

## Wildlife Management Plan - Study Guide

A wildlife management plan for the 4-H Wildlife Habitat Education Program follows a specific format. This format needs to be adhered to (i.e., memorized and used) when writing the plan.

The plan consists of two parts:

- written narrative of two pages, and
- sketch map illustrating where practices are to be implemented.

The narrative portion consists of four main sections that must be written in paragraph format. Memorize these four main sections and use them as headings in your wildlife management plan. Writing should be concise and use wildlife concepts and terms.

The narrative portion of the wildlife management plan consists of four parts:

- **Plan Background** (20 Points)
  - *What are the species to be managed? (10 points)*
  - *State the management objectives (10 points)*
- **Plan Development** (80 Points)
  - *Demonstrated understanding of the habitat needs of each species (40 points)*
  - *Accurately evaluated the area as habitat for each species (what is present and what is lacking) and the management objectives (40 points)*
- **Plan Implementation** (80 Points)
  - *Included the appropriate management practices and where they should be implemented (20 points)*
  - *Demonstrated knowledge of the effect of various management practices on the habitat and/or the species (20 points)*
  - *Used the appropriate native plant species or recognized nonnative invasive species (20 points)*
  - *Recognized the management compromises necessary to meet the needs of each species and showed understanding of the mutual benefits of implementing certain practices (20 points)*
- **Plan Evaluation** (30 Points)
  - *Presented realistic methods for monitoring success of the recommendations (30 points)*
- **Format and drawing of sketch map** (40 Points)
  - *Presented in the appropriate narrative format (20 points)*
  - *Included a drawing or sketch of the area, reflecting the recommended management practices (20 points)*

## Sketch Map

The sketch map should be legible and easy for judges to interpret. The ability of judges to understand where practices will be implemented affects your score. Consider the following when preparing a sketch map:

- *Clarity.* Prepare a legend for the map explaining symbols or figures used to represent grasses, shrubs, trees, fencerows, ponds, streams or other map features. Orient the map either with a directional symbol for north, placement of a road or other feature, or other clue to assist judges with map orientation and clarity.
- *Features are accurate.* Existing structures, such as a barn or pond, should be present on the map and their positions should be spatially correct. Figures or symbols should reflect the size and proportion of the feature. For example, a hummingbird feeder should not exceed the size of a shed.
- *Features are logical.*
  - The presence and arrangement of management practices should be realistic and maximize wildlife benefits. For example, do not place a bird feeder on top of a shed where, logically, it would be difficult to refill a feeder. Another example is planting water-intolerant trees in a wetland.
  - Match the management practice to the needs of the wildlife species. For example, do not build brushpiles if no species listed on the Field Condition Sheet will benefit from brushpiles. (An exception is if you team indicates habitat for prey species such as cottontails will be developed; however this must be indicated in the plan.)
  - Pay attention to where planned management practices are placed in relation other practices or features (arrangement and interspersion). For example, constructing a brushpile in the middle of a 20-acre field does not benefit cottontails or bobwhites without shrubby corridors or escape cover nearby. Another example is of burning an entire field, consider partitioning a field into sections and burn on a three to five year schedule to increase plant diversity and provide suitable alternative habitat for nesting or cover.
- *Consistency.*
  - *All management practices are present on the map.* Any management practice listed in the written narrative should be found on the map. Any management practice found on the map should be listed in the written narrative.

## Example of Written Wildlife Management Plan

The samples below are intended to help you learn the correct format for writing management plans. At a contest, you will be given three or more blank pieces of paper, two of which are for writing your plan. Write on your paper the heading “Plan Background” and in narrative format, provide information addressing this section. Do the same for “Plan Development,” “Plan Implementation,” and “Plan Evaluation” sections. Use one sheet of paper for the sketch map.

You can use only one side of each of three sheets of paper. Write neatly, using small print and short concise sentences. For the total score, a maximum of 20 points will be given for use of the correct format and inclusion of an accurate sketch of the site.

### **2013 National WHEP Written Plan Scenario Atterbury Fish and Wildlife Area, Trafalgar, Indiana**

The Atterbury Fish and Wildlife Area (AFWA) is 6,500 acres and was historically owned by the Department of Defense (DoD, Camp Atterbury) and is now managed by the Indiana Department of Natural Resources (IDNR). Historically, DoD leased fields to local producers for row-cropping, but there were no efforts to manage the area for wildlife. The IDNR has decided to manage particular sections of the property, including the one you are on, for species that use early successional stages, such as eastern cottontail and brown thrasher. The northern bobwhite has been identified as the focal species because bobwhite populations in the ecoregion have declined sharply over the past few decades; therefore, quail hunting has been suspended.

Funding for land management is a limitation. Thus, the IDNR has decided to continue to lease fields for row-cropping, specifically corn, soybeans, and wheat. The IDNR has calculated at least 50 percent of the area must be leased to provide sufficient income for management activities. AFWA is open for hunting. The IDNR foresees hunting opportunities for mourning dove and eastern cottontail, which are relatively common in the area.

The area you are considering is approximately 115 acres and includes 60 acres of soybeans. This section is bordered on the north side by a firebreak and a treeline, on the east side by a firebreak, on the south side by the road, and on the west side by a firebreak and woods.

Your task is to prepare a management plan that provides information and recommendations to meet IDNR’s objectives and property limitations. You have 1 1/2 hours to complete your plan. This is a team activity. Prepare your plan on 2 sheets of paper, but write only on one side of each sheet. Sketch a map of the area including placement of your management recommendations on the third sheet. Include your **team ID number** on the back of each sheet. Do not write your name or the name of your state on the sheet. Good luck and have fun coming up with your recommendations!

## Plan Background

The species to be managed include northern bobwhite, eastern cottontail, and brown thrasher. The management objectives are to manage the area for wildlife species that use early successional stages, particularly those listed above, and provide hunting opportunities.

## Plan Development

### *Species Habitat Requirements*

Northern bobwhite use scattered patches of shrubby cover, well interspersed with native grasses, forbs, and bare ground. Areas dominated by forbs are commonly used for brooding cover. A variety of seeds, leaves, and insects are eaten.

Eastern cottontails require brushy cover interspersed with herbaceous openings. They eat forbs and grasses, bark of shrubs and young trees, buds, and browse.

Brown thrashers are found in shrub and bramble thickets, brushy hedgerows, young forests, and forest edges. They eat invertebrates and various seed found on the ground among the leaf litter. They usually nest in shrubs up to 10 feet aboveground.

Mourning dove use areas with annual and perennial grasses and forbs with considerable bare ground for feeding. They nest in shrubs and trees or on the ground. They commonly use agricultural fields for foraging. They require free-standing water daily.

### *Habitat Assessment*

The area under consideration is 115 acres and includes 2 fields of soybeans that have been planted via no-till agriculture that encompass 60 acres. There are field borders surrounding some portions of the soybean fields. There are 2 small woodlots with an open canopy of scattered trees and a dense brushy understory. The remainder of the area contains dense grass (tall fescue) with scattered forbs, brambles, and tree saplings. Brooding cover for northern bobwhite is limited because of a lack of mobility in the thick grass. Brushy cover used for escape and winter loafing by bobwhite is limiting. Cover for brown thrasher only exists in the 2 small woodlots. Cover for eastern cottontail is largely limited to the small woodlots. The tall fescue does not provide overhead cover. Winter cover will be severely limiting for all species after the soybeans are harvested. There is no free-standing water available.

## Plan Implementation

**Control Nonnative Invasive Species** to reduce coverage of tall fescue and allow the seedbank to germinate, which will provide more food and better cover for all 4 species.

**Field Borders** should be established around portions of the soybean fields where there are none. This will increase usable space for northern bobwhite and eastern cottontail.

**Leave Crop Unharvested** will provide soybeans for northern bobwhite, mourning dove, and eastern cottontail into winter.

**Plant Shrubs** between sections of soybean fields that will be retained to provide a corridor

connecting the two woodlots. This will increase usable space for northern bobwhite, eastern cottontail, and brown thrasher, and increase loafing and nesting cover for mourning dove.

**Set-back Succession: Prescribed Fire** will set-back and rejuvenate the understory in the woodlots and provide more forage for eastern cottontail and northern bobwhite.

**Water Development for Wildlife** (small pond) should be established to provide free-standing water for mourning doves.

**Wildlife Survey** should be conducted to monitor populations of all 4 species. Point counts may be used for mourning dove and brown thrasher, covey counts may be used for northern bobwhite, and observation counts and hunter harvest data can be used for eastern cottontail.

## **Plan Evaluation**

Wildlife survey data will be evaluated annually and tracked over time to estimate population trends.

Hunter success and satisfaction will be accessed through surveys. Vegetation surveys will determine if additional treatment is needed to reduce tall fescue, evaluate success of shrub plantings, and evaluate habitat quality for all species.

## **Additional Samples of Field Condition Sheets**

### ***2012 Arkansas State Contest***

#### ***Petit Jean Mountain***

The Winrock Farms board of directors is interested in developing a small demonstration area to determine whether they want to place more emphasis on wildlife in connection with their cattle operations. The demonstration area is strategically located near the Winthrop Rockefeller Institute to provide visitors with visual enhancement. They would like to provide visitors the opportunity to see wildflowers and butterflies, and hear a variety of birdsongs, to demonstrate the compatibility of livestock production with wildlife.

The boundaries of the demonstration area are the same as described for the wildlife practices scenario. The land area to be judged is outlined on the aerial photo. **DO NOT GO INSIDE FENCE.** Remain outside the fence to view the land area. If you have questions about the boundary, ask the station monitor.

The species which Winrock Farms wants visitors to see or hear in the demonstration area are:

- Northern bobwhite
- Dickcissel
- Northern harrier

The chair of the board is particularly concerned about the decline of spotted skunks in the state and has approached the Arkansas Game & Fish Commission about relocating some to the farm. Your plan should include habitat for spotted skunks. There is no hunting or shooting on the demonstration area because it is too close to where visitors frequent. The Board of Directors is

concerned about safety and liability issues. Winrock Farms will continue their cattle operations on the demonstration area. The Board of Directors specifically asked for recommendations concerning cattle on the demonstration area.

The stakes are high. If your team's plan and demonstration area is successful, it could result in about one thousand acres of additional wildlife habitat on Petit Jean Mountain.

**INSTRUCTIONS: You have 1 ½ hours to complete this team activity.** Write your management plan on one side of each of two pieces of paper (two pages maximum). You can use one side of one additional piece of paper to draw a map. Write the names of team members and ID codes on the back of each answer page. Use the remaining time to prepare for oral defense.

### ***National Invitational in Utah***

The Three Peaks area has long been favored by outdoor enthusiasts. The area is owned by the Bureau of Land Management (BLM). Managing the area for multiple user groups is often difficult. Users at Three Peaks include hunters, recreational shooters, hikers, bird watchers, ATV riders and remote control airplane fanatics. BLM requests your assistance in developing a management plan for wildlife on the 4,000 acre tract. The area marked by flags is a representative sample of the vegetation and topography on the 4,000-acre area.

Sage grouse are not hunted on Three Peaks. University researchers have surveyed the area and determined sage grouse populations are very low. Early indicators suggest a lack of brood rearing cover and nest disturbance by recreational users may be to blame.

Bird watchers and hikers on the area occasionally observe red-tailed hawks pursuing desert cottontails and kangaroo rats. BLM would like to see an increase in the red-tailed hawk population. Some bird watchers have also reported seeing sage thrashers.

Constructing Interstate 15 directly through the mule deer winter migration corridor leading to Three Peaks has had a negative impact on the herd. Biologists have determined this hunted mule deer population is negatively impacted by deer/car collisions and have determined mule deer here have relatively low body weights.

The presence of cheat grass on Three Peaks is a major concern because it is invasive and does not provide adequate cover or forage. Fire is not the preferred method of disturbance on this site because it allows cheat to dominate. If disturbance occurs naturally or by recommendation, efforts should be made to establish native grasses and forbs to avoid this problem. Prepare a plan to meet BLM's objectives for mule deer, sage grouse, red-tailed hawk and sage thrasher.

This is a team activity. Use only one side of each of two (2) pages to write your plan. Use an additional third page to write your sketch map. You have 1 ½ hours to complete this activity. Good Luck!