



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

Skip to Pesticide List (p.8)

Who should use this

City staff or contractors managing pests (unwanted 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 golf courses, vendors at SF Airport.*

Non-City properties

The City does not regulate pesticide use on private properties, but we provide informational resources at SFEnvironment.org/ipm on topics such as:

- Pest management techniques
- IPM Contractors
- IPM Contract language
- IPM program development tools
- Complaints of pests or pesticides
- SF licensing, permits, and pesticide-related illnesses

Do not use the SF Reduced-Risk Pesticide List for homes or private property. It is intended for licensed professionals in very specialized situations, and generally does not include consumer pesticide products.

Checklist for City Properties

The checklist below summarizes requirements of the [SF IPM Ordinance](#) (Environment Code Chapt. 3, revised 2011).

1. Use integrated pest management (IPM). Ask [your Department IPM Coordinator](#).

- ✓ Prevention comes first. (See guidelines to [prevent pests in and around buildings](#)).
- ✓ Identify your pests. Use non-chemical control methods if available, and monitor your success.

PEST	WHAT TO DO
Ants, Cockroaches, Rodents, Pigeons, or Other Pests – Within 10 Feet Of Building	<ul style="list-style-type: none"> ✓ Leasees of City properties are encouraged to try these Safer Pest Control Techniques, Contractors, Contract Language ✓ City Departments that do <u>not</u> use their own City staff for structural pest control: Call Pestec (415-587-6817), the citywide contract pest management contractor. . ✓ City Departments are responsible for pigeons on their own structures. If pigeons are on a power line, the power company is responsible. ✓ Check out strategies for managing specific pests, including SF IPM Program recommendations for rat management.
Termites, Mold, Wood-Destroying Pests	Ask SFE, Chris.Geiger@sfgov.org , (415)355-3759.

PEST	WHAT TO DO
Public health pests (Rats in Sewers, Mosquitoes In Catchment Basins)	Call Pestec , Citywide Pest Control Contractor, (415) 587-6817.
Landscapes and rights of way (medians)- Weeds, Gophers, Insect Plant Pests	<p>There is no Citywide contract for landscapes. City staff should:</p> <ol style="list-style-type: none"> 1. Get a written recommendation is required from a licensed agricultural Pest Control Advisor (PCA). If you hire a PCA that is not a City staff, email the written recommendation to Chris.Geiger@sfgov.org (415-355-3759). 2. Check out strategies for managing specific pests. 3. Use Bay Friendly Landscaping Guidelines, which: <ul style="list-style-type: none"> ✓ Are suited to our local climate, soils and topography ✓ Reduce waste and help meet recycling goals ✓ Reduce water use on landscapes by 50% or more ✓ Prevent or reduce storm water pollution to our local creeks and bay ✓ Lower maintenance associated with mowing and shearing ✓ Reduce greenhouse gas emissions <p>City staff that hire contractors should include the following in contract specifications:</p> <ul style="list-style-type: none"> • This Compliance Checklist for City Properties. • Language such as: <i>Notwithstanding other sections in this contract, the Contractor will use pesticides (including insecticides, herbicides/weed-killers, fungicides, rodenticides) 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 (SFEnvironment.org/ipm) may be used on City properties (SF Environment Code, Chapter 3), and must be used in a manner consistent with limitations described on the RRPL and the US EPA label.</i> • Consider including the Bay-Friendly Maintenance Specifications

2. Include this sample lease language:

"Lessee, 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: Restricting all pesticides used to those on the current SF Reduced Risk Pesticide List for pesticides, 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 Environment's IPM Program Manager, and adopting an IPM approach to all pest control activities. For more information, see the City's IPM web site at SFEnvironment.org/ipm.

3. As a last resort, use pesticides under the following restrictions:

- a) If you apply pesticides, **attend SFE's Annual Pesticide Safety Trainings** (required by CA law. Contractors (non-City staff) working on City properties are welcome on a space-available basis.). For pesticide licensing information, see this [CA Dept. of Pesticide Regulation](#) page.
- b) **Let [your Dept. IPM Coordinator](#) know before you use pesticides.**
- c) **Only use SF Reduced-Risk Pesticides** (page 8, updated annually). Do not use pest control devices without first checking with the IPM Coordinator.

Follow **Pesticide Restrictions for Red-Legged Frog Habitat** (page 6)

d) Your Dept. IPM Coordinator must [request an exemption to use a pesticide that is:](#)

- i) Not a SF Reduced-Risk Pesticide (page 8) –OR–
- ii) Is a SF Reduced-Risk Pesticide but your needs are different than what's in the *Use Limitations column*.

Allow at least 2 days for your request to be processed. SF Dept. of Environment (SFE) will only grant exemptions in cases of well-documented need for the pesticide and when all other alternatives have been tried or deemed impractical –OR– for trial use of new reduced risk products.

If SFE approves your exemption, the City Department involved must justify the pesticide at the annual public hearing.

Questions? Contact Chris.Geiger@sfgov.org and call 415-355-3759.

e) **Post the area to be treated** – [Pesticide notice \(English\)](#) ([Chinese](#)) ([Spanish](#))

Situation	How to post that notice
Least Hazardous (Tier III) pesticide (starting page 8)	Post the day of application.
More or Most Hazardous (Tier I and II) pesticide (starting page 8)	Post at least 3 days before application and for at least 4 days after.
Enclosed area	Post at every entry point of application
Open area	Post in highly visible locations around the perimeter.
Rights-of-way (e.g., medians)	No posting required but follow this Checklist.
Bait	Post permanently: <ul style="list-style-type: none">• In each building or vehicle where baits are used - OR -• At the City Dept. main office or where the public gets info on the building or vehicle - OR -• In the obvious outside area of the bait application.
Emergencies: Pest outbreak that poses immediate threat to public health - OR - Compliance with worker safety requirements - OR Significant economic damage if SF Reduced-Risk Pesticide was used (page 8)	Before using emergency pesticide, your IPM Coordinator must fill out a Pesticide Exemption Request . Post at the time of application and for at least 4 days after.

f) **If the public has pest control questions or complaints on City properties, ask them to:**

- For complaints about the following, contact [SFDPH](#):
 - Mosquitoes: (415)252-3806
 - Rodents or overgrown vegetation: (415)252-3805
 - call 311 or staff on this site: tinyurl.com/SF-pest-control-PR-staff
 - For other concerns or violations of the SF IPM Program, [let SF Environment know](#).

g) Make sure your Dept. IPM Coordinator reports all pesticides used by staff or contractors.

[Enter data monthly to the online Pesticide Use Reporting System](#) (PURS) (tinyurl.com/pesticide-use-report). It goes to SF Dept. of Environment. You can print and send it to the County Agricultural Commissioner.

To get trained on PURS, contact Chris.Geiger@sfgov.org, 415-355-3759.

4. [Sign up for emails:](#)

- Get updates on new products
- Be invited to trainings, or meetings to tell us pesticides that work.

5. Attend monthly SF IPM Technical Advisory Committee (TAC) meetings:

- ✓ **IPM TAC meetings are free and open to the public.**
- ✓ **Why attend?**
 - Help set the City's IPM priorities
 - Suggest / remove products in the SF Reduced-Risk Pesticide List (*page 8 in this packet*)
 - Network with City pest control staff
 - Get trained in the latest IPM practices (*i.e., using compost teas, controlling ants*)
 - Get Continuing Education Units.
- ✓ **Who must attend:**
 - **IPM Coordinators from these SF City Departments:** Public Health, Metropolitan Transportation Agency, Port, Recreation and Parks, Public Utilities Commission, Public Works, SF International Airport.
 - **Citywide Structural Pest Control Contractor** ([Pestec](#)) serving City Departments

6. For empty containers that held pesticides (hazardous material), you must:

1. **Triple rinse them:** Use the rinsate in your next pesticide application. See this [short video to rinse jugs and drums](#). Do not rinse it down any drain, or outdoor surface.
2. **Recycle them** (unless it's a bag, pouch or fiber drum):
 - In San Francisco, cut each 5-15 gallon jug into quarters. Cut each 15+ gallon jug into eighths. Put them in the recycling bin.
 - For places anywhere in the U.S., drop-off at, or get a pickup from acrecycle.org.

(Source: Recology and California Code of Regulations Title 22, Section 66261.7)

7. To safely dispose non-empty containers, San Francisco:

- [City staff should post this sign](#) and [schedule a pickup](#).
- [Residents and businesses should check this out](#).

Rodenticides: Site-Specific Limitations

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.

Only use rodenticides in the SF Reduced-Risk Pesticide List, not explosive devices.

To use other rodenticides, [apply for an exemption](#).

DEFINITIONS:

- Landscaped area:** area under cultivation
- Natural area:** parklands (including any lightly managed grasslands, scrub or woodlands) with significant wildlife concern
- Primary poisoning:** Non-target animal eats poison directly
- Secondary poisoning:** Non-target animal eats poisoned target animal as prey
- Single-feed baits:** Baits with bromodialone & bromethalin active ingredients.

General Site Description	Allowed Use of Rodenticides in SF Pesticide List
Inside of sewers or sewage treatment facilities:	Baits must be secured either inside the sewer or inside a bait box. Single feeding baits acceptable. Monitoring with non-toxic baits encouraged.
Commercial enterprises (such as restaurants) on leased City lands	Trapping only; single-feed rodenticides allowed as a last resort only for public health & safety considerations.
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. No single-feed baits.
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 pellets or single-feed rodenticides.</i>
Landscape not adjacent to a natural area	Bait placed deep inside burrows, minimize use of pellets, mouse sized pellets only, must be buried deep in the burrow. No single-feed baits.
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. No use of pellets or single feeding rodenticides.

Restrictions on “most hazardous” (Tier I) herbicides for the 2016 San Francisco Reduced Risk Pesticide List

Approved by the San Francisco Commission on the Environment March 22, 2016

Background

In light of the re-categorization of glyphosate as Class 2A “probably carcinogenic in humans” by the International Agency for Research on Cancer (IARC), a consortium of San Francisco Bay Area public agencies developed a general “Policy on the Safe Use of Herbicides” in 2015. The restrictions in this document are based on that policy, and apply only when herbicides categorized as “most hazardous” are used on City-owned properties. In some cases, the allowed uses listed below may be pre-empted by the US EPA label language for the product in question.

The Reduced Risk Pesticide List limitations for individual products may refer to this language, and in some cases the permitted uses for a specific product may be more restrictive. These restrictions apply only to most hazardous herbicides, defined here as herbicide products rated as “Tier I” using San Francisco’s Pesticide Hazard Screening Protocol. *All other uses of most hazardous herbicides require an exemption granted by the San Francisco Department of the Environment.*

Conditions of use for “most hazardous” herbicides

General requirements

1. All treated areas must be clearly noticed, marked and identifiable for four days after the treatment. Blue indicator dyes must be used for spray treatments.
2. Contractors must be fully briefed and trained in the City’s San Francisco IPM program’s ordinance, requirements and policies.
3. Beginning six months from the adoption of these restrictions, any application of ‘most hazardous’ systemic 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.

General prohibitions:

4. No use for purely cosmetic purposes, including turf areas as well as other managed landscapes.
5. No use within 15 feet of designated, actively maintained public paths.
6. No broadcast spraying is permitted, except for targeted treatments at Harding Park golf course in preparation for tournament play.
7. No use on the grounds of schools, preschools, children’s playgrounds, or other areas frequented by children.
8. No use within buffer zones (generally 60 feet) around water bodies designated as red-legged frog habitat. Pesticide use in California red-legged frog habitat will be limited as described in the California Red-legged Frog Stipulated Injunction.
9. No use on blackberry (*Rubus*) plants when fruits are present.

Allowed uses (only as method of last resort):

10. Airport runways falling under FAA regulations.
11. Utility rights of way and watershed lands falling under state or federal vegetation management requirements.
12. Cases judged by City pest management professionals as posing a significant public safety, public health or fire risk, for example, poison oak along popular trails or resprouting trees that constitute a fire hazard.

If such treatments are necessary within 15 feet of a designated public path, a physical barrier must be erected around the treated area.

13. Landscape renovations, provided that weed prevention measures are put in place and the treated area is fenced off for four days after treatment.
14. Invasive species that pose a threat to local, native, rare, threatened or endangered species or ecosystems, and which cannot be controlled by other means, except as prohibited under the General Prohibitions section above.
15. Street median strips in situations where alternative control measures pose safety risks to applicators or the public



San Francisco Reduced-Risk Pesticide List for City Properties

How to Use this List

The following list includes pesticide products approved for use under the SF Integrated Pest Management (IPM) Ordinance (adopted 10/96, Chapter 3, SF Environment Code).

This pesticide list should not be used in place of an IPM program. Pesticides should be the last resort, when all other tactics have failed (i.e., sanitation improvements, pest prevention, non-chemical management measures).

This list is for institutions, not for homes. Many pesticides on the list were added for specialized purposes not found in residential settings. To find out how homeowners can use few or no pesticides to manage common pest problems, visit: SFApproved.org/420-Pest-Management.

City Dept. staff or contractors: Apply for exemption to use a pesticide that is:

- ✓ **Not** in the SF Reduced-Risk Pesticide List –OR–
- ✓ **In** the SF Reduced-Risk Pesticide List **but used differently than described** in the *Pesticide Limitations column*.

The IPM Coordinator for your City Dept. must:

1. **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
 - c. More questions? Contact Chris.Geiger@sfgov.org and call 415-355-3759.
2. **Justify your use of a pesticide at an annual public hearing**, if you used a pesticide:
 - a. That SF Dept. of Environment approved for exemption
 - b. That is higher risk and listed as *Most Limited Use* in the SF Reduced-Risk Pesticide List

For more info on how SF's reduced-risk pesticide list was developed, visit: SFApproved.org/pest-control-for-city

2016 San Francisco Reduced-Risk Pesticide List

for City-owned properties

Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
GENERAL USE PESTICIDES						
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	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 oaks (<i>Quercus</i> spp.) susceptible to Sudden Oak Death, or in experiments with Sudden Oak Death control. When labelling permits, use on an experimental basis for Anthracnose control on sycamores.
Alligare Rotary 2 SL	Herbicide	81927-6	Imazapyr, isopropylamine salt 28%	More hazardous (Tier II)	More Limited	For weeds in rights of way, or invasive species in natural areas where other alternatives are ineffective, especially for invasive legumes and composites such as yellow star thistle and purple star thistle.
Aquamaster (Roundup Custom) Herbicide	Herbicide	524-343	Glyphosate, isopropylamine salt 53.8%	Most hazardous (Tier I)	Most Limited	Subject to "Limitations on most restricted herbicides" Other limitations: For aquatic uses, use for emergent plants in ponds, lakes, drainage canals, and areas around water or within watershed areas.
Avenger	Herbicide	82052-1	d-Limonene 60%	Least hazardous (Tier III)	More Limited	Burndown herbicide. Not for use near water.
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.
Bacillus thuringiensis insecticides (excluding mosquito control)	Insecticide	Various	<i>Bacillus thuringiensis</i> (various subspp.)	Least hazardous (Tier III)	Least Limited	
BestYet Cedarcide	Insecticide	exemptprod- 009	Cedarwood oil, amorphous silica	Least hazardous (Tier III)	Least Limited	
Bond Spreader- Sticker	Adjuvant	34704- 50033	Synthetic carboxylated latex 50%, primary aliphatic oxyalkylated alcohol 10%	Least hazardous (Tier III)	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.
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.
Critter Ridder	Mammal repellent	50932-10	Oil of black pepper 0.48%	Least hazardous (Tier III)	Least Limited	
Debug Turbo	Nematicide	70310-5	Fats & glyceridic oils margosa 65.8%, azadirachtin 0.7%	More hazardous (Tier II)	Least Limited	

2016 San Francisco Reduced-Risk Pesticide List
for City-owned properties

Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
Detour	Mammal repellent	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%	Least hazardous (Tier III)	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.
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	Herbicide	67702-26	Iron HEDTA 26.52%	Most hazardous (Tier I)	More Limited	
Garlon 4 Ultra	Herbicide	62719-527	Triclopyr, butoxyethyl ester 60.45%	Most hazardous (Tier I)	Most Limited	Subject to "Limitations on most restricted 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
Gentrol Point Source Roach Control Device	Insecticide	2724-469	Hydroprene 96%	Least hazardous (Tier III)	Least Limited	
Habitat	Herbicide	241-426	Imazapyr, isopropylamine salt, 28%	More hazardous (Tier II)	More Limited	Preferred alternative to triclopyr for use on invasive weeds in natural areas, such as broom, Cotoneaster, or Arundograss. USE UP EXISTING STOCK - REPLACE WITH POLARIS
Intice Thiquid Ant Bait	Insecticide	73079-7	Borax, 5%	Most hazardous (Tier I)	Least Limited	
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
Maxforce FC Professional Insect Control Ant Bait Stations	Insecticide	432-1256	Fipronil 0.01%	More hazardous (Tier II)	More Limited	Not for use in outdoor areas with potential rain exposure
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
Milestone	Herbicide	62719-519	Aminopyralid, triisopropylamine salt (5928) 40.6%	More hazardous (Tier II)	More Limited	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.
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	Preferred alternative to triclopyr for use on invasive weeds in natural areas, such as broom, Cotoneaster, or Arundograss.
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. Wear protective equipment. Potential aquatic hazard - do not apply directly to water.

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for City-owned properties

Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
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	For use only on airport operational areas subject to FAA requirements.
Pentrabark	Adjuvant	83416-50001	Polyalkyleneoxide modified heptamethyltrisiloxane	Least hazardous (Tier III)	More Limited	
Prescription Treatment Brand Perma-Dust	Insecticide	499-384	Boric acid 35%, petroleum distillates-hydotreated 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 Formula 1	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 Promax Herbicide	Herbicide	524-579	Glyphosate, isopropylamine salt 48.7%	Most hazardous (Tier I)	Most Limited	Subject to "Limitations on most hazardous herbicides" Use of Aquamaster + Competitor is preferred except in situations where rainfastness is needed.
Shake-Away Coyote Urine Repellant 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	For invasive species in natural areas where other alternatives are ineffective, especially for invasive legumes and composites such as yellow star thistle and purple star thistle. USE UP EXISTING STOCKS
Terro Ant Killer II, Terro Ant Killer II Liquid Ant Baits, Terro-PCO Liquid Ant Bait	Insecticide	149-8	Sodium tetraborate decahydrate 5.4%	Most hazardous (Tier I)	Least Limited	
GOLF PRODUCTS						
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
Lontrel Turf and Ornamental Herbicide	Herbicide	62719-305	Clopyralid, 40.9%	More hazardous (Tier II)	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.
Nufarm Quinclorac SPC 75 DF Herbicide	Herbicide	228-592	Quinclorac, 75%	More hazardous (Tier II)	More Limited	For use on Harding Park/Fleming golf courses only in preparation for tournament play. USE UP EXISTING STOCKS.
Primo Maxx	Growth regulator	100-937	Trinexapac-ethyl 11.3%, tetrahydrofurfuryl alcohol (THFA)	Most 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	For use on Harding Park/Fleming golf courses only in preparation for tournament play.
Sapphire	Herbicide	62719-547	Penoxsulam	More hazardous (Tier II)	More Limited	Only use on City-owned golf courses in preparation for major golf tournaments.

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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)
Tourney	Fungicide	59639-144	Metconazole, 50%; Silica-crystalline quartz	Most hazardous (Tier I)	More Limited	For management of pink snow mold (<i>Microdochium nivale</i>) 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 "Limitations on most restricted herbicides". Targeted treatment of golf course turf. HIGH PRIORITY TO FIND ALTERNATIVE.

VECTOR CONTROL PRODUCTS

Agnique MMF-G	Mosquito control - other	53263-30	Poly(oxy-1,2-ethanediyl),alpha-isodecyl-omega-hydroxy-phosphate 32%	More hazardous (Tier III)	More Limited	Use for late instar mosquito larvae and pupae, in combination with microbial products. DISCONTINUING - 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 pupicide 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.
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.
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.
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 is 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](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,

San Francisco Department of the Environment Factsheet
**California Red-Legged Frog (CRLF), *Rana aurora draytonii*,
Stipulated-Injunction Regarding Pesticide Use in Critical Habitat**

Reference US-EPA website: <http://www.epa.gov/espp/litstatus/redleg-frog/rif.htm>

Updated 1/1/09

Legal Action & the Stipulated Injunction

On April 2, 2002 the Center for Biological Diversity filed a lawsuit against the EPA for violating the Endangered Species Act by failing to ensure that EPA's registration of 66 pesticides do not adversely affect the California red-legged frog (a threatened species native to California).



California Red-Legged Frog, *Rana aurora draytonii*, note the characteristic red skin fold (arrow) running from the eyes to the tail. Photo courtesy of www.californiaherps.com

To resolve the case, on October 20, 2006 the Courts issued a Stipulated Injunction. It requires EPA to determine the effects of 66 pesticide AIs (Active Ingredients) on the California Red-Legged Frog (CRLF) and to amend the labels and use restrictions based on their findings. The US-EPA has 36 months to evaluate all 66 of the AIs.

In the interim, restrictions are in place on the use of products containing the 66 AIs.

The injunction can be viewed at:

<http://www.epa.gov/espp/litstatus/stipulated-injunction.pdf>

Affected Areas:

This ruling affects areas in 32 California Counties, including San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, and counties containing SF rights-of-way up to Hetch-Hetchy Reservoir. Detailed county maps can be found on-line at:

<http://www.epa.gov/espp/litstatus/redleg-frog/steps-info.htm> (Click on the County of interest)

How Does This Affect You?

If you plan to use one of the 66 AIs listed at the end of this factsheet, visit the map link above to see if your site is located in either critical or non-critical habitat. If it is, here is a summary of how your applications are affected (restrictions are the same for critical and non-critical habitat).

- All still or slow-moving fresh-waterbodies in affected areas – natural and man-made, permanent and temporary – are considered habitat and are subject to the restrictions.
- Ground Applications: Do not apply products with listed AIs in the water, in the 200-foot upland habitat surrounding the water, or in the 60-foot buffer zone around the upland habitat. That amounts to a **260-foot zone around any water body in affected areas**. Aerial applications: observe a 200-ft buffer around the 200-ft upland habitat area.
- Upland habitat includes all areas within 200 feet of the mean high water mark where the frog can find shelter, refuge from predators, or rest, and includes rocks, organic debris, small mammal burrows, moist leaf litter or manmade features.
- Your application is subject to a **reduced buffer zone of only 60 feet** (200 foot upland habitat zone does not apply) for the following uses: Localized spot treatments using handheld devices on rights-of-way, roadsides, **pastures, lawns, or forests**; spot treatments of wasp and hornet nests; individual tree removal using cut stump applications; basal bark application to individual plants; use of pesticides in bait stations.

Products Affected for San Francisco Staff:

Pesticides in the injunction that are on the SF Reduced Risk Pesticide List are those containing glyphosate (Roundup & Rodeo®), imazapyr (Habitat®) and triclopyr (Turflon Ester® & Garlon 4®). Methoprene (Zoecon Altosid products) is no longer covered by this injunction; the USEPA has determined that it has no effect on red-legged frog populations. The Reduced-Risk Pesticide List limits pesticide use only on properties of the City & County of San Francisco.

Exceptions:

This injunction does not apply to public-entity-administered vector control programs.

It does not apply to the control of state-designated invasive species or noxious weeds if:

- You are applying for a public entity program
- Application is at least 15 feet from waterbodies described above
- Application is limited to localized spot treatments with a hand-held device
- No precipitation is forecast within 24 hours
- You are a certified applicator or under the direct supervision of a certified applicator

View USDA's Calif. invasive & noxious plant list:

<http://plants.usda.gov/java/noxious?rptType=State&statefips=06TH>

View CDFA's weed list:

http://www.cdfa.ca.gov/phpps/ipc/noxweedinfo/noxweedinfo_hp.htm#TH

The injunction also does not apply to indoor applications, tree injection applications, home-owner applications to potted plants, flea & tick collars for dogs and cats, where use is approved under the Endangered Species Act.

Biology of the California Red-Legged Frog

The CRLF is the largest native frog in California. It is highly aquatic and is usually found in streams, ponds, coastal drainages and their adjacent habitat. The frog will make use of cool moist burrows, leaf litter, and other land retreats to keep cool and to avoid dehydration, especially in the summer. In cooler inland areas burrows are used for hibernation.

CRLF can reach over 5 inches long and is brown to reddish-brown above with irregular black spots (sometimes with light centers). Prominent skin folds along both sides run from the eyes to the tail. The undersides of their legs, and sometimes the abdomen, are red in adults (red color may not be well developed in juveniles). CRLF is distinguished from the bullfrog by its lack of green color, characteristic of the bullfrog.

The CRLF is active in coastal areas all year. During their tadpole stage they eat algae. Adults typically eat land invertebrates (insects, etc.) but larger frogs will prey on the Pacific tree frog (*Hyla regilla*) and on California mice (*Peromyscus californicus*). Feeding occurs largely along the shoreline and on the water surface.

Breeding occurs November through March, varying throughout their range. Egg-laying usually occurs in late winter or early spring, often following a heavy rain. The female deposits her 2,000- to 5,000-egg masses on newly emerged aquatic

vegetation near the surface of the water. Eggs hatch in 6 to 14 days. The tadpoles undergo metamorphosis at 3 ½ to 7 months after hatching and reach sexual maturity at 3 to 4 years old. The frogs generally live from 8 to 10 years.

Pesticides Banned in Habitat Areas-Full List

The 66 pesticides cited in the injunction are:

2,4-D (broadleaf herbicide), Acephate (Orthene®), Alachlor, Aldicarb, Atrazine, Azinphos-methyl, Bensulide, Bromacil, Captan, Carbaryl (Sevin®), Chloropicrin, Chlorothalonil (Daconil®), Chlorpyrifos (Dursban®), CDPA, DEF, Diazinon, Dicofol, Diflubenzuron, Dimethoate, Disulfoton, Diuron, Endosulfan, EPTC, Esfenvalerate, Fenamiphos,



CRLF egg masses in Alameda County.

Photo courtesy of www.californiaherps.com

Glyphosate (Roundup®, Rodeo®), Hexazinone, Imazapyr, Iprodione, Linuron, Malathion, Mancozeb, Maneb, Metam Sodium, Methamidophos, Methidathion, Methomyl, Methoprene, Methyl Parathion, Metolachlor, Molinate, Myclobutanil, Naled, Norflurazon, Oryzalin (Surflan®), Oxamyl, Oxydemeton-methyl, Oxyfluorfen, Paraquat dichloride, Pendimethalin, Permethrin, Phorate, Phosmet, Prometryn, Pronamide, Propanil, Propargite, Rotenone, Simazine, Strychnine, Telone, Thiobencarb, Triclopyr (Garlon 4®, Turflon Ester®), Trifluralin (Treflan®), Vinclozolin, and Ziram.

NOTE: Some of these active ingredients (notably methoprene) have since been determined to have “no effect” on frog populations, and pending consultation with the USFWS are expected to be no longer subject to the injunction’s restrictions. See the “effects determinations” for details:

<http://www.epa.gov/espp/litstatus/effects/redleg-frog/index.html>