



San Francisco Reduced-Risk Pesticide List

for City-Owned Properties

Approved September 25, 2018

How to Use this List

The Reduced Risk Pesticide List (RRPL) includes pesticide products approved for use on *San Francisco City properties* under the SF Integrated Pest Management (IPM) Ordinance (Chapter 3, SF Environment Code).

This list is only one component of San Francisco's IPM program. Pesticides should be the last resort, when all other tactics have failed. The RRPL represents the outer boundaries of acceptable IPM tactics in SF.

This list is San Francisco-specific, and not recommended for other local agencies. The RRPL is created through a collaborative problem-solving process to accommodate the wide variety of highly specialized situations in San Francisco's unique climate. Other agencies are advised to develop their own lists based on their local needs.

This list is not appropriate for homeowners. Homeowners can solve most pest problems with minimal or no pesticide use. For information on managing common pest problems, see [Our Water Our World Factsheets](#).

Exemptions

Exemptions are required for any pesticides (i.e., herbicides, insecticides, fungicides, molluscicides, etc) used on City property for products that are:

- ✓ Not listed on the SF Reduced-Risk Pesticide List — OR —
- ✓ On the RRPL but used differently than described in the RRPL's *Pesticide Limitations column*.

To apply for an exemption, the City department IPM Coordinator should:

1. **Call SFE first** to discuss alternatives, before spending time applying for an exemption.
2. **Fill out this [Pesticide Exemption Request](#).** Allow at least 2 days for your request to be processed. SF Dept. of Environment will only grant exemptions in cases of:
 - a. Well-documented need for the pesticide and when all other alternatives have been tried or deemed impractical — OR —
 - b. For trial use of new reduced risk products

To view approved exemptions in real time, visit our [website](#).

All uses of pesticide under an exemption, as well as any use of pesticides categorized as "*Most Limited*" on the RRPL, must be justified by the relevant City department at the SF IPM Program's annual public hearing.

For City department questions on potential exemptions, contact Chris Geiger, (415) 355-3759, chris.geiger@sfgov.org. For more info on San Francisco's IPM Program, visit: sfenvironment.org/ipm

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
GENERAL USE PRODUCTS						
Actinovate	Fungicide	73314-1	<i>Streptomyces lydicus</i> WYEC 108	Least hazardous (Tier III)	Least Limited	
Advion Ant Bait Arena (Dupont)	Insecticide	352-664	Indoxacarb 0.1%	Least hazardous (Tier III)	Least Limited	
Advion Ant Gel (Dupont)	Insecticide	352-746, 100- 1498	Indoxacarb 0.05%	Least hazardous (Tier III)	Least Limited	
Advion Cockroach Bait Arena (Dupont)	Insecticide	352-668	Indoxacarb 0.5%	Least hazardous (Tier III)	Least Limited	
Advion Cockroach Gel Bait (Dupont)	Insecticide	352-652	Indoxacarb 0.6%	Least hazardous (Tier III)	Least Limited	
Agri-Fos Systemic Fungicide	Fungicide	71962-1	Potassium phosphite 45.8%	Least hazardous (Tier III)	Least Limited	For use on high-value Coast Live Oaks (<i>Quercus agrifolia</i>) susceptible to <i>Phytophthora</i> , or in experiments with <i>Phytophthora</i> control.
Alligare Rotary 2 SL	Herbicide	81927-6	Imazapyr, isopropylamine salt 28%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation.
Ant baits - borate based - self contained, gel, liquid	Insecticide	Various	Boric acid, sodium tetraborate decahydrate, or other borate salts	Most hazardous (Tier I)	Least Limited	
Avenger Weed Killer Concentrate	Herbicide	82052-1	d-Limonene 60%	Least hazardous (Tier III)	More Limited	Subject to "Restrictions on herbicides." Burndown herbicide. Not for use near water.
Axxe	Herbicide	70299-23	Nonanoic acid, 61%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Burndown herbicide.

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
Azatin XL	Insecticide	70051-27	Azadirachtin 3%	Most hazardous (Tier I)	More Limited	For greenhouses and established plants for interiorscapes. Do not apply on flowering plants when bees are active. USE UP EXISTING STOCKS - Azatrol is safer alternative.
Azatrol EC Insecticide	Insecticide	2217-836	Azadirachtin (2328) 1.2%	More hazardous (Tier II)	More Limited	For greenhouses and established plants for interiorscapes. Do not apply on flowering plants when bees are active.
<i>Bacillus thuringiensis</i> insecticides (excluding mosquito control)	Insecticide	Various	<i>Bacillus thuringiensis</i> (various subsp.)	Least hazardous (Tier III)	Least Limited	
BestYet Cedarcide	Insecticide	exemptprod- 009	Cedarwood oil, amorphous silica	Least hazardous (Tier III)	Least Limited	
BioLink Buffer & Penetrant	Adjuvant	exemptprod- 010	Citric acid 20%, garlic extract 7%	More hazardous (Tier II)	Least Limited	
Cimexa Insecticide Dust	Insecticide	73079-12	Amorphous silica gel 100%	Least hazardous (Tier III)	Least Limited	Only for use on rat mites, bedbugs, lice, and yellowjackets in walls when nonchemical techniques prove ineffective.
Clearcast Herbicide	Herbicide	241- 437	Imazamox, ammonium salt	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." For invasive aquatic weeds and pilot testing on terrestrial weeds as alternative to Tier I products.
CMR Silicone Surfactant	Adjuvant	1050775- 50025 [INACTIVE]	Polymethyl-siloxane, nonionic	Least hazardous (Tier III)	More Limited	
Competitor	Adjuvant	2935-50173	Ethyl oleate	Least hazardous (Tier III)	Least Limited	
Conserve SC Turf and Ornamental	Insecticide	62719-291	Spinosad 11.6%	More hazardous (Tier II)	Least Limited	For use as a last resort in greenhouses. If feasible, alternate with other products to avoid the development of resistance. Use on high value ornamentals only.
Debug Turbo	Nematicide	70310-5	Fats & glyceridic oils margosa 65.8%, azadirachtin 0.7%	More hazardous (Tier II)	Least Limited	

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
Detour	Mammal repellant	exemptprod- 015	White pepper 3%, white mineral oil 87%, silica 10%	Least hazardous (Tier III)	Least Limited	
Eco Exempt/Essentria Jet Wasp and Hornet Killer	Insecticide	exemptprod- 007	2-phenethyl propionate 2%, rosemary oil 3%	More hazardous (Tier II)	Least Limited	Preferred alternative to Wasp Freeze but may not act quickly enough during late summer, when yellowjackets are most aggressive. Consider digging up nest and baiting with honey in evening to attract raccoons.
Enforcer PreCor Concentrate for Fleas	Insecticide	2724-352	S-Methoprene, 1.2%; mineral oil, refined, 98.8%	Least hazardous (Tier III)	Least Limited	
Enforcer PreCor Concentrate for Fleas	Insecticide	2724-352	S-Methoprene, 1.2%; mineral oil, refined, 98.8%	Least hazardous (Tier III)	Least Limited	
Enstar II Insect Growth Regulator (Enstar 5E)	Insecticide	2724-476	S-kinoprene 64.1%	More hazardous (Tier II)	More Limited	USE UP EXISTING STOCKS. For use only in nurseries and on roses.
Essentria IC3	Insecticide	exemptprod- 013	Rosemary oil 10%, geraniol 5%, peppermint oil 2%, wintergreen oil, white mineral oil, vanillin, polyglyceryl oleate	Least hazardous (Tier III)	Least Limited	
Fiesta Turf Weed Killer	Herbicide	67702-26	Iron HEDTA 26.52%	Most hazardous (Tier I)	More Limited	Subject to "Restrictions on herbicides." USE UP EXISTING STOCKS.
Garlon 4 Ultra	Herbicide	62719-527	Triclopyr, butoxyethyl ester 60.45%	Most hazardous (Tier I)	Most Limited	Subject to "Restrictions on herbicides" Use only for targeted treatments of high profile or highly invasive exotics via dabbing or injection. May use for targeted spraying only when dabbing or injection are not feasible. HIGH PRIORITY TO FIND ALTERNATIVE
Habitat	Herbicide	241-426	Imazapyr, isopropylamine salt, 28%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation.

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
Havahart Critter Ridder	Mammal repellant	50932-10	Oil of black pepper 0.48%	Least hazardous (Tier III)	Least Limited	
Hydoprene-only products	Various	Various	Hydoprene	Least hazardous (Tier III)	Least Limited	
Lifeline Herbicide	Herbicide	70506-310	Glufosinate, ammonium, 24.5%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides."
Maxforce FC Magnum Roach Killer Bait Gel	Insecticide	432- 1460	Fipronil 0.05%	More hazardous (Tier II)	More Limited	Not for use in outdoor areas with potential rain exposure. USE UP EXISTING STOCKS
Maxforce FC Professional Insect Control Roach Bait Stations	Insecticide	432-1257	Fipronil 0.05%	More hazardous (Tier II)	More Limited	Not for use in outdoor areas with potential rain exposure
Maxforce FC Professional Insect Control Roach Killer Bait Gel	Insecticide	432-1259	Fipronil 0.01%	More hazardous (Tier II)	More Limited	Not for use in outdoor areas with potential rain exposure
Maxforce Impact Roach Gel Bait	Insecticide	432-1531	Clothianidin, 1%	More hazardous (Tier II)	Least Limited	
Met52 EC Bioinsecticide	Insecticide	70127-10	Metarhizium anisopliae strain F52, 11%	Least hazardous (Tier III)	Least Limited	
Milestone	Herbicide	62719-519	Aminopyralid, trii- sopropanolamine salt (5928) 40.6%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." For invasive species in natural areas or parklands where other alternatives are ineffective, especially for invasive legumes and composites such as yellow star thistle and purple star thistle.
Milestone VM Plus, Capstone	Herbicide	62719-572	Aminopyralid, triisopropanolamine salt, 2%; Triclopyr, triethylamine salt, 16%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Use only for cut stump or injection

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
M-pede Insecticide/Fungicide	Insecticide	62719-515	Potash soap 49%	More hazardous (Tier II)	More Limited	Nursery, specialty gardens, and Africanized Honey Bees.
Nufarm Polaris Herbicide	Herbicide	228-534	Imazapyr, isopropylamine salt, 28%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation.
OhYeah!	Insecticide	exemptprod- 002	Sodium lauryl sulfate	Least hazardous (Tier III)	Least Limited	
Orange Guard	Insecticide	61887-1	D-limonene 5.8%	More hazardous (Tier II)	More Limited	Soap spray is preferred for removing ant trails. Minimize use in enclosed areas due to scent. Potential aquatic hazard - do not apply directly to water.
Organocide	Insecticide	exemptprod- 010	Sesame oil 5%	Least hazardous (Tier III)	Least Limited	
Oust XP Herbicide (DuPont)	Herbicide	352-601	Sulfometuron-methyl 75%	More hazardous (Tier II)	Most Limited	Subject to "Restrictions on herbicides." For use only on airport operational areas subject to FAA requirements.
Pentrabark	Adjuvant	83416-50001	Polyalkyleneoxide modified heptamethyltrisiloxane	Least hazardous (Tier III)	Least Limited	
Prescription Treatment Brand Perma-Dust	Insecticide	499-384	Boric acid 35%, petroleum distillates- hydrotreated light 10%, HFC-134A, 1,1 difluoroethane	Most hazardous (Tier I)	More Limited	Use in situations where adhesion of dust is important and non-aerosol boric acid products are ineffective.
Prescription Treatment Brand Wasp-Freeze Wasp and Hornet Killer	Insecticide	499-362	Phenothrin .12%, d-trans allethrin .129%, CO2	Most hazardous (Tier I)	Most Limited	Use only when a concern for public safety, and in situations where use of EcoExempt product is inadequate or unsafe.
Roundup Custom Herbicide (Aquamaster)	Herbicide	524-343	Glyphosate, isopropylamine salt 53.8%	Most hazardous (Tier I)	Most Limited	Subject to "Restrictions on herbicides"

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
Roundup Promax Herbicide	Herbicide	524-579	Glyphosate, isopropylamine salt 48.7%	Most hazardous (Tier I)	Most Limited	USE UP EXISTING STOCKS. Subject to "Limitations on most hazardous herbicides" Use of Aquamaster + Competitor is preferred except in situations where rainfastness is needed.
Safer Soap O-Insecticidal Soap Concentrate	Insecticide	42697-60	Potassium laurate, 49.52%	More hazardous (Tier II)	Least Limited	
Shake-Away Coyote Urine Repellent Granules	Mammal repellent	exemptprod-014	Coyote urine 5%, limestone 95%	Least hazardous (Tier III)	Least Limited	
Sluggo Slug and Snail Bait	Molluscicide	67702-3	Phosphoric acid, iron(3+) salt (1:1) 1%	Least hazardous (Tier III)	Least Limited	
Spraytech Oil	Insecticide	65328-50001	Soybean oil	More hazardous (Tier II)	Least Limited	
Stalker Herbicide	Herbicide	241-398	Imazapyr, isopropylamine salt 28%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation. USE UP EXISTING STOCK
Suppress Herbicide EC	Herbicide	51517-9	Caprylic acid, 47%; capric acid, 32%	More hazardous (Tier II)	Least Limited	Subject to "Restrictions on herbicides." Alternative to Tier I herbicides. Burndown product.
GOLF PRODUCTS						
Civitas One	Fungicide	69526-17	Mineral oil, refined, 89%	Least hazardous (Tier III)	Least Limited	
Fosphite Fungicide	Fungicide	68573-2	Potassium phosphate	Least hazardous (Tier III)	More Limited	Only for use on golf courses.
Heritage Fungicide	Fungicide	100-1093	Azoxystrobin 50%	Most hazardous (Tier I)	Most Limited	For use on Harding Park/Fleming golf courses only in preparation for tournament play

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
Lontrel Turf and Ornamental Herbicide	Herbicide	62719-305	Clopyralid, 40.9%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." For use on Harding Park/Fleming golf courses only in preparation for tournament play. May be used 1x/year in other golf courses on greens only.
Primo Maxx	Growth regulator	100-937	Trinexapac-ethyl 11.3%, tetrahydrofurfuryl alcohol (THFA)	More hazardous (Tier II)	More Limited	Only use on Harding/Fleming golf courses in preparation for major golf tournaments.
Quinclorac 1.5L	Herbicide	53883-336	Quinclorac, dimethylamine salt, 18.92%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." For use on Harding Park/Fleming golf courses only in preparation for tournament play.
Rhapsody ASO	Fungicide	264-1155	QST 713 strain of dried Bacillus subtilis, 1.34%	Least hazardous (Tier III)	Least Limited	
Sapphire	Herbicide	62719-547	Penoxsulam	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Only use on City-owned golf courses in preparation for major golf tournaments, or for pilot testing elsewhere as a glyphosate alternative.
Tourney	Fungicide	59639-144	Metconazole, 50%; Silica-crystalline quartz	Most hazardous (Tier I)	More Limited	For management of pink snow mold (Microdochium nivale) on Harding Park/Fleming golf courses only in preparation for tournament play.
Trimmit 2SC Plant Growth Regulator for Turfgrass	Growth regulator	100-1014	Paclobutrazol 22.3%	More hazardous (Tier II)	More Limited	For use only on golf courses in preparation for tournament play.
Trinity TM	Fungicide	7969-257	Triticonazole, 19.2%	Most hazardous (Tier I)	More Limited	For use on Harding Park/Fleming golf courses only in preparation for tournament play. May be used 1x/year in other golf courses on greens only.
Turflon Ester	Herbicide	62719-258	Triclopyr, butoxyethyl ester 61.6%	Most hazardous (Tier I)	Most Limited	Subject to "Restrictions on herbicides." Subject to "Restrictions on herbicides". Targeted treatment of golf course turf. HIGH PRIORITY TO FIND ALTERNATIVE.

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
VECTOR CONTROL PRODUCTS						
Agnique MMF-G	Mosquito control - other	7969-333	Poly(oxy-1,2-ethanediyl),alpha-isodecyl-omega-hydroxy-phosphate 32%	More hazardous (Tier II)	More Limited	Use for late instar mosquito larvae and pupae, in combination with microbial products. USE UP REMAINING STOCK
BVA2 Mosquito Larvicide	Mosquito control - other	70589-1	Highly refined petroleum distillate (mineral oil)	More hazardous (Tier II)	More Limited	Use as a pupacide for public health mosquito treatments.
Contrac All-Weather Blox	Rodenticide	12455-79	Bromadiolone 0.005%	Most hazardous (Tier I)	Most Limited	HIGH PRIORITY FOR REMOVAL. USE UP EXISTING STOCKS. For use only in San Francisco International Airport Terminal Areas, or for commercial lessees on city properties that are not adjacent to natural areas. In commercial establishments, use of product shall be a last resort after other, less-toxic measures have been implemented, including sanitation and trapping, and only where a significant public health hazard is recognized by the SF Dept. of Public Health . In all cases, monitoring shall be used whenever feasible to minimize rodenticide use.
Giant Destroyer	Rodenticide	10551-1	Carbon, 9%; Sodium nitrate, 50%; Sulfur, 38%	Most hazardous (Tier I)	Most Limited	Alternative to baits for rodents in burrows. Observe label limitations on endangered species and potential for human smoke exposure.
Mosquito control - microbial	Mosquito control - microbial	Various	<i>Bacillus thuringiensis</i> (Berliner or Israelensis) or <i>Bacillus sphaericus</i>	Least hazardous (Tier III)	Least Limited	Any microbial mosquito larvicide with active ingredients <i>Bacillus thuringiensis</i> (Berliner or Israelensis) or <i>Bacillus sphaericus</i> is categorized as Least limited.

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Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
Mosquito control products - IGRs	Mosquito control - IGRs	Various	S-Methoprene (5026	Least hazardous (Tier III)	More Limited	Use for tanks with limited access, or other areas where frequent treatments are infeasible. For City catchment basins, microbial products are preferred. Not for use in estuarine environments except under control of San Mateo Mosquito Abatement District.
Rat Ice	Rodenticide	12455- 148	Carbon dioxide	More hazardous (Tier II)	More Limited	
Rodent control - diphacinone block baits	Rodenticide	Various	Diphacinone	More hazardous (Tier II)	More Limited	See Site-Specific Limitations. For rat control only in situations with high public health concerns, where trapping is infeasible. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use. HIGH PRIORITY TO FIND ALTERNATIVE.
Top Gun All Weather Bait Block Rodenticide	Rodenticide	67517-66	Bromethalin 0.01%	Most hazardous (Tier I)	Most Limited	For use only in City-owned sewer lines, San Francisco International Airport Terminal Areas, or for commercial lessees on city properties that are not adjacent to natural areas. In commercial establishments, use of product shall be a last resort after other, less-toxic measures have been implemented, including sanitation and trapping, and only where a significant public health hazard is recognized by the San Francisco Dept. of Public Health. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use.

*For products exempt from US EPA registration (usually 'Generally Regarded as Safe'), SF creates its own product code

**A product's tier ranking reflects *hazard* (the possibility of harm) but not *risk* (probability of harm). It does not include consideration of likely exposure. It is determined using the SF Pesticide Hazard Screening Protocol,

<http://sfenvironment.org/download/guide-to-the-reduced-risk-pesticide-list-revised-2013>

***Use limitation type is an informal rating of *risk* (probability of harm), determined by considering a product's hazard tier rating, formulation, likely exposure, and typical uses. Applications of "most limited" pesticides must be justified at an annual public hearing.

San Francisco Reduced Risk Pesticide List: Restrictions on Herbicides for City Properties

Adopted September 25, 2018

Background

The use of chemical pesticides is always reserved as a method of last resort in San Francisco's Integrated Pest Management (IPM) Program. The restrictions below were created in a public process by the San Francisco Department of the Environment in close consultation with affected City & County of San Francisco departments, in keeping with the Precautionary Principle and Integrated Pest Management ordinances (Environment Code, Chapters 1 and 3). *Any other uses of herbicides require an exemption granted by the San Francisco Department of the Environment.*

Goals

1. Reduce the use of herbicides to those situations where they are most critical to public health, public safety, and protection of major public assets, including biodiversity assets,
2. Ensure that the restrictions are attainable through continued collaboration among City IPM staff.
3. Minimize potential harm to the environment, City workers, and the general public from any pest management activities, in keeping with the Precautionary Principle.
4. Maximize the ability of city residents to know when and where pesticides are being used.

A. Conditions of use - ALL HERBICIDES

Requirements

1. All treatments must be posted as per City ordinance. All postings must clearly identify the area to be treated. Postings should be placed in location(s) most likely to be seen by users of the treated area. Blue indicator dyes must be used for spray treatments. The use of blue dye must be noted on the posting. Dye must be mixed at a concentration that makes it clearly visible.

Exceptions:

- a. Blue indicator dye is not required on golf courses, hardscapes, or in cases where posting is not otherwise required.
2. For treatment sites that cannot be readily described using the posting sign alone, a map showing the general location of expected treatment area(s) must be attached to the posting sign.
 3. Contractors must be fully briefed and trained in the San Francisco IPM program's ordinance, requirements and policies.
 4. All uses must comply with the California Red-legged Frog Stipulated Injunction.:
 5. No use on plants with edible berries when ripe fruits are present.
 6. No use on green roofs or green wall features.

B. Conditions of use - TIER I HERBICIDES

Tier I ("Most Hazardous") herbicides are subject to Conditions of Use for "ALL HERBICIDES" list above, plus the following:

Requirements

7. Any application of 'most hazardous' herbicides on City property within the City limits or at San Francisco International Airport must be under the direct supervision of a licensed person. A licensed person is defined for these purposes as a person possessing either an Agricultural Pest Control Advisor license, a Qualified Applicator License, or a Qualified Applicator Certificate issued by the California Department of Pesticide Regulation. "Direct supervision" means that the licensed person must be physically present at the site of application.
8. Within the City limits, when 'most hazardous' herbicides are used on publicly accessible parcels a physical demarcation must be set up around or block access to the treated area. Acceptable physical demarcations include fencing, rope, tape, or staked plastic cones.

Exceptions:

- a. Golf courses
- b. Street medians
- c. Areas managed for habitat conservation

9. No use for purely cosmetic purposes.
10. No use on the grounds of or within 15 feet of the boundaries of schools, preschools, childrens' playgrounds and other areas frequented by children.
11. No use within 15 feet of designated, actively maintained public paths. "Designated public paths" are walking paths that appear on City maps. If maps do not exist, then "designated public paths" means paths that are actively maintained by City operations.

Exceptions:

- a. Areas falling under state or federal vegetation management requirements, including utility rights of way and easements, dams, reservoir embankments, and watershed lands. If such treatments are required, either access to the treated area must be blocked or a physical demarcation must be set up around the treated area.
 - b. Cases where alternative control methods pose a significant public safety, public health or fire risk, for example, poison oak along popular trails. In these cases, either access to the treated area must be blocked or a physical demarcation must be set up around the treated area.
 - c. Street median strips.
12. No broadcast spraying using a spray boom is permitted. Use of a backpack sprayer is not considered broadcast spraying, provided that the applicator is targeting specific plants that have been identified for treatment.

Exceptions:

- a. Targeted treatments at Harding Park golf course in preparation for tournament play.

Site-Specific Limitations on Rodenticide Use

Updated 9/25/18

Rodenticides are always a last resort. Due to the concern over primary and secondary poisoning, the type of rodenticide and the manner in which it is applied will be determined by the general site characteristics.

DEFINITIONS:

- Natural area:** Landscape area managed primarily for habitat, or managed for other uses (such as recreational or aesthetic uses) but likely to harbor significant populations of mammal or bird wildlife
- Primary poisoning:** Non-target animal eats poison directly
- Secondary poisoning:** Non-target animal eats poisoned target animal as prey
- Single-feed baits:** Baits with bromethalin, brodifacoum, bromodialone, difenacoum, difethialone active ingredients.

General Site Description	Conditions Where Rodenticide Use is Permitted
Inside of sewers or sewage treatment facilities:	Baits must be secured either inside the sewer or inside a bait box. Single-feed baits permitted. Monitoring with non-toxic baits encouraged.
Commercial enterprises (such as restaurants) on leased City properties	Trapping preferred. Use of single-feed baits shall be a last resort after other, less-toxic measures have been implemented, including sanitation and trapping. <i>Exemption required for any single-feed baits, and only where a significant public health hazard is recognized by the SF Dept. of Public Health.</i>
Interior of structures with occupants (i.e. office space, recreation sites)	Trapping only.
Interior of non-enclosed structures (i.e. storage, stables, airport service areas) – not adjacent to natural areas.	Trapping preferred. Secure and anchored bait stations can be placed inside on a preventative basis. <i>No single-feed baits.</i>
Exterior of structures in urbanized areas (i.e. perimeter of offices)	Trapping preferred. Secure and anchored bait stations can be placed inside on a preventative basis. <i>No single-feed baits.</i>
Exterior of structures in natural areas	Multiple feeding baits may be used only as last resort in case of human health concern or structural integrity. Baits must be secured within bait boxes or buried in burrows. <i>No single-feed rodenticides.</i>
Landscape not adjacent to a natural area	Bait placed deep inside burrows, or secured inside bait boxes. Minimize use of pellets, mouse sized pellets only, must be buried deep in the burrow. <i>No single-feed baits.</i>
Natural area or landscape adjacent to a natural area	Multiple feeding baits may be used only as last resort in case of human health concern or structural integrity. Baiting should be limited to sensitive sites such as campfire areas, or on preventing infestation of structures. Baits must be secured inside bait boxes or burrows. <i>No use of pellets or single feeding rodenticides.</i>



SF Environment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco

SF Integrated Pest Management (IPM) Program Compliance Checklist for City Properties and Reduced Risk Pesticide List

The checklist below summarizes requirements of the [SF IPM Ordinance](#) (Environment Code Chapt. 3) and policies established by San Francisco's IPM Program. The current [Reduced Risk Pesticide List](#) contains other important limitations on pesticide use.

Who should use this checklist

City staff or City contractors managing pests (insects, rodents, weeds, etc.) for buildings and landscapes that are:

- **Owned by the City** even if in other counties
- **Leased from the City** (lease signed after 1996), such as SF Airport vendors or Port tenants.

The City cannot regulate pesticide use on private properties, but we provide informational resources at SFEnvironment.org/ipm.

IPM in and around buildings

Responsibilities

- ✓ **City departments not using their own staff for structural pest control:** Call [Pestec](#) (415-587-6817), the citywide contract pest management contractor.
- ✓ **City departments using their own staff for structural pest control:** Coordinate activities through your [Department IPM Coordinator](#).
- ✓ **Leasees of City properties:** For leases newer than 1996, compliance with the SF IPM Ordinance is required, including restrictions, posting and recordkeeping. Coordinate through the leasing department's IPM Coordinator. See [IPM Resources](#).

Prevention

- ✓ Remove food & water sources, and ensure that refuse is properly contained and emptied frequently.
- ✓ Promptly repair structural defects noted by the IPM contractor.
- ✓ Consult [Pest Prevention by Design Guidelines](#) or its companion [checklists](#) for ways to pest-proof buildings.

Pest management

- ✓ Larger facilities should develop an IPM plan and servicing schedule with contractor. This promotes more effective IPM efforts, and allows use of the more economical "ongoing service" rate under the citywide IPM contract.
- ✓ Learn about pest identification, biology, and non-chemical controls at the [UCIPM website](#).

Pesticide use

- ✓ Pesticides are limited to products on the current Reduced Risk Pesticide list, and should be reserved as a last resort. Disinfectants and water treatment chemicals are not considered pesticides for these purposes (See Pesticides section below)
- ✓ Do not allow employees to bring their own pesticides to work. Aerosol pesticides are rarely appropriate or effective indoors, and products not on the Reduced Risk Pesticide List are illegal for City departments.

Notification

- ✓ Except for baits, posting for pesticide use must be done 3 days before treatment, and remain up for 4 days after treatment. Least-hazardous (Tier III) products only require posting the day of treatment.
- ✓ For baits, post:
 - Permanently in each building or vehicle where baits are used in readily visible location - OR -
 - At a central location in the facility where the public can access the information (such as a receptionist's desk). If this is not available, information must be made available at the City department's main office and via 311.

IPM in landscapes & rights of way

Responsibilities

- ✓ **City departments:** Coordinate activities through your [Department IPM Coordinator](#).
- ✓ **Landscape contractors:** Must be fully briefed and trained on the San Francisco IPM program's ordinance, requirements and policies. Include the SFE IPM Program Manager or Departmental IPM Coordinator in pre-construction contractor meeting. Contract language must include ordinance requirements (see Contracts below)
- ✓ **Leasees of City properties:** For leases newer than 1996, compliance is required. Coordinate through the leasing department's IPM Coordinator. See [IPM Resources](#).

Prevention

- ✓ Mulch to save water and prevent weed growth. Plant for full ground cover. Bare, unshaded soil is an invitation for weeds.
- ✓ Use the [SF PlantFinder](#) to choose appropriate plants for your site.
- ✓ Use [Bay Friendly Landscaping Guidelines](#) to design out weeds and design in water conservation, biodiversity, and healthier soils. Get your staff Bay Friendly certified at trainings sponsored by the Dept. of the Environment.
- ✓ If possible, get your landscape [BayFriendly Rated](#) – a third-party sustainable landscape certification. For larger projects, the [LEED SITES Initiative](#) is another excellent certification.

Management

- ✓ Consider hand removal, mechanical removal, goats and weed flaming first. Pesticides should be reserved as a last resort.
- ✓ Learn about pest identification, biology, and non-chemical controls at the [UCIPM website](#).

Pesticide use

- ✓ A written recommendation from a licensed Agricultural Pest Control Advisor (PCA) is required for any pesticide use. Departments that do not have PCAs on staff should contact the SF Environment IPM Manager.
- ✓ Only pesticides on the current [SF Reduced Risk Pesticide List](#) may be used. Usage must fall within the "limitations" listed for each product, along with label requirements.
- ✓ 'Most hazardous' (Tier I) herbicides have special limitations:
 - Use is prohibited for purely cosmetic purposes.
 - Use is prohibited within 15 feet of designated paths. If a park map exists, designated paths are those found on the maps. Otherwise, designated paths are those actively maintained by staff.

- Use is prohibited within 15 feet of schools, preschools, playgrounds, or other areas frequented by children.
- Use on blackberry bushes is prohibited when fruit are present
- If within the City limits, use requires onsite supervision by a licensed person (PCA, QAL/QAC)
- No broadcast spraying with a boom is permitted except for golf courses (targeted spraying only)
- ✓ Certain pesticide use is [restricted in designated Red-Legged Frog habitat](#), which includes Golden Gate Park, Lake Merced, and several other areas in San Mateo and Alameda County.

Notification

- ✓ Posting for pesticide use must be done 3 days before treatment, and remain up for 4 days after treatment, except for least-hazardous (Tier III) products, which require posting only on the day of treatment. [Download pesticide notification sign](#).
- ✓ Postings must clearly identify the area to be treated. Signs should be placed at locations most likely to be seen by members of the public using the treated area.
- ✓ Posting is not required for median strips or rights-of-way when these areas are not intended for public use.
- ✓ Special exemptions to posting may be granted for certain areas that are 1) inaccessible to the public, and 2) used only by City staff who are fully aware of the pesticide applications during the 4-day post-treatment period. Exemptions can only be granted by SFE's IPM Program Manager via the [web form](#).
- ✓ 'Most hazardous' (Tier I) herbicides have special notification requirements:
 - Blue dye must be used, and this must be noted on the posting sign. Blue dye is not required in areas where 1) posting is not required, and 2) staining may occur, such as ornamental stone median strips.
 - When treatment sites that cannot be readily identified by the posting sign alone, a map showing the general location of expected treatment area(s) must be attached to the posting sign.

Public health pest control

Responsibilities

- ✓ **City departments that do not use their own City staff for public health pest control:** Call [Pestec](#) (415-587-6817), the citywide contract pest management contractor.
- ✓ **Public complaints on mosquito, rat, or other public health pests:** Refer callers to the Department of Public Health Vector Control Office (311).
- ✓ **Leasees of City properties:** Coordinate public health pest management through the leasing department's IPM Coordinator.

Prevention

- ✓ Eliminate standing water wherever possible.
- ✓ Remove food sources for rodents, ensure that refuse is properly contained and emptied frequently, and use [Pest Prevention by Design Guidelines](#) or its companion [checklists](#) to seal rodents out of buildings.

Management & Pesticide Use

- ✓ Only pesticides on the current [SF Reduced Risk Pesticide List](#) may be used. Usage must fall within the "limitations" listed for each product, along with label requirements.

Notification

- ✓ Posting is not required for rat treatments in sewers or mosquito larvicide treatments. However, information on the treatments must be available to the public from the department responsible.
- ✓ Rodent baits (with the exception of sewer treatments) must be in tamper-resistant, secured bait boxes marked with signal word or symbols required on the original pesticide label, the generic name of the pesticide, and the name, address, and telephone number of the structural pest control company or departmental IPM coordinator.

Wood-destroying pests

Responsibilities

- ✓ The Citywide IPM contract does not cover wood-destroying pests. Contact the SF Environment IPM manager for assistance in finding qualified contractors: Chris.Geiger@sfgov.org, (415) 355-3759.

Prevention

- ✓ Eliminate soil-wood contact in structures, and remove any cellulose containing materials (such as wood piles) from the vicinity of wood structures.
- ✓ For new construction or renovations, use the [Pest Prevention by Design Guidelines](#) or its companion [checklists](#) to prevent wood-destroying pests.

Management & Pesticide Use

- ✓ Inspection is critical to confirm the extent of infestations. Hire a licensed inspector, preferably with advanced inspection equipment. Make sure that the pests are positively identified. Different termite species require different control tactics.
- ✓ For subterranean termites, subterranean bait products are preferred, in combination with prevention and destruction of shelter tubes. Drywood termites require different techniques, often requiring wood replacement. Heat treatments are preferred. See UCIPM [resources](#) on wood-destroying pests. An [exemption](#) is required for any termite pesticides.

Pesticide use (general)

- ✓ **Pesticide use is a last resort.** If pesticides must be used, only products listed on the current San Francisco [Reduced Risk Pesticide List](#) are permitted. Do not use the List for homes or private property.
- ✓ **Required trainings:** All staff or contractors handling pesticides must be properly trained and licensed. Annual safety training is required by state law. SFE organizes annual pesticide safety/IPM trainings for this purpose.
- ✓ **Exemptions:** An exemption from SFE is required when:
 - Pesticide product is not listed on the current SF Reduced-Risk Pesticide List (RRPL) – OR –
 - The intended usage of the product is not permitted by the List's *Use Limitations* –OR –
 - A modified posting plan is desired

Exemptions will only be granted for cases where viable, safer alternatives do not exist, or for trial use of safer products. City users are encouraged to discuss proposed exemptions with the SFE IPM Manager before submitting an exemption request ([Exemption Request Form – City use only](#)). Allow at least two days for your request to be processed.

Non-listed pesticides may never be used prior to receiving an exemption except for [rare emergency situations](#), such as those posing an immediate threat to public health. These situations must be recorded as “emergency exemptions” with SFE, and justified at the annual public hearing.

- ✓ **Annual public hearing:** Departments must justify certain pesticide uses to the public at the Annual Reduced-Risk Pesticide List Hearing, generally held in December. Uses requiring justification are:
 - Exemptions
 - Products listed as “Most restricted” on the RRPL.
- ✓ **Pesticide use data:** All pesticides used on City properties must be recorded in the City's [Pesticide Use Reporting database](#) (PURS) on a monthly basis. Contact SFE for trainings and access. [Graphical summaries of pesticide use](#) are available.

Contracting language

- ✓ **Include IPM Program requirements** in all contracts that involve pest management, including weed and tree removal and wood-destroying pest abatement. This will avoid costly change orders.

- ✓ **Suggested language:**

Notwithstanding other sections in this contract, the Contractor will use an integrated pest management approach in all activities [specify here], as required by the San Francisco Environment Code, Chapt. 3. Pesticides, including insecticides, herbicides, fungicides, rodenticides, and molluscicides, may be used only as a method of last resort, and only after exploring all applicable non-chemical options. Only pesticide products listed on the San Francisco Reduced-Risk Pesticide List (RRPL) (SFEnvironment.org/ipm) may be used on City properties, and must be used in a manner consistent with limitations described on the RRPL and on the US EPA label. In this context, disinfectants and water treatment chemicals are not considered pesticides.

- ✓ **Bay Friendly:** In addition, consider including the [Model Bay-Friendly Maintenance Specifications](#) in contract requirements.

Leased properties

- ✓ **Applicability of IPM Ordinance:** All properties leased from the City with leases newer than 1996 fall under the IPM Ordinance requirements. Leasing departments should include language requiring compliance (see below).
- ✓ **Pesticide use data:** All pesticides used on the above leased properties must be submitted to SFE's PURS database. This may involve submitting data to the leasing department's [IPM coordinator](#), and/or arranging a PURS training for leasees or their contractors. Contact SFE for training information.
- ✓ **Suggested lease language**

"Leasee, and any pest management contractors operating on the leased property, shall comply with all requirements of San Francisco's Integrated Pest Management Ordinance (Chapter 3, San Francisco Environment Code). These requirements include, but are not limited to: Adopting an IPM approach to all pest control activities, using pesticides only as a last resort, restricting all pesticides used to those on the current SF Reduced Risk Pesticide List, posting notifications of all pesticide applications three days before treatment, and leaving these postings for at least four days after treatment, reporting all pesticide applications to the San Francisco Department of the

Other resources

IPM Technical Advisory Committee meetings

- ✓ **What is the IPM TAC?** The IPM TAC is an informal advisory body composed of City department IPM Coordinators and other interested parties. Most IPM TAC meetings are free and open to the public.
- ✓ **Why attend?**
 - Keep up to date on the latest IPM practices with guest speakers
 - Consult other IPM professionals regarding difficult pest management problems
 - Receive Continuing Education Units for state pesticide licenses or Bay Friendly Landscaping Program.

IPM Email list

- ✓ **Sign up [here](#)** to receive information on upcoming trainings, technical information, new products, and updates on upcoming IPM Technical Advisory Committee meetings.

Pesticide disposal

- ✓ **Empty pesticide containers**
 - Triple rinse them per DPR requirements. Use the rinsate in your next pesticide application. Do not pour down the drain.
 - Recycle cleaned containers (except for bags, pouches or fiber drums): In San Francisco, cut each 5-15 gallon jug into quarters. Cut each 15+ gallon jug into eighths. Put them in the recycling bin.
- ✓ **Non-empty containers**
 - Leftover pesticides are considered hazardous waste. The best option is to use them up for their intended purpose, and properly dispose of the empty container (above).
 - For pesticides, and hazardous waste in general, [City staff should post this sign](#) and [schedule a pickup](#).
 - Leasees on City properties should follow [these instructions](#).

For other questions, see www.sfenvironment.org/ipm, contact Chris Geiger at Chris.Geiger@sfgov.org, 415-355-3759.