Original

Annual Reporting

AN ANNUAL REPORT IS REQUIRED OF ALL PROPERTIES UNDER WILDLIFE MANAGEMENT

A wildlife management property association may file a single annual report, if the report shows how the wildlife management plan was **implemented on each tract** of land in the wildlife management property association. The report will be completed on the form prescribed by TPWD and shall be signed by each landowner or an agent of the landowner designated. A landowner may file an individual annual report if they so desire.

1.
HABITAT CONTROL

Aldo Leopold, who is known as the "Father of Modern Wildlife Management", authored a book in 1933 titled *Game Management.* In this textbook Leopold wrote "...game can be restored by the *creative use* of the same tools which have heretofore destroyed it - ax, plow, cow, fire, and gun".

Introduction

Habitat is defined as the physical and biological surroundings of an organism and provides everything that a living organism needs to survive and reproduce. The three basic requirements of any wildlife species to survive and reproduce are food, water, and shelter. Quite frequently, we as land managers tend to focus on a specific wildlife species and its needs as opposed to the habitat or community in which they live. The key to managing wildlife and our natural resources is to use a holistic approach and promote healthy ecosystems. Single species deserve less attention, while the system in which they thrive requires more. Knowing how a system functions and applying the techniques with which that system developed is imperative for its continued health and existence.

Each time a hunter chooses to shoot or not to shoot, a management decision that will affect the future of that animals habitat and herd composition is made.

Grazing Management:

Typically considers rotational grazing if fencing allows. Alternative would be high intensity short duration. Another method would be a 1 to 2 year lease with a rancher. Deferment from grazing only is allowed for two years. A report that states total deferment without a grazing management plan will be denied for habitat under this activity. High intensity – short duration grazing systems allow livestock to act as a tool to manipulate and enhance wildlife habitat and plant diversity.

Documentation:

1. *Grazing Management plan to include property map and description of pasture use*
2. *Photos prior to stock removal and after plant regeneration*

Prescribed Burning

Burning can improve accessibility, increase both quantity and quality of forage and browse production, suppress brush and cactus, improve grazing distribution of livestock and wildlife, and remove excessive thatch and debris. Prescribed burning is a tool used to maintain desired vegetation composition and structure. A minimum of 15% of acreage burned over a 7-year period in the Edwards Plateau Region.

Documentation:

1. *Prescribed Burn Plan to include map*
2. *Photos of before and after*

Range Enhancement (Range Reseeding)

Managing, restoring, and/or protecting native grasslands is also considered range enhancement. This may or may not include actual reseeding but could include utilizing some of the "tools" to manage for the earlier successional stages of

a native grasses. Enhancement should annually affect a minimum of 10% of the total area designated in the plan, or a minimum of 10 acres annually; whichever is smaller, until the project is complete.

Documentation:

1. *Range Restoration Plan to include Map*
2. *Photos of before and after*

Brush Management

Brush management is only part of a good habitat management program and should be planned carefully to address overall management goals. **The primary principles that drive any good brush management program are: 1) extent 2) pattern 3) selection and 4) method.**

The extent to which brush is going to be cleared is the first step in developing a program. Overall goals of the property should be examined and can help to dictate the amount of clearing needed to meet wildlife, livestock and/or aesthetic expectations. Clearing 100% of the brush may be best from a livestock production standpoint, but if your overall goal includes white-tailed deer management, you may only want to clear 50% or less. Removal of only individual plants may be all you need to do depending on the amount of brush you have. The pattern in which brush is cleared should consider wildlife cover and accessibility. This may include cover from predators, nesting cover, loafing cover or roosting cover. Maintaining travel corridors that link sections of brush is also very important. Selection includes both the site and the species of brush to be cleared. The site of brush clearing is important to make sure potential soil erosion is kept to a minimum. Soil type and slope should be considered. Certain soils may also be selected for clearing because of better forage production. Removal of desirable plant species used by wildlife for food and cover should be kept to a minimum. A total cost analysis, soil erosion issues, and the type or species of brush, which is being targeted, will determine the method(s) used. This practice should affect a minimum of 10% of the total area designated in the plan or a minimum of 10 acres annually, whichever is smaller.

For additional information contact the Texas Parks and Wildlife Department's Kerr Wildlife Management Area at 830-238-4483 to schedule a visit and see the different types and effects of brush management programs. ALSO NRCS: NUMBER LISTED ON LAST PAGE...

Documentation:

1. *Brush Management Plan to include map*
2. *Photos of before and after*

Riparian Management and Enhancement

NOT APPLICABLE WHERE LIVESTOCK IS NOT PRESENT

If you have an area where this activity might be applicable, consult with the Natural Resource Conservation Service (NRCS) for planning assistance.

Habitat Protection for species of concern:

Habitat protection as it is defined here can include setting aside critical areas of habitat, managing vegetation for a particular species, maintaining overstory vegetation from degradation, and annually monitoring the species of concern. A minimum of one project must be implemented every 10 years to qualify. Management for migrating, wintering, or breeding Neotropical birds and should follow specific guidelines provided by the Texas Parks and Wildlife Department specific to your ecological region. A minimum of one project must be implemented very 10 years to qualify. **Contact the Texas Parks and Wildlife Department for approved management guidelines before implementing activities designed to protect or enhance habitat for endangered species.**

Documentation:

1. *Specific Plan to address target and habitat*
2. *Map of habitat area*
3. *Photos before and after manipulation*

Prescribed control of Native, Exotic and feral Species

The changing land management practices, combined with grazing pressure of too many deer, exotics, and livestock have degraded the quality of wildlife habitat across the state. There may be little or no groundcover to capture runoff, rainwater is lost, and groundwater is not recharged. The whole system is suffering. Using the gun, as a tool, to manage populations of white-tailed deer and other ungulates at or below the carrying capacity of the range is essential in providing quality wildlife habitat for a multitude of wildlife species. **White-tailed deer have a high reproduction potential, and in the absence of natural predators (mountain lions, etc), can quickly overpopulate a range.** If white-tailed deer are allowed to overpopulate, they can have negative effects on the habitat for themselves and other

wildlife species. The removal or control of exotic vegetation or the conversion of tame grass pastures must affect a minimum of 10% of the area designated in the plan, or 10 acres annually whichever is smaller.

Documentation:

1. *Habitat and Browse survey*
2. *Census to determine impact*
3. *All recorded documentation/notes*
4. *Harvest Strategy Plan*

Wildlife Restoration

Wildlife restoration means restoring or improving habitat for targeted species as part of an overall reintroduction program in a Texas Parks and Wildlife Department approved restoration area.

Documentation:

1. *Approved Plan from TPWD*
2. *Copy of Permit*

2.

EROSION

Introduction

Any active practice that attempts to reduce or keep soil erosion to a minimum. Erosion is a natural process that cannot be stopped; however, human activity such as earthmoving and tillage can accelerate the process. According to the U.S. Department of Agriculture the United States loses more than 2 billion tons of topsoil each year to erosion. Erosion

removes fertile soil rich in nutrients and organic matter, which reduces the ability of plants to establish, grow and remain healthy in the soil. A reduction in plant growth and subsequent plant residue causes less soil cover and allows the erosion process to perpetuate and become worse. This in turn affects wildlife species dependent upon the affected plant communities. According to the U.S. Department of Agriculture the United States loses more than 2 billion tons of topsoil each year to erosion. Erosion removes fertile soil rich in nutrients and organic matter which reduces the ability of plants to establish, grow and remain healthy in the soil. A reduction in plant growth and subsequent plant residue causes less soil cover and allows the erosion process to perpetuate and become worse. This in turn affects wildlife species dependent upon the affected plant communities. **The project MUST provide habitat diversity and wildlife benefits.** It is very important to recognize the exact type of erosion problems you have.

Pond Construction and major repair

This practice involves building a permanent water pond to prevent, stop or control erosion as an ***approved Natural Resource Conservation Service (NRCS) watershed project*** while providing habitat diversity and benefiting wildlife. Whenever possible, owners should use ponds to help create or restore shallow water areas as wetlands and for water management. A minimum of one project must be implemented and maintained every 10 years to qualify.

Documentation:

1. *Plan prepared by NRCS*
2. *Map of location/area to include size*
3. *Photos of before and after*
4. *Monitoring documentation to record the effects*

Gully Shaping

This practice involves reducing erosion rates on severely eroded areas by smoothing to acceptable grades and re-establishing vegetation. An area should be seeded with native plant species of the Edwards Plateau Region that provide food and/or cover for wildlife. A minimum of one project must be implemented and maintained every 10 years to qualify.

Documentation:

1. *Gully Shaping plan. This is not referring to the shape of the gully but rather when, where and how erosion will be prevented. (Plan must be developed by a professional (NRCS)*
2. *Map of location/area to include size*
3. *Photos before and after*

Streamside, pond and wetland revegetation

This is not a typical practice in Edwards County. If you have an area where this activity would be applicable, please consult with our Natural Resource Conservation Service for plan and documentation assistance.

Plant Establishment on Critical Areas (for crop land areas

This is not a typical practice in Edwards County. If you have an area where this activity would be applicable, please consult with our Natural Resource Conservation Service for plan and documentation assistance.

Dike, levee construction or management

This is not a typical practice in Edwards County. If you have an area where this activity would be applicable, please consult with our Natural Resource Conservation Service for plan and documentation assistance.

Establish Water Diversion

This is not a typical practice in Edwards County. If you have an area where this activity would be applicable, please consult with our Natural Resource Conservation Service for plan and documentation assistance.

3.

Predator Control

Introduction

A common sense approach should be taken when considering control of these species. The landowner or manager must evaluate the predicted outcome of control measures prior to starting any control. For example, in many parts of the Edwards Plateau, as well as the State and nationwide, there are too many white-tailed deer and controlling the predators that feed on them would cause increased populations and further loss of habitat for other wildlife species.

A landowner or manager should **first manage the wildlife habitat** on his or her property, increasing the plant diversity and abundance of species that provide food, shelter, and nesting cover for all wildlife species **prior** to implementing a full scale predator control program for all predator species.

On properties throughout the Edwards Plateau, Cross Timbers & Prairies and across the State, landowners and managers have implemented every known control method for predators and yet they thrive. Landowners need to have a long range wildlife management plan in place defining the goals of any of the activities occurring on the property including predator control. Once in place, activities can be monitored and results can be recorded to aid in future management decision making.

FERAL HOGS ARE A KNOWN PROBLEM. THERE ARE OTHER METHODS OTHER THAN TRAPPING. HOGS REQUIRE COVER, FOOD, AND WATER. CONSIDERATIONS SHOULD BE TO MINIMIZE THEIR HABITAT BY SPOT CUTTING CEDAR WHERE HOGS PREFER TO LIVE AND PROTECT WATERING AND FEEDING AREAS FROM PREDATION BY THEM. WE CONSIDER THIS A TYPE OF PREDATOR CONTROL FOR THIS SPECIE.

WHEN IMPLEMENTING PREDATOR MANAGEMENT, YOU MUST KNOW IF THERE IS A PREDATION PROBLEM ON YOUR TARGET SPECIE. CONSIDERATION SHOULD BE:

1. **IS THERE A PREDATION PROBLEM**
2. **WHAT ARE THE NUMBERS VERSUS YOUR TARGET SPECIES**
3. **IS YOUR TARGET SPECIES DECLINING DUE TO THIS PREDATION**
4. **IS THERE A BALANCE**

Predator Management

Predator Control alone will not be an applicable practice unless it is part of an overall plan to manage the habitats and populations of the target species. **Texas Parks and Wildlife Department advocates elimination of feral/exotic predator, with the thoughtful management of native predators as an integral part of functioning natural systems.** The predator control plan should be prepared or approved by a competent professional and include the list, duration and intensity of methods to remove the target species annually.

Documentation

1. *Predator logs*
2. *Conclusions and notes depicting changes in numbers, species, and habitat*

4.

SUPPLEMENTAL WATER

Introduction

Many people mistakenly believe that water sources suitable for livestock are also suitable for wildlife. Unfortunately that is not always the case, particularly for young wildlife and many bird species. Wildlife water developments are in addition to those sources already available to livestock and may require protection from livestock. EXSISTING TROUGHS SHOULD BE MODIFIED. Watering sources must be specific for species being managed.

Well/Troughs/Windmill Overflow and Other (example: Roof Rainwater Harvesting) Wildlife Watering Facilities

This practice can provide supplemental water for wildlife and provide habitat. Owners also may drill wells if necessary and/or build pipelines to distribute water. Building devices—known as wildlife water guzzlers—to collect rainfall and/or runoff for wildlife in areas where water is limited also helps protect wildlife, but these devices must be a part of an overall habitat management program.

Documentation

1. *Photos of area where water source is currently devoted to wildlife*
2. *Map*

Spring development and/or improvements

(MUST BE APPROVED THROUGH NRCS)

Improvements can be designed to protect the immediate area surrounding a spring. Excluding and/or controlling livestock around springs may help to maintain native plants and animal diversity. Other ways to protect areas include moving water through a pipe to a low trough or a shallow wildlife water overflow to make water available to livestock and wildlife while preventing degradation of the spring area from trampling.

Improvements also could include restoring a degraded spring by selectively removing appropriate brush and revegetating the area with plants and maintaining the restored spring as a source of wildlife water. Maintaining critical habitat, nesting and roosting areas for wildlife and preventing soil erosion must be considered when planning and implementing brush removal. This practice should be planned and implemented gradually and selectively over a period of time.

Documentation

1. *Spring Development Plan approved through NRCS*
2. *Before and after photos*
3. *Any written logs and notes of progress and noted changes in water flow and vegetation monitoring*
4. *Map*

5.

PROVIDING SUPPLEMENTAL FOOD

Introduction

Most wildlife environments have some natural food. An owner supplies supplemental food by providing food or nutrition in addition to the level naturally produced on the land.

Food plots

This activity is typically NOT recommended for this area due to rainfall types and amounts. This practice may cause soil erosion in the majority of this region.

Documentation

1. *Size of Plot*
2. *Plantings:*
   a. *Cool season*
   b. *Warm Season*

c. *Annual Mix of Native Plants*

d. *Perennial mix of native plants*

3. *Irrigation requirements*

4. *Fertilizer recommendations*

Feeders and Mineral Supplementation

Once a feeding program has been initiated, it is important to keep it implemented. It is also important to clean all feeders regularly to avoid contamination from aflatoxin. Harmful aflatoxin in feed should not exceed 20 parts per billion. **A minimum of one free-choice feeder per 320 acres in use during the *recommended time period*, with a minimum of 16% crude protein feed (See Appendix F for deer), required to qualify.**

Spin cast feeders do not qualify as a supplemental feeder.

Corn: May be used to harvest, collect census data, and feed during extreme cold spells.

PROVIDING SHELTER

Introduction

Although supplemental shelter can be provided in many ways, it will never take the place of good conservation and management of native habitats. When land is properly managed for wildlife habitat, quality cover and shelter will usually be available. Unfortunately in much of Texas, many areas have been so altered, neglected, and abused that one of more of the key requirements of wildlife (including shelter) is absent or in short supply. This is where the opportunity exists for developing additional shelter for wildlife. The best shelter and cover for wildlife is provided by a well-managed habitat. **Some practices can be implemented to provide types of shelter that may be limited in the habitat.**

WHEN MANAGING FOR DEER, BRUSH PILES SERVE NO PURPOSE

Cover can be broken down into three categories: nesting, escape, and feeding, with some overlapping of the three. Nesting boxes for birds are some of the most visible and enjoyable COVER projects. Cavity nesters such as bluebirds, and wrens are delightful to watch and easy to attract. Leaving snags, dead or dying trees may seem unattractive, but many birds depend upon them for their "natural" shelters. Most wildlife species are edge dwellers, and escape cover is necessary to provide protection from predators. Wildlife is not comfortable out in the wide open, and foods that they search out are not always readily available in dense wooded situations. ***The line where these two areas meet compose the edge.***

Although supplemental shelter can be provided in many ways, it will never take the place of good conservation and management of native habitats. ***When land is properly managed for wildlife habitat, quality cover and shelter will usually be available.*** Unfortunately in much of Texas, many areas have been so altered, neglected, and abused that one of more of the key requirements of wildlife (including shelter) is absent or in short supply. This is where the opportunity exists for developing additional shelter for wildlife.

Before beginning on any wildlife management practice, you must determine what wildlife species you are managing for and what its *specific* cover needs are.

Mowing can be deferred in certain areas to allow grasses and weeds (forbs) to mature and provide food, cover and nesting sites for some species of wildlife. Trees, shrubs, and vines along fence lines can be allowed or encouraged to grow up in areas where cover is limited. Mesquite or other brush can be half-cut early in the growing season on provide low growing, ground cover in areas where this is lacking.

Nest Boxes, Bat Boxes

Number and location of nest boxes should be consistent with **habitat needs and territorial requirements of the target species**, and sufficient over the area to provide a real supplement to the target population and address an identified severe limiting factor as part of a comprehensive wildlife management plan.

Documentation

1. ***SPECIFIC** Target Species*
2. *Map location of boxes/cavities*
3. *Documentation depicting nesting periods, chick flights, etc...*
4. *Box type*
   a. *Cavity type*
   b. *Bat boxes*
   c. *Raptor poles*

Brush Piles and Slash Retentions

This practice also INCLUDES SLASH RETENTIONS, meaning to leave the dead brush on the ground (not stacking) where it was cut to provide protection for seedlings of desirable plant species. This practice means stacking post or limbs in tepees in a planned area with lack of cover. A minimum of 1% of the designated area must be treated annually to qualify.

Documentation

1. *Map*
2. *Photos before and after*
3. *Dated logs*

Half-Cutting Trees or Shrubs

This practice involves bending branches and cutting at ***bend only partially to retain life*** in the branches. The tips of the branches should touch the ground and create a teepee like formation that creates a shelter in areas that are lacking cover.

A minimum of one clump of trees/shrubs per 100 yards on at least 10% of acreage or 10 acres, whichever is smaller, annually to qualify.

In open areas with very little near-ground cover, cutting half-way through the lower mesquite limbs and breaking them to the ground can form a "cage" that provides escape and roost cover for wildlife.

7.

CENSUS

Introduction:

Census counts are periodic surveys and inventories used to **determine the number, composition or other relevant information about a wildlife population.** They may be used to determine if the current wildlife management practices are producing or sustaining the targeted species. Such surveys also help evaluate the management plan's goals and practices. Specifically, this activity estimates species numbers, annual population trends, density or age structure using accepted survey techniques. Annual results should be recorded as evidence of completing this practice. **A COMBINATION OF CENSUS METHODS MUST BE CONDUCTED TO QUALIFY.**

Refer to Appendices L and M of the TPWD Comprehensive Guidelines found at:

http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_w7000_0788_f-n.pdf

for more comprehensive information on conducting census.

Spotlight counting animals at night along a predetermined route using a spotlight should follow accepted methodology with a minimum of three counts conducted annually. (*Spotlight surveys are not a reliable method for determining white-tailed deer densities on small acreages.)*

Documentation

1. *Not typical on small acreages unless combined properties meet the guideline requirements*
2. *Must be logged on an appropriate form*
3. *Must have conclusions*
4. *Must have harvest recommendations*
5. *Map*

Aerial counts using a fixed-wing aircraft or helicopter to count animals also should follow accepted methodology for the region and be performed by a trained individual.

Documentation

1. *This practice is typical on larger ranches*
2. *Must be logged on an appropriate form*
3. *Must have conclusions*
4. *Must have harvest recommendations*
5. *Map*

Daylight wildlife composition counts are driving counts used to census wildlife in daylight hours. Annual population trends on dove, quail, turkey and deer, as well as sex/age structure on deer; should be determined by sightings along a standardized transect of a minimum of five miles at least three times during a season.

Documentation

1. *Plan to include transect lines with a minimum of 5 miles*
2. *If shorter lines are used must have a total of 15 miles*
3. *Must have a minimum of 100 observations*
4. *Smaller tracts, at least five separate two-hour counts morning and evening hours.*
5. *Must be logged on appropriate form*
6. *Map*

Harvest data collection/record keeping means tracking annual production of wildlife. Age, weight and antler development from harvested deer, and the age and sex information.

Documentation

1. *Collect all age, weight, and antler development data from harvested deer.*
2. *Must be logged on appropriate form*

Browse utilization surveys annually examine deer browse plant species for evidence of deer use on each major vegetative site on the property. The surveys should be conducted in a way that can be repeated. **Landowners should seek assistance by a professional.**

Documentation

1. *Perform during winter*
2. *Examine deer browse species for degree of utilization on vegetation feeding sites*
3. *Map*
4. *Logs on appropriate form*

Census and monitoring of endangered, threatened or protected wildlife through periodic counts can improve management and increase knowledge of the local, regional or state status of the species.

Documentation

1. *Regular Periodic counts of target species*
2. *Map*
3. *Logged on appropriate form*

Census and monitoring of nongame wildlife species also can improve management or increase knowledge of the local, regional or state status of the species. These practices can include developing checklists of wildlife diversity on the property and should be a part of a comprehensive wildlife management plan.

One of the most important things for a landowner to remember when designing a census protocol for nongame species on their property is the ability to be consistent. In other words, be able to do the same thing in the same way at the same time each and every time the census is conducted.

Documentation

1. *Regular, periodic counts*
2. *Checklist of wildlife diversity for the property*
3. *Map*
4. *Logged on appropriate form*

Miscellaneous Counts includes designing special survey techniques unique to a specific species. These may include the following and should be addressed in the management plan:

- Time/area counts
- Roost counts
- Song bird transects and counts
- Quail call and covey counts
- Point counts
- Drift fences and pitfall traps
- Small mammal traps
- Bat census (ex. Departures)
- Other: Describe:_____

Documentation

1. *Target species*
2. *Map*
3. *Logged on appropriate forms*

LOCAL RESOURCES FOR ASSISTANCE

NATURAL RESOURCE CONSERVATION SERVICE

(NRCS)

830-683-2187

TEXAS COOPERATIVE EXTENSION SERVICE

EDWARDS COUNTY AGENT

830-683-4310

SOIL AND WATER CONSERVATION SERVICE

(SWCD)

830-683-21857

TEXAS A&M OF SONORA

EXPERIMENTAL STATION

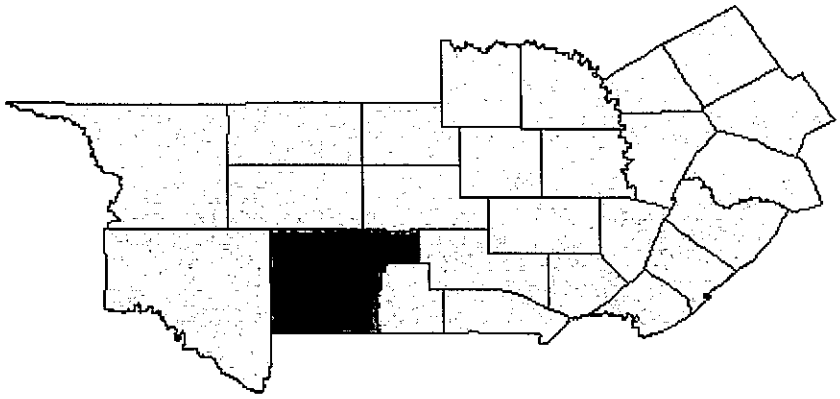
325-387-3186

www.ranchmanagement.org

For calendar of events

Wildlife District

The wildlife district for the Texas Hill Country is comprised of 25 counties. This site will allow you to find useful information for each county. Click on any county in the map below to find out which wildlife biologists and technicians are responsible for your area.



Wildlife Contacts

Name	Title	Address	Phone
Ryan Schmidt	Wildlife Biologist	128 Private Road 1700 Rocksprings, TX 78880	(830) 703-6808
Kelly Bender	Urban Biologist	944 Highway 71 East, Suite 110 Bastrop, TX 78602	(512) 308-0979
Joyce Moore	Technical Guidance Biologist	Box 558 Harper, TX 78631	(830) 864-5147
Terry Turney	Wildlife Diversity Biologist (LIP Contact)	302 Oak Ridge Road San Marcos, TX 78666	(512) 396-0321
Mike Krueger	District Leader	309 Sidney Baker South Kerrville, TX 78028	(830) 896-2500