

San Francisco Department of the Environment - Integrated Pest Management Program

Pesticide exemption requests

KEY: Hazard Category: \* = highest hazard, \*\*\* = lowest, / = insufficient data

Pest type: I=insecticide, F=fungicide, H=herbicide, R=rodenticide, A=avicide, M=molluscicide

Date Requested	Name	Dept	Product Requested	Active Ingredient	EPA Reg #	Pest	Area of Proposed Use	Justification	Efforts to find alternatives	Pest prevention strategy	Status	Rev By	Limitations	Haz Categ	Comments
3/1/2007	Don Thomas	PUC	Milestone Specialty Herbicide	aminopyralid	62719-519	Yellow starthistle	PUC watershed lands - sensitive sites	Yellow starthistle is the most wide-spread invasive exotic plant in the western United States, occupying at least 10 million acres of agricultural and range land in California. In the Peninsula Watershed it has invaded serpentine grassland and other sensitive habitats. Through competition for soil moisture and other resources, it is displacing native perennial bunchgrasses and other native plants. In 2006, the San Francisco Department of Environment granted an exemption from the Reduced Risk Pesticide List for Transline for use in restoring degraded serpentine grassland that had been invaded by yellow star thistle. (See the attached 2006 Transline exemption request and exemption authorization.) Under this exemption, Transline was applied in May 2006 to control yellow starthistle in the Edgewood Triangle, an area of serpentine grassland habitat with a number of rare endemic plants. This spray application was successful in selectively controlling the yellow starthistle, while causing no significant damage to native forbs, such as tarweeds. Milestone Herbicide (aminopyralid) is a newly registered herbicide similar to Transline (chlopyralid) in chemical structure.	The PUC uses an integrated approach to the management of yellow starthistle. This involves the use of a number of alternatives to herbicides, including manual removal, mowing, grazing and burning. Though all of these have applications in certain circumstances, they also have some disadvantages. Manual removal is difficult, because of the sharp spines covering the plants, and is very time-consuming and labor-intensive. Mowing and grazing are non-selective and may have negative impacts on native serpentine plants. Burning is also non-selective and usually poses unacceptable risks of wildfire danger in grassland, brush and woodland areas. Given these limitations, chemical control is sometimes the only practical means for controlling yellow starthistle in serpentine grassland. Of available herbicides, the principal alternative to Milestone is Transline. Others, like glyphosate and triclopyr, are either less selective or have less favorable environmental qualities, such as developmental effects on amphibians. Milestone is very selective for certain	The most important preventative strategy used by the PUC is to remove pioneer plants and limit the outward expansion of infestation in the Watershed. This is done by manually removing individual plants, mowing roadsides and spraying isolated groups of plants. The strategy that will be most successful in reducing the likelihood of needing further exemptions is the establishment of biological control agents that will reduce seed production and seed spread. The PUC has been an active participant, along with the San Mateo County Agricultural Commissioner's Office and California Department of Food and Agriculture, in introducing biological controls for yellow starthistle. Biological control agents currently established in San Mateo County include the bud weevil ( <i>Bangasternus orientalis</i> ), the hairy weevil ( <i>Eustenopus villosus</i> ), the seedhead gall fly ( <i>Urophora sirunaseva</i> ) and the false peacock fly ( <i>Chaetorellia succinea</i> ). Efforts to establish the flower weevil ( <i>Larinus curtus</i> ) and the peacock fly ( <i>Chaetorellia australis</i> ) so far have not been successful. Most recently, the PUC has cooperated	APPROVED	Chris Geiger	Pilot test on very small scale	*	Approved verbally early on due to PUC work schedule
3/1/2007	Don Thomas	PUC	Transline	Clopyralid	62719-259	Yellowstar Thistle	2001 test area on Canada Road	Yellow starthistle is the most wide-spread invasive exotic plant in the western United States, occupying at least 10 million acres of agricultural and range land in California. In the Peninsula Watershed it has invaded serpentine grassland and other sensitive habitats. Through competition for soil moisture and other resources, it is displacing native perennial bunchgrasses and other native plants. Transline (clopyralid) is a translocated herbicide that selectively controls composites and a few other groups of broadleaf plants. It is very effective at removing yellow starthistle from degraded serpentine grassland. A test of Transline was conducted by the PUC in the Watershed in March 2000 in degraded native serpentine grassland in which yellow starthistle and annual grasses had replaced native bunchgrasses and forbs. It was found that the percent cover of yellow starthistle in the treatment area was reduced from 47% before the test to only 0.29% after the test. In a second test conducted in 2001 in another location with degraded serpentine grassland, it was found that the percent cover of yellow starthistle was reduced from 47% before the test to only 0.29% after the test.	The PUC uses an integrated approach to the management of yellow starthistle. This involves the use of a number of alternatives to herbicides, including manual removal, mowing, disking, grazing and burning. Though all of these have applications in certain circumstances, they also have disadvantages. Manual removal is difficult, because of the sharp spines covering the plants, and is very time-consuming and labor-intensive. Mowing and grazing are non-selective and may have negative impacts on native serpentine plants. Burning is also non-selective and usually poses unacceptable risks of wildfire danger in grassland, brush and woodland areas. A weed torch may be a useful alternative to the application of a non-selective contact herbicide, but in wildland areas its use is limited rainy periods during the winter. Given these disadvantages, use of herbicides is sometimes the only practical method of controlling yellow starthistle. Among the herbicides presently on the SFE list of reduced risk pesticides, the principal alternatives to Transline are Roundup Pro (glyphosate), Scythus (trifluralin) and	The most important preventative strategy used by the PUC is the removal of pioneer plants and the limiting of the outward expansion of infestations in the Watershed. This is done by manually removing individual plants, mowing roadsides and spraying isolated groups of plants. The strategy that will be most successful in reducing the likelihood of needing further exemptions is the establishment of biological control agents that will reduce seed production and seed spread. The PUC has cooperated with the San Mateo County Agricultural Commissioner's Office and California Department of Food and Agriculture in efforts to introduce biological controls for yellow starthistle. In June 1993 and in July 1994, releases were made of the bud weevil ( <i>Bangasternus orientalis</i> ) to two new areas in the Watershed. Biological control agents currently established in San Mateo County include the bud weevil, the hairy weevil ( <i>Eustenopus villosus</i> ), the seedhead gall fly ( <i>Urophora sirunaseva</i> ) and the false peacock fly ( <i>Chaetorellia succinea</i> ). Efforts to establish the flower weevil ( <i>Larinus curtus</i> ) and the peacock fly ( <i>Chaetorellia australis</i> ) so far have not been successful. Most recently, the PUC has cooperated	APPROVED	Chris Geiger	Continue prevention strategies listed. Use Transline ONLY on serpentine grasslands in areas without significant leaching potential, where nonchemical methods are impractical.	*	

EXEMPTION REQUESTS

Comments	Haz Categ	Limitations	Rev By	Status	Rest prevention strategy	Efforts to find alternatives	Justification	Area of Proposed Use	Pest	EPA Reg #	Active Ingredient	Product Requested	Dept	Name	Date Requested
Try other techniques/products for English Daisy first. Wait until closer to tournament			Chris Geiger	DENIED	To eradicate English daisies to prevent future u	THE REC AND PARK DEPARTMENT IS DEDICATED TO USING EVERY ALTERNATIVE TO PESTICIDE APPLICATIONS.	Fleming Course 7&8 fairways only	Fleming Course 7&8 fairways only	English daisies	2217-833	Carfentrazone-ethyl, 2,4-D 2-ethylhexyl ester, mecoprop-p acid, dicamba acid	Speedzone	Rec&Park	Phil Rossi	3/19/2007
Still no viable alternative for control of this weed.	*	Time limitations as noted. Explore new alternatives to reduce use of dicamba	Chris Geiger	APPROVED	Improving cultural methods to naturally thicken turf, which will exclude the weed from remaining a problem. Increased aeration. Increased use of balanced and organic based fertilizers. Addition of organic materials as top-dressing to fairways and roughs. Increased hand weeding and overseeding practices.	THE REC AND PARK DEPARTMENT IS DEDICATED TO USING EVERY ALTERNATIVE TO PESTICIDE APPLICATIONS.	Harding/Fleming course	Harding/Fleming course	Soliva sessilis	100-884	dicamba	Vanquish	Rec&Park	Phil Rossi	3/19/2007
							NOT YET SUBMITTED	NOT YET SUBMITTED							
Continue other control methods to gauge effectiveness - apply for exemption if not effective	*		Chris Geiger	DENIED	Improving cultural methods to naturally thicken turf, which will exclude the weed from remaining a problem. Increased aeration. Increased use of balanced and organic based fertilizers. Addition of organic materials as top-dressing to fairways and roughs. Increased hand weeding and overseeding practices.	THE REC AND PARK DEPARTMENT IS DEDICATED TO USING EVERY ALTERNATIVE TO PESTICIDE APPLICATIONS.	Fleming Course	Fleming Course	Kikuyu grass	7969-130	quinclorac	Drive	Rec&Park	Phil Rossi	3/20/2007

Date Requested	Name	Dept	Product Requested	Active Ingredient	EPA Reg #	Pest	Area of Proposed Use	Justification	Efforts to find alternatives	Pest prevention strategy	Status	Rev By	Limitations	Haz Categ	Comments
5/3/2007	Maxwell Chikere	DPH-Laguna Honda	Top Gun All-Weather Bait Block	Bromethalin	67517-66-56	Rats, mice	M & N Wards, Laguna Honda Hospital	New construction around the hospital has increased the pressure of rodents on the building. As such mice have been continually trapped and removed from various wards in the hospital and pose a health hazard. [CG: very difficult to do mass trapping due to the nature of patients and their constant presence in the wards. Sanitation is also a challenge for the same reasons. State inspector coming)	Extensive rodent proofing repairs have been made inside by hospital staff to reduce rodent movement within the buildings. A project to rodent proof the outside of the building has been approved by the hospital administrators and is currently underway (by Pestec). Inspections and monitoring with mouse traps is done daily. Several rounds of mass trapping have been carried and an additional more extensive round is being carried out today in the affected wings. Hospital staff have been provided a detailed inspection report including recommendations for sanitation.	The rodent proofing of the main hospital will be completed by: May 7th, 2007. Daily inspections and monitoring with mouse traps will be continue being provided as well as sanitation reports. The rodent proofing of Clarendon hall will be completed by: June 1st, 2007.	APPROVED	Chris Geiger	Locked bait boxes in the immediate perimeter of the building only. One month limit.	*	APPROVED BY DPH (Helen Zverina). Notified Laguna Honda that they must establish a complaint system that includes precise information on location of pests. NOT USED.
5/3/2007	Maxwell Chikere	DPH-Laguna Honda	Quintox	Cholecalciferol	12455-57	Mice	M & N Wards, Laguna Honda Hospital	New construction around the hospital has increased the pressure of rodents on the building. As such mice have been continually trapped and removed from various wards in the hospital and pose a health hazard. [CG: very difficult to do mass trapping due to the nature of patients and their constant presence in the wards. Sanitation is also a challenge for the same reasons. State inspector coming)	Extensive rodent proofing repairs have been made inside by hospital staff to reduce rodent movement within the buildings. A project to rodent proof the outside of the building has been approved by the hospital administrators and is currently underway (by Pestec). Inspections and monitoring with mouse traps is done daily. Several rounds of mass trapping have been carried and an additional more extensive round is being carried out today in the affected wings. Hospital staff have been provided a detailed inspection report including recommendations for sanitation.	The rodent proofing of the main hospital will be completed by: May 7th, 2007. Daily inspections and monitoring with mouse traps will be continue being provided as well as sanitation reports. The rodent proofing of Clarendon hall will be completed by: June 1st, 2007.	APPROVED	Chris Geiger	Exemption applies only if contractor deems trapping effort as unsuccessful. One-time only application, with stipulation that all bait should either be in a tamper-resistant, fixed bait box or in areas completely inaccessible to hospital residents.		APPROVED BY DPH (Helen Zverina). Notified Laguna Honda that they must establish a complaint system that includes precise information on location of pests. Active ingredient previously reviewed - would be Tier 1 product.
5/24/2007	Phil Rossi	Rec&Park	Generation Mini-Blocs	Difethalione	7173-218	Rats	N side of SF Public Library - Main Branch	Active rat burrows reported in tree wells under four Sycamore trees on Fulton St. along the Main Library landscape. Potential infestation could pose threat to public safety and health.	THE REC AND PARK DEPARTMENT IS DEDICATED TO USING EVERY ALTERNATIVE TO PESTICIDE APPLICATIONS.	Would treat burrows and monitor for a limited time period.	DENIED	Chris Geiger		*	Did site visit. Requested that Rec & Park first clean up garbage, plug up holes with new decomposed granite and tamp down. Consider other barrier techniques (buried hardware cloth?) If not effective, revisit exemption.

Comments	Previously had similar product on our list	Previously requested for India Basin. Attempted tarping instead of spraying on small stand. Not successful - potential for greater environmental impact from the tarps
Hazz Categ	***	*
Limitations		Notify SFE if other nearby areas are slated for treatment
Rev By	Chris Geiger	Chris Geiger
Status	APPROVED	APPROVED
Pest prevention strategy	Two month time frame requested to control rodents in specific location.	The invasive hybrid Spartina at this site will be treated at a low or receding tide to allow for full exposure and coverage of the plants, and at least 4 hours of dry time. A surfactant that is safe for the estuarine environment (a methylated vegetable oil) will be used to help the herbicide spread evenly over the plant, and to help penetration of the thick cuticle of the cordgrass leaves. Contractors working for the invasive Spartina Project partners receive annual training in proper herbicide calibration techniques to insure that the appropriate application rates are being utilized, both to achieve high efficacy with the lowest possible number of applications as well as to comply with the maximum label rates for Habitat and to limit the amount of herbicide entering the environment.
Efforts to find alternatives	This is a biological fungicide and a safer alternative to the public than anything currently approved.	Before any invasive Spartina control work occurred under the ISP, all potential methods of control were evaluated for CEQA compliance and for the Programmatic EIR, and were also scrutinized in the USFWS Section 7 Impact Statement and Biological Opinion on impacts to endangered species. The alternative method of tarping or covering on smaller infestations with variable success, including the Pier 94 Heron's Head infestation just north of India Basin. This method is not recommended at areas of high use such as India Basin, and areas with a high potential for vandalism, because it is common for the tarp to be removed and the control potential compromised. The Heron's Head infestation is still present after at least 4 years of manual removal methods, and it was much smaller than the existing India Basin site. Digging and disposal is not a feasible option for such a large area (over 7000 sq ft), and is far more detrimental to the integrity of the shoreline than limited herbicide application by licensed contractors. TESTS
Justification	Looking for both cure and preventative for fungal diseases, particularly Entromosporum leaf spot on Raphiolepis indica.	Even small infestations of invasive hybrid Spartina are very difficult to control by tarp covering in the high wave energy environment of San Francisco Bay. Tarps must stay in place for a minimum of one year to be effective. However, the infestation at India Basin now totals 682 sq meters (over 7000 sq ft) at 80-90% cover. The ISP's impact evaluation for the Programmatic EIR have shown that the use of an approved aquatic herbicide formulation is the least impactful method of control in this case, with the highest efficacy and efficiency. Digging or covering at this scale have direct impacts to the target plant (because it is of very low toxicity to fish and aquatic invertebrates, as well as birds and mammals including humans.) Imazapyr applications are very effective on hybrid Spartina, with efficacy in Year 1 of 75-95% depending on site conditions.
Area of Proposed Use	Mission Bay, Yerba Buena	India Basin
Pest	Looking for both cure and preventative for fungal diseases, particularly Entromosporum leaf spot on Raphiolepis indica.	Hybrid <i>Spartina</i>
EPA Reg #	69592-19	241-426
Active Ingredient	Bacillus subtilis strain QST 713	Imazapyr
Product Requested	Rhapsody ASO	(BASF)
Dept	Gardeners Guild/Mission Bay	State Coastal Conservancy
Name	Daniel Levy	Drew Kerr
Date Requested	7/2/2007	8/20/2007

Date Requested	Name	Dept	Product Requested	Active Ingredient	EPA Reg #	Pest	Area of Proposed Use	Justification	Efforts to find alternatives	Pest prevention strategy	Status	Rev By	Limitations	Haz Categ	Comments
9/18/2007	Juan Carrasco, Bartlett Tree Experts	DPW	Subdue MAXX	metenoxam (metalaxy-m)	100-796	Pythium	Palm trees at 6th and Mission	Pythium root dieback.	All other IPM strategies are being employed including careful water management and fertilization. One of the palms has recently died and there are indications that others may die soon.	The palms will be monitored carefully and the above IPM strategies will continue to be employed.	APPROVED	Chris Geiger	Minimize potential for exposure to pedestrians.	*	Organized meeting of all personnel involved with planning, planting and maintaining the trees. Problems with root ball size on arrival, lack of accountability for tree shipment, poor irrigation system, and disappearance of soil from planting zone (probably into walled-off basement areas under the sidewalk). Plants tested positive for Pythium; large potential economic impact. Notified verbally our approval at meeting 9/17/07.
9/26/2007	Phil Rossi	Rec&Park	Primo	Trinexapac-ethyl	100-937	Poa annua	Roughs at Harding Park	To enable the Harding Park Course to crowd out Poa annua in the roughs, without using selective herbicide or pre-emergents. Only to be used at Harding course to thicken existing turf in the roughs and adjust growth heights of Poa growing in the rough. For use in roughs only.	THE REC AND PARK DEPARTMENT IS DEDICATED TO USING EVERY ALTERNATIVE TO PESTICIDE APPLICATIONS.	In preparation for the President's Cup Tournament	DENIED	Chris Geiger		*	Active ingredient is potential groundwater contaminant. Inert ingredient - Tetrahydrofurfuryl alcohol (THFA) - is developmental and reproductive toxin, with high persistence and mobility. Request applies only to lighter green appearance of roughs and would not affect play of the ball, however, the roughs cover significant acreage. Phil Rossi is requesting other suggestions.
10/25/2007	Stuart Dake	SFIA	Contract All-Weather Blox	Bromadiolone	12455-79-AA	Rats	Cart roads underneath buildings used by baggage handlers at SFIA	For use in our high risk rodent prone areas surrounding the Airport Terminals and other outbuildings. All baits are in tamper proof bait boxes and 99% of the bait boxes are in non public areas. There is very little to NO non target species such as raptors which could be affected by secondary poisoning at these locations.	Trapping using spring traps and glue boards, exclusion, habitat reduction and Sanitation techniques have reduced the amount of bait used by the Airports pest control provider (APM).	We will continue and step up our prevention program and the Airport will phase out the pest control contractor in the near future, giving the Airport more control over the use of baits, etc.	APPROVED	Chris Geiger	Use up existing stock of product only in areas that are not accessible to predators. Use spring traps when possible. Try bromethalin product as an alternative where single-feed rodenticide is considered necessary.	*	DPH APPROVED - HELEN ZVERINA

Comments	Notified verbally 12/1/07; email 1/3/08	Adjuvant with agrifos
Haz Categ	*	**
Limitations	For use only in habitat restoration of serpentine grasslands.	
Rev By	Chris Geiger	Chris Geiger
Status	APPROVED	APPROVED
Pest prevention strategy	See 3/1/07	
Efforts to find alternatives	See 3/1/07	
Justification	Like Transline, Milestone is a plant growth regulator herbicide with auxin-like qualities that selectively controls composites and a few other groups of broadleaf plants. Because of this selectivity, it can be used in sensitive habitats, where less selective herbicides would harm sensitive species. However, unlike Transline, Milestone has been registered by the U.S. Environmental Protection Agency as a Reduced Risk Pesticide, a category of pesticides with demonstrably lower risks to humans and the environment. This designation is based upon the following properties: Low use rates of only 3 to 7 fluid ounces per acre, compared to 10 to 21 fluid ounces per acre for Transline, resulting in less material being put out into the environment. Very low toxicity to birds, fish, mammals (including humans) and aquatic invertebrates. Breakdown into natural soil components. Surface water breakdown in less than 24 hours. Non-volatility, resulting in little danger to non-target plants. Ability to spray to the water's edge. Unlike triclopyr, glyphosate and other herbicides, aminopyralid does not have use restrictions in red-legged frog habitat.	There is currently no other treatment available to prevent the development of lethal bark cankers on coast live oak and tan oaks caused by <i>P. ramorum</i> . Alternative controls include sanitation practices that prevent spores from being carried to other parts of the Watershed and selective thinning of bay trees, the most plants that act as vectors for the disease.
Area of Proposed Use	San Francisco watershed	
Pest	Yellow starthistle	Sudden oak death syndrome
EPA Reg #	62719- 519-AA	71962-50001-AA
Active Ingredient	aminopyralid	Nonionic Surfactants
Product Requested	Milestone Specialty Herbicide	Pentra-Bark
Dept	PUC	PUC
Name	Don Thomas	Don Thomas
Date Requested	11/14/2007	11/14/2007