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Service

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## WILDLIFE SERVICES—TENNESSEE

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## USDA Resolves Wildlife Conflicts in Tennessee

Every day, residents, industries, organizations and agencies call on Tennessee Wildlife Services (WS) for help in protecting agriculture, human health and safety, natural resources, and property from damage or threats posed by wildlife. WS' professional wildlife biologists respond to these requests with effective, selective, and humane strategies to resolve wildlife conflicts.

Tennessee is home to a diverse mix of urban and suburban settings, rural environments, forest and agricultural lands, and a wide array of wildlife species. This diversity, combined with expansions of both human and wildlife populations, has led to increased encounters and conflicts between people and wildlife. Tennessee WS works with Federal and State officials, industry, and individuals to protect property and reduce human health and safety risks at airports, businesses, residential areas,



and along roadways. The program also protects people, pets, and livestock from wildlife-borne diseases; guards many natural resources, such as watersheds and timber, from beaver damage; protects agricultural interests, such as livestock and crops, from wildlife depredation; and educates the public about wildlife and wildlife damage management. Specific projects conducted by Tennessee WS include, protecting people, pets, livestock, and wildlife from rabies through the use of oral rabies vaccination (ORV); conducting sampling and monitoring for chronic wasting disease (CWD), avian influenza (AI), and rabies; protecting watersheds, roadways, crops, and timber from beaver damage; protecting property, recreational areas, and human health from Canada goose damage; and managing damage caused by vultures, pigeons, starlings, and other wildlife.

*direct assistance*, to manage complex wildlife problems that cannot be safely resolved by others. To support this effort, WS conducts *scientific research* across the Nation to develop answers to new problems posed by wildlife and to ensure the program benefits from the latest science and technology.

### Top 5 Major Assistance Activities:

- Protecting public safety and property from Canada goose, pigeon starling, blackbird, and other wildlife damage
- Protecting civil and military aviation from wildlife strikes
- Managing damage caused by beavers to natural resources, timber, agriculture, and transportation infrastructure
- Protecting municipal utility structures, residential property, and livestock from vultures
- Managing raccoon rabies through the use of oral rabies vaccination (ORV)

### Protecting Human Health and Safety at

**Airports**—Wildlife strikes with airplanes cost U.S. civil aviation more than \$550 million annually and pose a hazard to flight crews and passengers. The majority of strikes are caused by birds. From 1990 to 2006, the Federal Aviation Administration (FAA) reported more than 2,030 wildlife strikes at Tennessee airports. The FAA estimates, however, that reported events account for only about 20% of all wildlife/aircraft strikes that occur.

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

- Improving aquatic rodent damage management methods
- Defining and reducing wildlife hazards to aviation
- Reducing Canada goose damages through translocation
- Managing problems caused by starlings, blackbirds, and vultures
- Managing wildlife transmission of rabies

## Applying Science & Expertise to Wildlife Challenges

WS offers information, advice, equipment, and materials that enable many people to resolve wildlife conflicts on their own. Often, this *technical assistance* can be provided over the phone. WS also provides on-site expertise, or

WS is recognized internationally for its scientific expertise in reducing wildlife hazards to the aviation industry. WS' National Wildlife Research Center (NWRC) continually conducts research to understand the nature of wildlife hazards at airports and develop management tools to reduce these hazards. In addition to providing on-site evaluations, comprehensive wildlife hazard assessments, and airport expansion

and design consultations to minimize threats, WS also trains airport personnel to reduce the risk of wildlife collisions with aircraft.

**Preventing Human Health and Safety from Raccoon Rabies**—In August 2002, Tennessee joined the Appalachian Ridge ORV Project to stop the westward spread of raccoon rabies. In November 2003, Tennessee joined with Georgia and Alabama to begin the GAT ORV Project. To date, approximately 2.1 million oral rabies vaccination baits have been distributed over more than 4,400 square miles in eastern Tennessee. Raccoons that ingest the bait become vaccinated against this deadly disease. In cooperation with the Tennessee Department of Health, WS is working to create a rabies-free barrier in the eastern United States in which the raccoon strain of rabies currently is a threat to humans, pets, livestock, and pets.

**Addressing Residential Property Damage from Canada Geese**—Canada geese are responsible for 20% of all requests for assistance in Tennessee. Concerns include feces-contaminated water, aggressive geese that attack children and the elderly, and accumulations of droppings on sidewalks, beaches, golf courses and other property. The majority of these geese are non-migratory, remaining year-round in Tennessee. They live in urban and suburban areas adjacent to schools, parks, and residential areas, benefiting from an abundant food supply, water, and few predators. In addition to providing technical assistance and educational programs for the public, WS removes flocks of problem geese, which cause property damage, jeopardize water quality, and threaten public safety. WS annually removes about 2,000 resident Canada geese from golf courses, residential communities, and recreational areas. In cooperation with the Tennessee Wildlife Resources Agency, the birds are trans-located throughout the state to areas that offer suitable habitat, away from urban and suburban settings.

**Major Cooperators**

- U.S. Army Corp of Engineers
- Tennessee Valley Authority
- U.S. Fish and Wildlife Service
- Tennessee Wildlife Resources Agency
- Tennessee Department of Health
- West Tennessee River Basin Authority
- Memphis International Airport
- Fort Campbell
- Arnold Air Force Base

**Protecting Multiple Resources from Beaver Damage**—Protecting transportation, agriculture, and natural resources through beaver damage management is a major consideration for WS in Tennessee. Historically, beaver were considered a valuable natural resource and an extremely important part of the economy. In recent years, however, little demand for beaver products has resulted in a decrease in trapping, and subsequent increase in beaver numbers. Beaver now occupy nearly all watersheds in the State, and statewide population estimates are increasing. Typical requests for assistance involved damage to roadways and bridges, agriculture and timber resources, property and flooding of municipal sewer and water treatment facilities. To address many of these problems, Tennessee WS enters into cooperative relationships with Federal, State, city and county governments, soil and water conservation districts, private landholders, and others with beaver problems. Funding comes from State, county, Federal, and private sources. On average per year, more than \$3 million in losses to timber, agricultural crops, and property are prevented due to the Tennessee WS beaver damage management program.

Tennessee WS provides assistance on a variety of properties, using an integrated management approach that includes water level manipulation, exclusion, population reduction, and the safe and effective use of explosives by certified WS personnel. WS routinely uses explosives to remove beaver dams that cause flooding on property. Prior to conducting any explosives work, WS personnel are trained and certified in the safe and effective use of explosives.

**Looking to the Future**

In Tennessee, wildlife managers are concerned with raccoon rabies, aviation safety, urban wildlife and beaver damage. Of particular interest is aviation safety and airports: increased travel through State airports, combined with population and range increases of numerous species of birds and wildlife, has created a greater need for airport managers to deal with threats posed by wildlife. Additional attention must be given to this very specialized area of work.

A second issue related to public safety involves the increased need to manage raccoon rabies. Attacks on people and pets by rabid raccoons in the northeast and southeast areas of

Tennessee increased the public’s awareness of this issue. Tennessee WS is currently participating in WS’ national effort to prevent the westward spread of raccoon rabies, and, hopefully, to eliminate rabies from the United States.

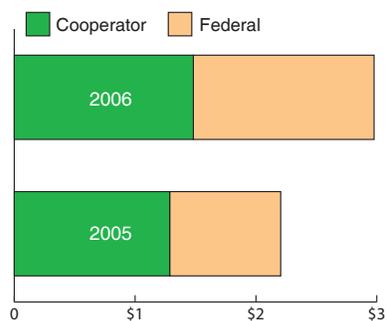
Increased urbanization and human’s expansion into formerly rural areas coupled with rising waterfowl, white-tailed deer, coyote, skunk, beaver, and raccoon populations has led to a rise in wildlife conflicts with people. Other urban conflicts, presented by vultures, woodpeckers and Canada geese, involve threats to human health and safety and damage to homes, buildings, lawns, utility structures, and other property.

In addition, the State’s growing and expanding beaver population is causing greater damage to the State’s agricultural crops, timber, roadways, property, and natural resources. Expanding habitat and the lack of recreational trapping have contributed to these damages. These problems have created an increased need for beaver damage management throughout Tennessee.

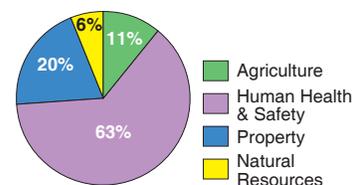
**Tennessee Wildlife Services Funding**

In addition to receiving federally allocated funds, WS also receives money from cooperators who have a vested interest in the program: producers, private individuals, businesses, and other Federal, State, and local government agencies. In most cases, these cooperators need help to resolve wildlife damage problems or they play a role in wildlife damage management.

**Total Funding (Millions)**



**Resources Protected % of Total Funds**



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