HARVARD LAW SCHOOL
ANIMAL LAW & POLICY CLINIC

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Pesticide Board Subcommittee
Massachusetts Department of Agricultural Resources

Via email: taryn.lascola@mass.gov

RE: Individual Review of Rodenticides

Dear Members of the Pesticide Board Subcommittee:

The Harvard Law School Animal Law & Policy Clinic (the Clinic) submits this letter on behalf of Massachusetts bird rehabilitators Jodi Swenson and Erin Hutchings, Marci Cemenska of Save Lexington Wildlife, James Joyce II and Patricia Sears-Joyce of Friends of Horn Pond in Woburn, and Laura Kiesel of Save Arlington Wildlife, in response to the notice circulated on February 17, 2026, inviting comments on the Individual Review of Rodenticides.

The Anticoagulant Rodenticide Scientific Review Final Report (the Scientific Report) establishes that anticoagulant rodenticides (ARs) cause unreasonable adverse effects on the environment. As such, the Massachusetts Pesticide Control Act (MPCA) mandates that the Massachusetts Department of Agricultural Resources (MDAR), through the Pesticide Board Subcommittee (the Subcommittee), prohibit the use of first-generation anticoagulant rodenticides (FGARs) and second-generation anticoagulant rodenticides (SGARs). Both the law and the science on this are clear.

Furthermore, Massachusetts is a national leader in environmental conservation, and continuing to register ARs is at odds with this important priority. Governor Healey's administration has expressed commitment to end Massachusetts's reliance on SGARs, and Massachusetts towns and cities are already moving in this direction. It is time for Massachusetts to invest in less toxic alternatives to protect the public and the environment. The consequences of continued AR use are simply too harmful to maintain.

ARs Fail to Meet the Legal Standard for Registration Under the MPCA.

The MPCA's legal standard authorizes registration of a pesticide only if it "will perform its intended function without unreasonable adverse effects on the environment" and "will not generally cause unreasonable adverse effects on the environment" when used in accordance with common practice.[1]

[1] G.L. c. 132B, § 7.

"Unreasonable adverse effects on the environment" include unreasonable risks to "water, air, land, and all plants and man and other living animals therein."[2] The registration year for a pesticide under the MPCA ends on June 30, but the Subcommittee may immediately suspend registration of ARs in light of the Scientific Review findings.[3]

Though the MPCA's standard is modeled after the Environmental Protection Agency's (EPA) requirements under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), "Massachusetts pesticide laws are more restrictive than those of the U.S. EPA."[4] It is not enough to ask whether the EPA has prohibited AR use; MDAR must make its own choice, taking into account local impacts and ethical mandates. The Scientific Report, prepared at the request of the Subcommittee, analyzes ARs' "effects on the environment" by comparing international, national, and local studies on the lethal and non-lethal impacts of AR toxicity on non-target species—including wildlife, pets, and humans—as well as on the environment writ large. The more harmful a particular pesticide is shown to be, and the greater the availability of alternative solutions, the more unreasonable it is to maintain registration of that pesticide. Here, the environmental harms shown in the Scientific Report, alone, are enough to support a finding that ARs are unreasonable under the relevant legal standard. What is more, effective, alternative solutions to AR use are well-documented. Therefore, MDAR must prohibit the use of ARs.

ARs Cause Unreasonable Adverse Effects on Non-Target Animals.

AR exposure causes animals to internally bleed and die over a period of days to weeks.[5] "The delay in death is intentional, allowing rodents to continue consuming bait and leaving toxic bait accessible to other individuals."[6] ARs can kill non-target species if they consume bait intended for rodents.[7] ARs can also poison non-target species through secondary poisoning—where rodents are "caught and consumed by predators and scavengers"—or through tertiary poisoning—where animals that eat secondary consumers are poisoned.[8] The "increased potency and persistence" of SGARs "heightens the risk of bioaccumulation in non-target species, leading to secondary poisoning" in non-target species.[9]

EPA assessments reviewed in the Scientific Report confirm that the risks of AR poisoning in non-target wildlife species are significant. Considering seven different FGARs and SGARs, the EPA found that when non-target animals directly ingested bait, "these compounds are often 'highly' or 'very highly' toxic to both mammals and birds," with results "indicating lethal effects at low doses and low exposure concentrations."[10] Even if direct ingestion of bait did not result in death, the data showed "sublethal impacts . . . that can reduce survival among predators."[11] Further, studies of secondary poisoning risks "confirmed that SGARs generally have higher acute toxicity to wildlife than FGARs

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[2] *Id.* § 2. The MPCA defines unreasonable adverse effects on the environment as "unreasonable risk[s] to man or the environment, taking into account the economic, social and environmental cost and benefits of the use of any pesticide," and defines the environment as "includ[ing] water, air, land, and all plants and man and other living animals therein, and the interrelationships which exist among these." G.L. c. 132B, § 2.

[3] G.L c. 132B § 7.

[4] MDAR, *Register a Pesticide Product in Massachusetts*, MASS.GOV, https://www.mass.gov/how-to/register-a-pesticide-product-in-massachusetts (last visited Mar. 4, 2026).

[5] Scientific Report, at 5.

[6] *Id.*

[7] *Id.*; *see also id.* at 11 (AR labels "consistently warn users that products are extremely toxic to mammals and birds.").

[8] *Id.* at 5; *see also* Division of Fisheries and Wildlife, *Wildlife and Rodenticide*, MASS.GOV, https://www.mass.gov/info-details/wildlife-and-rodenticide (last visited Mar. 4, 2026).

[9] *Id.* at 5.

[10] Scientific Report, at 33.

[11] *Id.*

and that SGAR residues persist in animal tissues longer, increasing the likelihood of secondary poisoning through predation."[12] Massachusetts's second and third most used SGARs[13] were classified as "very highly toxic" to birds via dietary exposure.[14]

An additional study of over a thousand AR incidents sent to the EPA's Incident Data Report System revealed that in nearly 30% of the incidents, it was "highly probable" that the reported animal died from AR exposure.[15] Furthermore, brodifacoum and bromadiolone, the two most commonly used SGARs in Massachusetts,[16] "accounted for the majority of incidents in which the likelihood of animal death resulting from AR exposure was 'highly probable,' 'possible,' and 'probable.'"[17] Taken together, the Scientific Report's analysis of EPA data shows that when non-target wildlife are exposed to ARs, they face a non-trivial risk of death or other serious health issues.[18] Wildlife's risk of death or other harmful sublethal impacts weighs heavily on the rodenticide registration reasonableness inquiry. An unreasonable adverse effect on the environment includes an unreasonable risk to any living animal,[19] and where direct or dietary exposure to a substance results in serious impairment or death of non-target animals, the use of this substance constitutes an unreasonable risk.

The Scientific Report's analysis of peer-reviewed publications offers further insight into the risks ARs pose to non-target wildlife. First, the literature found immense population-level SGAR exposure in raptor and carnivorous mammal species in and around Massachusetts. Several studies out of Tufts Wildlife Clinic analyzed anticoagulant rodenticide residues in raptors brought into the clinic due to signs of illness or injury that ultimately died.[20] The vast majority of these birds were found in Massachusetts.[21] During the period from 2012–2016, of all the Great Horned and Eastern Screech Owls brought into the Tufts Clinic, every single animal tested positive for at least one AR, while 88% of Barred Owls tested positive for at least one AR.[22] Further, the data reveals that AR exposure is increasing. From 2006–2010, just 1.3% of red-tailed hawks brought into the clinic tested positive for two to four different ARs.[23] By 2017–2019, 91% of the hawks admitted to the clinic tested positive for the same number of rodenticides.[24] Other studies based on New England fishers found "near-

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[12] *Id.* at 43.
[13] *Id.* at 13.
[14] *Id.* at 43.
[15] *Id.* at 44.
[16] *Id.* at 13.
[17] *Id.* at 44.
[18] The Scientific Report's analysis of other state and international rodenticide assessments shows wide consensus on this risk level. The World Health Organization found that anticoagulant rodenticide poisoning is a "well-documented cause[] of mortality among non-target birds and mammals." *Id.* at 49. Canada's pest management agency "concluded that SGARs pose a particularly high risk of secondary poisoning to predators and scavengers due to the substances' high toxicity and persistence in animal tissues," *id.* at 48, while British Columbia found "that SGARs are highly toxic, persistent, and bioaccumulative, and that residues from treated rodents pose a well-established risk of secondary poisoning for predatory and scavenging wildlife." *Id.* at 50. Similarly, the European Chemicals Agency "concluded that SGARs pose greater environmental concerns than FGARs, mainly due to SGARs' persistent, bioaccumulative, and toxic (PBT) properties." *Id.* at 49. Furthermore, the California Department of Pesticide Regulation "documented evidence of adverse sublethal effects and mortality in selective predator," with "adverse impacts include coagulopathy and internal hemorrhage, increased disease susceptibility and severe notoedric mange in bobcats associated with AR exposure (linked to immune dysregulation and compromised skin barrier), and documented mortalities in selective predators." *Id.* at 50.
[19] *See* G.L. c. 132B, § 2.
[20] Scientific Report, at 52.
[21] *Id.*
[22] *Id.* at 53.
[23] *Id.* at 52.
[24] *Id.*

universal exposure" to rodenticides in these mammals, suggesting that "ARs are widespread in the environment and could pose underappreciated health risks to wild fishers in the northeastern United States."[25] Interestingly, "neither agricultural land use nor the presence of protected areas was a significant predictor" of rodenticide exposure.[26] Instead, "authors concluded that the widespread residential use of ARs" in wildland-urban intermix landscapes "is likely a significant driver of exposure for forest carnivores in the region."[27]

The Scientific Report's literature analysis shows that SGAR exposure in carnivorous wildlife throughout the Northeastern United States is exceptionally widespread and that residential use of these products plays a significant role in exposure, meaning that simply keeping ARs out of protected areas or otherwise high-density wildlife areas is an insufficient remedy for AR exposure in wildlife.[28] Moreover, according to the Massachusetts Division of Fisheries and Wildlife, consumer retailers are already prohibited from selling SGARs, with current use being limited to licensed pest controllers, and it is illegal for anyone to place SGARs outdoors "except under highly regulated permitting conditions."[29] This means that, despite restrictions, exposure continues to grow to near universal levels in the studied Massachusetts species. Thus, restricting the use of SGARs is a legally insufficient remedy for reducing unreasonable adverse effects to wildlife via a reduction in population-level exposure in non-target species.

The Scientific Report notes that the extent to which ARs' effects contribute to population-level declines remains uncertain.[30] To be clear, "unreasonable adverse effects" are unreasonable risks to "all plants and man and other living animals," meaning the relevant legal inquiry does not even mention, much less demand, population-level decline.[31] However, any level of uncertainty around population-level decline should weigh in favor of finding that AR use constitutes an unreasonable risk. The Scientific Report notes the inherent difficulties of estimating deaths due to poisoning, including that (1) "residue detection alone does not establish the cause of death; and necropsies combined with residue analysis are generally needed for confirmation,"[32] (2) "incident reports likely underrepresent the true frequency of poisonings because carcasses can be difficult to find,"[33] 3) "exposure timing, repeated exposures, and interspecific variability . . . can influence the relationship between residue concentrations and clinical toxicosis,"[34] and 4) "repeated or sequential exposure to ARs "could have lasting and cumulative effects on coagulation, even after apparent recovery from initial exposure."[35]

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[25] *Id.* at 54–55.
[26] *Id.* at 55.
[27] *Id.*
[28] This conclusion is further bolstered by the Scientific Report's analysis of peer-reviewed literature out of Australia where "[n]o significant association was detected between land-use type (urban, agricultural, forest) and SGAR concentration or the number of SGARs detected, suggesting widespread contamination across landscapes." *Id.* at 54. Furthermore, the study suggested that high levels of contamination are not limited to species that typically consume rodents, finding that "species that do not primarily prey on rodents, such as tawny frogmouths and powerful owls, exhibited similarly high contamination levels compared to rodent specialists." *Id.*
[29] Division of Fisheries and Wildlife, *Wildlife and Rodenticide*, MASS.GOV, https://www.mass.gov/info-details/wildlife-and-rodenticide (last visited Mar. 4, 2026).
[30] Scientific Report, at 2.
[31] G.L. c. 132B, § 2.
[32] *Id.* at 50.
[33] *Id.* at 43.
[34] *Id.* at 56.
[35] *Id.* at 55.

Each of these factors increases the risk of underestimating exposure. Thus, when weighing AR use under the MPCA standard, uncertainty in population-level decline is a *risk,* not a benefit, in the rodenticide registration inquiry, particularly considering that Massachusetts's law is more restrictive than federal law. Nonetheless, a study out of Tufts Wildlife Clinic found that of the red-tailed hawks that were brought into the clinic from 2017–2019 and subsequently died due to illness or injury, one-third of these hawks could be definitely diagnosed with AR toxicosis.[36] These numbers do not even take into account the necropsy and liver-panel datasets collected by local organizations, including Cape Ann Wildlife and Save Massachusetts Wildlife,[37] which would show even higher levels of population-level risk when the number of poisoned animals is adjusted for the relatively small geographic area over which they were found.

As highlighted by the prior discussion, a huge percentage of Massachusetts's wildlife tests positive for FGAR and SGAR exposure, and this exposure, whether through direct consumption or secondary consumption, poses a non-trivial risk of adverse sublethal impairment and death. These conclusions are echoed by the Massachusetts Division of Fisheries and Wildlife, which has documented AR poisoning in "birds of prey like eagles, hawks, and owls, as well as mammals like foxes, fishers, bobcats, and coyotes," and attributed this poisoning to the "non-targeted death" of many of these species.[38] The Department also acknowledges that ARs "can compromise the immune system of carnivores, including bobcats, making them more susceptible to diseases such as mange."[39] The science is clear, and this risk to wildlife is an unreasonable adverse effect on the environment.

Massachusetts State Agencies have a Special Obligation to Protect MESA-Listed Species from the Adverse Effects Caused by ARs.

Under the Massachusetts Endangered Species Act (MESA), all state agencies are required to "utilize their authorities in furtherance of the purposes of MESA," and "use all practicable means and measures to avoid or minimize damage to [threatened, endangered, or special concern] species or their habitats."[40] The purpose of the MESA is to prevent the "take" of "any plant or animal species listed as endangered, threatened, or special concern."[41] A "take" means, in part, to "harass," "harm," or "kill" such animal.[42] The possibility of a take to even a single MESA-listed species will trigger an agency's obligation to minimize damage. It is plain that the lethal and sublethal effects of ARs on listed animal species would constitute a take.

The Scientific Report supports the claim that ARs result in the take of MESA-listed animal species based on likelihood of exposure.[43] The Scientific Report uses MassWildlife's online database to identify protected species.[44] In total, the Scientific Report found potential AR exposure in four turtle species, four amphibian species, thirteen bird species, and at least one mammalian species listed as

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[36] *Id.* at 52.
[37] *Id.* at 84.
[38] Division of Fisheries and Wildlife, *Wildlife and Rodenticide*, MASS.GOV, https://www.mass.gov/info-details/wildlife-and-rodenticide (last visited Mar. 4, 2026)
[39] *Id.*
[40] 321 CMR §10.05.
[41] Massachusetts Division of Fisheries and Wildlife. "MA Endangered Species Act (MESA) Overview." Mass.gov. Last modified August 16, 2024. https://www.mass.gov/info-details/ma-endangered-species-act-mesa-overview.
[42] G.L. c. 131A, § 1.
[43] Scientific Report, at 58.
[44] *Id.* at 57.

MESA-protected.[45] The likelihood of AR consumption by one of those MESA-listed species ranged from being "possible" to being "routine."[46]

To further illustrate the point, birds are among the taxonomic groups most at risk. The Scientific Report identified six bird species—the Grasshopper Sparrow, Upland Sandpiper, Mourning Warbler, Vesper Sparrow, Northern Parula, and Eastern Meadowlark—which are at risk of direct exposure through the consumption of broadcast bait.[47] Moreover, many other species that rely on rodents as a consistent food source are at risk of secondary exposure. As explained above, the Scientific Report concluded "that secondary exposure to ARs have the potential to contribute to adverse effects. . . particularly in species consuming multiple contaminated prey items over time."[48] Certain MESA-listed raptors—such as bald eagles and peregrine falcons—are known to regularly consume small mammals, i.e., rodents. The Massachusetts Division of Fisheries and Wildlife found secondary exposure to SGARs "to be the confirmed cause of death of two bald eagles in 2021 and a contributing cause of death to another bald eagle in 2023."[49]

The legal duty to protect endangered species weighs directly on the issue of rodenticide registration, separate and distinct from the MPCA's general duty to avoid unreasonable adverse effects on the environment. The Scientific Report emphasized that the same adverse harms identified in the wildlife reports extend to MESA-protected species. This is further bolstered by studies done by the EPA[50] and other U.S. states. Given the unequivocal language of the Scientific Review that "ARs have been shown to be highly toxic in animals generally" and that MESA-listed species are among the animals at risk of exposure,[51] the continued registration of ARs is presumptively unreasonable and runs counter to this Subcommittee's obligations under MESA.

The Scientific Report Shows that ARs Pose Ecological Risks and Adverse Health Effects on Companion Animals and Humans, Particularly in Children Under Six.

The MPCA standard considers the environment as a whole. Thus, the registration of a rodenticide must also consider the risk of adverse effects to "water, air, land, and all plants and man and other living animals therein."[52] While the risks posed to humans and companion animals in the Scientific Report are less conclusive, it is still important for the Subcommittee to consider the potential adverse effects that ARs pose to our community's pets and children.

Companion animals may not depend on target species to survive, but they are susceptible to AR poisoning through primary or secondary exposure, nonetheless. Mass.gov warns that, if unsupervised, "dogs and cats" may share exposure and bioaccumulation risks with ordinary predators.[53] Once exposed, the consequences to domesticated animals can be lethal or sublethal, as with other species. The Scientific Report included a study that resulted in "no survivors" from a group of domestic dogs

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[45] *Id.* at 58–60.
[46] *Id.*
[47] *Id.* at 59.
[48] *Id.* at 36.
[49] Division of Fisheries and Wildlife, *Wildlife and Rodenticide*, MASS.GOV, https://www.mass.gov/info-details/wildlife-and-rodenticide (last visited Mar. 4, 2026).
[50] Scientific Report, at 59 (Citing the EPA as recognizing "that ARs [are] likely to adversely affect 29 out of 59 federally listed reptiles.")
[51] *Id.* at 58.
[52] G.L. c. 132B, § 2.
[53] Division of Fisheries and Wildlife, *Wildlife and Rodenticide*, MASS.GOV, https://www.mass.gov/info-details/wildlife-and-rodenticide (last visited Mar. 4, 2026).

exposed to the FGAR, diphacinone, over a ten-day period.[54] Data from the MSPCA provides a useful supplement to the Scientific Report, which appears incomplete in its analysis of the local impacts of ARs on companion animals. According to the MSPCA, its "Angell Animal Medical Centers alone see dozens of cases of companion animals poisonings each year" from rodenticides.[55] Veterinary treatment can be costly, arduous, and emotionally taxing.[56] Additionally, it is important to note that "tamper resistant" bait stations are an insufficient means of protecting companion animals and families from AR poisoning. To the extent that the Scientific Report mentions companion animals, it serves to add another layer of identifiable adverse harms on non-target species.

The human health concerns presented in the Scientific Report strongly caution against the registration of ARs. Overall, the most concerning adverse effects identified were those to children. Between 1987 and 2012, children under the age of six composed 88.9% of the 315,951 total AR exposure cases reported in the National Poison Data System.[57] Children made up 72% of exposure cases involving "long-acting" ARs.[58] The 2024 Annual Report of the National Poison Data System identified thousands of cases involving rodenticides, approximately 60% of which were attributed to children under six years old.[59] Moreover, the range of adverse effects in children is greater than in adults, because children are susceptible to developmental harms. Children exposed to ARs have "more than twice the odds of developing MS compared to unexposed children"[60] and, "adjusting for covariates, exposure to rodenticides was associated with an increased risk of death [in children diagnosed with acute lymphoblastic leukemia,] particularly for children exposed during pregnancy."[61]

What is more, ARs have been shown to enter aquatic systems. This likely occurs when water runoff carries ARs from bait stations into neighboring aquatic systems.[62] The WHO found that "ARs can contaminate water sources, despite the compounds' low water solubility and soil affinity."[63] A "growing body of literature indicates" that, once in a water source, ARs can enter the "aquatic food web."[64] From there, trophic species of fish can "biomagnify" AR levels such that fish-eating birds and mammals are potentially exposed to harmful concentrations.[65] This implicates human consumption in a way that is not contemplated in the Scientific Report. Moreover, the problem of AR contaminated aquatic systems is one close to home. One study in the Scientific Report recognized "the presence of

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[54] Scientific Report, at 40.
[55] MSPCA Angell, *Rodenticides*, MSPCA.ORG, www.mspca.org/animal_protection/rodenticides/ (last visited Mar. 12, 2026); *see also* Boston City Council, *City Services & Innovation Technology on October 7, 2024*, YOUTUBE, Oct. 7, 2024, https://www.youtube.com/watch?v=1igYsoibpgg.
[56] MSPCA Angell, *Rodenticides*, *supra* note 55 (Stating that "[t]he cost of veterinary care to treat an animal who has ingested rat poison can exceed $2,000 and treatment can require weeks of supportive care and medication, putting a significant financial and emotional strain on families.")
[57] Scientific Report, at 27.
[58] *Id.* at 26.
[59] Beuhler, Michael C., et al., *2024 Annual Report of the National Poison Data System® (NPDS) from America's Poison Centers®: 42nd Annual Report*, CLINICAL TOXICOLOGY, Dec. 23, 2025, at 202, https://piper.filecamp.com/api/serve/8ejN1RQJopGSNlFJ.pdf; *See also*, North, Jeffrey, *Belmont Reduces Rodenticides on Town Land*, BELMONT CITIZENS FORUM, 29 Apr. 2025, www.belmontcitizensforum.org/2025/04/29/belmont-reduces-rodenticides-on-town-land/ (identifying over 200 cases of rodenticide poisonings in Massachusetts.)
[60] Scientific Report, at 30 (noting that the study was adjusted for sociodemographic factors).
[61] *Id.*
[62] *Id.* at 57.
[63] *Id.* at 49.
[64] *Id.* at 57.
[65] *Id.*

[ARs] in aquatic systems in Pennsylvania and likely throughout the Northeastern United States."[66] And that same study found that ARs have made their way out of the aquatic systems and into terrestrial animals.[67]

In sum, ARs are swept up by water runoff, bioaccumulate in aquatic species, and become another source of secondary exposure to non-target terrestrial animals.[68] Through food sources, ARs are reaching out of the wild and into our homes. Such a substance is an ecosystem-level crisis. Where, as here, the science investigating the impact of ARs on water supplies and aquatic systems is still developing, the existence of less toxic alternatives weighs heavily in favor of ceasing AR registration.

Massachusetts State Policy Disfavors the Use of SGARs.

Governor Maura Healey and Massachusetts state agencies have made moving away from SGARs an explicit goal of this administration. In August of 2025, the Healey-Driscoll Administration launched a "nation-leading plan to protect nature and wildlife."[69] This 25-year biodiversity initiative is "[a] whole-of-government approach to conserve biodiversity in Massachusetts for 2030, 2040, and 2050."[70] The administration's first goal is to "protect [the] most important habitats for species" and one way it plans to achieve this goal is by "eliminat[ing] harmful pesticides."[71] The administration's plan specifically mentions conducting a "scientific and individual review of second-generation anti-coagulant rodenticides," because SGARs "harm wildlife," and the administration wishes to "reduce their use."[72]

The Massachusetts Department of Fish and Game has also recognized the dangers of SGARs in no uncertain terms.[73] The Department urges residents that, "[b]y avoiding rodenticide, especially second-generation anticoagulant rodenticides (SGARs), [they] can greatly reduce the risk of harm to wildlife as well as pets."[74] Significantly, department officials have documented multiple rodenticide deaths of bald eagles in Massachusetts, including a female fledgling eaglet that was found "in obvious distress on the ground in Middlesex County."[75] The eaglet's necropsy confirmed that her cause of death was SGAR poisoning.[76] While these deaths are legally concerning under the MPCA and MESA, they also represent a setback in light of Massachusetts's decades-long bald eagle restoration efforts.[77]

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[66] *Id.*
[67] *Id.*
[68] The toxicology data previously submitted by the Clinic and its clients show that ARs are poisoning aquatic species such as turtles.
[69] Governor Maura Healey and Lt. Governor Kim Driscoll, *Healey-Driscoll Administration Launches Nation-Leading Plan to Protect Nature and Wildlife*, MASS.GOV, https://www.mass.gov/news/healey-driscoll-administration-launches-nation-leading-plan-to-protect-nature-and-wildlife (last visited Mar. 6, 2026).
[70] *Biodiversity Conservation Goals for the Commonwealth*, MASS.GOV, Aug. 21, 2025, https://www.mass.gov/doc/massachusetts-biodiversity-goals-report-2025/download.
[71] *Id.* at 18, 21.
[72] *Id.* at 21.
[73] *See* Division of Fisheries and Wildlife, *Wildlife and Rodenticide*, MASS.GOV, https://www.mass.gov/info-details/wildlife-and-rodenticide (last visited Mar. 4, 2026).
[74] *Id.*
[75] Division of Fisheries and Wildlife, *Eaglet Dies From Rodenticide Poisoning,* MASS.GOV,https://www.mass.gov/news/eaglet-dies-from-rodenticide-poisoning (last visited Mar. 4, 2026).
[76] *Id.*
[77] *See* Division of Fisheries and Wildlife, *Species Spotlight: Bald Eagles,* MASS.GOV, https://www.mass.gov/info-details/species-spotlight-bald-eagles (last visited Mar. 4, 2026).

In addition to the goals of this administration, Massachusetts towns and cities have made their intent to prohibit the use of SGARs clear. Many towns and cities, including Arlington,[78] Bedford,[79] Billerica,[80] Concord,[81] Grafton,[82] Lexington,[83] Lowell,[84] and Salem[85] have bills currently pending in front of the Massachusetts state legislature seeking authorization to prohibit the application of SGARs. Furthermore, town and city websites make their views on SGARs apparent, such as the town of Groton, which tells residents "[d]on't use SGARs," because "[t]here are other ways to handle mouse or rat problems" that "cause no cascading effect on the ecosystem and the neighborhood pets and wildlife."[86]

Significantly, Groton's website also tells residents that, although "SGARs are not allowed to be sold in stores to the general public anymore," "pest control companies can still use them," and, therefore, if a resident needs to hire a pest control company, the resident needs to "make sure that they are not using SGARs."[87] This directive shows that, as it stands, the burden is being placed on Massachusetts residents to manage the use of SGARs. By voting to ban SGARs, towns have reached the conclusion that they are causing unreasonable adverse effects on the environment, yet, because the Subcommittee is allowing pest control companies to continue to use SGARs, Massachusetts residents are having to do the work of the state by prohibiting their use via individual contracts with pest control companies. This is an unfair burden to place on homeowners, especially in light of the information asymmetry between residents and the state, which means many residents may not even know they need to explicitly request that SGARs not be used.

Massachusetts is a state that cares about wildlife and the environment. Thus, not only does the law demand that the Subcommittee end AR registration, but continuing to register ARs is at odds with important policy goals of the Massachusetts state government. Governor Healey's administration, as reflected through her own initiatives and the initiatives of state agencies, plans to end Massachusetts's reliance on SGARs. Moreover, many Massachusetts residents have voiced their concerns about SGARs through local initiatives, resulting in towns and cities taking the necessary steps to ban SGARs. The emphasis on SGARs is due, in part, to the fact that the vast majority of ARs used by pest control companies in recent years are SGARs. But the Scientific Review makes clear that FGARs also unreasonably impact the environment.[88] Massachusetts's goal of protecting biodiversity cannot be achieved if the Subcommittee bans SGARs but then allows pest control companies to simply replace them with toxic FGARs. By prohibiting all ARs, the Subcommittee would create predictability and consistency in Massachusetts on ARs. The Subcommittee now has the opportunity to help Massachusetts achieve its goal of becoming a safer and healthier state for all residents, human and animal alike.

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[78] H.4571, 194th Gen. Ct. (Mass. 2026).
[79] H.4917, 194th Gen. Ct. (Mass. 2026.
[80] S.2933 194th Gen. Ct. (Mass. 2026).
[81] H.4500, 194th Gen. Ct. (Mass. 2026).
[82] S.2877, 194th Gen. Ct. (Mass. 2026).
[83] H.4133, 194th Gen. Ct. (Mass. 2026).
[84] H.4266, 194th Gen. Ct. (Mass. 2026).
[85] H.4091, 194th Gen. Ct. (Mass. 2026).
[86] Town of Groton Massachusetts, *Information About SGARs*, GROTONMA.GOV, https://www.grotonma.gov/second-generation-anticoagulant-rodenticides/ (last visited Mar. 6, 2026).
[87] *Id.*
[88] *See* Scientific Report, at 17-18 (discussing California's assessment of diphacinone and its conclusion that the FGAR has impacted or is likely to impact wildlife); 50-51 (describing the increase in impacts to wildlife by FGARs following the restriction of SGAR use).

Alternative Remedial Efforts

We recognize the need to control rodent populations to ensure public health. However, eliminating the use of ARs does not leave state and local authorities or residents without effective methods to control rodent populations. As the Scientific Review illustrates, it is becoming clear that the adverse effects of ARs outweigh the purported benefits of their continued use. Importantly, the weight of those benefits on this Subcommittee's reasonableness inquiry is significantly weakened by the availability of alternative remedies. Where alternative remedies are less harmful to public health, less damaging to wildlife and the environment, and serve the same legitimate ends of rodent population control, any claim to reasonableness in continuing to register ARs becomes untenable.

The Scientific Report has identified several alternatives to rodenticides. The most promising of which is the Integrated Pest Management (IPM) strategy. In the words of the Scientific Report, "IPM involves using multiple methods. . . in combination to create a more effective, sustainable, and environmentally friendly approach."[89] Under IPM, after a local rodent population is identified and monitored, an approach utilizing exclusion, sanitation, and mechanical methods would be deployed to manage the population. IPM may also include biological methods. In some cases, predator-based control—a kind of biological method—has been shown to be "50% more effective at reducing rodent-caused burrowing damage compared to the ARs."[90] Citing the EPA, the Scientific Report found that "IPM can suppress rodent populations while preventing the need for rodenticide applications, thereby protecting both human and ecological health."[91]

It is important to note that, in the range of alternative solutions presented in the Scientific Report, not all methods are equally viable. For example, reliance on a substance like bromethalin would irresponsibly trade in one toxic substance for another. The Scientific Report states that, like ARs, "bromethalin poses a risk of secondary exposure to rodent predators, including pets. . . and birds of prey."[92] This acknowledgement notwithstanding, the Scientific Report asserts without support that the dangers of secondary exposure from bromethalin are "lower. . .compared to ARs."[93] In response to the Anticoagulant Rodenticide Scientific Review Draft Phase 2 Report, the Clinic illuminated the fact that the studies cited in the draft (and now final) report did not support that conclusion.[94] When finding a substitute strategy for ARs, the Subcommittee needs to evaluate that strategy under the same reasonableness inquiry demanded by the MPCA. To replace one substance determined to be unreasonable with its equivalent is an option simply unavailable under the law.

Given the availability of alternative methods of rodent population control and the directive of the state legislature to promote those alternatives, the continued registration of ARs cannot be justified on the grounds of their purported public health benefit.

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[89] Scientific Report, at 72.
[90] *Id.* at 71 (summarizing a pilot study in California that "similarly demonstrated the effectiveness of birds of prey in controlling rodent populations in flood-control facilities to reduce the ground squirrel populations on levees and dams.")
[91] *Id.* at 73.
[92] *Id.* at 66.
[93] *Id.*
[94] If the Subcommittee is considering bromethalin as an alternative to ARs, the Clinic urges the Subcommittee to confer with the authors of the study cited in the Scientific Report about their conclusions so as not to rely on a potentially inaccurate interpretation of the study's findings.

The Adverse Effects of ARs on Wildlife, the Environment, and Human Health in Addition to the Availability of Alternative Rodent Population Management Strategies Makes the Continued Registration of ARs Categorically Unreasonable.

This Subcommittee should conclude in its Individual Review of Rodenticides that ARs must be banned in Massachusetts for three reasons. First, the MPCA demands that a pesticide only be registered if it "will perform its intended function without unreasonable adverse effects on the environment."[95] Here, the Scientific Report shows that non-target species, companion animals, and human health are placed at risk by the continued use of ARs. Second, MESA commands that state agencies "use all practicable means and measures to avoid or minimize damage to [threatened or endangered] species or their habitats."[96] It is undisputed that the lethal and sublethal effects of ARs extend through primary, secondary, and tertiary exposure to animals that are endangered, threatened, or of special concern. Third and finally, the Commonwealth's electorate has spoken in objection to rodenticides. From local communities to the office of the Governor, the call to move away from ARs has been clear and direct. Moreover, the Scientific Review has presented several viable alternatives to ARs. The availability of those alternatives means that ARs can no longer be justified as a necessary response to a legitimate need to manage rodent populations.

The fact that rodent control continues to be an issue of serious concern in Massachusetts despite years of pest control companies relying on highly toxic ARs to control the rodent population indicates that the ARs have become a crutch used in place of implementing steps that would actually address the underlying causes of rodent infestations. The science is clear that the crutch is no longer serving its purpose. Under the weight of the authorities and availability of alternative methods to rodent population control, the continued registration of ARs must be found unreasonable under the MPCA and prohibited by MDAR and this Subcommittee.

Sincerely,

/s/ Mary Hollingsworth
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Faculty Director
Animal Law & Policy Clinic
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[95] G.L. c. 132B, § 7.
[96] 321 CMR § 10.05.