



Midpeninsula Regional Open Space District

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October 3, 2013

Linda Irokawa-Otani, Regulations Coordinator  
California Department of Pesticide Regulation  
1001 I Street, PO Box 4015  
Sacramento, CA 95812-4015

Subject: Designating Second Generation Anticoagulant Rodenticide Products as Restricted Materials

Dear Ms. Irokawa-Otani:

We are writing to support the proposal by the California Department of Pesticide Regulation (DPR) to designate second generation anticoagulant rodenticides (SGARs) as California-restricted materials with additional use restrictions. The improper use of SGARs is leading to mortality of nontarget wildlife, most notably bobcats. In support of these regulation changes, we are providing first-hand observations and photographs in an attachment which we believe indicate a trend of frequent misuse of these products under existing regulations and unacceptable consequences for California's wildlife.

Existing federal regulations and label information are insufficient to prevent these harmful substances from entering the food supply of nontarget wildlife. We have observed use of rodenticides in harmful and illegal ways. Simultaneously, we have witnessed bobcat populations seriously plagued by unusual cases of mange which eventually have led to death of individuals and the virtual elimination of bobcats from large areas. This is likely the result of exposure to SGARs (Riley et al., 2007; Prichard, 2013).

We believe the explanation and evidence in DPR's Initial Statement of Reasons for this proposed regulation are factual, well-written, and based on scientific evidence. Therefore, we will not repeat any of that information in this comment letter. Instead, we provide additional evidence from our own observations of the seriousness of this growing threat to California's invaluable natural resources.

The Midpeninsula Regional Open Space District (MROSD) is a regional governmental agency that manages over 60,000 acres of land in 26 open space preserves in the San Francisco Bay Area for public enjoyment and the protection of natural resources. Getting a chance to observe wildlife in natural settings is one of the primary reasons people visit and enjoy these preserves. The death of wildlife in these preserves due to the improper use of rodenticides is not consistent with the public's funding and support of natural lands either in our district or elsewhere in California.

For these reasons, we believe it is necessary for SGARs to be reclassified as restricted materials in California; to not be available for sale in retail, hardware or farm supply stores; and to only be available

for use by certified professionals. The risk of these products being used improperly is too high to depend on a simple change in the label language or type of retail outlet. These products should be restricted so that they are only available for the most serious rodent infestations and they are properly applied by knowledgeable, trained people.

Please help us manage healthy natural lands and native wildlife in California by approving the proposed regulations on SGARs.

Sincerely,

A handwritten signature in blue ink, appearing to read "Stephen E. Abbors". The signature is fluid and cursive, with the first name being the most prominent.

Stephen E. Abbors  
General Manager

Attachment

## **Attachment to MROSD Comment Letter on Second Generation Rodenticides**

In 2010 we began to observe bobcats with symptoms of severe mange in the 4,150-acre Rancho San Antonio County Park and Open Space Preserve near Cupertino, California. This preserve is our busiest preserve and is located near many residential neighborhoods. Up until that time, healthy bobcats were very commonly seen in this preserve, often hunting rodents in meadows. We had never previously observed mange on bobcats and did not know the cause of the sudden appearance of the disease. Over the next few months, we continued to see and receive reports from visitors of bobcats that had patches of matted or missing fur, scratched and bloody wounds on their bodies, “black faces”, and weeping eyes. From March 2009 to June 2013, twelve dead bobcats have been found in this preserve, and we have seen or received reports of sick bobcats over two dozen times.

Visitors are upset to see bobcats in this condition, and to see dead bobcats near the trails. Multiple times, we have had to intervene when visitors have approached sick bobcats that were too weak to run away and hide. These situations are creating a public safety hazard because they could result in people getting scratched or bitten by desperately ill wild animals.

During these initial observations in 2010, one of our rangers found information during an internet search concerning the connection between SGARs and deadly outbreaks of mange in bobcats (Riley et al., 2007). The descriptions and photographs of sick bobcats in southern California looked very similar to what we were seeing in Rancho San Antonio. With this new understanding, we contacted the California Department of Fish and Game (now CDFW), Santa Clara County Vector Control, and other nearby park agencies. Santa Clara County Vector Control patrolled the surrounding neighborhoods and reported finding several residents using rodenticides in their yards, in manners inconsistent with the labels and in ways that would allow poisoned rodents to be consumed by nontarget wildlife. Vector Control was very helpful and instructed the neighbors to stop using chemical rodenticides in such harmful ways. Our staff likewise discovered another entity’s use of rodenticides in the area which was immediately discontinued after communication of the risk to native wildlife. However, between the efforts of Vector Control and MROSD, only a small fraction of people were contacted who were or might possibly use SGARs in ways that could harm local wildlife.

Starting in August of 2010, we worked with CDFW to collect three dead bobcats from Rancho San Antonio which were examined at the CDFW Wildlife Investigations Laboratory with the assistance of staff from the University of California Davis School of Veterinary Medicine. They described each of those bobcats to be “with severe disease and emaciation.” Necropsies of two of those animals provided evidence of the first verified report of notoedric mange in bobcats in northern California. Rodenticides were not evident during the necropsies, however, because the symptoms were so similar to those studied in detail at other locations where SGARs were found in the bobcat carcasses, and because severe mange has not been known to occur in wild felines until exposed to SGARs, we believe SGARs are associated with the sick and dying bobcats at Rancho San Antonio.

In January and February of 2011, we worked with CDFW researchers to develop new methods to determine bobcat population size and the presence of mange by examining scat. Unfortunately, researchers found very little bobcat scat in Rancho San Antonio and were never able to capture live bobcats (in humane traps) in order to verify their results. We believe this was because the bobcat population in Rancho San Antonio had been greatly reduced by the SGAR-caused mange epizootic. The

researchers stated, “The reported absence of recent bobcat sightings coupled with the number of documented mortalities suggests that although still present, the local population may be significantly reduced.” (Stephenson and Clifford, 2011).

Even today, 3 years later, MROSD staff and visitors rarely see bobcats in Rancho San Antonio and, more recently, symptomatic animals have been recorded in our Fremont Older Preserve.

We have discussed the issue with other nearby park agencies and have been told that dead or mangle-ridden bobcats have also been recorded in Edgewood Park and Natural Preserve in Redwood City, Pearson-Arastradero Preserve and Foothills Park in Palo Alto, and McClellan Ranch in Cupertino. These parks are spread across a distance of 18 miles, but all are in proximity to urban or suburban neighborhoods where improper use of rodenticides by residential consumers could negatively impact resident bobcats and other wildlife (see attached map).

We visited several hardware and retail stores near MROSD preserves and found that SGARs are readily available for sale including the d-Con products which Reckitt Benckiser continues to sell in consumer-size packages without the additional safety measures to protect nontarget wildlife as required by the US Environmental Protection Agency in 2008. The information on the packages about the hazards of these products is brief, vague, presented in very small print, and often only in English. In the San Francisco Bay area, we have many residents who are not English-speaking, who may only recognize the pictures of dead mice or rats on the packages as information concerning the use of these products. Many citizens have no way of knowing that improper use of these rodenticides can cause death of the wildlife they so much enjoy seeing during their walks in local preserves. In some stores, we found SGARs are available for sale in large quantities without the tamper-resistant bait stations designed to limit exposure to nontarget wildlife.

The simple fact that the only way we realized the scope of this problem was through an extensive search on the internet indicates that adequate information on the hazards of SGARs is not being provided by product labels. The complicated ecological effects of these chemicals are not mentioned. Indeed, it seems impossible to describe these adequately in the limited space available on product packaging, which even further indicates that only trained personnel should use such products. Furthermore, other wildlife species may be dying more quickly from these same rodenticides, so the bobcats are probably indicating a much larger problem (Serieys, 2013).

Beyond use by well-intentioned but uninformed citizens, we are especially concerned that these rodenticides are being used in illegal marijuana farms hidden in wildland areas, including remote sections of our own preserves where wildlife populations are more common and even more susceptible to their use. Our staff frequently report seeing rodenticide packages during the cleanup of marijuana farms which have been discovered and destroyed with the help of legal authorities. We recently searched our photographs of marijuana cleanup operations in our preserves and found evidence of SGARs and other rodenticides in the debris removed from these sites (see attached photographs). Often these packages are not large bulk sizes as might be bought at rural farm supply stores, but the same small-sized packages that are readily available in local hardware and retail stores.

References:

Prichard, Ann, Chief, Pesticide Registration Branch, California Department of Pesticide Regulation. "Second Generation Anticoagulant Rodenticide Assessment", Memorandum to Deborah Daniels, DVM, Senior Environmental Scientist. June 27, 2013.

Riley, Seth Ph.D., et al. "Anticoagulant exposure and notoedric mange in bobcats and mountain lions in urban southern California." *The Journal of Wildlife Management* 71.6 (2007): 1874-1884.

Serieys, Laurel E. K., Ph.D. Candidate, UCLA Department of Ecology and Evolutionary Biology. "Anticoagulant rodenticides: a cryptic threat to wild felid populations." *Wild Felid Monitor*, Vol. 6, Issue 3 (2013): 13-15.

Stephenson, Nicole, DVM, University of California Davis, School of Veterinary Medicine Program and Deana Clifford, DVM, MPVM, PhD, Wildlife Investigation Laboratory, California Department of Fish and Game. "Progress report – Rancho San Antonio bobcat mange project." April 27, 2011.



Figure 1: Lethargic bobcat found resting near trail in Rancho San Antonio Open Space Preserve, February 18, 2010.



Figure 2: Bobcat at Pearson-Arastadero Open Space Preserve in Santa Clara County, September 20, 2010. Docent Jack Owicki described this animal as “a slowly walking bobcat. Instead of running from me, it just lay down and looked at me . . . The animal seemed thin, scruffy, and not very alert. At the time I thought that I’d take my cat to the vet if it looked like that . . . [It had] something red just beneath the right nostril, . . . it looked more like blood.”



Figure 3: Weak bobcat photographed by visitor at Rancho San Antonio Open Space Preserve, Santa Clara County, September 1, 2012. Don and Kim Weden described this animal as "a small animal that [Kim] initially thought was asleep. It was breathing. But when it was unresponsive to the noises she made, Kim realized it was probably dying . . . our sightings lately of bobcats acting strangely or near death suggest that there may be a problem . . . it would be a shame to lose our bobcat population at Rancho. Although we don't see them often, they are a real highlight of our Rancho experience when we do see them out there. And, of course, they perform important roles in the Rancho ecosystem, including controlling rodent populations – possibly at the risk of their own lives, if rodent poisons are contributing to their deaths."



Figure 4: Emaciated bobcat found by creek near trail in Rancho San Antonio Open Space Preserve, Santa Clara County, May 22, 2013. Ranger was "able to approach [bobcat] and confirm that it was alive, but barely moving or recognizing his presence."



Figure 5: Bobcat with signs of notoedric mange on face and legs at Edgewood Park and Nature Preserve, San Mateo County, August 23, 2013, photograph by Ken Hickman who frequents Edgewood Park and states that he has not previous seen or photographed a bobcat at that preserve with symptoms of severe mange.



Figure 6: SGARs found in retail store near preserves in packages of same sizes as found at illegal marijuana farms and that do not include tamper-proof containers, September 2013.



Figure 7: Rodenticide products confiscated from illegal marijuana farm in Sierra Azul Open Space Preserve, Santa Clara County, 2013.



Figure 8: Twelve-ounce SGAR product with open trays confiscated from illegal marijuana farm in Sierra Azul Open Space Preserve, Santa Clara County, 2013.

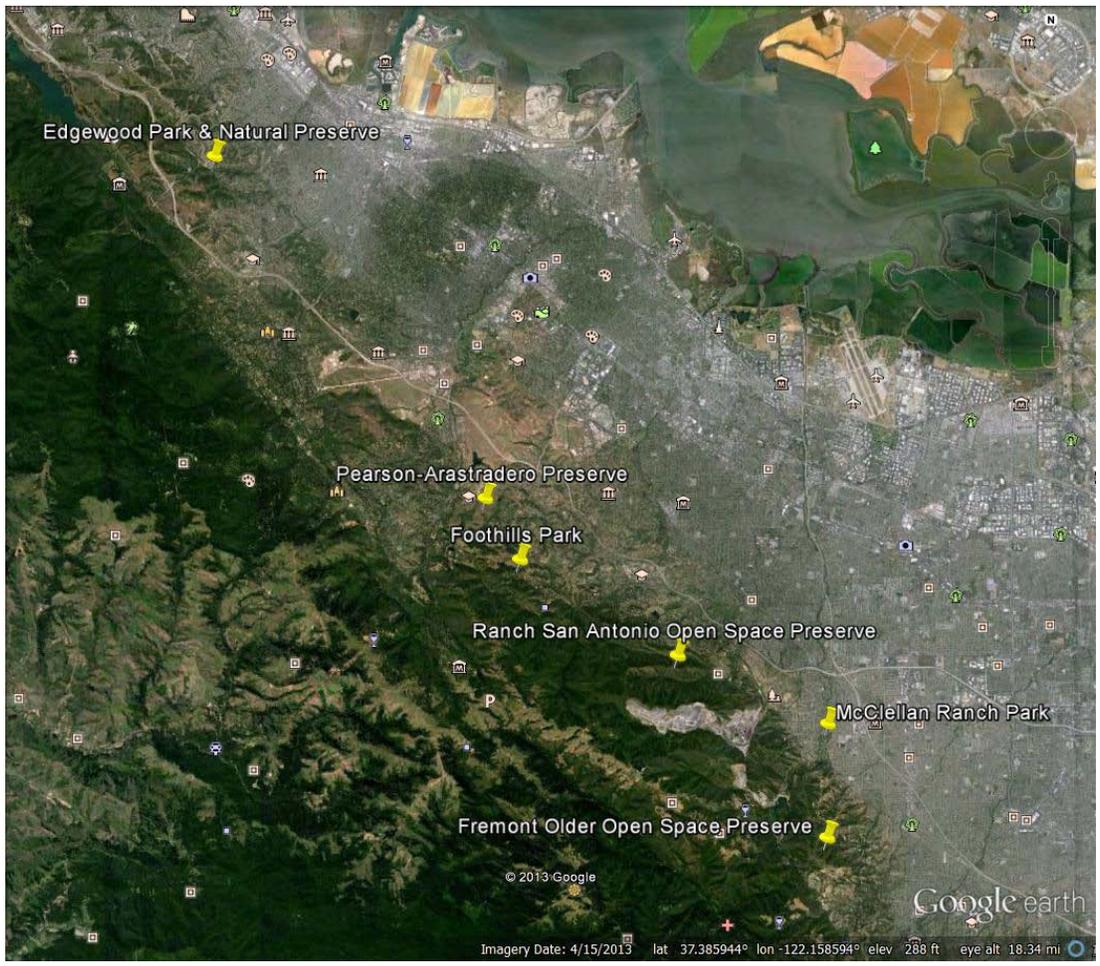


Figure 9: Map of reported locations of mange-afflicted bobcats.