

**Table 2-2  
Habitat Objectives for GRSG**

Attribute	Indicators	Desired Condition (Habitat Objectives)	Reference
<b>GENERAL/LANDSCAPE-LEVEL<sup>1</sup></b>			
All life stages	Rangeland health assessments	Meeting all standards <sup>2</sup>	
Cover (nesting)	Seasonal habitat needed	>65% of the landscape in sagebrush cover	Aldridge and Boyce 2007
	Annual grasses	<5%	Blomberg et al. 2012
Security (nesting)	Conifer encroachment	<3% phase I (>0 to <25% cover) No phase II (25 to 50% cover) No phase III (>50% cover)	Casazza et al. 2011 USGS (in prep A)
Cover and food (winter)	Conifer encroachment	<5% phase I (>0 to <25% cover) No phase II (25 to 50% cover) No phase III (>50%)	USGS (in prep A) USGS (in prep B)
	Sagebrush extent	>85% sagebrush land cover	USGS (in prep A) Doherty et al. 2008
<b>LEK (Seasonal Use Period: March 1 to May 15)<sup>1</sup></b>			
Cover	Availability of sagebrush cover	Has adjacent sagebrush cover	Blomberg et al. 2012 Connelly et al. 2000 Stiver et al. 2015 (in press) HAF
Security <sup>2</sup>	Pinyon or juniper cover	<3% landscape cover within .6 mile of leks	Connelly et al. 2000 (modified) Stiver et al. 2015 (in press) HAF
	Proximity of tall structures <sup>4</sup>	Use Manier et al. 2014- Conservation Buffer Distance Estimates for GRSG-A Review; preference is 3 miles	Baruch-Mordo et al. 2013 Coates et al. 2013 Manier et al. 2014
<b>NESTING (Seasonal Use Period: April 1 to June 30)<sup>1</sup></b>			
Cover	Sagebrush cover	≥20%	Kolada et al. 2009a, 2009b
	Residual and live perennial grass cover (such as native bunchgrasses)	≥10% if shrub cover is <25% <sup>3</sup>	Coates et al. 2013 Coates and Delehanty 2010 Kolada et al. 2009a, 2009b
	Annual grass cover	<5%	Lockyer et al. (in press)
	Total shrub cover	≥30%	Coates and Delehanty 2010 Kolada et al. 2009a Lockyer et al. (in press)
	Perennial grass height (includes residual grasses)	Provide overhead and lateral concealment from predators	Connelly et al. 2000, 2003 Hagen et al. 2007; Stiver et al. 2015 (in press) HAF
Security <sup>2</sup>	Proximity of tall structures <sup>4</sup> (3 feet [1 meter] above shrub)	Use Manier et al. 2014, Conservation Buffer Distance Estimates for GRSG-A Review; preference is 3 miles	Coates et al. 2013 Gibson et al. 2013 Manier et al. 2014

**Table 2-2  
Habitat Objectives for GRSG**

Attribute	Indicators	Desired Condition (Habitat Objectives)	Reference
<b>BROOD-REARING/SUMMER</b> (Seasonal Use Period: May 15 to September 15; Early: May 15 to June 15; Late: June 15 to September 15) <sup>1</sup>			
<b>UPLAND HABITATS</b>			
Cover	Sagebrush cover	10 to 25%	Connelly et al. 2000
	Perennial grass cover and forbs	>15% combined perennial grass and forb cover	Connelly et al. 2000 Hagen et al. 2007
	Deep rooted perennial bunchgrass (within 522 feet [200 meters] of riparian areas and wet meadows)	7 inches <sup>2,7</sup>	Hagen et al. 2007 Casazza et al. 2011
Cover and food	Perennial forb cover	≥5% arid ≥15% mesic	Casazza et al. 2011 Lockyer et al. (in press)
<b>RIPARIAN/MEADOW HABITATS</b>			
Cover and food	Riparian areas/meadows	PFC	Dickard et al. 2014 Prichard et al. 1998, 1999 Stiver et al. 2015 (in press) HAF
Security	Upland and riparian perennial forb availability and understory species richness	<ul style="list-style-type: none"> <li>• Preferred forbs are common with several species present<sup>6</sup></li> <li>• High species richness (all plants)</li> </ul>	Stiver et al. 2015 (in press) HAF
	Riparian area/meadow interspersions with adjacent sagebrush	Has adjacent sagebrush cover	Casazza et al. 2011 Stiver et al. 2015 (in press) HAF
<b>WINTER</b> (Seasonal Use Period: November 1 to February 28) <sup>1</sup>			
Cover and Food	Sagebrush cover	≥10% above snow depth	Connelly et al. 2000 USGS (in prep C)
	Sagebrush height	>9.8 inches above snow depth	Connelly et al. 2000 USGS (in prep C)

<sup>1</sup>Any one single habitat indicator does not define whether the habitat objective is or is not met. Instead, the preponderance of evidence from all indicators within that seasonal habitat period must be considered when assessing sage-grouse habitat objectives.

<sup>2</sup>Upland standards are based on indicators for cover, including litter, live vegetation, and rock, appropriate to the ecological potential of the site.

<sup>3</sup>Applicable to Phase I and Phase II pinyon and/or juniper.

<sup>4</sup>Does not include fences.

<sup>5</sup>In addition, if upland rangeland health standards are being met.

<sup>6</sup>Relative to ecological site potential.

<sup>7</sup>In drought years, 4-inch perennial bunchgrass height with greater than 20 percent measurements exceeding 5 inches in dry years.

The habitat objectives in **Table 2-2** summarize the characteristics that research has found represent the seasonal habitat needs for GRSG. The specific seasonal components identified in the Table were adjusted based on local science and monitoring data to define the range of characteristics used in this subregion. Thus, the habitat objectives provide the broad vegetative conditions we strive to obtain across the landscape that indicate the seasonal habitats used by GRSG. These habitat indicators are consistent with the rangeland health indicators used by the BLM.