



DEVELOPING A DEER MANAGEMENT PLAN

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There are few successful ventures that did not start with a little forethought and planning. A “game plan” is needed for just about everything we do from cradle to grave to avert the “slings and arrows” of life. Things like family planning, financial planning, a health plan, and even a burial plan come to mind. And if you are a landowner, you know that good planning may be the difference between making it or breaking it financially. But, “if you don’t write down the rules of your game, you’ll always be playing a different game”.

Developing a plan that addresses the proper management of wildlife populations and habitats on your land is no different. Whether you are making a living at it, or just trying to do the right thing for the land and wildlife, developing a plan of action is fundamental to success. But not everyone has all the “tools” in their tool chest to automatically know how to manage wildlife and wildlife habitat. There is more to it than most people think, and there are few shortcuts in this process.

Aldo Leopold said, “The urge to comprehend must precede the urge to reform.” Consulting with a professional wildlife biologist and other resource management specialists will add an important perspective and dimension to proper planning of the wildlife and habitat resources on your land. Landowners should draw on the expertise of one or several resource professionals to help develop a wildlife management plan, one that is based on good science and sound population and habitat management principals. In Texas, on-site assistance is available from state and federal agencies such as the Texas Parks and Wildlife Department, Texas Agricultural Extension Service, and Natural Resources Conservation Service. These agencies do not charge a fee for their services, and complying with their recommendations is generally voluntary (a specific level of compliance may be required for participation in programs such as financial cost-share or the issuance of special permits). There are also non-governmental groups and private consultants available to provide wildlife management assistance to landowners. These others may charge fees for the services, but in return, they may be able to devote more time and provide more personalized service. In short, there are a number of wildlife

management assistance options available to landowners. It doesn’t hurt to go to several sources for help. You will likely find that the advice and recommendations offered by one will be very similar to that offered by another (singing the same verse of the same hymn), providing validation. But there also may be some variations (same hymn, but singing a different verse), presenting you with the opportunity (or dilemma) to pick and choose what you think works best for your particular situation.

Even if the white-tailed deer is your primary, or one and only, species of interest, be wary of anyone, regardless of who is consulted, who does not include a healthy dose of *ecosystem management philosophy* that goes beyond single species (i.e. deer) management. A good land stewardship philosophy should address the *whole* landscape as well as *all* the wildlife species that are found there, and the habitats they occupy.

WHY HAVE A WILDLIFE MANAGEMENT PLAN?

To be successful, a wildlife management plan must be *ecologically sound, economically practical and realistically attainable*. Practically every landowner has different ideas about what he or she wants to do with a piece of property, and different expectations for the land to meet their goals and objectives. And their financial resources range from shoestring budgets to bottomless pits. In reality, it is the *land* that will determine whether or not their goals and objectives are attainable. The Texas landscape is a lesson in biological diversity with 10 major ecological regions and many sub-regions and ecotones that are the end product of the geologic past, rainfall and temperature patterns, and land use history, both past and present. Plant communities in many areas have been altered over time by the cumulative influences of livestock grazing, fire or the lack thereof, and other land uses. Wildlife populations of the present are a reflection of the existing configuration of plant life on the landscape. Developing a wildlife management plan is primarily a matter of working with what you have and then trying to elicit responses from the land through implementation of proven sound land enhancement and management practices. The art and science of this

process constitutes management, and it is an inexact science at best. “Trial and error” is often recommended to see what works and what doesn’t. Flexibility is an important component of any wildlife management plan because responses to habitat enhancement practices from well-intentioned management schemes and strategies often “go astray”. The concept of measuring twice and cutting once comes into play.

A wildlife management plan will provide a sense of direction for achieving long-term goals and objectives. It should outline a plan of action to follow so that wildlife, both game and nongame species, and their habitats are not adversely affected. Actions taken to enhance habitat or wildlife populations will result in reactions, many of which may be undetectable to the eye but significant to the welfare of something else.

In addition to providing a sense of direction to a landowner, a written wildlife management plan is required for participation in many state and federal land management cost-share incentive programs, and for the wildlife management use option of the open space tax valuation. Also, the Texas Parks and Wildlife Department requires a written plan as a prerequisite before landowners can participate in special hunting regulations, seasons, and bag limits - programs such as Managed Lands Deer Permits, Antlerless Deer and Spike Deer Control Permits, Trap, Transport and Transplant Permits, and Deer Management Permits.

ELEMENTS OF A WILDLIFE MANAGEMENT PLAN

The following subjects are the basic components of a wildlife management plan and some of the topics that should be addressed and documented. The list of topics is not necessarily all inclusive - every management plan is different, and the list may not fit every situation. Hopefully it is sufficient enough to understand the scope and concept of a wildlife management plan. A plan should include most of the following headings and subheadings, but should be customized for each particular situation.

Background Information -

- **Ownership** – Name, address, and phone number(s) of the landowner, as well as others (e.g. manager) who are responsible for assisting with making management decisions and implementing management practices.

- **Location of the Property** – County; distance and direction from the nearest city or town; roads used to access the property.

Statement of Goals and Objectives - This is basically a statement of where you want to go with your wildlife and habitat resources, providing direction for the specific things that will be needed to get there. Remember, the goals and objectives should reflect *ecological soundness, economic feasibility, and realistic attainability*. If they don’t, you’ll likely be disappointed with the results. The statement can be one sentence, or several one-line sentences. They may be general, but the more specific they are, the better they are for determining what needs to be done to achieve them. Some examples are:

- To properly manage habitat for native wildlife species for personal enjoyment and recreational use.
- To conduct habitat enhancement practices beneficial to native and migratory wildlife species.
- To produce trophy white-tailed deer and harvest mature bucks with 18 inch inside spreads and field dressed weights of 150 lbs. at 4 ½ years of age.
- To enhance habitat for maximum bobwhite quail production.
- To manage wildlife habitat for increased plant diversity and species composition.

Size of the Property and Acreage of General Habitat Types

- The general habitat types found on the property should be categorized and expressed in number of acres. This should include acreage in croplands or cultivation, improved pastures, native grasslands, native brush or woodlands, wetlands or riparian areas, number and acres of ponds or lakes, etc. This will give you an idea of what you have to work with and help you determine if you are in the general ballpark of your goals and objectives. If you are interested in managing for white-tailed deer, it helps if you have white-tailed deer habitat. If your interest is in managing habitat for a diversity of songbirds, you would need a variety of habitat types.

Past History of Land Use and Wildlife - Knowledge of past land use practices is very important, and may help explain why the land looks like it does today. Knowing the history of hunting and wildlife harvest and the demographics of wildlife populations often explains present population levels of game animal species and the quality of those populations. Go as far back in time as possible. In some situations, such as a new ownership, the known history of management under the previous ownership may be minimal – in other situations it may be possible to go back several

years, or generations. This section should include information such as:

- Habitat management practices conducted -
 - Where, when, and how much brush control has been implemented, and by what method (burning, mechanical, chemical, etc.).
 - Livestock grazing history (grazing intensity, classes of livestock, number of pastures, type of grazing system used – rotational, continuous, or none, etc.)
 - Range reseeding (species used, where and when), farming conducted in the past, etc.
 - Any other land use practices that may have had a direct impact on the land and plant life.
- History of wildlife populations and harvest of game animals. This is an area in the plan where you can establish a baseline to work from to measure the success of your management efforts.
 - Historic population densities, sex ratios, and species composition of wildlife determined from censuses.
 - Numbers of game animals harvested annually.
 - Field-dressed weights, antler measurements, and ages of harvested animals.
 - Hunting history (leased or non-leased, short-term or season-long, numbers of hunters, etc.)
 - Any stocking of wildlife species, including exotics, that may have occurred.

Current Situation – Provide information on:

- Vegetation management practices currently being conducted.
- Current livestock grazing practices (stocking rate, class of livestock, grazing system used, number and sizes of pastures, improved pastures used for grazing, etc.).
- How the property is currently hunted.
- Wildlife species present, including predators, exotic species, nongame and feral species.
- Amount of supplemental feeding and food plots currently being provided for wildlife.
- Amount and distribution of livestock and wildlife water sources (tanks, streams, wells).
- Habitat types and hunting practices on adjacent lands. Unless a property is high-fenced, species with large home ranges, such as deer, will liberally move back and forth across property boundaries. Documenting the habitat types, habitat management, and hunting practices on neighboring lands will help to identify liabilities, and assets, that will to some extent guide the management of your property. (Although you can't dictate or control how adjacent lands are managed, you can

possibly influence management decisions by setting positive examples.)

Description of Habitat - Aerial photographs and topographic maps are very beneficial in identifying and assessing habitats and other features of the property. A combination of a desk review of photos and maps and an on-site field review should be used to gather information.

- Include information on elevations and topography, geologic features on the landscape, and the names of creeks, rivers or watershed drainages
- Since plants are a direct reflection of soil types, this section should include information on the different soil types or associations present on the property. Soils maps are readily available in soil surveys that have been published for most Texas counties by the Natural Resources Conservation Service. The “range site” designation associated with each soil type provides a description of the native plant community that can potentially grow on the site, which can be compared to the plant community that actually currently occurs. Knowing soil characteristics such as texture, water holding capacity, erosion hazard, and rooting depth are important for planning the locations of management practices such as food plots, brush control, and range reseeding.
- A professional wildlife biologist or resource specialist can be of assistance by identifying in detail the plant species composition present on the property. This description should be a comprehensive inventory of the trees and shrubs, forbs, and grass species present on the landscape. The species that are valuable as food and/or cover for wildlife should be identified. The plant list should include both native and introduced plants and identify any problem areas where invader species occur. The present degree of plant use by livestock and wildlife should be evaluated, and the overall condition of the plant community should be rated (i.e. fair, good, excellent). The adequacy of the density and distribution of wildlife cover should be evaluated.

Habitat Management Recommendations - This section is the “meat” of the plan. It identifies the habitat management practices specific to your property that address your goals and objectives, and are beneficial to the *entire spectrum* of wildlife and wildlife habitats that occur. Recommendations should be practices that affect wildlife food, cover, and water, and the proper arrangement of these habitat components. Refer to these recommendations often

and update them as you progress with your management efforts. They may include but are not limited to the following:

- Livestock grazing recommendations (stocking rate, class of livestock, deferred-rotation grazing system, additional cross-fencing).
- Vegetation management recommendations (prescribed burning, mechanical brush control, proper use of herbicides, farming practices, rangeland reseeding, shallow disking to encourage forb growth, etc.).
- Watering facilities (development of additional livestock/wildlife water sources, or modification of existing facilities to better accommodate wildlife).

Featured Species - Your wildlife management plan should contain detailed information on the biology, life history and habitat requirements for the specific wildlife species (e.g. white-tailed deer, etc.) that are the intended primary beneficiaries of your management projects. Many species of wildlife have specific habitat requirements that are biologically driven. Knowledge of things like home range, territoriality, food habits, reproduction, population dynamics, longevity, seasonal movements, migration, and spatial requirements are fundamental to the management of each species.

Management recommendations should then be provided specifically for the featured species, in addition to and in conjunction with the overall management recommendations provided earlier in the plan. Specific recommendations could include:

- Supplemental Feeding / Food Plots – Feeding and food plots should not be viewed as a substitute for other proper land and wildlife management measures. Rather, as the term implies, these practices should be used to *supplement* the diet of the featured species and other wildlife during periods of stress or food shortages. The plan should identify the kind of feed to use, the type and number of feeders needed, and a schedule for distribution. Food plots almost require a plan of their own and can turn into downright farming if you want to do it right.
- Census Method(s) Used to Determine Population Density and Composition - This section should contain your plan for monitoring the populations of the featured species. List the census techniques to be used, when and where surveys are to be conducted, and method for data analysis. Here again, a professional wildlife biologist or resource specialist can assist you in determining how to gather and interpret this information.

- Recommendations for Harvest - For game species such as deer, turkey, and quail, hunting is an important part of the overall management program. *Annual* harvest recommendations, determined from *annual* census data, are especially necessary for deer to determine the appropriate harvest needed to maintain the desired density, sex ratio, and age structure of the deer population. A management plan featuring deer should address *general* deer harvest strategies to meet specific goals and objectives. However, the plan should stop short of making *specific* deer harvest recommendations – specific harvest rates should be developed annually and be based on current census data. The landowner should also put some forethought into the hunting strategy (numbers of hunters, etc.) that will be needed to achieve the desired harvest.
- Records Management - Good record keeping should be an important part of your wildlife and habitat management plan that will help you evaluate your efforts, environmentally as well as financially. Try to develop systematic measures to quantify the density and distribution of wildlife populations, habitat, plants, and land improvements. In addition, keep records on all wildlife surveys, population counts or casual observations throughout the year and develop trend information where possible on species abundance, distribution, and occurrence. Record data from game species harvested – numbers by sex, weights, antler measurements, and ages. Record the costs associated with any of the practices or conservation measures you use to enhance, maintain, or improve the land for reference or verification. Keeping good records is also recommended for documenting the land and wildlife management activities conducted if participating in the wildlife management use option of the open space tax valuation.

Other Species/Comments – This section can be devoted to “add-on” recommendations for the management of populations and habitats of other species on your property:

- Nongame species management (providing supplemental shelter such as birdhouses and brush piles, providing supplemental foods such as feeders, etc.).
- Control of predators and exotic and feral species of wildlife.

Species of Concern - In closing, your management plan should document if *species of concern* (that’s the

politically correct way of saying rare, threatened, or endangered species) occur on your property, or if there is suitable habitat indicating that a species of concern could potentially occur. The presence, or potential presence, of a federally-listed threatened or endangered species should not necessarily be considered a liability – good land stewardship, even if management is directed toward a game species or non-listed species, can be very compatible with maintaining habitat for a listed species, and vice versa. However, for every action there is a reaction that could either positively or negatively effect something in addition to the intended target. Professional resource specialists are legally obligated to not recommend any management practices that would knowingly harm a federally-listed species, or degrade its habitat. Likewise, landowners are obligated to not implement practices that could cause harm. Documenting the presence or potential presence of species of concern helps guide which management practices can be implemented, and those that should not be, to avoid causing adverse impacts.

PRIVATE LANDOWNERS ARE THE KEY

Since 97% of the land in the State of Texas is privately owned, the vast majority of the state's wildlife populations and wildlife habitats occur on private lands. Texas landowners are the key to maintaining and improving wildlife populations and habitats through the implementation of good, well informed, land stewardship practices.

