small governments on compliance with the regulatory requirements.

At the time of promulgation, EPA determined that the Petroleum Refineries NESHAP does not include a Federal mandate that may result in estimated costs of $100 million or more to either State, local, or tribal governments in the aggregate or to the private sector. This determination is not altered by today's action, the purpose of which is to revise the date by which a report is due and provide an exemption for specific vent streams. Thus, today's proposed rule is not subject to the requirements of sections 202 and 205 of the UMRA.

*E. Executive Order 12875*

To reduce the burden of Federal regulations on States and small governments, the President issued Executive Order 12875 entitled ''Enhancing the Intergovernmental Partnership'' on October 26, 1993. Executive Order 12875 prohibits the EPA, to the extent feasible and permitted by law, from promulgating any regulation that is not required by statute and that creates a mandate upon a State, local or tribal government unless: (i) The Federal Government provides the funds necessary to pay the direct costs incurred by the State, local or tribal government in complying with the mandate; or, (ii) EPA provides to the Office of Management and Budget a description of the extent of the EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of those entities concerns, any written communications submitted to EPA by such units of government and the EPA's position supporting the need to issue the regulation. Executive Order 12875 further requires the EPA to develop an effective process to permit elected officials and other representatives of State, local and tribal governments ''to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates.'' This rule does not create a mandate upon State, local or tribal governments.

*F. Applicability of Executive Order 13045*

Executive Order 13045 applies to any rule that EPA determines (1) ''economically significant'' as defined under Executive Order 12866, and (2) the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

This proposed rule is not subject to E.O. 13045, entitled ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because it is not an economically significant regulatory action as defined by Executive Order 12866, and it does not address an environmental health or safety risk that would have a disproportionate effect on children.

**List of Subjects in 40 CFR Part 63**

Environmental protection, Air pollution control, Hazardous air pollutants, Petroleum refineries, Reporting and recordkeeping requirements, Storage vessels.

Dated: May 28, 1998.

**Carol M. Browner,**

*Administrator.*

[FR Doc. 98–15006 Filed 6–8–98; 8:45 am]

BILLING CODE 6560–50–P

---

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

## Endangered and Threatened Wildlife and Plants; 12-Month Finding for a Petition To List the Lesser Prairie-Chicken as Threatened and Designate Critical Habitat

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of 12-month petition finding.

**SUMMARY:** The Fish and Wildlife Service (Service) announces a 12-month finding for a petition to list the lesser prairie-chicken (*Tympanuchus pallidicinctus*) under the Endangered Species Act of 1973 as amended. After review of all available scientific and commercial information, the Service finds that listing this species is warranted but precluded by other higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. The lesser prairie-chicken is added to the Service's candidate species list.

**DATES:** The finding announced in this document was made on June 1, 1998.

**ADDRESSES:** Data, information, comments, or questions concerning this petition should be sent to the Field Supervisor, U. S. Fish and Wildlife Service, 222 S. Houston, Suite A, Tulsa, Oklahoma, 74127. The petition finding, supporting data, and comments are available for public inspection, by appointment, during normal business hours at the above address.

**FOR FURTHER INFORMATION CONTACT:** Jerry Brabander, Field Supervisor, Oklahoma Ecological Services Field Office (see **ADDRESSES** section) (telephone 918/581–7458 ext. 224, facsimile 918/581–7467).

**SUPPLEMENTARY INFORMATION:**

### Background

Section 4(b)(3)(B) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*), requires that for any petition to revise the Lists of Endangered and Threatened Wildlife and Plants that contains substantial scientific and commercial information, the Service make a finding within 12 months of the receipt of the petition on whether the petitioned action is: (a) not warranted, (b) warranted, or (c) warranted but precluded from immediate proposal by other pending proposals of higher priority. Information contained in this notice is a summary of the information in the 12-month finding, which is the Service's decision document. When a petition to list a species is found to be warranted but precluded, the species is designated a candidate species. A candidate species is a taxon for which the Service has on file sufficient information to support issuance of a proposed listing rule. Section 4(b)(3)(C) requires that a petition for which the requested action is found to be warranted but precluded be treated as though it has been resubmitted on the date of such finding; a subsequent finding is to be made on such a petition within 12 months of the initial or previous finding. Notices of such 12-month findings are to be published promptly in the **Federal Register**.

On October 6, 1995, the Service received a petition, dated October 5, 1995, from the Biodiversity Legal Foundation, Boulder, Colorado and Marie E. Morrissey (petitioners). The petitioners requested that the Service list the lesser prairie-chicken as threatened throughout its known historic range in the United States, and that critical habitat be designated as soon as needs of the species are sufficiently well known. However, from October 1995 through April 1996, funding for the Service's listing program was severely reduced or eliminated and the Service was unable to act on the petition.

The Service made a 90-day finding that the petition presented substantial information indicating that the

requested action may be warranted. The 90-day finding was announced in the **Federal Register** on July 8, 1997 (62 FR 36482). In that notice, additional information on the status, trend, distribution, and habitat use of the species was requested by September 8, 1997, for use in a status review. In response to a request by the Lesser Prairie-chicken Interstate Working Group comprised of state agencies and other interested parties, an additional 30-day period for submission of information was announced in the **Federal Register** on November 3, 1997 (62 FR 59334).

The Service has reviewed the petition, the literature cited in the petition, other available literature and information, and consulted with biologists and researchers familiar with the lesser prairie-chicken. On the basis of the best scientific and commercial information available, the Service finds the petition is warranted but precluded by work on other species having higher priority for listing.

The lesser prairie-chicken is in the Order Galliformes, Family Phasianidae, subfamily Tetraoninae, and is recognized as a species separate from the greater prairie-chicken (*Tympanuchus cupido*) (American Ornithologist's Union 1957). Average length ranges from 38–41 centimeters (15–16 inches) (Johnsgard 1973). The plumage of the lesser prairie-chicken is similar to that of the greater prairie-chicken, although it is somewhat lighter and is characterized by alternating brown and buff-colored barring. Males have long tufts of feathers on the sides of the neck which are erected during courtship display. Males also display yellow-orange eyecombs and reddish-purple air sacs during courtship displays (Copelin 1963, Johnsgard 1983). Lesser prairie-chickens were first described as a subspecies of the greater prairie-chicken (Ridgway 1873) but were granted specific status in 1885 (Ridgway 1885). A discussion of lesser prairie-chicken taxonomy is found in Giesen (1997).

Lesser prairie-chickens exhibit a lek mating system. Males gather to display on leks at dusk and dawn beginning in late February through early May (Copelin 1963, Hoffman 1963, Crawford and Bolen 1975). A dominant older male occupies the center of the lek, while younger males gather in outlying areas. Females arrive at the lek in early spring; peak hen attendance at leks is during mid-April (Copelin 1963, Haukos 1988). The sequence of vocalizations and posturing of the dominant male, termed ''booming,'' has been described by Johnsgard (1983) and Haukos (1988).

After mating, the hen selects a nest site, usually 1–3 kilometers (km) (0.6–2 miles (mi)) from the lek (Giesen 1994b), and lays an average clutch of 10–14 eggs (Bent 1932, Taylor and Guthery 1980). Second nests may occur when the first attempt is unsuccessful. Incubation lasts 23–26 days, and young leave the nest within hours of hatching (Coats 1955). Broods may remain with females for 6–8 weeks (Ehrlich *et al.* 1988). Campbell (1972) estimated a 65 percent annual mortality rate, and a 5-year maximum life span. Giesen (1997) provided a comprehensive summary of lesser prairie-chicken breeding behavior, habitat, and phenology.

The lesser prairie-chicken historically occupied areas of sand sagebrush (*Artemesia filifolia*)—bluestem (*Andropogon* spp. and/or *Schizachyrium* spp.) or shinnery oak (*Quercus havardii*)—bluestem grasslands in portions of southeastern Colorado (Giesen 1994a), southwestern Kansas (Schwilling 1955), western Oklahoma (Duck and Fletcher 1944), the Texas Panhandle (Henika 1940, Oberholser 1973), and eastern New Mexico (Ligon 1927). In Colorado and Kansas, the sand sagebrush prairie community used by lesser prairie-chickens also includes sand dropseed (*Sporobolus cryptandrus*), little bluestem (*Schizachyrium scorparium*), switchgrass (*Panicum virgatum*), blue grama (*Bouteloua gracilis*), and sideoats grama (*Bouteloua curtipendula*) (Baker 1953, Taylor and Guthery 1980, Giesen 1994a). Most of the lesser prairie-chickens in Kansas are found south of the Arkansas River in sand sagebrush prairies similar to those in southeastern Colorado (Sexson and Horak 1978).

In western Oklahoma, lesser prairie-chickens use sand sagebrush-bluestem grasslands as well as the shinnery oak-bluestem grasslands, dominated by sand bluestem (*Andropogon halli*), little bluestem, and sand dropseed (Duck and Fletcher 1944, Copelin 1963). In Texas, populations are confined almost exclusively to sandy ridges containing shinnery oak and/or sand sagebrush, as well as tall grasses such as sand bluestem, little bluestem, and switchgrass (Jackson and De Arment 1963, Litton 1978).

In the southeastern part of New Mexico, lesser prairie-chickens exist in the shrub-dominated High Plains Bluestem habitat type in mixed stands of tall grasses (i.e., sand bluestem, little bluestem) and shinnery oak (Riley *et al.* 1993a). In northern New Mexico, lesser prairie-chickens primarily used sand sagebrush rangelands dominated by sand bluestem, little bluestem, and Indiangrass (*Sorghastrum nutans*), with some yucca (*Yucca spp.*), shinnery oak, and mesquite (*Prosopsis spp.*) (Taylor and Guthery 1980).

The diet of lesser prairie-chickens is dominated by vegetative matter in autumn and winter, with insects increasing in proportion in the diet during the summer months. Shinnery oak leaf galls, catkins, leaves, and acorns may comprise 60–70 percent of the autumn and winter diet (Davis *et al.* 1979; Riley *et al.* 1993b); fragrant sumac (*Rhus aromatica*) and sand sagebrush also are important winter foods (Doerr and Guthery 1980). When available, grain sorghum fields are often used as winter food (Copelin 1963, Donaldson 1969). In New Mexico, green vegetation constituted about 80 percent of the spring diet (Davis *et al.* 1979). Insects (Acrididae, Tettigoniidae, and Membracidae) comprised 55 percent of the summer diet of adults, and 99–100 percent of the summer diet of juveniles (Davis *et al.* 1979, Davis *et al.* 1980).

**Summary of Population Status**

Little information is available on lesser prairie-chicken populations prior to 1900. Litton (1978) suggested that there may have been as many as two million birds in Texas alone prior to 1900. The Service is not aware of any independent estimate to corroborate Litton's claim, and the source or methodology behind his estimate is unknown. However, in the early twentieth century, lesser prairie-chickens were reportedly quite common throughout their range in Colorado, Kansas, New Mexico, Oklahoma, and Texas (Bent 1932, Baker 1953, Bailey and Niedrach 1965, Sands 1968, Fleharty 1995). By the 1930s, extensive cultivation, overgrazing, and drought had begun to cause the species to disappear from areas where it had been abundant (Bent 1932, Baker 1953, Bailey and Niedrach 1965, Davison 1940, Lee 1950, Oberholser 1974). Lesser prairie-chicken abundance appeared to fluctuate somewhat during the 1940s and 1950s (Copelin 1963, Snyder 1967, Crawford 1980), and by the early 1970s, the total fall population may have been reduced to about 60,000 birds (Crawford 1980). By 1980, the estimated total fall population was approximately 44,000 to 53,000 birds (Crawford 1980).

Each of the five State wildlife agencies provided the Service with information regarding the status of the lesser prairie-chicken. Most states collect data in the form of one or both of the following indices—average lek size (i.e., number of males per lek); or density of leks in a given area. The State of Kansas estimates density of birds per square mile (sq mi). In general, each of

the State wildlife agencies believes that they are unable to provide a precise estimate of lesser prairie-chicken population abundance in their State. In the absence of bird density data, the number of active leks over large areas was recommended as the most reliable index to prairie grouse population trends (Cannon and Knopf 1981).

In Colorado, the lesser prairie-chicken has been listed as threatened under State law since 1973. The total number of lesser prairie-chickens counted on leks increased substantially between 1959 and 1990 as did survey effort. The Colorado Division of Wildlife currently estimates a total of 800–1,000 lesser prairie-chickens in the State (K. Giesen, pers. comm. August 26, 1997).

In Kansas, the lesser prairie-chicken is an upland game bird with a legal harvest between December 1 and January 31. In the early part of this century, lesser prairie-chickens were considered plentiful in the sandhill and bunchgrass areas (Colvin 1914 as reported by Bent 1932), and they remained abundant until the droughts of the 1930s (Schwilling 1955). Estimated fall population in 1979 was 17,000–18,000 birds (Crawford 1980). Eight of 10 lesser prairie-chicken survey routes in Kansas had a significantly declining trend of birds per sq mi (data available from most routes from 1969–1995; R. Applegate, *in litt.* August 8, 1996). In 1997, the rangewide average of 0.69 birds per 100 hectares (ha) (1.8 birds per sq mi) was not a statistically significant decline over the 1996 average of 0.8 birds per 100 ha (2.2 birds per sq mi) (Rodgers 1997).

In New Mexico the lesser prairie-chicken is an upland game bird, although the hunting season was closed in 1996. Estimates of occupied range in New Mexico over the last century suggest a pattern of decline and increase, including reoccupation of former range (Ligon 1927, Snyder 1967, Sands 1968). In the 1950s, the population was estimated at 40,000–50,000 (Sands 1968) and by 1972, at 6,000–10,000 birds (Taylor and Guthery 1980 based on Campbell 1972). Survey data from 1971–1997 analyzed by the New Mexico Natural Heritage Institute show a clear decrease after 1988. During the 1990s, much greater survey effort continually failed to yield increased numbers of prairie chickens on traditional lek sites on Bureau of Land Management (BLM) administered property.

In Oklahoma, the lesser prairie-chicken is considered an upland game bird, although the harvest season will be closed beginning with the fall 1998 hunting season. Abundance estimates in Oklahoma also suggest population fluctuations—in 1944, 15,000 birds were estimated (Duck and Fletcher 1944); by 1956, only 2,500–3,000 (Summars 1956); and in 1960, approximately 15,000 (Copelin 1963). By 1979, Cannon and Knopf (1980) reported an estimated total of 7,500 lesser prairie-chickens. A very rough estimate of 475 total lesser prairie-chickens in spring of 1995 was provided to the petitioner by the Oklahoma Department of Wildlife Conservation (ODWC). Between 1968 and 1997, the mean number of males per active lek ranged from a high of 16.5 in 1975 to a low of 4.6 in 1995. In both 1996 and 1997, an average of 6.8 males per active lek was estimated. Between 1987 and 1997, the estimated density of leks within occupied habitat ranged from a high of 0.13 leks per 100 ha (0.33 leks per sq mi) in 1988 to a low of 0.024 leks per 100 ha (0.06 leks per sq mi) in 1997 (ODWC 1997).

In Texas, the lesser prairie-chicken is an upland game bird with a legal harvest from October 18–19. Although Litton (1978) reported estimates of 2 million birds in Texas prior to 1900, the source of this estimate is unknown. By 1937, the population may have been reduced to 12,000 (Oberholser 1974). In 1967, the State of Texas believed the lesser prairie-chicken population was of sufficient size to reinstate a limited harvest, which had been closed since 1937. In 1979, the population was estimated at 11,000–18,000 birds (Crawford 1980). Between 1942 and 1986, the Texas Parks and Wildlife Department (TPWD) annually estimated density of leks per 100 ha in two counties of the Texas panhandle (Wheeler and Hemphill). During this time period, density of leks in Hemphill County remained fairly stable, and averaged 0.083 leks per 100 ha (0.21 leks per sq mi). In 1997, density estimated on this study area was 0.049 leks per 100 ha (0.13 leks per sq mi), 41 percent below the 1942–1986 average. In Wheeler County, the 1942–1985 average was 0.518 leks per 100 ha (1.35 leks per sq mi), and the 1997 estimate was 0.074 leks per 100 ha (0.19 leks per sq mi), 85.7 percent lower than the 1942–1986 average (J. Hughes, *in litt.* August 26, 1997).

## Summary of Factors Affecting the Species

Section 4 of the Endangered Species Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the lesser prairie-chicken are as follows:

### *A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range*

#### Historical and Current Range

In the early twentieth century, lesser prairie-chickens were reportedly common throughout their five-state range (Bent 1932, Baker 1953, Sands 1968, Fleharty 1995). Lesser prairie-chickens are currently found within each of the five states, although their distribution within those states has declined (Bent 1932, Taylor and Guthery 1980, Giesen 1997).

The area originally occupied by lesser prairie-chickens was estimated as 358,000 square kilometers (sq km) (140,000 sq mi), and by 1969 it was about 125,000 sq km (49,000 sq mi), due to wide-scale conversion of native prairie to cultivated cropland (Taylor and Guthery 1980 based on Aldrich 1963). In 1980, occupied range was estimated at 27,300 sq km (10,700 sq mi), which represented a 78 percent decrease in range since 1963, and a 92 percent decrease since the 1800s (Taylor and Guthery 1980).

Colorado—It is likely that lesser prairie-chickens were resident only in six counties prior to settlement (Giesen 1994a). Museum specimens are known only from Baca and Prowers counties (Giesen 1994a). At present, lesser prairie-chickens are known to be present in Baca, Prowers, and Kiowa counties (Giesen 1994a).

Kansas—Lesser prairie-chicken historical range included 38 counties (Schwilling 1955, Figure 1), and they are currently known to exist in 19 Kansas counties (R. Applegate, *in litt.* October 8, 1997).

Oklahoma—Lesser prairie-chickens historically occurred in 16 Oklahoma counties (Duck and Fletcher 1944). In 1943, lesser prairie-chickens were located in nine counties, comprising an estimated range of 10,143 sq km (3,962 sq mi) (Duck and Fletcher 1944). In 1963, they were located in 12 counties, with an estimated range of 6,225 sq km (2,432 sq mi) (Copelin 1963). By 1979, they were verified in 8 counties; isolated fragments totaled an estimated 2,791 sq km (1,090 sq mi), a decrease of approximately 72 percent since 1944 (Cannon and Knopf 1980).

At present, there are reports of lesser prairie-chickens occurring in seven counties (ODWC 1997; R. Horton, ODWC, *in litt.* November 12, 1997; J. Shackford, Oklahoma Cooperative Fish

and Wildlife Research Unit, *in litt.* May 27, 1997). The estimated occupied range in 1995 was 1,162 sq km (454 sq mi) (R. Horton, ODWC, pers. comm. December 13, 1995), which would indicate a decrease of 89 percent since Duck and Fletcher's (1944) estimate.

Texas—The earliest systematic survey of lesser prairie-chickens in the State was Henika (1940) (M. Peterson, TPWD and Wildlife, *in litt.* October 17, 1997). At that time, range of the lesser prairie-chicken encompassed portions of 20 counties (Henika 1940). In addition to those counties, Oberholser (1974) reported that museum specimens exist for five additional counties, although there is uncertainty as to whether two of the five specimens were actually greater prairie-chicken and Attwater's prairie-chicken (*Tympanuchus cupido attwateri*), respectively (M. Peterson, *in litt.* November 12, 1997). Although Henika (1940) may have reported the first systematic survey, Henika considered the occupied range at that time to be a reduction of the historical range.

In 1989, the TPWD produced an occupied range map that encompassed portions of 13 counties (Locknane 1992), with an estimated range of 5,732 sq km (2,239 sq mi) (A. Sansom, *in litt.* April 3, 1997); a net loss of 793 sq km (310 sq mi) of occupied habitat had occurred between 1940 and 1989 (M. Peterson, *in litt.* October 17, 1997). In 1997, TPWD reported that lesser prairie-chickens were found in 16 counties (K. Mote, *in litt.* October 17, 1997).

New Mexico—In the 1920s and 1930s, the former range of the lesser prairie-chicken in New Mexico was described as all of the sandhill rangeland of eastern New Mexico, from Texas to Colorado, and west to Buchanan in DeBaca County (Ligon 1927, Bent 1932, Snyder 1967). Ligon (1927) mapped the breeding range at that time as encompassing portions of seven counties, a small subset of what he described as former range. In the 1950s and 1960s, occupied range mapped by Frary (1957) and Snyder (1967) was more extensive, indicating reoccupation of some areas. Presently, New Mexico Department of Game and Fish (NMDGF) reports that lesser prairie-chickens are known in portions of seven counties (B. Hale, NMDGF, pers. comm. October 6, 1997), and that they have apparently been extirpated from 3,308 sq km (1,292 sq mi) of an original range of 22,131 sq km (8,645 sq mi) (Bailey 1997).

Habitat Destruction

Conversion of native sand sagebrush and shinnery oak rangeland to areas of cultivation is cited by many authors as an important factor in the decline of lesser prairie-chickens (Copelin 1963; Jackson and DeArment 1963; Crawford and Bolen 1976; Crawford 1980; Taylor and Guthery 1980; Braun *et al.* 1994; Lesser Prairie-chicken Interstate Working Group 1997). Between 1915 and 1925, many new acres of prairie sod were plowed on the Great Plains to grow needed wheat (Laycock 1987). By the 1930s, Bent (1932) speculated that extensive cultivation or overgrazing had begun to cause the species to disappear from sections where it had been abundant. Because grain crops increased winter food supply, the initial conversion of some native prairie to cultivation may have been beneficial to the species. However, areas with greater than 20–37 percent cultivation may be incapable of supporting stable populations (Crawford and Bolen 1976). In the 1940s, 1970s, and 1980s, additional acres of previously unbroken grassland were plowed (Laycock 1987).

Bragg and Steuter (1995) estimated that in 1993, only 8 percent of the bluestem-grama association and 58 percent of the mesquite-buffalograss association as described by Kuchler (1985) remained. The remaining mixed-grass prairie vegetation differs from pre-settlement conditions. The present grazing, fire, and water management regimes are vastly different and less variable, cultivated cropland has been added, and the amount of woodland habitat has expanded (Knopf and Samson 1997).

Recent loss of native rangeland within the range of the lesser prairie-chicken was determined using the National Resources Inventory (NRI) of the U. S. Department of Agriculture Natural Resources Conservation Service (NRCS). The 1992 NRI Summary Report provided estimates of change in rangeland acreage from 1982–1992 for each state. When considered state-wide, each of the five states with lesser prairie-chickens showed a decline in the amount of rangeland acreage over that time period, indicating that loss of habitat may still be occurring. However, estimates of rangeland from 1982–1992 for counties specifically within lesser prairie-chicken range showed no statistically significant change, possibly due to small sample size and large variance estimates.

Habitat Modification (Grazing and Fragmentation)

Grazing has always been an ecological force within the Great Plains ecosystem. The evolutionary history of the mixed-grass prairie resulted in endemic bird species adapted to a mosaic of lightly to severely grazed areas (Bragg and Steuter 1995, Knopf and Samson 1997). The Service believes that areas of heavily, moderately, and lightly grazed areas are necessary on a landscape scale. In some areas within lesser prairie-chicken range, an insufficient amount of lightly grazed habitat is available to support successful nesting (Crawford 1980; Jackson and DeArment 1963; Davis *et al.* 1979; Taylor and Guthery 1980; Davies 1992). Uniform or widespread livestock grazing of rangeland to a degree that leaves less than adequate residual cover remaining in the spring is considered detrimental to lesser prairie-chicken populations (Bent 1932; Davis *et al.* 1979; Cannon and Knopf 1980; Crawford 1980; Bidwell and Peoples 1991; Riley *et al.* 1992; Giesen 1994b), because grass height is reduced below that necessary for nesting cover and desirable food plants are markedly reduced. Superior cover at and around nests is thought to increase nest success because nests are better concealed from predators (Davis *et al.* 1979; Wisdom 1980; Riley *et al.* 1992; Giesen 1994b). When grasslands are in a deteriorated condition due to overgrazing, the soils have less water-holding capacity, and the availability of succulent vegetation and insects is reduced. Thus, the effects of overgrazing are likely exacerbated by drought (Davis *et al.* 1979; Merchant 1982).

In summary, livestock grazing is not necessarily detrimental to lesser prairie-chickens. However, a level of grazing that leaves little cover in the spring for concealment of prairie-chicken nests is detrimental. In some areas, limited brush control may be warranted, but widespread eradication of brush to increase forage for livestock can result in a lack of shrub cover for lesser prairie-chickens which is also detrimental. Because the lesser prairie-chicken depends on medium and tall grasses that are preferred by cattle in regions of low rainfall, its habitat is easily overgrazed (Hamerstrom and Hamerstrom 1961). To be favorable to lesser prairie-chickens, grazing management must ensure that a diversity of plants and cover types remain on the landscape (Taylor and Guthery 1980).

Because suitable habitat for lesser prairie-chickens has been lost due to conversion to agriculture and modified through grazing practices and other factors, much of the remaining suitable habitat is fragmented (Crawford 1980; Braun *et al.* 1994). Fragmentation may exacerbate the extinction process (Wilcove *et al.* 1986) through several mechanisms: remaining fragments may be smaller than the necessary home range size (Samson 1980), necessary

habitat heterogeneity may be lost, habitat between patches may house high levels of predators or brood parasites, and the probability of recolonization decreases as distance from nearest patch increases (Wilcove *et al.* 1986; Knopf 1997). As a group, grouse may be relatively intolerant of extensive habitat fragmentation due to their short dispersal distances and other life history characteristics such as specialized food habits and generalized anti-predator strategies (Braun *et al.* 1994).

*B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes*

In the late 19th century, lesser prairie-chickens were subject to market hunting (Jackson and DeArment 1963). Harvest has been regulated since approximately the turn of the century (Crawford 1980). Giesen (1997) summarized the history of regulated harvests in each of the states: hunting seasons were closed in Colorado in the early 1900s; in Kansas from 1903–1905, 1913–1916, 1927–1930, 1936–1940, 1944–1950, and 1953–1956; in Texas from 1937–1967; in New Mexico from the early 1930s to 1948, 1950–1958, and 1996 through present; and in Oklahoma from 1916–1928, 1930, 1932, and 1934–1949. Currently, the lesser prairie-chicken is classified as a game species in Kansas, New Mexico, Oklahoma, and Texas, although the legal harvest is now closed in New Mexico and Oklahoma.

The Service does not believe that overutilization through recreational hunting is a primary cause of lesser prairie-chicken population declines. However, when populations are small and fragmented, they are vulnerable to local extirpations through many mechanisms, including human harvest. The Service does not know if the continental lesser prairie-chicken population has declined to the point where recreational harvest could cause a significant decline at the population level.

Braun *et al.* (1994) called for definitive experiments that evaluate the extent to which hunting is an additive mortality factor at different harvest rates and in different patch sizes. In the interim, they suggested conservative harvest regimes for small or fragmented populations, because fragmentation likely decreases the resilience of populations to harvest. The Service concurs with this recommendation.

The effect of recreational observations of birds at leks is unknown. These effects are likely to be minimal at the population level if disturbance is minimized by observers remaining in vehicles or blinds until the birds disperse from the lek after sunrise, and if observations are confined to a limited number of total leks.

*C. Disease or Predation*

Giesen (1997) reported no available information on ectoparasites or infectious diseases in lesser prairie-chickens, although several endoparasites including nematodes and cestodes are known to infect the species. In the spring of 1997, a sample of 12 lesser prairie-chickens from Hemphill County, Texas, were captured and tested for the presence of disease and parasites. No evidence of viral or bacterial diseases, hemoparasites, parasitic helminths, or ectoparasites was found (J. Hughes, TPWD, *in litt.* August 26, 1997). The significance of the parasite infestations noted in the literature is unknown. The Lesser Prairie Chicken Interstate Working Group (1997) concluded that while density-dependent transmission of disease was unlikely to have a significant effect on lesser prairie-chicken populations, a disease that was transmitted independently of density could have drastic effects.

Prairie falcons (*Falco mexicanus*), northern harriers (*Circus cyaneus*), great-horned owls (*Bubo virginianus*), and coyotes (*Canis latrans*) have been identified as predators of lesser prairie-chicken adults and chicks (Copelin 1963; Davis *et al.* 1979; Merchant 1982; Haukos and Broda 1989; Giesen 1994). Predators of nests and eggs also include Chihuahuan ravens (Corvus cryptoleucus), striped skunks (*Mephitis mephitis*), ground squirrels (*Spermophilus spilosoma*), and bullsnakes (*Pituophis melanoleucus*), as well as coyotes and badgers (*Taxidea taxus*) (Davis *et al.* 1979, Giesen 1997).

Predation on lesser prairie-chickens is especially important relative to nest success. Nest success and brood survival of greater prairie-chickens accounted for most of the variation in population trends (Wisdom and Mills 1997). Thus, to have the greatest effect on population growth, management for greater prairie-chickens should focus on improving nest success and brood survival. To the Service's knowledge, a similar analysis has not been completed for the lesser prairie-chicken, but the Service expects that survival of young is important for all prairie grouse. Bergerud (1988) concluded that population changes in many grouse species are driven by changes in breeding success; this conclusion was supported by an analysis of Attwater's prairie-chicken (Peterson and Silvy 1994).

The community of prairie mammals has undergone a significant reconstruction due to destruction of habitat, decimation of keystone species and top predators, and the increase in generalist and introduced animals (Benedict *et al.* 1996). Habitat generalist species such as the coyote, red fox (*Vulpes fulva*), gray fox (*Urocyon cinereoargenteus*), and raccoon (*Procyon lotor*) may all have increased in population size or range size since European settlement (Bowles 1981; Jones *et al.* 1983; Caire *et al.* 1989; Benedict *et al.* 1996). The initial reduction of large canids of the Great Plains may have been responsible for an increase in medium-sized predators such as skunk, raccoon, and fox, which are known to cause low duck nest success in the northern Great Plains (Sargeant *et al.* 1984, Garrettson *et al.* 1996). As habitat fragmentation increases, the effects of terrestrial nest predators may increase (Braun *et al.* 1978). The Lesser Prairie-chicken Interstate Working Group (1997) reported that two ongoing studies of prairie grouse, in Kansas and Oklahoma, have shown a very high rate of nest failure due to predators. However, the significance of nest predation at the population level is not known.

*D. The Inadequacy of Existing Regulatory Mechanisms*

In 1973, the lesser prairie-chicken was listed as threatened in Colorado under the State's ''Nongame and Endangered or Threatened Species Conservation Act.'' In July of 1997, the NMDGF received a formal request to commence an investigation into the status of the lesser prairie-chicken within New Mexico. This request was the beginning of the process for potential listing of this species under New Mexico's Wildlife Conservation Act. Most occupied lesser prairie-chicken habitat throughout its current range occurs on private land (Taylor and Guthery 1980), where states have little authority to protect the species or its habitat, with the exception of setting harvest regulations.

The National Forest Management Act (NFMA, 36 CFR Ch. 11, Section 219.19), requires that certain species be identified as management indicator species if their population changes are believed to indicate the effects of management activities. According to the NFMA, planning alternatives should be evaluated in terms of population trends of management indicator species, and biologists from state and Federal agencies should be consulted to coordinate planning. In Region 2 of the Forest Service (USFS), the Pike and San Isabel National Forests, which

administers the Comanche and Cimarron National Grasslands, designates the lesser prairie-chicken as a management indicator species. Its Land and Resource Management Plan contains specific standards and guidelines for lesser prairie-chicken habitat management. Revision of the current Land and Resource Management Plan is scheduled to be completed in 1999 (J. Hartman, pers. comm. April 22, 1997).

The current standards and guidelines apply wherever lesser prairie-chickens occur on these Grasslands (J. Hartman, *in litt.* April 25, 1997). The guidelines direct the USFS to: maintain range with a diversity of plant forms, promote mid-seral to potential natural community plant species, protect all lesser prairie-chicken leks from surface disturbance at all times, protect nesting habitat from surface disturbance from April 15–June 30, and limit livestock and wild herbivore allowable forage use in lesser prairie-chicken habitat to 40 percent (J. Hartman, *in litt.* April 25, 1997). As stated in the Oil and Gas Leasing Environmental Impact Statement for the Comanche and Cimarron National Grasslands, no surface use is allowed in ''prairie chicken dancing grounds and nesting areas'' between March 1 and June 1 (J. Hartman, *in litt.* April 25, 1997). Internal USFS recommendations (USDA Forest Service 1995) to implement a specific habitat monitoring plan to ensure that nesting habitat standards are met had not been implemented as of December 1997 (S. Curry, USFS, pers. comm. December 1, 1997).

In Region 3 of the USFS, the Cibola National Forest, which administers the Black Kettle, Kiowa, and Rita Blanca National Grasslands, does not designate the lesser prairie-chicken as a management indicator species and does not provide specific standards and guidelines for lesser prairie-chicken habitat management. The Land and Resource Management Plan is currently being revised, and the USFS is considering: (1) making the lesser prairie-chicken an indicator species; and (2) the implementation of grazing guidelines specific to lesser prairie-chicken habitat needs. However, these decisions have not been finalized (L. Cosper, USFS, pers. comm. January 13, 1998). Over the past year, District Rangers of the Cimarron, Comanche, and Black Kettle National Grasslands have been consulting with the State wildlife agencies to refine nesting habitat recommendations and to develop grazing standards (J. Hartman and D. Pieper, *in litt.* September 5, 1997).

The other Federal land occupied by lesser prairie-chickens is administered by the BLM in New Mexico. The lesser prairie-chicken has no official special status on land administered by the BLM (E. Roberson, BLM, *in litt.* January 12, 1998). The majority of lesser prairie-chicken habitat is within the Roswell Resource Area. In October of 1997 the Roswell Approved Resource Management Plan and Record of Decision were signed (BLM 1997a). Drilling and 3–D geophysical exploration will not be allowed in lesser prairie-chicken habitat March 15–June 15 each year. During that period, other activities that produce noise or involve human activity will not be allowed between 3:00 am and 9:00 am; this does not include normal, around-the-clock operations. No new drilling will be allowed within 200 meters (m) (650 feet (ft)) of all known leks, although exceptions will be considered for areas of no or low prairie-chicken booming activity; unoccupied habitat, including leks, as determined at the time of permitting; or in emergency situations (BLM 1997a, App. 1). Because lesser prairie-chickens often nest within a 3 km (1.9 mi) radius of a lek, restrictions on drilling within 200 m will not protect all or even a majority of nesting habitat.

Davis *et al.* (1979) were contracted by BLM to provide information necessary to evaluate the effects of grazing on lesser prairie chicken habitat needs. Although Davis *et al.* (1979) recommended reduction of stock levels and construction of a series of livestock exclosures at least 32 ha (80 acres (ac)) in size, it is not clear that these recommendations were followed. In 1997 BLM reported the presence of several 1 ha (2–3 ac) exclosures, one 40 ha (97 ac) exclosure, and a proposed expansion of a 37 ha (91 ac) exclosure to 80 ha (195 ac) (R. French, BLM, pers. comm. November 12, 1997; BLM 1997a).

In New Mexico, the BLM administers a total of 2,275 grazing allotments, 290 of which have Allotment Management Plans in place to guide livestock grazing management (BLM 1997b). Of the 415 grazing allotments present in the Roswell Resource Area, 45 have existing Allotment Management Plans. An estimated 3 new plans or revisions will be completed each year. The Resource Management Plan states that adjustments in livestock numbers or other changes will be considered and implemented, if needed, to avoid conflicts with the management of habitat for lesser prairie-chickens (BLM 1997a, p. 30). Stocking rates may not be decreased if a change in grazing management (change in season of use, pasture rest rotation, or Holistic Range Management) can be used to meet the same goal (E. Roberson, *in litt.* January 12, 1998).

As a separate effort, Standards for Public Land Health and Guidelines for Livestock Grazing are being developed for public lands by the New Mexico Resource Advisory Council, and ''will be implemented in the Roswell Resource Area to develop a more effective partnership between the ranching industry and the BLM'' (BLM 1997a, p. 31). A draft copy of the Standards and Guidelines provided to the Service indicated that livestock grazing guidelines will be applied only after it is determined that a site does not meet the specified standard (BLM 1997b). Site indicator interpretations and targets will be developed by each BLM field office in conjunction with various rangeland interests (BLM 1997b, p. 4). The Service noted that no mention was made of NMDGF or Service participation in the development of these standards. In addition, while the above-referenced language in the approved Resource Management Plan discusses potential livestock adjustments to avoid conflicts with lesser prairie-chicken habitat needs, no specific proposals to do so were noted. Given that the lesser prairie-chicken is not currently a Federal- or State-listed species, a regulatory mechanism may not exist to ensure development of standards and guidelines that favor lesser prairie-chicken habitat needs.

*E. Other Natural or Human Made Factors Affecting Its Continued Existence*

Drought is considered a universal ecological driver across the Great Plains (Knopf 1997). Infrequent, severe drought may cause local extinctions of annual forbs and grasses that have invaded stands of perennial species, and recolonization of these areas may be slow (Tilman and El Haddi 1992). In this way, drought may impact lesser prairie-chickens through its effect on seasonal growth of vegetation necessary to provide nesting and roosting cover, food, and escape from predators (Merchant 1982; Peterson and Silvy 1994; Morrow *et al.* 1996).

The sensitivity of lesser prairie-chickens to drought was discussed by Crawford (1980) and Hamerstrom and Hamerstrom (1961). Home ranges may be larger in drought years (Copelin 1963, Merchant 1982), and recruitment may be less likely after drought years (Merchant 1982, Morrow 1986, Giesen 1997). Along with other prairie grouse, this species has a high reproductive potential in years of adequate

conditions. Thus, drought conditions are unlikely to be the sole causative factor in long-term lesser prairie-chicken population declines, unless the severity and/or frequency of drought has increased in recent years.

To address this question, the Service reviewed available records of the monthly Palmer Drought Severity Index (PDSI, Palmer 1965) which takes into account precipitation, evapotranspiration, and soil-moisture conditions (Alley 1985). Monthly PDSI values from January 1895 through July 1997 were obtained for the climate divisions within the lesser prairie-chicken's range. Review of the average PDSI for the months March-August in each year reveals that while major droughts over the last century are clearly observed in each climate division (1930s, 1950s), there does not appear to be an increase in the frequency or severity of drought conditions over the last 10–15 years. Highs and lows during that time are well within the range of variation experienced over the last 100 years.

Female ring-necked pheasants (*Phasianus colchicus*) have been documented parasitizing nests of several species, including greater prairie-chicken (Vance and Westemeier 1979; Kimmel 1987; Westemeier *et al.* 1989). Consequences of nest parasitism vary, and may include abandonment of the host nest, reduction in number of host eggs, lower hatching success, and parasitic broods (Kimmel 1987). Predation rate may increase with incidence of parasitism (Vance and Westemeier 1979). Further consequences may include the imprinting of the pheasant young from the parasitized nest to the host species, and later attempts by male pheasants to court females of the host species (Schein 1963, Kimmel 1987). Male pheasants have been observed disrupting the breeding behavior of greater prairie-chickens on leks (Sharp 1957, Follen 1966, Vance and Westemeier 1979). In addition, pheasant displays toward female prairie-chickens almost always cause the female to leave the lek (Vance and Westemeier 1979). Thus, an attempt by a pheasant to display on a prairie-chicken lek would completely disrupt the normal courtship activities of prairie-chickens.

To our knowledge, no published reports of this disruption exist for lesser prairie-chickens, although the Service has received anecdotal reports from staff of the ODWC, the TPWD, and the Oklahoma Cooperative Fish and Wildlife Research Unit. The Service considers competition with and parasitism by pheasants another factor that may have affected lesser prairie-chicken populations. This factor needs further quantification to understand its relative impact on lesser prairie-chicken populations.

Section 4(b) of the Act states that the Service may make warranted but precluded findings only if it can demonstrate that: (1) An immediate proposed rule is precluded by other pending proposals; and that (2) expeditious progress is being made on other listing actions. On September 21, 1983 (48 FR 43098), the Service published in the **Federal Register** its priority system for listing species under the Act. The system considers magnitude of threat, immediacy of threat, and taxonomic distinctiveness in assigning species numerical listing priorities on a scale of 1 to 12. The Service has determined that the overall magnitude of threats to the lesser prairie-chicken throughout its range is moderate, and that the threats are ongoing, thus they are considered imminent. A listing priority of 8 has consequently been assigned for the lesser prairie-chicken. The Service is making expeditious progress on other, higher priority listing actions.

The Service's 12 month finding contains more detailed information regarding the above decisions. A copy may be obtained from the Oklahoma Ecological Services Field Office (see **ADDRESSES** section). If additional data become available in the future, the Service may reassess the listing priority for this species or the need for listing.

## References Cited

A complete list of references cited in this notice is available upon request from the Oklahoma Ecological Services Field Office (see **ADDRESSES** section).

## Author

The primary author of this document is Noreen E. Walsh, Oklahoma Ecological Services Field Office (see **ADDRESSES** section).

## Authority

The authority for this action is the Endangered Species Act (16 U.S.C. 1532 *et seq.*)

Dated: June 1, 1998.

**Jamie Rappaport Clark,**

*Director, Fish and Wildlife Service.*

[FR Doc. 98–15333 Filed 6–8–98; 8:45 am]

BILLING CODE 4310–55–P

## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Part 660

**[Docket No. 980603145–8145–01; I.D. 052998C]**

**RIN 0648–AL33**

# Fisheries Off West Coast States and in the Western Pacific; Western Pacific Crustacean Fisheries; Bank/Area-Specific Harvest Guidelines

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** NMFS issues this proposed rule that would allocate the 1998 overall harvest guideline of 286,000 lobsters (spiny and slipper combined) in the Northwestern Hawaiian Islands (NWHI) among three individual fishing banks and a fourth combined area. Specifically, under this proposed rule, no more than 70,000 lobsters may be harvested from Necker Island; no more than 20,000 lobsters may be harvested from Gardner Pinnacles; no more than 80,000 lobsters may be harvested from Maro Reef; and no more than 116,000 lobsters may be harvested from all the other remaining NWHI banks combined within Crustaceans Permit Area 1. This rule is intended to protect the lobster resources at each fishing ground, to provide better data on stocks, and to conserve the resource.

**DATES:** Written comments must be received by June 24, 1998.

**ADDRESSES:** Written comments should be sent to, and copies of the initial regulatory flexibility analysis (IRFA) and environmental assessment are available from, Kitty Simonds, Executive Director, Western Pacific Fishery Management Council, 1164 Bishop St., Suite 1400, Honolulu, HI 96813.

**FOR FURTHER INFORMATION CONTACT:** Kitty Simonds at (808) 522–8220 or Alvin Katekaru, Fishery Management Specialist, Pacific Islands Area Office, NMFS, at (808) 973–2985.

**SUPPLEMENTARY INFORMATION:** Under the framework procedures of the Fishery Management Plan for the Crustaceans Fisheries of the Western Pacific Region (FMP) and its implementing regulations (50 CFR 660.53), the Council, at its 96th meeting, requested that the Southwest Regional Administrator, NMFS (Regional Administrator) initiate a