



December 7, 2012

Via Federal Express

Ann M. Prichard, Chief
Pesticide Registration Branch
Department of Pesticide Regulation
1001 "I" Street
Sacramento, CA 95812-4015

Re: Notice of Proposed Decision to Renew Pesticide Product Registrations for 2013, Director's Findings and Public Report (California Notice 2012-14)

Dear Ms. Prichard:

We are writing on behalf of Californians for Pesticide Reform, the Center for Biological Diversity, and the American Bird Conservancy regarding the Notice of Proposed Decision to Renew Pesticide Product Registrations for 2013 (Cal. Notice 2012-14) (the "Proposed Decision"), in which the Department of Pesticide Regulation ("DPR") proposes "to renew, for calendar year 2013, certificates of registration of those pesticide products registered with DPR on December 31, 2012." (Proposed Decision at 1.)

For the reasons set forth below, we urge DPR not to renew any pesticide products containing the active ingredients brodifacoum, bromadiolone, difenacoum, and difethialone. There is overwhelming evidence that these "second-generation anticoagulant" rodenticides are having a significant adverse impact on non-target wildlife in California and constitute an immediate and substantial threat to the environment. We are submitting with this letter a CDROM that contains electronic copies of data, studies, reports and other materials, including all the materials referenced in this comment letter, which document the profound environmental impact that second-generation anticoagulants are having on wildlife. Consistent with law, we expect that DPR will review carefully the materials contained on the accompanying CDROM and include them in the administrative record for DPR's final decision regarding renewal.

As detailed below, DPR's proposed decision to renew second-generation anticoagulant rodenticides, as well as the agency's related failure to act expeditiously in reevaluating rodenticide products containing the second-generation anticoagulant brodifacoum, are contrary to law. We urge DPR to deny renewal and to take immediate steps to suspend and cancel all rodenticide products containing second-generation anticoagulants.

I. About the Organizations Submitting these Comments

Californians for Pesticide Reform (“CPR”) is a statewide coalition of over 185 public interest groups dedicated to protecting public health and the environment from the dangers of pesticide use. Founded in 1996, CPR aims to ban the most hazardous pesticides, reduce the use of the rest, protect the public’s right to know about pesticide use, and support sustainable pest control solutions in farms, communities, forests, homes and yards across the state.

The Center for Biological Diversity (“the Center”) is a national, nonprofit conservation organization with more than 375,000 members and online activists dedicated to the protection of endangered species and wild places. The Center’s Pesticides Reduction Campaign aims to secure programmatic changes in the pesticide registration process and to stop toxic pesticides from contaminating fish and wildlife habitats. The Center has offices throughout the United States including offices in San Francisco, Los Angeles, and Joshua Tree, California.

American Bird Conservancy (“ABC”) is a 501(c)(3) non-profit membership organization whose mission is to conserve native birds and their habitats throughout the Americas. ABC acts by safeguarding the rarest species, conserving and restoring habitats, and reducing threats, while building capacity in the bird conservation movement. ABC is the only national conservation organization with a designated program targeting pesticide impacts on birds. The organization advocates for restrictions and cancellations of the most harmful chemicals domestically, and seeks to rein in the worst bird-killers beyond US borders. ABC is spearheading National Pesticide Reform Coalition efforts to protect children and raptors from super-toxic rodenticides.

II. About Second Generation Anticoagulants

Rodenticides are designed to kill mammals, so their effects on humans and non-target mammals are qualitatively the same as their effects on target pests, unlike other pesticides such as herbicides and certain insecticides where adverse effects on mammals tend to be different in nature than their effects on target pests. Rodenticides can be divided into three broad classes in terms of their effects: first generation anticoagulants, second generation anticoagulants, and nonanticoagulants.

The first- and second generation anticoagulants interfere with blood clotting and death results from hemorrhage. For both first generation and second generation anticoagulants, primary manifestations include nosebleeds, bleeding gums, hematuria, melena, and extensive ecchymoses (bruises). Patients may also have symptoms of anemia, including fatigue and dyspnea on exertion. If the poisoning is severe, the patient may progress to shock and death.

Second-generation anticoagulant rodenticides, which include brodifacoum, bromadiolone, difenacoum, and difethialone, are acutely toxic and have a high risk of severe unintended poisoning for children, pets, and other non-target wildlife. This is due to the fact that second-generation anticoagulants remain in the body long after consumption, with half-lives of

up to 170 days. As a result, predatory birds and mammals that feed on poisoned rodents or live rodents that have received a sub lethal dose are especially vulnerable to secondary poisoning from second-generation anticoagulants.

III. Evidence of Impacts from Second Generation Anticoagulants on Wildlife.

Second-generation anticoagulant rodenticides have long been of concern for wildlife. In 1999, California Fish and Game was sufficiently concerned about one of the second-generation anticoagulants – brodifacoum – that it requested DPR to reevaluate all rodenticides containing that active ingredient.¹ Between 1994 and 2000 in California, second-generation anticoagulants were detected in 70% of mammals and 68% of birds examined; signs of intoxication were seen in 43% of exposed wildlife². The list of potentially affected mammals was already extensive: coyote, red and gray fox, raccoon, bobcat, mountain lion as well as the endangered San Joaquin kit fox. As for raptors, golden eagles and barn owls were showing the highest exposure levels.

Updated poisoning data from California and other states are provided on the CDROM that accompanies this letter in the folder entitled “Exhibit A.” These data reveal the prevalence of second-generation rodenticides in wildlife and demonstrate that wildlife is being exposed to second-generation rodenticides through secondary poisoning. Analysis of wildlife conducted by the California Department of Fish and Game between 1994 and 2005 indicates that second-generation rodenticides were found in 65.6% of wildlife tested. The frequency of second-generation anticoagulants in wildlife evaluated for rodenticide poisoning in 2006-2011 was similar. The 2011 SAP convened by the United States Environmental Protection Agency (“EPA”) also concluded that terrestrial food chains were widely contaminated with brodifacoum, the most studied second-generation anticoagulant to date. In a recent study, scientists autopsied 58 carcasses of the critically endangered Pacific fisher (*Martes pennanti*) and detected brodifacoum in approximately 75%.³

In addition, because of this widespread contamination by second-generation anticoagulants now being reported, the base risk scenario today is not likely to be that of a toxicologically ‘naïve’ individual being exposed to a residue-carrying mouse or rat. Recent data from Canada (Thomas et al. 2011) obtained with a sensitive triple quadrupole LCMS-MS instrument indicate that it is becoming difficult to find uncontaminated great horned owls or red-tailed hawks, and that the majority of birds in proximity to the human population now carry multiple rodenticide residues, primarily second generation anticoagulants. Whereas the toxicological significance of these residues is not always clear, we can surmise a general increase in susceptibility to anticoagulation as a result of this extensive pre-exposure in wildlife

¹ Notice of proposed reevaluation of pesticide products, California Notice 99-7.

² Hosea, R.C. 2000. Exposure of non-target wildlife to anticoagulant rodenticides in California. In: Salmon, T.P. and A.C. Crabb, (eds.) Proceedings of the Nineteenth Vertebrate Pest Conference. University of California, Davis, CA. 236-244.

³ Gabriel et al. (2012) Anticoagulant Rodenticides on our Public and Community Lands: Spatial Distribution of Exposure and Poisoning of a Rare Forest Carnivore. PLoS ONE 7(7): e40163. doi:10.1371/journal.pone.0040163

populations. Current rodenticide assessments are carried out on individual compounds – this does not acknowledge that the second-generation anticoagulants (as well as some of the first-generation anticoagulants) act on the same receptors, and that their activity is therefore additive.

A. Sublethal Effects of Second Generation Anticoagulants Contribute to Wildlife Deaths.

Even if exposed wildlife survive lethal intoxication, concerns remain because of possible disruptions in vital physiological processes. Damage to the heart muscle has been shown in both birds and mammals following brodifacoum exposure⁴. Hepatotoxicity as well as disruptions of osteocalcin-dependent processes, such as loss of calcium leading to osteoporosis; or calcium remobilization and deposition in the circulatory system, are theoretically possible (although not yet shown in wildlife) because of the involvement of vitamin K.⁵ Other sub lethal effects at dose levels orders of magnitude below lethal levels have been reported.^{6,7} The increased sensitivity of exposed wildlife following a re-exposure is expected given the cumulative mode of action demonstrated with all the anticoagulant rodenticides.

A particularly worrisome research finding has been the report of brodifacoum toxicosis in neo-natal dogs following a past sub-lethal exposure in the bitch.⁸ The risk of trans-placental transfer is of obvious concern given the high proportion of mammals found carrying residues, including endangered species such as the San Joaquin kit fox.

B. Reported Poisonings Are Higher in Developed Areas.

In their recent analysis, EPA identified 167 wildlife poisoning incidents with brodifacoum alone (119 of which were due to secondary exposure)⁹. EPA further reported in a recent endangered species assessment that exposure to the endangered kit fox is extensive¹⁰. This review of poisoning incidents shows that the majority are reported from urban/suburban areas, thus restriction of consumer use is an important first step to mitigate these non-target poisonings.

⁴ Rahmy, T.R. 1993. Myocardial alterations in animals intoxicated with an anticoagulant rodenticide. *J. Egypt. Ger. Soc. Zool.* 12C: 87-98.

⁵ L. D. Knopper, P. Mineau, L. A. Walker and R. F. Shore. 2007. Bone Density and breaking strength in UK raptors exposed to second generation anticoagulant rodenticides. *Bull Environ Contam Toxicol* 78:249–251.

⁶ USEPA 1998. Reregistration Eligibility Decision (RED) Rodenticide Cluster, EPA738-R-98-007. 296 pp.

⁷ USEPA 2004. Potential Risks of Nine Rodenticides to Birds and Nontarget Mammals: a Comparative Approach. 225 pp.

⁸ Munday and Thompson 2003. *Vet Pathol.* 40:216 (contained in Exhibit B: Scientific References).

⁹ USEPA 2012. Risks of brodifacoum use to the federally threatened Alameda whipsnake (*Masticophis lateralis euryxanthus*) and the federally endangered salt marsh harvest mouse (*Reithrodontomys raviventris*) and San Joaquin kit fox (*Vulpes macrotis mutica*). March 30 2012. Appendix D.

¹⁰ USEPA 2012. See above.

Similarly, Lima and Salmon¹¹ conducted a spatial analysis of raptor incidents in San Diego, Fresno, Kern and Madera counties in California, which again suggested a higher number of rodenticide detections in urban areas with higher population density. A telemetry study of bobcats (*Lynx rufus*) in southern California showed a relationship between residue levels and the proportion of the individuals' home range that was made up of developed areas.

It is difficult to assess the true relative rate of incidents in urban/suburban vs. agricultural situations because of the possibility of higher reporting rates in urban areas; however, an analysis of DPR's Pesticide Use Reporting (PUR) data and the annual Pesticide Sales Data indicates that most of the rodenticide use is unreported, suggesting that consumer use of over-the-counter rodenticide products contributes substantially to total use (see Figure 1).

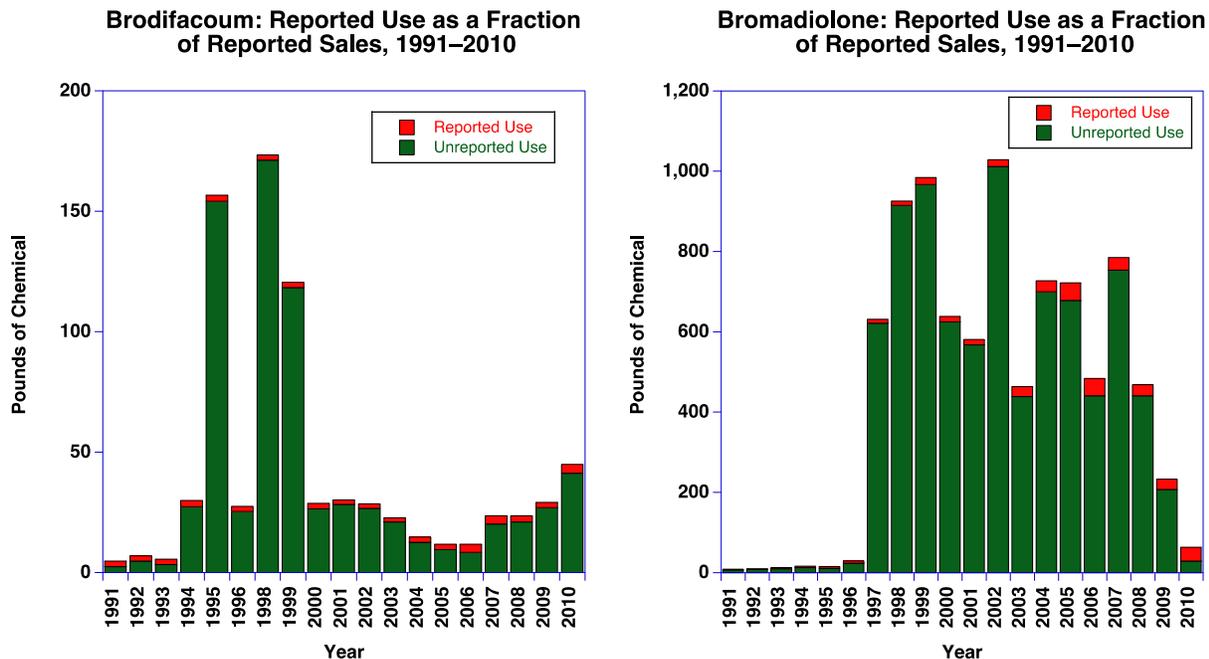


Figure 1: Comparison of reported vs. unreported use of brodifacoum and bromadiolone shows that unreported use accounts for the vast majority of rodenticide use. *Source:* DPR, Pesticide Use Reporting Data.

For rodenticide use reported through the California Pesticide Use Reporting system, the counties with the highest use are among the most urban, in particular Southern California counties (Figure 2).

¹¹ Lima, L.L. and T.P. Salmon. 2010. Assessing some potential environmental impacts from agricultural anticoagulant uses. *Proc. 24th Vertebr. Pest Conf.* (R.M. Timm and K.A. Fagerstone, Eds.) University of California. Pp. 199-203.

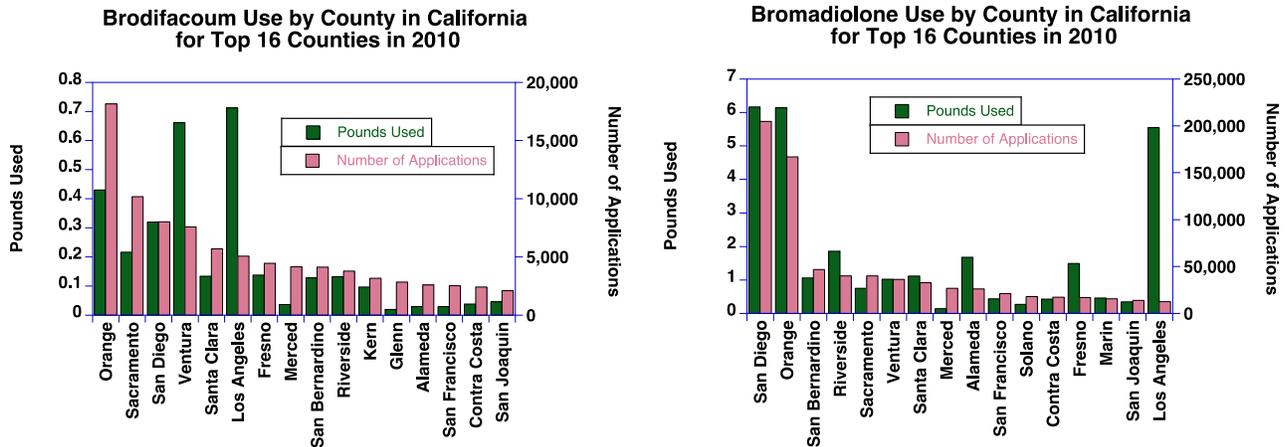


Figure 2: Rodenticide use is highest primarily in counties with the largest population centers. *Source:* DPR, Pesticide Use Reporting Data.

IV. Legal Background

A. Registration of Pesticides by DPR

Before a new pesticide may be offered for sale in California, it must first be registered both by the U.S. Environmental Protection Agency (“EPA”) and by DPR. (See 7 U.S.C. § 136a, subd. (a); Food & Agr. Code § 12811.) The term “pesticide” is defined to include any substance “which is intended to be used . . . for preventing, destroying, repelling, or mitigating any pest . . .” (Food & Agr. Code § 12753.) The term “pest,” in turn, includes “any . . . rodent.” (*Ibid.* § 12754.5, subd. (a).)

Upon receipt of a registration application, DPR must conduct a “thorough and timely evaluation.” (*Ibid.*, § 12824) DPR has broad discretion to refuse to register a pesticide. For example, DPR may, after a hearing, refuse to register a 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 practicable 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.

(*Ibid.*, § 12825.) During the registration process, DPR must also give “special attention” to a number of factors set forth in the agency’s implementing regulations, including the “[p]otential for environmental damage,” and “[t]he availability of feasible alternatives.” (Cal. Code Regs., tit. 3, § 6158.) “If any of these factors are anticipated to result in significant adverse impacts

which cannot be avoided or adequately mitigated,” the regulations provide that “registration will not be granted unless [DPR] makes a written finding that the anticipated benefits of registration clearly outweigh the risks.” (*Ibid.*)

B. Reevaluation or Pesticides by DPR

California law directs DPR to “develop an orderly program for the continuous evaluation of all pesticides actually registered.” (Food & Agr. Code § 12824.) To this end, DPR’s regulations direct the agency to “investigate all reported episodes and information received by the [DPR] that indicate a pesticide may have caused, or is likely to cause, a significant adverse impact, or that indicate there is an alternative that may significantly reduce an adverse environmental impact.” (Cal. Code Regs., tit. 3, § 6220.)

“If [DPR] finds from the investigation that a significant adverse impact has occurred or is likely to occur or that such an alternative is available,” the regulations provide that “the pesticide involved shall be reevaluated.” (*Ibid.*) In addition, a pesticide must be reevaluated “when certain factors have been found,” including “fish or wildlife hazard,” and “discovery that data upon which a registration was issued is false, misleading, or incomplete.” (*Ibid.*, § 6221.)

Once DPR places a pesticide into reevaluation, the registrant must submit to the agency “all data required for registration of a new pesticide by the U.S. EPA and by [DPR] which is relevant to the focus of the reevaluation and has not previously been submitted to the department. (*Ibid.*, § 6222, subd. (a).) DPR may “allow a reasonable time for the development and submission of such data, not to exceed a period of two years.” (*Ibid.*) But “[n]otwithstanding the lack of such data [DPR] shall act expeditiously to protect against risks to human health and the environment.” (*Ibid.*)

At the conclusion of reevaluation, DPR must “determine if the pesticide [under reevaluation] should be classified as a restricted material. . . and if additional restrictions on use are necessary, or if action [to suspend or cancel registration] should be taken.” (*Ibid.*, § 6224.)

C. Renewal of Pesticides by DPR

“Every [pesticide] registration expires on December 31st of each year, except when renewal is applied for within one month thereafter . . .” (Food & Agr. Code § 12817.) As when a pesticide is registered for the first time, the law provides that “[a]ll pesticides for which renewal of registration is sought also shall be evaluated . . .” (*Ibid.*, § 12824.)

By regulation, “renewal shall be issued within 60 days after [DPR] receives an accurate and complete renewal application,” unless the agency initiates proceedings to cancel the registration. (*Ibid.*, § 6215, subd. (b).) If DPR renews registration “without a reevaluation,” the regulations direct DPR to “make a written finding that [it] has not received sufficient information necessitating reevaluation . . .” (*Ibid.*, § 6215, subd. (c).)

D. The California Environmental Quality Act

DPR's pesticide registration process operates as a "certified regulatory program" for purposes of the California Environmental Quality Act ("CEQA"). (Cal. Code Regs., tit. 14, § 15251, subd. (i)(1).) To comply with CEQA, DPR must prepare a "public report" in connection with "each proposed decision relating to registration and renewal, and each decision to begin reevaluation." (Cal. Code Regs., tit. 3, § 6253.) The public report "shall include a description of the proposed action, a statement of any significant adverse environmental effect that can reasonably be expected to occur, directly or indirectly, from implementing the proposal, and a statement of any reasonable mitigation measures that are available to minimize significant adverse environmental impact." (*Ibid.*, § 6254.) The public report "shall also contain a statement and discussion of reasonable alternatives which would reduce any significant environmental impact." (*Ibid.*)

Ultimately, DPR "shall not approve an activity which would cause a significant adverse environmental impact if there is a feasible alternative or feasible mitigation measure available which would substantially lessen any significant adverse impact which implementation of the proposal may reasonably be expected to have on the environment." (*Ibid.*, § 6254, subd. (a).) In addition, "The final action taken in regard to a decision subject to this section in which a significant adverse environmental point is raised during the evaluation process shall include a written evaluation of such points approved by the director." (*Ibid.*, § 6254, subd. (b).)

V. Administrative Proceedings to Date

A. Federal Proceedings

Pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"), EPA re-registered several rodenticides in 1998, including the second-generation anticoagulants brodifacoum and bromadiolone. (63 Fed. Reg. 48,729 (Sept. 11, 1998).) At that time, EPA acknowledged "data suggesting that there may be a potential problem involving accidental non-target and secondary exposures to wildlife," and the agency stated that it would "be reviewing, and would be interested in receiving, State wildlife incident data for all rodenticides to better understand the extent of this potential problem." (*Ibid.*)

In July 2004, EPA published a document entitled, "Potential Risks of Nine Rodenticides to Birds and Nontarget Mammals: a Comparative Approach." Therein, EPA concluded that second-generation anticoagulants – and brodifacoum in particular – "present the highest potential overall primary and secondary risks to birds and nontarget mammals. (*Ibid.*, at 107.) On November 15, 2006, EPA issued a "Rodenticide Incident Update," which confirmed that "several monitoring programs have found that a major portion of some animal populations are being exposed to second-generation anticoagulant rodenticides." The U.S. Fish & Wildlife Service reviewed EPA's Comparative Approach and concluded that "the prevalence of

rodenticides in wild birds and mammals indicates that current restrictions are not sufficient to hinder their spread to nontarget organisms.” The Service determined that “second-generation rodenticides have proven to be a greater threat to nontarget wildlife due to their high toxicity and ability to bioaccumulate in tissue.” (*Ibid.* at 5.)

On January 17, 2007, EPA published its proposed risk mitigation decision for nine rodenticides. To mitigate ecological risks, the proposal included a requirement to classify all bait products containing the active ingredients brodifacoum, bromadiolone, difenacoum, and difethialone as restricted use pesticides. In its comments on EPA’s proposed decision, the California Department of Fish and Game stated that it “supports classifying all bait products containing the active ingredients brodifacoum, bromadiolone, and difethialone as restricted use pesticides.”

In May 2008, EPA published its risk-mitigation decision for rodenticide bait products containing the second-generation anticoagulants brodifacoum, bromadiolone, difenacoum, and difethialone. Therein, EPA described in detail the evidence that second-generation anticoagulants are having a significant adverse impact on non-target wildlife, and the agency concluded that “widespread exposures to second-generation anticoagulants are occurring wherever those rodenticides are being used.” (*Ibid.* at 8.) With the “goal of minimizing the availability of the second generation anticoagulants on the consumer market,” EPA imposed new minimum package size requirements other use restrictions. (*Ibid.* at 12-14.)

Most rodenticide manufacturers adopted voluntarily the restrictions set forth in EPA’s May 2008 risk mitigation decision. However, several companies did not. In particular, manufacturers Reckitt Benckiser, Inc. and Liphatech, Inc. continue to market 11 rodenticide bait products containing the second-generation anticoagulants brodifacoum and difethialone that do not meet the mitigation measures set forth in EPA’s risk mitigation decision. Due to their noncompliance, EPA released on November 2, 2011 a draft notice of intent to cancel the federal registration of these products. Over one year later, EPA has yet to finalize its draft notice of intent to cancel.

B. California Proceedings

Several second-generation anticoagulant rodenticides have been registered for use in California by DPR. On December 30, 1999, at the request of the California Department of Fish and Game, DPR announced its decision to reevaluate all registered such rodenticides that contain the active ingredient brodifacoum.

In late 2005, DPR proposed that brodifacoum-based rodenticides be restricted to indoor structural use only and recommended a number of additional mitigation measures. However, DPR withdrew its proposal following opposition from the pest-control industry.

In July 2011, CDFG once again requested that DPR restrict the availability and use of second generation anticoagulants in order to mitigate the harm of exposure and poisonings in non-target organisms. CDFG expressed concern that the EPA's mitigation decision still permits the sale of large volumes of second generation anticoagulants to the public at farm stores.

In November 2011, in response to DPR's Notice of Proposed Decision to Renew Pesticide Product Registrations for 2012, CPR and others urged DPR not to renew the second generation anticoagulants identified in EPA's Draft Notice of Intent to Cancel. DPR declined this request, and explained:

The initiation of a cancellation action by U.S. EPA is not valid grounds for state cancellation and DPR cannot refuse to renew a product's registration on that basis. As long as each registrant complies with adverse effects reporting requirements and submits a signed complete application, and DPR has not cancelled the products through the hearing process . . . DPR must renew the product's registration.

(Cal. Notice 2012-01, at 3.)

On September 5, 2012, DPR issued a Semiannual Report Summarizing the Reevaluation Status of Pesticide Products During the Period January 1, 2012 Through June 30, 2012. With respect to the reevaluation of brodifacoum, the report explains:

DPR is monitoring the progress of the US EPA cancellation process. Additionally, DFG requested that DPR designate second-generation anticoagulant rodenticides as California restricted materials. DPR is in the process of reviewing this request and assessing wildlife incident data recently submitted by DFG and other rehabilitation organizations. DPR intends to complete an analysis paper on second-generation rodenticides by the fourth quarter of 2012, and move forward with the reevaluation process by monitoring US EPA efforts and determining if additional mitigation measures (i.e., making these products California restricted materials) are necessary to address the reported concerns.

(Cal. Notice 2012-09 at 3-4.)

VI. Violations of Law by DPR

DPR's proposed decision to renew rodenticide products that contain second-generation anticoagulants, as well as the agency's related failure to act expeditiously in reevaluating rodenticides products containing the second-generation anticoagulant brodifacoum, are contrary to law.

A. Renewal of Second Generation Anticoagulants Is Contrary to Law.

1. DPR's Finding that Renewal Will Not Cause Any Environmental Impact Is Unsupported by Substantial Evidence.

DPR's Proposed Decision finds that renewing all currently registered pesticide products "maintains the status quo and will not cause either a direct or reasonably foreseeable indirect physical change in the environment, and as a result, no alternatives or mitigation measures are proposed." (Proposed Decision at 2.) The Proposed Decision also "finds that for all pesticide products proposed for renewal that are not currently under reevaluation and are not under consideration for reevaluation, sufficient information has not been received necessitating their reevaluation or the initiation of the cancellation process." (*Ibid.*) Based on these findings, DPR "determines that the renewal of pesticide product registrations for the calendar year 2013 should proceed . . . and that no additional products need to be placed into reevaluation or the cancellation process initiated." (*Ibid.*, at 3.)

The aforementioned findings and determination are unsupported by – and indeed contrary to – substantial evidence. As discussed previously, the scientific evidence that accompanies this letter demonstrates that second-generation anticoagulant rodenticides are having a profound adverse impact on non-target wildlife, such that their renewal will result in significant adverse environmental impacts.

2. DPR Has Failed to Propose and Evaluate Alternatives to Renewing Second Generation Anticoagulants.

As discussed previously, each proposed decision "relating to registration and renewal" must be accompanied by a "public report" that includes "a statement and discussion of reasonable alternatives which would reduce any significant environmental impact." (Cal. Code Regs., tit. 3, § 6254.) The Supreme Court has made clear that "the public agency bears the burden of affirmatively demonstrating that, notwithstanding a project's impact on the environment, the agency's approval of the proposed project followed meaningful consideration of alternatives and mitigation measures." (*Mountain Lion Found. v. Fish & Game Comm'n* (1997) 16 Cal. 4th 105,134; see also *Friends of the Old Trees v. Department of Forestry & Fire Prot.* (1997) 52 Cal. App. 4th 1383, 1404.)

In violation of CEQA and DPR's implementing regulations, DPR's Proposed Notice fails to describe and evaluate reasonable alternatives to renewing registration of second-generation anticoagulant rodenticides, including but not limited to the alternatives of not renewing such rodenticides or designating all such rodenticides as restricted use materials.

3. DPR's Conclusion that It Lacks Discretion to Refuse to Renew Second-Generation Anticoagulants Is Contrary to Law.

DPR claims that “the annual renewal of certificates of registration is a non-discretionary duty that must be taken if certain requirements . . . are satisfied by the registrant.” (Proposed Decision at 1.) The Proposed Notice explains: “If DPR receives or has received information that indicates a pesticide may have caused, or is likely to cause, a significant adverse impact, DPR proceeds with renewal and either places the product into reevaluation or continues an existing reevaluation.” (*Ibid.* at 2; see also *ibid.*, at 3 [“If DPR determines that continued use of the product has a significant adverse effect that cannot be mitigated, DPR will renew.” (Notice at 3.)

DPR's view that it must renew a pesticide despite evidence that such pesticide is having a significant adverse impact is contrary to law. DPR's own regulations provide that the agency “shall not approve an activity which would cause a significant adverse environmental impact if there is a feasible alternative or feasible mitigation measure available which would substantially lessen any significant adverse impact which implementation of the proposal may reasonably be expected to have on the environment.” (*Ibid.*, § 6254, subd. (a).) Moreover, if at any time DPR “has reason to believe” that a pesticide “has demonstrated serious uncontrollable adverse effects either within or outside the agricultural environment,” and that “the use or continued use of that pesticide constitutes an immediate substantial danger to persons or to the environment,” DPR is empowered to “suspend the registration of that pesticide pending a hearing and final decision.” (Food & Agr. Code §§ 12825, 12826.)

4. Renewal of Second-Generation Anticoagulants Violates the California Endangered Species Act.

The California Endangered Species Act (“CESA”) declares that “it is the policy of this state that all state agencies, boards, and commissions shall seek to conserve endangered species and threatened species.” (Fish & Game Code § 2055.) The statute provides that “state agencies should not approve projects as proposed which would jeopardize the continued existence of any endangered species or threatened species . . . if there are reasonable and prudent alternative available . . . which would prevent jeopardy.” (*Ibid.*, § 2053.)

The continued use of second-generation anticoagulant rodenticides in California jeopardizes the continued existence of numerous threatened, endangered, and candidate species, including the San Joaquin kit fox (*Vulpes macrotis mutica*), the Pacific fisher (*Martes pennanti*), and the Swainson's hawk (*Buteo swainsoni*). DPR's proposed decision to renew these rodenticides is therefore contrary to CESA.

B. DPR Has Violated the Law in Reevaluating Rodenticides Containing the Second-Generation Anticoagulant Brodifacoum

1. DPR Has Failed to Conduct Its Reevaluation of Brodifacoum in a Timely Manner.

As discussed above, once DPR places a pesticide into reevaluation, it may “allow a reasonable time” for the development and submission of data relevant to that reevaluation, “*not to exceed a period of two years.*” (Cal. Code Regs., tit. 3, § 6222, subd. (a), emphasis added.)

Here, DPR placed rodenticides containing the active ingredient brodifacoum into reevaluation in 1999 – well over a decade ago. And yet brodifacoum remains under reevaluation today. DPR’s failure to conduct its reevaluation in a timely manner is contrary to law.

2. DPR Has Failed to Act Expeditiously to Protect Human Health and the Environment.

While a pesticide is under reevaluation, notwithstanding the available data, DPR must “act expeditiously to protect against risks to human health and the environment.” (Cal. Code Regs., tit. 3, § 6222.) The evidence discussed in and accompanying this comment letter makes clear that brodifacoum-based rodenticides are having a substantial and imminent adverse impact on non-target wildlife. DPR’s failure to act expeditiously to protect wildlife from these impacts is contrary to law.

3. DPR Has Engaged in a Pattern and Practice of Failing to Conduct Pesticide Reevaluations in a Timely Manner.

DPR has engaged in an illegal pattern and practice of failing to conduct its reevaluations in a timely manner. DPR’s most recent Semiannual Report Summarizing the Reevaluation Status of Pesticide Products During the Period January 1, 2012 Through June 30, 2012 (Cal. Notice 2012-09) indicates that numerous pesticides have been under reevaluation for many years, with DPR failing to act expeditiously to prevent well-documented risks to human health and the environment. The following table provides a summary of several pesticides currently under reevaluation:

Pesticide	Reevaluation Initiated	Reasons for Reevaluation
Brodifacoum	1999	Impacts to Wildlife
Chloropicrin	2001	Adverse Health Effects
Chlorpyrifos	2004	Water Quality Impacts
Cyfluthrin	1998	Adverse Health Effects
Diazinon	2003	Water Quality Impacts
Neonicotinoids	2009	Impacts to Pollinators
Sulfuryl Fluoride	2008	Adverse Health Impacts

Ms. Ann M. Prichard

December 7, 2012

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VII. Conclusion

For all the reasons stated above, DPR should decline to renew registration of all second-generation anticoagulant rodenticides. DPR should immediately suspend any such registrations and commence cancellation proceedings.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory C. Loarie". The signature is fluid and cursive, with a long horizontal stroke at the end.

Gregory C. Loarie
Earthjustice

*Counsel for Californians for Pesticide Reform,
Center for Biological Diversity, and American Bird Conservancy*

Encl.: one CDROM w/ exhibits

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December 8, 2012

Via Federal Express and Electronic Mail

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**RE: Oppose Pesticide Registration Renewals for Second Generation
Anticoagulants (California Notice 2012-14)**

Dear Ms. Prichard:

We urge the California Department of Pesticide Regulation (“DPR”) not to renew the certificate of registration for second generation anticoagulant rodenticides, including brodifacoum, bromadiolone, difethialone and difenacoum, due to unacceptable impacts to wildlife, public health, animal welfare and the environment. On behalf of the thirty seven undersigned groups and our tens of thousands of members, we urge DPR to quickly remove these rodenticide products from the market.

Background

Anticoagulant rodenticides interfere with blood clotting and cause death from excessive bleeding. Second generation anticoagulants are especially hazardous and persist for a long time in body tissues. They are designed to be toxic in a single feeding, but since time-to-death is several days, rodents can feed multiple times before dying, leading to carcasses containing residues that may be many times the lethal dose. Predators or scavengers that feed on those poisoned rodents may consume enough to suffer harm.

Rodenticides generally also pose unacceptable risks to children and pets. From 1993 to 2008 the American Association of Poison Control Centers received between 12,000 and 15,000 reports of rat and mouse poison exposures each year to children less than six years of age. Accidental pet exposures to rodenticide products have also been identified as an area of concern, often leading to severe injury or death in exposed pets.

In 1999, the DPR initiated reevaluation for the anticoagulant rodenticide brodifacoum at the request of the California Department of Fish and Game (“CDFG”). CDFG expressed

concern regarding the adverse effects on California's wildlife from widespread exposure to brodifacoum and the subsequent poisonings of birds and mammals.

In 2005, DPR recommended a number of mitigation measures and proposed that second generation anticoagulant rodenticide baits containing brodifacoum, bromadiolone, and difethialone be restricted to indoor structural use only. However, after receiving comments from the pest control industry opposing the restriction, DPR did not implement its own recommendations. DPR has yet to complete the brodifacoum reevaluation process initiated in 1999.

Rodenticides are regulated by both DPR and the U.S. Environmental Protection Agency ("EPA"). Over the past several years the EPA has taken substantial steps to reduce the human and environmental safety concerns associated with anticoagulant rodenticides. In 2008, after more than a decade of agency review and public input, the EPA issued its *Risk Mitigation Decision for Ten Rodenticides*, in which the Agency required rodenticide companies to adopt certain mitigation measures to reduce the threat to people and animals from accidental poisoning.

The majority of companies that produce rodenticide products complied with EPA's safety measures, but three companies refused to adopt the minimal packaging and distribution requirements delineated by the Agency. As a result the EPA issued a *Draft Notice of Intent to Cancel and Notice of Denial of Registrations for Certain Rodenticide Bait Products* in 2011. The EPA identified 20 federally registered products subject to federal registration cancellation. Eight of the products are currently registered with DPR.

In July 2011, CDFG once again requested that DPR restrict the availability and use of second generation anticoagulants in order to mitigate the harm of exposure and poisonings in non-target organisms. Specifically CDFG requested that brodifacoum, bromadiolone, difethialone, and difenacoum be redesignated as State Restricted Materials. In addition, CDFG expressed concern that the EPA's mitigation decision still permits the sale of large volumes of second generation anticoagulants to the public at farm stores. CDFG confirmed 240 cases of non target wildlife being exposed to anticoagulant rodenticides from 1993 to 2011, including state or federally protected wildlife species such as the San Joaquin Kit Fox, as well as mountain lions, golden eagles and other raptors.

Summary

The significant adverse impacts of second generation anticoagulants are too great for DPR to continue to allow the registration of these products for public use. As documented in the EPA's *Risk Mitigation Decision for Ten Rodenticides* there are simple cost-effective mitigation measures to reduce the harm of poisoning of non-target wildlife. For true public health or environmental emergencies DPR would still have the opportunity to rely upon second generation anticoagulants under section 18 of the Federal Insecticide, Fungicide and Rodenticide Act. DPR should not cave to industry pressure

and allow the continued poisoning of wildlife, children and pets. It is time for DPR to quickly remove these products from the market.

Sincerely,

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