USDA United States Department of Agriculture

National Wildlife Services Advisory Committee (NWSAC)
Recommendations Report

Executive Summary

The committee is established under agency authority to support the Animal and Plant Health Inspection Service (APHIS) Wildlife Services' (WS) program, which operates under the Agriculture Act of March 2, 1931 (commonly known as the "Animal Damage Control Act" or "ADCA"), 7 U.S.C. §§8351-8354, amended by Pub. L. 115-270, October 23, 2018, 132 Stat 3765. The Committee is managed in accordance with the provisions of the Federal Advisory Committee Act (FACA), 5 U.S.C. App. 2, as amended. This Committee is in the public interest.

The purpose of the Committee is to advise the Secretary of Agriculture on policies and program issues necessary to manage damage caused by depredating wildlife to protect America's agricultural, industrial, and natural resources and to safeguard public health and safety.

The Committee put forth 19 recommendations for USDA's consideration pertaining to several key program and operational functions.

1 *Funding*

Recommendation: *We recommend to the Secretary of Agriculture that baseline funds to support integrated wildlife damage management be substantially increased by a request in the President's budget. Failure to do so would be a failure to fulfill the mission of the program. We recognize that USDA-APHIS-WS is a sought-after leader in the management of conflicts related to wildlife, and that their services are increasingly in-demand in a world where human-wildlife conflicts are increasingly common and diverse.*
We further recommend that the Secretary of Agriculture proactively collaborate with the Secretary of Defense on areas of shared responsibilities. We further recommend that to support the continued delivery of the mission of the program to the American people, any increase in implementation or maintenance of programs or policies required by the Department (i.e. information technology, vehicles and vehicle monitoring, etc.) be supported by new funds from the Department that are not part of existing WS funds. Failure to do so would force a reduction in mission delivery or increased costs to cooperators by an unfunded mandate, which is unacceptable to the spirit of the program's mission.

We further recommend that any and all programs be evaluated for necessary increases to funding in the President's budget based on increased costs of goods and services, as well as inflation, since the time of the last increase to base funding. We recognize the cooperative nature of the program but recommends that the Secretary of Agriculture carefully consider and evaluate the balance of cost-sharing, where some cooperators bear a disproportionately high cost for delivering the mission. We recommend the Secretary of Agriculture seek additional funds in the President's budget to address these funding needs. Special attention should be focused on, but not limited to:

1. *Livestock Protection*
2. *Airport Hazards Program*
3. *Property Protection*
4. *Human Health and Safety*

NWSAC recognizes that the success of the mission relies on recruiting and retaining the right staff and developing those staff. NWSAC further recommends that the Secretary pursue opportunities to improve recruitment and retention of a superior workforce by increasing rates of pay across the program through new funds requested in

the President's budget. NWSAC also recommends careful attention be paid to site-specific position complexities, scope, and level of contacts as related to position descriptions.

NWSAC further recommends that the Department review and revise human resources policies that are limiting workforce development and succession planning, such as leadership training and lack of career ladder opportunities.

Background:

In FY 2023, WS received about $166.5 million in appropriated funds (58% of its total budget) to manage wildlife damage operations in every state and territory, conduct research, and to support special programs, such as managing feral swine damage and rabies in raccoons and other wildlife. Funding from program cooperators — including federal and state agencies, counties, livestock producers, and other agricultural producer groups, other organizations, businesses, and individuals — allowed WS to maximize its scope and effectiveness. During FY 2023, WS received $119.9 million in cooperator-provided funding (42% of its total budget) for operational wildlife damage management (see Program Data Report (PDR) A for funding sources and expenditures nationally and by state). In FY 2023, WS spent its budget as follows:

- 27.65% to protect agriculture, including livestock, row crops, aquaculture, and timber.
- 46.62% to reduce or prevent wildlife hazards to human health and safety, such as wildlife collisions with aircraft and disease transmission.
- 15.23% to protect property.
- 10.50% to protect natural resources, including threatened and endangered species.

WS entered into a Memorandum of Agreement (MOA) with the United States Airforce Civil Engineering Center (AFCEC) in August of 2020. The MOA established a framework for AFCEC to work collaboratively with WS to support the management of natural resources on Department of Defense (DoD), Air Force (AF) controlled lands, to strengthen the cooperative approach to wildlife damage management on AF-controlled lands through exchange of information and mutual program support, and to identify responsibilities in compliance with the National Environmental Policy Act (NEPA) implementing guidelines of the respective agencies.

In partnership with Island Conservation, Wildlife Services conducted operations in May and June 2024 in efforts to eradicate the Pacific rat and White-toothed woodrat from Wake Atoll Island in the Pacific Ocean. These rats damage critical US Air Force Airfield and Missile Defense Agency infrastructure and are a potential human safety threat to the sixty to three hundred island residents. As invasive species, rats also impact the island's natural ecosystem through the consumption of native seeds and foliage and predation on seabird eggs, nestlings, and adults.

WS works closely with the DoD and Department of Interior (DOI) to prevent the spread of invasive Brown Tree Snake (BTS). WS inspects all outbound cargo, baggage, mail, aircraft, vessels, and vehicles on Guam to prevent the spread of this pest. Since 1993, WS has eliminated tens of thousands of BTS from the island using specially designed traps, hand capture, and oral toxicants. Since 2011, BTS-related work has been largely supported through reimbursable, cooperative agreements funded by DOI's Office of Insular Affairs, DOI's U.S. Fish and Wildlife Service, and DoD.

WS recognizes the importance of recruiting, retaining, and developing the right staff. WS position pay is consistent with grade levels; and grades are determined by scope, complexity and responsibilities through U.S. Office of Personnel Management (OPM) regulations. Additionally, the majority of WS technician and wildlife biologist Position Descriptions (PDs) are career ladders (either 2 grade levels or 3).

WS addresses site-specific position complexities, scope, and level of contacts as related to PDs. The WS PD Committee was established in 2019 to address the need for consistency and site-specific flexibility. The PD

Committee is appointed by the WS Deputy Administrator (DA) to serve as an internal cross-functional team with a focus on identifying means for enhancing the management of human capital and creating a more robust and consistent WS grade structure. The purpose of the PD Committee is to support the WS Deputy Administrator and entire WS Management Team (MT) in identifying methods for improving consistency in the WS grade structure, primarily through assessing, developing, and implementing the use of grade-differentiating criteria and more standardized PDs. See response to NWSAC Recommendation #15 for additional details on the WS PD Committee.

2 *Registration of Wildlife Toxicants*

Recommendation: *We recommend to the Secretary of Agriculture that APHIS Wildlife Services (WS) continue the process of development and registration of wildlife toxicants and expedite the process where possible.*

Background:

In the last several years, WS registered a bird toxicant label and two rodenticide labels for island conservation with the U.S. Environmental Protection Agency (EPA). In addition, WS registered multiple supplemental island labels for rodenticides (4 different active ingredients) and special local need state labels for rodenticides and a pest bird toxicant (2 active ingredients). WS has also developed and/or tested several new toxicant products for public health and agricultural pests, including a mongoose toxicant, rodenticides for prairie dogs, woodrats, rats, and house mice, and a coyote toxicant (7 active ingredients). These development efforts include conducting research on novel toxicants to be used as alternatives to sodium cyanide. WS is also continuing to refine and assess improved sodium nitrite toxicant formulations for feral swine, with the goal of maintaining the high lethality for feral swine with careful consideration to minimize risks to other species. Additionally, WS has maintained existing toxicant registrations with EPA including a toxicant for brown tree snakes, pest burrow fumigant products, rodenticides, avicides, and predacides (10 active ingredients).

3 *Communication*

Recommendation: *We recommend to the Secretary of Agriculture that APHIS Wildlife Services (WS) communicate program activities proactively to constituents and stakeholders especially including non-traditional audiences in communities where WS is providing services. We encourage the use of econometrics in National Environmental Policy Act (NEPA) documents, research, and informational materials, including the positive economic impact of livestock and resources conserved through integrated wildlife damage management; and to communicate the relevancy and value of WS activities to the public's quality of life in keeping with the WS' focus on building public trust.*

Background:

APHIS staff utilizes non-government publications and leverages social media platforms to relay announcements and communicate information to stakeholders and the public. To enhance information sharing with non-traditional audiences, APHIS has also facilitated the distribution of high-interest program activity stories via video documentaries, such as a video series on the APHIS YouTube channel to illustrate damage to agricultural and natural resources. The program has initiated the use of contemporary technology-based deliverables through ArcGIS and social media to share its research and operational activities and better engage with its traditional stakeholders as well as more diverse audiences.

The WS National Wildlife Research Center (NWRC) conducts research on human-wildlife conflicts involving damaging wildlife populations, invasive species and wildlife-transmitted diseases. Its researchers develop new tools and techniques for use in wildlife damage management as well as methodologies for assessing the benefits and costs of these tools and techniques in WS operational activities. As appropriate,

findings are incorporated into NEPA documents, research publications, and information materials to inform stakeholders and the public about the relevancy and value of WS activities to the general public.

WS has also developed informational tool kits that provide graphics and statistics regarding economic losses related to feral swine damage and encourages WS staff to share this information with cooperators. WS' strategic partnership with The Wildlife Society (TWS) has enhanced communications to professional wildlife biologists and students of wildlife management.

4 *National Rabies Program*

Recommendation: *Considering the National Rabies Program has not received a base funding increase since FY2017, We strongly recommend to the Secretary of Agriculture to seek new funding in the President's budget for the management of rabies in the United States in the interest of human and animal health and safety, including but not limited to raccoon rabies in the east, canine rabies on the Texas-Mexico border, and vampire bat rabies risk in southern border states. Additionally, the NWSAC recommends funding include an increase in bait acquisition, storage, and dispersal of baits to achieve target goals as identified in the National Rabies Plan. In addition, the NWSAC recommends continuation and expansion of research, development, and use of more efficient and effective vaccines with the goal of control of terrestrial rabies and elimination of raccoon rabies by 2063.*

Background:

In FY23, USDA collaborated with the Texas Department of State Health Services (TDSHS) to distribute more than 900,000 baits in Texas along the Mexico border to prevent reemergence of canine rabies in coyotes, previously eliminated by USDA and TDSHS using Oral Rabies Vaccination (ORV) baiting. USDA also continues systematic surveys of livestock at sales barns, feed lots, dairy farms, and ranches in Arizona, New Mexico, Texas, and Florida for early detection of vampire bat bites as the bats expand their range northward from Mexico. USDA also concurs that continuation and expansion of research into new vaccines (among other research priorities) must continue.

In FY24, the WS National Rabies Management Program (NRMP) received APHIS emergency funding to address three major needs: 1) managing five contingency actions during FY24; 2) replenishing WS' strategic vaccine bait storage; and 3) enhancing ORV management of six high-risk areas within the current ORV zone. More than $18.8 million of this funding was reprogrammed from 13 prior animal and plant health emergencies (e.g., Virulent Newcastle Disease, Spotted Lanternfly, etc.), which was an accumulation of unspent Commodity Credit Corporation (CCC) funding from prior requests. Currently, the NRMP has these funds available to spend through at least FY26. This is the first emergency funds the NRMP has received since 2009 and with it, WS will be able to address the issues mentioned and anticipate significant progress toward program goals of stopping the spread of and eliminating raccoon rabies virus variant in the US. The NRMP initiated a $2.5M vaccine bait purchase to strengthen bait storage numbers by the end of FY24. In FY25, NRMP will start addressing the ongoing contingency actions and high-risk areas mentioned above.

5 *Tribal Nations*

Recommendation: *We recommend the Secretary of Agriculture acknowledge and fund its trust responsibilities to tribal nations in implementation of Wildlife Services' programs and services by requesting additional funds to do so in the President's budget, as well as engage in proactive cooperation with other, relevant federal departments and entities.*

Background:

USDA is exploring opportunities to expand and advance Tribal self-determination policies pursuant to Executive Order 14112, Reforming Federal Funding and Support for Tribal Nations to Better Embrace Our Trust Responsibilities and Promote the Next Era of Tribal Self-Determination. WS will continue to offer Tribal Nations wildlife damage management technical assistance and investigate wildlife morbidity and mortality events at no cost. APHIS personnel will continue to promote, and assist Tribal programs applying to, APHIS Tribal Nation funding opportunities for projects that will safeguard Tribal agriculture and natural resources against plant and animal diseases and invasive pests, including protecting cervids from Chronic Wasting Disease (CWD).

6 *Department of Interior Interagency Agreement*

Recommendation: *We recommend the Secretary of Agriculture engage the Secretary of Interior to seek an increase in Department of the Interior (DOI) funding for APHIS Wildlife Services (WS) above the existing agreement level through an existing interagency agreement framework for conflict resolution involving large predator management in furtherance of restoration of species listed under the Endangered Species Act. The NWSAC specifically recommends additional resources be allocated for conflict resolution involving large predators, including, but not limited, to grizzly bears and wolves.*

Recognizing the success of the current program and the increased demand for services, NWSAC recommends financial support for program enhancement, technology and training for safety and efficiency, and a continued commitment to program support for the 5-year post delisting period.

Background:

Beginning in 2020, WS has received funding annually from DOI, U.S. Fish & Wildlife Service (USFWS) via multiple agreements in Montana for grizzly bear conflict and in Oregon for wolf conflict.

The current interagency agreement in Montana for $250,000 supports a program that has grown to 22 full-time staff, including three Blackfeet Tribal members. Staff conducted more than 197 livestock protection projects (including electric fencing installations, range riding, depredation investigations, and grizzly bear operational work) to help ranchers protect livestock while grizzly populations are expanding.

The funding WS-Oregon receives from USFWS Regions 1 and 8 supports positions that focus on minimizing wolf impacts to livestock production in Oregon. These are multi-year funds so total expenditures for FY24 are not yet final. USFWS has the option to amend the inter-agency agreement and the agency has indicated to WS-Oregon leadership that it intends to continue funding, as necessary.

7 *Aquaculture*

Recommendation: *We recommend to the Secretary of Agriculture the continued resources and efforts to assist farmers with the lethal and non-lethal management of migratory and non-migratory birds that prey on aquaculture.*

Specifically:

- *To continue ongoing efforts in the control of Double Crested Cormorants*
- *To add additional focus to the American White Pelican and the Great Blue Heron in the non-lethal and lethal management program*

- *To support regional resource management and additional funding for the management of these species by leveraging resources and working in a cooperative environment with all state and federal agencies, tribal governments, and tribal organizations.*
- *To enhance, maintain, and assist in the innovation of non-lethal control methods (Roost dispersal, drone utilization, lighting technology)*
- *To work in conjunction with USFWS to determine and further implement the most efficient methods of population control to help reduce further bird depredation, disease introduction/spread, and ecosystem disruptions and habitat degradation that the Double Crested Cormorants and American White Pelican are directly attributing to in the aquaculture and natural resources environment.*

Background:

The majority of WS' aquaculture protection work is in Mississippi, Arkansas, Florida, and Alabama. In FY 2023/24, WS recommended permits for individual producers with the top five states including Mississippi, Arkansas, Ohio, Florida, and Alabama. WS dispersed 277,335 Double-crested Cormorants (DCCO) and removed 2,521 birds via lethal control under the depredation and special permits. In Alabama and Mississippi, WS conducted harassment efforts to relocate DCCO roosts (131 roosts) away from aquaculture facilities and conducted aerial surveys in the region to monitor the effectiveness of these abatement programs. These surveys provided data critical to USFWS population and allowable take modeling.

WS conducts field and captive research to protect aquaculture from fish-eating birds, primarily at its NWRC field station in Starkville, Mississippi. WS has multiple ongoing research projects focusing on issues such as disease transmission, depredation impacts, and deterrent methods.

WS is researching depredation impacts of fish-eating birds including DCCO, American white pelican (AWPE), great-blue herons and egrets on catfish, redfish, hybrid-striped bass and shrimp aquaculture in Texas. Bird collections and diet studies began in spring 2024 and will continue through next year.

WS is conducting research on depredation impacts of DCCO on catfish farms in the 'hill country' of east Mississippi and west Alabama. Bird collections and diet studies began in Fall 2023 and will continue through April 2025.

WS is a member of the Association of Fish Wildlife Agencies' Bird Fish Conflict Working Group that brings together bird and fish experts from Federal and State agencies with management authority over birds and fish. WS participates on the USFWS "Cormorant Core Team," which operates within the USFWS Species Conflict Framework to address and respond to conflicts associated with various species. WS is a member of the Mississippi and Atlantic Flyway Non-Game Technical Committee's and Double-crested Cormorant Working groups.

WS assisted USFWS with coordinated DCCO population surveys in Spring 2024, as some survey sites overlap with WS work sites. USFWS surveyed nesting colonies to calculate a population estimate to set their take limits.

8 *Avian Predators*

Recommendation: *We recommend and encourage the Secretary of Agriculture to continue working with the Secretary of the Interior to mitigate livestock depredation and property damage by avian predators.*

Background:

The Secretary recognizes that black vulture (BLVU) populations have increased in both abundance and range in the past 30 years and livestock producers continue to see increased losses due to predation from BLVU. WS continues to provide both technical and direct control assistance to cooperators and stakeholders experiencing damage caused by BLVU. In FY23, WS removed 13,665 and dispersed 57,087 BLVU to protect agriculture, natural resources, property and human health and safety.

Top 5 resources threatened by black vultures addressed through personal consultations*

Resource	2021	2022	2023	Grand Total
CATTLE CALVES (BEEF)	222	187	157	566
HLTH/SFTY, HUMAN (AVIATION)	175	124	172	471
CATTLE ADULT (BEEF)	138	123	105	366
SHEEP (LAMBS)	90	82	113	285
SHEEP (ADULT)	85	80	105	270

(**Values are individual work tasks managed within WS system of recordkeeping [MIS2000]*).

Top 5 resources threatened by black vultures addressed through hotline consultations*

Resource	2021	2022	2023	Grand Total
BUILDINGS, RESIDENTIAL	180	127	141	448
NO RESRC	127	134	140	401
PROPERTY (GENERAL)	96	97	87	280
HLTH/SFTY, HUMAN Z-(GENERAL)	24	44	29	97
BUILDINGS, NON-RESIDENTIAL	12	18	7	37

(**Values are individual work tasks managed within WS system of recordkeeping [MIS2000]*).

In response to producer complaints about the permitting process, USFWS and WS designed a pilot program that expedited the permitting process (to take BLVU) for livestock producers in participating states. USFWS issues the permits to public entities, mostly state farm bureaus, that can then issue a sub-permit to individual livestock producers as needed. Depending on the state, the permits may be used beyond the calving period and individual producers retain the option to obtain individual depredation permits. Based on its success, USFWS has expanded the program to 13 states including TN, KY, AR, TX, MS, OK, MO, OH, IN, IL, MD, FL and VA.

USDA collaborated with members of the Association of Fish and Wildlife Agencies to develop a symposium "Perspectives on coexisting with an expanding species, the black vulture" for The Wildlife Society meeting (Baltimore, Maryland, Oct 19 – 23, 2024). This symposium highlights different perspectives surrounding the conflicts and potential impacts associated with BLVU population and range expansion. Presentations explore mitigation techniques, perceived causes of conflict (including those with livestock), current data needs, vulture biology, and more. Invited participants represent a diversity of perspectives from across the human-vulture conflict. The symposium hosts experts from academia, state and federal agencies (including USFWS), private industry/livestock producers, and public policy. Topics include biology, ecology, wildlife management, social science, human dimensions, legislation, and economics.

WS was a participant in the USFWS' Core Raven Team and assisted in the development of the technical review *Management of Conflicts Associated with Common Ravens in the United States* which describes nonlethal and lethal management options, monitoring recommendations, legal considerations and future research needs. WS staff participate in the Raven Working Group which continues the discussions on managing raven-human and raven-wildlife conflicts.

WS provides agriculture protection work upon request by livestock producers when raven damage occurs. This is usually during the lambing or calving season in the spring. WS uses DRC-1339 treatments on home ranches/private lands as well as on public lands. WS also conduct this work on dairies in conjunction with European starling control operations.

Summary of common raven work (dispersed/removed) across all WS programs from FY21-FY23. Information found on PDRs (Program Data Reports | Animal and Plant Health Inspection Service (usda.gov).

	2021	2022	2023
Ravens Dispersed	107,030	103,747	99,002
Ravens Lethally Removed	10,166	10,771	16,192

WS recognizes the impacts that bald and golden eagles have on livestock operations and have increased communication and collaboration with the USFWS regarding these issues. WS coordinates with the USFWS to identify locations affected by bald and golden eagle depredation to livestock. Upon WS recommendation (WS Form 37), the USFWS authorizes falconry groups the ability to capture depredating golden eagles for falconry-use purposes and in turn, reduce the site-specific threat the eagles pose to the livestock producer. The NWRC is trying to secure funds to hire an avian predator biologist to assist with management solutions to avian predator depredation situations. This position will involve specifically researching raven, vultures, eagles, and caracara livestock depredations and seek new and innovative solutions to curb this issue.

9 *One Health Initiative*

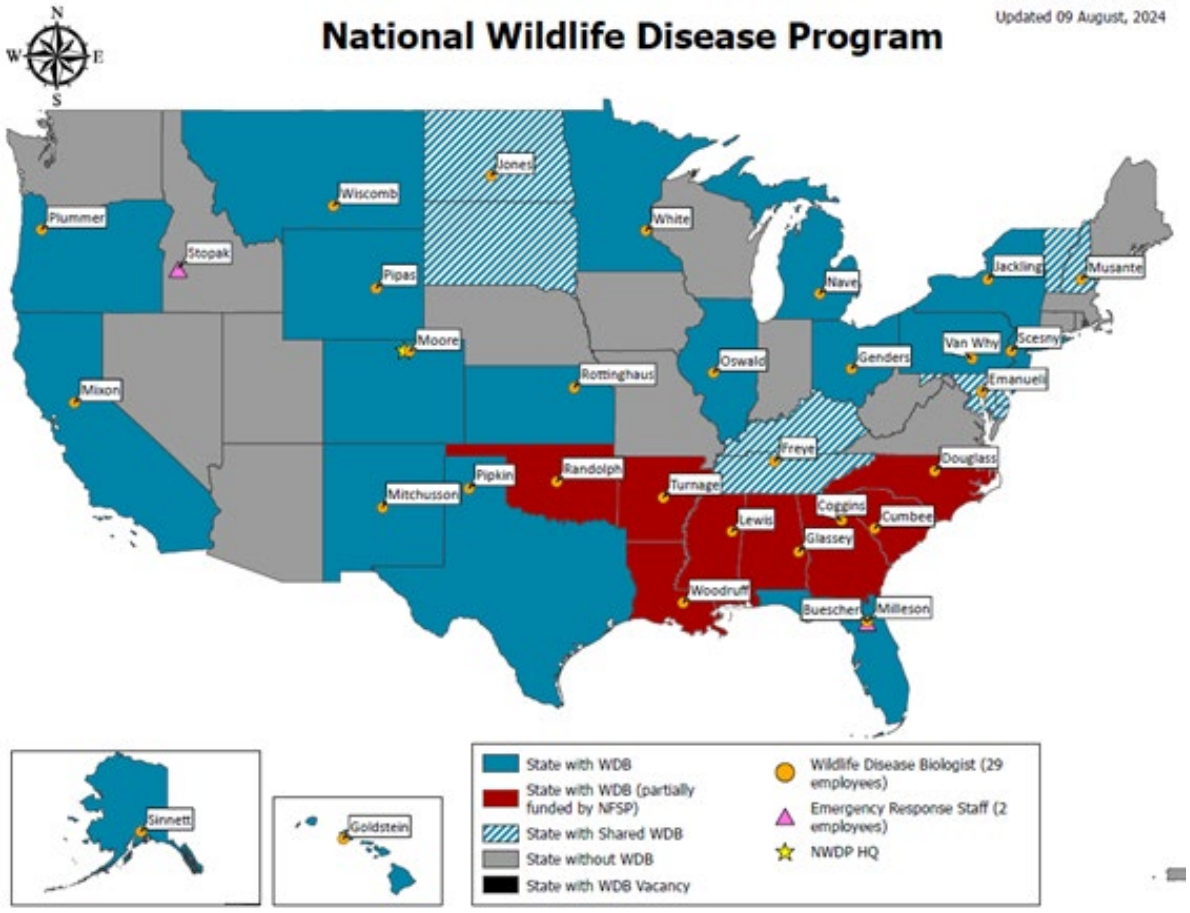
Recommendation: *We recommend that the Secretary of Agriculture encourage APHIS Wildlife Services (WS) to continue to recognize that the health of animals, people, and the environment are inextricably linked and enhance One Health initiatives within strategic planning and implementation of Wildlife Services' programs. We appreciate and commend the current program efforts and partnerships between the U.S Fish and Wildlife Service, the Environmental Protection Agency, tribal governments and organizations, states, universities, non-governmental organizations, and others. The NWSAC recommends using this collaborative approach to advance program priorities, such as helping to prevent the rise in zoonotic disease outbreaks in animals and people and addressing other program challenges.*

We recommend the Secretary of Agriculture direct sufficient additional funds from avian health, emergency response, and other budget line items and sources outside of Wildlife Services, to USDA-APHIS-WS to enable full staffing, equipping, and training of their national disease program. We specifically recommend increasing the number of disease biologists to at least 45 nationwide and providing adequate resources to support both the biologists and incident management teams.

Background:

The APHIS-WS Wildlife Disease Biologists function as first responders through National Wildlife Disease Programs (NWDP) Surveillance and Emergency Response System (SERS). The NWDP investigates emerging diseases, wildlife mortality events, and coordinates response and information sharing at the state level between departments of wildlife, agriculture, public health, and other Federal agencies.

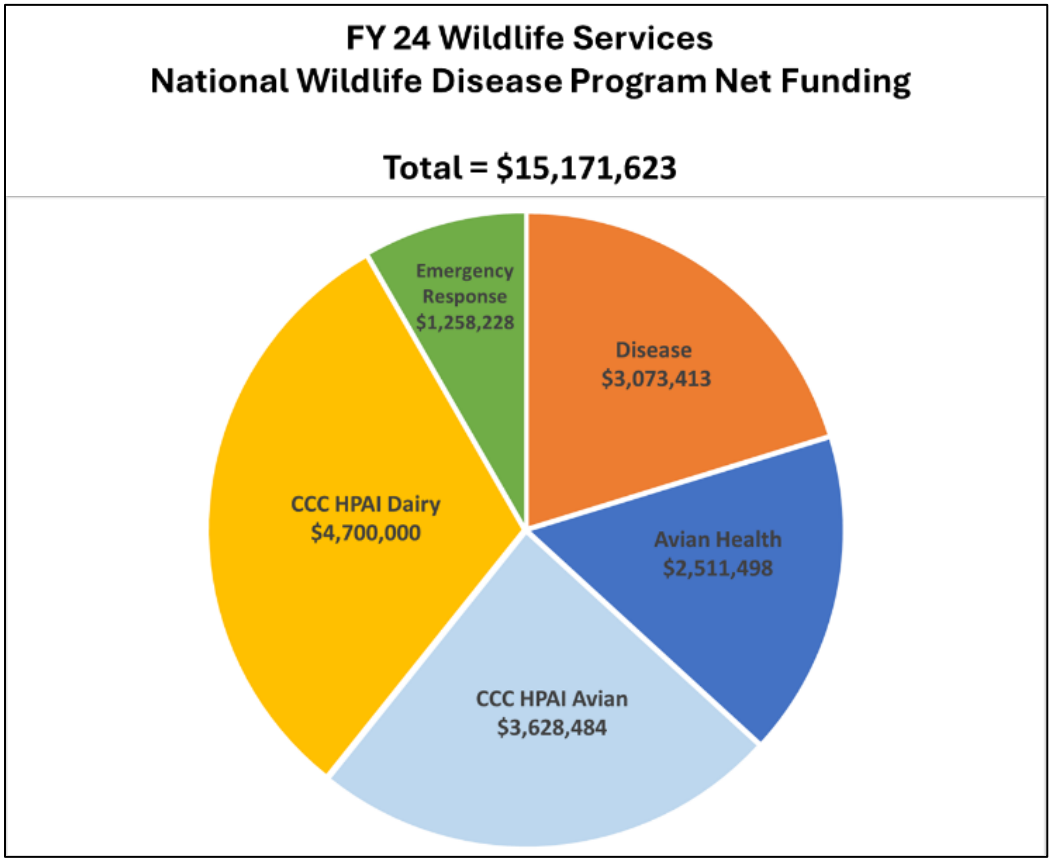
As of July 2024, the NWDP has 29 Wildlife Disease Biologists in the with responsibility of assisting all US States and territories. Eight of these positions are funded 50% from the NWDP with 50% of support from other programs to maximize geographic coverage with existing budget resources.



WS NWDP has received temporary annual budget increases in recent years, including funding from Avian Health, Emergency Response, and the emergency CCC funding for response to Highly Pathogenic Avian Influenza (HPAI-poultry CCC and HPAI-dairy CCC funding). Allocation from APHIS Avian Health and Emergency Preparedness & Response are determined annually based on agency priorities, as such, funding for these NWDP activities fluctuates and should be considered temporary in scope.

In June 2024, the NWDP was allocated an additional $4.7M in CCC-HPAI Dairy response funding. With this temporary allocation, WS NWDP is in process of hiring 25 additional term employees. These positions are currently expected to expire at the end of FY25.

WS is represented on the Association of Fish and Wildlife Agencies (AFWA) One Health Committee. The One Health Committee collaborates with relevant AFWA committees and others outside the fish and wildlife sector to discuss, communicate, and take action to elevate the importance and relevancy of fish and wildlife conservation within the One Health Framework in North America. In 2022, the AFWA President convened a One Health Task Force. The task force worked in four teams and proposed 24 strategies centered around the themes of 1) legislative affairs, policy, and governance; 2) coordination, collaboration, and engagement; 3) training; and 4) science and indigenous knowledge.



10 *Aviation Center*

Recommendation: *We recommend the Secretary of Agriculture advocate for the creation and sustainment of a Wildlife Services Aviation Center of Excellence in Cedar City, Utah. Support should be commensurate with the growth and expansion of the Wildlife Services Aviation Program, the modernization and standardization of the Wildlife Services aircraft fleet, and the development and implementation of new and innovative training techniques and pilot recruitment and retention.*

NWSAC further recommends the Secretary of Agriculture work to acquire additional aircraft from military or other agencies and seek substantial increases in funding to support the Wildlife Services program's aviation operations in the President's budget.

Background:

As new mission requirements develop, WS' Aviation Training and Operations Center (ATOC) works collaboratively with state and/or national programs to ensure our aircrews are properly trained to safely perform the new mission tasks. Pilot recruitment continues to be a challenge, as a result the ATOC networks aggressively through flight school job fairs, the National Agriculture Aviation Association, and the Airborne Public Safety Association.

USDA continues to work with the Department of Defense to obtain helicopters being divested from the Services that still have enough service life remaining that they can be used for USDA. Although these helicopters are obtained from DoD at little to no cost, USDA must modify the aircraft to meet our specific

mission needs. Currently, USDA is working with the U.S. Navy to obtain 18 Bell 206 Jet Ranger helicopters with an expected delivery of all aircraft by the end of FY25. Since 2019, Wildlife Services has obtained six MD-530F (no cost) and 15 Bell 206 Jet Rangers ($180K per aircraft) from the Army, and nine Bell 206 Jet Rangers (no cost) from the Navy with a projected nine more Jet Rangers from the Navy in 2025. At the end of FY25, USDA is projected to receive a total of 39 helicopters from DoD.

11 *Spring Loaded Ejector Devices*

Recommendation: We *recommend that the Secretary of Agriculture continue to support the use of the spring-loaded ejector devices (SLED).*

Background:

In addition to being used for controlling depredating wildlife, the SLED has the potential to deliver different types of vaccines to control wildlife disease and to reduce and stabilize animal populations. The NWRC is currently conducting research on novel toxicants to be used in the SLED as alternatives to sodium cyanide. The research is focused on the development of tools to control depredating wildlife humanely while having low risks to non-target animals and the environment. This research will help ensure the continued viability of ranching operations in the United States.

12 *Research*

Recommendation: We *recommend that the Secretary of Agriculture encourage the development of studies and reviews that integrate economic and ecological effects of wildlife damage management for the protection of American agriculture and natural resources, including objective science-based reviews that consider the value of wildlife management for the promotion of healthy ecosystems.*

NWSAC also encourages WS research on emerging wildlife conflict issues and techniques to minimize conflicts including the use of animals in livestock protection, wildlife deterrence, detection and monitoring.

Background:

The spread of invasive wild pigs across the U.S. has been successfully slowed due to the establishment of a national management program. We studied the effectiveness of the national program by modeling the spread of wild pigs in the absence of intervention. Further, we used the models to assess the value of resources safeguarded from the threat of wild pigs. Our findings indicate that, on average, invasive wild pigs were prevented from spreading to 724 counties and $40.2B in resource value was safeguarded over the first eight years of the program. Continuation of the program will deliver additional benefits, and further research is critical to understand its comprehensive economic effects.

A three-year research plan (FY21-FY23) was initiated between the Army Corps of Engineers and WS' NWRC-Economics to develop a user-friendly ecological-economic framework for rapid assessment of feral swine damage on wetlands. Research was focused on capturing a representative sample of damage to allow for the extrapolation of findings to the larger wetland area of interest, initiating the economic valuation approach, and implementing a before and after control impact study design to estimate relative changes in feral swine populations and damage after a targeted control effort. For FY23, Louisiana was chosen for a similar study with vegetation consisting of mixed bottomland hardwoods. The sampling methodology was adapted to the vegetation, and a more advanced method for the economic costs of wetland damage was pursued. In FY24, the study location was moved to Florida and the damage extrapolation and valuations methods were further enhanced.

Congress provided $4.5M in FY23 and again in FY24 for Non-lethal Initiative (NLI) funding that is currently implemented across 12 Western Region and Great Lakes states as well as WS' NWRC. First funded in FY2020 at a lower amount, the NLI was established to increase WS' capacity to provide nonlethal livestock protection and beaver damage management services to cooperators requiring assistance.

13 *Chronic Wasting Disease*

Recommendation: *We recommend to the Secretary of Agriculture that APHIS Wildlife Services (WS):*

- *Work collaboratively with the U.S. Fish and Wildlife Service and the U.S. Geological Survey to assist state and tribal agencies tasked with managing Chronic Wasting Disease (CWD).*
- *Designate the National Wildlife Research Center (NWRC) as the primary research facility for applied research on CWD in wild cervids.*
- *Seek new funding for research including: methods to increase the timeliness of test results for both live and dead specimens, vaccine development, and other research priorities related to CWD.*
- *Work towards planning 5th International CWD Symposium in partnership with other involved agencies*

Background:

Since 2002, WS' NWRC scientists have been active in CWD research which has helped inform many management and regulatory actions at state and federal levels. In FY21, NWRC received $1.5M for CWD research to purchase equipment and consumables for research purposes, and in FY22 efforts expanded to include the creation of a new NWRC CWD Research Project fully dedicated to CWD research focusing on the development and detection of new management and detection tools.

In FY24, NWRC increased the capacity of its new CWD Research Project by initiating several multi-year studies to address knowledge gaps, improve CWD detection, and inform wild cervid management. Studies are focused on improving our understanding of the ecological and population-level impacts of CWD, as well as on elucidating disease mechanisms and transmission pathways. The NWRC CWD Research Project works closely with state wildlife agencies to design applied studies that support agency priorities and to coordinate research efforts across jurisdictional boundaries. APHIS also distributes over $12M annually in federal grants to state and tribal entities, and academic institutions, to further research and management of CWD in captive and wild cervids.

USDA also agrees that planning another CWD Symposium would be beneficial. The 4th International CWD Symposium hosted by WS was a success, drawing approximately 440 attendees from across the world, including state, federal, and tribal governments, and academic and industry disciplines. The symposium also provided a platform to discuss current CWD research and management needs.

14 *Feral Swine Damage Management*

Recommendation: *We strongly recommend to the Secretary of Agriculture to seek new funding in the President's budget to expand the feral swine damage management program to address the increasing need for management of this species. We also urge the Secretary of Agriculture to explore new technologies for feral swine damage management and eradication, including methods of inhibiting reproduction in feral swine*

APHIS Wildlife Services (WS) is encouraged to continue work with state feral swine task forces, tribal agencies, and the National Wild Pig Task Force to deliver state specific and national objectives for feral swine monitoring, surveillance, research, damage control and eradication.

NWSAC commends WS for the exemplary work done in the Feral Swine Eradication and Control Pilot Program under the 2018 Agriculture Improvement Act, and strongly encourages continued work to improve and expand the work of that program as available.

NWSAC recommends that WS works towards the development of objective metrics to increase funding above base for states identified as "Level 5" feral swine management states. We further recommend that WS institutes a 5-year review period for states identified as "Level 1," to ensure that adequate work toward eradication is conducted.

NWSAC further recommends the establishment of new funding in the President's budget for expanded monitoring for feral swine along international borders to allow for early detection and management of new feral swine invasions.

Also, the NWSAC recommends the Secretary of Agriculture to continue work with Food Safety Inspection Service (FSIS) to convey the risks associated with feral pork consumption for hunters and those that consume feral pork, as feral hogs have been shown to be the hosts for numerous zoonotic disease and parasites.

Background:

Challenges around reproductive inhibitors with feral swine and their management are complex. Presently, reproductive control is limited to methods that require the handling of targeted animals themselves. The National Feral Swine Program (NFSP) is supporting research around RNA interference (RNAi) to identify methodologies of reproductive control that could be delivered orally and would be species-specific.

The NFSP continues to maintain close relationships with state feral swine task forces. Towards accomplishing its mission, the NFSP works in cooperation with states, tribes, other federal agencies, universities, and a variety of other stakeholders.

As the 2018 Farm Bill and its one-year extension will expire on September 30, 2024, USDA, APHIS and NRCS are working jointly on a final report of the Farm Bill's Feral Swine Eradication and Control Pilot Program which will identify best practices and lessons learned to be recognized in going forward with any future Farm Bill feral swine programs.

Following the recommendation of the Policy and Program Development/Program Assessment and Accountability Review, the current baseline resource funding model will be revisited to ensure it addresses evolving operational conditions and promotes continued program engagement and success. The NFSP is working with WS' Feral Swine Steering Committee to gather states' recommendations and to discuss necessary steps in moving forward with this pursuit.

Recent One Health meetings involving APHIS Veterinary Services (VS) and WS with the Food Safety and Inspection Service (FSIS) provided an additional opportunity to express APHIS' concerns regarding occupational and food safety risks associated with processing of feral swine. The NFSP will continue to develop outreach materials that highlight risks associated with the handling and consumption of feral swine.

15 *Workforce Planning*

Recommendation: *We recommend to the Secretary of Agriculture that APHIS Wildlife Service (WS) identify opportunities to strengthen the Wildlife Services workforce. This should include programs and additional funding in the President's budget to attract a diverse group of new, early-career individuals, including seasonal and volunteer opportunities, and retain and advance existing personnel by encouraging and providing access to*

career development and training, and recognizing and rewarding individual and team performance and achievements.

Furthermore, the NWSAC recommends that the Secretary of Agriculture directs APHIS Wildlife Services (WS) to continue to systematically review and evaluate current position descriptions to allow for deviations and revisions that reflect job scope, complexity, and level of personal contacts.

Background:

To help with recruitment into the WS workforce, WS revised its Standard Operating Procedures for Job Shadowing. Job shadowing can be an effective recruitment tool that provides students and prospective employees opportunities to observe program activities and consider a career with WS. The purpose of this Standard Operating Procedure was to ensure WS program managers consider potential risks and implement mitigation procedures while hosting prospective employees during job shadowing activities.

In FY24/FY25, WS plans to complete a pilot WS mentoring program for students that facilitates the development of a framework to maximize employee engagement and student interests in WS careers.

After various engagement sessions, meetings, and input from Biological Science Technicians (BST) across the WS program, the WS Management Team discussed and agreed on the need to further engage and support BSTs in addition the annual BST national meeting. WS is identifying opportunities for BSTs for peer-to-peer training and cross training as well as job shadowing with team leaders and supervisors. WS plans to begin facilitating participation by BTSs in early FY25.

On a recurring basis, WS recognizes and rewards individual and team performance and achievements through monetary and non-monetary recognition. In addition, WS leadership recognizes specific achievements by providing 25 Program Level Awards on an annual basis.

Grade inconsistency surfaced as a one of the highest concerns in employee engagement sessions during strategic planning efforts in 2018. As a result, the WS PD Committee was established in 2019 to address the need for consistency and site-specific flexibility. The PD Committee is appointed by the WS Deputy Administrator to serve as a cross-functional team with a focus on identifying means for enhancing the management of human capital and creating a more robust and consistent WS grade structure. While serving on the PD Committee, WS systematically reviews and evaluates current PDs to allow for deviations and revisions that reflect job scope, complexity, and level of personal contacts. This work is accomplished through close collaboration with APHIS, MRPBS, Human Resources Division (HR).

16 *Data Science Support Unit*

Recommendation: *We recommend to the Secretary of Agriculture that APHIS Wildlife Services (WS) support and secure additional critical funding in the President's budget for a data science support unit that furthers current WS efforts in collaboration with the NWRC. Specifically, we recommend resources for acquiring additional capacity that supports data analytics, geo-spatial technology, and associated modelling to integrate internal and external data sources and conduct integrated modeling and syntheses.*

Background:

Data analysis is critical to informed decision-making. WS has several state and National programs as well as NWRC with skilled biologists, rather than data scientists, who regularly implement data analytics and geo-spatial technology. However, because of varied skillsets within each state WS program, interconnectedness and data standardizations are an increasing challenge, in addition to current IT issues and constraints.

Operations are at the core of the WS program and wildlife biologists and specialists across the country take advantage of geospatial technology with over 100 GIS applications. Staff also rely on Unmanned Aerial Systems (UAS, drones) technology more than any other APHIS program for critical operations such as invasive species detection, delivery of pesticides, and hazing and harassing predators from livestock. Current efforts have significantly focused on improving data collection efficiency including the addition of full-time staff to support data analysis efforts of the WS' Airport Wildlife Hazards Program.

Recently, WS sought funding from the American Rescue Plan Act that helped increase capacity for developing data streams to automate data processing from diagnostic instrumentation to databases, automating data visualization, and development of sophisticated analytics for interpreting surveillance data. A data science support unit would see the process through from data collection to informed decision making.

Although USDA and APHIS have recognized the importance of managing data assets and expect programs to comply with recently released data policies, additional funding is needed. For example, the Geospatial Data Act, USDA Data Strategy, APHIS Data Strategy, and the Evidence Based Act. A data science unit would mitigate the burden on the programs of meeting these requirements.

17 *Large Predator Management*

Recommendation: *The NWSAC recognizes Wildlife Services' leadership in promoting successful nonlethal wildlife coexistence resolution measures in managing livestock and predator conflicts. As a result, many livestock producers report significant reduction in losses due to proactive measures like range riders, carcass management, livestock protection animals, lighting, sound deterrents, fencing, fladry, and more.*

We recommend the Secretary of Agriculture engage the Secretary of Interior to seek additional Department of the Interior (DOI) funding for APHIS Wildlife Services (WS) through an existing interagency agreement framework for proactive measures to minimize potential conflicts in areas involving large predator management, including but not limited to grizzly bears and wolves. These measures would include site evaluations of high risk or chronic depredation conflicts followed by recommendations and assistance implementing best practices non-lethal deterrents when and where feasible as funding and staff resources allow.

Background:

Please refer to response provided in Recommendation #6, (excerpt provided below for convenience), as it largely applies to this recommendation as well. Ongoing WS activities, including those funded by both WS' NLI and USFWS funding, are often prioritized by areas of high risk or chronic depredation. The WS decision model implores staff to evaluate methods in the context of their legal and administrative availability and their acceptability based on biological, environmental, social, and cultural factors. The decision model also states that Integrated Wildlife Damage Management (IWDM), defined as the use of several management techniques rather than relying on a single method, should be applied when formulating management strategies. Consideration of factors such as available expertise, legal constraints on methods used, costs, and effectiveness is essential in formulating each management strategy. Program service can be provided by two basic means: technical assistance and direct management.

Beginning in 2020, WS-Montana has received funding annually from USFWS via multiple agreements for grizzly bear conflict and in WS-Oregon for wolf conflict. The current interagency agreement in Montana for $250,000 supports a program that has grown to 22 staff. These staff conducted more than 197 livestock protection projects (including electric fencing installations, range riding, depredation investigations, and grizzly bear operational work) to help ranchers protect livestock while grizzly populations are expanding.

The funding WS-Oregon receives from USFWS Regions 1 and 8 supports positions that focus on minimizing wolf impacts to livestock production in Oregon. These are multi-year funds so total expenditures for FY24 are not yet final. USFWS makes amendments, as needed, to inter-agency agreements as funding is identified, and the agency has indicated to WS-Oregon leadership that it intends to continue funding this work, although future details are in progress.

18 *Disaster Response*

Recommendation: *We recommend to the Secretary of Agriculture to establish an expedited approval process for APHIS-WS personnel to respond upon request from a designated official in a local/state/Federal disaster within 24hrs; and work to secure funding from either or, both Commodity Credit Corporation and Supplemental Disaster Programs to support such response.*

Background:

APHIS responds to all hazards, incidents, and a variety of emergencies, including hurricanes, floods, and animal or plant pest or disease outbreaks. The scope and severity of an emergency determines the level of response and staffing resource requirements. While APHIS can often provide a response using just the lead program's personnel, circumstances exist when the lead program needs a larger pool of personnel to respond to an incident. This may be because the response requires personnel with very specific skill sets, or there are concurrent responses, or the program faces other challenges impacting their ability to adequately provide staffing resources.

Incident Management Teams (IMTs) consist of trained personnel and are deployed upon request within 24 to 48 hours to support responses. Initial incident response is handled at the local level, i.e., state, local, tribal, or territorial jurisdictions (SLTT). The SLTT or another Federal agency notifies the appropriate APHIS program of the incident which includes a request for assistance. Incident Command System (ICS): When responding to incidents, APHIS follows the National Incident Management System (NIMS) guidance, using ICS for command and coordination.

Currently emergency funding is not available for the first initial emergency response. WS responds with allocated funds unless the APHIS Office of the Administrator or the WS Office of the Deputy Administrator diverts funds from other funding sources in WS.

19 *Research*

Recommendation: *We recommend that the Secretary of Agriculture further support ongoing NWRC studies to develop economic modeling that measures return on investment of airport wildlife biologists, and risk modeling to gauge total bird strike risk at military airports. These models will enable cooperators to defend annual WS support agreement budgets and prioritize resourcing of emergent requirements.*

The NWSAC also recommends that NWRC continue focused research on identification of effective mitigation procedures for large avian hazards, especially black and turkey vultures.
Finally, given the wide scope of efforts across many WS programs to mitigate severe vulture hazards to aviation, livestock, and infrastructure; recommend WS host a vulture damage management summit to identify the scope of vulture management risks and costs, ongoing mitigation procedures and projects, new research desired, and any sources of potential funding.

Background:

WS NWRC focuses research on understanding avian biology and behavior to identify effective mitigation procedures for large avian hazards, especially black (BLVU) and turkey vultures (TUVU). Research is conducted primarily out of the Ohio and Florida field stations.

WS programs from 19 states collaborate with NWRC Florida Field Station staff on a pilot program assessing gaps in understanding BLVU life history and ecology, ways to improve upon existing take and population models, as well as test current and develop new management methods. States participating in the program contribute to a wildlife biologist position at the Florida Field Station to oversee the project effective through FY28.

The Ohio Field Station plays a unique role in the WS mission by focusing on an understanding of how animals detect and respond to vehicles (including visual deterrents), especially in the context of wildlife hazards to aircraft and how wildlife species (including vultures) use airport environments. Its efforts aid in the development of management methods in the areas of visual deterrents and animal response to vehicle approach in the airport environment, and findings are integrated with other WS management to help protect both people, property, and wildlife. Several studies are receiving Federal funding and will be completed in the next few years.