**DRAFT COMPATIBILITY DETERMINATION**
**For the**
**ATTWATER PRAIRIE CHICKEN NATIONAL WILDLIFE REFUGE**

**USE:**
Placement of oral rabies vaccine on Attwater Prairie Chicken National Wildlife Refuge

**REFUGE NAME:**
Attwater Prairie Chicken National Wildlife Refuge

**ESTABLISHING AND ACQUISITION AUTHORITIES:**
Fish and Wildlife Act of 1956
Endangered Species Act of 1973

**REFUGE PURPOSE(S):**
"… to conserve (A) fish or wildlife which are listed as endangered species or threatened species…or (B) plants…" 16 U.S.C. § 1534 (Endangered Species Act of 1973) and;

"...for the development, advancement, management, conservation and protection of fish and wildlife resources...", Fish and Wildlife Act of 1956 (16 U.S.C. 742f(a)(4), as amended, and "...for the benefit of the United States Fish and Wildlife Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude...", Fish and Wildlife Act of 1956 (16 U.S.C. 742f(b)(1), as amended.

**NATIONAL WILDLIFE REFUGE SYSTEM (NWRS) MISSION:**
The mission of the System is "to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans." (National Wildlife Refuge System Administration Act of 1966, as amended [16 U.S.C. 668dd-668ee])

**DESCRIPTION OF USE:**

**(a) What is the use?**

The Texas Department of State Health Services, Zoonosis Control Branch, in cooperation with the U.S. Department of Agriculture, Animal Plant and Health Inspection Services (USDA-APHIS), will aerially drop multiple oral rabies bait vaccine units on various tracts of the Attwater Prairie Chicken National Wildlife Refuge as part of an ongoing Oral Rabies Vaccination Program (ORVP) in the expanded study area for skunk oral rabies vaccination (see attached map). The goal of the ORVP in the skunk study zone is to evaluate whether the oral rabies vaccine, bait and distribution method will be effective for controlling the skunk variant (strain) of the rabies virus. General and specific information about the overall ORVP in Texas can be found at the following TDSHS web address:

http://www.dshs.state.tx.us/idcu/disease/rabies/orvp/ The following is excerpted or paraphrased from information from this TDSHS website:

*The Zoonosis Control Division's Oral Rabies Vaccination Programs (ORVP) were created to eliminate rabies in coyotes (Canis latrans) in South Texas and rabies in gray foxes(Urocyon cinereoargenteus) in West Central Texas. Both the South Texas Program and the West Central Texas Program utilize an oral rabies vaccine with a bait attractant. The vaccine/bait units are distributed aerially along transect lines. This ensures a consistent coverage of the target area. Each of the Programs has its own variation of bait matrix and bait/vaccine unit distribution density adapted for the individual target species. To learn more about the Texas ORVP look through our web site.*

A detailed analysis of potential environmental impacts was discussed in the environmental assessment and subsequent Finding of No Significant Impact for this project

(http://www.aphis.usda.gov/regulations/ws/ws_environmental_us.shtml).

**(b) Where is the use conducted?**

Across the Attwater Prairie Chicken NWR, as included within the expanded skunk study zones for Colorado and Austin Counties. **(see attached map)**

**(c) When is the use conducted?**

This activity would occur Feb. 1 through March 31, 2014, within the Attwater Prairie Chicken National Wildlife Refuge.

**(d) How is the use conducted?**

Oral rabies vaccine manufactured by Merial Limited, Athens, Georgia. Vaccine is enclosed in a small plastic packet (similar to a fast food ketchup package) dipped in fish oil and coated with fish-meal crumbles. An image of the vaccine bait appears below:

The vaccine sachet contains 2 ml of oral rabies vaccine. Each unit has the following warning label printed on the outside of the sachet:

RABIES VACCINE
LIVE VACCINIA VECTOR
DO NOT DISTURB
1-877-722-6725

Bait Density will be 64 baits per square mile in the border maintenance zone along the Rio Grande River; 100 baits per square mile in the Brady contingency zone; and 150 baits per square mile in the skunk expanded study zone where the Attwater Prairie Chicken NWR is located.

Baits will be distributed by five specially equipped white with blue and red trim King Air planes from Dynamic Aviation Group, Inc., or a Hughes 500 yellow and black helicopter from Texas Wildlife Services. Operations will include 12 to 16 flights/day at 500 to 1000 feet altitude with flight lines at ½ mile intervals.

**(e) Why is this use being proposed?**

The first vaccine airdrop in South Texas was in 1995. The number of animal rabies cases caused by the domestic dog/coyote variant of the rabies virus has decreased from 122 cases in 1994 – the year before the first bait drop – to zero by 2000. There have been 2 cases since that time (one in 2001 and one in 2004), each within a mile of the Rio Grande River. The first vaccine airdrop in West-Central Texas was in 1996. The number of animal rabies cases caused by the gray fox variant of rabies has decreased from 244 cases in 1995 to 0 cases from May 2009 to April 2013. In May 2013, a cow was diagnosed with the fox variant. A contingency bait drop in the 50 square mile area around the case was performed in June 2013. In 2014, an expansion of the skunk ORV study area from the 2012 and 2013 proof of concept projects will be added in East-Central Texas to determine the effectiveness against the skunk variant of the rabies virus. There have been no human cases of rabies attributable to these rabies variants since the oral vaccine airdrop began.

**AVAILABILITY OF RESOURCES:**

Direct annual costs to administer this programs and facilities are primarily in the form of staff time. Refuge staff are expected to spend approximately 0.01 FTE's and $800 in salary, materials and supplies annually to issue the special use permit, review the oral rabies vaccine program on the refuge, and post pamphlets as required in the stipulations described below. Refuge manager and biologist will coordinate with ORVP staff relative to any follow-up evaluation of the program on Refuge property.

**ANTICIPATED IMPACTS OF THE USE:**

Aircraft flying at low altitudes (i.e., less than 2,000 feet AGL) can cause disturbance to wildlife and people. For this reason, the Federal Aviation Administration (FAA) has recommended flight restrictions on the airspace over National Wildlife Refuges. FAA Advisory Circular 91-36C, "Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas" recommends that all aircraft maintain a minimum altitude of 2,000 feet above the terrain of National Wildlife Refuges administered by the Service. Various federal wildlife regulations, including those authorized by the Migratory Bird Treaty Act, the Airborne Hunting Act, National Wildlife Refuge Adminstration Act, and others, prohibit the operation of aircraft at altitudes and in flight paths that result in the herding, harassment, hazing, or driving of wildlife.

The Oral Rabies Vaccination Program (ORVP) uses aircraft flying at low altitudes (i.e., approximately 500-1000 feet) to drop the baited vaccine. It is anticipated that these low altitude flights over refuge property on the Attwater Prairie Chicken NWR will most likely cause short-term disturbance to wildlife.

Potential impacts of low altitude aircraft were discussed in detail in section 2.2.4 of the environmental assessment of this project. (http://www.aphis.usda.gov/regulations/ws/ws_environmental_us.shtml).

Conclusions of this assessment with respect to potential wildlife impacts were:

*"Thus, the short-term duration, infrequency, and negligible intensity of flights over any given area, in addition to the tolerance of wildlife of such activity, indicates ORV program overflights would have a negligible adverse environmental impact on wildlife. Based on the above information and analysis, it is reasonable to conclude that APHIS-WS the [sic] ORV bait distribution program low-level flights should not cause any adverse impacts to nontarget wildlife including T&E species."*

*Migratory Birds:* During the time the ORVP flights will take place, large concentrations of waterfowl, cranes and other migratory birds (some in flocks exceeding 5,000 individuals) will be present on and around the Refuge property. These birds are likely to be flushed by low flying aircraft, and not only suffer temporary disturbance, but also present a significant hazard to the aircraft pilots flying at these altitudes.

*Threatened and Endangered Species:*
Always of primary concern at APC NWR are the anticipated impacts to the Attwater's prairie chicken population. This timing of these flights coincides with the breeding season for the Attwater's prairie-chicken. Lekking or "booming" activity takes place on several open areas on the refuge prairie. Prairie-chickens may be present in these open and exposed leks, performing their courtship behavior when ORVP aircraft fly over. These flights could interrupt this lekking behavior, and potentially flush the birds off of their leks, but these effects are expected to be minimal in impact and temporary in nature.

*Other affected wildlife:*

There are a number of carnivorous and omnivorous wildlife species found on the refuge that may come in contact with the vaccine packets and attempt to eat them, including Raccoons, Coyotes, several species of Skunks, Fox, Weasel, River Otter, Opossum, Ground Squirrels, Mice and Rats.

It is possible that this activity may result in higher predator populations on APC NWR resulting from their protection from rabies. However, as discussed in section 2.2.8 of the environmental assessment for this project (http://www.aphis.usda.gov/regulations/ws/ws_environmental_us.shtml), it is likely that other density-dependent factors (e.g., other diseases, competition for resources) would limit those populations in the absence of rabies.

*Refuge Visitors and Staff:*

The noise and visual impacts from those low altitude flights may also alarm and disturb some refuge staff and visitors. The period from February 1 to March 31 coincides with the period of highest visitation to the refuge by the public. This is due to the favorable weather, increased number of seasonal (RV) residents in the area, and visitors who come specifically seeking an opportunity to view APC's performing their springtime courtship dance. Approximately 2,000 people will visit the refuge during this period, most of whom will use the auto tour route, trails and facilities near the refuge headquarters area. It is highly unlikely that a person will find or handle a bait unit. Human consumption should not occur due to the written warning on the package. However, it is more likely that a visitor's pet will find and consume the bait unit, which has been determined to be non-toxic to pets. Also, pets are required to be on a leash while on the Refuge, and their owners should have an opportunity to discourage their pets from picking up the bait packets. Overall, the public should benefit from the ORVP by having a reduced exposure of themselves or their pets to rabies.

**PUBLIC REVIEW AND COMMENT:**

This compatibility determination is available for public review and comment until Friday, January 31, 2014. The Service will consider all substantive comments received.

**DRAFT DETERMINATION (CHECK ONE BELOW):**

**_____Use is Not Compatible**
**__X__Use is Compatible with Following Stipulations**

**STIPULATIONS NECESSARY TO ENSURE COMPATIBILITY:**

1. Flying below an altitude of 500 feet over Refuge property, except in an emergency, is prohibited.
2. Dropping of baits over large (>10 ac.), open bodies of water such as ponds, creeks and rivers, should be avoided.
3. Reasonable due care will be exercised at all times to avoid dropping baits near buildings, public use facilities, vehicles, parking areas, or other facilities or areas likely to be occupied or frequented by people.
4. During the months of January through March, informational (e.g., ORVP.pdf file, copy attached) pamphlets will be made available at Refuge visitor center facilities and posted at public use kiosks describing the ORVP program. At a minimum, the leaflets will contain the following: (1) the goal of the ORVP program, (2) a photo, drawing, or diagram of a typical bait/vaccine unit (color preferred), (3) notice that the baits are not usually harmful to pets or wildlife, and (4) that adverse effects to humans are not anticipated by consuming, disturbing, or handling the baits if found.
5. Any direct monitoring and surveillance activities, which involve the capture and release or lethal collection of target animal species, of the ORVP on Refuge property, will be conducted under a separate special use permit.

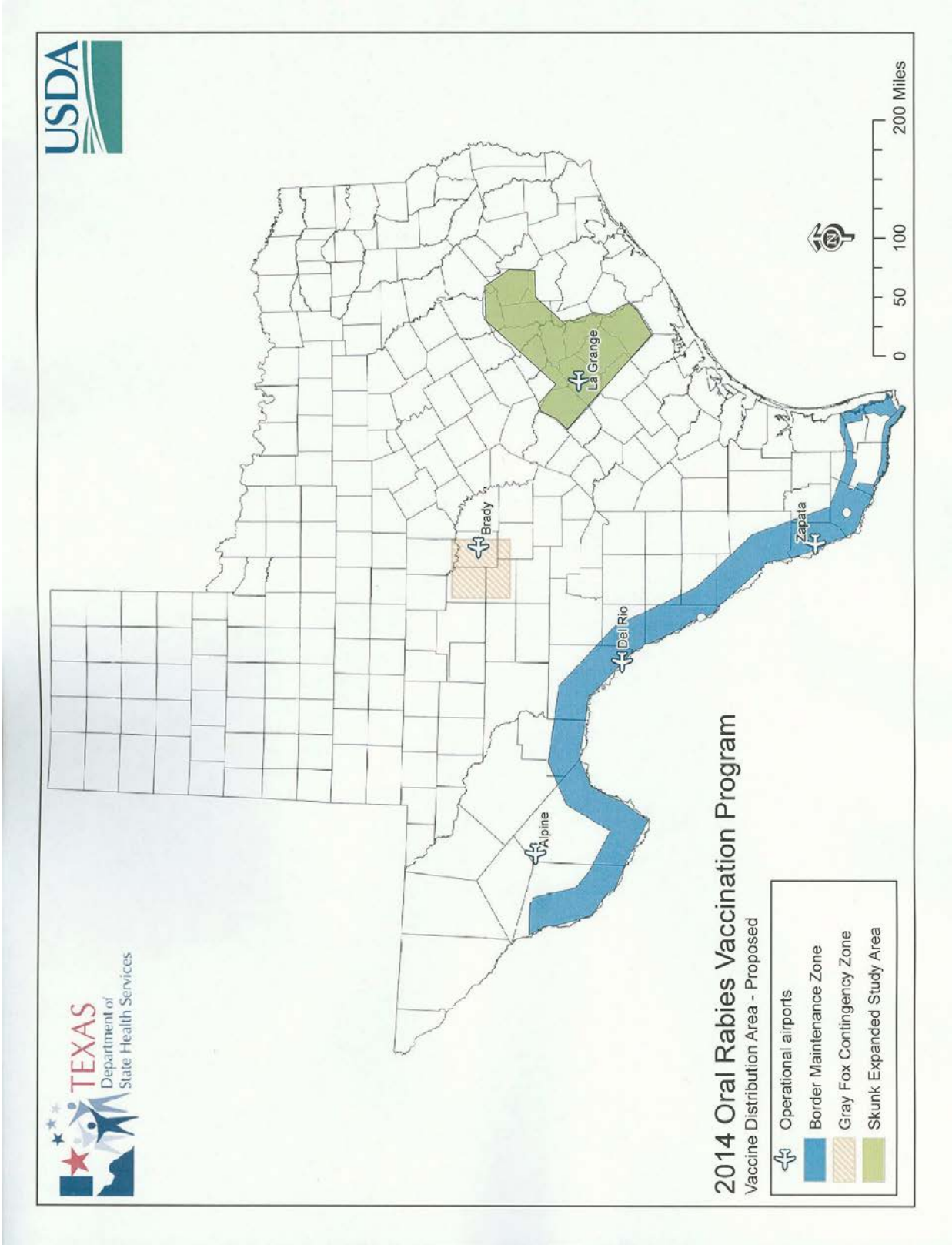
**JUSTIFICATION:**

This use has been determined to be compatible with the purposes of the Refuge, provided the above stipulations are adhered to. This use will not diminish the primary objectives of the Attwater Prairie Chicken National Wildlife Refuge to manage for endangered species, including the Attwater prairie-chicken, migratory birds, other native wildlife, and public use and recreational opportunities. This use will also help prevent the spread of epizootic rabies within wildlife populations (e.g., coyote, skunk) that occur on the Refuge; thereby it reduces the probability of an endangered ocelot, other wildlife, refuge visitor, staff, or their pets coming into contact with an infected animal. An update of Service policy on the disease and prevention and control (i.e., Service Manual 701 FW 7) has not been completed to date. However current Service policy contained in the Refuge Manual (7 RM 17.2) states: "It is Service policy to prevent and control wildlife diseases on Refuges wherever practical or possible. While some loss from disease is inevitable, management practices will be directed at minimizing those losses. The Service will take a leadership role in developing better methods for wildlife disease control **and fostering cooperative control activities** [emphasis added].

**SIGNATURE:** **Refuge Manager** _____
**(Signature and Date)**

**CONCURRENCE:** **Regional Chief** _____
**(Signature and Date)**

**MANDATORY 10- OR 15-YEAR RE-EVALUATION DATE: __2024__**


USDA
TEXAS
Department of
State Health Services
2014 Oral Rabies Vaccination Program
Vaccine Distribution Area - Proposed
Operational airports
Border Maintenance Zone
Gray Fox Contingency Zone
Skunk Expanded Study Area
Alpine
Brady
Del Rio
La Grange
Zapata
0
50
100
200 Miles
N