

Greater Sage-grouse Priority Map

Map Created: 3/9/12

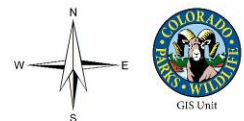
 **Linkages**

 **Preliminary Priority Habitat (PPH)**

 **Preliminary General Habitat (PGH)**

High probability of use
(summer or winter or breeding)
and 4 mi buffer around leks
Active within the last 10 years

Grouse occupied range
outside of PPH



Greater Sage-Grouse Preliminary Priority and General Habitat (PGH) in Colorado

Summary

The priority habitat map and data were developed as part of the BLM National Planning Strategy for Greater sage-grouse. These data provide a biological tool for planning in the event of human development in sage-grouse habitats. These maps depict Priority and General Habitats within occupied range in Colorado. Also depicted are linkages between sage-grouse populations that provide connectivity across the Greater sage-grouse range in Colorado.

Description

Preliminary Priority Habitat and Preliminary General Habitat

Greater sage-grouse GIS data set identifying Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH) within Colorado, as defined by BLM in their National Planning Strategy. BLM defines PPH as areas that have been identified as having the highest conservation value to maintaining sustainable Greater Sage-Grouse populations. These areas would include breeding, late brood-rearing, and winter concentration areas. This data is a combination of mapped grouse occupied range, production areas, and modeled habitat (summer, winter, and breeding).

PPH incorporates areas of high probability of use (summer or winter, or breeding models) within a 4 mile buffer around leks that have been active within the last 10 years. Isolated areas with low activity were designated as general habitat.

PGH is defined by BLM as Greater sage-grouse Occupied Range outside of PPH.

Datasets used to create PPH and PGH and linkages:

- Summer, winter, and breeding habitat models. Rice, M. B., T. D. Apa, B. L. Walker, M. L. Phillips, J. H. Gammonly, B. Petch, and K. Eichhoff. 2012. Analysis of regional species distribution models based on combined radio-telemetry datasets from multiple small-scale studies. *Journal of Applied Ecology in review*.
- Production Areas are defined as 4 mile buffers around leks which have been active within the last 10 years (leks active between 2002-2011).
- Occupied Range is a long-term data layer maintained by Colorado Parks and Wildlife (CPW). Biologists and district officers periodically up-date this layer (revised spring 2004, and in 2009, and further refined in early 2012). Occupied Range is defined as areas of suitable habitat known to be used by sage-grouse within the last 10 years from the date of mapping. Areas of suitable habitat contiguous with areas of known use, which do not have effective barriers to sage-grouse movement from known use areas, are mapped as occupied habitat unless specific information exists that documents the lack of sage-grouse use. Occupied Range is mapped from any combination of telemetry locations, sightings of sage grouse or sage grouse sign, local biological expertise, GIS analysis, or other data sources.

Linkages

- This dataset identifies linkage areas between sage grouse populations across GrSG range in Colorado. It is assumed the habitat linkages will allow for movement between populations and will decrease the probability of extinction of the species by stabilizing population dynamics. These linkages should be considered only as potential areas for movements between populations.
- The linkage data set was created by mapping efforts of the CPW biologists for the Statewide conservation plan in 2005, and further refined in early 2012.
- The linkages were delineated based on a selection of vegetation classes in the Colorado Basin-wide dataset. Habitat within linkages is composed of a mosaic of contrasting land forms, landcover types, and land uses. They are a heterogeneous landscape, within the historical range of GrSG, composed of isolated patches of landcover types frequently used by sage-grouse. Vegetation classes used contain current or historic sagebrush communities (e.g., piñon-juniper -

sagebrush mix). therefore, linkages are comprised of a non-contiguous and patchy mix of vegetation classes

Credits

Colorado Parks and Wildlife GIS Group, Species Conservation Unit, Biologists, District Wildlife Managers and Researchers

Use limitations

This wildlife distribution map is a product and property of Colorado Parks and Wildlife, a division of the Colorado Department of Natural Resources. Care should be taken in interpreting these data. Written documents may accompany this map and should be referenced. The information portrayed on these maps should not replace field studies necessary for more localized planning efforts. The data are gathered at a variety of scales; discrepancies may become apparent at larger scales. The areas portrayed here are graphic representations of phenomena that are difficult to reduce to two dimensions. Animal distributions are fluid; animal populations and their habitats are dynamic.