

Draft

June 7, 2006

## Hunting Plan

### Buffalo Lake National Wildlife Refuge

Recommended by: U.S. FWS, Project Leader Date:

Reviewed by: Refuge Supervisor, TX/OK Date:

Concurred by: Region 2 Chief of Refuges Date:

Approved: Regional Director, Region 2 Date:

## **I. Introduction**

Buffalo Lake was first developed in 1937 with the completion of Umbarger Dam, which was built as part of the Bankhead-Jones Farm Tenant Act of 1937 and was managed by the Soil Conservation Service for water conservation, recreation, and as a wildlife sanctuary. The United States Fish and Wildlife Service took over operation of the area on November 6, 1958. Throughout the 1950's and 60's Buffalo Lake was widely used as a recreational area providing boating, fishing, and other water related activities.

Tierra Blanca Creek and other natural springs fed Buffalo Lake until the 1970's when irrigation and urban water pumping depleted the aquifers to the point that perennial surface water no longer existed. This draining of the aquifer was compounded by climatic drought which lowered lake levels even further. Given these conditions the flows in Tierra Blanca Creek eventually ceased and Buffalo Lake dried up.

However, in 1978 a record flood within the Tierra Blanca Creek drainage filled Buffalo Lake to capacity. Shortly after filling, Umbarger Dam was condemned resulting in the release of all water within Buffalo Lake. Fourteen years later in 1992, Umbarger Dam was replaced with a modern flood control structure able to withstand the torrential flooding known within the area. However, current water quality suffers from runoff from upstream confined cattle feeder operations. During a flood in 2004, water quality resulted in fecal coli form numbers too numerous to count (>6000/L). Given this potential health hazard, Buffalo Lake is no longer open to water activities such as swimming, boating, or fishing. Therefore, public use at this time is limited to wildlife viewing and camping.

## **II. Statement of Need**

### *Public Hunting in the Texas Panhandle*

#### ***What does Buffalo Lake offer for hunting right now?***

Opportunities for hunting in the Texas Panhandle are limited due to the high portion of private lands. The Texas panhandle consists of approximately 23,583,840 acres with about 134,381 acres of public land open to hunting which is less than 1 percent of the panhandle. Currently, two parcels of public land are open to unlimited hunting during the two week mule deer season: they are the Rita Blanca National Grasslands (ca 77,000 acres) (USFS) and the Lake Meredith National Recreation Area (ca 22,000 acres) (National Park System). The Rita Blanca National Grassland receives little deer hunting pressure and they do not attempt to track the number of hunters on the grassland (Personal Communication District Ranger). Lake Meredith receives a high number of hunters but tracking of hunting use and harvest information is limited (Personal Communication Rhonda Terry 2005). Public deer hunting opportunities provided by the Texas Parks and Wildlife Department are limited to three tracts consisting of approximately 35,000 acres in the eastern Panhandle. On these units, hunters must participate in a drawing for a limited number of permits.

Since public hunting is limited in the Texas Panhandle, and because of Buffalo Lake's proximity to the two large population centers of Amarillo (180,000 population) and Lubbock (235,000 population), we believe the deer herd could not withstand a general open season. Therefore, any hunting on the Refuge would have to be limited to a youth only lottery type system to ensure proper herd management and public safety, as well as to introduce young adults to the sport of hunting.

### III. Assessment

#### *Mule Deer Population on Buffalo Lake National Wildlife Refuge*

Deer surveys have occurred on a regular basis since 1993, with the exception of 1997 and 2000. These surveys were performed in cooperation with the Texas Parks and Wildlife Department. Surveys were normally conducted in the fall (September/October) during nighttime hours. Two spotlights were used by two spotters in the back of a pick up bed. Spotters direct lights in a 180-degree arc on both sides of the truck. The spotters report the number, species, and sex of deer spotted to the driver of the truck. The total number of deer are tallied for each mile of the survey route. The survey route is approximately 14 miles. The same route has been consistently used throughout the survey history. The route is primarily located on the Refuge tour road and the boundary.

The total area surveyed is estimated by the maximum visible distance perpendicular from the truck, which is multiplied by the distance of the route which is then converted into acres viewed. The survey area has averaged approximately 1550 acres using the above protocol. Optimal deer habitat on Buffalo Lake is estimated to be approximately 4126 acres. Therefore, population estimates are made using the following formula:

$$P = N/A * R$$

P = Estimated Refuge Population

N = Number of Deer Seen

A = Transect Area in Acres=1550

R = Total Refuge Mule Deer Habitat in Acres= 4162

Mule deer populations remained stable in the early to late 1990's when an apparent drop in population occurred in 1999 ( Figure 1). In 1999 and 2001 (no survey in 2000), the estimated population dropped to around 13 and 56, respectively. Though the number of deer seen in 1999 was quite low, it is likely that observer bias or unfavorable conditions persisted during the survey causing a low estimate. This is compounded when compared to the 2001 estimate which is near 56 individuals or a four fold increase in the herd in just two seasons. However, it is without doubt that the herd did suffer a population decline during the late 1990's as the average estimate was approximately 87 deer for the previous 4 years. In 2002, the population rebounded to an all time high of an estimated 185 mule deer with a slight decline in the preceding year. To date, the population appears to remain constant with estimates hovering around the 150 animal level for the last 3 years. Mule deer use adjacent private property seasonally and primarily at night. This private property is not surveyed so the number of mule deer may be somewhat higher than recorded.

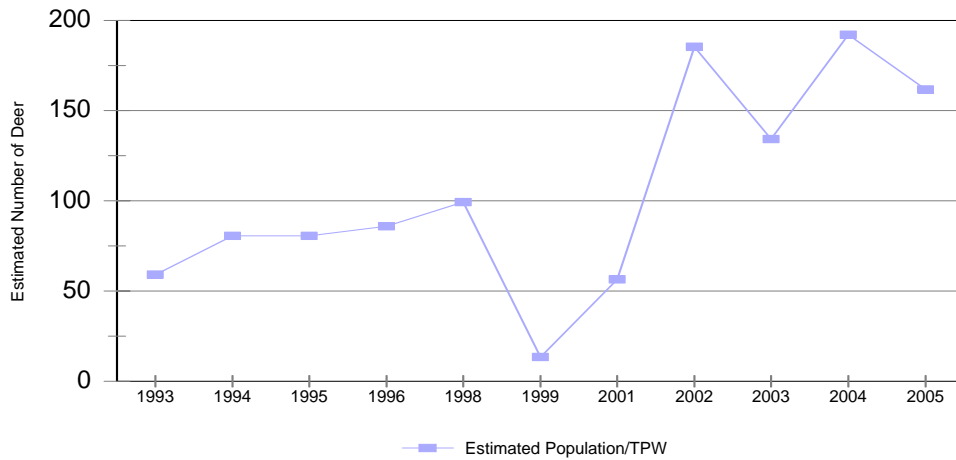


Figure 1. Estimated number of Mule Deer on Buffalo Lake National Wildlife Refuge using Texas Parks and Wildlife survey data. No surveys were conducted in 1997 or 2000.

Doe to Buck ratios have varied greatly during survey history. Ratios dropped significantly between 1993 and 1994 from 10/1 to 2/1, respectively. Then again in 1998 they increased to an all time high of 11/1. This was followed by a drop to a ratio 1.5/1 in 1999 and a zero buck count in 2000. However, in the preceding years the ratio has remained constant at approximately 3/1 between 2001 and 2003 (Figure 2). Fawn to Doe ratios have remained relatively constant throughout the survey period at a ratio approximately 0.5/1 to 1/1 (Figure 2).

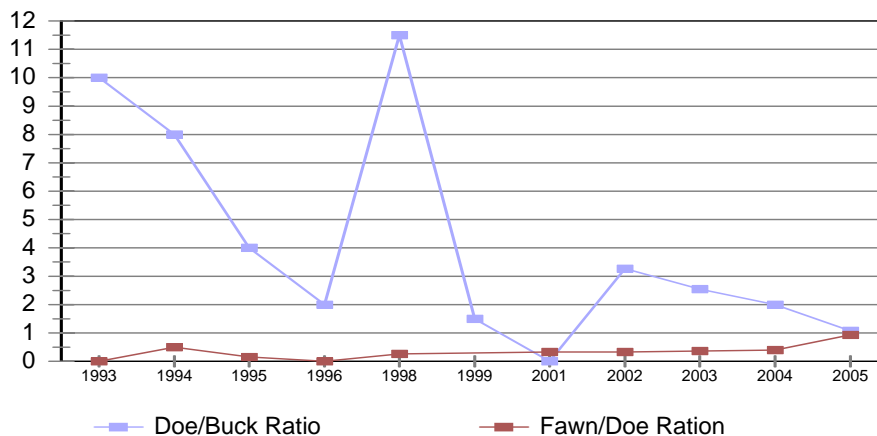


Figure 2. Mule deer Doe/Buck and Fawn/Doe Ratios during survey history at Buffalo Lake National Wildlife Refuge.

In conclusion, there are many aspects to the mule deer population that are unexplained, including off refuge feeding uses, daily or seasonal movement of the deer herd or

portions thereof, and potentially the harvest of mule deer during open seasons on adjacent private property. The first two mentioned above do occur depending on annual conditions and the availability of row crops, primarily winter wheat or rye, on the Refuge and on surrounding private agriculture fields. The Refuge, through the Cooperative Farming program, typically provides 180 acres of winter wheat and 60 acres of sorghum annually for wildlife uses. However, deer still use private agriculture land intensively during dry years.

Hunting on adjacent private lands tend to be sparse and of little effect. Most surrounding landowners appear to allow very limited access for hunting currently. However, in the past some pastures off the Refuge have been leased for deer hunting, but success has appeared to be low. It is without doubt that deer are harvested off refuge on adjacent private land but the harvest of these deer appears to be small.

#### *White-tailed Deer Population on Buffalo Lake National Wildlife Refuge*

Currently, we have no estimate of the white-tailed deer population on the Refuge. Sightings of this species by Refuge personal has become more frequent in the last four years; however, our spotlight surveys have not produced accurate white-tailed deer numbers. Recent accounts taken anecdotally during other surveys indicate that there may be as many as 30 to 45 white-tails on the Refuge. The potential harvest of white-tailed deer during the hunt is very low. The low potential for harvest is due to the white-tailed deer congregating typically in a “no hunting zone.” However, the potential for this species to be harvested still exists; therefore, we will assess the number of white-tailed deer harvested annually and make adjustments according to the population. We believe that the current population can withstand the proposed harvest of three bucks during the first season. We will track the harvest of white-tailed deer closely, and if at some point harvest becomes too high we will either modify the bag limit or cease all hunting of white-tailed deer until a hunt able population once more exists.

#### *Harvest Goals*

Harvest will be determined each year prior to the August application deadline using the past years’ survey information. We are anticipating harvesting around 3 deer a year with a maximum of 15 deer if populations warrant. Bag limits pertaining to sex and species of deer will be determined prior to the application process annually dependent on the deer populations. This hunt is primarily being proposed to offer a quality hunting experience to youth hunters. Most likely we will limit the hunt to one and possibly up to three hunters per weekend to provide the most optimal quality hunting experience.

### **3. Hunting Regulations**

#### *Description of Hunter Orientation, Including Scouting*

Hunters will be given a safety briefing and orientation prior to participating in public use activities. Hunter orientations will utilize hunting regulation leaflets with maps delineating areas open for hunting. Scouting is permitted by foot up to three days prior to

the hunt. Hunters intending on scouting must contact the Refuge Headquarters before scouting and may only be conducted during regular Refuge hours which are between 8:00 a.m. and 6:00 p.m. CST.

### *Hunter Requirements*

Hunting will be permitted by youths between 12 and 16 years of age that have satisfactorily passed a State hunter safety course. Hunters must be between 12 and 16 years of age at the time of hunt. A sponsor at least 21 years of age must accompany the hunter. A total of two sponsors will be allowed on the Refuge with the hunter.

All applicants must submit a completed application to Buffalo Lake NWR at P.O. Box 179, Umbarger, Texas 79091. Applications must be received by July 31. A public drawing will be held at the Refuge on August 15. Hunters must choose at time of application a specific hunt date. If selected, the hunter will only be allowed to hunt on that date (see Attachment 1). There will be a \$7.50 non-refundable application fee and special use fee of \$45 for successful applicants. Hunters must possess a valid Texas Hunting License and proof of satisfactory completion of a State sanctioned hunter safety course.

### *Areas Open to Hunting*

A map will be provided to each hunter during the orientation. The following units will be open to deer hunting: 1 (208 acres), 2 (382 acres), 3 (507 acres), 4 (215 acres), 5 (650 acres), 6 (382 acres), 7 (306 acres), 8 (287 acres), lake bottom from Texas Dike to Stewart Dike (900 acres). See Attachment 2

### *Areas Closed to Hunting and Shooting*

The following areas will be closed to hunting: all Refuge property east of Farm to Market Road 168, the campground, all of the lake bottom North and East of Texas Dike, from the Refuge entrance on Farm to Market Road 168 to the Campground entrance, and Payne Moist Soil Unit. Hunters must be a minimum of 30 feet off any road, and hunting is not allowed within 30 feet of any refuge boundary or on private property. See Attachment 2

### *Hunting Regulations*

The general season will follow the regulations set by the Texas Parks and Wildlife Department (TPWD). Typically, the general deer season in Randall County is three contiguous weekends usually starting around the last weekend in November. During this time, hunters may take two mule deer with no more than one buck and three white-tailed deer with no more than one buck. The TPWD requires a special permit for the harvest of doe mule deer in Randall County. White-tail deer season is significantly longer but the three weekend or two week interval mentioned above are the only time both white-tail and mule deer and can be hunted concurrently. Therefore, Refuge hunts will only be held

within the timeframe during which both species can be hunted concurrently. Species of deer and sex of deer that can legally be harvested on the Refuge will be determined prior to the application process annually.

Legal firearms include shotguns firing a single slug of 28 gauge or larger. Scopes may be used on shotguns. Muzzle loading firearms firing a single projectile of .45 caliber or larger. Scopes, inline, and black powder equivalents may be used.

Tree stands or any devices such as nails, tacks, and scalping used to climb trees or construction of blinds in trees is strictly prohibited. Use of tripod types of blinds or other elevating blinds are prohibited. Ground blinds are allowed. Ground blinds may be constructed two days before the hunt and must be removed within 24 hours after the close of hunting season. The hunter's name, address, phone number, and permit number must be located on the blind.

Hunters and their sponsors will be required to wear a minimum of 144 square inches of blaze orange. Only the youth hunter will be allowed to carry a firearm. A sponsor at least 21 years of age must accompany the hunter. A total of three individuals will be allowed on the hunt including the hunter.

Recreational shooting, target practice, or sighting in of firearms is strictly prohibited.

Any use of all terrain vehicles (ATVs) is prohibited.

Use of horses is prohibited.

Use of bait or feeders of any kind is strictly prohibited.

No alcoholic beverages are allowed on the Refuge at the time of the hunt.

Hunters are required to check in and out of the Refuge during hunting days. All deer harvested must be checked out at the designated check point.

#### *Bag Limits*

Bag limits will be determined prior to the opening of the application process.

#### Suggested Regulations for the Federal Register for Buffalo Lake National Wildlife Refuge.

Hunting of deer is permitted on designated areas of the Refuge subject to the following conditions:

- (a) Public access and hunting permits and all applicable state licenses are required.
- (b) Hunting is permitted by shotgun or muzzle loader as regulated by specific areas and Refuge seasons.

- (c) Bagged game must be legally tagged and taken to the Refuge check station.
- (d) Use of all-terrain-vehicles (ATVs) is prohibited.
- (e) Use of horses is prohibited.
- (f) Hunting will be permitted by youths aged 12 to 16 that have satisfactorily passed a State hunter safety course. Hunters must be between these ages at time of hunt. A sponsor at least 21 years of age is required to accompany hunter.
- (g) Tree stands or any devices such as nails, tacks, and scalping, used to climb trees or construct of blinds in trees is strictly prohibited. Use of tripod types of blinds or other elevating blinds are prohibited
- (h) Hunters and their sponsors will be required to wear a minim of 144 square inches of blaze orange.
- (i) Scouting is permitted by foot up to three days prior to the hunt. Hunters intending on scouting must contact the Refuge Headquarters before scouting. Scouting is only allowed during regular Refuge hours between 8:00 a.m. and 6:00 p.m. CST.

Attachment 1  
Proposed application format



Buffalo Lake NWR Youth Hunting Application 2007

\$7.50 Non-refundable Application Fee Required to be Eligible for Drawing

*(Money Orders or Checks Only, payable to U.S. Fish & Wildlife Service, no cash)*

1<sup>st</sup> Sponsor Name: \_\_\_\_\_ Date of Birth \_\_\_\_\_  
(Required)

2<sup>nd</sup> Sponsor Name: \_\_\_\_\_ Date of Birth \_\_\_\_\_

Hunters Name: \_\_\_\_\_ Date of Birth \_\_\_\_\_  
(must be between 12 and 16 at time of application)

1<sup>st</sup> Sponsor Address \_\_\_\_\_

\_\_\_\_\_

Sponsor Phone \_\_\_\_\_

Circle Hunt Date You Intend to Apply For (Circle only one):

November 25-26

December 2-3

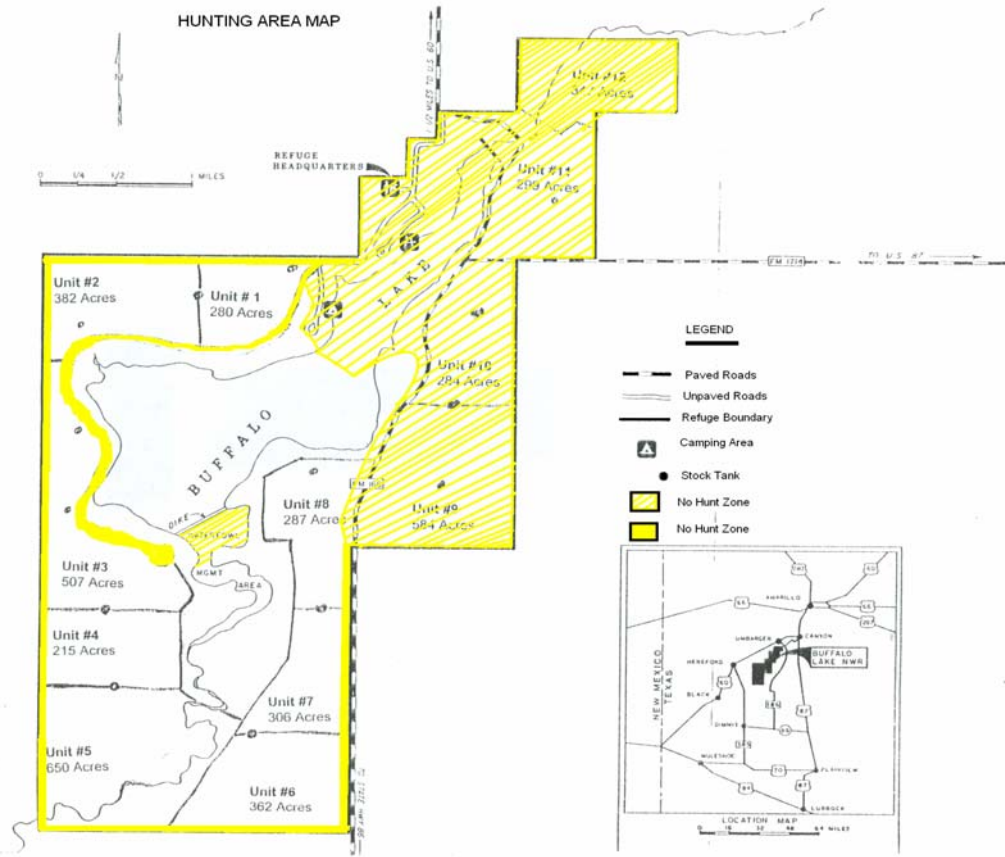
December 9-10

***If successful, a \$45 dollar special use permit is required. These are available at Buffalo Lake NWR only. All proper State permits are also required.***

MAIL TO: Buffalo Lake NWR  
P.O. BOX 179  
Umbarger, TX 79091

Applications Must Be Received By August 15<sup>th</sup>

Attachment 2. Hunting Area Map.



DRAFT