

## USDA Wildlife Services Protects Property

### Protecting Property, Infrastructure and Transportation in Rural to Urban Settings

#### Overview

Wildlife Services (WS), a program within the U.S. Department of Agriculture's Animal and Plant Health Inspection Service, provides Federal leadership and expertise to resolve wildlife conflicts that threaten public and private resources. WS works in every State to prevent wildlife damage to property, roads and bridges, aircraft, and other important man-made resources.

#### Protecting Property in Urban and Suburban Areas

Each year, wildlife cost property owners millions of dollars in damage, underscoring the need for responsible wildlife damage management. WS protects homes, lawns, landscaping, golf courses, parks, pets, equipment and machinery, industrial facilities, and other property against wildlife damage.

In fiscal year (FY) 2005, WS conducted more than 14,000 technical assistance projects to reduce wildlife damage to property in urban, suburban, and rural locations as well as at airports across the country. Technical assistance enables property owners to work on their own to resolve wildlife conflicts. WS provides critical information, guidance, and, sometimes, equipment to assist property owners in their



efforts. When the conflict is more significant, however, WS specialists employ direct assistance, using their knowledge and expertise to disperse, remove, or relocate problem wildlife, such as vultures, raccoons, and bears.

WS expended more than \$12.5 million to protect property from wildlife damage in FY05 and \$13.6 million in FY06. Damage may be relatively minor or it may result in significant economic loss and inconvenience. Wildlife can damage foundations, structures, and even internal wiring as it attempts to gain entry into a property. The excrement from

roosting birds or bats is not only foul, but also can corrode machinery and vehicle paint, and can create a slipping hazard on walkways. Hungry wildlife, such as geese, deer and feral pigs, can destroy golf course greens, fruiting plants, lawns, and other landscaped areas.

In addition to causing damage, overabundant wildlife populations can create quite a nuisance. The excrement and noise from a roost of vultures or crows can be so severe that backyard swing sets, grills, lawn furniture, and outdoor business property become useless.

## Protecting Infrastructure in Urban and Rural Areas

Roads, bridges, airport runways, dams, water drainage systems, and utilities are also vulnerable to wildlife damage. WS is frequently called upon to relocate or remove wildlife that threaten vital urban and rural infrastructure. Aquatic and burrowing animals, such as beavers, ground hogs, gophers, ground squirrels, and armadillos, often weaken foundations and accelerate erosion damage, causing structures to crack or even collapse. Birds and other wildlife frequently are responsible for electrical power outages that can result in thousands of dollars in damage and lost revenue. Monk parakeets, hawks, and vultures are well known for causing damage to urban infrastructure when they nest, roost, and perch on telephone poles and electrical and communication towers.

Brown tree snakes in Guam regularly cause electrical shortages and power outages that result in more than more than \$1 million in damage. WS engages in a successful damage management program to prevent large scale outages with cost savings of more than \$500,000 annually to the local power authority.

### Resolving Beaver Damage—

Beaver, one of the most destructive wildlife species, cause millions of dollars in damage to roads, bridges, dikes and dams, sewer and water treatment facilities, and landscape plants. Many experts believe the cost of beaver damage is greater than that caused by any other U.S. wildlife species. WS personnel across the contiguous States, from Maine to Arizona and from Florida to Washington, respond to beaver



damage reports. In Mississippi and North Carolina, the problem's severity led State agencies to provide major funding for WS to conduct statewide beaver damage management programs. WS also provides large-scale programs in more than a dozen additional States, and responds to individual requests for assistance on a case-by-case basis.

For years, WS has collected beaver damage data reported by private individuals and state agencies; the economic damage caused by beavers in the southeastern United States alone is estimated to have exceeded \$4 billion over a 40-year period. In 1999, WS began collecting data on damage prevented by its management efforts. In FY05, 14 Eastern States sought to quantify how much additional damage was prevented, using very conservative models. In total, WS specialists estimated an additional \$29 million in beaver damage was prevented.

To prevent beaver damage, WS specialists break apart beaver dams that clog water-ways and flood roads and timber resources. Beavers are

removed from areas experiencing high levels of damage. WS has identified multiple research needs relevant to beaver damage management: information on attractants, search dogs, electronic frightening and detection devices, habitat modification, mechanical barriers, "natural/home-made" remedies, non-target concerns, repellants, toxicants, trap development, and basic biology. WS' National Wildlife Research Center (NWRC) is currently conducting research on a number of methods that could be used to prevent beaver damage.

## Protecting Transportation

Increased wildlife populations in the last decade have coincided with increasing numbers of wildlife collisions with airplanes, trains, and automobiles. High-speed or mid-air collisions not only result in serious damage, they can be deadly. WS plays a significant role in helping to prevent birds, deer, coyotes, feral hogs, and other wildlife from causing such accidents. Collisions, however, are not the only threat posed to transportation. Rats, mice, and other rodents can also chew through engine wiring, creating potentially dangerous consequences.

### Deer Collisions with Automobiles—

As wildlife populations increase and adapt to more urban settings, wildlife-vehicle collisions also increase. Deer are the large wild animal most often involved in such accidents; other wildlife associated with vehicular collisions are elk, antelope, bear, feral hogs and moose.

The United States deer population is at an all time high. Overabundant deer populations, urban and

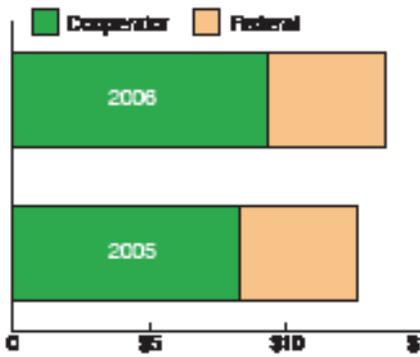
suburban, lead to countless collisions each year. Although difficult to quantify because many accidents go unreported, one study estimates more than 1.5 million deer collisions with vehicles occur annually, resulting in repair costs of more than \$1.1 billion. Auto insurance claim statistics show eight of the top 10 states for the most deer/automobile accidents are east of the Mississippi River. WS works to reduce deer populations in heavily populated areas in order to increase public safety.

WS' research arm, the NWRC, has given high priority to research on the reproductive management of deer. NWRC researchers have successfully tested contraceptive vaccines on white-tailed deer. Research data shows the contraceptive is safe for the vaccinated animals with no associated danger to humans or wildlife eating vaccinated animals. Not intended to replace other management tools, the contraceptive vaccine is a tool for use in conjunction with other management methods. The vaccine can be used to help manage overabundant deer herds in urban and residential areas where other methods, such as hunting, are not always an option.

**Wildlife/Aircraft Collisions—**

Wildlife can pose a serious threat at airports across the United States. The majority of wildlife strikes are caused by birds, although large mammals are also involved. Through a balanced effort involving research and wildlife management, WS is reducing the incidence of damage to aviation caused by wildlife. WS is recognized interna-

**Expenditure for Property Protection (Millions)**



tionally for its scientific expertise in reducing such hazards at airports and military bases across the Nation and around the world. Assistance was offered at 20% more airports and air-bases in FY06 than in FY03. WS works at more than half of all U.S. airports certified for passenger traffic. (See the separate report “Protecting Commercial and Military Aircraft and Passengers.”)

**Wildlife Population and Property Protection**

**WS conducts research on deer contraceptive vaccines, removes animals in over-populated and strike-probable locations, donating meat as appropriate**

- A recent study suggested more than a million collisions annually between vehicles and deer, the large wild animal most often involved in such accidents.
- A recent study estimated the total costs associated with such collisions were \$7,870 for deer, \$17,100 for elk, and \$28,100 for moose. The direct cost of a deer-vehicle strike ranges from \$22,800 per collision in insurance claims
- Pennsylvania, the top ranked state for deer-vehicle collisions, estimates between 12,000 and 40,000 collisions, annually. Numbers are difficult to assess due to the non-reporting of less serious crashes.

**WS conducts beaver damage management programs in more than 14 states and researches control of beaver populations and damage.**

- A current study suggests for every \$1 spent in managing beaver damage by WS, \$6.30 in resources was saved to roads, bridges, dikes and dams, sewer and water treatment facilities, and landscapes.
- WS currently has 85 trained explosive experts operating in 22 states to handle beaver damage.

**WS provided wildlife damage management assistance to approximately 674 airports in FY06.**

- Highly successful conservation and environmental programs have resulted in population increases for almost all species of large flocking birds in recent decades. In all, 330 different species of birds have been reported struck by civil aircraft from 1990-2005.
- Wildlife strikes annually cost U.S. civil aviation more than \$550 million and cause more than 500,000 hours of downtime.