Utah
Sage Grouse Management

Greater Sage-grouse in Utah exist in the Snake River Plain, Southern Great Basin, and the Wyoming Basin Management Zones, as those zones were defined by the Western Association of Fish and Wildlife Agencies in 2006. Habitat for the bird in Utah is found in larger sized blocks, mostly contiguous to extensive populations centered in Wyoming, Nevada and Southern Idaho, and in discontinuous segments separated by non-habitat areas formed by natural features (canyons, wildfire burns) and by areas of anthropogenic influence (agriculture, urban areas) found in Central Utah.

Twelve Management Areas are currently proposed for management of the sage-grouse in Utah. These Management Areas are based on local habitat and land use patterns, and will be the focus of the intensive efforts made by the state and local governments to maintain and increase bird populations over time. Each Management Area contains habitat, non-habitat, and areas for improvement – denominated opportunity areas. These Management Areas were created based largely upon the work of previously established Local Area Working Groups (LAWGs) which have been assessing and monitoring the situation in each of the areas since about 2004, with one as early as 1996. These LAWGs also propose and implement habitat treatment projects, subject to funding. The LWAGs will continue to play a major role in management of the bird into the future, subject to state oversight.

The Box Elder Management Area is in the Northern Great Basin Management Zone, and is essentially an extension of the larger population found in Northern Nevada and Southern Idaho. The Ibapah and Hamlin Valley Management Areas are in the Southern Great Basin Management Zone, and are essentially extensions of the larger populations found in eastern Nevada. The Ibapah Management Area includes habitat found on Goshute tribal lands. The Rich-Morgan-Summit Management Area is in the Wyoming Basin Management Zone, and mostly represents extensions of larger populations in Wyoming. The Sheeprock Mountains and Bald Hills Management Areas are within the Southern Great Basin Management Zone, and generally are composed of topography and geomorphic features similar to the rest of the Great Basin in Nevada. The Panguitch, Greater Parker Mountain, Emery, Carbon and Strawberry Valley Management Areas are listed as part of the Southern Great Basin Management Zone, but are located in geomorphological areas more properly aligned with the Colorado Plateau, and present management challenges in line with the deeply incised canyon and plateau/mesa topography of the Plateau. The Uintah Management Area is within the Wyoming Basin Management Zone, and is connected to the larger populations in Wyoming and Northwestern Colorado.

Although not completely connected, the Bald Hills, Panguitch, Greater Parker Mountain, Emery, Carbon, and Strawberry Management Areas provide a linkage or corridor between larger populations to the east and west.

These populations are located throughout northern and central Utah, and represent sufficient populations to establish redundancy of populations, and representation of birds in different morphological and environments.

Utah employs a ten year average sum count of male birds on leks within the Management Area as the metric to determine trends in population for each Management Area. Based on this metric, the aggregate population of birds in Utah has been stable for several years. The most recent (2011) figures are

1. Bald Hills (68)
2. Box Elder (755)
3. Carbon (119)
4. Emery (30)
5. Hamlin Valley (89)
6. Ibapah (39)
7. Panguitch (304)
8. Greater Parker Mountain (821)
9. Rich – Morgan -Summit (1223)
10. Sheeprock Mountains (102)
11. Strawberry Valley (82)
12. Uintah (452)

The Local Working Groups, under the guidance of the State's Division of Wildlife Resources and Utah State University, have provided the following descriptions of the condition of and threats to the population within each Management Area:

1. **Bald Hills:** The Bald Hills Management Area is located in southwestern Utah, and is considered a linkage population for this region of Utah. This population uses a series of leks throughout the habitat area, with males visiting more than one lek per season. Currently, the population is constrained to the Management Area by vegetation fragmentation and human development; however future improvements could connect this population to the Hamlin Valley Management Area to the west, and further north into Beaver County. This population is regarded as stable with a high potential for growth. Sage-grouse in this area show resiliency to known threats and are not considered as being in jeopardy. Key threats include wildfire, enhanced native predator populations, vegetation management (conflicting or lack of), and energy development.

2. **Box Elder:** The Box Elder Sage-Grouse Management Area is located in northwestern Utah and is part of a significant population center for Sage-grouse in three states – Utah, Idaho, and Nevada. This population is regarded as stable with a potential for growth. Key threats include wildfire, invasive species, loss of agricultural operations, and habitat fragmentation. The Box Elder Management Area is identified as a unit that can likely sustain increases in Sage-grouse populations with continued reclamation and restoration. Resource management in the area has contributed to large populations to date, and those populations can be enhanced by providing high quality habitat. As a result, this area should be a high priority for funding of habitat enhancement.

3. **Carbon:** The Carbon Sage-grouse Management Area is located in the northern portion of the Colorado Plateau in central Utah. The area is characterized by highly broken terrain, with deep canyons and mid-elevation plateaus. Sage-Grouse leks in this area are generally small, with birds moving between leks. Telemetry studies show bird movement in these areas is primarily by flight. Other studies in the area suggest that occasionally Sage-grouse migrate to and from adjoining populations in Strawberry Valley. The area boundary was determined by buffering active leks with topographic imagery, and adding areas of known winter use. Key threats include habitat loss and fragmentation due to a variety of factors including energy development, wildfire, invasive species, and predation. West Nile Virus has been reported in Carbon in the last 10 years.

4. **Emery:** The Emery Sage-grouse Management Area is located in central Utah. Small, mostly isolated Sage-grouse populations occupy high elevation sagebrush steppe on the eastern slope of the Wastach Plateau. These populations may be considered part of the Greater Parker Mountain Sage-grouse complex, although no direct movement between these areas has been documented. The Emery Sage-grouse Management Area includes all currently used habitat and corridors connecting this habitat. Key threats to the population include woody species encroachment, wildfire, invasive species, predation, and habitat fragmentation.

5. **Hamlin Valley:** The Hamlin Valley Management Area is located in southwestern Utah, on the border of Utah and Nevada and is important due to its connection to a large population in Nevada. Although currently isolated from other habitat areas, habitat restoration could link this population to the Bald Hills Management Area. This population consists of a relatively small number of birds that uses less than 10 leks throughout the habitat area. Telemetry data has not shown that males use more than one lek per season, however this population of grouse is known to travel large distances within the Management Area. Additionally, this population spends a portion of its time in Nevada, usually during the summer months. This population is regarded as moderately stable with a high potential for growth. Key threats to the population include wildfire, enhanced native predator populations, vegetation management (conflicting or lack of), wild horse management, and habitat fragmentation.

6. **Ibapah**: The Ibapah Management Area is located in northwestern Utah, and is part of a significant population center for grouse in two states, Utah and Nevada. The Management Area includes Goshute Tribal lands. The area boundary was determined by consulting with Nevada, the West Desert Adaptive Resource Management Local Area Working Group, and DWR and follows vegetation types used by Sage-grouse. Sage-grouse in this area show resiliency to known threats, and are not regarded as being in jeopardy. Key threats to Sage-grouse are fire, invasive species (cheatgrass and knapweeds), potential loss of riparian areas due to water piping, predation, and habitat fragmentation (dispersed recreation and pinyon/juniper encroachment).

7. **Panguitch:** The Panguitch Management Area is located in southern Utah, incorporating more than a dozen, often connected leks. This population uses a series of leks throughout the habitat area, with some males visiting more than one lek per season. The population is distributed north-south in a series of linked valleys and benches, and constrained by mountains and canyons. There is a large range in the number of males in attendance among these leks. Movement of Sage-grouse from one valley or bench to another among seasons is necessary to meet their seasonal habitat requirements in the highly variable annual weather conditions of this region. Movements among valleys are not present in each group of Sage-grouse, and not all used areas are known to managers.

This management area has the highest potential for increase of any in Utah in response to habitat treatments to remove pinyon-juniper that has extensively impacted habitat quantity and quality. Key threats to Sage-grouse in the Panguitch Management Area are enhanced native predator populations, vegetation management (conflicting or lack of), energy development, and residential/commercial development.

8. **Greater Parker Mountain:** The Greater Parker Mountain Sage-grouse Management Area is located on the Awapa Plateau in the south central part of the state of Utah, and nearby environments. The Greater Parker Mountain LAWG was established in 1996 and is the longest operating LAWG in Utah. The Greater Parker Mountain boundaries were refined based on 15 years of greater sage-grouse radio telemetry studies which included research on species vital rates, survival, and seasonal movements. Boundary refinements included consultations with the Greater Parker Mountain LAWG and DWR. Because of these long term research studies, more is known about the Parker Mountain Sage-grouse population dynamics, seasonal habitat use, population threats, and abatement strategies than other populations in Utah. The Greater Parker Mountain Sage-grouse Management Area includes all connected currently used habitats and the corridors connecting these habitats. Key sage-grouse threats identified by the LAWG include; 1) loss or degradation of habitat (primarily due to vegetation succession), 2) conversion of habitat (sagebrush to Pinyon and Juniper or cheat grass at the lower elevations), 3) increased risk of predation because of expanding or changes in the native predator community in response to anthropogenic factors, and 4) habitat fragmentation from loss or degradation of habitat that results in a loss of habitat connectivity in Sage-grouse habitat areas.

9. **Rich-Morgan-Summit:** The Rich-Morgan-Summit Sage-grouse Management Area is located in Northeastern Utah, and is a part of significant population center for grouse in three states – Utah, Idaho, and Wyoming. The area boundary was determined by consulting with adjacent states, DWR, the Morgan-Summit Adaptive Resources Management Local Sage-grouse Working Group, and the Rich County Coordinated Resource Management Sage-grouse Local Working Group and follows vegetation types usable by Sage-grouse. This population is regarded as stable with a potential for growth.

Sage-grouse in this area show resiliency to known threats, and are not regarded as being in jeopardy. Key threats to Sage-grouse include invasive species, loss of agricultural operations, predation, residential development, and habitat fragmentation through recreational development.

10. **Sheeprock Mountains**: The Sheeprock Mountains Management Area is located in the Great Basin portion of central Utah, and is a relatively isolated population center for Utah. The area boundary was determined by consulting with adjacent states, the West Desert Adaptive Resource Management local working group, and DWR, and follows vegetation types usable by Sage-grouse. This population is regarded as stable with a potential for growth. Sage-grouse in this area show resiliency to known threats, and are not regarded as being in jeopardy. Key threats to Sage-grouse include wildfire, invasive species (cheatgrass and knapweeds), potential loss of riparian areas due to water piping, predation, and habitat fragmentation (dispersed recreation and pinyon/juniper encroachment).

11. **Strawberry Valley**: The Strawberry Valley Sage-grouse Management Area is located in central Utah, and is a significant population center for Sage-grouse in Utah. The area boundary was determined by consulting with DWR and the Strawberry Valley Adaptive Resource Management Local Working Group, and follows vegetation types usable by sage-grouse. Significant restoration efforts have been conducted on this population and it is the most intensively managed in Utah. This population is regarded as stable with a high potential for growth. Sage-grouse in this area had suffered significant reductions in populations, but these concentrated restoration efforts have have significantly increased this population.

12. **Uintah:** The Uintah Sage-grouse Management Area is located in northeastern Utah. Within the northern portion of this area is the Diamond Mountain and Browns Park population that is a significant population center for Sage-grouse in three states – Utah, Colorado, and Wyoming. Areas in the central and southern portion of the area are fragmented populations with minimal connectivity and low potential for habitat

improvement. The Management Area boundary was determined by consulting with DWR and the Uinta Basin Adaptive Resource Management Local Working Group (UBARM) and follows vegetation types usable by Sage-grouse. This population is regarded as stable with a potential for growth and also has strong connectivity with the tri-state regional sage-grouse population. Sage-grouse in the Management Area show resiliency to known threats, and are not regarded as being in jeopardy. Key threats to Sage-grouse include predation, wildfire, invasive species, noxious weeds, disease, loss of agricultural operations, and habitat fragmentation (naturally occurring, but not topographical, and from existing and future anthropogenic uses).

None of the LAWGs found livestock grazing to be an issue with sage grouse populations, rather have found that proper grazing management is an appropriate tool for maintaining sage brush, increasing forbs, reducing fuel loads~~,~~ and invasive species, and helping to create fire-breaks.