

PREVENTING BIGHORN SHEEP DISEASE ISSUES BY AVOIDING CONTACT WITH DOMESTIC SHEEP AND GOATS

Overview:

The bighorn sheep (*Ovis canadensis canadensis*) population in Nebraska has been expanding since the re-introduction program began in 1981 at Fort Robinson State Park near Crawford, Nebraska. At that time, bighorn sheep were released into the buttes of the Pine Ridge escarpment. Subsequent transplants and releases in the Pine Ridge and Wildcat Hills have now established populations in both areas (see map below). The bighorn sheep have adapted well to the rugged terrain; and eventually, it is hoped that they will become self-sustaining populations.

Locations of area occupied by bighorn sheep displayed in red.



Rocky Mountain bighorn sheep are listed as a Tier I At-Risk Species in Nebraska's Natural Legacy Plan due to the populations being disjunct, or separated, from other established populations. In addition, the overall population of bighorn sheep throughout the Rocky Mountain region is relatively small and isolated populations have been subject to dramatic declines resulting from disease outbreaks.

Throughout the Rocky Mountain region, there is a preponderance of evidence that suggests a significant risk of disease transmission occurs from domestic sheep and goats to wild bighorn sheep populations. In Nebraska, bighorn sheep have shown to be particularly susceptible to *Pasteurella pneumonia*, a disease that has caused significant mortality events in past years.

Recommendations:

The Western Association of Fish and Wildlife Agencies - Wild Sheep Working Group has prepared a paper titled "Recommendations for Domestic Sheep and Goat Management in Wild Sheep Habitat" that explains the relationship between domestic sheep and goats and disease in

bighorn sheep. In this paper, management recommendations are provided to government agencies, private landowners, and others on how to prevent contact between domestic sheep and goats with wild bighorn sheep. Most notable of these recommendations for activities prescribed by the Natural Resources Conservation Service is the use of domestic sheep and goats to control invasive or noxious plant species.

The Wild Sheep Working Group makes the following recommendations pertaining to that topic:

- 1) Coordinate with local weed and pest districts or other appropriate agencies/organizations involved with weed management to preclude the use of domestic sheep and goats for noxious weed control in areas where contact between wild sheep and domestic sheep and goats is likely to occur. (See Page 10 of the linked document.)
- 2) Establish buffer zones, frequently cited as 9 air miles, between domestic sheep and goats and wild bighorn sheep to ensure effective separation. (See Page 13 of the linked document.)
- 3) Participate in cooperative educational efforts to enhance stakeholder understanding of the issues of disease transmission between domestic sheep and goats and wild bighorn sheep populations. (See Page 16 of the linked document.)

The full document developed by the Wild Sheep Working Group can be reviewed at the following link:

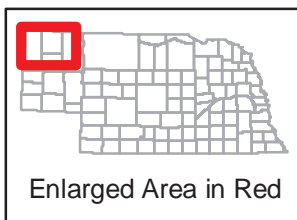
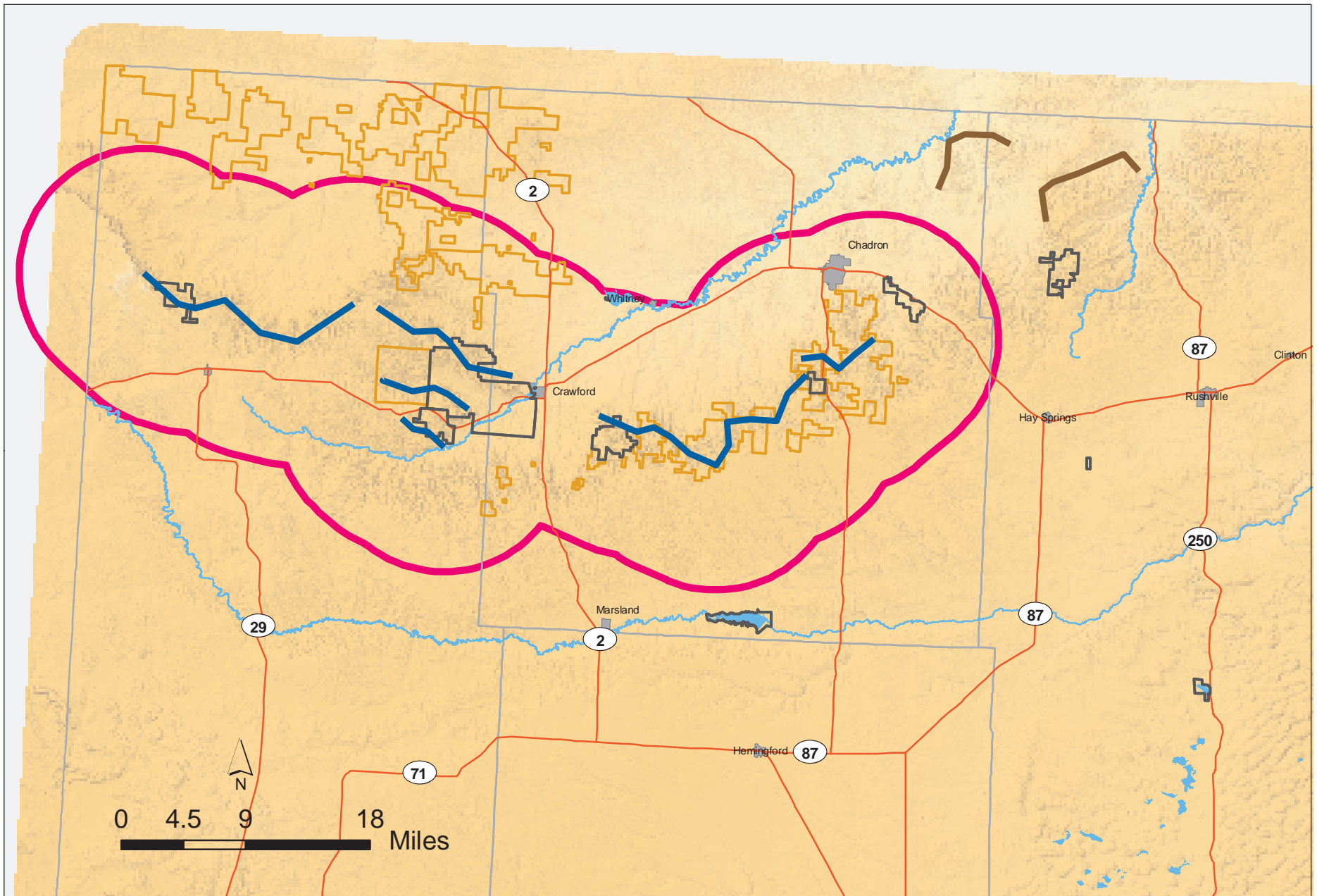
http://efotg.nrcs.usda.gov/references/public/NE/WAFWA_Wild_Sheep_Working_Group_Recommendations.pdf

Implications to Nebraska NRCS conservation planning efforts:

- A) NRCS staff should not recommend the use of domestic sheep and goats for the control of invasive or noxious weeds within the “9 mile Buffer of Priority 1 Areas” of the Pine Ridge and Wildcat Hills as shown on attached maps.

OR

- B) If the use of domestic sheep and goats for the control of invasive or noxious weeds is to be recommended as part of an NRCS conservation plan within these two “buffer zones” in the Pine Ridge and Wildcat Hills, NRCS staff should foster communication between the cooperator and local Wildlife Division staff with the Nebraska Game and Parks Commission in the Panhandle. This will allow for more site-specific review and consideration of alternatives, as needed, to avoid possible disease transmission to wild bighorn sheep populations.



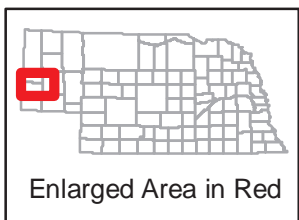
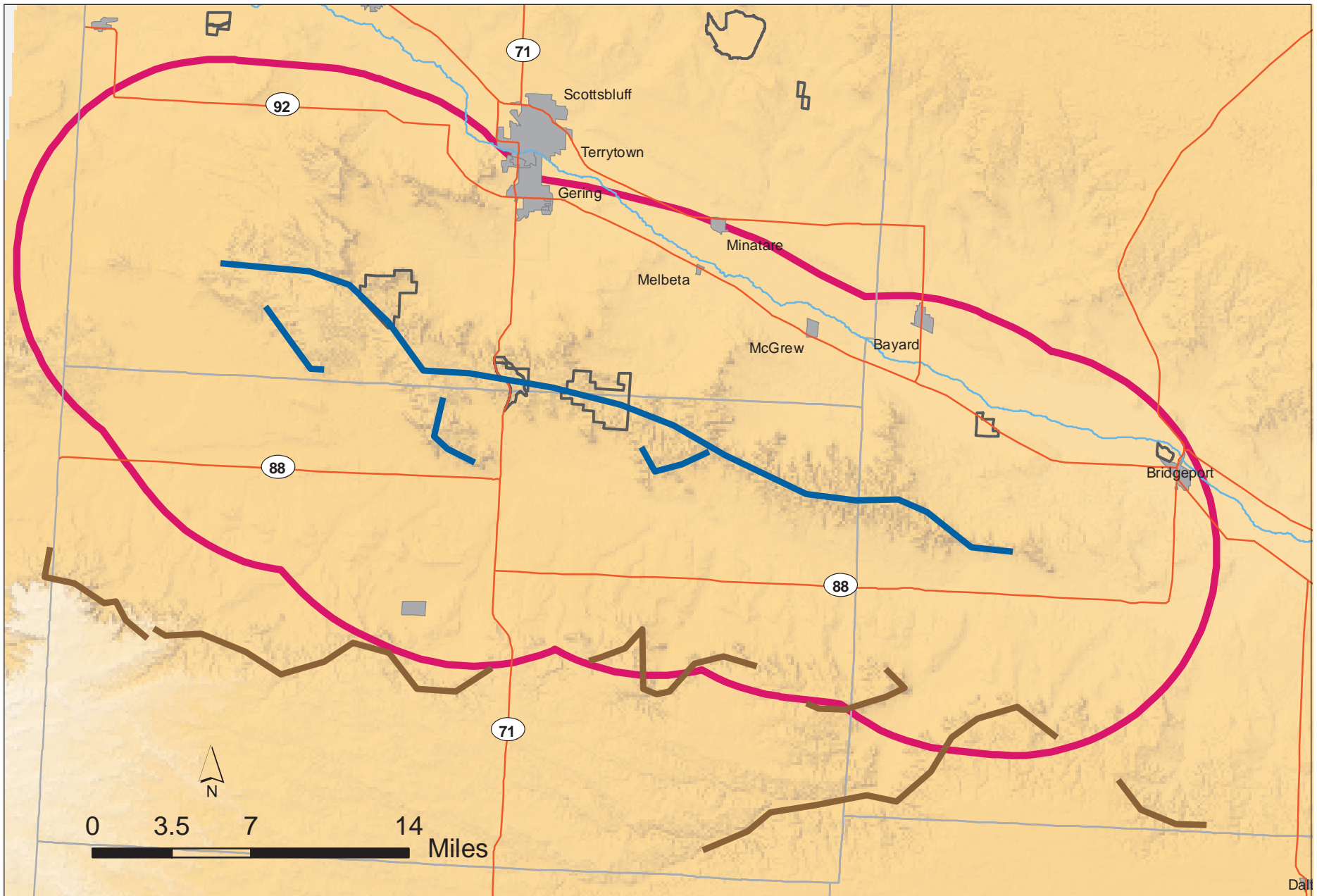
- Priority 1 Area
- Priority 2 Area
- 9-Mile Buffer of Priority 1 Area
- USFS Land
- NGPC Land

Big Horn Sheep Priority Areas in the Pine Ridge DRAFT

September 23, 2009

Map produced October 27, 2008 by the
Nebraska Game and Parks Commission

Forest Service Lands derived from data
provided by the US Forest Service



- Priority 1 Area
- Priority 2 Area
- 9-Mile Buffer of Priority 1 Area
- NGPC Land

Big Horn Sheep Priority Areas in the Wildcat Hills

DRAFT

September 23, 2009

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