ABSTRACT FOR VERTEBRATE PEST CONFERENCE MARCH 2014:

Preventing Rodent Damage to Flood Control Facilities

Rodent burrow damage to flood control facilities (dams and levees) results in failure to meet federal structural certification criteria (44 Code of Federal Regulations 65.10). Non-certified structures are ineligible for FEMA flood insurance programs and result in substantial damage risks during flood events.

In California, flood control facilities protect millions of people and critical infrastructure from large flood events by containing water and debris behind engineered structures. Most are compacted earth, faced with rock and topped with gravel access roads. These facilities provide excellent habitat for ground squirrels; the rocks provide cover and the creeks, neighborhoods and nearby agricultural fields provide abundant food. Predators have also adapted to the urban-wildland interface, routinely foraging along facilities. Ground squirrels form the base of the food chain for raptors, coyotes, bobcats, and mountain lions in Ventura County.

The Ventura County Watershed Protection District has spent the past eight years researching ways to prevent rodent damage to flood control facilities. We believe small amounts of anticoagulant (diphacinone) in bait stations along flood control facilities target ground squirrels with low risk to other fauna. The California Department of Fish and Wildlife, other conservation agencies, and members of the public have requested anticoagulant use be terminated to avoid secondary poisonings. Alternative controls do not provide the level of protection necessary to meet FEMA standards.

The diphacinone label requires verification of pest infestations before application. However, infestation must be prevented at flood control facilities. Treating the few dispersing squirrels avoids treating an entire colony with anticoagulants, and therefore much less bait enters the food chain. Ventura County lobbied to change the label to allow some bait to be left in the bait stations to feed dispersing squirrels before they develop into colonies.