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WILDLIFE SERVICES—TEXAS

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USDA Resolves Wildlife Conflicts in Texas

Every day, residents, industries, organizations and agencies call on Texas 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 with effective, selective, and humane strategies to resolve wildlife conflicts. Texas is a diverse mix of urban and suburban areas, agricultural lands, forest and desert environments, and is home to over 22 million people. Texas ranks first with more farms (157,000) and farm acreage than any other State. At the same time, Texas has 24 cities with populations of 100,000 or more. The State also has a remarkably diverse range of wildlife species. This combination of wildlife, humans and their associated conflicts makes the Texas WS program the largest wildlife damage management program in the United States.

Top 5 Major Assistance Activities:

- Protecting livestock, wildlife, and exotics from predators
- Protecting public health from rabies and other zoonotic diseases
- Protecting civil and military aviation from wildlife strikes
- Protecting crops, timber, dikes, impoundments and property from beaver damage
- Protecting urban and rural homes and property from damage by wildlife

Top 5 WS Research Projects:

- Improving feral swine damage management methods and disease surveillance
- Skunk behavioral ecology in relation to future oral rabies vaccination programs
- Gray fox ecology in relation to oral rabies vaccination programs
- Uptake of fishmeal and dog food polymer baits in gray fox
- Coyote immunocontraception and other wildlife fertility control studies

Each year the agency provides service on more than 5,500 properties covering nearly 20 million acres. The agency serves rural and urban areas with technical assistance, education, and direct assistance in wildlife damage management.

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 *direct assistance*, to manage complex wildlife problems that cannot be safely or effectively 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.

Protecting Livestock—Historically, the Texas livestock industry has suffered losses to predators such as coyotes, bobcats, feral swine and eagles. In 2004, the National Agricultural Statistical Service (NASS) reported 146,000 sheep and goats, valued of \$12.9 million, were lost in Texas to predation. In 2005, NASS reported a loss of 39,100 cattle and calves valued at \$18 million. Estimates for sheep and goats can be considered conservative, reflecting only losses reported after an initial count of lambs and kids. Research suggests losses could be two to three times higher if no management program were in place. Predator-related losses represent direct costs to the producer (i.e., value of the lost animal or lost wool, etc.), but also such losses as the future value of associated animal products. The local economy also feels this indirectly through the reduced buying power of ranchers and farmers. Research has



indicated cost benefit ratios of 1:4 and 1:7 for WS' wildlife damage management activities to protect the sheep and goat industry. Livestock protection is a major element of the Texas WS program.

Oral Rabies Vaccination Program—Two canine rabies epidemics emerged in Texas in 1988, one involving coyotes and dogs in southern Texas and the other in gray fox in central and western Texas. In 1994, the public health threat of these expanding epizootics prompted the Governor to declare rabies a public health emergency. In February 1995, the Texas State Department of Health Services initiated a cooperative program, the oral rabies vaccination (ORV) program. Texas WS is a major contributor, helping to deliver funds and distribute millions of oral baits by plane and helicopter every year. With a goal of creating zones of vaccinated coyotes and gray foxes, the project is proving highly successful. Canine rabies cases in southern Texas have declined from the highs of 122 reported in 1994 and 142 in 1995. The only reported cases since January 2000, were one case each year in 2001 and 2004, each of those within one mile of the Rio Grande along the U.S. and Mexico border. Surveillance conducted after the 2005 bait drop showed 80 percent of the coyotes tested positive for the biomarker that indicates bait acceptance and 29 percent developed an immune response to the vaccine.

The gray fox program has shown similar success from the highs of 244 reported rabies cases in 1995 and 101 in 1996. Reports then fell below 70 per year to three cases in 2005. In post-vaccination surveillance after the 2005 bait-drop, 36 percent of tested foxes were bait biomarker positive and 57 percent developed an immune response to the vaccine.

Protecting Human Health and Safety at Commercial and Military Airports—WS offers consultation and management assistance to commercial and military airports to assess wildlife conflicts at airports and improve safety by reducing hazards associated with wildlife. Biologists are trained and certified in the development of wildlife hazard assessments and management plans. Five military bases have entered into agreements with WS funding an airfield operations biologist at each facility. Wildlife/aircraft collisions disrupt the military mission and compromises air safety, risking lives in the air and on the ground. The biologists' work should reduce the possibility of aircraft/wildlife collisions.

Wildlife management and habitat modification at airports can help eliminate or reduce collisions between aircraft and birds or other wildlife. Deer, rabbits, and coyotes on the runways were a few of the issues handled by WS in FY 2004. Bird strikes account for 97% of all aircraft collisions. More unusual, wildlife/airport conflicts include coyotes chewing through aircraft arrest barriers, nylon webbing nets intended to stop aircraft that run out of runway. Coyotes are also known to chew on electrical landing light cables along runways.

Protecting Multiple Resources—Many times a single wildlife species can damage multiple types of resources, which may necessitate varying management strategies. For example, blackbird problems at

feedlots have to be handled differently than in situations where blackbirds are damaging rice or roosts are causing tree damage or human health concerns. In FY05, Texas WS reported projects dealing with 622 different wildlife species/resource protected combinations that involved 118 different resources and 115 different wildlife species.

Protecting Multiple Resources from Beaver Damage—Texas WS continues to implement extensive measures to control damage to crops, timber, rangeland, other property, and natural resources caused by beaver activities. Burrowing weakens earthen dams, highway foundations, dikes, and railroad track beds. Dam building floods roadways, pastures, crops, and timber lands by blocking water systems and plugging culverts. Feeding activities result in the loss of trees and shrubs in urban to rural situations and cause destruction of water structures such as docks, piers, and house boats.

Protecting Multiple Resources from Feral Hog Damage—Feral hogs cause damage to field crops such as corn, milo, rice, watermelon, peanuts, turf, wheat, and other grains by feeding, trampling, and rooting activities. They prey on lambs, kids, fawns, and ground nesting birds and compete with deer and turkey for limited resources such as mast and forage. Rooting and wallowing damages pastures, spoils watering holes and generally weakens riparian habitats. They may destroy livestock fences and feeders. They both consume and waste feed and mineral and protein blocks. Feral hogs are a potential reservoir for numerous diseases and parasites. Their population in Texas stands at two million, with a range expanding to every part of the state.

Protecting Pets and Other Companion Animals from Predation—Coyote predation on pets in urban and suburban areas is increasing. Associated with that threat, people fear that small children may be attacked by coyotes, as occurred in Texas in 2004. Because coyotes are rarely confronted by humans in urban and suburban areas, they lose their perception of a threat, becoming bolder and more aggressive towards humans and pets. In response, city and county officials in Austin entered into an agreement with WS to provide an enhanced coyote control program in that area.

Major Cooperators

- Texas Cooperative Extension, Texas A&M University System
- Texas Department of State Health Services
- Texas Wildlife Damage Management Association
- Sheppard, Laughlin and Randolph Air Force Bases
- Corpus Christi and Kingsville Naval Air Stations

Looking to the Future

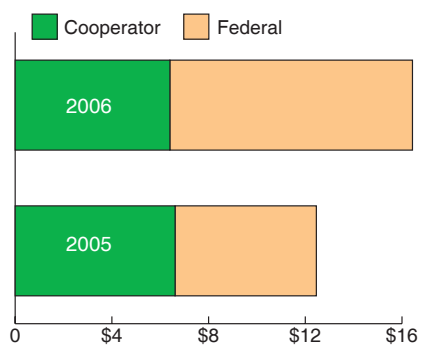
Requests for feral hog damage management continue to increase each year as a result of the viability and range expansion of feral hogs and their adverse impacts on multiple resources. Additional funding will be required if WS' operational and research efforts can even begin to get a handle on this expanding resource problem.

The need for wildlife damage management continues to grow in urban and suburban areas, where property damage and significant risks to human health and safety are elevated. Texas has several metropolitan cities with a need for such management, yet traditional funding sources usually leave these areas under-served. Texas WS will look for innovative ways to provide technical and direct assistance to metropolitan and suburban residents experiencing wildlife damage.

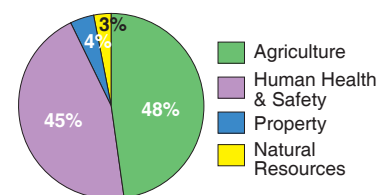
Funding

In addition to receiving federally allocated funds, Texas 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 FY06 % of Total Funds



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