



## Memorandum in Support

### COMMITTEE ON ANIMALS AND THE LAW

Animals #8

April 25, 2023

S. 4976A

By: Senator Harckham

A. 2084A

By: M. of A. Glick

Senate Committee: Environmental Conservation

Assembly Committee: Rules

Effective Date: January 1, 2025

AN ACT to amend the environmental conservation law in relation to prohibiting the use of lead ammunition in the taking of wildlife on state-owned land and land contributing surface water to the New York City water supply.

**LAW AND SECTIONS REFERRED TO:** Amends Section 11-0901(3) of the Environmental Conservation Law by adding a new subsection (h), consisting of two subsections.

### **THE COMMITTEE ON ANIMALS AND THE LAW SUPPORTS THIS LEGISLATION**

This bill adds a new subsection (h) to section 11-0901(3) of the Environmental Conservation Law. This new subsection would prohibit use of ammunition containing at least one percent of lead by weight in the taking of wildlife on “(1) wildlife management areas, state forests, forest preserves, state parks, or any other state-owned land that is open for hunting; and (2) the land area contributing surface water to the New York city water supply.”

The sponsor’s memo highlights the harm caused by lead exposure, from harm to the animals shot with the lead ammunition, to the harm caused to people or other animals<sup>1</sup> that consume the animal which has been shot, and ultimately to the soil and water systems contaminated by such lead shot. It also recognizes that not all damage is direct, and that in fact much of the damage cause by lead ammunition results from aftereffects of the initial discharge of the lead shot or bullet, such as the latent impact on other animals, or to the groundwater and earth.<sup>2</sup> While high levels of lead exposure impact the central nervous system and can cause seizures, comas and death, lower levels of exposure are also harmful, leading the World Health Organization to

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<sup>1</sup> Michigan Bald Eagles Are Dying of Lead Poisoning <https://www.mlive.com/news/2023/02/michigan-bald-eagles-are-dying-of-lead-poisoning-the-reason-may-surprise-you.html>.

<sup>2</sup> Indirect lead exposure occurs when an animal that has ingested or been shot with lead is eaten by another animal, and in this way, it impacts meat eating mammals and birds. Indirect exposure can also occur from any animal ingesting soil, water, or lower organisms, such as earthworms, that are contaminated with lead. Kolb, Sarah, “Lead Toxicity, a Threat to Wildlife.” Found at <https://todaysveterinarynurse.com/articles/management-strategies-lead-toxicity-a-threat-to-wildlife/>. Last visited on February 9, 2023.

proclaim that no level of lead exposure is safe.<sup>3</sup>

Harm caused to humans has been documented for decades. Lead, which accumulates in the teeth and bones, is known to produce a broad spectrum of physical harms, including anemia, hypertension, kidney impairment, immunotoxicity and toxicity to the reproductive organs.<sup>4</sup>

In children, exposure can impact brain development, which in turn can result in lower intelligence quotients (IQs), lower educational abilities or successes, and behavioral difficulties such as decreased attention span and increased antisocial behavior, all of which are believed to be irreversible.<sup>5</sup> These documented human harms have resulted in laws mandating the elimination of lead from consumer products such as gasoline and paint.

In 1991, the federal government recognized the potential harm caused by lead ammunition and implemented a ban on shooting migratory waterfowl with lead shot.<sup>6</sup> In addition to the direct impacts on migratory birds and waterfowl actually shot with lead bullets, lead ingestion and poisoning has been documented in raptors such as bald and golden eagles, red-tailed hawks, and the California condor, all of which are known to eat prey that has been shot with lead ammunition.<sup>7</sup> Additionally, lead degrades slowly and leaches into the water and land,<sup>8</sup> impacting the people and wildlife living there. Documented levels of lead have even been found in soil and earthworms.<sup>9</sup> Thus, lead ammunition causes harm not only to humans who eat meat directly contaminated with lead shot, but also through exposure to soil and water that has been contaminated by its use. Alternatives to lead ammunition do exist and have been found to be as effective as lead shot in hunting wildlife.<sup>10</sup> Significantly, some hunters who have moved away from lead ammunition question why lead is still being used, noting the small cost differential between lead and non-lead ammunition,<sup>11</sup> which existed until the overall shortage of ammunition occurring in 2020. At least one study has concluded that non-leaded ammunition functioned at least as well as that containing lead, concluding, “[t]he deforming lead-free bullet closely

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<sup>3</sup> See, <https://www.who.int/en/news-room/fact-sheets/detail/lead-poisoning-and-health>. Last visited on February 9, 2023.

<sup>4</sup> See, <https://www.who.int/en/news-room/fact-sheets/detail/lead-poisoning-and-health>. Last visited on February 9, 2023.

<sup>5</sup> See, <https://www.who.int/en/news-room/fact-sheets/detail/lead-poisoning-and-health>. Last visited on February 9, 2023.

<sup>6</sup> The Code of Federal Regulations (50 C.F.R §20.21) prohibits hunting migratory birds and waterfowl during open season with anything other than approved shot types and specifies that all must contain less than one percent lead. 50 C.F.R. §32.2 prohibits the possession of anything other than approved shot (as defined above) while on Waterfowl Production Areas, or on certain other areas of the National Wildlife Refuge System as indicated by refuge headquarters.

<sup>7</sup> Lahner, L.L., and Franson. J.C., 2009, “Lead Poisoning in Wild Birds: U.S. Geological Survey Fact Sheet 2009–3051”, also found at <https://pubs.usgs.gov/fs/2009/3051/>. Last visited on February 9, 2023.

<sup>8</sup> Kolb, Sarah, “Lead Toxicity, a Threat to Wildlife.” Supra, fn. #1.

<sup>9</sup> Environ Sci Pollut Res Int 2014 Mar; 21(5):3484-90,doi: 10.1007/s11356-013-2344-z. Epub 2013 Nov 19.

<sup>10</sup> Urbina, Ian; Whittaker, Max . New York Times, Late Edition (East Coast); New York, N.Y. [New York, N.Y.] 25 Nov 2018: A.18, “A Clean Shot: Urging Hunters to Try Unleaded Ammo.” Also found at <https://search.proquest.com/blogs-podcasts-websites/poisoned-wildlife-tainted-meat-why-huntersare/docview/2137102439/se-2?accountid=37884>. Last visited on February 9, 2023.

<sup>11</sup> Bittel, Jason, March 30, 2017 “A Hunter Asks, “Why Are Lead Bullets Still a Thing? Lead is poison. Why would we want it on our public lands and in our food?” found at <https://www.nrdc.org/onearth/hunter-asks-why-are-lead-bullets-still-thing>. Last visited on 4/27/2021.

resembled the deforming lead containing bullet in terms of energy conversion, deflection angle, cavity shape, and reproducibility, showing that similar terminal ballistic behavior can be achieved.”<sup>12</sup>

New York State has already determined that it is important to reduce lead exposure and its harmful effects, and it has attempted do so in many areas, such as by requiring lead paint disclosures in all residential home sales. It should expand this initiative by making lead shot illegal on New York State owned property and in areas where water run-off flows into New York City’s drinking water supply. In doing so, New York is following the standard set by the federal government in 1991,<sup>13</sup> and the examples set by California in 2019<sup>14</sup> and Canada in 1999,<sup>15</sup> both of which made all hunting with lead shot, on private and public lands, illegal. Additionally, as of 2017, a total of 24 countries in the European Union had partially or completely banned the use of lead bullets.<sup>16</sup> Imposing the limited ban on the use of lead ammunition proposed in this bill will benefit the people, wildlife, land and water in New York State.

For the foregoing reasons, the Committee on Animals and the Law **SUPPORTS** the passage and enactment of this important legislation.

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<sup>12</sup> “Performance of Lead-Free versus Lead-Based Hunting Ammunition in Ballistic Soap,” published online at 2014 Jul 16. doi: 10.1371/journal.pone.0102015 and also found at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4100882/>. Last visited on 4/27/2021.

<sup>13</sup> 50 C.F.R §20.21 and 50 C.F.R. §32.2.

<sup>14</sup> See, <https://news.bloomberglaw.com/environment-and-energy/california-becomes-first-state-to-banlead-bullets-for-hunting> Last visited on 4/26/2021.

<sup>15</sup> See, <https://www.fws.gov/news/ShowNews.cfm?ID=A11C3D76-AC20-11D4-A179009027B6B5D3>. Last visited on 4/26/2121.

<sup>16</sup> Urbina, Ian; Whittaker, Max . New York Times, Late Edition (East Coast); New York, N.Y. [New York, N.Y.] 25 Nov 2018: A.18, “A Clean Shot: Urging Hunters to Try Unleaded Ammo.” Also found at <https://search.proquest.com/blogs-podcasts-websites/poisoned-wildlife-tainted-meat-why-huntersare/docview/2137102439/se-2?accountid=37884>. Last visited on 4/27/2021.