

# **Western Rangeland Management:** **Balancing Diverse Views**

## **INTRODUCTION:**

Part of your team's overall score for the TN State Envirothon competition is based on an oral presentation concerning this year's current environmental issue: "*Western Rangeland Management: Balancing Diverse Views*". This presentation will consist of the review and study of a specific scenario with environmentally related aspects and features. Your team will review the scenario, determine appropriate solutions and/or actions, organize and compile the information for a team presentation, and give the presentation to a panel of 3 judges for an average weighted score. This score counts as 200 points towards a total maximum of 700 points in the TN Envirothon State Competition. The scenario and related components are presented below:

### **Rangeland:**

Rangelands are grasslands, shrublands, woodlands, and deserts. They are not lands that are farmed, densely forested, entirely barren, or covered with solid rock, ice or pavement. Characterized by limited precipitation, often sparse vegetation, sharp climatic extremes, highly variable soils, frequent salinity, and diverse topography, rangelands are a type of land, not a specific land use. Rangelands are non-cultivated land, since they typically cannot sustain farming due to low precipitation, shallow soils, and rugged topography. They may have scattered trees, such as juniper or aspen, but they do not include dense forests. They typically are dominated by low-growing, diverse plant communities of grasses and shrubs intermixed with flowering plants (forbs) and provide essential habitat for livestock and wildlife. Their rich ecological diversity provides food, cover, and rearing-ground necessary for healthy fish, birds, wildlife, and livestock.

### **Multiple-Use Management:**

Rangelands provide a number of social, ecological and economic values. Many people appreciate rangelands for their natural beauty, diversity of wildlife, and recreational opportunities like hunting, hiking, bicycling and camping. Rangelands also contribute important economic values, including ranching, mining, and energy production. The soils, vegetation, and water of rangelands are important to the ecological and economic health of all regions in which they dominate.

Historically, the primary function of rangeland has been as forage for livestock and wildlife. However, the value in providing management for recreation and water production on rangeland has been noted. Now, most rangelands today are managed under principles of *multiple use*, meaning several uses on rangeland are managed simultaneously, with care taken to avoid overuse or destruction of the natural resources.

In a study conducted by the Social Science Research Unit (SSRU) at the University of Idaho, Idaho residents were asked whether they approve or disapprove of a series of specific uses that occur on public lands. Results suggest that the public values multiple uses and is interested in a balanced management approach.

## 2018 TN Envirothon Comprehensive Question Presentation

### SCENARIO:

#### **Background:**

The State of TN is exploring options for converting the Clyde York 4-H Camp into a multiple-use property. This 194-acre tract resides in the Pomona Community within Cumberland County on the Cumberland Plateau. It has a rich history having served as a 1930's Civilian Conservation Corp (CCC) work camp prior to becoming a POW camp during World War II known as Camp Crossville. Your team will address any natural resource issues along with the varied concerns of the public that both support and oppose the new proposal.

#### **Natural Resources Present:**

One major stream and two smaller drainage features are within the property. Four ponds, one of 1 acre, one of 2 acres, one of 3 acres, and one of 5 acres in size, are present on the property. This area resides in what is generally known as limestone with a sandstone cap and karst topography.

The drainage features present on the property are first order, headwater tributaries that flow into a larger stream that ultimately drains into the Obed River and eventually into the Tennessee River basin. It has been noted in previous stream surveys that a healthy population of various benthic organisms are present in the streams. Fish populations within the ponds are unknown in number and variety at this time.

Wetlands have not been determined or documented for this parcel. There are no hydric soils shown on the Soil Map Descriptions. That does not preclude the presence of wetlands on the property. The presence of a threatened and endangered species has not been documented at the farm.

Soil map units indicate that the slope varies from 2-20%. On-site soils are loamy, well-drained, and do not flood or pond. See Map Unit Description for additional information on each Soil Map Unit present on farm.

There is no data on the Sewage Disposal Plant located on the Topographical Map.

#### **The Multiple Use Paradigm:**

Federal public land is managed for multiple use and for the greatest good of all Americans. Individual states manage their grazing lands to protect and enhance their value so they can achieve financial returns that benefit their citizens, education, and various other state institutions.

**What might today's and future generations want from their public lands? Does our past thoughts and expectations play a part in this thought process?**

#### **Recreation:**

Currently, more people are enjoying rangelands for recreation and aesthetics. Outdoor recreation brings with it both positive and negative effects on rangelands and surrounding communities. Rangeland managers have to take all the pros and cons into account when managing rangelands for multiple use. One of the best tools at their disposal is education—teaching recreationists to care for the resource and share it respectfully with others. Managers may also consider restricting access to certain areas during critical times for wildlife. Another option is to designate specific areas for particular kinds of recreation. Signage and maps can help users get off the beaten path but still stay on designated trails to minimize damage to resources.

**How will you be able to satisfy the recreational enthusiasts along with the preservationists?**

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### **Energy:**

The amount of energy produced in Idaho from renewable sources—biofuels, solar, wind, water and geothermal—has continually increased over the last 64 years. The multiple-use character of rangelands will become more valuable and appreciated as the demand for energy increases, especially clean renewable energy.

**Can energy be a multiple use component for the camp? Why or why not?**

### **Wildlife:**

Plants, water, and soils on rangelands provide unique environments for wild animals and plants, including threatened and endangered species. Some rangelands are designated as special protection areas for wildlife or rare plants.

All wildlife and livestock require four basic habitat elements in order to survive, thrive and reproduce: food, water, cover, and space. The specific combination of food, water, cover, and space required by a given species, called its niche, is unique to every species that lives on rangelands. Because of these specific and varied requirements, any time the habitat is altered, it improves for some species but worsens for others. Because each species' niche is different, it is difficult to maximize the habitat quality of all wildlife in a given location. Concessions are often made when managing habitat quality for wildlife and livestock.

**Are there ways to incorporate a balance between wildlife and grazing animals in your multi-use plan for the camp area?**

### **Rangeland Grazing:**

Rangelands provide important grazing habitat for domestic livestock, including cattle, sheep, goats, and horses. Today, ranchers are allowed to graze livestock on public lands under a permit system. The permit states the number of livestock that can graze on the allotment, or the *stocking rate*, as well as the timing or season of use. Permits can be renewed if permit requirements are being met and the land is in acceptable condition. Ranchers and agency range conservationists monitor the range to ensure the resources are not being degraded. Ranchers pay a fee per animal unit month (AUM) for using public lands. Even with these controls in place, however, livestock grazing on public lands has been controversial for many years.

**What type of grazing animals, where would they be placed, and how many could be considered for grazing in this multiple-use plan?**

### **Water:**

Though rangelands might appear to be dry, unyielding landscapes, in different seasons they provide important contributions, especially in the western states. Located mostly in arid climates with relatively low precipitation, a healthy rangeland ecosystem of streams, lakes, reservoirs, and aquifers is becoming increasingly important. You may not think of the collection, storage, and release of water as a "use" of rangelands, but the multiple uses of rangelands must be compatible with the purpose of continuing to provide for a clean, healthy, and reliable source of water.

While water resources in Tennessee are abundant, we should encourage stewardship measures which protect our water quality and quantity for future generations.

**Are there conservation practices that would enhance the multiple use plan for the camp area concerning water quantity, water quality, and water supply?**

## 2018 TN Envirothon Comprehensive Question Presentation

### **Assignment:**

Your team represents members of:

- state agencies – **TN Department of Environment and Conservation** (which includes TN State Parks), **TDA-Forestry Service**, **TN Wildlife Resources Agency**, **UT-Extension Service** (which includes 4-H),
- federal agencies – the **Bureau of Land Management**, **USDA-Natural Resources Conservation Service**, and **US-Forestry Service**,
- public, environmental stewardship, and preservation groups – **Alliance for the Cumberlands**, **Crossville Military Memorial Museum**, **Cumberland ATV Riders**, **Run It Fast**, **SOCM (Save Our Cumberland Mountains)**, **Sierra Club**, **TN Hiking Group**, **TN Running Clubs**, **TN Trails Association**, and others.

In this scenario. Suggested members of your team may characterize Biologists, Engineers, Range Conservationist, Soil Conservationists, Soil Scientists, Soil Health experts, Wildlife Biologists, and/or others in the technical resource field.

The judges represent the **State Technical Team** who will make the final decision on the multiple-use plan for the facility and grounds.

Do your best! Review the judging criteria sheet and suggestions.

#### **Present to the judges a multiple-use plan for conversion of the 4-H Camp area:**

1. Present a thoughtful and convincing rangeland **multiple use plan** for the 4-H Camp area to the panel of judges.
2. State which **rangeland management use** will be utilized in **which areas** along with why and/or why not other uses were not considered.
3. Your presentation should address how you worked with the diverse views of suggested public groups to reach your conclusions and the agreed consensus in your **multiple use plan**. Consider the **bolded questions/statement items** under the **Scenario** paragraphs.
4. Defend your plan to the panel of judges. (Do your best! Review the judging criteria sheet and suggestions.)

#### **IMPORTANT NOTE:**

The site pages attached should be considered as the project area for the scenario. Additional map details of various environmental and historical features are included for analysis and interpretation. It is suggested that any site sketch presented by your team be simple, easy to understand, and serve to show the various multiple land use choices selected. Additional copies may be obtained of these maps, as needed.