

# Wildlife Services

Protecting People  
Protecting Agriculture  
Protecting Wildlife

State Report

FY 2015

# Tennessee

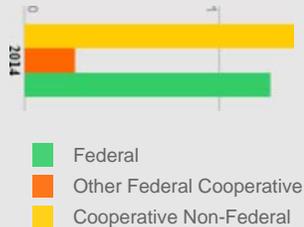


## Contact Information:

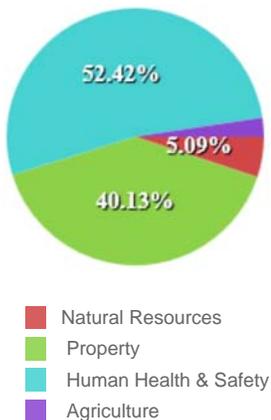
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## Total Funding (\$ Million)



## Resources Protected % of Total Funds



## USDA Resolves Wildlife Conflicts in Tennessee

Every day, the Wildlife Services (WS) program in Tennessee helps citizens, organizations, industries, and Government agencies resolve conflicts with wildlife to protect agriculture, other property, and natural resources, and to safeguard human health and safety. WS' professional wildlife biologists and specialists implement effective, selective, and responsible strategies that value wildlife, the environment, and the resources being protected. WS manages wildlife damage according to its public trust stewardship responsibilities as a Federal natural resource management program. WS supports the North American Model of Wildlife Conservation, based on the principle that wildlife resources are owned collectively and held in trust by Government for the benefit of present and future generations.

Tennessee is home to a diverse mix of landscapes, industries, and wildlife. As such, WS provides assistance in managing a diversity of wildlife related problems to many demographics across the State. As Tennessee's human population grows, conflicts with wildlife have also increased. WS partners with many other public agencies and institutions in order to provide wildlife damage management services that protect the agricultural and natural resources, property, and health of all Tennesseans. WS biologists manage beaver damage to Tennessee's transportation infrastructure and timber resources; address wildlife threats to aviation safety; provide assistance to livestock producers and landowners with migratory bird issues; and assist with monitoring and controlling wildlife-vectored human diseases such as rabies.

## Applying Science and Expertise to Help the Public

WS frequently provides information, advice, equipment, and materials that enable people to resolve wildlife conflicts on their own. Often, this technical assistance can be provided in person, by telephone or through the mail or internet. During 2014, WS delivered technical advice and recommendations to more than 1.6 million people.

In most cases, landowners and resource managers use technical information to implement habitat management and other methods to reduce damage on their properties. WS also implements solutions on-site, through direct management assistance, when the wildlife-related problem is complex and cannot be safely or effectively resolved by others. WS' National Wildlife Research Center conducts scientific research and assessments to refine methods and develop new science-based solutions to wildlife challenges.

WS applies and recommends an integrated wildlife damage management approach that incorporates biological, economic, public, environmental and other information into decision making. WS implements a wide range of damage management activities. The following examples highlight WS' role in protecting resources in Tennessee.

**Protecting Livestock from Predation** — Despite producers' best efforts to protect their livestock, thousands of domesticated farm animals are killed by predators each year. The most recent reports by the National Agricultural Statistics Service (NASS) for cattle (2011) and sheep and goat (2010) indicate predation on more than 647 thousand head of livestock annually, resulting in combined losses of nearly \$138 million. Producers often turn to WS for assistance in reducing and preventing further predation. The integrated approach implemented by WS includes recommendations that are applied by the producers and, in many cases, operational wildlife management implemented by WS.

**Protecting Human Health and Safety at Airports** — Wildlife strikes cause more than 590,000 hours of aircraft down time and cost the nation's civil aviation industry approximately \$937 million annually. American military aircraft sustain losses exceeding \$10 million annually. WS has assisted the Nation's airports for decades and collaborates closely with the Federal Aviation Administration, Department of Defense, and other Government agencies. WS provided assistance to 839 airports in 2014, including advice, training, on-site evaluations and assessments of wildlife hazards, and direct operational management to reduce wildlife strikes.

More than 4,000 wildlife strikes occurred at Tennessee airports since 1990 according to the Federal Aviation Administration National Strike Database maintained by WS to monitor trends and wildlife species threatening aviation safety. WS biologists work with Tennessee's airports throughout the State to manage wildlife hazards to aircraft and human safety. Airport assistance ranges from technical assistance to operational direct management with WS staff stationed at the airport. WS biologists monitor the airfield for wildlife activity, reduce threats, train airport personnel, and make recommendations to airports to ease threats to aviation safety.

**Protecting People and Animals from Rabies** Rabies poses a serious threat to public and animal health. Although human deaths from rabies are rare, the estimated public health costs associated with rabies detection, prevention, and control nationally exceed \$300 million annually. WS coordinates cooperative oral



United States Department of Agriculture  
Animal and Plant Health Inspection Service

rabies vaccination (ORV) programs in the United States with the goal of controlling and eventually eliminating certain rabies variants to protect human and animal health and reduce associated costs. This management program is one of the largest coordinated efforts to control a disease in wildlife populations ever undertaken in North America. Since 1992 ORV operations have distributed more than 155 million vaccine baits by air and ground across 19 States preventing the further spread of rabies variants.

To date, more than 6.1 million ORV baits have been distributed on more than 4,400 square miles in east Tennessee. Raccoons that eat the bait become vaccinated against this deadly virus. In cooperation with the Tennessee Department of Health, WS is working to create a rabies-free barrier in Tennessee to protect humans, pets, and livestock from the disease.

**Reducing the Negative Impacts of Feral Swine** — Feral swine, an invasive species, are prolific breeders and thrive in rural, suburban and urban habitats. By 2012, their populations had expanded to at least 38 States, numbering approximately 5 million animals. This expanding population and distribution is associated with property damage and negative impacts on public health, domestic animal health, crop production, and natural resources. Currently the total aggregate cost of damage is estimated to be \$1.5 billion annually, with at least \$800 million related to direct costs to agriculture.

**Protecting Multiple Resources from Beaver Damage** — Beaver historically have been a valuable economic and natural resource. During the past 20 years their populations have increased throughout the United States due to lower demand for beaver products and subsequent decreases in recreational trapping. This growth has positive, effects such as increased wetland habitat, as well as negative impacts from dam building and tree cutting. Beaver dams back up water that floods and kills valuable timber and destroys or damages cropland, roadways, sewer and septic systems, and water treatment and electric utilities. Dams may also negatively affect fish populations by changing the movement and temperature of stream water. Beaver cut down trees that are valued for timber production and landscaping.

In Tennessee, WS enters into cooperative relationships with Federal, State, city and county Governments, private landowners, and others with beaver problems to fund management projects. Beaver now occupy all Tennessee watersheds and population estimates are increasing. More than \$7 million in losses to timber, agricultural crops, and transportation infrastructure are prevented annually in Tennessee due to WS' beaver damage management.

### Looking to the Future

WS continues to provide the citizens of Tennessee with safe, effective, and responsible management assistance for a variety of wildlife damage problems. The potential for human-wildlife conflicts likely will increase and WS' ability to respond will depend on the availability of personnel and resources, as well as legislative authorities to support these activities.

In Tennessee, WS is receiving increasing numbers of requests for assistance with problems associated with vultures, feral swine, wildlife at airports, coyotes in urban/suburban areas, wildlife diseases, blackbirds and starlings, beaver, waterfowl, and invasive species. Increased populations of wildlife combined with greater urbanization and expansion into formerly rural areas has led to the increase in wildlife conflicts with people.

WS strives to meet the demands for assistance within the constraints of its existing resources and capabilities so that all citizens have access to program services. Collaborative, partner-based approaches will be increasingly important among natural resource, agriculture, and health agencies to meet public needs.

### Wildlife Services Funding in Tennessee

In addition to receiving Federally allocated funds, WS also receives funding from program beneficiaries such as agricultural producers, airports, individual citizens, businesses, organizations, and other Federal, State, and local Government agencies. See charts for sources of funding and resources protected.

### Top 5 Major WS Assistance Activities in Tennessee

- Reducing vulture damage to livestock, municipal utilities, structures, and residential property
- Protecting bridges, roads, timber, crops, utilities, property, and natural resources from beaver damage
- Assessing and reducing wildlife hazards at airports
- Protecting agriculture, property and natural resources from feral swine damage
- Protecting the public, domestic pets, and livestock from rabies

### Top 5 WS Research Projects of Interest to Tennessee

- Developing tools/methods to reduce feral swine damage to agricultural resources
- Quantifying and assessing the damage caused by beaver, vultures, and Canada geese to agricultural resources, utility structures, property, and human safety
- Evaluating the effectiveness of wildlife damage management to reduce vulture damage to utility structures, property and livestock
- Evaluating and monitoring raccoons, coyotes, skunks, and foxes for rabies and distemper
- Investigating the biology/ecology/behavior of vultures, raccoons, beaver, feral swine and Canada geese

### Major Cooperators:

- Tennessee Valley Authority
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- Tennessee Wildlife Resources Agency
- Tennessee Department of Health
- West Tennessee River Basin Authority
- Memphis International Airport
- Nashville International Airport