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April 10, 2023

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Via online submission, Docket No. APHIS-2022-0022

Re: Comments on Advanced Notice of Proposed Rulemaking, Wild and Exotic Animal Handling, Training of Personnel Involved with Public Handling of Wild and Exotic Animals, and Environmental Enrichment for Species
Docket No. APHIS-2022-0022

Dear Drs. Goldentyer and Bassage:

On behalf of Harvard Law School's Animal Law & Policy Clinic, we submit the following comments on the proposed rulemaking by the U.S. Department of Agriculture's (USDA) Animal Plant and Health Inspection Service (APHIS) "to strengthen regulations regarding the handling of wild and exotic animals for exhibition, as well as the training of personnel involved in the handling of wild and exotic animals, and to establish standards addressing environmental enrichment for all regulated animals" in furtherance of the Animal Welfare Act (AWA), 7 U.S.C. §§ 2131–2160.

Animals desperately need all three initiatives proposed in the Advanced Notice of Proposed Rulemaking, which are critical to animal welfare and long overdue. As further detailed in the attached comments, we urge the USDA to adopt the recommendations on public contact, staff training, and enrichment summarized below.

1. Public Contact

The USDA should prohibit *all* public contact with wild or exotic animals. The AWA was enacted to "insure humane handling and care" for regulated animals. 7 U.S.C. § 2131. APHIS's proposal to categorize and regulate public contact based on the perceived level of danger to *humans* fails to fulfill the AWA's humane mandate because it does not consider how public handling impacts the *welfare of the animals themselves*, which must be APHIS's primary focus. No form of public contact is designed to benefit animals; it is designed to benefit humans, and compromises animals' natural behaviors and welfare.

At a minimum, the USDA should prohibit all public contact with species listed under the Endangered Species Act (ESA). The ESA imposes an affirmative duty upon the USDA to further the conservation of protected species, 16 U.S.C. § 1536(a)(1), and public contact harasses, harms, injures, and kills protected species, in violation of the "take" prohibition of the ESA, *see id.* § 1538(a)(1)(C). If the final rule places animals into different categories of protection, ESA-listed species should be given the highest level of protection—with no public contact allowed.

2. Staff Training

Staff training is essential to the welfare of animals. Staff training requirements must be documented, submitted to the USDA for approval, and enforced. Additionally, the USDA should harmonize such regulations with the requirements of the Occupational Safety and Health Act (OSH Act).

3. Enrichment

Ethologically appropriate enrichment is essential to animal welfare. In this rulemaking, the USDA must ensure that licensees provide species-appropriate enrichment designed to meet the animals' behavioral, physical, and social needs. To achieve this, we urge the USDA to:

- Define enrichment to make clear that it refers to conditions that benefit animals by promoting species-typical behaviors and enabling them to make choices;
- Require licensees to provide each animal regulated by the AWA an ethologically and individually appropriate enrichment program comprising *all* of these four elements: (1) habitat enrichment, (2) object enrichment, (3) food enrichment, and (4) social enrichment;
- Set forth minimum standards for what constitutes an adequate enrichment program that are clear, concrete, and enforceable, by using engineering standards as much as possible. If a performance standard must be used, it must provide concrete examples to provide sufficient guidance to facilities, the public, and inspectors;
- Require that facilities monitor the efficacy of enrichment given to each animal based on benchmarks for symptoms of poor welfare, and modify the enrichment plan as needed;
- Require written enrichment plans to be submitted for approval to the USDA annually and every time a facility applies or re-applies for a license. These submitted plans should be kept in the facility file, and inspectors should also review enrichment plans, and compliance with them, at each inspection.

Thank you for the opportunity to comment on these important issues.

Sincerely,

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Comments of the Harvard Animal Law & Policy Clinic
Prepared by Hallie Aylesworth, Elizabeth Duncan, and Andrew Slottje

I. Public Contact

The USDA should prohibit public contact with *all* wild or exotic animals[1] to protect animal welfare. It should also adopt worker safety protections. Likewise, performances of wild and exotic animals—regardless of whether public contact is involved—should be prohibited on welfare grounds.

i. Regulations permitting any level of public contact with, or performances by, animals fail to meet the USDA's statutory obligation to ensure the humane care and treatment of animals.

The primary purpose of the AWA is to ensure that regulated animals "are provided humane care and treatment."[2] To that end, the USDA must "promulgate standards to govern the *humane* handling, care, treatment, and transportation" of regulated animals that include "minimum requirements" for, among other things, handling, housing, and veterinary care that the agency "finds necessary for *humane* handling, care, or treatment of animals."[3] These regulations should be based on consultation with "experts, including outside consultants."[4]

The focus of this rulemaking must align with the statutory mandate of the AWA: ensuring the *humane treatment* of animals. Public and occupational safety fall under this umbrella to the extent that animals placed in unsafe situations or held in unsafe enclosures may be punished, injured, or killed if they behave in a manner that threatens humans. But APHIS's proposal to regulate public contact based solely on the perceived level of danger an animal poses to *humans* fails to fulfill the AWA's humane mandate because it does not take into account how public handling impacts *the welfare of the animals themselves*. This must be APHIS's main focus.

A. Harm to animals

Public contact with wild animals occurs for the purposes of human entertainment and profit. These interactions do not benefit animals, who often lack any choice or control over such interactions.

Handling itself is physically and emotionally stressful for animals.[5] Wild animals have inborn traits that prepare them for the conditions of the wild. As a result, "many such animals may perceive their handler as a predator that has captured the individual, which would typically be an abnormal and stressful experience."[6] Studies show that even wild animals that appear docile in public contact conditions experience serious stress as a result of public contact.[7] Many studies focus on farmed

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[1] As defined in 9 C.F.R. § 1.1. The arguments made in these comments strongly support prohibiting public contact with *all* regulated animals. We have chosen to focus on wild and exotic animals because the risks to animal welfare, health, and safety are the most acute for taxa that have not been domesticated over the course of thousands of years.
[2] 7 U.S.C. § 2131(1).
[3] *Id.* § 2143(a) (emphases added).
[4] *Id.* § 2143(a)(5).
[5] *See, e.g.*, Ex. 1, T. Grandin, *Assessment of Stress During Handling and Transport*, 75 J. ANIMAL SCI. 249, 249 (1997) (explaining that animals can be stressed by physical factors as well as psychological factors, including restraint, handling, or novelty).
[6] Ex. 2, Clifford Warwick et al., *Mobile Zoos and Other Itinerant Animal Handling Events: Current Status and Recommendations for Future Policies*, 12 ANIMALS, art. no. 214, at 24 (2023).
[7] *Id.*

animal husbandry, which is particularly relevant to animals used in petting zoos, and demonstrate that stress results in a host of negative consequences for these animals.[8]

In addition to the stress of handling, public contact perpetuates a host of other harms to animals, including physical abuse, excessive physical restraint, premature maternal separation, and unnecessary veterinary procedures. Exhibitors routinely use physical abuse to control animals used for public contact, both during training and exhibition.[9] Chains, sticks, whips, and other tools of the trade are often used to control animals[10] despite the fact that the AWA's implementing regulations strictly prohibit food deprivation and physical abuse.[11] The public contact itself may also cause physical injury by means of force, such as when animals like ostriches are used for rides.[12]

Maternal separation is a key part of many forms of public contact. For example, while big cats in the wild remain with their mothers for up to two years, USDA-licensed facilities often pull cubs within hours to weeks of birth to use them for profitable public contact. The short-term negative effects of maternal separation, including illness and increased likelihood of premature death,[13] and the long-term negative effects of maternal separation, such as increased stress and fear,[14] have been documented in the offspring of numerous species.

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[8] Ex. 3, Paul H. Hemsworth et al., *Human–Animal Interactions at Abattoirs: Relationships Between Handling and Animal Stress in Sheep and Cattle*, 135 APPLIED ANIMAL BEHAV. SCI. 24, 30 (2011) (stating "[t]he main fear-related behavioural responses studied in farm animals have included avoidance or latency to approach a stimulus, immobilization, locomotion, escape attempts, baulks, flinches, orientation to stimulus, sniffing and latency to sniff stimulus, vocalizations and latency to vocalize, separation from the group, elimination, aggression and disruption in normal activity, such as resting and feeding"); *see also* Grandin, *supra* note 5 (stating that handling causes psychological stress in cattle).

[9] *See, e.g.*, Ex. 4, Sarah Baeckler, Undercover at Amazing Animal Productions, Testimony at a Briefing Co-Hosted by Chimpanzee Collaboratory and Env't Media Ass'n: Campaign to End the Use of Chimpanzees in Entertainment (Oct. 14, 2003); *Out of Control – Abused Elephants Fighting in US Circus*, ANIMAL DEFS. INT'L (June 19, 2014), https://vimeo.com/98627950; *Ringing Beats Animals: A PETA Undercover Investigation*, PETA (PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS) (July 22, 2009), https://www.youtube.com/watch?v=ECspj0daAlE; *Hollywood Animal Trainer Viciously Whips Young Tiger*, PETA (PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS) (Dec. 23, 2015), https://www.youtube.com/watch?v=mWhNHvmfyZ4.

[10] *See, e.g.*, Ex. 5, Complaint, *In re* Sidney Jay Yost, AWA Docket No. 12-0294 (USDA Mar. 16, 2012); Ex. 6, Inspection Report, Timothy Stark (Certificate 32-C-0204) (APHIS Sept. 13, 2015); Ex. 7, *In re* Timothy L. Stark, AWA Docket Nos. 16-0124; 16-0125 (USDA July 8, 2016).

[11] 9 C.F.R. § 2.131(b)(2).

[12] *See* Ex. 8, *No More Dangerous and Inhumane Ostrich Ride Promotions from Tribes Travel*, PETA UK (Dec. 19, 2014), https://www.peta.org.uk/media/news-releases/no-more-dangerous-and-inhumane-ostrich-ride-promotions-from-tribes-travel/.

[13] *See, e.g.*, Ex. 9, Inspection Report, Nick Sculac (Certificate 84-C-0069) (APHIS May 23, 2013) (describing the death of two 3-day old tiger cubs, the USDA stated that "[t]ransportation and handling of very young and unhealthy animals may cause trauma, behavioral stress, and unnecessary discomfort and may have contributed to these animals' deaths").

[14] *See, e.g.*, Ex. 10, Masayuki Nakamichi, April Silldorff & Peggy Sexton, *Behavioral Responses of an Infant Gorilla to Maternal Separation in a Captive Social Group of Lowland Gorillas*, 42 PRIMATES 245 (2001) (female infant gorilla responded to maternal separation with behavioral depression); Ex. 11, Loraine R. Tarou, Meredith J. Bashaw & Terry L. Maple, *Social Attachment in Giraffe: Response to Social Separation*, 19 ZOO BIOLOGY 41 (2000) (following social separation, giraffes "exhibited increased levels of activity, stereotypical behavior, contact behavior, and decreased habitat utilization," supporting the hypothesis that social separation is often accompanied by behavioral and physiological indications of stress); Ex. 12, A. Wren Thomas, Natalia Caporale, Claudia Wu & Linda Wilbrecht, *Early Maternal Separation Impacts Cognitive Flexibility at the Age of First Independence in Mice*, 18 DEVELOPMENTAL COGNITIVE NEUROSCIENCE 49 (2016) (clear effects of maternal separation in mice include decreased behavioral and cognitive flexibility and enhanced risk of substance abuse).

Big cats and other animals may endure agonizing and unnecessary medical procedures, such as declawing, defanging, and debarking, in an attempt to make them more suitable for human contact.[15] These procedures cause immense pain and often result in chronic health issues, such as arthritis, lameness, and lifelong dental problems.[16] Since 2006, the USDA has considered these procedures to be unacceptable unless medically necessary.[17] However, some exhibitors continue these inhumane practices, despite the fact that declawing exotic cats can violate the "take" prohibition of the ESA.[18] Likewise, exhibitors wishing to use animals for public contact may intentionally seek out animals kept by private owners who had the animals declawed or defanged—contributing to a secondary market perpetuating these cruel mutilations.[19]

Undercover footage from the Humane Society of the United States provides a glimpse into what occurs at "VIP Encounters" with wild animals.[20] Footage obtained at Tiger Safari in Tuttle, Oklahoma, in 2021 shows a baby otter being carried on stage, squirming and screaming, while the handler attempted to muzzle her to stifle her cries.[21] The otter, showing signs of extreme distress, was held down while being subjected to contact by approximately 20 paying customers.[22]

Animal behaviorist Jay Pratte viewed the video, concluding that the otter was:

> clearly exhibiting signs of significant distress, both in its vocalizations and behavior. The animal is visibly struggling against the handler and can be observed pulling away from and trying to evade members of the audience. When the distress vocalizations do not diminish, that handler covers the otter's face with her hand to attempt to muffle the sound. This is neither excitement nor social vocalizing. The handler physically restrains the animal throughout the encounter, ignoring the clear behavioral expressions of distress. The handling and encounter are distinctly aversive for this otter, and the handler and other staff present ignore the visible/audible distress and continue the encounter regardless.[23]

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[15] Ex. 13, *Position Paper: Defanging and Declawing Wild Cats*, BIG CAT SANCTUARY ALL. (2019).
[16] *Id.*
[17] Ex. 14, *Information Sheet on Declawing and Tooth Removal*, U.S. DEP'T OF AGRIC. (Aug. 2006), https://www.aphis.usda.gov/animal_welfare/downloads/big_cat/declaw_tooth.pdf.
[18] *See* Ex. 15, Compl. ¶¶ 48–50, *People for the Ethical Treatment of Animals, Inc. v. Mobile Veterinary Services Equine, Inc.*, No. 4:18-cv-163 (S.D. Ind. Sept. 5, 2018).
[19] For example, exhibitor Philip Dolci straps capuchin monkeys to dogs who run around a track to "entertain" spectators in a so-called "banana derby." The monkeys, Bert and Gilligan, have had their teeth removed so that when they nip at the dogs (or the public during photo-ops), the bites are less dangerous. According to one outlet, Dolci's "father-in-law gave him the monkeys after having their teeth removed." Susannah Bryan, *Cruel or Cute? Monkey Jockey Show at Florida County Fair Sparks Outcry from Animal Activists*, S. FLA. SUN-SENTINEL (Nov. 24, 2021), https://www.sun-sentinel.com/local/broward/margate/fl-ne-monkeys-riding-dogs-protest-20211124-i5wmyopmrrd5vltitrj5rxphse-story.html.
[20] Ex. 16, Press Release, Humane Society Legislative Fund, Undercover Visit Shows Abuse of Animals at Oklahoma Roadside Zoo (June 11, 2021).
[21] *Id.*
[22] *Id.*
[23] Ex. 17, Jay Pratte & Christie Eddie, *Site Visit Report: The Humane Society of the United States Documents Close Encounters of the Cruel Kind at Tiger Safari in Tuttle, Oklahoma*, HUMANE SOC'Y OF THE U.S. (June 10, 2021), https://www.humanesociety.org/sites/default/files/docs/Tiger%20Safari_otter%20encounter_report_June%2010%202021.pdf.

The otter was just one of the species used in this particular public encounter: a baby kangaroo, a ferret, a fennec fox (a naturally nocturnal animal), and lemurs (being held upside down by their tails) were also passed around the audience.[24] This is the type of stressful and terrifying inhumane handling that the USDA should take action to prevent.

The European Association of Zoos and Aquaria (EAZA) standards state that "EAZA does not support demonstrations which place humans or animals at a risk of physical or psychological harm."[25] EAZA includes within this definition any direct physical contact between humans and animals in a demonstration for the sole purpose of entertainment.[26] It also states that animals should not be used in demonstrations when they are displaying signs of aggression or mental distress.[27]

Increased public knowledge of such practices has already led to some change. For example, the Big Cat Public Safety Act, passed in 2022, prohibits AWA licensees from allowing direct contact between the public and lions, tigers, leopards, cheetahs, jaguars, cougars, or any hybrid of such species.[28] This was a necessary step to counteract the harmful cub-petting industry that the USDA has enabled through policies that allow cubs to be used for public contact between the ages of four and 12 weeks.[29] As the USDA knows well, exhibitors that sell these encounters breed big cats and take the cubs from their mothers to use for public contact and photo-ops. Some cubs do not survive this ordeal.[30] For example, in remarks given at a May 11, 2016, meeting with animal welfare stakeholders, Dr. Robert Gibbens, Animal Care's Director of Animal Welfare Operations, admitted that infants used for cub petting often disappear, and the agency assumes they are dying. He explained, "These cats are doomed." When surviving cubs age out of encounters, they are often dumped at another substandard facility and may even be killed.[31]

The fact that the Big Cat Public Safety Act is enforced by the U.S. Fish & Wildlife Service (FWS) does not lessen the USDA's obligation to adopt regulations aligned with Congress's mandate. The AWA requires the USDA to consult and cooperate with other agencies concerned with the welfare of animals used for exhibition or that administer "statutes regulating the transportation in commerce

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[24] Ex. 16, Press Release, Humane Society Legislative Fund, *supra* note 20.
[25] Ex. 18, EUR. ASS'N OF ZOOS & AQUARIA, EAZA STANDARDS FOR THE ACCOMMODATION AND CARE OF ANIMALS IN ZOOS AND AQUARIA 7 (Apr. 7, 2022), https://www.eaza.net/assets/Uploads/EAZA-Documents-2022/2022-04-EAZA-Standards-for-Accomodation-and-Care.pdf.
[26] *Id.*
[27] *Id.* at 8.
[28] *See* 16 U.S.C. § 3371 (effective Dec. 20, 2022).
[29] Ex. 19, *Tech Note: Handling and Husbandry of Neonatal Nondomestic Cats*, U.S. DEP'T OF AGRIC. ANIMAL & PLANT HEALTH INSPECTION SERV. (Mar. 2016), https://www.aphis.usda.gov/publications/animal_welfare/2016/tech-neonatal-nondomestic-cats.pdf.
[30] *See, e.g.*, Ex. 20, Compl. ¶¶ 132-35, *United States v. Lowe*, No. 6:20-cv-00423 (E.D. Okla. Nov. 19, 2020), https://www.justice.gov/opa/press-release/file/1338781/download.
[31] *See* Ella Alexander, *Tiger King: Joe Exotic and Doc Antle Are Not a Joke … So Why Are We Romanticising Them?*, HARPER'S BAZAAR (Apr. 2, 2020), https://www.harpersbazaar.com/uk/culture/culture-news/a32015795/tiger-king-joe-exotic-peta-response (interview with PETA Foundation attorney Brittany Peet explaining: "The first time that I met [Joseph Maldonado-Passage (aka 'Joe Exotic')], he told me that a lot of the places he sells cubs to kill them after they've aged out of cub-petting. He told me the same day that Doc Antle puts cubs in gas chambers and incinerates their bodies in his on-site crematorium. He told me others hit the cubs over the head with a hammer and kill them that way."); Sharon Gunyup, *'Tiger King' Stars' Legal Woes Could Transform Cub-Petting Industry*, NAT'L GEOGRAPHIC (Apr. 15, 2021), https://www.nationalgeographic.com/animals/article/tiger-king-stars-legal-cases-change-industry ("Big cats are subject to factory-like breeding to produce a constant supply of cubs, and few visitors realize that many of them die young. Those that survive are too big and dangerous to pet by the age of 12 weeks, USDA regulations say. Those cubs usually are then sold off to other facilities, dumped, or simply disappear.").

or handling in connection therewith of any animals when establishing standards pursuant to section 2143."[32] The Big Cat Public Safety Act meets these requirements. Thus, the USDA *must* consult and cooperate with the FWS in this rulemaking process, and the standards it adopts must ban all public contact with big cats. Moreover, similarly inhumane and dangerous practices exist for other animals that do not fall under the Big Cat Public Safety Act, such as non-human primates and bears. The USDA must ban public contact with these animals as well to fulfill its mandate under the AWA.

Even in cases where, from a subjective human perspective, an animal appears to be participating in public contact willingly, it is difficult to assess how voluntary the activity truly is. "[I]f the reward for performance is access to a resource that the animal wants or needs but is controlled by the trainer, the animal's participation is not necessarily voluntary even though it may appear to be."[33] Likewise, an animal's perceived acquiescence to public contact may also reflect a state of learned helplessness, as discussed below. Thus, studies that purport to observe positive interactions between wild animals and the public are methodologically unreliable.

Finally, allowing people to interact with wild animals also increases the public's demand to keep these animals as pets and increases the public's desire to interact with these animals in the wild, which may result in further risk to animal welfare and public safety in contravention of the AWA.[34]

B. Connection between harm to animals and harm to humans

When an animal exhibits a negative behavior, such as biting, it is an expression of that animal's emotional state. "An animal is more likely to bite if it's been disturbed, feels threatened, or gets overexcited."[35] Public contact is inherently stressful for wild animals, who retain their species' natural instincts and are not "domesticated" by virtue of their captive existence.[36] Moreover, these negative reactions can occur in many types of wild animals, not just characteristically "dangerous" ones.[37] Putting animals in a position where they are more likely to lash out creates unnecessary danger for all involved.

Further, the public, particularly children, do not have the ability to assess the safety risks to themselves of an animal interaction, nor can they assess the impacts on (or ethical implications for) the animals involved. The public understandably assumes that if such interactions are allowed—particularly at a facility that holds an AWA license representing the imprimatur of the federal

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[32] *See* 7 U.S.C. § 2145(a).
[33] Ex. 21, JO DORNING, STEPHEN HARRIS & HEATHER PICKETT, THE WELFARE OF WILD ANIMALS IN TRAVELLING CIRCUSES 44 (2016).
[34] *See, e.g.*, Ex. 22, *Position Statement: Large Wild and Exotic Cats Make Dangerous Pets*, U.S. DEP'T OF AGRIC. ANIMAL & PLANT HEALTH INSPECTION SERV. (Miscellaneous Publ'n No. 1560, 2000), https://www.aphis.usda.gov/animal_welfare/downloads/big_cat/position.pdf ("AC personnel have seen too many instances where wild and exotic cats kept by untrained people have not only harmed people but suffered themselves due to poor care."); Ex. 23, Comments of Elizabeth V. Lonsdorf, Petition to List All Chimpanzees (*Pan Troglodytes*) as Endangered (Docket No. FWS-R9-ES-2010-0086) (Oct. 24, 2011).
[35] Ex. 24, *Animal and Human Bites*, NHS INFORM (Dec. 19, 2022), https://www.nhsinform.scot/illnesses-and-conditions/injuries/skin-injuries/animal-and-human-bites.
[36] Ex. 25, Jared Diamond, *Evolution, Consequences and Future of Plant and Animal Domestication*, 418 NATURE 700, 700 (2002).
[37] *See, e.g.*, Ex. 26, Michelle Kretzer, *Trouble at Sea(World): Problems Mount as Dolphin Bites Girl*, PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS (Feb. 26, 2014), https://www.peta.org/blog/seaworld-problems-dolphin-bites-girl/; Ex. 27, *Feds Wallop SeaQuest Over Injury to Otter, Frequent Bites to Guests*, PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS (Jan. 24, 2023), https://www.peta.org/media/news-releases/feds-wallop-seaquest-over-injury-to-otter-frequent-bites-to-guests/.

government—they must be both safe for humans *and* not harmful to animals. This is evidenced (and compounded) by the fact that wildlife tourist attractions with "objectively poor ethical standards" enjoy "overwhelmingly positive reviews" on sites like TripAdvisor.[38] Promulgating regulations that allow such interactions will only allow that incorrect assumption to persist.

Finally, while biting is often an expression of fear, the *absence* of this behavior is not an indication that the animal is unfearful or enjoying the encounter. A smaller animal may not have the capacity to seriously injure a human with their defense mechanisms but may nonetheless be experiencing extreme distress that humans fail to observe. For example, as the U.S. Department of Justice alleged in a case against an exhibitor for violations of the ESA and AWA, "[v]ery young cubs (generally 6 weeks and younger) may respond to over-handling by staying in a helpless, silent state rather than vocalizing or growling."[39] Likewise, wombats may respond to repeated human handling by lowering reactivity to a human handler.[40] However, that does not mean the interaction is positive; rather, the wombats enter a state of learned helplessness.[41] Elephants used for rides also experience learned helplessness after being subjected to cruel training methods, yet humans mistake this as mere docility.[42] Similarly, sloths—which are increasingly popular in public contact encounters—respond to public handling by vigilantly surveying their surroundings, a behavior indicative of stress, fear, and anxiety.[43] Researchers also point out that such encounters may deprive sloths of necessary rest and sleep.[44] Yet the average person would likely fail to recognize a sloth's hypervigilance as anything other than the animal simply looking around; nor would they have any way of recognizing whether the animal was sleep-deprived. The AWA mandate that animals be handled "humanely" still applies to these types of public interactions, and must be adhered to, even where animals may not appear to present a danger to humans.

C. Harm to humans

Injury

Any interaction between a wild animal and a member of the public also carries with it a danger of serious injury. Injuries and deaths resulting from contact with wild animals are numerous and well-documented.

The National Association of State Public Health Veterinarians (NASPHV) found that:

> Injuries associated with animals in public settings include bites, kicks, falls, scratches, stings, crushing of the hands or feet, and being pinned between the animal and a fixed object. These injuries have been associated with big cats (e.g., tigers), monkeys, and other domestic,

[38] Ex. 28, Tom Moorehouse, Neil C. D'Cruze & David W. Macdonald, *Unethical Use of Wildlife in Tourism: What's the Problem, Who is Responsible, and What Can be Done?*, 25 J. SUSTAINABLE TOURISM 505, 512 (2017).
[39] Ex. 20, Compl. ¶ 134, *United States v. Lowe*, No. 6:20-cv-00423 (E.D. Okla. Nov. 19, 2020), https://www.justice.gov/opa/press-release/file/1338781/download.
[40] Ex. 29, Lindsay A. Hogan et al., *Behavioural and Physiological Responses of Captive Wombats (*Lasiorhinus Latifrons*) to Regular Handling by Humans*, 134 APPLIED ANIMAL BEHAV. SCI. 217, 225 (2011).
[41] *Id.*
[42] Ex. 30, Les O'Brien, *Elephant Rides: A Brief Examination*, PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS (Apr. 5, 2018), https://www.peta.org/wp-content/uploads/2018/04/Les_OBrien_Elephant_Rides.pdf.
[43] Ex. 31, Gemma Carder et al., *The Impact of 'Selfie' Tourism on the Behaviour and Welfare of Brown-Throated Three-Toed Sloths*, 8 ANIMALS, art. no. 216 at 8 (2018).
[44] *Id.*

wild, and zoo animals. Settings have included public stables, petting zoos, traveling photo opportunities, schools, children's parties, dog parks, and animal rides.[45]

Even closely monitored and carefully managed interactions can lead to injury, as wild animals have been known to turn on their long-time trainers and knowledgeable handlers in the blink of an eye.[46] Thus, no one is immune from the danger of wild animals, and allowing contact between wild animals and the public, even supervised by a professional, is dangerous for every party involved.

Elephants provide an instructive example. Because elephants used for public contact are trained using barbarous methods, these animals may appear docile to unwitting members of the public. In reality, they pose immense danger because of their size, strength, and incredible intelligence. Since 1987, there have been more than 100 injuries and 20 human deaths caused by elephants in captivity in North America.[47] For example, a visitor at Two Tails Ranch in Florida named Diane Bedard was able to "g[e]t close to [an elephant named] Rajah's enclosure to take pictures."[48] Rajah "reached through the fence bars, grabbed Bedard, and smashed her against the fence. Bedard was found crumpled on the ground, nearly dead from her injuries. She spent months in the hospital and is lucky to be alive."[49] In Massachusetts, an elephant named Minnie being used for rides "became agitated and suddenly swung her head toward . . . two employees, shifting her weight and pinning them against the loading ramp."[50] In Oklahoma, a customer at "an adventure camp providing guests up-close and personal elephant experiences" suffered "serious and life-threatening injuries."[51]

For the safety of their staff, most elephant facilities in the U.S. have voluntarily adopted protected contact management, which relies on positive reinforcement training and a protective barrier between keeper and elephant, making this method far safer for keepers, and more humane for elephants. In facilities that allow direct contact, elephant keepers are at high risk of serious injury and death.[52] It stands to reason that members of the public allowed to come into direct contact with an elephant through petting, bathing, and photo opportunities are at a similarly grave risk of harm. Yet the ANPR appears to contemplate allowing these public contact activities to continue. Predictably,

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[45] Ex. 32, National Association of State Public Health Veterinarians, Inc., *Compendium of Measures to Prevent Disease Associated with Animals in Public Settings, 2011*, CDC (2011), https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6004a1.htm.

[46] *See, e.g.*, Ex. 33, *"They're Natural Born Killers": Wild Animals in Captivity Inherently Dangerous*, ABC NEWS (Dec. 28, 2007), https://abcnews.go.com/2020/story?id=4061070 (trusted trainer Joanna Burke was killed by an elephant named Winkie); Ex. 34, Lauren Maschmedt, *Wildlife Worker Killed by his Favorite Bear, Coworker Says*, NBC MONT. (Nov. 5, 2012), https://nbcmontana.com/news/local/wildlife-worker-killed-by-his-favorite-bear-coworker-says; Ex. 35, Citation and Notification of Penalty, Sea World of Florida, LLC, No. 314336850 (OSHA Aug. 23, 2010) (trainer who was pulled into the tank by an orca during a "routine" interaction died from blunt force trauma and drowning).

[47] Ex. 36, *Factsheet: Elephant Incidents in North America*, PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS, https://www.peta.org/wp-content/uploads/2021/06/Elephant-Incident-List-US-only.pdf.

[48] Ex. 37, *After Woman is Nearly Killed by Elephant, USDA Slaps Owner with Penalty*, PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS (Apr. 5, 2017), https://www.peta.org/blog/elephant-usda-penalty-zerbini/.

[49] *Id.*

[50] Ex. 38, *R.W. Commerford & Sons Traveling Petting Zoo*, PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS, https://www.peta.org/wp-content/uploads/2021/06/CommerfordPettingZooFactsheet.pdf.

[51] Ex. 39, Am. Pet. ¶¶ 12, 19, *Garber v. Endangered Ark Found.*, No. CJ-2021-2705 (Okla. Dist. Ct. Nov. 23, 2021), https://www.peta.org/wp-content/uploads/2022/01/ex-1-amended-petition-garber-v-endangered-ark-et-al-no-cj-2021-2705-d-okla-cnty-nov-23-2021.pdf.

[52] Ex. 40, M. Gore et al., *A Review of Injuries Caused by Elephants in Captivity: An Examination of Predominant Factors*, 40 INT'L ZOO YEARBOOK 51, 60 (2006) (stating, "[f]rom the data presented here it would appear that the greatest likelihood of being injured is when using the free/direct contact system").

the result will be an increased risk of serious injury and death to members of the public and animals alike who engage in these activities. This harm is preventable.

The USDA's Animal Care Inspection Guide contains rules for inspecting nondomestic animals. These include "[d]o *not* reach out to, or try to pet or feed the animals, *no matter how friendly they may seem*" and "do *not* stand within reach of them."[53] The Guide goes on to discuss specific guidance for inspecting animals known to be dangerous. For example, because macaques are known to carry the deadly Herpes B virus, "any inspection of macaque species within 5 feet or less of the animals or enclosures requires the use of a full-face shield, respirator, disposable gloves, footwear, and coveralls."[54] When inspecting an elephant, inspectors are instructed to "have an escape route planned and maintain your 8-foot distance."[55] The Guide states that "[n]on-domestic hoof stock (eland, oryx, nilgai, kudu, bison, deer, etc.) may be dangerous. Bison and other bovid-type non-domestic hoof stock, as well as cervids (generally bucks), have been known to charge or butt people without warning. *When inspecting nondomestic hoof stock, try to always have a sturdy fence between yourself and the animals, and do not stand within reach of these animals.*"[56] Additionally, "[o]striches, especially males, may be deadly, and have been known to attack and seriously injure or even kill people, often unprovoked and without warning."[57] Yet, despite these recognized dangers, members of the public regularly hand-feed, pet, and otherwise interact directly with these animals, without any understanding of the risks.

OSHA has repeatedly found that allowing workers to engage in free contact with various kinds of wild animals is a violation of the OSH Act's general duty clause,[58] which requires that places of employment be "free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."[59] If animals present a hazard to *USDA employees*, they surely also present a hazard to members of the general public. It makes little sense to allow public contact with animals under circumstances that the USDA recognizes as dangerous for *its own* staff.

The ANPR's proposed categorization scheme could enable members of the public to handle animals especially likely to injure them. For example, in placing "other exotic felines" in category 2, the ANPR appears to contemplate that lions, tigers, and similar animals may not receive the highest level of protection from public contact. Similar catch-all categories for primates and canids have

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[53] Ex. 41, U.S. DEP'T OF AGRIC. ANIMAL & PLANT HEALTH INSPECTION SERV., ANIMAL CARE INSPECTION GUIDE 3-8 (Dec. 2022), https://www.aphis.usda.gov/animal_welfare/downloads/Animal-Care-Inspection-Guide.pdf (emphasis added).
[54] *Id.* at 3-9.
[55] *Id.* at 3-11.
[56] *Id.* (emphasis added).
[57] *Id.* at 3-12.
[58] *See, e.g.*, Ex. 42, Citation and Notification of Penalty, Animals of Montana, No. 724901 (OSHA Apr. 29, 2013) (finding that "[t]he employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees, in that employees were allowed to have direct contact with apex predators such as Syrian Brown/Grizzly cross during sanitation activities[.]"); Ex. 43, Citation and Notification of Penalty, Stone Mountain Game Ranch, No. 953969 (OSHA May 19, 2014) (finding a violation "where employees were allowed to have direct contact with apex predators to include black bears, bobcats, and a mountain lion during sanitation and feeding," "employees were exposed to potential attacks from captive black bears and bobcats while performing activities including but not limited to sanitation and feeding"); Ex. 44, Citation and Notification of Penalty, G.W. Interactive Zoological Foundation, No. 952924 (OSHA Mar. 31, 2014) (stating "the employer did not adequately protect employees from the hazard of being struck by, mauled, or bitten by wild animals such as, but not limited to, tigers, lions, ligers (lion/tiger crossbreed) and bears.").
[59] 29 U.S.C. § 654.

likewise been placed in category 2, despite obvious potential for attacks[60] and disease transmission.[61] While *no* public contact should be allowed for any wild or exotic animals protected under the AWA, at the very least public safety requires that several of the taxa listed in category 2—such as lions, tigers, marine mammals, wild canids, and primates—should be placed in category 1.

Disease

Allowing the public to feed and touch animals creates a potential risk of disease transmission between humans and animals, as well as between animal species.[62] When humans and animals are in close proximity, even lacking direct contact, airborne diseases can spread. By way of example, the International Union for Conservation of Nature and Natural Resources (IUCN) recommends a minimum distance of 33 feet between visitors and wild great apes (or 22 feet if tourists wear a surgical mask) to avoid disease transmission.[63]

Animals subjected to increased stress resulting from transportation, confinement, or handling have weakened immune systems and an increased risk of contracting disease and shedding pathogens.[64] When combined with the incentives public contact creates for maternal separation, such disease transmission becomes even more likely, as public contact can endanger young animals due to their limited immunity.[65] Just like humans, animals may be asymptomatic carriers of disease, and can infect others without having shown any sign of illness.

As a result, bites and scratches may cause infection in humans. Multiple bacterial, viral, fungal, and parasitic infections have been associated with animal contact. Handling wild animals can result in ringworm, tapeworm, rabies, smallpox, *E. coli*, *Salmonella*, toxoplasmosis, *Staphylococcus*, and *Streptococcus* infections.[66] *Mycobacterium tuberculosis* (TB) is a well-documented, common disease in captive elephants, and can be transmitted between elephants and humans.[67] (In fact, an elephant was

[60] *See, e.g.*, Ex. 45, *Factsheet: Primate Incidents in the United States*, PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS, https://www.peta.org/wp-content/uploads/2021/06/Primate-Incident-List-US-only.pdf.
[61] *See, e.g.*, Ex. 46, Clifford Warwick & Catrina Steedman, *Wildlife-Pet Markets in a One-Health Context*, 7 INT'L J. ONE HEALTH 42, 48 (2021); Ex. 47, Letter from Michelle Sinnott, Counsel, Captive Animal L. Enf't, People for the Ethical Treatment of Animals Found. to Joseph Therrien, N.Y. State Dep't Env't Conservation, at 17–18 (Nov. 18, 2019), https://www.peta.org/wp-content/uploads/2019/11/2019-11-18-PETA-NYSDEC-Dangerous-Animal-Rulemaking.pdf ("Wild canid species are also known to carry rabies. Rabies is not only a dangerously transmissible disease, it can cause the host to become more aggressive and likely to attack." (citations omitted)).
[62] Ex. 48, Compl. ¶ 133, *People for the Ethical Treatment of Animals, Inc. v. Reigleman Enters., Inc.*, No. 2:21-cv-00488 (W.D. Pa. Apr. 14, 2021).
[63] Ex. 49, ELIZABETH J. MACFIE & ELIZABETH A. WILLIAMSON, BEST PRACTICE GUIDELINES FOR GREAT APE TOURISM 50 (2010).
[64] Ex. 31, National Association of State Public Health Veterinarians, Inc., *supra* note 45.
[65] *See, e.g.*, Ex. 19, *Tech Note: Handling and Husbandry of Neonatal Nondomestic Cats*, *supra* note 29.
[66] Ex. 50, Daniel S. Shapiro, *Infections Acquired from Animals Other Than Pets*, 1 INFECTIOUS DISEASES 663, 665 (2017).
[67] *See, e.g.*, Ex. 51, Susan K. Mikota & Joel N. Maslow, *Tuberculosis at the Human–Animal Interface: An Emerging Disease of Elephants*, 91 TUBERCULOSIS 208, 208 (2011); Ex. 52, *Elephant Tuberculosis References*, ELEPHANT CARE INT'L DATABASE (May 2022), https://elephantcare.org/wp-content/uploads/Elephant-TB-References-by-Date-May-2022.pdf; Ex. 53, K. Michalak et al., *Mycobacterium Tuberculosis Infection as a Zoonotic Disease: Transmission Between Humans and Elephants*, 4 EMERGING INFECTIOUS DISEASES 283, 285 (1998).

the source of a 2009 TB outbreak in Tennessee[68] and a 2013 outbreak in Oregon.[69]) TB can also be transmitted between humans and nonhuman primates.[70] Herpes B virus, which is highly dangerous to humans, can be carried by a number of nonhuman primate species, though the rhesus, pig-tailed, and cynomolgus macaques are considered the primary reservoir species for the virus.[71]

Notably, "[s]ixty-one percent of human diseases have a potentially zoonotic origin and 75% of global emerging human diseases have a wild animal link."[72] The authors of this study specifically found that "public direct and indirect contact with animals of uncertain origin and health state introduces a significant risk factor."[73]

Zoonotic diseases came to the forefront of the public's attention in 2020, when SARS-CoV-2 (the virus that causes COVID-19) caused a global pandemic. In addition to humans, SARS-CoV-2 has infected captive gorillas, several species of big cats, otters, and mink.[74] In a "Tech Note," the USDA advised that facility staff should "[minimize] contact with susceptible animals" for the protection of staff, and similarly, that "[e]nsuring that members of the public cannot come within 6 feet of nonhuman primates, nondomestic big cats, and all species of mustelids" would help to prevent infection in animals.[75] This remains good advice.

NASPHV recommends that "certain domestic, exotic, or wild animals should be prohibited in exhibit settings where a reasonable possibility of animal contact exists. It is impossible to eliminate all risk from animal contact. Species of primary concern include nonhuman primates (e.g., monkeys and apes) and certain carnivores (e.g., lions, tigers, ocelots, wolves and wolf hybrids, and bears). In addition, rabies-reservoir species (e.g., bats, raccoons, skunks, foxes, and coyotes) should not be used for direct contact."[76]

ii. Regulations permitting any level of public contact with, or performances by, animals protected under the Endangered Species Act would fail to meet USDA's statutory obligation to further conservation of protected species.

The ESA imposes an "affirmative duty" on all federal agencies to conserve protected species.[77] Congress intended the ESA "to halt and reverse the trend toward species extinction, whatever the cost. This is reflected not only in the stated policies of the Act, but in literally every section of the

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[68] Ex. 54, Tim Ghianni, *Elephant Behind TB Outbreak at Tennessee Sanctuary*, REUTERS (Feb. 17, 2011), https://www.reuters.com/article/us-elephant-tuberculosis/elephant-behind-tb-outbreak-at-tennessee-sanctuary-idUSTRE71H01J20110218.

[69] Ex. 55, Amy Zlot et al., *Diagnosis of Tuberculosis in Three Zoo Elephants and a Human Contact — Oregon, 2013*, 64 MORBIDITY & MORTALITY WKLY. REP. 1398, https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6452a2.htm?s_cid=mm6452a2_x.

[70] *See, e.g.*, Ex. 56, Tiffany M. Wolf et al., *The Risk of Tuberculosis Transmission to Free-Ranging Great Apes*, 76 AM. J. PRIMATOLOGY 5 (2014).

[71] Ex. 57, C. Coulibaly et al., *A Natural Asymptomatic Herpes B Virus Infection in a Colony of Laboratory Brown Capuchin Monkeys (*Cebus Apella*)*, 38 LAB'Y ANIMALS 432 (2004).

[72] Ex. 58, Phillip Arena, *A Review of Captive Exotic Animal-linked Zoonoses*, 12 J. ENV'T HEALTH 9 (2012).

[73] *Id.*

[74] Ex. 59, *Animal Care Tech Note: Guidance for Zoos and Captive Wildlife Facilities: Protecting Susceptible Animals from SARS-CoV-2 Infection*, U.S. DEP'T OF AGRIC. ANIMAL & PLANT HEALTH INSPECTION SERV. (Apr. 2021), https://www.aphis.usda.gov/publications/animal_welfare/fsc-covid-animals.pdf.

[75] *Id.*

[76] Ex. 32, National Association of State Public Health Veterinarians, Inc., *supra* note 45.

[77] *Sierra Club v. Glickman*, 156 F.3d 606, 616 (5th Cir. 1998).

statute."[78] In particular, "the legislative history undergirding § 7" of the ESA "reveals an explicit congressional decision to require agencies to afford first priority to the declared national policy of saving endangered species."[79] However, rather than giving protected species "first priority," the USDA appears to have ignored them in establishing its AWA regulations. Therefore, in the proposed rulemaking, the USDA should implement this congressional mandate by prohibiting protected species from being used for any kind of public contact or in performances.

The USDA's species conservation obligations derive from Section 7(a)(1) of the ESA. That provision states: "*All other federal agencies shall*, in consultation with and with the assistance of the" FWS, "utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation of endangered species and threatened species[.]"[80] Congress defined "conservation" broadly to mean "the use of *all methods and procedures* which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary."[81] Under this provision, the USDA must "take whatever actions are necessary to ensure the survival of each endangered and threatened species," and must "consult with FWS as to each of the listed species, not just undertake a generalized consultation."[82]

This legal obligation complements the USDA's mandate under the AWA. As discussed above, the AWA requires the USDA to promulgate regulations for the "humane handling, care, treatment, and transportation of" covered animals.[83] In the process, it must "consult and cooperate" with other agencies, including the FWS, that are concerned with the welfare of animals used for exhibition or that administer "statutes regulating the transportation in commerce or handling in connection therewith of any animals[.]"[84] Thousands of ESA-covered animals are held by USDA licensees and registrants, yet the AWA's implementing regulations afford these animals no special protections. For example, it is generally unlawful under the ESA to "take" protected species, including to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" members of those species.[85] This prohibition extends to captive wildlife.[86] Under the ESA's implementing regulations, "harm" means "an act which actually kills or injures wildlife."[87] "Harass" means "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering."[88] With respect to captive animals, "harass" does not include "generally accepted" "animal husbandry practices *that meet or exceed the minimum standards for facilities and care under the Animal Welfare Act*;" breeding procedures; or "[p]rovisions of veterinary care for confining,

[78] *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).
[79] *Id.* at 185.
[80] 16 U.S.C. § 1536(a)(1) (emphasis added).
[81] *Id.* § 1532(3) (emphasis added).
[82] *Sierra Club*, 156 F.3d at 616.
[83] 7 U.S.C. § 2143.
[84] *Id.* § 2145(a).
[85] *See* 16 U.S.C. §§ 1532(19), 1538(a)(1).
[86] *See, e.g.*, Ex. 60, Listing Endangered or Threatened Species: Amendment to the Endangered Species Act Listing of the Southern Resident Killer Whale Distinct Population Segment, 80 Fed. Reg. 7380, 7388 (Feb. 10, 2015) (to be codified at 50 C.F.R. pt. 224) ("On its face the ESA does not treat captives differently . . . Section 9(a)(1)(A)-(G) of the ESA applies to endangered species regardless of their captive status."); *see also Kuehl v. Sellner*, 887 F.3d 845, 852–54 (8th Cir. 2018).
[87] 50 C.F.R. § 17.3.
[88] *Id.*

tranquilizing, or anesthetizing"—but only where "such practices, procedures, or provisions are not likely to result in injury to the wildlife."[89]

Yet the prohibition on harming and harassing ESA-protected animals is reflected nowhere in the AWA's animal care standards, even though the FWS apparently believed these standards would meaningfully protect listed animals, which is why they are cross-referenced in that agency's definition of "harass" as applied to captive members of such species. The result is that the USDA continues to license exhibitors who take protected species in violation of the ESA. For example, a federal court found that cub-petting at a roadside zoo—including prematurely separating big-cat cubs from their mothers and using them for public contact—violated the ESA because it "force[d] [cubs] to develop a different behavioral repertoire that conflict[ed] with their natural instincts," deprived cubs of rest, subjected them to "abusive disciplinary measures," and caused "extreme stress" to cubs who "cannot escape the public touching and petting them."[90]

As this case illustrates, the definition of "harass" found in the ESA's implementing regulations justifies an AWA regulation banning public contact with ESA-listed animals, because public contact "significantly disrupts normal behavioral patterns" of the animals.[91] It is *not* an "animal husbandry practice" exempted from the definition because it has nothing to do with caring for the animals—it is done solely for profit and to entertain the public. Moreover, public contact is "*likely* to result in injury to the wildlife."[92] The ANPR itself states that between 2019 and 2021, 12.6% of handling violations recorded by APHIS "led to human or animal injury, or animal death," and "[t]he risks to public safety *inherent* in these activities *place the animals involved at an increased risk for harm*. In situations in which an animal may pose a risk to public safety (for example, a child entering an animal's enclosure), *the animal may be euthanized or otherwise harmed* in an attempt to protect the public."[93] These risks are the natural result of the stress and injury to wild animals that result when such animals are subjected—unnaturally for them—to contact with the public.

The USDA knows that public contact harms, harasses, and even kills animals. Therefore, expressly authorizing public contact with ESA-protected species through this rulemaking would undermine the effectiveness of the ESA by creating confusion about whether public contact is in fact an exempt "animal husbandry practice" that meets or exceeds the AWA's standards and is "not likely to result in injury to the wildlife."[94] Compounding this problem, exhibitors accused of ESA violations

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[89] *Id.* (emphasis added).

[90] *People for the Ethical Treatment of Animals, Inc. v. Wildlife in Need & Wildlife in Deed, Inc.*, 476 F. Supp. 3d 765, 782–84 (S.D. Ind. 2020). The court also found that the defendants' declawing of cubs violated the ESA. *Id.* at 781. The USDA had cited the exhibitor in *Wildlife in Need* for specific mistreatment observed during public contact. *Id.* at 771. The case shows how such piecemeal citations for physical abuse cannot effectively address the larger animal welfare problems inherent to cub-petting, such as premature maternal separation, sleep deprivation, and impaired behavioral patterns. *See also Kuehl*, 887 F.3d at 849–50, 852–54; *People for the Ethical Treatment of Animals, Inc. v. Tri-State Zoological Park of W. Md., Inc.*, 424 F. Supp. 3d 404, 408, 421 n.6 (D. Md. 2019), *aff'd*, 843 F. App'x 493 (4th Cir. 2021).

[91] 50 C.F.R. § 17.3.

[92] *Id.* (emphasis added).

[93] Wild and Exotic Animal Handling, Training of Personnel Involved With Public Handling of Wild and Exotic Animals, and Environmental Enrichment for Species, 88 Fed. Reg. 1151, 1152 (Jan. 9, 2023) (emphasis added).

[94] 50 C.F.R. § 17.3.

often point to compliance with AWA regulations as a defense. Therefore, the agency's public contact regulations may also be used as a shield against ESA enforcement.[95]

USDA cannot continue to disregard its ESA Section 7 obligations. When the agency is deciding where to set the proper benchmarks for animal care and treatment, the conservation mandate of ESA Section 7(a)(1) must inform such decisions. By imposing these duties on the USDA, the ESA limits the agency's discretion. "Total inaction is not allowed."[96] "[A]n 'insignificant' measure that does not, or is not reasonably likely to, conserve endangered or threatened species" is not enough either.[97] Because the duty is an affirmative one, it is necessarily implicated when the USDA sets animal welfare standards under the AWA. The agency should not pass the buck to later rulemaking or individual license decisions (or to attending veterinarians). Instead, the USDA's regulations must further the ESA's obligations.

Case law supports this interpretation. In *Sierra Club v. Glickman*,[98] the Sierra Club alleged that the USDA failed to fulfill its duty to conserve listed species dependent upon the Edwards Aquifer.[99] The U.S. Court of Appeals for the Fifth Circuit rejected the USDA's argument that it had "only a generalized duty" to protected species at some level, instead holding that "§ 7(a)(1) imposes a duty on all federal agencies to consult and develop programs for the conservation of each endangered and threatened species."[100] Accordingly, the Court held, USDA had a *specific* duty to conserve the listed species of the Edwards Aquifer.[101] In *Pyramid Lake Paiute Tribe of Indians v. U.S. Department of Navy*,[102] the Court of Appeals for the Ninth Circuit rejected the argument that Section 7(a)(1) allowed the Navy to consider endangered species impacts as a residual matter after deciding how to "accomplish[]" its "primary mission[]."[103] To be sure, the Court noted, the Navy was not required to seek out and find "the 'least burdensome alternative.'"[104] But neither could it ignore evidence that a program would jeopardize a protected species.[105] And in *Florida Key Deer v. Paulison*,[106] the Court of Appeals for the Eleventh Circuit rejected FEMA's effort to meet its ESA obligations by relying upon ineffective voluntary efforts, holding that the ESA's command could not be turned "into no command at all by allowing agencies to satisfy their obligations with what amounts to total inaction."[107]

It is nothing less than "total inaction" for the USDA to continue to ignore how its AWA regulations and enforcement, which fail to prohibit public contact and other detrimental practices, enable listed

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[95] *See*, *e.g.*, *Kuehl*, 887 F.3d at 852 ("Defendants argue that their compliance with the minimum standards outlined in the [AWA]'s regulations rebuts any claim that they have harassed the lemurs."); *Wildlife in Need*, 476 F. Supp. 3d at 781 ("The WIN Defendants also object on purely legal grounds. They say the ESA does not regulate their conduct because animal exhibitors are regulated by the AWA. But the court has already considered and rejected this argument.").
[96] *Fla. Key Deer v. Paulison*, 522 F.3d 1133, 1146 (11th Cir. 2008).
[97] *Id.* at 1147.
[98] 156 F.3d 606 (5th Cir. 1998).
[99] *Id.* at 611.
[100] *Id.* at 616.
[101] *Id.*
[102] 898 F.2d 1410 (9th Cir. 1990).
[103] *Id.* at 1417 (quoting appellee's brief).
[104] *Id.*
[105] *Id.* at 1418.
[106] 522 F.3d 1133 (11th Cir. 2008).
[107] *Id.* at 1147.

species to be "harmed" and "harassed" in violation of the "take" prohibition of the ESA.[108] Indeed, as things stand, the USDA's existing standards, which allow public contact with, and performances by, ESA-protected species, unquestionably cause the "take" of such species.[109] Disregarding these ESA violations, and adopting new standards that do not affirmatively prevent the take of listed species, would fail to "utilize" the USDA's "authorities in furtherance of the purposes of" the ESA.[110]

In particular, public contact with and performances by protected species necessarily harass those animals. In the context of wild animals, public contact and performances are not legitimate husbandry practices adopted to further animal welfare—they are done to entertain humans. As discussed above, because such animals are wild, "many such animals may perceive their handler as a predator that has captured the individual, which would typically be an abnormal and stressful experience."[111] Accordingly, public contact "significantly disrupt[s] normal behavioral patterns" and "creates the likelihood of injury."[112] Indeed, as discussed below, the *ANPR itself* acknowledges one way that subjecting protected species to public contact results in takes of those species—i.e., when they are injured or have to be euthanized as a result of such contact.[113]

As described above, interference with normal behavioral patterns occurs when listed animals react to the stressful conditions of handling and confinement by biting members of the public who have paid to touch them. For example, multiple primates are proposed to be included within Category 2. However, bites are a foreseeable risk of any level of public contact with primates, including during hand-feeding or touching (which the ANPR suggests as "protected contact activities"), or public performances without barriers between the animal and the public.[114] As the ANPR acknowledges, the result of a bite or escape could be that the animal may be injured or killed.[115] In one case, a zoo offered the public "hands-on" contact with cubs of protected big-cat species.[116] The cubs were

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[108] The ESA applies with full force to USDA actions affecting captive members of protected species. *See, e.g.*, *Kuehl v. Sellner*, 887 F.3d 845, 853–54 (8th Cir. 2018); *People for the Ethical Treatment of Animals, Inc. v. Miami Seaquarium*, 879 F.3d 1142, 1150 (11th Cir.) (per curiam), *adhered to on denial of reh'g*, 905 F.3d 1307 (11th Cir. 2018); *People for the Ethical Treatment of Animals, Inc. v. Tri-State Zoological Park of W. Md., Inc.*, 843 F. App'x 493, 496 (4th Cir. 2021) (per curiam); *see also* Ex. 58, Amendment to the Endangered Species Act Listing of the Southern Resident Killer Whale Distinct Population Segment, *supra* note 86 ("On its face the ESA does not treat captives differently.").

[109] *See Kuehl*, 887 F.3d at 853–54; *Tri-State Zoological Park*, 424 F. Supp. 3d at 433; *People for the Ethical Treatment of Animals, Inc. v. Wildlife in Need & Wildlife in Deed, Inc.*, 476 F. Supp. 3d 765, 781–82 (S.D. Ind. 2020); *see also Animal Legal Def. Fund v. Special Memories Zoo LLC*, No. 20-C-216, 2021 WL 101121, at *1 (E.D. Wis. Jan. 12, 2021) ("[B]ased on their default, the Court hereby finds that the defendants did violate the ESA . . . .").

[110] 16 U.S.C. § 1536(a)(1).

[111] Ex. 2, Warwick et al., *supra* note 6, at 24.

[112] *See* 50 C.F.R. § 17.3.

[113] *See* Wild and Exotic Animal Handling, Training of Personnel Involved With Public Handling of Wild and Exotic Animals, and Environmental Enrichment for Species, 88 Fed. Reg. 1151, 1152 (Jan. 9, 2023) ("In situations in which an animal may pose a risk to public safety (for example, a child entering an animal's enclosure), the animal may be euthanized or otherwise harmed in an attempt to protect the public.").

[114] *See, e.g.*, Ex. 44, *Factsheet: Primate Incidents in the United States*, *supra* note 60; Ex. 61, *In re* Stearns Zoological Rescue & Rehab Ctr., Inc., 76 Agric. Dec. 45, 59–60 (USDA Feb. 15, 2017) (describing a similar incident with macaque).

[115] Wild and Exotic Animal Handling, Training of Personnel Involved With Public Handling of Wild and Exotic Animals, and Environmental Enrichment for Species, 88 Fed. Reg. at 1152.

[116] *People for the Ethical Treatment of Animals, Inc. v. Wildlife in Need & Wildlife in Deed, Inc.*, 476 F. Supp. 3d 765, 768 (S.D. Ind. 2020).

subject to "abusive discipline," such as "being hit or struck by riding crops."[117] An expert witness in the case, a veterinarian with over 25 years of experience,[118] explained that:

> [s]uch agitation increases the likelihood of physical and mental injury to the cubs, thereby harassing them. This conduct significantly disrupts the animals' normal behavioral patterns by making it impossible for them to hide or otherwise seek shelter from fear-inducing stimuli, and not only causes them psychological injury, but is so distressing that it also places the animals at significant risk for physical injury. These species of big cats are clearly not domesticated or trained and are therefore likely not to perform as domesticated animals might. Being hit by human hands or struck by riding crops, they still cannot know what behavior is expected of them by their human handlers, resulting in confusion and thus further psychological harm.[119]

The same could happen to the ESA-listed primates, big cats, or other endangered animals held in roadside zoos and circuses.[120] Such an outcome undoubtedly "harm[s]"or "harass[es]" such animals within the meaning of the ESA—and is entirely foreseeable—yet is also fully avoidable if *no* form of public contact is permitted in the first place.

Other types of harm and harassment of listed species are often inevitable in facilitating public contact with those species. For instance, as another expert in the cub petting case explained:

> Big Cat cubs that are used in public interaction events, such as WIN's "Tiger Baby Playtime," have been intentionally removed prematurely ("pulled") from maternal care at an exceptionally young age, generally within the first few days or week after birth. This negates proper psychological and behavioral development as the cubs grow and mature. Big Cats are not domesticated. Their genetic programming is the same as their wild counterparts. To force cubs to interact with another species interferes with normal neural development. This results in cats developing a behavioral repertoire that is in constant conflict with their natural instincts. This—as well as steps taken by handlers and visitors to override these conflicts—creates further distress and other permanent neural problems.
>
> Cubs require specific nutrients, colostrum, and antibodies from their mothers through nursing in the first days and weeks of their lives, which are difficult to emulate even in the best of controlled environments. Colostrum is a form of milk generally produced shortly before birth to transmit antibodies to newborns. Cubs that have been removed from maternal care are physically deprived of these necessary, vital components to developing healthy and robust immune systems that would otherwise provide a stronger physiological

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[117] *Id.* at 784.

[118] Ex. 62, Expert Report of Dr. Jennifer Conrad, DVM, at 1, *People for the Ethical Treatment of Animals, Inc. v. Wildlife in Need & Wildlife in Deed, Inc.*, 476 F. Supp. 3d 765 (S.D. Ind. 2020) (No. 4:17-cv-00186).

[119] *Id.* at 42.

[120] *See, e.g.*, *Kuehl v. Sellner*, 887 F.3d 845, 853–54 (8th Cir. 2018) (lemurs and tigers); *People for the Ethical Treatment of Animals, Inc. v. Tri-State Zoological Park of W. Md., Inc.*, 843 F. App'x 493, 493 (4th Cir. 2021) (per curiam) (lemurs, tigers, and lion); *Hill v. Coggins*, 867 F.3d 499, 507 (4th Cir. 2017) (grizzly bears); Ex. 48, Compl. ¶ 1, *People for the Ethical Treatment of Animals, Inc. v. Reigleman Enters., Inc.*, No. 2:21-cv-00488 (W.D. Pa. Apr. 14, 2021), https://www.peta.org/wp-content/uploads/2021/04/Pymatuning-complaint.pdf ("These [roadside zoo] animals include lions, tigers, ring-tailed lemurs, a military macaw, and a Mikado pheasant, all of whom are listed under the [ESA]."); *see also People for the Ethical Treatment of Animals, Inc. v. Miami Seaquarium*, 879 F.3d 1142, 1150 (11th Cir.) (per curiam) (orca), *adhered to on denial of reh'g*, 905 F.3d 1307 (11th Cir. 2018).

> defense against disease and parasites for the rest of their lives. Stress also will impair their developing immune systems, putting the cubs at an unnecessarily high risk of infection, disease, and even death. Lack of appropriate sleep and rest physically taxes the cubs, who would rest calmly with their mother or siblings for long periods of time, and weakens the cubs physically, including their immune responses.[121]

Yet allowing public contact with big cat cubs (and most other animals) *encourages* such separation techniques—as shown by the defendant in that case, who "ha[d] separated a Cub from his mother as early as one day after birth."[122] The Court analyzed these facts and found:

> This leaves little room to doubt that prematurely separating Cubs and using them in Tiger Baby Playtime violates the ESA. Such conduct constitutes harassment because it creates a likelihood of injury to Big Cat Cubs by annoying them to such an extent as to significantly disrupt normal behavior patterns. And such conduct harms Big Cat Cubs because it actually injures them.[123]

Similarly serious welfare concerns apply not only to big cats but also to virtually *any* animal used for public contact, such as elephants, bears, and primates.

Moreover, use of ESA-listed animals for public contact and in performances not only poses a risk of injury to the animals involved, but also impedes legitimate conservation efforts for several reasons. First, public contact with or performances by protected species can mislead the public into thinking such species are abundant, diminishing the perceived need for conservation.[124] Indeed, one study found that people viewing photographs of chimpanzees with humans nearby were more likely to consider wild populations stable or healthy compared to those seeing the same picture without the human presence.[125] Second, public contact and performances may worsen the exotic pet trade. Research suggests that allowing people to interact with wild animals may increase the public's demand to keep such animals as pets[126]—which can be harmful to their welfare.[127] The above-mentioned study also found that people viewing an image of a chimpanzee standing next to a human

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[121] Ex. 63, Expert Report of Jay Pratte ¶¶ 51–52, *People for the Ethical Treatment of Animals, Inc. v. Wildlife in Need & Wildlife in Deed, Inc.*, 476 F. Supp. 3d 765 (S.D. Ind. 2020) (No. 4:17-cv-00186).

[122] *Wildlife in Need*, 476 F. Supp. 3d at 770.

[123] *Id.* at 784 (citations omitted); *see also* Ex. 61, *In re* Stearns Zoological Rescue & Rehab Ctr., Inc., 76 Agric. Dec. 45, 59 (USDA Feb. 15, 2017) (" . . . Stearns Zoo's baby tiger swim program is not consistent with the requirements of 9 C.F.R. § 2.131(c)(3) that '(y)oung or immature animals shall not be exposed to rough or excessive public handling or exhibited for periods of time which would be detrimental to their health or well-being.'"); Ex. 20, Compl. ¶¶ 132–35, *United States v. Lowe*, No. 6:20-cv-00423 (E.D. Okla. Nov. 19, 2020).

[124] *See* Ex. 64, Katherine A. Leighty et al., *Impact of Visual Context on Public Perceptions of Non-Human Primate Performers*, 10 PLOS ONE, art. no. e0118487, at 1 (Feb. 2015) (stating that "[v]iewing the primate in an anthropomorphic setting while in contact with a person significantly increased their desirability as a pet, which also correlated with increased likelihood of believing the animal was not endangered").

[125] *See* Ex. 65, Stephen R. Ross et al., *Specific Image Characteristics Influence Attitudes About Chimpanzee Conservation and Use as Pets*, 6 PLOS ONE, art. no. e22050, at 1 (2011) [hereinafter Ex. 65, Ross et al., *Specific Image Characteristics*]; *see also* Ex. 66, S.R. Ross et al., *Inappropriate Use and Portrayal of Chimpanzees*, 319 SCIENCE 1487 (2008).

[126] Ex. 64, Leighty, *supra* note 124, at 1; Ex. 67, J.-M. Ballouard et al., *Is Popularity a Double-Edged Sword? Children Want to Protect but also to Harvest Tortoises*, 51 J. ENV'T EDUC. 347, 347 (2020); Ex. 68, K. Anne-Isola Nekaris et al., *Tickled to Death: Analysing Public Perceptions of 'Cute' Videos of Threatened Species (Slow Lorises –* Nycticebus *spp.) on Web 2.0 Sites*, 8 PLOS ONE, art. no. e69215, at 8 (2013).

[127] *See, e.g.*, Ex. 22, *Position Statement: Large Wild and Exotic Cats Make Dangerous Pets*, *supra* note 34 ("AC personnel have seen too many instances where wild and exotic cats kept by untrained people have not only harmed people but suffered themselves due to poor care.").

were more likely than those viewing an image of a chimpanzee standing alone to agree that a chimpanzee was appealing as a pet.[128] Finally, public interaction with protected animals at USDA-licensed facilities can increase the desire to interact with such animals in the wild, posing further risks to animal welfare and public safety. An ecologist has noted that:

> [t]ourists arrive at chimpanzee tourism sites after a lifetime of experiencing countless images of . . . human-chimpanzee contact and proximity. Many tourists are disappointed when they learn that they will not be allowed to touch or hold a wild chimpanzee. Tourists often push their guides to allow them to get closer to chimpanzees or fail to move away from chimps when they approach as mandated.[129]

One foreseeable result of humans attempting to handle animals in the wild, besides the intrinsic harassing and injurious nature of such contact, is the harmful introduction of virulent human pathogens to wild populations of endangered or threatened species.[130] These consequences present a risk of harm and harassment to protected species. Accordingly, under Section 7(a)(1) of the ESA, the USDA should promulgate measures to prevent this.

Countervailing studies on "animal ambassadors" in furtherance of conservation efforts are frequently unreliable. Some studies[131] claim that the use of "ambassador" animals in public demonstrations increases pro-conservation attitudes, and exhibitors often use this narrative to defend public contact with wild animals. But these studies are initiated, supported, and published by zoos—presenting an obvious conflict of interest—and there is stronger evidence supporting the opposite conclusion. One analysis found that "[m]ost studies lacked rigour[,] and claims were based on an absence of negative impacts rather than evidence of benefits."[132]

Accordingly, public contact should be prohibited for all ESA-listed AWA animals. At the very least, if the proposed categories are employed, all listed species must be included within Category 1, and public contact with them prohibited. Any alternative would fail to meet USDA's affirmative conservation obligations under the ESA.

iii. Answers to specific questions on public contact posed in the ANPR

A. Should any specific type of public contact activity involving any specific category of animal (or species) be prohibited?

All public contact activities with wild or exotic animals protected under the AWA should be prohibited. However, if the USDA takes a less protective approach and allows some public contact activities for some categories of animals, the regulations must be clear and enforceable. Otherwise, ambiguity may effectively license animal abuse and neglect.

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[128] Ex. 65, Ross et al., *Specific Image Characteristics*, *supra* note 125, at 1.
[129] Ex. 69, *Captive Chimps up for Endangered Status*, EMORY UNIV. ESCIENCECOMMONS (Oct. 13, 2011), http://esciencecommons.blogspot.com/2011/10/captive-chimps-up-for-endangered-status.html.
[130] *Id.*
[131] *See, e.g.*, Ex. 70, Jeffrey C. Skibins & Robert B. Powell, *Conservation Caring: Measuring the Influence of Zoo Visitors' Connection to Wildlife on Pro-Conservation Behaviors*, 32 ZOO BIOLOGY 528, 537–38 (2013); *see also* JOHN H. FALK ET AL., WHY ZOOS AND AQUARIUMS MATTER: ASSESSING THE IMPACT OF A VISIT TO A ZOO OR AQUARIUM (2007).
[132] Ex. 71, Sarah L. Spooner et al., *Conservation Education: Are Zoo Animals Effective Ambassadors and Is There Any Cost to Their Welfare?*, 2 J. ZOOLOGICAL & BOTANICAL GARDENS 41, 41 (2021).

The proposed scheme lacks such clarity. As currently presented, the four proposed categories of public contact[133] are ambiguous, difficult to interpret, and will impede, and even obstruct, enforcement. They fail to capture the broad variety of public contact activities in which exhibitors engage, and it is unclear how the proposed categories of animals will relate to these categories of public contact. Such ambiguity will render the regulations toothless, frustrating inspections and enforcement and allowing exhibitors to avoid making changes that the USDA finds necessary for humane handling, care, or treatment. That will diminish the welfare of the animals that the AWA was intended to protect.

For example, "protected contact" is a term of art in animal training, but there is disagreement over exactly what the phrase should mean, which will thwart consistent and predictable regulatory enforcement.[134] Moreover, the proposed definition of "protected contact" actually *conflicts* with these already-established meanings. For example, in the context of elephant training, "[o]ne element of protected contact involves the use of some type of physical barrier at all times between the elephant and trainer."[135] This existing meaning does not match the proposed definition, which only specifies that a *"partial* barrier separates the *public* and the animals" (emphasis added). This definition leads to the absurd conclusion that photo-ops with an elephant separated from the public by a temporary crowd barrier—which she could easily reach across or toss aside—would be considered "protected contact," even though this first, conflicts with the definition currently used by elephant trainers and handlers, and second, affords the public no real protection at all.[136]

To add to the confusion, the ANPR does not define "barrier" or "partial barrier"—or whether, for example, these include spatial or psychological barriers.

Ambiguity in the regulations leaves inspectors and exhibitors without clear guidance, impeding enforcement. Indeed, this same ambiguity in the existing regulations was in part what gave rise to this rulemaking in the first place. The USDA's Office of the Inspector General (OIG) "visited 31 exhibitor facilities to determine whether the facilities complied with APHIS' safety requirements for dangerous animals," but "questioned safety conditions at 15 of them. For example, at one facility, . . . a visitor could reach across the public barrier and easily insert a hand into an enclosure where a cougar was being kept."[137] The problem, in the words of the OIG, was that "[r]egulations require that exhibitors provide either a sufficient distance and/or barrier to keep the public safe, but *do not specify what distance or barriers would be considered sufficient*."[138] As a result, APHIS inspectors "had

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[133] The four categories are full contact activities, protected contact activities, walk-/drive-through exhibits, and performances.

[134] *E.g.*, Ex. 72, Gail Laule & Margaret Whittaker, *Protected Contact – Beyond the Barrier*, ACTIVE ENV'TS, https://web.archive.org/web/20151203115419/http:/www.activeenvironments.org/pdf/pc_beyond_barrier.pdf ("[I]n our travels to zoological institutions throughout the US and abroad, in our discussions with colleagues, and a review of the many articles, papers and commentaries on PC, there appears to be a reoccurring thread of misunderstanding as to what protected contact is.").

[135] Ex. 73, Megan L. Wilson et al., *Rates of Reinforcement and Measures of Compliance in Free and Protected Contact Elephant Management Systems*, 34 ZOO BIOLOGY 431, 431 (2015).

[136] *See*, *e.g.*, Ex. 39, Am. Pet., *Garber v. Endangered Ark Found.*, No. CJ-2021-2705 (Okla. Dist. Ct. Nov. 23, 2021), https://www.peta.org/wp-content/uploads/2022/01/ex-1-amended-petition-garber-v-endangered-ark-et-al-no-cj-2021-2705-d-okla-cnty-nov-23-2021.pdf (describing a guest who sustained debilitating, life-threatening injuries when she was attacked by an elephant during an encounter at Carson & Barnes Circus's Endangered Ark Foundation, which used crowd barriers during public contact).

[137] Ex. 74, U.S. DEP'T OF AGRIC. OFF. OF INSPECTOR GEN., CONTROLS OVER APHIS LICENSING OF ANIMAL EXHIBITORS 1 (Audit Rep. 33601-10-Ch, June 2010), https://www.usda.gov/sites/default/files/33601-10-CH.pdf.

[138] *Id.* (footnote omitted) (emphasis added).

difficulty interpreting" the guidance upon which they were supposed to rely.[139] This shows how performance standards fail in this context, to the detriment of the animals. *Engineering* standards that clearly describe the requirements an exhibitor must meet to achieve the outcome of protecting animal welfare and public safety would address these failures by ensuring exhibitors can be held to clear and administrable standards.

Thus, while *prohibiting* all public contact is the best way to ensure the humane care and treatment of animals, if the USDA chooses nevertheless to allow such contact, it must set clear engineering-type standards that are grounded in principles of *humane handling and care*. If it chooses to categorize types of public contact, we suggest using terms that better capture the risks involved, such as "high-risk contact" and "medium-risk contact" instead of "full contact" and "protected contact." Likewise, the agency must adopt clear, enforceable engineering standards related to barriers, with precise definitions of "barrier," "partial barrier," and "performance."

At the same time, the USDA must ensure that taxa and individual animals can be made completely ineligible for public contact based on new information showing that contact would be dangerous or detrimental to the animals' welfare. For instance, an exhibitor should not be allowed to continue to allow public contact with an animal known to have endangered staff or the public in the past, as the petting zoo exhibiting Minnie was allowed to do.[140] Likewise, the USDA should be able to quickly prohibit public contact with taxa in response to emergent zoonotic disease risks. For example, in response to COVID-19, the agency merely issued guidance (known as a "tech note") "intended as a general aid for zoos and captive wildlife facilities that house susceptible animals"; it did not take decisive action to prohibit public contact with vulnerable animals.[141] Indeed, throughout the pandemic, many exhibitors continued to allow public contact with susceptible animals, regardless of the risks this posed for the animals. Finally, the USDA should adopt with public notice and comment a process for regularly reviewing and updating the categories to incorporate continuing developments in scientific knowledge.

B. Should we require that an exhibitor file a written report within a specified period of time in the event of an animal escape, animal injury, or injury to the licensee or a member of the licensee's staff or the public? Should this requirement be limited to escapes or injuries involving specific categories (or species) of animals?

Yes, this should absolutely be required to ensure that injured humans and animals receive the necessary attention. The USDA should also thoroughly investigate these incidents to prevent similar future occurrences. The reporting requirement should not be limited to specific categories (or species) of animals, because such a list would necessarily be arbitrary and underinclusive—rather, it should apply to *all* incidents of escape and injury.

We recommend that APHIS institute appropriate guidelines, such as the following language proposed by People for the Ethical Treatment of Animals in its 2022 *Petition Requesting Rulemaking to Ensure the Humane Handling, Treatment, and Care of Captive Large Carnivores Under the Animal Welfare Act*:

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[139] *Id.* at 2.

[140] Ex. 38, *R.W. Commerford & Sons Traveling Petting Zoo*, *supra* note 50, at 2.

[141] Ex. 59, *Animal Care Tech Note: Guidance for Zoos and Captive Wildlife Facilities: Protecting Susceptible Animals from SARS-CoV-2 Infection*, *supra* note 74; *see also* Ex. 75, *Animal Care: Guidance for Zoos and Captive Wildlife Facilities: Protecting Birds from Highly Pathogenic Avian Influenza*, U.S. DEP'T OF AGRIC. ANIMAL & PLANT HEALTH INSPECTION SERV. (May 2022), https://www.aphis.usda.gov/publications/animal_welfare/fs-ac-hpai-captive-wild-birds.508.pdf.

§ 2.135. Reporting of injuries and escapes.

(a)The licensee must report any injury or death of a member of the public caused by an animal. The report must be made to APHIS as soon as possible, but no later than two (2) hours following the incident.

(b)The licensee must report the in-patient hospitalization of the licensee, an employee, officer, agent, or volunteer involving an animal. The report must be made to APHIS as soon as possible, but no later than twenty-four (24) hours following the in-patient hospitalization.

(c)The licensee, or representative thereof, must report the death of the licensee, an employee, officer, agent, or volunteer involving an animal. The report must be made to APHIS as soon as possible, but no later than eight (8) hours following the death.

(d)The licensee must report the escape of an animal to APHIS as soon as possible, but no later than two (2) hours following discovery.

C. If we choose to require a written plan specifying the measures that the licensee will take to ensure compliance with the regulatory requirements for all public contact activities, what specific requirements should the attending veterinarian consider when reviewing and/or approving public contact activities for each category (or species) of animal?

Requiring licensees to develop written plans describing what they believe will "ensure compliance" with the law will not fill the gaps left by the USDA's failure to adopt enforceable engineering standards. This would be a form of self-regulation and would utterly fail to protect animal welfare. Instead, it would protect *exhibitors* from meaningful USDA oversight as long as the attending veterinarian—who works for the regulated facility and is totally unaccountable to the USDA, and likely lacks expertise in assessing public safety or animal handling practices—signs off on public contact activities.

Performance standards—which do not tell licensees precisely what is required to achieve compliance—are confusing to licensees and inspectors alike, and extremely challenging to enforce. For example, a 2017 USDA Audit Report discussing cetaceans found that "[i]nspections are not always uniformly completed or adequately documented because of insufficient guidance; this reduced assurance that those exhibitors are in compliance with the AWA."[142] As a result, "inspectors may use their own discretion to interpret the regulations. Such ambiguity causes inconsistent inspections and could lead to health and safety issues for the animals and the public."[143] Similarly, a USDA Audit Report from 2021 stated that "APHIS inspectors did not report safety conditions because the inspectors were challenged by APHIS' broadly-worded guidance while evaluating

[142] Ex. 76, U.S. DEP'T OF AGRIC. OFF. OF INSPECTOR GEN., APHIS: ANIMAL WELFARE ACT - MARINE MAMMALS (CETACEANS) (Audit Rep. 33601-0001-31, May 2017), https://www.usda.gov/sites/default/files/33601-0001-31.pdf.
[143] *Id.*

compliance at the facilities."[144] As a result, there were several instances of unidentified or undocumented, and therefore uncorrected, safety-related deficiencies at the facilities.[145]

APHIS faced the same problem after the USDA promulgated its 1991 regulation meant to implement the 1985 amendment to the AWA requiring "minimum requirements . . . for a physical environment adequate to promote the psychological well-being of primates."[146] The regulation requires that research facilities using nonhuman primates develop an enrichment plan "to promote the psychological well-being of nonhuman primates."[147] Each plan must "be in accordance with the currently accepted professional standards as cited in appropriate professional journals or reference guides, and as directed by the attending veterinarian."[148] However, the regulation provides no explanation of "currently accepted professional standards," or which "professional journals or reference guides" are "appropriate."[149]

A few years later, APHIS concluded that the standards were inadequate to ensure compliance with the AWA. Inspectors found that "the primate environmental enrichment criteria [in Section 3.81] were not useful" to judge whether facilities were providing an adequate environment to promote the psychological well-being of primates.[150] Further, the regulations were sowing "confusion among the regulated public concerning on what basis they will be judged by inspectors as meeting or not meeting the requirements."[151] Despite this acknowledgement, the guidelines were never updated, and primate welfare has suffered as a result. This harm is detailed in personal accounts, like that of Ned Buyukmihci, VMD, a veterinarian with over four decades of experience, who stated:

> In every research institution with which I was involved, I observed first hand considerable stereotypical and other aberrant behavior…[abnormal] behaviors were more marked and more frequently seen in individuals who were singly housed. They indicated maladaptation of the individuals to their environment…I have never seen these behaviors in wild non-human primates of any species nor have I observed them in individuals who were born in captivity in a sanctuary environment where housing was either free-range or expansive and heavily enriched.[152]

This harm is also detailed in APHIS inspection reports. For example, an inspection report for the University of California, Davis states:

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144 Ex. 77, U.S. DEP'T OF AGRIC. OFF. OF INSPECTOR GEN., FOLLOW-UP TO ANIMAL AND PLANT HEALTH INSPECTION SERVICE'S CONTROLS OVER LICENSING OF ANIMAL EXHIBITORS (Audit Rep. 33601-0003-23, 2021), https://www.oversight.gov/sites/default/files/oig-reports/USDAOIG/33601-0003-23RevisedFinalDistribution.pdf.
145 *Id.*
146 7 U.S.C. § 2143(a)(2)(B); *see* 9 C.F.R. § 3.81.
147 9 C.F.R. § 3.81.
148 *Id.*
149 *Id.*
150 Ex. 78, Pl.'s Mem. of Law in Supp. of their Mot. for Summ. J., *Rise for Animals v. Vilsack* (No. 8:20-cv-02004) (D. Md. July 29, 2022) at 6 (quoting Animal Welfare; Draft Policy on Environment Enhancement for Nonhuman Primates, 64 Fed. Reg. 38,146 (July 15, 1999)).
151 *Id.*
152 Ex. 79, New Eng. Anti-Vivisection Soc'y et al., Petition for Rulemaking to Establish Criteria to Promote the Psychological Well-Being of Primates as Required by the Animal Welfare Act (7 U.S.C. § 2143(a)(2)(B)), Including Adopting the "Ethologically Appropriate Environments" Accepted by the National Institutes of Health with Respect to All Primates Used in Research (Docket No. APHIS-2014-0098-0856), at 37–38 (May 7, 2014), https://www.regulations.gov/document/APHIS-2014-0098-0856 (quoting Declaration of Ned Buyukmihci, VMD ¶¶ 4, 6).

> Animal 34313 had an extensive history of medical issues including gastrointestinal (GI) problems, numerous injuries, and self-injurious behaviors (SIB), and yet it was placed on four studies before being euthanized. The animal was placed on the fourth study despite the progressive worsening of medical and behavioral problems that lead to unnecessary discomfort, distress and pain to that animal . . . the medical record noted two episodes of vomiting, a suspected hole in the trachea, and self injurious behavior that prompted the staff to sedate the animal for examination due to blood in the cage . . . The animal continued the SIB over the course of the study.[153]

Unsurprisingly, vague, unenforceable requirements result in confusion and a lack of enforcement, and consequent harm to animal welfare.

Attending veterinarians are not bound by the mandates of the AWA, and placing the responsibility of approving public contact on attending veterinarians inappropriately shifts the burden from the USDA to a third party to ensure that the AWA is followed. And, because the veterinarians are being paid by the facility, they have a responsibility to serve the interests of their employer or client—not those of the USDA, Congress, or the animals. For example, under 9 C.F.R. § 2.40, exhibitors must have a "program of adequate veterinary care" developed by the attending veterinarian. Even though the law requires care to be "adequate" and methods "appropriate," the USDA accords the attending veterinarian extreme deference, even when presented with overwhelming evidence that care is inadequate.[154]

Because veterinarians are responsible for serving the interests of their paying clients, veterinarians have an incentive to resolve questions of animal welfare in favor of the client rather than the animal. This conflict of interest will diminish the effectiveness of written plans as an enforcement measure.

Moreover, public contact is not an issue that veterinarians are in a good position to address. Veterinarians study animal biology and health, not animal behavior. Attending veterinarians do not supervise public contact to learn its effects on animals.

If the USDA nevertheless pursues this regulatory approach, it must require licensees to submit the public contact plans to the USDA for review and approval. The plan should individually account for each animal used for public contact and should be updated any time a new animal is added to the facility. Ideally, the plan should be submitted annually to the USDA for approval, but at the very least it should be submitted with every license renewal application to ensure that the plans are regularly reviewed by an accountable party.[155]

II. Staff Training

Staff training is essential to help reduce the number of injuries that occur to the animals, the public, and the staff themselves.

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[153] *Id.* at 44; Ex. 80, Inspection Report, University of California, Davis (Certificate 93-R-00433) (APHIS Nov. 5, 2009).
[154] *See*, *e.g.*, Ex. 81, Letter from Rachel Mathews, People for the Ethical Treatment of Animals Found., to Bernadette Juarez, Deputy Adm'r Animal Care, U.S. Dep't of Agric. 8–9 (Jan. 8, 2019) (describing the "program of veterinary care" of Nosey the elephant, which claimed she had "normal" skin, even though she had severe hyperkeratosis and a multi-drug resistant skin infection, and "normal" locomotion, even though she was arthritic and lame; the USDA repeatedly found veterinary care of this animal to be "adequate").
[155] *See* 9 C.F.R. §§ 2.1, 2.3, 2.5.

First, the *attending veterinarian's* experience must be documented in the program of veterinary care, which should be submitted to the USDA with every license renewal application. The AWA's implementing regulations require that an attending veterinarian have experience with the species to which they attend.[156] This requirement must be enforced by the USDA. Lack of adequate veterinary experience can lead to monumental failures in provision of care, such as the inhumane neglect documented by the USDA at Yogie And Friends Exotic Cat Sanctuary Inc., where an attending veterinarian to injured and diseased big cats admitted to having never worked with big cats before.[157] It is the USDA's responsibility and part of its due diligence to ensure that all attending veterinarians have requisite experience with the species in question. Requiring that experience to be documented and submitted for agency approval will assist the USDA in this endeavor.

In addition, any person caring for animals, including staff members and volunteers, must be trained to recognize common signs and symptoms of health and behavioral issues in those animals. This requirement is necessary to maintain adequate health and welfare in animals. The licensee must document the content of the training and verify in writing that each person working with animals has received such training. This documentation must also be submitted to the USDA with every license renewal application. The AWA requires license applicants to *demonstrate* compliance with the AWA's regulations,[158] and the regulations state that "[a]ll licensees who maintain wild or exotic animals *must demonstrate* adequate experience and knowledge of the species they maintain."[159] Likewise, licensees "shall have an attending veterinarian who shall provide adequate veterinary care."[160] An "attending veterinarian" is a veterinarian who "has received equivalent formal education as determined by the Administrator" and "has received training and/or experience in the care and management of the species being attended."[161] It is entirely appropriate for the USDA to require licensees to *demonstrate* this compliance by submitting documentation of their agents' experience and training to the agency as part of their license applications. An analogous example is what the FWS requires of ESA permit applicants, who must submit a "CV or resume outlining the technical experience of each caretaker working with, maintaining, and/or propagating each species, as it relates to the proposed activities, including experience with similar species."[162]

OSHA has found that allowing employees to interact with wild animals violates the OSH Act's general duty clause,[163] which requires employers to provide workplaces that are "free from

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[156] 9 C.F.R. § 1.1.
[157] Ex. 82, Inspection Report, Yogie and Friends Exotic Cat Sanctuary Inc. (Certificate 72-C-0138) (APHIS Nov. 5, 2014).
[158] 7 U.S.C. § 2133.
[159] 9 C.F.R. § 2.131(a) (emphasis added).
[160] *Id.* § 2.40(a).
[161] *Id.* § 1.1.
[162] Ex. 83, U.S. DEP'T OF THE INTERIOR, FWS FORM 3-200-37A: IMPORT/EXPORT/RE-EXPORT OF LIVE ANIMALS (CITES/ESA) (2020).
[163] *See, e.g.*, Ex. 42, Citation and Notification of Penalty, Animals of Montana, No. 724901 (OSHA Apr. 29, 2013) (finding that "The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees, in that employees were allowed to have direct contact with apex predators such as Syrian Brown/Grizzly cross during sanitation activities[.]"); Ex. 43, Citation and Notification of Penalty, Stone Mountain Game Ranch, No. 953969 (OSHA May 19, 2014) (finding a violation "where employees were allowed to have direct contact with apex predators to include black bears, bobcats, and a mountain lion during sanitation and feeding," "employees were exposed to potential attacks from captive black bears and bobcats while performing activities including but not limited to sanitation and feeding"); Ex. 44, Citation and Notification of Penalty, G.W. Interactive Zoological Foundation, No. 952924 (OSHA Mar. 31, 2014) (stating "the

recognized hazards that are causing or are likely to cause death or serious physical harm to . . . employees."[164] At the very least, the USDA should harmonize its regulations with these findings and require licensees to use protected contact with wild or exotic animals (particularly the highest-risk animals—including, e.g., big cats, bears, elephants, and primates). Protected contact is already practiced by hundreds of exhibitors accredited by the Association of Zoos and Aquariums (AZA) and Global Federation of Animal Sanctuaries (GFAS).

One way for the USDA to accomplish this goal is to include occupational health and safety in the development of regulations regarding staff training. Indeed, dangerous interactions are probably *more* likely to impact employees and volunteers than they are to impact members of the public, simply because staff are required to have more interactions with the animals and are expected to keep animals "under control." In these situations, the same animal welfare concerns exist that are raised by public contact. Employees that work with animals have been injured or killed by bears (such as a Himalayan bear at Nemacolin Woodlands Resort, who reached through a fence, pulled a worker in, and bit their arm, requiring the employee to be airlifted to a trauma center[165]), big cats (such as a lion named Matthai who killed a 22-year-old intern at the Burlington, North Carolina, Conservators Center, and was subsequently killed[166]), elephants (such as Rosie the elephant, who stomped on and killed the cofounder of the facility Hope Elephants in Hope, Maine[167]), and other animals.[168]

The USDA should require that exhibitors/licensees develop an occupational safety and health program that also must be submitted to the USDA for approval. These regulations should specify what aspects of health and safety must be covered by the plan. For example, the AZA requires that its member institutions "must have an occupational health and safety program."[169] To be considered effective, the program must be "based on hazard identification and risk assessment."[170] It notes that the program's nature "will depend upon animal species, potential hazards, facility design, and workplace activities."[171] This best practice should be required of *all* exhibitors to protect the health and safety of employees, animals, and the public.

Finally, it is important that the USDA expressly clarify whether volunteers qualify as members of the public or employees. In an undated USDA document addressing this question, the USDA stated that "[t]he public and the general viewing public can also include volunteers."[172] If the USDA's position is that volunteers are not always members of the public for the purposes of the public contact regulations, the agency should adopt factors to clarify how it will assess when volunteers are considered members of the public, and when they are considered employees of the facility.[173] This

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employer did not adequately protect employees from the hazard of being struck by, mauled, or bitten by wild animals such as, but not limited to, tigers, lions, ligers (lion/tiger crossbreed) and bears.").

[164] 29 U.S.C. § 654.

[165] Ex. 84, *Factsheet: Bear Incidents in the United States,* PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS, https://www.peta.org/wp-content/uploads/2021/06/Bear-Incident-List-US-only.pdf.

[166] Ex. 85, *Factsheet: Big-Cat Incidents in the U.S.,* PEOPLE FOR THE ETHICAL TREATMENT OF ANIMALS, https://www.peta.org/wp-content/uploads/2021/06/BigCatIncidentList.pdf.

[167] Ex. 36, *Factsheet: Elephant Incidents in North America*, *supra* note 47.

[168] *See, e.g.*, Ex. 45, *Factsheet: Primate Incidents in the United States*, *supra* note 60.

[169] Ex. 86, ASS'N OF ZOOS & AQUARIUMS, THE ACCREDITATION STANDARDS & RELATED POLICIES § 11.1.2.1 (2023).

[170] *Id.*

[171] *Id.*

[172] Ex. 87, *Big Cat Question and Answer: Commonly Asked Big Cat Questions*, U.S. DEP'T OF AGRIC. ANIMAL & PLANT HEALTH INSPECTION SERV., https://www.aphis.usda.gov/animal_welfare/downloads/big_cat/big_cat_q&a.pdf.

[173] 29 U.S.C. § 654(a).

clarification should also include expectations about the level of experience and training volunteers must have if they are handling animals or supervising public interactions. Volunteers are not protected as "employees" by the OSH Act's general duty clause.[174] Therefore, it makes the most sense for USDA to consistently treat them as members of the public.

III. Enrichment

i. USDA must promulgate enrichment standards for all species to fulfill its statutory obligations.

Requiring enrichment for captive animals is well-supported by the mandates of both the AWA and the ESA. An enriched environment is critical to the physical, social, and psychological wellbeing of all animals, and the USDA's failure to require enrichment for most animals has undoubtedly resulted in harm to those held by licensees who choose not to voluntarily exceed the AWA's "minimum" standards.

We urge the USDA to adopt the following recommendations in the proposed rulemaking:

i. Define enrichment to make clear that it only refers to conditions that are beneficial to animals' well-being, by promoting species-typical behaviors and enabling them to make choices;

ii. Require licensees to provide for each animal regulated by the AWA an ethologically and individually appropriate enrichment program comprising *all* of these four elements: (1) habitat enrichment, (2) object enrichment, (3) food enrichment, and (4) social enrichment;

iii. Set forth minimum standards for an "adequate" enrichment program that are clear, concrete, and enforceable, by using engineering standards as much as possible. If a performance standard must be used, it must provide concrete examples to provide sufficient guidance to facilities, the public, and inspectors;

iv. Require facilities to tailor enrichment to the personalities and needs of individual animals;

v. Require that facilities monitor the efficacy of enrichment given to each animal based on benchmarks for symptoms of poor welfare, and modify the enrichment plan as needed;

vi. Require each facility to create a written enrichment plan developed and documented in consultation with and approved by the attending veterinarian based on the most up-to-date scientific understandings of animal behavior, welfare, and enrichment;

vii. Require enrichment plans to be submitted to the USDA for approval annually and each time the facility applies for a license;

viii. Require inspectors to review enrichment plans for all animals in the facility during each inspection to ensure the plans are updated as needed.

A. Animal Welfare Act

[174] *Id.*

Requiring enrichment for all species is essential if the USDA is to fulfill its mandate under the AWA and is long overdue. Again, the primary purpose of the AWA is to "insure that animals intended for use in research facilities or for exhibition purposes or for use as pets are provided *humane* care and treatment."[175] To achieve this overriding statutory purpose, the Act requires the Secretary to "promulgate standards to govern the *humane* handling, care, treatment, and transportation of animals by dealers, research facilities, and exhibitors."[176]

Providing meaningful enrichment for every animal is an essential and indispensable element of humane care and treatment. Scientific literature documents that enrichment is "*the key concept* for those interested in maintaining wild animals in captivity, a *fundamental need on par with food and water*."[177] Enrichment is "an *essential part of modern husbandry* for animals under human care"[178] and "plays a vital role in animal welfare and can impact both the *mental and physical conditions* of many animal species."[179] The USDA recently recognized in its final rulemaking for birds that enrichment is fundamental to avian care and welfare: "birds are highly intelligent animals and meeting their enrichment needs constitute[s] basic avian husbandry."[180] Yet no other "highly intelligent" taxa other than non-human primates are currently provided any enrichment by USDA standards. Of course, enrichment is necessary for *every* animal's physical, mental, and social health *regardless* of human perceptions of an animal's intelligence. Therefore, and to ensure consistency with its bird rulemaking, USDA should promulgate minimum enrichment requirements for all other species.

Enrichment is critical in promoting species-typical behaviors. When animals are unable to express innate, species-typical behaviors for prolonged periods of time, their welfare is compromised. As recognized by the Committee on the Use of Chimpanzees in Biomedical and Behavioral Research in a report commissioned by the National Institutes of Health (NIH) and the National Academy of Sciences, "[i]t is generally accepted that *all species*, including our own, experience a *chronic stress response* (comprising *behavioral as well as physiological signs*) when deprived of usual habitats" that allow them to exhibit species-typical behaviors.[181] Chronic stress is detrimental to animal welfare. It has been shown to increase mortality and reproductive problems in rhinoceros species, fur loss in polar bears, and renal disease and tumors in clouded leopards.[182] The stress and frustration caused by the inability to express species-typical behaviors, as well as stress and fear from other sources, can often manifest in stereotypic behaviors,[183] which are "repetitive, unvarying and apparently functionless

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[175] 7 U.S.C. § 2131 (emphasis added).
[176] *Id.* § 2143(a)(1) (emphasis added).
[177] Ex. 88, Ronald R. Swaisgood, *Current Status and Future Directions of Applied Behavioral Research for Animal Welfare and Conservation*, 102 APPLIED ANIMAL BEHAV. SCI. 139, 143 (2007) (emphasis added).
[178] Ex. 89, Mindy Babitz, Angela Gibson & Jason Pratte, *Improving Animal Wellbeing Using Behavior-Based Methodologies: A Discussion on Enrichment and Bears under Human Care*, 4 J. ZOOLOGICAL & BOTANICAL GARDENS 256, 256 (2023) (emphasis added).
[179] Ex. 90, Radhika N. Makecha & Lauren E. Highfill, *Environmental Enrichment, Marine Mammals, and Animal Welfare: A Brief Review*, 44 AQUATIC MAMMALS 221, 221 (2018), http://www.doi.org/10.1578/AM.44.2.2018.221 (emphasis added).
[180] Ex. 91, Standards for Birds Not Bred for Use in Research Under the Animal Welfare Act, 88 Fed. Reg. 10,654, 10,695 (Feb. 21, 2023) (to be codified at 9 C.F.R. pts. 1–3), https://www.govinfo.gov/content/pkg/FR-2023-02-21/pdf/2023-03357.pdf.
[181] Ex. 92, COMM. ON THE USE OF CHIMPANZEES IN BIOMEDICAL & BEHAV. RSCH., CHIMPANZEES IN BIOMEDICAL AND BEHAVIORAL RESEARCH: ASSESSING THE NECESSITY 27 (2011) (emphases added).
[182] Ex. 93, M. Elsbeth McPhee & Kathy Carlstead, *The Importance of Maintaining Natural Behaviors in Captive Mammals*, *in* WILD MAMMALS IN CAPTIVITY: PRINCIPLES AND TECHNIQUES FOR ZOO MANAGEMENT 303, 304 (Devra G. Kleiman et al. eds., 2d ed. 2010).
[183] Ex. 94, Amanda Shyne, *Meta-Analytic Review of the Effects of Enrichment on Stereotypic Behavior in Zoo Mammals*, 25 ZOO BIOLOGY 317, 318 (2006).

behaviour patterns," such as "overgrooming, self-biting, the eating of inedible objects ('pica'), rhythmic rocking or pacing."[184] Enrichment reduces stereotypies across species.[185] For instance, studies of captive seals have shown that providing enrichment that promoted natural foraging and exploratory behaviors significantly reduced stereotypic circling behavior.[186] Stereotypic fur-plucking in captive ocelots has been shown to decrease when they are given natural prey to pluck.[187] And captive polar bears have decreased stereotypic pacing and increased species-typical play when their enclosure was enriched with off-exhibit dens.[188]

Failing to provide animals an enriched environment causes them psychological and physiological harm, and is fundamentally inconsistent with the AWA's statutory directive that all regulated animals be provided humane care and treatment. Therefore, to comply with its statutory mandate under the AWA, the USDA must promulgate standards that require enrichment for every regulated species.

B. Endangered Species Act

Just as requiring adequate enrichment for all regulated species under the AWA is necessary for the USDA to fulfill its statutory mandates under the AWA, it is also necessary for the USDA to fulfill its obligations under the ESA. For species listed under the ESA, failure to provide an adequately enriched environment constitutes an unlawful "take." As described above, the ESA prohibits "take" of listed species, which includes to "*harass*, *harm*, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."[189] Under the FWS's implementing regulations, "[h]arass" means "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns" including "breeding, feeding, or sheltering" but "when applied to captive wildlife, does not include *generally accepted*: Animal husbandry practices that meet or exceed the minimum standards for facilities and care under the Animal Welfare Act" when "such practices . . . are *not likely to result in injury to the wildlife*."[190] The FWS defines "harm" as "an act which actually kills or injures wildlife."[191]

Failure to provide ESA-listed animals adequate enrichment "harm[s]" animals because it "actually . . . injure[s]" animals by causing numerous physical and psychological injuries. As described above, captive animals who are not given adequate enrichment are unable to engage in normal behaviors and as a result suffer from chronic stress and stereotypic behaviors. Chronic stress causes physical harm including reproductive failure, organ problems, tumors, and death.[192] Further, species-typical

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[184] Ex. 95, G. Mason et al., *Why and How Should We Use Environmental Enrichment to Tackle Stereotypic Behaviour?*, 102 APPLIED ANIMAL BEHAV. SCI. 163, 164 (2007).
[185] *See generally* Ex. 96, Ronald R. Swaisgood & D. Shepherdson, *Environmental Enrichment as a Strategy for Mitigating Stereotypies in Zoo Animals: A Literature Review and Meta-Analysis*, *in* STEREOTYPIC ANIMAL BEHAVIOR: FUNDAMENTALS AND APPLICATIONS TO WELFARE 256 (G.J. Mason & J. Rushen eds., 2d ed. 2006).
[186] *See* Ex. 97, Sue A. Hunter et al., *Behavioral Effects of Environmental Enrichment on Harbor Seals (*Phoca Vitulina Concolor*) and Gray Seals (*Halichoerus Grypus*)*, 21 ZOO BIOLOGY 375 (2002); Ex. 98, J.A.E. Grindrod & J.A. Cleaver, *Environmental Enrichment Reduces the Performance of Stereotypic Circling Behaviour in Captive Common Seals (*Phoca Vitulina*)*, 10 ANIMAL WELFARE 53 (2001).
[187] Ex. 99, David Hancocks, *Bringing Nature into the Zoo: Inexpensive Solutions for Zoo Environments*, 1 INT'L J. STUD. ANIMAL PROBS. 170, 176 (1980).
[188] Ex. 100, Stephen R. Ross, *Issues of Choice and Control in the Behaviour of a Pair of Captive Polar Bears (*Ursus Maritimus*)*, 73 BEHAV. PROCESSES 117 (2006), https://doi.org/10.1016/j.beproc.2006.04.003.
[189] 16 U.S.C. §1532(19) (emphasis added).
[190] 50 C.F.R. § 17.3 (emphases added).
[191] *Id.*
[192] Ex. 93, McPhee & Carlstead, *supra* note 182, at 304.

behaviors are often important for maintaining physical health. For example, it is essential for bears to rub their fur against logs, trees, or other objects to maintain fur and skin health and seasonally shed. When unable to, they may not be able to shed their winter coats and are prone to overheating and skin problems.[193] Moreover, the stereotypies that animals develop in response to poor captive conditions often cause physical injuries. Overgrooming and excessive scratching can cause fur loss, which in turn impacts an animal's thermoregulation and exposes skin to sun damage and other injuries.[194] Compulsively eating non-food items (pica) can lead to gastrointestinal problems, infections, malnutrition, stunted growth, and death.[195] Animals may also directly injure themselves by biting themselves or hitting their heads: for example, the orca Hugo died of a brain aneurysm after repeatedly slamming himself into the wall of his tank at Miami Seaquarium in 1980.[196]

Failing to give animals adequate enrichment also "harass[es]" animals because it is likely to cause them injury and is not a generally accepted animal husbandry practice. Although it is not currently required under the AWA, depriving animals of adequate enrichment is *not* generally accepted animal husbandry. On the contrary, it is generally accepted husbandry to provide adequate enrichment to *all* captive animals. For example, the AZA requires accredited facilities to provide enrichment for all species—i.e., to "follow a formal written enrichment program that promotes species-appropriate behavioral opportunities" that "should be based on current scientific [sic], and should include the following elements: goal-setting, planning and approval process, implementation, documentation/record-keeping [], evaluation, and reassessment."[197] NIH's internal guidelines for the NIH Intramural Research Program state: "in accordance with the Guide for the Care and Use of Laboratory Animals . . . research facilities must provide appropriate environmental enrichment for all animals."[198] Experts concur: "environmental enrichment has become an essential part of modern husbandry for animals under human care."[199] Courts have also agreed, finding that "[g]enerally accepted animal husbandry practices include . . . enrichment that allows, encourages, and promotes species-appropriate behaviors."[200] The USDA itself recognized this in its recent rulemaking on bird welfare standards: "meeting [birds'] enrichment needs constitute[s] *basic avian husbandry.*"[201]

Numerous courts have recognized that failing to provide listed species with adequate enrichment constitutes an unlawful "take" as harassment and/or harm. In *People for the Ethical Treatment of*

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193 Ex. 101, People for the Ethical Treatment of Animals, Petition Requesting Rulemaking to Ensure the Humane Handling, Treatment, and Care of Captive Bears Under the Animal Welfare Act (Docket No. APHIS-2012-0106), at 24 (Sept. 25, 2012).

194 Ex. 102, Danielle Free et al., *An Approach to Assessing Zoo Animal Welfare in a Rarely Studied Species, the Common Cusimanse* Crossarchus Obscurus, 3 J. ZOOLOGICAL & BOTANICAL GARDENS 420, 425 (2022).

195 Ex. 103, Muhammed Irfan et al., *Gastric Impaction: An Important Health and Welfare Issue of Growing Ostriches*, 53 AGRICULTURA TROPICA ET SUBTROPICA 161, 164 (2020).

196 Ex. 104, Katharine Gammon, *After Half a Century in Captivity, Tokitae the Performing Orca Could Finally Go Home,* THE GUARDIAN (Aug. 13, 2022), https://www.theguardian.com/environment/2022/aug/13/toki-the-orca-captivity-miami-seaquarium.

197 Ex. 86, ASS'N OF ZOOS & AQUARIUMS, ACCREDITATION STANDARDS & RELATED POLICIES, s*upra* note 169, § 1.6.1.

198 Ex. 105, NAT'L INSTS. OF HEALTH INTRAMURAL RSCH. PROGRAM, GUIDELINES FOR GENERAL SPECIES ENVIRONMENTAL ENRICHMENT (Dec. 19, 2019), https://oacu.oir.nih.gov/system/files/media/file/2021-02/d4_general_species_environmental_enrichment.pdf.

199 Ex. 89, Babitz, Gibson, & Pratte, *supra* note 178.

200 *People for the Ethical Treatment of Animals, Inc. v. Lowe*, No. CIV-21-0671, 2022 WL 576560, at *9 (W.D. Okla. Feb. 25, 2022).

201 Ex. 91, Standards for Birds Not Bred for Use in Research Under the Animal Welfare Act, 88 Fed. Reg. 10,654, 10,695 (Feb. 21, 2023) (to be codified at 9 C.F.R. pts. 1–3), https://www.govinfo.gov/content/pkg/FR-2023-02-21/pdf/2023-03357.pdf (emphasis added).

Animals v. Tri-State Zoological Park of Western Maryland,[202] the court found that lack of environmental and social enrichment for ESA-listed big cat species kept in a roadside zoo, combined with inadequate veterinary care and unsanitary conditions, constituted harassment of the animals and therefore a "take" by the zoo.[203] Similarly, in *Kuehl v. Sellner*,[204] the court found inadequate environmental enrichment for lemurs was a "take."[205] So too in *People for the Ethical Treatment of Animals v. Lowe*:[206]

> Lowe harassed all four lions within the meaning of the ESA and its implementing regulations by failing to provide the four lions adequate enrichment items or an adequate rotation of enrichment items, by providing enrichment items that were affirmatively dangerous, and by failing to monitor the safety or effectiveness of enrichment items provided the lions, all creating a likelihood of injury to them.[207]

More generally, courts have recognized that causing psychological injury to animals is harm and harassment.[208] And the Department of Justice has now recognized that such "psychological harm" constitutes a prohibited "take" under the ESA.[209]

Depriving listed species of adequate enrichment therefore constitutes a "take" under the ESA. As outlined above, the USDA is obligated under Section 7(a)(1) of the ESA to promote conservation efforts: "*All other federal agencies shall*, in consultation with and with the assistance of the" FWS, "utilize their authorities in furtherance of the purposes of [the ESA] by carrying out programs for the conservation of endangered species and threatened species."[210] Because inadequate enrichment constitutes an unlawful take, USDA should promulgate enrichment standards for all ESA-listed species.

ii. USDA must establish a useful and enforceable regulatory structure for enrichment by promulgating clear, specific enrichment requirements.

A. Why clear and enforceable enrichment standards are necessary

The USDA must establish a clear and enforceable regulatory structure for enrichment to reduce confusion for regulated facilities and inspectors and improve enforcement. In other words, the

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[202] 424 F. Supp. 3d 404 (D. Md. 2019), *aff'd*, 843 F. App'x 493 (4th Cir. 2021).
[203] *Id.* at 431–32.
[204] 61 F. Supp. 3d. 678 (N.D. Iowa 2016), *aff'd*, 887 F.3d 845 (8th Cir. 2018).
[205] *Id.* at 718 ("[T]he Court concludes the social isolation, lack of environmental enrichment, and inadequate sanitation provided to the lemurs constitutes "harassment" within the "taking" provision of the Endangered Species Act[.]").
[206] No. CIV-21-0671, 2022 WL 576560 (W.D. Okla. Feb. 25, 2022).
[207] *Id.* at *18–19.
[208] *See, e.g.*, *People for Ethical Treatment of Animals, Inc. v. Wildlife in Need & Wildlife in Deed, Inc.*, 476 F. Supp. 3d 765, 784 (S.D. Ind. 2020) ("Tiger Baby Playtime also subjects Cubs to extreme stress . . . being hit or struck by riding crops results in confusion and psychological harm. . . these Cubs will develop atypical behavioral patterns—such as an increase in aggression—because they are forced to adjust to this unnatural environment. This leaves little room to doubt that prematurely separating Cubs and using them in Tiger Baby Playtime violates the ESA. Such conduct constitutes harassment because it creates a likelihood of injury to Big Cat Cubs by annoying them to such an extent as to significantly disrupt normal behavior patterns. *See* 50 C.F.R. § 17.3. And such conduct harms Big Cat Cubs because it actually injures them. *Id.*").
[209] Ex. 20, Compl. ¶¶ 18–19, *United States v. Lowe*, No. 6:20-cv-00423 (E.D. Okla. Nov. 19, 2020), https://www.justice.gov/opa/press-release/file/1338781/download.
[210] 16 U.S.C. § 1536(a)(1) (emphasis added).

agency must use *engineering* standards to define the contours of enrichment, rather than relying on mere performance standards.

The inadequacy of the USDA's performance standards for non-human primate enrichment, contained in 9 C.F.R. § 3.81, shows why concrete engineering standards are necessary. These enrichment provisions have been plagued with vagueness, confusion, and inefficacy. The language is too vague to establish any enforceable or measurable standards. It directs facilities to establish an "appropriate" enrichment plan "in accordance with the currently accepted professional standards as cited in appropriate professional journals or reference guides, and as directed by the attending veterinarian" that includes physical and social enrichment.[211] As a 2014 rulemaking petition on amending § 3.81 pointed out, "this current requirement is so vague that it lacks any enforceable definition of how to evaluate if such a plan is actually effectively designed or implemented in a way that promotes the primates' psychological well-being."[212] Further, although there "is a wealth of published research to guide environmental programs, [] applying 'currently accepted professional standards' inevitably involves perceptions of common practice. Many individuals working in the field of behavioral management perceive a mismatch between information in the scientific literature and current management practices for nonhuman primates."[213] The existing language therefore allows facilities to effectively regulate themselves and continue industry practices that are harmful to animals.

For decades, the USDA has been aware that these vague performance standards have generated confusion among inspectors, regulated facilities, and the public. The USDA's 1999 *Draft Policy on Environment Enhancement for Nonhuman Primates* stated that:

> In 1996, after 5 years of experience enforcing § 3.81, we evaluated the effectiveness of the performance standards by surveying our inspectors about their experience in reviewing environment enhancement plans developed under § 3.81. The results of our evaluation indicated that *dealers, exhibitors, and research facilities did not necessarily understand how to develop an environment enhancement plan* that would adequately promote the psychological well-being of nonhuman primates. In addition, there has been *considerable disagreement in various sectors of the public over the adequacy of the performance standards* in § 3.81, as well as *confusion among the regulated public* concerning on what basis they will be judged by inspectors as meeting or not meeting the requirements. *Our inspectors requested information and clarification* on how to judge whether someone was meeting the requirements in § 3.81. . . . [W]e do believe that additional information on how to meet the standards in § 3.81 is necessary.[214]

To rectify these problems, the 1999 *Draft Policy* proposed five elements of enrichment "critical" to promoting psychological well-being in non-human primates (social grouping, social needs of infants, structure and substrate, foraging opportunities, and manipulanda) and criteria that must be considered in meeting each element (documentation, novelty, control over the environment, sensory

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211 9 C.F.R. § 3.81.

212 Ex. 79, New Eng. Anti-Vivisection Soc'y et al., *supra* note 152, at 3.

213 Ex. 106, Kate Baker, *Enrichment and Primate Centers: Closing the Gap Between Research and Practice*, 10 J. APPLIED ANIMAL WELFARE SCI. 49, 49 (2007).

214 Ex. 107, Draft Policy on Environment Enhancement for Nonhuman Primates, 64 Fed. Reg. 38,145, 38,146 (July 15, 1999), https://www.govinfo.gov/content/pkg/FR-1999-07-15/pdf/99-18050.pdf (emphases added).

stimulation, exemptions, and individuals in persistent psychological distress).[215] However, this policy was never adopted.

The NIH has also apparently concluded that the USDA's non-human primate enrichment standards are inadequate. Although all primates used in NIH-funded research are also subject to the USDA's psychological well-being standard, in 2013, NIH promulgated specific requirements for the care of chimpanzees used in NIH-funded research, which included enrichment requirements that significantly *exceeded* the USDA's non-human primate enrichment standard. In line with the 1999 *Draft Policy*, and unlike § 3.81, NIH's standards provided concrete requirements. For example: "Chimpanzees must be housed in environments that provide outdoor access year round. They should have access to natural substrates, such as grass, dirt, and mulch, to enhance environmental complexity"; "Progressive and ethologically appropriate management of chimpanzees must include provision of foraging opportunities and of diets that are varied, nutritious, and challenging to obtain and process."[216] However, despite its own knowledge of the inadequacy of its non-human primate enrichment standards since at least 1999, and NIH's creation of far higher minimum standards in 2013, the USDA has made no improvements to § 3.81.

Even more troubling, the USDA decided to replicate the same vague and ineffective performance standards in its recently promulgated enrichment standards for birds. As with the non-human primate enrichment standards, the bird rulemaking only provides examples of what enrichment *can* be with very few enforceable requirements.[217] The USDA thereby leaves it almost entirely up to the facility and attending veterinarian to come up with appropriate enrichment measures. However, as the USDA knows from the primate enrichment standards, this approach impedes facilities and veterinarians from developing meaningful, compliant enrichment protocols and impedes inspectors from effectively determining whether enrichment is adequate. Indeed, in its final notice of rulemaking concerning birds, the USDA appeared to anticipate that the enrichment standards will fail to provide clear guidance to licensees on how to create and implement effective enrichment protocols: in an explanation of why it opted not to adopt the concrete standards some commenters proposed (such as requiring novel and species-appropriate structural, object, and task enrichment), the USDA stressed that "[*w*]*e welcome questions from licensees* on enhancement practices for particular birds *and compliance*."[218]

It is also necessary to set forth clear engineering standards rather than vague performance standards to avoid saddling attending veterinarians with too much responsibility and discretion. Attending veterinarians are unregulated third parties under the AWA who are only accountable to the facilities that employ and pay them. However, the existing regulatory scheme delegates them significant discretion to dictate how animals are cared for. For example, 9 C.F.R. § 3.81 provides that (emphasis added):

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[215] *Id.* at 38,147–49.

[216] Ex. 108, Announcement of Agency Decision: Recommendations on the Use of Chimpanzees in NIH-Supported Research, 78 Fed. Reg. 39,741, 39,745 (July 2, 2013), https://www.govinfo.gov/content/pkg/FR-2013-07-02/pdf/2013-15791.pdf.

[217] Ex. 91, Standards for Birds Not Bred for Use in Research Under the Animal Welfare Act, 88 Fed. Reg. 10,654, 10,717 (Feb. 23, 2023) (to be codified at 9 C.F.R. § 3.154) ("Examples of environmental enrichments include providing perches, swings, mirrors, and other increased cage complexities; providing objects to manipulate; varied food items; using foraging or task-oriented feeding methods; and providing interaction with the care giver[.]").

[218] *Id.* at 10,696 (emphases added).

> Dealers, exhibitors, and research facilities must develop, document, and follow an *appropriate plan* for environment enhancement adequate to promote the psychological well-being of nonhuman primates. The plan must be in accordance with the currently accepted professional standards as cited in appropriate professional journals or reference guides, and *as directed by the attending veterinarian*.

This provision gives attending veterinarians extremely broad discretion to decide what constitutes an "appropriate" enrichment plan, particularly because, as discussed above, there is no clear standard defining "appropriate professional journals or reference guides." Clear engineering standards are also necessary because, along with the broad grant of discretion, USDA inspectors are instructed to give significant deference to veterinarians. According to the current version of the USDA's Animal Care Inspection Guide, inspectors are directed to issue citations to facilities when the facility is not following the attending veterinarian's treatment program, but does *not* direct inspectors to issue citations when the veterinarian's treatment program itself is inadequate.[219] Instead, the Guide states that if the veterinarian's treatment plan "was not adequate, appropriate, or timely, the inspector *may contact his/her SACS for additional guidance* if needed."[220] Further, inspectors are directed not to challenge veterinarians' veterinary protocols, but to take them at their word: "*Do not challenge* the attending veterinarian's diagnosis or instructions"; "If the attending veterinarian states that communication or treatment took place, *we accept that fact*."[221]

The broad discretion granted to veterinarians is particularly concerning in the context of enrichment, which is not a core element of traditional veterinary medicine and therefore an area in which many veterinarians may lack expertise. For example, in 2015 litigation over AWA violations by Cricket Hollow Zoo (formerly licensed as 42-C-0084), the attending veterinarian who approved the enrichment plan for lemurs stated in testimony that he did not know what the term "enrichment" meant, and did not have any knowledge of lemurs' environmental or social enrichment needs.[222] While it is important to provide veterinarians with some discretion to make decisions that are in the best interests of the animals in their care, veterinarians deserve specific guideposts for how to provide this care, particularly when enrichment may lie outside their core expertise. Clear, specific criteria for what constitutes adequate enrichment are therefore critical to provide attending veterinarians sufficient guidance on how to create and implement an adequate enrichment plan, and to avoid granting excessive discretion to unregulated, unaccountable third parties.

For these reasons, the present rulemaking must promulgate engineering standards with clear, enforceable measures that facilities can undertake to ensure adequate enrichment for each animal. If a performance standard must be used, it should set forth concrete examples to provide guidance to facilities, the public, and inspectors.

B. The USDA must define enrichment

To provide meaningful and enforceable standards for enrichment, USDA must actually define what is meant by "enrichment." The primary goal of enrichment should be to provide animals with an

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[219] *See* Ex. 41, U.S. DEP'T OF AGRIC. ANIMAL & PLANT HEALTH INSPECTION SERV., ANIMAL CARE INSPECTION GUIDE, *supra* note 53, at 6-28 (describing when inspectors should issue citations under § 240(b)).
[220] *Id.* at 6-14 (emphasis added).
[221] *Id.* at 6-17 (emphasis added).
[222] Ex. 109, Partial Testimony of John H. Pries, *Kuehl v. Sellner*, 161 F. Supp. 3d 678 (N.D. Iowa 2016) (No. C14-2034), 2015 WL 11143738.

ethologically appropriate environment, meaning a captive physical and social environment that not only allows, but *promotes,* a species' full range of natural behavioral needs and expectations.[223] This has also been called "behavior based" enrichment.[224] The importance of an ethologically appropriate environment to captive animals has been adopted by the NIH and the National Academy of Medicine in the context of chimpanzees used in federally funded research.[225] In addition to promoting innate species-typical behaviors, an enriched environment should also allow animals to exert some control over their environment by making choices.[226]

We recommend the following definition of enrichment:

> Conditions that provide an ethologically appropriate environment that promotes an animal's ability to express non-injurious, species-typical behaviors and exercise control over their environment by making choices, so as to promote their psychological and physical well-being through dynamic environments, cognitive stimulation, and social interaction.[227]

In addition to defining enrichment, the rules must also define what enrichment is *not*. Stimuli or conditions that psychologically or physiologically harm an animal are *not* enrichment. Conditions like forced contact with, or proximity to, adverse species (including humans), subjecting animals to visual or auditory stimuli that cause them stress or fear, or requiring them to engage in public performances, harm the psychological and physiological well-being of animals and thereby are completely inconsistent with enrichment.

Defining enrichment is necessary to provide clarity to licensees. There are recent instances of exhibitors claiming that requiring animals to do public performances and interact with humans constitutes enrichment. For example, in a 2022 animal wellness assessment report for Circus World Museum, the attending veterinarian wrote that "[e]nrichment is superior for these animals [Asian elephants and equids] with two short performances a day for the show animals (three to four minutes per act, no extreme or abnormally uncomfortable physical activities performed) . . . and

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[223] *See* Ex. 108, Announcement of Agency Decision: Recommendations on the Use of Chimpanzees in NIH-Supported Research, 78 Fed. Reg. 39,741, 39,742 (July 2, 2013), https://www.govinfo.gov/content/pkg/FR-2013-07-02/pdf/2013-15791.pdf; Ex. 92, COMM. ON THE USE OF CHIMPANZEES IN BIOMEDICAL & BEHAV. RSCH., *supra* note 181, at 27; Ex. 79, New Eng. Anti-Vivisection Soc'y et al., *supra* note 152, at 3.

[224] *See* Ex. 89, Babitz, Gibson, & Pratte*, supra* note 178.

[225] Ex. 108, Announcement of Agency Decision: Recommendations on the Use of Chimpanzees in NIH-Supported Research, 78 Fed. Reg. 39,741, 39,742 (July 2, 2013), https://www.govinfo.gov/content/pkg/FR-2013-07-02/pdf/2013-15791.pdf; Ex. 110, COUNCIL OF COUNCILS WORKING GROUP ON THE USE OF CHIMPANZEES IN NIH-SUPPORTED RESEARCH, REPORT 19–20 (2013), https://dpcpsi.nih.gov/council/pdf/FNL_Report_WG_Chimpanzees.pdf.

[226] Ex. 111, NAT'L RSCH. COUNCIL, GUIDE FOR THE CARE AND USE OF LABORATORY ANIMALS 53 (2011), https://grants.nih.gov/grants/olaw/guide-for-the-care-and-use-of-laboratory-animals.pdf ("Well-conceived enrichment provides animals with choices and a degree of control over their environment, which allows them to better cope with environmental stressors."); Ex. 105, GUIDELINES FOR GENERAL SPECIES ENVIRONMENTAL ENRICHMENT, *supra* note 198 (identifying "increas[ing] behavioral choice" as one of the elements of environmental enrichment). Ex. 112, Brian J. Greco et al., *Elephant Management in North American Zoos: Environmental Enrichment, Feeding, Exercise, and Training*, 11 PLOS ONE, art. no. e0152490, at 2 (2016), http://www.doi.org/10.1371/journal.pone.0152490 ("In the zoo and aquarium community, the term enrichment (or environmental enrichment) covers a wide range of practices intended to improve animal welfare by facilitating the expression of important behaviors, such as foraging or self-maintenance, and by providing opportunities for play, exploration, problem solving, and exercising choice.").

[227] *See* Ex. 90, Makecha & Highfill, *supra* note 179, at 222 (stating that enrichment should include "opportunities to express species-specific behaviors, opportunities to exert control over their environment (including being given a variety of behavioral choices), the presentation of novel stimuli on a regular basis (to keep animals stimulated and interested), and a highly complex captive environment both socially and physically as much as possible.").

significant human interaction with positive reinforcement for training and during performances or activities with the public."[228] While these activities are no doubt "enriching" for the *circus* selling tickets to elephant performances, they are actively *harmful* to the animals, whose movements and behaviors in a performance are strictly controlled and dictated by humans. Similarly, a 2022 APHIS re-license inspection report of Wild Things Zoofari Inc. (Certificate 74-C-1009) recorded that the facility's enrichment plan wrongfully stated that "hands on encounters or private shows are considered enrichment for the primates."[229] Again, public contact and performances are not enrichment. As the APHIS inspector noted, performances or public encounters "should not be used as enrichment because the animals are expected to perform whether they want to or not. Enrichment is for the *benefit of the animal and should be something they fully have the option to whether* [sic] *engage or not*."[230] Allowing licensees to define "enrichment" for themselves will lead to counterproductive results such as these. Therefore, it is essential for the USDA to clearly define enrichment in the forthcoming rules to ensure that licensees understand what is required.

iii. Recommended minimum enrichment requirements for all species

For the USDA to establish an enforceable enrichment scheme that ensures all animals receive meaningful enrichment, it must promulgate enrichment standards that ensure ethologically appropriate *environmental, object, food, and social enrichment for all animals,* and set *concrete minimum requirements* for how to do so.

Specifically, the USDA should require enrichment programs to include, at a minimum:

i. **Habitat enrichment** to promote physical activity and habitat complexity, such as structures, perches, hides, and pools;

ii. **Object enrichment** to provide mental and sensory stimulation by encouraging inspection and manipulation, such as regularly rotated logs, scents, balls, boxes;

iii. **Food enrichment** to stimulate hunting and foraging, such as food puzzles; and

iv. **Social enrichment** to ensure that each individual is living in an appropriate social environment.

In addition, the USDA should:

v. Require licensees to provide enrichment in a way that is **appropriate to the age, personality, and abilities of each individual animal**.

vi. Require licensees to **monitor** whether the enrichment needs of each individual animal are being met.

A. Habitat enrichment

[228] Ex. 113, JULIE NAPIER, CIRCUS WORLD MUSEUM ANIMAL WELLNESS ASSESSMENT REPORT (July 14, 2022).
[229] Ex. 114, Inspection Report, Wild Things Zoofari, Inc. (Certificate 74-C-1009) (APHIS Jan. 19, 2022).
[230] *Id.* (emphasis added).

Captive animals need complex, stimulating, ethologically appropriate physical environments in which they have the space, substrates, structures, and freedom to express species-typical behaviors. Therefore, the USDA should set forth the following minimum requirements for adequate habitat enrichment:

i. **Natural substrates in at least half of an animal's enclosure that mimic as much as possible the natural habitat of the species in the wild.** Natural substrates might include materials such as mulch, sand, gravel, soil, moss, and leaves.[231]

> Natural substrates are critical to providing enrichment because they promote species-typical behaviors and maintain physical health. For example, many mammals need natural substrates to build nests or burrows.[232] Chinchillas need dust for daily dust baths, which are essential for maintaining healthy fur.[233] Unnatural substrates can injure animals and reduce their welfare. Hard substrates like concrete and stone cause serious foot injuries for many species. For example, in elephants, "standing or walking on hard substrates such as concrete or stone can lead to trauma of foot pads, toenails, joints, and other musculoskeletal structures resulting in cracks, abscesses, bruises, strains, and degenerative joint disease."[234] For rhinoceroses, whose hooves are adapted to soft, swampy grasslands, hard substrates can cause abrasions, cracks, and hematomas and can reduce an animal's lifespan.[235]

ii. **Structural enrichments such as perches, pools, logs, trees, and dens that provide a complex habitat appropriate to the needs of the species.**

> A complex structural environment has been shown to decrease stereotypies.[236] Animals need complex structural environments that allow them to engage in species-typical physical activities. Studies show that animals exhibit "fewer abnormal and/or repetitive behaviors" when "the environment and husbandry routine more closely mimic the wild environment and daily schedule of the species."[237] For instance, arboreal species such as felids need vertical structures that promote behaviors like climbing and leaping.[238] For semi-aquatic animals like hippopotamuses, the USDA's Animal Care Aid for Semi-Aquatic Animals recommends that "proper enclosure design would have dry and aquatic areas large enough to support all of these natural

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231 Ex. 115, *Suggested Guidelines for Carnivore Enrichment*, AM. ASS'N OF ZOO KEEPERS, https://www.aazk.org/wp-content/uploads/Suggested-Guidelines-for-Carnivore-Enrichment.pdf.
232 Ex. 111, GUIDE FOR THE CARE AND USE OF LABORATORY ANIMALS, *supra* note 226, at 52.
233 Ex. 116, Angel E. Spotorno et al., *Chinchilla Laniger*, 758 MAMMALIAN SPECIES 1, 5 (2004).
234 Ex. 117, M.A. Miller et al., *Housing and Demographic Risk Factors Impacting Foot and Musculoskeletal Health in African Elephants (*Loxodonta Africana*) and Asian Elephants (*Elephas Maximus*) in North American Zoos*, 11 PLOS ONE, art. no. e0155223, at 13 (2016), http://www.doi.org/10.1371/journal.pone.0155223.
235 Ex. 118, F. von Houwald, *Causes and Prevention of Foot Problems in Greater One-Horned Rhinoceros* Rhinoceros Unicornis *in Zoological Institutions,* 50 INT'L ZOO YEARBOOK 215, 216–19 (2016), http://www.doi.org/10.1111/izy.12116.
236 Ex. 119, Kathy Carlstead et al., *Behavioral and Adrenocortical Responses to Environmental Changes in Leopard Cats (*Felis Bengalensis*)*, 12 ZOO BIOLOGY 321, 330 (1993) (finding that "providing physical structures that stimulated investigation and exploration of the cage environment corresponded with a reduction in pacing").
237 Ex. 89, Babitz, Gibson, & Pratte, *supra* note 178.
238 *See* Ex. 120, Jill D. Mellen & David J. Shepherdson, *Environmental Enrichment for Felids: An Integrated Approach*, 35 INT'L ZOO YEARBOOK 191, 193 (1997).

behaviors."[239] The USDA's Animal Care Aid for Bears recognizes that an adequate bear enclosure should be designed to promote "behavioral needs like digging, swimming, climbing, and denning."[240]

iii. **Enclosures of appropriate size to allow animals to express species-typical behaviors.**

This goes beyond providing enough space for species to make "normal postural and social adjustments."[241] It requires meaningful room to roam for species that travel over long ranges like bears; sufficient depth to dive for species like orcas; sufficient vertical space for flighted birds to fly; and sufficient height for climbing animals to climb. APHIS inspectors have also recognized the importance of space in providing adequate enrichment for non-human primates: "[t]he size of the lemur enclosures does not allow for climbing or other natural behaviors to be performed."[242]

iv. **Access to natural light and darkness to regulate animals' internal clocks, consistent with the animals' natural behavioral expectations.** If artificial light must be used, it must not interfere with natural sleep cycles and behavior patterns.[243]

v. **Access to "hides" sufficient in size and number to escape public view and conspecifics.** An enclosure must provide at least one hide per animal.

Hiding is an important strategy many animals use for coping with stressful or threatening stimuli.[244] Giving animals access to hides has been found to reduce indicators of poor welfare like stereotypic pacing.[245] In its bird rulemaking, the USDA recognized that many birds "require" the ability to hide from public view, yet did not mandate that facilities provide birds with the space to hide.[246] This must be rectified in the present rulemaking for *all* animals.

vi. **Animals must be allowed to venture freely around their enclosures. No restraint devices may be used unless temporary and necessary for the animal's health or safety.** The duration of restraint must be for the shortest period of time necessary, and the

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[239] Ex. 121, U.S. DEP'T OF AGRIC., ANIMAL CARE AID: SEMI-AQUATIC ANIMALS (Oct. 2018), https://www.aphis.usda.gov/animal_welfare/downloads/dangerous-animals/ACaids_SemiAquatic_AC-18-021_10.18.pdf.
[240] Ex. 122, U.S. DEP'T OF AGRIC., ANIMAL CARE AID: BEARS (Oct. 2018), https://www.aphis.usda.gov/animal_welfare/downloads/dangerous-animals/ACaids_bears4_10.18_AC-18-008.pdf.
[241] 9 C.F.R. § 3.128.
[242] Ex. 123, Inspection Report, Daniel Pradon (Certificate 74-B-0708) (APHIS Oct. 19, 2021).
[243] *See generally* Ex. 124, Kathleen N. Morgan & Chris T. Tromborg, *Sources of Stress in Captivity*, 102 APPLIED ANIMAL BEHAV. SCI. 262, 268–70 (2007) (describing the harmful impacts on captive animals of artificial light and lighting schedules that interfere with circadian rhythms).
[244] *See, e.g.*, Ex. 119, Kathy Carlstead et al., *Behavioral and Adrenocortical Responses to Environmental Changes in Leopard Cats*, *supra* note 236, at 328–29 (finding captive leopard cats used hiding to cope with stressors).
[245] *See* Ex. 100, Stephen R. Ross, *Issues of Choice and Control in the Behaviour of a Pair of Captive Polar Bears*, *supra* note 188.
[246] Ex. 91, Standards for Birds Not Bred for Use in Research Under the Animal Welfare Act, 88 Fed. Reg. 10,654, 10,691 (Feb. 21, 2023) (to be codified at 9 C.F.R. pts. 1–3), https://www.govinfo.gov/content/pkg/FR-2023-02-21/pdf/2023-03357.pdf (recognizing that "many birds require space for hiding from public view and that this is a natural, species-specific behavior that a facility *can include* in the environment enhancement plan required in proposed § 3.154").

attending veterinarian must document the reasons for restraint and the anticipated duration of restraint in the plan of veterinary care.

B. Object enrichment

Object enrichment is a critical element of an effective and ethologically appropriate enrichment program. It promotes species-typical behaviors through physical and cognitive stimulation and allows animals to exert control over their environments. The USDA should set forth the following minimum requirements for object enrichment:

i. **If appropriate for the species based on current scientific understanding, facilities must provide object enrichment that provides cognitive and sensory stimulation through inspection and manipulation, such as boxes, balls, and logs.**

ii. **All objects must be non-toxic, non-hazardous, and easily accessible to all individuals without competition.**

iii. **Objects must be removed and rotated frequently (at least every three (3) days) to prevent habituation, or more frequently if objects become soiled, damaged, or hazardous.**

> Without regular variation, animals will habituate to enrichment items and get bored of them.[247] APHIS inspectors have recognized the importance of novelty in enrichment items. Although novelty is not explicitly required under the existing non-human primate enrichment requirements, APHIS inspectors have recorded lack of novelty as evidence of facilities' failure to provide adequate enrichment under § 3.81: "Environmental enhancement is important to promote the psychological well-being of nonhuman primates, and it is important that the enrichment provided varies so that the animals can have novel experiences to keep them engaged. A plan for environmental enhancement that provides novel and engaging activity must be developed and followed for each nonhuman primate at the facility."[248]

iv. **Facilities must provide positive scents around the enclosure and/or on enrichment objects**, especially for animals for whom scent is a particularly important sense, such as primates, canids, felids, and otters. Facilities must also ensure the **absence of stressful sensory stimuli including stressful scents and sounds.**

> Research on olfactory enrichment shows that it can significantly reduce stereotypies in some species. For example, exposing sea lions to scents such as soil, kelp, sand, and sardine oil substantially reduced stereotypic pattern swimming and increased the

[247] Ex. 125, Claes Anderson et al., *Habituation to Environmental Enrichment in Captive Sloth Bears—Effect on Stereotypies*, 29 ZOO BIOLOGY 705, 706 (2010).
[248] Ex. 126, Inspection Report, Daniel Pradon (Certificate 74-B-0708) (Nov. 4, 2021).

animals' habitat exploration.[249] Dogs in shelters exposed to positive scents, including lavender, have exhibited reduced stress and increased relaxation.[250]

C. Food enrichment

Feeding routines are critical not only to ensuring animals' physical health but also to ensuring their psychological wellbeing.[251] Presenting food in an enriching, complex way is critical to provide psychological stimulation to animals and allow them to express species-typical behaviors. Many species in the wild spend significant time searching for food, making food enrichment critical to their ability to express species-typical behaviors. For example, bears spend most of their time foraging, for some species up to 18 hours per day.[252] Animals in captivity have been shown to exhibit "contrafreeloading" by choosing to expend effort searching for hidden food, rather than taking freely available, identical food.[253] Feeding routines that are monotonous and provide no enrichment are linked with stereotypic behaviors, while routines that are varied, complex, and encourage foraging have been shown to reduce stereotypies.[254]

To ensure animals receive adequate feeding enrichment, the rules should require that:

i. **Facilities must provide at least a portion of daily food in a way that provides species-appropriate food enrichment by simulating natural food-collecting behaviors such as foraging through variation in how, when, and where food is presented, and the kinds of foods offered.** For animals that forage, this could include "hiding food throughout the exhibit in brush piles, mulch pits, in logs, under rocks and high in trees or perches."[255] For elephants, browse can provide enrichment by allowing elephants to "strip off the bark, manipulate the object and chew on the wood."[256] The rules should also make clear that hand-feeding animals treats is not appropriate food enrichment, because it does not promote species-typical feeding behaviors.[257]

ii. Facilities must document food enrichment in the written enrichment plan, including the types of food, the methods of food presentation and how they will promote species-typical behaviors, and the schedule of food presentation.

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[249] *See* Ex. 127, M.M. Samuelson et al., *Olfactory Enrichment in California Sea Lions (*Zalophus Californianus*): An Effective Tool for Captive Welfare?*, 20 J. APPLIED ANIMAL WELFARE SCI. 75 (2017), https://doi.org/10.1080/10888705.2016.1246362.
[250] Ex. 128, Veronica Amaya et al., *Effects of Olfactory and Auditory Enrichment on the Behaviour of Shelter Dogs*, 10 ANIMALS, art. no. 581, at 12 (2020), http://www.doi.org/10.3390/ani10040581.
[251] Ex. 129, Ragen T.S. McGowan et al., *Contrafreeloading in Grizzly Bears: Implications for Captive Foraging Enrichment*, 29 ZOO BIOLOGY 484, 485 (2010).
[252] Ex. 130, Kathy Carlstead et al., *Environmental Enrichment for Zoo Bears*, 10 ZOO BIOLOGY 3, 4 (1991).
[253] *See, e.g.*, Ex. 131, I.R. Inglis & N.J.K. Ferguson, *Starlings Search for Food Rather than Eat Freely-available, Identical Food*, 34 ANIMAL BEHAV. 614, 615 (1986); Ex. 129, Ragen T.S. McGowan et al., *supra* note 251, at 486.
[254] Ex. 130, Kathy Carlstead et al., *Environmental Enrichment for Zoo Bears*, *supra* note 252, at 11.
[255] Ex. 115, *Suggested Guidelines for Carnivore Enrichment*, *supra* note 231.
[256] Ex. 132, *Suggested Guidelines for Captive Elephant Enrichment*, AM. ASS'N OF ZOO KEEPERS, https://www.aazk.org/wp-content/uploads/Suggested-Guidelines-for-Captive-Elephant-Enrichment.pdf.
[257] Ex. 133, Expert Report of Kim K. Haddad, *People for the Ethical Treatment of Animals, Inc. v. Tri-State Zoological Park of W. Md., Inc.*, 424 F. Supp. 3d 404 (D. Md. 2019) (No. 8:17-cv-02148), *aff'd*, 843 F. App'x 493 (4th Cir. 2021) ("The Lemur Enrichment Plan is inadequate. . . There is a list of food items to give to the lemurs-treats, grapes, and gummy bears. Hand-feeding treats is not an enrichment plan. Lemurs like to forage for food; hand-feeding does not encourage this behavior. Clearly, there is a lack of understanding of what enrichment is, and how it should be designed, evaluated, and modified on a regular basis.").

D. Social enrichment

The USDA must require ethologically appropriate social enrichment to promote the psychological wellbeing of all animals. It is fundamental to the welfare of all animals to live in an ethologically appropriate social environment. This is particularly important for social species and bonded individuals, but the rules on social enrichment must also address the social needs of *solitary* species and animals who cannot be housed with others for reasons of health or safety.

For social animals, living socially is fundamental to welfare. The USDA rules requiring social marine mammal species to be housed with at least one other conspecific recognize this.[258] It is long overdue for the USDA to extend this protection to the vast majority of social species that have been ignored under the AWA and its regulations. The forthcoming regulations must ensure that *all* animals known to be social are provided social housing.

At a minimum, the rules should include the following requirements for social enrichment:

i. **Social animals must be housed in ethologically appropriate social groupings,** taking into account the sex, age, and behaviors of the animals. They must be grouped in a manner that ensures **no individual is physically injured, repeatedly harassed, or prevented from accessing food, water, or shelter** by groupmates.

> The rules must explicitly require social housing for social species.[259] They should not follow the current social requirements for non-human primates, which do not explicitly require non-human primates to be housed together; they only state that their social needs must be addressed "in accordance with currently accepted professional standards" and "as directed by the attending veterinarian."[260] As discussed above, this standard is too vague to provide a clear or enforceable benchmark and gives broad discretion to the attending veterinarian to decide that social grouping is not appropriate, or to exempt primates from enrichment altogether.[261] Therefore, the proposed rules must specifically require social housing for all animals known to be social.

ii. **Solitary confinement of animals from social species and other animals known to be social in nature must be prohibited**, except where, in the written opinion of the attending veterinarian, it is temporarily necessary to house an animal alone for quarantine, medical care or assessment, or to address social tension or aggression between animals. The duration of isolation must be for the shortest period of time necessary,[262] and the attending veterinarian must document the reasons for the isolation, the anticipated duration, and the schedule for

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[258] *See* 9 C.F.R. § 3.109 ("Marine mammals, whenever known to be primarily social in the wild, must be housed in their primary enclosure with at least one compatible animal of the same or biologically related species, except when the attending veterinarian, in consultation with the husbandry/training staff, determines that such housing is not in the best interest of the marine mammal's health or well-being.").

[259] *See* Ex. 111, GUIDE FOR THE CARE AND USE OF LABORATORY ANIMALS, *supra* note 232, at 51 ("Social animals should be housed in stable pairs or groups of compatible individuals unless they must be housed alone for experimental reasons or because of social incompatibility.").

[260] 9 C.F.R. § 3.81(a).

[261] *Id.* § 3.81(e)(1).

[262] Ex. 111, GUIDE FOR THE CARE AND USE OF LABORATORY ANIMALS, *supra* note 232, at 60.

regularly reviewing whether the isolation continues to be necessary.[263] However, even in such cases, the animal must be able to **see and hear other animals of their species**, unless the attending veterinarian determines this would be detrimental to the animal's wellbeing.[264] The animals must also be given **additional habitat, object, and food enrichment** during their temporary isolation, which must be set forth in the written enrichment plan.

iii. **Offspring must not be separated from their mothers until they reach sexual maturity or the natural age of dispersal for that species.** The sole exception is when the attending veterinarian decides it is medically necessary, in which case the attending veterinarian must document in writing the medical reasoning for the decision and make a written plan for the offspring's care during separation. Moreover, the offspring must be returned to their mother or a surrogate mother of the same species as quickly as practicable.

> Maternal deprivation is extremely harmful to infants, causing both psychological and physiological damage. Infants separated prematurely from mothers exhibit increased stereotypies, mental health problems, lifelong elevated stress hormones, reproductive abnormalities, and impaired social functioning.[265]

iv. **Incompatible animals, even of the same species, must not be housed together, including for breeding purposes.[266] Animals must also not be housed in close proximity to (i.e., close enough to see, hear, or smell) animals that cause them discomfort or stress.[267]**

> Housing incompatible animals together can be detrimental to animal welfare and can cause "chronic stress, injury, or even death."[268]

v. **Animals of different species must not be housed together, unless they are bonded individuals** in the same scientific family raised together prior to the date the regulation takes effect, are compatible in size and temperament, and are prevented from breeding.

vi. **Animals known to be solitary in nature may be housed alone.** Social groupings of compatible animals may be appropriate if no individual's health or wellbeing is compromised, as approved by the attending veterinarian.

> Animals of solitary species sometimes derive enrichment from living with conspecifics in captivity. For instance, captive tamanduas, though a solitary species in

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[263] *See* 9 C.F.R. § 3.109 ("Animals housed separately must have a written plan, approved by the attending veterinarian, developed in consultation with the husbandry/training staff, that includes the justification for the length of time the animal will be kept separated or isolated, information on the type and frequency of enrichment and interaction, if appropriate, and provisions for periodic review of the plan by the attending veterinarian.").
[264] *See id.* § 3.81(a)(3) ("Individually housed nonhuman primates must be able to see and hear nonhuman primates of their own or compatible species unless the attending veterinarian determines that it would endanger their health, safety, or well-being.").
[265] *See* Ex. 134, Leila Siciliano-Martina & Jason P. Martina, *Stress and Social Behaviors of Maternally Deprived Captive Giraffes (*Giraffa Camelopardalis*)*, 37 ZOO BIOLOGY 80, 80 (2018).
[266] *See* 9 C.F.R. § 3.109 ("[M]arine mammals that are not compatible must not be housed in the same enclosure.").
[267] *See id.* ("Marine mammals must not be housed near other animals that cause them unreasonable stress or discomfort or interfere with their good health.").
[268] EX. 111, GUIDE FOR THE CARE AND USE OF LABORATORY ANIMALS, *supra* note 232, at 64.

the wild, have been shown to exhibit better markers of welfare, including increased foraging, exploration, and behavioral diversity, when housed in pairs than when housed alone.[269] It is therefore appropriate for the USDA to allow animals of solitary species to be housed together if beneficial for the individual animals' welfare.

E. Individual tailoring and special considerations

It is essential that facilities tailor enrichment programs to the needs of individual animals.[270] The USDA should require enrichment to be appropriate for the needs of each individual animal based on their age, ability, health, personality, and other factors and provide specific benchmarks, guidance, or examples on how to do so.

Enrichment is species-specific, but is also highly individual-specific.[271] Different animals within a species have different personalities, backgrounds, preferences, and physical abilities, that make them respond to enrichment differently. To illustrate the role of personality difference, in a study comparing the enrichment preferences of two pandas, one panda, Shi Shi, showed minimal interest in ice blocks containing food, while the other, Bai Yun, enjoyed spending significant time biting and manipulating the ice to access the food.[272] Enrichment must also take into consideration the animal's age and physical ability. Although old and young individuals may not have the same physical abilities as full-grown, able-bodied individuals of their species, they must still be provided opportunities to express species-typical behaviors. For climbing species, a licensee could ensure an animal is able to express climbing behaviors by installing a ramp to help elderly and juvenile animals reach an elevated climbing structure that they are unable to leap onto. For species that swim, creating a shallow wading area would ensure that individual animals who are *unable* to swim are still able to express their innate need to bathe or play in water.

The enrichment standards for primates provides several categories of animals (including juveniles, those exhibiting psychological distress, and animals used in research whose activity is restricted) to whom facilities must give "special attention" when providing enrichment.[273] While this recognizes that the needs of individual animals must be taken into account in enrichment planning, it does not define "special attention," or provide any benchmarks to help licensees meet this standard. The USDA should define, or at a minimum give specific examples, of what targeting enrichment to an individual animal's needs entails.

F. Monitoring and modification

The purpose of enrichment is to improve animal welfare by reducing stress, providing cognitive stimulation and choice, and promoting species-typical behaviors. If an enrichment program is not achieving this purpose, it must be modified until it does. Licensees should be required to monitor

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[269] Ex. 135, Mariana Labão Catapani et al., *Single- or Pair-Housed: Which Is Better for Captive Southern Tamanduas?*, 22 J. APPLIED ANIMAL WELFARE SCI. 289, 289 (2019).
[270] Ex. 90, Makecha & Highfill, *supra* note 179, at 223.
[271] Ex. 136, Ronald R. Swaisgood & David J. Shepherdson, *Scientific Approaches to Enrichment and Stereotypies in Zoo Animals: What's Been Done and Where Should We Go Next?*, 24 ZOO BIOLOGY 499, 509 (2005) ("Many aspects of captive management, such as enrichment plans and stress mitigation, require understanding the needs of individual animals, which can be highly variable, so that individualized plans of action can be crafted. For example, one animal may display signs of stress in response to vehicular traffic noise whereas another may not.").
[272] Ex. 90, Makecha & Highfill, *supra* note 179, at 223.
[273] 9 C.F.R. § 3.81(c).

and document whether the enrichment needs of every individual animal are being met. This is recognized as an industry best practice. Thus, the AZA's accreditation requirements mandate that "[e]nrichment activities must be documented and evaluated, and program refinements should be made based on the results, if appropriate."[274] It is critical to monitor the efficacy of enrichment because, as set forth above, individual animals, including within a species, have different enrichment needs. The *Guide for the Care and Use of Laboratory Animals* also recommends regularly updating enrichment plans to ensure they reflect current knowledge about animal wellbeing.[275]

The rules should include the following monitoring requirements:

i. **Enrichment adequacy should be continuously monitored through observation and documentation of the animal's behavior over time.** Indicators of the success of an enrichment plan include **the degree to which an animal interacts with enrichment, how much behavioral diversity the animal exhibits, and the frequency and severity of symptoms of stress and trauma.**[276] Such symptoms can include stereotypic behavior, self-mutilation, post-traumatic stress disorder (PTSD), learned helplessness, withdrawal and depression, persistent diarrhea, infant mortality, hyper-vigilance, anorexia, and excessive aggression.[277]

ii. **If an enrichment program is not successful based on observation of the animal's behavior, licensees must add or modify enrichment opportunities and record these modifications in the written enrichment plan.**

G. Written enrichment plans

At a minimum, the USDA should set the following requirements governing written enrichment plans:

i. **Each facility must create written enrichment plans tailored to each animal, developed in consultation with and approved by the attending veterinarian.** The plans must be based on the most up-to-date scientific understandings of animal behavior, welfare, and enrichment, and the sources relied on must be documented in the plan.

ii. **Enrichment plans must be updated at least annually, and any time the facility obtains a new animal.**

iii. **Enrichment plans must be submitted to the USDA for approval**. **This should occur annually, but at the very least every time the facility applies for a license.**

iv. **Inspectors must review enrichment plans for all animals in the facility and observe all animals at each inspection to ensure the plans are updated and implemented appropriately.**

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[274] Ex. 86, ASS'N OF ZOOS & AQUARIUMS, ACCREDITATION STANDARDS & RELATED POLICIES, *supra* note 169, § 1.6.3.
[275] Ex. 111, GUIDE FOR THE CARE AND USE OF LABORATORY ANIMALS, *supra* note 232, at 53.
[276] *See* Ex. 137, Ronald R. Swaisgood et al., *How Do Giant Pandas (*Ailuropoda Melanoleuca*) Respond to Varying Properties of Enrichments? A Comparison of Behavioral Profiles Among Five Enrichment Items*, 119 J. COMP. PSYCH. 325, 325 (2005), http://www.doi.org/10.1037/0735-7036.119.3.325.
[277] Ex. 138, Comments of Laboratory Primate Advocacy Group, Inc. at 1, Petition to Develop Specific Ethologically Appropriate Standards for Nonhuman Primates in Research (Docket No. APHIS-2014-0098) (Aug. 31, 2015).

Enrichment plans must be submitted to the USDA:

Facilities should be required to submit enrichment plans for all animals to the USDA and these plans should be retained in the facility's file. This should occur annually, but at the very least every time a facility applies for a license, or renewal of a license, and when the facility gets a new animal. The USDA should review the enrichment plans *before* issuing a license to determine whether they are adequate. If an enrichment plan is inadequate, the USDA must not grant the license until the facility submits an enrichment plan that the USDA approves as compliant with USDA requirements.

This is consistent with the requirement in both the AWA and its implementing regulations that applicants must demonstrate compliance to be licensed. 7 U.S.C. § 2133 states that "*no such license shall be issued* until the dealer or exhibitor shall have *demonstrated that his facilities comply with the standards* promulgated by the Secretary."[278] While the regulations mandate inspections of facilities before licensure,[279] the current non-human primate enrichment standard that was promulgated in 1991 does not require inspectors to review enrichment plans, but only provides that "[t]his plan must be made available to APHIS *upon request*."[280] Therefore, the licensing inspection does not necessarily ensure that applicants are demonstrating compliance with enrichment standards. Submission to the USDA for approval would ensure such demonstration of compliance.

APHIS inspection reports show that a frequent reason inspectors record non-compliance with 9 C.F.R. § 3.81 (the primate enrichment standard) is that the licensee does not have a *written* enrichment plan in place.[281] This is despite the fact that these inspected facilities are existing licensees, and that enrichment has been required for non-human primates under AWA regulations for over thirty years. For example, one recent report from a routine inspection of a licensee states that "there is no written plan for environment enhancement available for review. A blank form for

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[278] 7 U.S.C. § 2133 (emphasis added).
[279] 9 C.F.R. § 2.3 ("Each applicant for a license must be inspected by APHIS and demonstrate compliance with the Act and the regulations and standards, as required in paragraph (a) of this section, before APHIS will issue a license.").
[280] *Id.* § 3.81 (emphasis added).
[281] For recent examples from 2022 and 2023, see Ex. 139, Inspection Report, Wildlife Wonderland Inc (Certificate 58-C-1198) (APHIS Jan. 25, 2023) ("A current appropriate plan for environment enhancement adequate to promote the psychological well-being of nonhuman primates was not available at time of inspection."); Ex. 140, Inspection Report, Lions Tigers & Bears Inc (Certificate 58-C-0661) (APHIS Dec. 13, 2022) ("At the time of inspection, there was no documented program of environmental enhancement for the non-human primates housed at the facility."); Ex. 141, Inspection Report, Suncoast Primate Sanctuary Foundation Inc (Certificate 58-C-0910) (APHIS Dec. 6, 2022) ("The facility had no written nonhuman primate enrichment program that is approved by an attending veterinarian."); Ex. 142, Inspection Report, Robert Sonner (Certificate 58-B-0659) (APHIS Nov. 14, 2022) ("A environment enhancement plan to promote the psychological well-being of nonhuman primates (NHPs) was not available for inspection."); Ex. 143, Inspection Report, Magnolia Stockyard (Certificate 65-B-0133) (APHIS Sept. 02, 2022) ("The facility, which is licensed to sell nonhuman primates, does not have a plan for environmental enrichment to promote the psychological well-being of these animals."); Ex. 144, Inspection Report, Kowiachobee Animal Preserve Inc (Certificate 58-C-0942) (APHIS July 28, 2022) ("At the time of inspection, there was no documented program of environmental enhancement for the non-human primates housed at the facility."); Ex. 145, Inspection Report, Barking Cow Farms LLC (Certificate 64-C-0250) (APHIS May 24, 2022) ("The facility does not have a written environmental enrichment plan for nonhuman primates, despite having an approximately 2-month-old male ring-tailed lemur."); Ex. 146, Inspection Report, Ellen Strom (Certificate 91-C-0151) (APHIS Apr. 22, 2022) ("The plan on environmental enhancement for the lemurs was not available for review."); Ex. 147, Inspection Report, York's Wild Kingdom (Certificate 11-C-0001) (APHIS Mar. 29, 2022) ("A current primate environmental enhancement plan including details on individual housing for aged or debilitated animals was not available for review at the time of inspection."); Ex. 148, Inspection Report, Amy Gorman (Certificate 48-C-0182) (APHIS Mar. 14, 2022) ("The facility does not have a copy of the environmental enhancement plan available during this inspection.").

the plan was found in the USDA records. The employee was unaware of the existence of a plan."[282] Another records that "[p]er the licensee, no environmental enhancement plan has been developed, documented or followed under the direction of their attending veterinarian."[283]

Requiring the submission of the plan to obtain a license or to renew a license would address this ongoing problem by ensuring that every licensed facility has a current and functioning enrichment plan.

Enrichment plan compliance should be reviewed by inspectors at each inspection:

The USDA should require inspectors to review enrichment plans for all animals in the facility during each inspection to ensure the plans are updated as needed. Inspectors should also be required to observe all animals at each inspection to ensure the facility is complying with the enrichment plan and that the animals are getting adequate enrichment. If inspectors fill out any forms in addition to an inspection report, such as the "Environmental Enhancement Plan Inspection Checklist" in the current Animal Care Inspection Guide or similar, the regulations should require these forms to be posted on Animal Care's public search tool website along with the inspection report.[284] Currently, the Animal Care Inspection Guide states that the Environmental Enhancement Plan Inspection Checklist "should not be retained in ACIS or any facility file. It can be left with the licensee or disposed of at the end of the inspection."[285] Preventing inspectors from filing the forms with ACIS prevents the agency from meaningfully documenting facilities' enrichment plans and implementation.

If enrichment plans must be submitted to the USDA for approval, they would also be subject to disclosure to the public under the Freedom of Information Act—which makes sense, as they would allow the public to see whether the USDA is adequately carrying out its obligations under the AWA.[286]

IV. Costs and Benefits

As emphasized throughout these comments, *animal welfare* should be the driving force for this rulemaking. If costs to licensees are considered at all, *the USDA must calculate the cost reductions and other benefits* that will also result from the standards. Licensees not already in compliance with the standards may incur expenses to build public barriers and habitat enrichments, for example. But these costs will be considerably offset by the far more incalculable benefits of protecting animal and human lives.

Barriers and other public contact restrictions will save lives and prevent serious injuries. They will reduce the costs of insurance, lawsuits, accidents, and animal escapes for licensees. Although the increase in animal welfare cannot be assigned a monetary value, the AWA demands that animal welfare be properly considered and valued.

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[282] Ex. 149, Inspection Report, 256 Exotics, LLC (Certificate 64-B-0103) (APHIS Aug. 2, 2022).
[283] Ex. 150, Inspection Report, Marek Lipold (Certificate 67-C-0003) (APHIS Mar. 24, 2022).
[284] *See* 7 U.S.C. § 2146a (requiring the agency to post "all reports or other materials documenting any violations and non-compliances observed by USDA officials").
[285] Ex. 41, U.S. DEP'T OF AGRIC., ANIMAL CARE INSPECTION GUIDE, *supra* note 53, at A-13.
[286] *See, e.g.*, *U.S. Dep't of Just. v. Reporters Comm. for Freedom of the Press*, 489 U.S. 749, 773 (1989) ("Official information that sheds light on an agency's performance of its statutory duties falls squarely within [FOIA's] statutory purpose.").

Banning public contact will not ultimately prove costly for exhibitors. Companies are beginning to realize that animal cruelty is bad for business,[287] and concern for animal welfare has spurred innovation.[288] Many businesses have pivoted away from harmful practices,[289] even when those practices are their primary source of income.[290] Accordingly, banning public contact will result in significant long-term benefits for animal welfare, while exhibitors can mitigate effects by changing their business practices. Any reduction in exhibitors' profits will be greatly outweighed by the long-term benefits for animal welfare and public safety.

Providing ethologically appropriate enrichment to all animals will also save costs for licensees because enrichment is a form of preventative and remedial care that improves animals' welfare and reduces their need for veterinary treatment. As explained above, ethologically appropriate physical, cognitive, and social enrichment makes animals *healthier* by preventing and reducing chronic stress, which can result in severe psychological and physical harm. Animals that are adequately enriched will have fewer health problems that require costly veterinary care.[291]

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[287] Russ Wiles, *Why Do Businesses Show a Growing Concern for Animals? Humane Society CEO Explains*, AZ CENTRAL (May 3, 2017), https://www.azcentral.com/story/money/business/2017/05/03/why-do-businesses-show-growing-concern-animals-humane-society-ceo-explains/100935148/.

[288] *Id.*

[289] *See, e.g.*, Mary Mazzoni, *3p Weekend: 8 Companies Moving Forward on Animal Welfare*, TRIPLE PUNDIT (Apr. 7, 2017), https://www.triplepundit.com/story/2017/3p-weekend-8-companies-moving-forward-animal-welfare/18261.

[290] *See, e.g.*, *Ringling Bros Circus Returns After Five Years – Without Animals*, THE GUARDIAN (May 18, 2022), https://www.theguardian.com/us-news/2022/may/18/ringling-circus-barnum-and-bailey-animals.

[291] Additionally, many forms of enrichment are inexpensive for facilities to provide. For example, cardboard boxes can be used as object enrichment, which are safe for most species and which facilities can acquire cheaply or for free. Zoos can often get tires, which can be durable enrichment items for large animals like elephants, for free or cheaply from local transit authorities. *See* Ex. 115, *Suggested Guidelines for Captive Elephant Enrichment*, *supra* note 256.

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