



County of Los Angeles  
**CHIEF EXECUTIVE OFFICE**

713 KENNETH HAHN HALL OF ADMINISTRATION  
LOS ANGELES, CALIFORNIA 90012  
(213) 974-1101  
<http://ceo.lacounty.gov>

WILLIAM T FUJIOKA  
Chief Executive Officer

Board of Supervisors  
GLORIA MOLINA  
First District

YVONNE B. BURKE  
Second District

ZEV YAROSLAVSKY  
Third District

DON KNABE  
Fourth District

MICHAEL D. ANTONOVICH  
Fifth District

February 1, 2008

To: Supervisor Yvonne B. Burke, Chair  
Supervisor Gloria Molina  
Supervisor Zev Yaroslavsky  
Supervisor Don Knabe  
Supervisor Michael D. Antonovich

From: William T Fujioka  
Chief Executive Officer

**STATE LEGISLATIVE AGENDA: REPORT ON RODENTICIDE/HERBICIDE  
USE, IMPLICATIONS, AND NEED FOR LEGISLATIVE POSITION**

At the December 18, 2007, meeting of your Board, Supervisor Zev Yaroslavsky moved and your Board approved the motion to instruct the Chief Executive Officer (CEO) to remove Section 2.5 Watershed Management and Flood Control, Item No. 11 from the County's State Legislative Agenda:

Oppose legislation that would impede effective maintenance of flood control and/or levee systems by limiting, without scientific bases, the methods for control of burrowing animals or control or eradication of invasive weed species.

The motion further instructed the CEO to work with the Department of Agricultural Commissioner/Weights and Measures (ACWM) and the Department of Public Works (DPW) to report back in 30 days regarding the need for this language, potentially negative implications to environmental health and safety regarding the uses of anticoagulant rodenticides and herbicides, and the best management practices the County employs to minimize potential risks to public health and the environment.

Each Supervisor  
February 1, 2008  
Page 2

Attached to this memorandum is a report prepared by ACWM in cooperation with DPW and a document entitled *Best Management Practices for Vegetation Control – June 2005*, which the agencies employ in determining the types of vegetation control for differing situations.

As reported by ACWM, the legislative position was proposed as a proactive measure to address potential legislative action to restrict or prohibit the effective use of such materials when such legislation is presented without equivalent scientific bases as that which is required for the approval and legalization of such materials. ACWM is not aware of any active or proposed legislation on such matters. ACWM will address any future legislation on a case-by-case basis.

Should you require additional information, please contact Deputy Chief Executive Officer Doyle Campbell, Public Safety, at (213) 893-2374.

WTF:SRH:RDC  
JW:JV:lm

#### Attachments

c: Director Kurt E. Floren, ACWM  
Director Donald L. Wolfe, DPW

**Report to the Los Angeles County Board of Supervisors:  
Herbicide and Rodenticide Use for Flood Control Infrastructure Protection**

The Los Angeles County Department of Agricultural Commissioner/Weights and Measures (ACWM) proposed, and Department of Public Works supported, the following position for the County's State Legislative Agenda for the second year of the 2007-08 session:

Oppose legislation that would impede effective maintenance of flood control and or/levee systems by limiting, without sound scientific bases, the methods for control of burrowing animals or control or eradication of invasive weed species.

At the December 18, 2007, meeting of the Board of Supervisors (Board), Third District Supervisor Zev Yaroslavsky moved that the Board instruct the Chief Executive Officer to remove the proposed position and work with ACWM and DPW to report back to the Board regarding the need for the language and a discussion of the potentially negative implications to environmental health and safety regarding the uses of anticoagulant rodenticides and herbicides, as well as the best management practices that the County current employs in order to minimize this potential risk to public health and the environment.

#### **EXECUTIVE SUMMARY**

ACWM is Los Angeles County's chief authority regarding pesticide use and has provided solutions to pest control problems for many years. ACWM believes that materials selected and used by ACWM and DPW to protect flood control infrastructure do not pose unacceptable risks to public health or the environment and that maintaining the integrity of the flood control infrastructure and ensuring its smooth operation are of vital importance to the health and well being of the public in Los Angeles County. ACWM recommended the proposed legislative position as a proactive measure to address **potential** legislative action, but is aware of no active or proposed legislation regarding such issues. Therefore, ACWM agrees that the language may be removed from the County's State Legislative Agenda and will address any applicable legislation as it may occur.

#### **NEED FOR THE LANGUAGE**

Two principal reasons for ACWM's proposal were understanding of the critical need to maintain flood control infrastructures and our concern that there exists a general and growing misunderstanding of pesticides, the methods and selection processes for their use, their effectiveness, and the risks that they may pose. Media accounts, contacts from residents, and statements and actions by elected State Legislators have demonstrated this lack of understanding, which includes the actual toxicity of many pesticides, actual risks posed to the environment, how and why the materials are used, how they are regulated, and what must be accomplished by pesticide producers before such products are available to end users like ACWM and DPW. Many others, including some within the environmental community, have recognized this troubling direction as well. A June 2003 article in *Audubon* identifies invasive species as the "number one foe" of the Country's wildlife refuges. The article goes on to state:

*"The biggest impediment to controlling invasives - after lack of funding - is chemophobic environmentalists. In Idaho, Oregon and Washington, I have seen millions of acres of big-game habitat ruined by rush skeleton weed, spotted knapweed, and yellow starthistle - noxious weeds that could have been controlled had not the Northwest Coalition for Alternatives to Pesticides obtained a temporary injunction against certain federal herbicide use."*

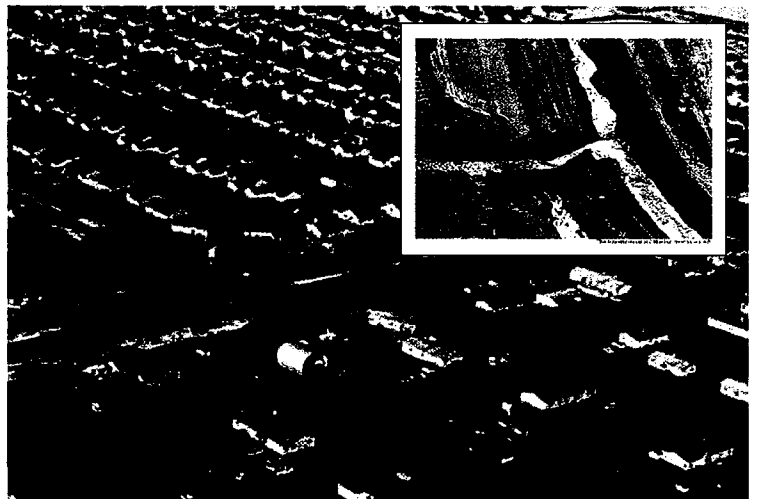
## **NEED FOR RELIABLE FLOOD CONTROL**

Throughout history, floods have proven to be the deadliest natural disasters, causing more deaths each year, on average, than any other type of natural disaster. Floods are not uncommon; according to the Federal Emergency Management Agency (FEMA), floods are one of the most common hazards in the U.S., notwithstanding the fact that the country has in place an extensive infrastructure to avoid flooding, including dams, channels, levees, storm drains, etc. California is far from immune to these flood dangers. In fact, many, including the Governor, believe that California is facing a flood crisis, which has sparked the innovative *FloodSAFE California* program. Although California's greatest risk of extensive flooding appears to be in the Central Valley, according to the State Department of Water Resources, "every region faces flood risks." The California State Association of Counties recognized the risk as well and, in May of 2007, stated on its website, "*The Administration and Legislature must recognize that California's flood control crisis is one of statewide significance...*"

In its 2005 whitepaper, *FLOOD WARNINGS: Responding to California's Flood Crisis*, the California Department of Water Resources calls the combination of flood potential, deteriorating infrastructure, and court rulings a "ticking time-bomb for flood management in California." It lists animal burrows and uncontrolled growth of vegetation as factors in the "deteriorating flood control system." Most recently, the levee burst on January 5, 2008, in the northwestern Nevada town of Fernley, displaced 1,500 people and stranded thousands more. According to the *Los Angeles Times* article of January 6, Dave Overvold, project manager for the Truckee-Carson Irrigation District, said it was likely that gophers or other rodents had caused the rupture. The article quotes him as saying that animals commonly burrow into canal banks and, when the volume changes, water can rip through the resulting weak spots.

Compounding the challenges are recent court rulings that hold the State (*Paterno v. State of California [2003]*) and local agencies (*Arreola v. Monterey County [2002]*) liable for flood-related damages. In *Paterno*, the failure of the Linda Levee, which damaged 3,000 homes, was blamed on rodent burrows and resulted in a \$464 million judgment. The latter case was brought following the failure of the Pajaro River channel levee, believed to have been caused by discontinuation of vegetation removal activities, and resulted in settlement payments exceeding \$50 million.

The potential for fires originating from areas



The Gazette-Journal / Marissa Newton via AP  
While this document was being prepared, a levee in Nevada failed flooding the town of Fernley. The failure was blamed on rodent burrows.

like flood control easements, which are generally out of public view yet accessible and subject to arson or negligent practices (fireworks, careless smoking, etc.) by trespassers, is a very real concern. In 2007, Los Angeles City Department of Public Works was publicly blamed in media accounts for failing to maintain free from brush and weeds City-owned property on which a fire originated and burned three homes in Beverly Hills.

In Los Angeles County, herbicide treatments, as well as other methods, are used to maintain the integrity of flood infrastructures. In concrete channels, uncontrolled weeds can grow in the expansion joints and loosen or raise the concrete, eventually allowing water to undermine the structure. Uncontrolled vegetation also reduces the flow capacity of the channel, rendering it less likely to withstand a flood of the magnitude for which it was originally designed. Due to the need to both eliminate surface growth and control further plant root development and, hence, expansion between and below concrete joints, mechanical or hand removal of weeds and the root structure are ineffective.

This season, Los Angeles County experienced severe wildfires. The Los Angeles County Fire Department responded magnificently to the emergencies. The work of the County Department of Public Works, Flood Maintenance Division, was and is equally impressive. Through tireless maintenance of their infrastructure, including use of herbicides, they succeed in *preventing* major disasters from occurring in the first place.

## **PESTICIDE REGULATION AND USE IN CALIFORNIA**

ACWM is the principal regulatory agency in the County for pesticide use. This role, combined with ACWM's expertise at developing integrated pest management programs, makes ACWM staff expert, if not *the* predominate expert, in the use of pesticides in the County. This report provides an opportunity to discuss pesticide approval and registration processes, regulatory statutes, and the roles of key organizations and departments in evaluating, approving, and regulating pesticide use. The following is offered to aid in understanding the degree to which research, intensive scrutiny and careful deliberation has been exercised prior to making any pesticide, like herbicides or rodenticides, available to an end user.

Before any pesticide may be used in the United States, it must first be approved by the United States Environmental Protection Agency (U.S. EPA). Approval is granted only following extensive research and testing to identify, among many other factors, its efficacy in the intended use, safe application volumes, and application methods and conditions of use that pose no significant risks to human health or the environment. For herbicides, this process requires, on average, ten years and over 140 different toxicological tests at a cost of 80 to 100 million dollars or more for *each* herbicide. If approval is ultimately granted, the material may be used only under very specific conditions identified through the years of testing. Other pesticides like rodenticides and insecticides must undergo a similar, or even more stringent, approval process.

California has among the most strict laws and regulations in the nation governing the use of herbicides and other pesticides. No pesticide can legally be used in the state, even if already approved by U.S. EPA, until it receives approval from the California Environmental Protection Agency, Department of Pesticide Regulation (CDPR). The extent to which CDPR regulates

herbicides and other pesticides in the state and ensures their safe use may be best illustrated by providing just a few of the state's laws and regulations governing the use of pesticides.

**California Food and Agricultural Code (FAC) §11501** requires CDPR to:

- Provide for the proper, safe, and efficient use of pesticides essential for production of food and fiber and for protection of the public health and safety.
- Protect the environment from environmentally harmful pesticides by prohibiting, regulating, or ensuring proper stewardship of those pesticides.
- Assure consumers and users that pesticides are properly labeled and are appropriate for the use designated.

**FAC §12824** states, in part: "The director (of CDPR) shall endeavor to eliminate from use in the state any pesticide that endangers the agricultural or nonagricultural environment, is not beneficial for the purposes for which it is sold, or is misrepresented. In carrying out this responsibility, the director shall develop an orderly program for the continuous evaluation of all pesticides actually registered. Before a substance is registered as a pesticide for the first time, there shall be a thorough and timely evaluation in accordance with this section. Appropriate restrictions may be placed upon its use including, but not limited to, limitation on quantity, area, and manner of application..."

**FAC §12825** states, in part: "Pursuant to Section 12824, the director, after hearing, may cancel the registration of, or refuse to register, any pesticide:

- (a) That has demonstrated serious uncontrollable adverse effects either within or outside the agricultural environment.
- (b) The use of which is of less public value or greater detriment to the environment than the benefit received by its use.
- (c) For which there is a reasonable, effective and practical alternate material or procedure that is demonstrably less destructive to the environment.
- (d) That, when properly used, is detrimental to vegetation, except weeds, to domestic animals, or to the public health and safety..."

**FAC §12826** requires: "If the director has reason to believe that any of the conditions stated in Section 12825 are applicable to any registered pesticide and that the use or continued use of that pesticide constitutes an immediate substantial danger to persons or the environment, the director, after notice to the registrant, may suspend the registration of that pesticide pending a hearing and final decision..."

**FAC §14102** states, in part: "The director shall prohibit or regulate the use of environmentally harmful materials...In so doing, he shall consider the effect of all such materials upon the environment, and shall take whatever steps he deems necessary to protect the environment. He shall also continue to initiate, cooperate, and collaborate with the University of California and with other state agencies in research designed to reduce and eliminate the use of environmentally harmful materials."

**FAC §14103** requires the director, when establishing criteria and regulations relating to environmental injury and protection, to consult with representatives of the Water Resources Control Board, the Departments of Public Health, Fish and Game and Conservation, and four outside experts of his selection from the fields of agricultural, biological, ecological, and medical sciences.

**California Code of Regulations (Title 3 CCR §6158)** requires CDPR to give special attention to specific factors in reaching a decision to allow or not allow a pesticide to be used in California. The following factors are included:

- Acute health effects such as oral toxicity, dermal toxicity, inhalation toxicity and skin damage potential, or sensitization potential.
- Evidence of chronic health effects such as carcinogenicity, teratogenicity, mutagenicity, fetal toxicity, and delayed neurotoxicity.
- Potential for environmental damage.
- Toxicity to aquatic biota or wildlife.
- The availability of feasible alternatives.

Only after final approval is granted by CDPR may a pesticide or herbicide be utilized. It is critical to note that all pesticide products bear labeling designated and approved by U.S. EPA that specify permissible means for application, volumes to be applied, conditions under which it may be applied, and many other factors designed to prevent non-target environmental damage or risk to health. Those factors extend from the storage and transportation of the material through the preparation, mixing, application and post-application clean-up procedures utilized in any application project. ACWM, DPW, and others employed to perform the applications are trained, as required by law, in the safe use of these materials and adhere to all procedures and restrictions designated on the product labels and set forth in applicable State laws and regulations.

The foregoing illustrates how registered pesticides, like those applied by ACWM and DPW, are safely used statewide by thousands of end users including federal, State and local government agencies, private contractors and ordinary property owners.

## DISCUSSION OF THE POTENTIALLY NEGATIVE IMPLICATIONS TO ENVIRONMENTAL HEALTH AND SAFETY STEMMING FROM THE USE OF ANTICOAGULANT RODENTICIDES AND HERBICIDES

ACWM's role in the regulation of pesticides combined with its expertise in their use and development of non-pesticide pest management plans makes ACWM one of the principal authorities in the County on pesticides. In that capacity, it is ACWM's opinion that the extensive evaluation and registration process previously described renders the likelihood of negative environmental or health impacts from pesticides extremely low when used by ACWM, DPW or other County departments like Health Services.

### **HERBICIDES-Risk to Public Health**

The toxicity of the types of herbicides used by ACWM and DPW to control weeds in flood control infrastructures is extremely low. They are selected for this as well as their ability to control weeds under specific conditions. LD<sub>50</sub> figures are general indicators of a substance's acute toxicity, typically given in terms of milligrams per kilogram of body weight and representing the dose required to kill one-half the members of a tested population (often rats, mice, or rabbits). The LD<sub>50</sub> for all of the herbicides used by ACWM and DPW is greater than 5,000 mg/kg as indicated on respective Material Safety Data Sheets (MSDS) for each material. By comparison, the LD<sub>50</sub> figure for table salt is 3,000 mg/kg and for caffeine is 192 mg/kg,

demonstrating that those ordinary household products are from nearly twice to 26 times more toxic than the herbicides used by ACWM. Interestingly, caffeine has a Department of Transportation shipping class of “Toxic Solid.” The MSDS for the herbicides ACWM uses declare them to be “practically non-toxic” or “very low toxicity.”

During the recent fires, hundreds of thousands of gallons of fire retardant chemical were dropped by aircraft into many parts of Los Angeles County including wildland and watershed areas. According to the MSDS, the chemical retardant (Phos-Chek®) is up to ten times more toxic, depending upon the grade, than the herbicides used in the flood control infrastructure vegetation management program.

Somewhat ironically, with respect to concerns for public health, chlorine, which is highly toxic, is the most commonly used method in the world to purify *drinking* water.

None of the herbicides used in the program is classified by CDPR as likely to contaminate groundwater. As part of our investigation, we examined the possibility that herbicides are contaminating surface water. According to the State Water Resources Control Board, herbicides are not considered a pollutant/stressor in any of the waters in Los Angeles

County listed as failing to meet water standards established by the Clean Water Act. This is consistent with information we obtained from a California Office of Environmental Health Hazard Assessment publication entitled *CALIFORNIA Sport Fish Consumption Advisories* which contained no references to herbicides affecting the safety of eating fish caught locally.

### **HERBICIDES-Risk to the Environment**

ACWM has discovered no convincing evidence that proper herbicide use is having any negative implications to environmental health in Los Angeles County. On the contrary, when used properly, herbicides play key roles in environmental restoration and preserving biodiversity.

In a speech entitled “A State of Biological Emergency” given at the Governor’s Idaho Weed Summit in May 1998, invasive weeds were characterized as causing the “greatest permanent land degradation in their recorded history” to hundreds of public land watersheds in the west. Others have characterized the spread of invasive weeds as a “catastrophic wildfire in slow motion.” Among those attempting to do something about this situation, including environmentalists, herbicides are a recognized and vital tool. In an October 1998 article published in *Fremontia*, the quarterly journal of the California Native Plant Society (CNPS), President Jake Sigg writes convincingly about the positive role herbicides can and should play in preserving biodiversity.



A DC-10 drops fire retardant chemical into Corral Canyon, Malibu, November 24, 2007. The chemical, Phos-Chek®, is up to 10 times more toxic than many herbicides like glyphosate. (photo from *L.A. Times* website; Gregg Frost)



In many areas of Southern California, including Los Angeles County, the most destructive and invasive plant is Arundo (*Arundo donax*). Permanent destruction and removal of this tough pest is absolutely essential to any watershed restoration project. Every large scale Arundo eradication program known to ACWM uses herbicides as a key component. One of the largest, at \$20 million, as well as most successful, is being conducted in the Santa Ana River in Riverside and Orange counties by the Southern California Integrated Watershed Program. Its *Arundo Removal Protocol* cites chemical removal of Arundo as a “proven method of clearing areas of infestation” while proclaiming mechanical removal as “disadvantageous” due to “adverse environmental impacts.” The document states that cutting Arundo “should be performed in conjunction with herbicide application...”



An ACWM employee treats the tough invasive weed Arundo in San Francisquito Canyon. The Arundo has been all but eliminated in the area following careful treatments with herbicides.

Non-native living organisms which are of limited distribution in the state and are well-known for their destructive potential are given an “A” rating by the California Department of Food and Agriculture (CDFA). An example of an A-rated *insect* pest is the Mediterranean Fruit Fly. Los Angeles County currently has four known A-rated plants: alligatorweed, spotted knapweed, halogeton, and Dalmatian toadflax. All except Dalmatian toadflax have been brought to a state of near-eradication almost entirely as a result of herbicide applications performed by ACWM.

The California Department of Fish and Game, Habitat Conservation Branch, developed a Wildlife Action Plan where the major threats to wildlife diversity in California were identified. For the Los Angeles region, none of the major wildlife stressors were related to pesticide use.

### **ANTICOAGULANT RODENTICIDES - Risk to Public Health**

For reasons previously discussed, ACWM and DPW provide for control of burrowing rodents, nearly always ground squirrels, in various areas within the County’s flood control infrastructure. Ground squirrels thrive in disturbed areas like flood control channels, alongside roads, in campgrounds, etc., sometimes reaching many times the normal population density. In these situations, they can be extremely destructive and must be controlled. Additional reasons for controlling rodents like ground squirrels, beyond protecting the integrity of flood control channels, levees and dams, include protecting public health from outbreaks of rodent-borne diseases. In 2007, Bubonic Plague was detected in ground squirrels at Stonyvale picnic area near Big Tujunga.

At present, grain-based anticoagulant rodenticides are the safest and most effective means to control ground squirrels. The active ingredient in the two formulations used by ACWM for ground squirrel control is 0.005% and 0.01% *diphacinone*, which belongs to a class of anticoagulants requiring multiple feedings over a period of days for a target animal, like a ground

squirrel, to receive a lethal dose. The other class of anticoagulant active ingredient can produce a lethal result after only a single feeding. This latter type (single-feeding) may only be used to control commensal, non-native rodents (Norway rats, roof, fruit and wharf rats, and house mice) in, or in close proximity to, structures like houses, restaurants, hospitals and warehouses.

ACWM has no knowledge, either in regard to its regulatory or user function, of any instance in which grain-based diphacinone bait contributed to any human illness in Los Angeles County when used for control of field rodents. While difficult to imagine a pathway whereby bait placed in a flood control channel or other field situation could result in human consumption, it is notable that an adult would have to consume about four pounds of the bait to receive a lethal dose.

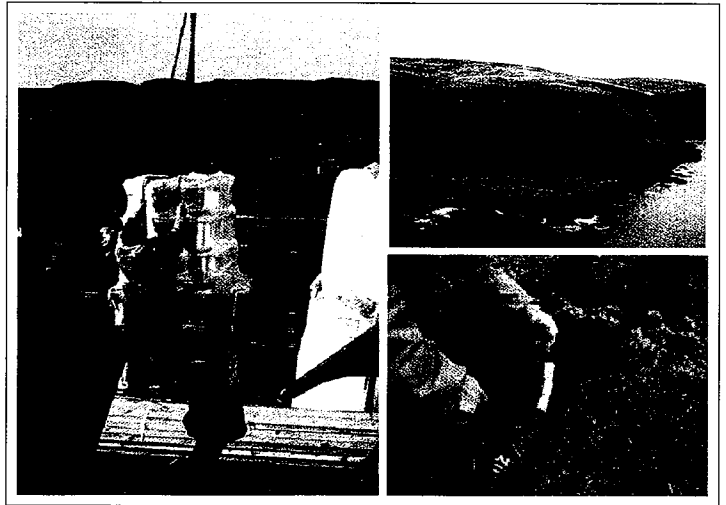
Improperly used, anticoagulants used for control of commensal rodents could pose potential risks, but the actual risk is considered extremely low. In 2006, the American Association of Poison Control Centers (AAPCC) developed a Practice Guideline entitled *Long-acting anticoagulant rodenticide poisoning: An evidence-based consensus guideline for out-of-hospital management*. Following a review of thousands of incidents nationwide, AAPCC concluded in the Practice Guideline, “The preponderance of evidence suggests that acute, unintentional ingestion of ready-to-use LAARs [long-acting anticoagulant rodenticides] by children will not result in a clinically significant coagulopathy or bleeding.” In addition, they recommended “[p]atients with unintentional ingestion of less than 1 mg of LAAR active ingredient can be safely observed at home without laboratory monitoring. This includes practically all unintentional ingestions in children less than 6 years of age.”

One topic often missing from discussions of potential health hazards from anticoagulants is the benefit to human health resulting from control of commensal rodents, especially in neighborhoods that are at the greatest risk for suffering the health effects of a rodent infestation. For this reason, the California Latino Legislative Caucus and the National Organization of African Americans in Housing (NOAAH) wrote letters to U.S. EPA in opposition to imposing increased restrictions on rodenticides. Concerned about the disproportionate adverse effect on public housing communities, NOAAH urged U.S. EPA to defer taking “any other steps to even unintentionally reduce the availability of these products.”

### **ANTICOAGULANT RODENTICIDES-Risk to the Environment**

Based on research, years of actual field use, and discussions with other experts, it is ACWM's opinion that proper field use of grain-based, multiple-feeding anticoagulants does not pose an unacceptable risk to the environment. This is supported by a number of sources such as the California Department of Fish and Game, whose Habitat Conservation Branch identified the major threats to wildlife diversity in California. For our region, none of the major wildlife stressors were related to pesticides. In 2003, CDFA completed a comprehensive Ecological Risk Assessment for field use of the grain-based, multiple-feeding anticoagulants of the type used by ACWM and others. The Assessment affirms the environmental safety of these materials.

As previously discussed, anticoagulant active ingredients are not being detected in waterways or fish associated with such and it is unlikely that anticoagulants are contributing to the decline of endangered or threatened species known to occur in Los Angeles County. Two most susceptible to anticoagulants are the Pacific pocket mouse (endangered) and the Mojave ground squirrel (threatened). For those two species, development is listed as the major cause of their current status. It is also unlikely that any endangered or threatened species are utilizing flood control infrastructures to any significant extent. Ironically, anticoagulants, including stronger, single-feeding type, are being used to *preserve* endangered species in areas with some of the world's most fragile ecosystems - offshore islands. Examples include California's Anacapa Island and Canna Island off the coast of Scotland, where projects conducted respectively by the National Park Service and National Trust for Scotland were designed to protect endangered seabird colonies from introduced rats.



Anticoagulant rodenticide being unloaded on Canna Island off the coast of Scotland (left). Bait was placed in thousands of bait stations like that shown at lower right in a successful effort to eradicate rats from the island. (Photos: National Trust for Scotland website)

Beginning about 10 years ago, studies in the Santa Monica Mountains and other areas began to detect anticoagulants in carcasses of mammalian predators like coyotes, bobcats and mountain lions. Not all animals tested had died as a result of anticoagulant poisoning, but presence of the materials, in any case, caused concern. Some have theorized the animals are receiving doses of anticoagulants through a process called secondary poisoning, whereby an animal gets a dose of a pesticide indirectly by feeding on other animals that have directly consumed it. Such instances may more likely be a result of illegal, intentional attempts to directly poison wildlife, something ACWM encounters not infrequently in its role as pesticide regulators and a suspicion supported by conversations with authorities from the California Department of Fish and Game who have observed such practices, as well. Additional support comes from *Los Angeles Times* reporter Steve Lopez, who, in November 2005, wrote a follow up news story about his battle with raccoons. Apparently, the response to his first story was so great he wrote, "...you'd think this was one of the great untold stories of California." After the first story ran, readers sent suggestions for how to handle problems with urban raccoons, including enticing them to eat food laced with antifreeze or "rat poison."



In July 2003, Sharon Osbourne (right) admitted to the BBC that her rock star husband Ozzie (left) attempted to kill coyotes with a "poisoned chicken" at the couples' home in Beverly Hills. (Photo: BBC website)

The U.S. EPA elected to take steps to decrease what they believed was the possibility of unreasonable adverse effects to wildlife and children and, in January 2007, issued a set of proposed changes to the manners in which all anticoagulants could be legally sold and used. Briefly, U.S. EPA's proposed changes would have restricted single-feeding anticoagulants to use by certified professionals and required all rodenticide bait products for sale to consumers be sold only in tamper-resistant bait stations with solid blocks as the only permissible bait form. U.S. EPA's proposal launched a hailstorm of comments, many of which were strongly opposed to the proposed changes and contained sufficient scientific or other challenges to warrant a careful evaluation of each one by U.S. EPA. As of this writing, the decision is pending this evaluation.

## BEST MANAGEMENT PRACTICES THAT LOS ANGELES COUNTY CURRENTLY EMPLOYS IN ORDER TO MINIMIZE POTENTIAL RISK TO PUBLIC HEALTH AND THE ENVIRONMENT

Following are some of the practices ACWM currently employs to minimize potential risks to public health and the environment from the use of pesticides:

- Only materials approved by U.S. EPA and California EPA are used. Through routine inspections and investigations, ACWM's Pesticide Regulatory Division ensures that only these materials are sold or used countywide by professionals or retail stores.
- Investigations of suspected or reported misuse of pesticides are conducted followed by vigorous prosecution of violators, where appropriate.
- Pesticide applications are only performed under the direction of certified applicators who, themselves, report to inspectors, all of whom have degrees in biology or a related field.
- Each treatment site is evaluated by certified County staff, who consider non-pesticide alternatives, environmental factors such as non-targets, wind, potential for off-site movement, proximity to sensitive sites and habitats for protected plant and animal species.
- Only lowest-risk types/formulations that are effective are used.
- In advance of nearly every application except small residential areas, a written recommendation is prepared, which includes a review of any potential hazards, such as toxicity to bees, birds, fish and other wildlife, and other potential hazards. Each contains the criteria used for determining the need for a treatment in the first place.
- In every situation where rodenticides are used, a review of the cause of the rodent problem is made and, if applicable, non-chemical solutions (site clean up, exclusion, etc.) are recommended.
- Staff is prohibited from using rodent bait stations if other methods can be used safely and effectively.
- If rodent bait stations are used, they must adhere to a specially-developed securing standard designed to keep the stations from being moved or having the bait shaken out.

- Access to bait stations must be completely restricted and never placed in open areas.
- ACWM has established and obtained funding for a new Integrated Pest Management (IPM) program. The principles of IPM seek to solve pest problems by integrating many facets into a solution with one of the goals being to reduce the dependence on chemical control alone. ACWM is currently recruiting a candidate for the position. Once filled, the IPM specialist will review all ACWM pest management programs for consistency with IPM principles and will aid in development of new ones. In addition, it is anticipated that the IPM program will be utilized to assist other County departments in developing effective, environmentally responsible solutions to their pest problems.
- ACWM collects a \$0.50 per pound surcharge for vertebrate pest control materials it uses or sells. All proceeds are used to provide direct support to the State Vertebrate Pest Control Research Advisory Committee charged with investigating new and alternative methods for vertebrate pest problems. Last Fiscal Year, that fund was over \$23,000.

DPW and ACWM are among the County's leading experts in vegetation management. As participating members of the Los Angeles County Weed Management Area, both departments have collectively invested hundreds of hours in research and effort compiling a comprehensive document entitled *BEST MANAGEMENT PRACTICES for VEGETATION CONTROL - June 2005* (enclosed), which is used as a basis for determining the type of vegetation control method(s) appropriate for any given situation. Other contributors to the document included leading State experts on weeds and toxicology as well as native habitat restoration groups, land managers, and representatives from the Los Angeles and San Gabriel Rivers Watershed Council. ACWM is aware of and considers every known option for controlling weeds and is committed to putting such into practice. Last season, ACWM's Weed Abatement program removed hazardous weeds and brush from nearly 3,000 acres. All but 10 or fewer acres were cleared using non-chemical control methods such as mowing, discing and hand clearing.

In summary, ACWM and DPW are aware of the concerns related to herbicide and anticoagulant rodenticide use as well as the procedures and considerations necessary in ensuring their safe use. Mechanical, non-pesticide methods for rodent and weed control are employed where effective, but herbicides and pesticides are proven, necessary, effective, and efficient tools in effectively providing protections to public health and safety, as discussed. The proposal to include in the County's State Legislative Agenda a position of opposition to legislation impeding effective pest management by limiting control methods was presented based predominately on the condition "**without sound scientific bases.**" As approvals of pesticide materials by U.S. EPA and California EPA, Department of Pesticide Regulation, are required before use is permitted and only after extensive testing and analysis is performed, reviewed, and substantiated, it is the opinion of ACWM and DPW that **restrictions** to pesticide use should be based upon equivalent scientific analysis and substantiation. Such considerations will be applied in evaluations of any specific legislative proposal(s) that may be presented in the future on a case-by-case basis. If the proposed County State Legislative Agenda position is considered overly broad or premature, ACWM and DPW will not oppose removal from the Agenda and will address future legislation on an individual case basis.