REGION 2 SENSITIVE SPECIES EVALUATION FORM

Species: Lesser prairie chicken (*Tympanuchus pallidicinctus*)

Criteria	Rank	Rationale	Literature Citations
1 Distribution within R2	A	The lesser prairie chicken occurs in Colorado and Kansas, specifically eastern Colorado and southwestern Kansas. The species has been extirpated from Nebraska and much of eastern Colorado. Confidence in Rank **High** or Medium or Low	• Giesen 1998
2 Distribution outside R2	B	RESIDENT: southeastern Colorado, southwestern Kansas, and western Oklahoma to southeastern New Mexico and northern Texas (panhandle) (formerly north to southwestern Nebraska). Confidence in Rank **High** or Medium or Low	• AOU 1983 • Giesen 1998
3 Dispersal Capability	D	 Confidence in Rank High or **Medium** or Low	•
4 Abundance in R2	B	In 1999, estimates from each state indicated that there may be as few as 35,000 individuals (USFWS 1999). In 1980, estimated total population was 44,000 to 53,000 individuals (USFWS 1998). State population estimates are: Colorado 800 - 1,000 (as of 1997); Kansas 17,000 - 18,000 (in fall 1979); New Mexico 6,000 - 10,000 (in 1972); Oklahoma 7,500 (in 1979); and Texas 11,000 - 18,000 (in 1979) (USFWS 1998). Confidence in Rank **High** or Medium or Low	•

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Criteria	Rank	Rationale	Literature Citations
5 Population Trend in R2	A	The species is a candidate for listing as threatened under the ESA. Overall trend is now approximately stable, following huge declines in the 1900s (USFWS 1999). Populations believed to have increased during the 1800s and early 1900s due to increased food availability associated with small, isolated farms, particularly during winter (Jackson and DeArment 1963). By the 1930s populations had seriously declined, apparently as a result of extensive cultivation, overgrazing, and drought (Bent 1932, USFWS 1998). Fluctuations in abundance in 1940s and 1950s were followed by a continuous decline through 1970s and 1980s (Crawford 1980). Reduction in occupied range is estimated to be 92 percent between the 1800s and 1980, and 78 percent between 1963 and 1980 (Taylor and Guthery 1980b, USFWS 1998). Since 1900, total numbers have decreased by an estimated 97 percent (Crawford 1980). In 1998 and 1999, most states observed little change in population numbers during spring lek surveys; Kansas, however, noted both a range expansion and a doubling of bird density (perhaps partly due to successful conservation measures, and partly due to increased survey effort), while New Mexico recorded precipitous declines in some parts of the state (USFWS 1999). Confidence in Rank High **or** **Medium** or Low	• see citations in references section

Species: Lesser prairie chicken (*Tympanuchus pallidicinctus*)

Criteria	Rank	Rationale	Literature Citations
6 Habitat Trend in R2	A	The lesser prairie chicken inhabits mixed grass-dwarf shrub communities that occur on sandy soils; principally the sand sagebrush (ARTEMISIA FILIFOLIA)-bluestem (ANDROPOGON spp.) association in Colorado, Kansas, and Oklahoma, and to a lesser extant, Texas and New Mexico; and the shinnery oak (QUERCUS HAVARDII)-bluestem association in Oklahoma, Texas, and New Mexico (Giesen 1998, Hoffman 1963, Jackson and DeArment 1963, Riley et al. 1992, Taylor and Guthery 1980). Leks typically occur on knolls or ridges with relatively short and/or sparse vegetation (Giesen 1998, Jones 1963, Taylor and Guthery 1980b). Will use human-created open areas (e.g., oil well pads, roads, reverted cropland, cultivated fields, and areas treated with herbicides; Crawford and Bolen 1976, Taylor 1980), and recently burned areas to display (Cannon and Knopf 1979). Nests in sand sagebrush or shinnery oak grasslands with high canopy cover and moderate vertical and horizontal cover, primarily residual vegetation (Giesen 1998). Females prefer to nest in relatively tall, dense vegetation (Giesen 1994b, Riley et al. 1992, Wisdom 1980 cited in Giesen 1998). Nest is often under sand sagebrush or shinnery oak shrub (Bent 1932; Davis et al. 1979, cited in Giesen 1998; Giesen 1994b; Sell 1979, cited in Giesen 1998) or amid tall bunchgrasses (ANDROPOGON, ARISTIDA, SCHIZACHYRIUM; Haukos and Smith 1989; Riley 1978, cited in Giesen 1998; Wisdom 1980, cited in Giesen 1998). Height and density of forbs and residual grasses are greater at nest sites than on adjacent rangeland (Davis et al 1979, cited in Giesen 1998; Giesen 1994b; Haukos and Smith 1989; Riley et al. 1992). Population declines continue due to habitat loss, fragmentation, and degradation as a result of grass and rangeland conversion to cropland and "improved" pastureland and overgrazing. Moderate grazing pressure (less than 25-35 percent of the annual growth of forage species), along with selective use of herbicides in overgrazed shrublands, can maintain or improve habitat. Confidence in Rank **High** or Medium or Low	• see citations in references section

Species: Lesser prairie chicken (*Tympanuchus pallidicinctus*)

Criteria	Rank	Rationale	Literature Citations
7 Habitat Vulnerability or Modification	A	The species is moderately threatened range-wide, habitat or community lends itself to alternate use. HABITAT: Threatened by habitat loss, fragmentation and degradation principally due to the conversion of grass and rangeland to cropland and "improved" pastures, overgrazing, and brush control (Crawford 1980, Hamerstrom and Hamerstrom 1961, Jones 1964b, Mote et al. 1999, Taylor and Guthery 1980b). GRAZING: Overgrazing reduces residual grass cover, an important component of nesting habitat, and reduces food plant availability (Bent 1932; Cannon and Knopf 1980; Crawford 1980; Davis et al. 1979, cited in Giesen 1998; Giesen 1994a; Riley et al. 1992). Rangeland improvement designed to increase grass cover by reducing shrub density using herbicides removes important food sources and nesting cover (Jackson and DeArment 1963, Haukos and Smith 1989). Confidence in Rank **High** or Medium or Low	• see citations in references section
8 Life History and Demographics	B	Confidence in Rank High or Medium or Low	• www.natureserve.org

Initial Evaluator(s): John Sidle

Date: 06/25/01

National Forests in the Rocky Mountain Region where species is KNOWN (K) or LIKELY(L)[1] to occur:

Colorado NF/NG	**Known**	**Likely**	**Kansas NF/NG**	**Known**	**Likely**	**Nebraska NF/NG**	**Known**	**Likely**	**South Dakota NF/NG**	**Known**	**Likely**	**Wyoming NF/NG**	**Known**	**Likely**
Arapaho-Roosevelt NF			Cimmaron NG	K		Samuel R.McKelvie NF			Black Hills NF			Shoshone NF		
White River NF						Halsey NF			Buffalo Gap NG			Bighorn NF		
Routt NF						Nebraska NF			Ft. Pierre NG			Black Hills NF		
Grand Mesa, Uncompahgre, Gunnison NF						Ogalala NG						Medicine Bow NF		
San Juan NF												Thunder Basin NG		
Rio Grande NF														
Pike-San Isabel NF														
Comanche NG	K													

[1] Likely is defined as more likely to occur than not occur on the National Forest or Grassland. This generally can be thought of as having a 50% chance or greater of appearing on NFS lands.

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