubata grass	<ul style="list-style-type: none"> Remove with weed-wrench Cut and paint stumps with 50% Roundup or Aquamaster. Follow-up foliar spray regrowth with 2% Roundup or Aquamaster 	Use herbicide only when <i>Cortaderia</i> are too big to be removed with a weed wrench.
<i>Cynodon dactylon</i>	Bermuda grass	<ul style="list-style-type: none"> Spray with 0.5% Roundup or Aquamaster before summer dormancy 	Use herbicide only where project site (up to three acres) contains more than 1m ² <i>C. dactylon</i> .
<i>Delairea odorata</i>	cape ivy	<ul style="list-style-type: none"> Hand removal Foliar spray with a mix of 0.5% glyphosate and 0.5% triclopyr + nonionic surfactant. Re-treat at least once. 	Use herbicide only where project site (up to five acres) is greater than 5% <i>D. odorata</i> .
<i>Ehrharta erecta</i>	Panic veldtgrass	<ul style="list-style-type: none"> Mow/brush cut Foliar spray with 2% Roundup or Aquamaster 	Use herbicide only where project site (up to three acres) contains more than 25m ² <i>E. erecta</i> .
<i>Eucalyptus globulus</i>	blue gum eucalyptus	<ul style="list-style-type: none"> Cut and stump grind to 4" below grade Cut and solarize stumps 	
<i>Hedra canariensis</i> & <i>Hedra helix</i>	Algerian ivy & English ivy	<ul style="list-style-type: none"> Hand-pull and remove from site to prevent re-rooting. Cut and paint stumps with 50% Roundup or Aquamaster Foliar spray with 3% Garlon4 plus non-ionic surfactant. 	Use herbicide only where project site (up to three acres) contains more than 50m ² invasive weed species.

Table 1 (continued). Control methods for common invasive weed species			
Species Name	Common Name	Control Methods	Herbicide Use Threshold
<i>Oxalis pes-caprae</i>	oxalis	<ul style="list-style-type: none"> • Hand-pull in late November/early December • Dig up plants and sift soil from bulblets • Smother with opaque non-woven material such as plastic tarp or cardboard for at least two growing seasons. • Spray with 2% Roundup or Aquamaster in spring, followed by another application the following spring. 	Use herbicide only where project site (up to three acres) contains more than 25m ² invasive weed species.
<i>Cupressus macrocarpa</i>	Monterey cypress	<ul style="list-style-type: none"> • Cut to stump 	
<i>Pennisetum clandestinum</i>	kikuyu grass	<ul style="list-style-type: none"> • Mow, then spray with 3% Roundup Pro or Aquamaster. Wait at least one day, then water to promote re-growth. Treat re-growth with 3% Roundup or Aquamaster. 	Use herbicide where project site (up to three acres) contains more than 1m ² <i>P. clandestinum</i> .
<i>Pinus radiata</i>	Monterey pine	<ul style="list-style-type: none"> • cut to stump 	
<i>Prunus spp.</i>	(various)	<ul style="list-style-type: none"> • remove with weed wrench • Cut to stump. Paint stump within two minutes with 50% solution Roundup Pro or Aquamaster. Apply the herbicide to exposed cambium. 	Use herbicide only when <i>Prunus</i> are too big to be removed with a weed wrench.
<i>Rubus discolor</i>	Himalayan blackberry	<ul style="list-style-type: none"> • Plants with first year canes only: Foliar spray with 2% Roundup or Aquamaster, or 1% Garlon4, during late summer • Plants with first year and second year canes: Foliar spray with 2% Roundup or Aquamaster, or 1% Garlon4, during early fall • Or wound with brushcutter and foliar spray with 2% Roundup or Aquamaster, or Garlon4, any time of year. • Will likely require follow-up treatment. 	Use herbicide where project site (up to three acres) contains more than 1m ² <i>R. discolor</i> .

Table 2. Control methods for weed species by growth habit			
Growth Habit	Species Examples	Control Methods	Herbicide Use Threshold
invasive annual grass	<i>Avena</i> spp. <i>Briza</i> spp. <i>Bromus</i> spp. <i>Echinocola crus-galli</i> <i>Hordeum murinum</i> <i>Lolium</i> spp. <i>Poa annua</i> <i>Vulpia</i> spp.	<ul style="list-style-type: none"> • Hand-pull • Manual removal with hoe or other tool • Brush cut before seed set • Weed torch when small (small enough so flame can heat all plant tissue on a pass without igniting it) and before seed set. 	Do not use herbicide when weeds in a site are exclusively annual grasses.
invasive perennial grass	<i>Agrostis</i> spp. <i>Ammophila arenaria</i> <i>Dactylis glomerata</i> <i>Festuca</i> spp. <i>Holcus</i> spp. <i>Phalaris aquatica</i>	<ul style="list-style-type: none"> • Weed torch (this will at best give a seasonal reduction) • Manual removal with McLeod or other tool • Brush cut if species does not reproduce vegetatively • Foliar spray with 2% Roundup or Aquamaster 	Use herbicide only when project site (up to three acres) contains greater than 25m ² invasive weed species.
invasive annual forbs	<i>Anagallis arvensis</i> <i>Brassica</i> spp. <i>Carduus</i> sp. <i>Cirsium vulgare</i> <i>Conium maculatum</i> <i>Echium vulgare</i> <i>Erodium</i> spp. <i>Euphorbia pepus</i> <i>Geranium</i> spp. <i>Malva</i> spp. <i>Medicago</i> spp. <i>Raphanus sativus</i> <i>Solanum</i> spp.	<ul style="list-style-type: none"> • Hand-pull • Manual removal with hoe or other tool • Brush cut before seed set • Weed torch when small (small enough so flame can heat all plant tissue on a pass without igniting it) and before seed set • Greenergy before approximately 4" height • Eco Exempt before approximately 4" height 	Use herbicide only when project site (up to three acres) contains greater than 25m ² invasive weed species.
invasive perennial forbs	<i>Abutilon pictum</i> <i>Ageratina adenophora</i> <i>Allium triquetrum</i> <i>Arctotheca calendula</i> <i>Lathyrus latifolius</i> <i>Plantago coronopus</i> <i>Bellis perennis</i> <i>Rumex acetosella</i>	<ul style="list-style-type: none"> • Hand-pull • Spot-spray with backpack or hand held sprayer using 2% Roundup or Aquamaster. • Weed torch seedlings when small (small enough so flame can heat all plant tissue on a pass without igniting it). 	Use herbicide only when project site (up to three acres) contains greater than 25m ² invasive weed species.
invasive woody resprouting shrubs and trees	<i>Acer</i> spp. <i>Callistemon citrinus</i> <i>Cotoneaster</i> spp. <i>Cytisus scoparius</i> <i>Myoporum laetum</i> <i>Pittosporum</i> spp. <i>Platanus</i> spp. <i>Pyracantha angustifolia</i> <i>Ulex europaea</i> <i>Ulmus</i> spp.	<ul style="list-style-type: none"> • Manual removal with weed wrench or other tool • Cut and tarp stump • Cut to stump. Paint stump within two minutes with 50% solution Roundup Pro or Aquamaster. Apply the herbicide to exposed cambium. 	Use herbicide only when plants are too big to be removed with a weed wrench.
invasive non-woody resprouting shrubs	<i>Buddleja davidii</i>	<ul style="list-style-type: none"> • Manual removal with weed wrench or other tool • Spot-spray with backpack or hand held sprayer using 2% Roundup or Aquamaster. 	Use herbicide only when plants are too big to be removed with a weed wrench.

Herbicide Evaluation & Use

Herbicides must be used in accordance with their EPA-approved label directions. Precautions as specified by the label shall be taken to ensure that drift, runoff, and contact with non-target organisms does not occur. Protective gear as specified by the label directions will always be worn when applying pesticides. Applicators shall be certified by the California Department of Pesticide Regulation to apply pesticides.

In addition to the precautions required by the EPA and the herbicide manufacturer, the following precautions will also be taken:

- Distance to surface water must be more than fifty feet unless the herbicide is labeled for aquatic use.
- Weather forecast for the twenty-four hours following an application must forecast no rain (e.g. National Weather Service regional forecast).
- If distance to special-status plant species is less than twenty feet, only wick or brush-on applicators may be used. Special status plants include the following:
 - Federally listed endangered or threatened species:
 - Arctostaphylos hookeri*
 - Clarkia franciscana*
 - Hesperolinon congestum*
 - Lessingia germanorum*
 - Suaeda californica*
 - Other locally rare species:
 - Arabis blepharophylla*
 - Chorizanthe cuspidata* ssp. *cuspidata*
 - Cirsium andrewsii*
 - Collinsia corymbosa*
 - Cordylanthus maritimus* ssp. *palustris*
 - Erysimum franciscanum*
 - Gilia capitata* var. *chamissonis*
 - Grindelia hirsutula* var. *maritima*
 - Horkelia cuneata* ssp. *sericea*
 - Silene verecunda* ssp. *verecunda*
 - Triphysaria floribunda*
- Wind-speeds during a spray application must be no greater than 10mph. This does not apply to wick or brush-on applications.
- The risk for groundwater contamination must be low based on a Relative Aquifer Vulnerability Evaluation.
- For amphibian protection, no spray applications of Roundup or Garlon herbicide will be used within a 60 foot buffer of water bodies. Only sponge, brush, wick or other non-spray application equipment will be used for Roundup or Garlon within the 60 foot buffer. For further protection, within a 260 foot buffer of water bodies, only spot-treatments with hand-held or backpack equipment will occur. That is, no mechanized broadcast applications will occur within the 260 foot buffer. These restrictions are consistent with mandated Californian red legged frog habitat protection (see Appendix B).

- The applicator may choose to post a notice of intent to apply pesticide up to 72 hours prior to the application. If posting is done, notices shall contain the following information.
 - Statement indicating that the pesticide has been evaluated and determined to pose low risk to people, wildlife, and resources.
 - Trade name and EPA number of pesticide to be used.
 - Signal word (Caution, Warning, or Danger) from the label of the pesticide to be used.
 - Date and approximate time of the upcoming application.
 - Description of areas that will be treated.
 - Contact phone number for further information.

Each herbicide applicator is required to carry a universal vehicle spill kit, which contains absorbent socks, absorbent pillows, cable ties, hazardous material bags, light stick, and repair putty. In the event of an incident, it is the responsibility of the applicator to perform the following responsibilities:

- Evacuate personnel from the immediate area
- Identify the spilled chemical
- Notify the Presidio Trust Hazardous Materials and Waste Coordinator at (415) 561-4269
- Wear appropriate respiratory protection, protective clothing, chemical splash shield, goggles, and gloves.
- Barricade the spill area and notify others in surrounding areas
- Extinguish all sources of ignition and contact the fire department if the chemical is flammable.
- Ventilate the spill area
- Contact Supervisor
- Place spill pillows and/or spill socks in desired position to absorb, divert, or contain the spill as needed.
- Once the spill is diked to control its spread, additional absorbent materials or neutralizers can be used to finish the clean-up.
- Document spill clean-up activities, identify cause, and determine remedial action.
- Mark Hazard Material bag with contents.
- Coordinate with the Hazardous Materials and Waste Coordinator for proper disposal of waste.

Use of Herbicides Not on Approved Herbicide List

Use of any herbicides not on the approved herbicide list is prohibited without prior approval through review by the IPM Coordinator, the Presidio Trust NEPA Compliance Manager, and a representative from the Presidio Trust Natural Resources department. Approval shall be considered only in instances where pesticides on the approved herbicide list have proven ineffective in addressing a problem, and where there is low potential for significant environmental impact. Approval shall be conditioned upon any measures required to minimize risks.

Weed Control Contracts

Any weed control contract involving herbicide use must contain an IPM policy statement and IPM performance specifications to ensure compliance with this policy. For example:

The Presidio Trust Management Plan calls for the use of Integrated Pest Management (IPM) in the Presidio. IPM is an ecosystem-based strategy focusing on long-term prevention of pests and their damage through a combination of techniques. Pesticides are used according to established guidelines, and treatments are made with the goal of removing only the target pest. Pest control materials are selected and applied in a manner that minimizes risks to human health, non-target organisms, and the environment. All weed management activities must comply with the Weed Management Policy for Presidio Area B Native Plant Community Zone.

Contractors wishing to use any herbicides on the approved herbicide list must submit notification to the Presidio Trust IPM Coordinator at least twenty-four hours prior to the application. Contractors wishing to use any herbicides not on the approved herbicide list must request prior approval from the Presidio Trust IPM Coordinator. Contractors may use the Presidio Pesticide Use Request form (see Appendix C) to do so. Requests will be granted where there is a documented need, when all non-chemical alternatives have been tried or deemed unfeasible, and the herbicide can be used without having a significant impact on Presidio resources.

Record Keeping and Herbicide Use Reporting

Presidio Trust Natural Resources shall submit monthly pesticide use reports of all pesticides used in the Presidio to the Presidio Trust IPM Coordinator. The Presidio Trust IPM Coordinator voluntarily submits these reports to the San Francisco County Agricultural Commissioner. These reports shall also be used to compile an annual IPM Report documenting compliance with the IPM Program, to be submitted to the Presidio Trust NEPA Compliance Manager.

Contact Information

Presidio Trust IPM Coordinator: Christa Conforti
Phone (415) 561-2708
Fax (415) 561-4839
Email cconforti@presidiotrust.gov

APPENDIX A

Relative Aquifer Vulnerability Evaluation (RAVE)

Adapted from the Users Guide for the Vegetation Management Risk Assessment Risk Assessment for Herbicide Use in Forest Service Regions 1,2,3,4, and 10 and on Bonneville Power Administration Sites December 1992. The USFS adapted this RAVE from the Montana Department of Agriculture, Environmental Management Division.

Introduction

To help reduce the potential for contaminating groundwater with pesticides, an aquifer vulnerability scoring system – Relative Aquifer Vulnerability Evaluation (RAVE) is used. This numeric scoring system will help evaluate pesticides for on-site groundwater contamination potential. The use of the score card may indicate whether an alternative pesticide should be used within a given area or if the area is not suited to pesticide applications, other control methods should be used such as mechanical, cultural, or biological. RAVE is designed only as a guidance system and does not replace the need for safe and judicious pesticide application required in all situations.

Several major factors in a particular area determine the relative vulnerability of groundwater to pesticide contamination. Nine of these factors have been incorporated into the following RAVE score card and are defined below

Factor Definitions

Depth to Groundwater:	Distance in vertical feet below the soil surface to the water table.
Soil Texture:	Soils predominately gravelly, sandy, loamy, or clayey.
Percent Organic Matter:	The relative amount of decayed plant residue in the soil may be estimated by soil color (darker soil generally indicates higher organic matter) or by laboratory analysis.
Topographic Position:	Physical surroundings of the field to which the pesticide application is to be made. Flood Plain = within a river, stream or lake valley, Alluvial Fan or Bench = lands immediately above a river or lake valley but may still have some riparian vegetation, Upland Habitat = uplands above a floodplain or alluvial bench, Transition zone = land not immediately affected by open water.
Distance to Surface Water:	Distance in feet from treatment boundary to the nearest flowing or stationary surface water.
Annual Precipitation:	Over 60” annual precipitation, 30-60” annual precipitation, less than 30” annual precipitation on the treatment site.
Pesticide Application Frequency:	Number of times the particular pesticide is applied during one year.
Pesticide Application Method:	Whether the pesticide is applied to the soil or to the plant.
Pesticide Leachability:	A relative ranking of the potential for a pesticide to move downward in soil and ultimately contaminate groundwater based upon the persistence and mobility of the pesticide.

THE RAVE SCORE CARD

Determine the appropriate value for each of the nine factors listed on the scorecard. Once all of the factors have been assigned a value, the values should be totaled.

Depth to Groundwater*:

2-10 ft. 20
 10-25 ft. 12
 25-50 ft. 5
 >50 ft. 0

Annual Precipitation:

> 60" 5
 30-60 " 2
 <30" 0

Soil Texture:

Gravelly 15
 Sandy 15
 Loamy 10

Pesticide Application Frequency:

> 1/year 5
 1/year 2
 < 1/year 1

Percent Soil Organic Matter

0-1% 5
 1-3% 3
 >3% 2

Pesticide Application Method:

Applied to Soil 5
 Applied to Foliage 2

Topographic Position:

Flood Plain 15
 Alluvial Bench 10
 Upland Habitat 5
 Transition zone 2

Pesticide Leaching Potential :

Large 20
 Medium 10
 Small 5

Distance to Surface Water:

0-100 ft. 5
 100-500 ft. 3
 >500 ft. 2

Leaching Potential (based on solubility, adsorption coefficient, and half-life)			
	Large	Medium	Small
citric acid			X
eugenol , 2-phenethyl propionate		X	
glyphosate			X
triclopyr ester		X	

Total all rankings for the site and pesticide in question: _____ =RAVE Score

Some products are used in very small quantities. In cases where less than 1/2 pound AI per acre is applied, it would be reasonable to reduce the final RAVE score by 2-5 points.

* If water table is less than 2 feet deep then applications should not be made unless done with a wick or similar precision applicator.

Interpretation of RAVE Score

Higher numbers indicate high vulnerability of groundwater to contamination by the pesticide used in the evaluation. RAVE scores greater than or equal to 65 indicate a high potential for groundwater contamination. Scores between 45 and 65 indicate a moderate to low potential for groundwater contamination, and scores less than 45 indicate a low potential for groundwater contamination by the pesticide in question. Even in such cases, careful use of pesticides and following label instructions is imperative to protect groundwater.

APPENDIX B

California red-legged frog habitat protection



The US Environmental Protection Agency is currently determining the effects of 66 pesticide active ingredients on the California red-legged frog, and will be amending pesticide labels and use restrictions based on their findings. Until that time, the use of those 66 pesticide ingredients is restricted near CA red-legged frog habitat. The list includes glyphosate (which is in Roundup) and triclopyr (which is in Garlon). The other herbicides approved for use in this document are not affected by the restrictions.

Within the Presidio, Mountain Lake and Lobos Creek qualify as potential CA red-legged frog habitat. Restrictions prohibit the use of glyphosate and triclopyr within 260 feet of a the mean water line. However, spot-treatments with hand-held equipment can be performed within the restricted area, provided they are either more than 60 feet from the mean water line, or they are cut-stump or bark applications.

The EPA may approve applications within less than 60 feet from a mean water line for invasive species removal as part invasive weed programs; however a request must be made to the EPA. Presidio Natural Resources has not submitted such a request, and this policy document does not allow for use of glyphosate or triclopyr within 60 feet of Mountain Lake or Lobos Creek, except cut-stump applications.

APPENDIX C

Presidio Trust Contractor Pesticide Use Request Form

Use this form to request the use of a pesticide on Presidio property. Requests will be granted where there is a documented need, when non-chemical alternatives have been tried or deemed unfeasible, and the pesticide can be used without having a significant impact on Presidio resources. Pesticides that are considered a high risk for impact on Presidio resources include human carcinogens, developmental and reproductive toxins, cholinesterase inhibitors, known groundwater contaminants or those with a high acute toxicity. Please contact the Presidio Trust IPM Coordinator at (415) 561-2708 with questions.

SUBMIT COMPLETED FORM PLUS THE REQUESTED PESTICIDE'S LABEL AND MSDS TO: Presidio Trust IPM Coordinator. Fax: (415) 561-4839 or Email: cconforti@presidiotrust.gov

COMPANY NAME CONTACT NAME LICENCE #

CONTACT PHONE # CONTACT FAX #

1. PEST TO BE CONTROLLED

Common name Action threshold

Location of pest problem

Describe the immediate need for control. If appropriate Include information from monitoring records.

2. PRIOR NON-CHEMICAL CONTROL EFFORTS

List prior and ongoing control efforts and their results.

3. PESTICIDE APPLICATION REQUEST

Trade name

Active ingredient

EPA registration number

Is this a CA Restricted Use pesticide?

Product formulation (e.g. liquid, dust, granule, EC, WP)

Total area to be treated (ft² or acres)

Method of application (e.g. spot-treat with backpack sprayer, crack and crevice dusting)

List mitigation measures planned to prevent drift.

List mitigation measures planned to prevent runoff.

List mitigation measures planned to prevent groundwater contamination.

List mitigation measures planned to prevent human exposure.