Rangeland Plan Assignment 2 – Rangeland Animals

Answer Page – Answer the following questions and submit this for the assignments. You do not need to answer submit the worksheet that you completed to get this necessary information.

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Endangered Species

1) (10 points) Describe the endangered or threatened species that occur on your management area?
According to the US Fish and Wildlife Service Environmental Conservation Online System, only three species are listed as endangered cold occur on the Dry Creek AOI. These include the whooping crane, gray wolf, and northern long-eared bat.

- ***Whooping cranes*** *(Grus americana) are a migratory bird with only one sustaining population in North America. This population of cranes nests and rears broods in Wood Buffalo National Park in Northern Alberta and winters near the Aransas National Wildlife Refuge on the gulf coast of Texas. It is possible the members of this population could fly over the Dry Creek AOI but is it is very unlikely they would land and spend significant time in the AOI.*

  Whooping crane populations initially declined in the 1940's because of over-hunting and habitat loss. Current threats include limited genetics because of low population numbers (< 400 bird), loss and degradation of habitat along their migration route, construction of power lines, and degradation of coastal ecosystems in Texas.

- ***Gray wolf*** *(Canis lupus) is a large mammalian predator that could occur on in Western North Dakota. The Dry Creek AOI is within the historic range of the gray wolf though no current populations occur in western ND. It is possible that animals could travel through Golden Valley County and breeding populations could be reestablished in the future.*

  The gray wolf was extirpated from the Great Plains and western US in the early 1900's through excessive and targeted hunting and trapping. Wolves were reintroduced into the northern Rocky Mountains in the mid-1990's. The number of wolves in the western US are increasing with continued threats including habitat loss and fragmentation and increase human activity in wolf habitat.

- ***Northern Long-Eared Bat*** *(Myotis septentrionalis) is a medium-sized bat (3-3.7 inches long) that could occur in Golden Valley County. Northern long-eared bats eat primarily insects. These bats hibernate in caves and mines in winter. During summer they roost during the day singularly under the bark of trees and snags. White-nose syndrome, a fungal disease, is currently the greatest threat to the species. Other human activities such as logging, and wind farm development could negatively affect these bats.*

Huntable Wildlife

2) (3 points) What are the major huntable wildlife found on or near your management are?
Major species that could be hunted or trapped on the Dry Creek AOI include big game, upland game, migratory game birds and fur bearing animals. Huntable populations of big game include bighorn sheep, elk, pronghorn, and white-tailed and mule deer. There are also several upland game animals including Hungarian partridge, pheasant, greater prairie chicken, sharp-tailed grouse, and turkey. Migratory game birds including dove, crow, and sandhill cranes could also

occur. Fur bearing animals that could be hunted or trapped on the Dry Creek AOI include beaver, bobcat, coyote, fox, mink, mountain lion, muskrat, racoon, and weasel.

3) (4 points) Select an ungulate that occurs on your management area. What is a major ungulate that may occur on your management area and what forage resources will they need to survive? Describe how big mature animals, what types of foods they would eat and how much they would be expected to eat each day, season, or year?

A major ungulate that occurs on the Dry Creek AOI are mule deer (Odocoileus hemionus). According to the Natural Resources Conservation Service (2005) females weigh 100 to 150 pounds at maturity. Mature bucks are larger weighing on average 150 to 200 pounds. In terms of foraging, mule deer are concentrate selectors that select high quality leaves and new stems while avoiding diets with significant fiber. The diets of mule deer vary throughout the season though their diets are consistently dominated by browse. During the spring and summer growing season, the leaves of shrubs and trees account for about half of deer diets with the other half of the diet made up mostly of forbs. In the fall and winter, deer increase their consumption of woody plants so that 60 to 75% of their diets are woody plants with available forbs making up most of the rest of the diet.

Mule deer are relatively small ruminants that eat 3.5% of their body weight each day or less (Lyons et al. 1999). This amount eaten each day will vary depending on animal physiological state and forage quality and availability. If a consumption of 3% of body weight per day is assumed, female deer would each 3 to 4.5 pounds and males would eat 4.5 to 6 pounds of forage each day on a dry matter basis. By these estimates a doe mule deer may require up to about 1,600 pounds of forage each year. A buck mule deer would require 1,600 to 2,200 pounds of forage each year on a dry matter basis.

Livestock

4) (4 points) What type of livestock would be best suited for the topography and vegetation on your range area?

The rangelands of the Dry Creek AOI being examined are dominated by grasses (80-85%) with lesser amounts of forbs (10-12%) and shrubs (7%). The topography of the area is rolling prairie with a few steep hillsides around buttes. The winters are long and severe and there is no advantage of one type of livestock over another. Therefore, cattle and horses are well suited for the habitat. Sheep would also do well on the AOI especially in the steeper areas. However, goats are not well suited to the area because of the limited abundance of shrubs.

5) (4 points) If you decide to graze livestock, which species would you select to stock your range area? Describe the size and type of animal, what types of foods they would eat and how much they would be expected to eat each day?

I would graze cattle because they are well suited to the land. I would also select a breed adapted to the cold climate and therefore would choose to graze black baldy cattle which are an F1 hybrid cross of Angus and Herefords which are cattle of European origin. My target weight for cattle 900 to 1,000 pounds for cows and 1,200 for 1,300 for bulls. These are rather small cattle for this breed, but I believe the smaller cattle may be easier to handle and may use the steeper topography more fully.

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Black baldy cattle are ruminants classified as grass/roughage type foraging animals. They would therefore graze mostly grass. Ruminants of about 1,000 pounds would be expected to eat 2.5% of their body weight on average each day (Lyons et al. 1999). Therefore, a cow herd made up of cows averaging 950 pounds would eat about 24 pounds per day or 8,670 pounds each year on a dry weight basis. Bulls averaging 1,250 pounds would eat about 31 pounds per day or 11,406 pounds per year. Much of this forage demand will need to be supplied by hay, straw, and supplements in the winter.

References:

Lyons, R.K., Machen, R.V., & Forbes, T.D.A. 1999. Understanding forage intake in range animals. Texas AgriLife Extension Publication M-393

Natural Resources Conservation Service (NRCS). 2005. Mule Deer (*Odocoileus hemionus*). Fish and Wildlife Habitat Leaflet No. 28. Available at: www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_010100.pdf

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