

Minutes

CONTRA COSTA COUNTY INTEGRATED PEST MANAGEMENT GRANTS & PILOTS SUBCOMMITTEE A Subcommittee of the IPM Advisory Committee



**August 20, 2020
1:00 PM to 2:30 PM**

This meeting was held remotely per Governor's Executive Order N-29-20.

Subcommittee Members Present: Chris Lau (Chair), Jim Donnelly, Andrew Sutherland, Susan Heckly, Amy Budahn, Carlos Agurto

Subcommittee Members Absent: none

Staff Present: Jill Ray, Jocelyn LaRocque, Jody London, Wade Finlinson

Members of the Public Present: Carolyn Whitesell, Edmund Duarte, Roger Baldwin, Susan JunFish, Dave Shoemaker, Karen Perkins, Shirley Shelangoski

The meeting convened at 1:03 PM
Jim Donnelly acted as Chair

1. Introductions

2. Elect a Subcommittee Chair & Vice Chair

Chris Lau was nominated as Chair by Andrew Sutherland and accepted the nomination. A motion was made and seconded (SH/AS) to elect Chris Lau as the Chair of the Subcommittee.

Ayes: Agurto, Budahn, Heckly, Sutherland, Lau, Donnelly,

Noes: None

Abstain: None

Absent: Agurto

Chris Lau took over as Chair

Andrew Sutherland was nominated as Vice Chair by Jim Donnelly and declined the nomination. Susan Heckly was nominated as Vice Chair by Andrew Sutherland and declined the nomination. The Subcommittee agreed to suspend discussion of the item to allow for enough time to consider item #4.

Public Speakers: None

3. Public comment on items not on the agenda

None

4. Discussion on the implementation of a pilot trial for ground squirrel management using carbon monoxide or carbon dioxide injection on County property

The Subcommittee received a report on the work of the Decision-Making Subcommittee regarding their findings on ground squirrel management within County operations. Additional context was given pertaining to their referral to this body for further investigation and implementation of a pilot study. Andrew Sutherland noted that he has discussed the topic of carbon monoxide burrow fumigation with colleagues from UCANR, and they agree that pilot research is needed in the region. While alternatives to anticoagulant rodenticide baiting exist, there is little information available on how those alternatives will work in the County's specific settings.

Chris Lau indicated that the existing level of funding available for a limited trial would vary depending on which site is selected. Certain Flood Control zones have more funding capacity than others. For this project, it may be worthwhile to focus on a site in the following watersheds: Walnut Creek, Pine Creek, and San Ramon Creek. He encouraged taking a step back to establish a framework or description of what we hope to achieve and how we will measure if it is successful since we don't have much baseline data to compare it with. The timing of getting something started in early 2021 may not leave enough time to retain a consultant to help set up the study and coordinate a subcontractor or do the treatments. Another option could include separately retaining a consultant and an independent service provider for the fumigation. Public Works field staff are not available to participate in the pursuit.

Dr. Roger Baldwin gave a general overview of what such a study may look like. From a basic analytical perspective there are a few ways to assess the efficacy of a product or method. One approach is pre and post-treatment visual counts. That involves someone going out several times a day and counting the number of ground squirrels they see in a given area for three consecutive days. Of the 30 pre-treatment counts, you generally take the highest one attained during the three-day period. That gives you an index of how many ground squirrels are in the study area. It does not represent a total population estimate. The treatment is then conducted, and post-treatment counts are undertaken in the same manner.

Another approach involves burrow plugging. That includes going into a designated area within a treatment site and covering the burrows with soil and marking them with a flag. You then come back a few days later and count the number that have been unplugged, and that gives a measure of ground squirrel activity. The same method is used after the treatment to give an indication of how the treatment impacted the activity.

The visual counts are generally a better approach for monitoring changes in ground squirrel populations. The burrow counts can serve as a corroborative tool. One problem with the visual counts is that sites may have obstructed sightlines. Large boulders, trees, and tall vegetation can obscure ground squirrel activity. Plugging burrows does not share those limitations but can be problematic if the site doesn't have enough soil to adequately plug each burrow.

Additional dialog assessed the interest and availability of partners from UCANR. Dr. Baldwin said he could assist in designing the study from afar and Dr. Carolyn Whitesell indicated a willingness to participate in the field counts and other aspects of the project. Public Works staff and contractors could be available to assist determine what protected species are present on potential sites. Wade Finlinson offered to conduct pre and post-treatment counts and would be available for all other components of the effort.

Ed Duarte from the Alameda County Agriculture Department observed the importance of considering the broader impacts of fumigation on non-target wildlife. Just as the potential for secondary toxicity needs to be considered as a part of any baiting program, carbon monoxide injection would be lethal

to whatever is in a burrow. He said that baiting can be done with more targeted precision and is typically more cost effective. It's not just that ground squirrels are a resource to predatory organisms, ground squirrel burrows are resources for other wildlife. He also referenced a useful resource from the Department of Pesticide Regulation. The Pesticide Regulation's Endangered Species Custom Realtime Internet Bulletin Engine (PRESCRIBE) is available at the following link:
<https://calpip.cdpr.ca.gov/county.cfm?ds=PRESCRIBE>

Ed Duarte later ran a query in the PRESCRIBE system for gas cartridges (since carbon monoxide is not currently in the system) for use in certain locations within Contra Costa County and received the following text regarding use limitation: " Trained Applicator: Use shall be supervised by a person (wildlife biologist, county agricultural commissioner, university extension advisor, state or federal official or others) who is trained to distinguish dens and burrows of target species from those of non-target species. Use shall occur only in the active burrows of target species. The person responsible for supervision shall be aware of the conditions at the site of application and be available to direct and control the manner in which applications are made (per Section 6406 of Title 3, California Code of Regulations). Contact your county agricultural commissioner for information on training."

Dr. Baldwin echoed the need to make sure that when a site is selected, it is important that no threatened or endangered species are in the area. It is also good to remember that because of these and other limitations of burrow fumigation, additional tools will likely be needed at different locations.

Other considerations discussed involved the appropriate size of plot needed to conduct an isolated case study. Dr. Baldwin said that the typical minimum dimensions of a treatment area comprise approximately 8.5 acres. The monitoring portion of the plot is normally one acre. Since ground squirrels move so much, a buffer zone is needed to help slow down potential reinvasions in and out of an area. If there are no adjacent ground squirrel populations, the treatment plot could feasibly be smaller. Generally, a plot of 8.5 acres or more helps to mitigate the potential movement of squirrels back into the treatment area by the time post-treatment counts are conducted.

No formal action was taken on the item. The IPM Coordinator committed to connecting with personnel from the Agriculture Department regarding sites that may be suitable for the case study and follow up on other items brought up during the discussion. There was also interest regarding the involvement of graduate student researchers in certain aspects of the study, the development of a written scope for the project, and the utilization of geographic information systems (GIS) data to inform site selection.

Public Speakers: None

5. Develop goals and objectives of the Subcommittee

The IPM Coordinator provided a brief overview on the origin of this subcommittee. An excerpt from the *2020 Priorities of the IPM Committee* document was referenced and Subcommittee members were encouraged to share insight on potential pursuits.

One suggestion was that Subcommittee members who are aware of specific funding opportunities that align with the goals of the IPM Program to come prepared to discuss them in a future meeting. Another proposal involved the planting and maintenance of trees as well as other beautification projects on County property located within disadvantaged communities. Use of the [CalEnviroscreen](#) tool was encouraged to identify County assets situated within these communities where IPM-related projects could be initiated.

No formal action was taken.

Public Speakers: None

6. Plan next meeting time and agenda

The Subcommittee determined they would next meet in mid-October. The agenda would include follow up on the ground squirrel case study and other items to be determined later.

Public Speakers: None

—end of meeting minutes—