Public Comment to the Decision Making Subcommittee

March 1, 2018

Dear Committee Members:

I wish to bring to your attention that protected and endangered species have been found in the CCC Flood Control District where our county staff treat for weeds and burrowing rodents.

Dr James Hale is a wildlife biologist who is also a former IPM Advisory Committee member and stated at past meetings that he and other biologists, including those from the California Fish & Wildlife, have found the protected Salmon swimming up Grayson Creek. His presentation to the Watershed Council on October 12, 2016 is online at: www.ccrcd.org/walnut-creek-watershed.html.

The significance of finding Salmon in Grayson Creek is that where protected Salmon is found, it would be in violation of the Bay Area Injunction to apply restricted pesticides per the Injunction. The restricted herbicides include Glyphosate and Triclopyr that are currently being used in the Flood Control District and Diphacinone, a rodenticide that is also used in some portions of the Flood Control District.

Besides being in compliance with legal requirements, we need to consider a more sustainable method for burrowing rodent control and weed control. Both Karolina Park and I have provided the list of resources in past public comments for weed steamers and other devices that are being utilized successfully elsewhere.

I am providing you a new resource, a pilot study that was done by Dr. Bill Donahue, PhD with Sierra Research Labs in Modesto. He assessed the efficacy of a carbon monoxide device called BurrowRx, similar but half the cost of the PERC carbon monoxide device tested in a pilot study by Dr. Roger Baldwin of UC Davis.
Dr Donahue concluded 96% efficacy for ground squirrel control in this trial with data summarized in the table that I am leaving for your review and consideration. The device costs $2,000 and the oils to detect leaks from burrows are $135/case. The PERC tested by Dr Roger Baldwin is about 2x that much although the BurrowRx appears to have a higher output of gas. BurrowRx is now available by common pesticide distributors such as Target Specialty, Univar, and others. The Proprietor has also offered to lend us the device for two weeks with the stipulation that proper training and procedures are followed.

Susan JunFish, MPH
Parents for a Safer Environment
www.pfse.net

"Partnering with Communities to Prevent Exposure to Pesticides and other Toxicants in Order to Protect Children, Pets, Wildlife, and the Environment."

U.S. Fish & Wildlife Service

ECOS

ECOS / Species Reports / Species Search / Results of Species Search

Results of Species Search In Contra Costa County

13 Records

Here are all the species that match your criteria. Please click on the the Scientific Name to find out more about the particular species.

Scientific Name	Common Name	Species Group	Listing Status
Cacatua moluccensis	Salmon-crested cockatoo	Birds	Threatened
Erigeron salmonensis	No common name	Flowering Plants	Not Listed
Oncorhynchus keta	Chum salmon	Fishes	Threatened
Oncorhynchus (=Salmo) kisutch	Coho salmon	Fishes	Endangered
Oncorhynchus (=Salmo) kisutch	Coho salmon	Fishes	Threatened
Oncorhynchus (=Salmo) nerka	Sockeye salmon	Fishes	Endangered
Oncorhynchus (=Salmo) nerka	Sockeye salmon	Fishes	Not Listed
Oncorhynchus (=Salmo) nerka	Sockeye salmon	Fishes	Threatened
Oncorhynchus (=Salmo) tshawytscha	Chinook salmon	Fishes	Endangered
Oncorhynchus (=Salmo) tshawytscha	Chinook salmon	Fishes	Threatened
Salmo salar	Atlantic salmon	Fishes	Endangered
Salmo salar	Atlantic salmon	Fishes	Not Listed
Trillium ovatum oettingeri	Salmon Mountains wake robin	Flowering Plants	Not Listed

BurrowRx Burrowing Rodent Control Device
Ground Squirrel Efficacy Data

Synopsis

The BurrowRx Burrowing Rodent Control Device ("BurrowRX") was evaluated for efficacy against natural populations of ground squirrels located in central California field sites in November 12, 2017 by Sierra Research Laboratories, Inc. of Modesto, CA. The ground squirrels (*Spermophilus* sp.) were of mixed age and sex.

Initial visual assessment of the test site indicated a high level of ground squirrel infestation and a very extensive burrow system with primary burrow systems located on berms and ditch banks within the test site. There was no history of ground squirrel control measures on the test site. Prior to treatment, all burrows were closed with surrounding soil or other available media and observed for reopening after one day; any burrow that was opened back up was considered active and was included in the treatments.

The BurrowRx device was set to full throttle and an initial double shot of smoke oil was added to the reservoir. The exhaust hose for the device was placed into an open burrow and covered slightly with dirt to create some back pressure. The device was turned on and allowed to run for a full three minutes per burrow. Holes showing smoke exuding from them were filled with surrounding soil. As holes were filled, more were observed to be part of the same system by the appearance of the smoke, and subsequently filled in. At the conclusion of each burrow's treatment the exhaust hose was removed from the burrow opening and the hole was closed with soil.

Visual observations approximately one hour after burrow treatments indicated no ground squirrel activity (no tunneling to escape treatment) or above ground activity in the treatment plots. Twenty-four (24) hours after the initial treatment all treated burrows were inspected for reopening and any previously-inactive unopened burrows that may have been utilized and opened after the treatment were also inspected. Any reopened burrows were retreated and another census repeated the following day. The number of burrows was recorded and the average was used to calculate efficacy (the percent of burrows not reopened).

Walk-through census counts of active ground squirrels and open burrows were conducted on test days 1, 3 and 7, recording the total number of ground squirrels observed in each test plot. Ground squirrel populations and burrow density were very high on the test site. The number of active burrows in the treated group (23) and the untreated group (31) indicated a high level of activity during the evaluation period. The burrow systems were very extensive in the test areas and all buffer zones and areas outside of the test plots.

The efficacy of the carbon monoxide gas delivered by BurrowRX, i.e. the average percent reduction of ground squirrels or evidence of activity, was calculated by open burrow counts. BurrowRx-treated plots showed a high degree (95.7%) of efficacy in open burros through Test Day 3. Efficacy dropped to 73.9% by Test Day 7 due to new holes being excavated by ground squirrels most likely from outside the treatment zone. Open burrows within the untreated control plots increased by 54.8% by Test Day 7. The smoke oil during treatment made the complexity of the burrow systems easy to observe and helped improve efficacy by allowing applicators to thoroughly treat an entire system. There were no open escape burrows of any kind within the treated areas up to 24 hours after initial treatment. A single, previously unopened hole, was observed on Test Day 1 and was subsequently treated with BurrowRX with no observed reopening through the seven day study.

BurrowRX is very effective ($\geq$ 95% efficacy) at controlling burrowing California ground squirrels in actual field conditions (See ***Table 1***).

Table 1: Ground squirrel burrow census counts on Test Day 0 (treatment) and Test Days 1, 3 and 7 post treatment with the average percent reduction of active burrows determined.

		Number of Open Burrows in Plots			
Test Group	**Plot I.D.**	**Day 0**	**Day 1**	**Day 3**	**Day 7**
BurrowRx	Treated 1	9	0	0	1
	Treated 2	7	0	0	0
	Treated 3	7	1	1	5
	Σ	23	1	1	6
	Average % Reduction	-	**95.7**	**95.7**	**73.9**
Untreated Control	Untreated 1	4	5	9	11
	Untreated 2	27	21	36	37
	Σ	31	26	45	48
	Average % Change	-	**16.1**	**(-45.2)**	**(-54.8)**

Principal investigator for this study was
William Donahue, Ph.D.
Regular speaker at vertebrae pest conferences.

March 1st, 2018

Dear Members of the CCC IPM Committee,

My name is Karolina Park and I am a Martinez resident working as a sustainable landscape designer & horticulturalist and I also work on the Steering Committee of Parents for a Safer Environment (PASE).

Over the last weekend, while I was driving along Pacheco Blvd near Pacheco, where the road crosses over Grayson Creek, I noticed that the banks of the creek had been sprayed with herbicide and are now showing signs of the typical orange discoloration indicative of an herbicide application. I pulled over to the same creek-side location on February 27th, in order to document the evidence of herbicide spraying, and discovered that one side of the creek is actually a city park.

I am presenting you a set of photos that I took on February 27th 2018 of an area along the Grayson Creek in Pacheco showing the signs of pesticide application, yet with no signage or posting to warn people. This access road is also a park that the public uses for recreation. The park is called Hayden Park on Google Maps, however the sign at the site says Pacheco Creek Park. This park is directly adjacent to the creek where the treatments were made and the sprayed area appears to be part of the park. There are no keep out or warning signs anywhere. Children playing in the park can easily access this herbicide-treated area and it is likely that they would come into contact with the treated area if they did.

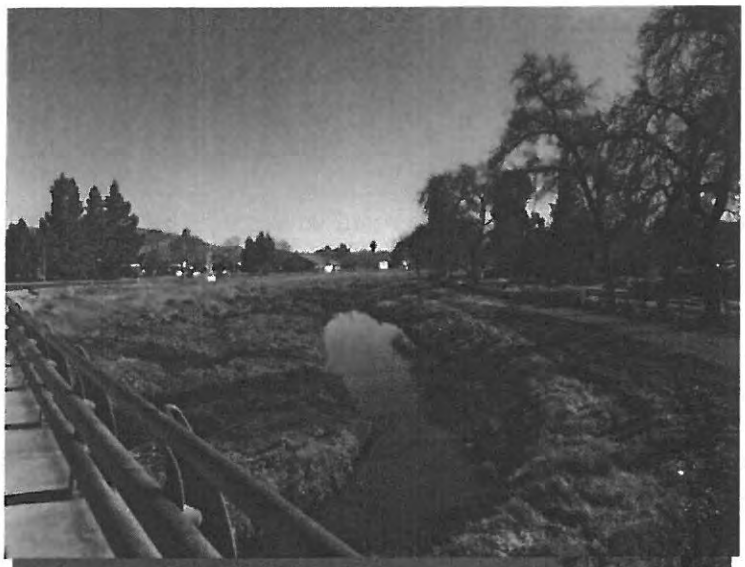
I would like to know who is responsible for maintaining and spraying Hayden or Pacheco Creek Park? What day and time were the treatments made prior to February 27th, and what products and how much was applied along this park area?

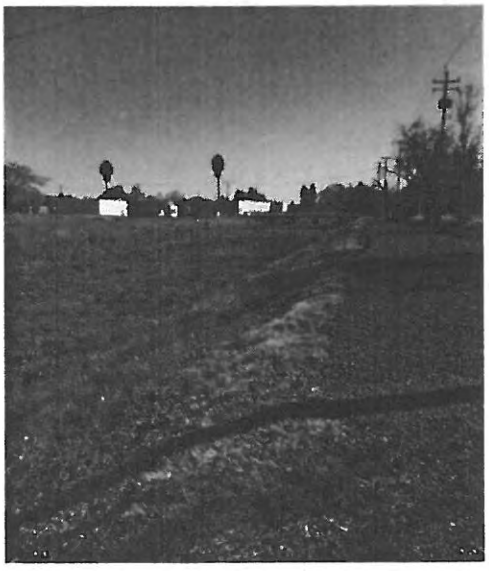
It is very upsetting to see these large areas treated with pesticide in such close proximity to where residents also spend time with their children and pets. Why is grazing not utilized in this area? Grazing would negate the need to apply toxic herbicides so near to a park where children may be exposed to such chemicals, not to mention the likely contamination of a waterway?

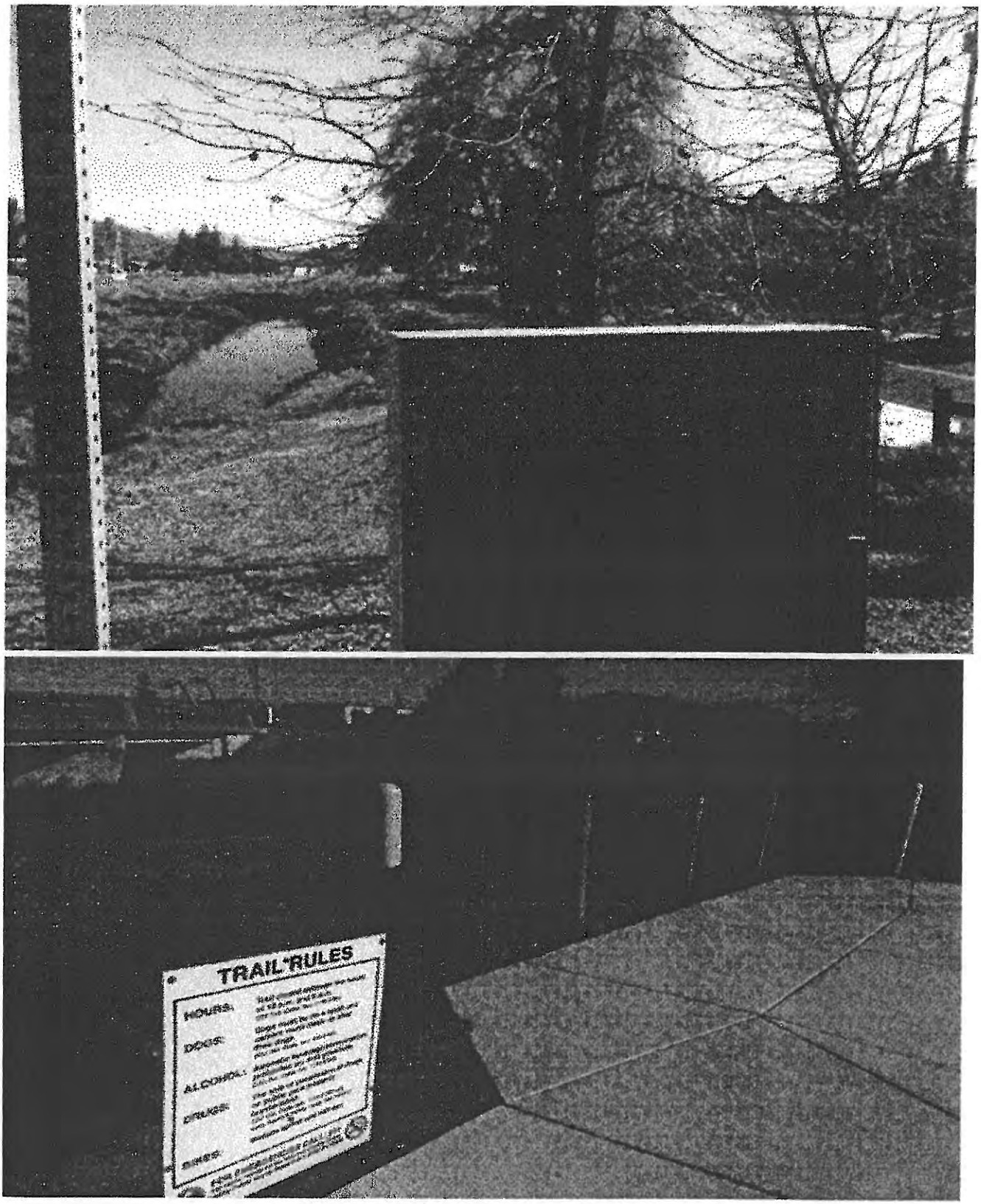
There is no time to waste here, since each day that goes by with no change means another day that children, waterways and the environment are exposed to these over-used toxic herbicides. Please assure me that you will do the right thing by finding the most sustainable solutions to weed control along public parks and Rights of Way, and that you will recommend that the county pilot a steam weeding trial since it has been reported by the City of Irvine and others to be effective for Rights of Way. On November 2017, I provided the Committee with the contact info for the steam-weeding.

Thank you,
Karolina Park

Martinez Resident
Parents for a Safer Environment
Steering Committee member






TRAIL RULES
HOURS:
DOGS:
ALCOHOL:
DRUGS:
BIKES: