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Expanding Research Capabilities Through New Construction

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National Wildlife Research Center Builds New Research Facilities

Wildlife Services' (WS) National Wildlife Research Center (NWRC) is the only Federal research facility devoted exclusively to resolving conflicts between people and wildlife through the development of effective, selective, and acceptable methods, tools, and techniques.

APHIS WS is committed to completing its Master Plan to build research facilities that will permit NWRC to continue its role as a world leader in providing science-based solutions to the complex issue of wildlife damage management.

Applying Science and Expertise to Wildlife Challenges

Invasive Species Research Building—In 2006, NWRC completed construction of a new APHIS WS Invasive Species Research Building, located at NWRC's headquarters site on the Foothills Research Campus of Colorado State University in Fort Collins, CO. This 25,000-square-foot indoor animal research building provides a secure location for researchers to study invasive species that threaten our nation's natural resources. Many invasive species also carry parasites and diseases that can impact U.S. agriculture and native wildlife. The design of this new building will ensure that neither the species themselves nor any parasites or diseases they may carry can escape.

This new facility provides a unique opportunity for NWRC researchers to study the behavior of invasive species and test new

wildlife damage management methods in a controlled setting. Examples of invasive species that are being or will be studied include brown treesnakes from Guam, Coqui frogs from the Caribbean, Gambian pouch rats from western Africa, Monk parakeets from South America, roof rats from Southeast Asia, and nutria from South America.

The need for this research is especially important as international trade and travel continue to increase, introducing more invasive species into the United States. Each year, scientists discover new invasive species that have already become established in the United States. Their impacts can be far reaching. For example, invasive tree frogs, introduced into Hawaii via shipments of nursery plants, carry parasites that can devastate a variety of plants, including orchids, which are especially prominent in Hawaii. The brown treesnake, accidentally introduced into Guam in the late 1940s or early 1950s, has already exterminated most of the island's native forest birds and fruit bats. With the simulated tropical climate capability of this new facility, NWRC scientists are better able to concentrate their research efforts on invasive reptiles and amphibians, like the brown treesnake and tree frog, as well as other invasive birds and mammals.

Animal Research Building BSL-3 Biocontainment Renovation—In 2006, APHIS/WS completed the renovation of a 2,500-square-foot bio-containment area within the existing Animal Research Building to bring that area up to Biosafety Level 3 (BSL-3) research standards. This newly renovated area provides critical BSL-3 laboratory space and animal holding/testing space for ongoing wildlife disease research and diagnostics being conducted at NWRC. This space will be supplemented by the Wildlife Disease Research Building space when it is completed in FY 2009.

Wildlife Disease Research Building—The Wildlife Disease Research Building, scheduled for completion in FY 2009, will be the last major building to be completed in the original 1990 NWRC Master Plan. The building will be a bio-safety level 3 Ag (BSL-3 Ag) biocontainment disease research facility with approximately 28,500 square feet of research, laboratory, animal holding and testing, and office space.

Many serious, emerging disease issues involve wildlife as hosts or potential hosts of diseases affecting domestic animal and/or human health. The bio-terrorism threat from some of these disease agents increases the need and urgency to address these issues. NWRC is currently involved in wildlife disease issues related to avian influenza, wildlife rabies, bovine tuberculosis, West Nile virus, chronic wasting disease, and pseudorabies. It is critical for APHIS to expand that involvement and improve capabilities to deal with emerging and invasive diseases of concern.

The Wildlife Disease Research Building will allow APHIS WS to support the initial surveillance, rapid response, vaccine assessment, and other research needs for emerging wildlife disease issues. Legislation mandates that USDA provide assistance upon request to State governments, private individuals, and other Federal agencies to control and prevent damage and disease caused or carried by wildlife. This future building will greatly enhance the ability of APHIS to provide this assistance. It will also provide important "surge" space for disease epidemic emergencies in the United States. In such emergencies, the NWRC facilities will be available for conducting BSL-3 laboratory work to address national concerns.

The Wildlife Disease Research Building will provide researchers with the capability to conduct both animal experimental infection studies and laboratory testing of disease agents that present a biosafety hazard to humans, domestic animals, or wildlife. It will also provide for bio-security of disease agents to prevent their accidental or intentional release or escape from the facility. Studies will evaluate wildlife species as reservoirs and vectors of disease, identify routes of transmission, and develop methods to reduce transmission among wildlife, livestock, and humans.