

OREGON ENVIROTHON 2018
Current Issue Test
Western Rangeland Management

TEAM# _____

TOTAL _____/50 points

PART 1 Rangeland Overview (15 points)

1. Define rangeland? (2 pts)

Land on which the plant community is comprised of predominately native or indigenous grasses, grasslikes (e.g. sedges), forbs and/or shrubs. Rangeland includes natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes and wet meadows. Rangelands are: grasslands, shrublands, woodlands, and deserts. Rangelands are usually characterized by limited precipitation, often sparse vegetation, sharp climatic extremes, highly variable soils, frequent salinity, and diverse topography.

2. What Federal agency holds primary responsibility for managing the majority of public rangeland in the United States? (1 pt)

Bureau of Land Management

3. What percentage of land in the United States is categorized as rangeland? (2 points)
- a. Less than 25%
 - b. 25 to 50%
 - c. 51 to 75%
 - d. More than 75%

4. Rangelands are found all over the world, encompassing almost half of the earth's land surface. Because rangeland landscapes are diverse and complex, they are called by various names around the world.

On the following page, match the names of rangelands with the pictures. (4 points)

_____/9

Desert

Shrubland

Woodland/Savannah

Grassland



1. _____ **Grassland**



2. _____ **Shrubland**



3. _____ **Woodland/Savannah**



4. _____ **Desert**

5. Congress has passed numerous pieces of legislation aimed at managing public lands and resources in a sustainable manner for today and for future generations. Below are some key environmental laws enacted over the last century that affect the use, management and stewardship of rangelands. (6 points)

Match the name of the Act with the accurate description of the primary purpose of the Act.

_____ The Taylor Grazing Act, 1934

_____ Soil Conservation Act, 1935

_____ Multiple Use & Sustained Yield Act, 1960

_____ National Environmental Policy Act, 1969

_____ Wild Free-Roaming Horse and Burros Act, 1971

_____ Clean Water Act, 1977

- A. This act is aimed at reducing soil erosion. This Act created the Soil Conservation Service, which is now the Natural Resources Conservation Service (NRCS).
- B. Requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions.
- C. Establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.
- D. Protects wild horses and burros from capture, branding, harassment, or death.
- E. Defined multiple use as the management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people.
- F. Recognized the importance of controlling use on public grazing lands and providing for their improvement. This led to the formation of the Bureau of Land Management in 1946.

PART 2 Rangeland Management (15 points)

Rangeland management is the careful use and stewardship of rangelands to meet the needs and desires of those who live on and care about these lands.

6. Dr. Pat Shaver shared some “principles of range management.” What are three of those principles? (3 points)

a. _____

b. _____

c. _____

Proper stocking rate, proper distribution, proper kinds of animals, proper grazing system

_____/9

7. Identify these four rangeland plant species. Check all that apply. (4 pts)

- a. Western juniper Native X Non-native___ Invasive X
- b. Cheatgrass Native___ Non-native X Invasive X
- c. Big sagebrush Native X Non-native___ Invasive___
- d. Crested wheatgrass Native___ Non-native X Invasive___

8. Water quality, timing of water flows, and quantity of these flows can be related to rangeland management. What are the forces which drive these watershed attributes?
Describe 3 of them. (3 points)

- a. _____
- b. _____
- c. _____

9. How can western rangeland management be used to maintain a balanced plant community to support livestock, sage-grouse, as well as other wildlife and land uses? (2 points)

10. How can western rangeland management have a positive impact on fire suppression, and how can the lack of management be a negative impact on fire suppression? (3 points)

PART 3 Sage Grouse Conservation (10 points)

11. Several large-scale threats facing sage-grouse are identical to factors impacting the sustainability and productivity of grazing lands throughout the West. (3 points)

Provide three examples of these mutual threats:

- 1. _____
- 2. _____
- 3. _____

Fragmentation of sagebrush habitats from a variety of sources is the primary cause of the decline in sage-grouse populations, Exotic species invasions, unsustainable grazing systems, sod-busting, subdivision, conifer encroachment

12. For the most part, the same factors that negatively affect sage-grouse also negatively affect the health, productivity, and sustainability of native grazing lands. Therefore, improvements to benefit sage-grouse also benefit grazing.

Describe the pictures below and the **related benefit** that can be done to improve sage-grouse habitat. (6 points)



- 1. _____

Responsible grazing, *Grazing systems increase cover for birds and forage availability for livestock. Well designed grazing plans.*

_____/5



2.

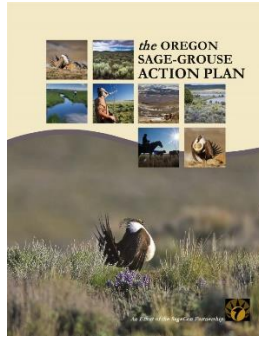
Removing encroached conifers opens up habitat for sage-grouse and other wildlife and increases forage available for livestock.



3.

Identifying and marking fences where sage-grouse collisions are likely have been shown to reduce accidental mortality caused by fence strikes. Or removal of fences.

13. The Oregon Sage-Grouse Action Plan and the Sage Grouse Initiative are examples of collaborative efforts to address the conservation of sage-grouse. Who are the partners participating in the collaborative efforts? Circle all that apply. (1 point)



- a. Federal government
- b. State government
- c. NRCS
- d. Universities
- e. Non-profit groups
- f. Ranchers

PART 4 Multiple uses of rangelands (10 points)

14. Identify four of the various multiple-uses of rangelands by society? (4 points)

a. _____

b. _____

d. _____

e. _____

15. How can stakeholders with different values and opinions improve communication and working relationships to develop improved rangeland management strategies? (2 points)

16. Recreation on rangelands are increasing. Describe a potential recreation activity on rangeland and provide one benefit and one negative impact from the activity. (4 points)

Activity: _____

Benefit/Pro: _____

Negative/Con: _____

Potential pros: Economics to community

- Economics for resource improvement & protection
- \$\$ to lessen impact
- Education "connection to land"
- Trail development for wildlife and livestock
- Weed & fire monitoring
- Monitoring dumping/trash (self-policing)
- Hunting/fishing to maintain wildlife/fish
- Promote human health through outdoor recreation

Potential cons:

- Death of wildlife (abandon young)
- Attracts animals to people (dangerous)
- Fire
- Weeds
- Erosion & compaction
- Water contamination
- Disturbing wildlife
- Displacing wildlife (water and forage)
- Trash and other dangers
- Can alter habitat (human browse line)

_____/4