

**CANDIDATE AND LISTING PRIORITY ASSIGNMENT FORM**

**SCIENTIFIC NAME:** *Cynomys ludovicianus*

**COMMON NAME:** Black-tailed prairie dog

**LEAD REGION:** Region 6

**INFORMATION CURRENT AS OF:** February 7, 2001

**STATUS/ACTION:**

New candidate

Continuing candidate

Non-petitioned

Petitioned - Date petition received: July 31, 1998

90-day positive - FR date: March 25, 1999

12-month warranted but precluded - FR date: February 4, 2000

Is the petition requesting a reclassification of a listed species?

Listing priority change

Former LP:

New LP:

Candidate removal: Former LP:  (Check only one reason)

A - Taxon more abundant or widespread than previously believed or not subject to a degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status.

F - Range is no longer a U.S. territory

M - Taxon mistakenly included in past notice of review.

N - Taxon may not meet the Act's definition of "species."

X - Taxon believed to be extinct.

**ANIMAL/PLANT GROUP AND FAMILY:** Mammal, Sciuridae.

**HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE:** Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wyoming, Canada, and Mexico.

**CURRENT STATES/TERRITORIES/COUNTRIES OF OCCURRENCE:** Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wyoming, Canada, and Mexico.

**LEAD REGION CONTACT:** Susan Linner, (303) 236-7400, extension 279.

**LEAD FIELD OFFICE CONTACT:** Pete Gober, Pierre, South Dakota, (605) 224-8693, extension 24.

**BIOLOGICAL INFORMATION:** No additional information regarding taxonomy, physical description, or life history of the black-tailed prairie dog has been obtained since the 12-month Finding (U.S. Fish and Wildlife Service 2000). The following is a brief summary of currently available information.

There are five species of prairie dogs in North America. They are rodents within the squirrel family (*Sciuridae*) and include the black-tailed prairie dog, the white-tailed prairie dog (*Cynomys leucurus*), the Gunnison's prairie dog (*C. gunnisoni*), the Utah prairie dog (*C. parvidens*), and the Mexican prairie dog (*C. mexicanus*) (Antolin et al. in prep., Pizzimenti 1975). The Utah and Mexican prairie dogs are currently listed as threatened (49 FR 22339) and endangered (35 FR 8495), respectively. Generally, the black-tailed prairie dog occurs east of the other four species in more mesic habitat. Based upon the information currently available, the Service concurs with Pizzimenti's (1975) assessment of the species as monotypic.

Black-tailed prairie dogs are diurnal, burrowing animals. The species is very social, living in population aggregations called colonies, towns, or villages (King 1955). Historically, they generally occurred in large colonies that contained thousands of individuals, covered hundreds of thousands of acres, and extended for miles (Bailey 1905). At present, most existing colonies are much smaller. Groups of colonies comprise a complex. Coloniality offers an effective defense mechanism by aiding in the detection of predators and by deterring predators through mobbing behavior. It increases reproductive success through cooperative rearing of juveniles and it aids parasite removal via shared grooming. However, it has been noted that coloniality promotes the transmission of disease, which can significantly suppress populations (Biggins and Kosoy in press, Hoogland 1995, Olsen 1981). Accordingly, disease may play a major role in the population dynamics of the species.

Black-tailed prairie dogs are not prolific in comparison to many other rodents. Females usually do not breed until their second year, live 3-4 years, and produce only a single litter, usually 4-5 pups, annually (Hoogland 1995, Hoogland in press, King 1955, Knowles and Knowles 1994). Therefore, one female may produce 0-20 young in its lifetime.

The historic range of the black-tailed prairie dog included portions of 11 States, Canada, and Mexico. Today it occurs from extreme south-central Canada to northeastern Mexico and from approximately the 98<sup>th</sup> meridian west to the Rocky Mountains. The species is currently present in 10 States including--Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. It is extirpated in Arizona. Significant range contractions have occurred in the southwestern portion of the species' range in Arizona, western New Mexico, and western Texas and in the eastern portion of the species' range in Kansas, Nebraska, Oklahoma, South Dakota, and Texas. These range contractions represent approximately 20 percent of the species' original range. Only a few individuals, or none at all, remain in these areas. The species is absent from a significant portion of its historic range despite

perceptions to the contrary engendered in part by its conspicuous life history, e.g., its diurnal behavior, its modifications to the landscape, and its persistence in small remnant populations across much of its former range.

Approximately 66 percent or 300 million acres (122 million hectares) of black-tailed prairie dog range in the United States is affected by sylvatic plague (Black-footed Ferret Recovery Foundation *in litt.* 1999). Plague impacts the western portion of the species' range. Another important factor which has affected the species is the conversion of rangeland to cropland. Conversion of the native prairie to cropland has largely progressed across the species' range from east to west, with the more intensive agricultural use in the eastern portion of the species' range. The Black-footed Ferret Recovery Foundation (*in litt.* 1999) evaluated the amount of habitat (grass/shrub lands) currently available to the species. In the 34 percent of the species' range that is plague-free, less than 33 percent of the land is non-cropland. Therefore, only approximately 10 percent of the black-tailed prairie dog range is both plague-free and currently suitable (i.e., not tilled) for the species. Not all of this suitable habitat is currently occupied. The majority of plague-free, suitable range occurs in South Dakota.

#### DISTRIBUTION, ABUNDANCE, AND TRENDS - SPECIFIC AREAS

Some additional information regarding distribution, abundance and trends of black-tailed prairie dog occupied habitat has been obtained from State and Federal agencies and other parties since the 12-month Finding. A summary of the estimates of historical and recent occurrence of the black-tailed prairie dog is presented in the text below. Some recent Statewide estimates of black-tailed prairie dog occupied habitat provided by State agencies were larger than some Statewide estimates provided in the 12-month Finding, particularly in Colorado and Wyoming. However, the importance of these differences is questionable given--(1) the difficulty of accurately determining the amount of occupied habitat extant and the variability and accuracy of various estimates, (2) the difficulty of identifying population trends between estimates acquired in different manners, and (3) the catastrophic impacts that plague can cause to large populations in a short period of time. Because of these difficulties it becomes more important to evaluate the species' status based on the significance of various threats rather than merely on variations in habitat estimates.

Arizona - No additional information regarding distribution and abundance of the species in Arizona has been obtained since the 12-month Finding.

Colorado - The Colorado Division of Wildlife provided an estimate of 214,000 acres (87,000 hectares) of occupied habitat Statewide. This estimate is based upon a report prepared by EDAW, Inc. (2000), which compiled all known reports of black-tailed prairie dog location data from the 1970's to the present (George, Colorado Division of Wildlife, *in litt.* 2000). Approximately one-third of the acreage was reportedly field checked. Some methodologies and findings were difficult to interpret and compare with the 12-month Finding. For example, the estimate was based on reports which included active colonies, inactive colonies, colonies no

longer present, and colonies of unknown status. There appears to be some overlap in some of the reports, but the extent of this overlap is uncertain. Although this estimate of occupied habitat is substantially higher than the estimate in the 12-month Finding of 93,000 acres (38,000 hectares), it is not clear how significant the difference is given the potential variability of the sampling techniques used. The estimate of 214,000 acres (87,000 hectares) of occupied habitat is much lower than that reported by Colorado Department of Agriculture (1990) of approximately 970,000 acres (393,000 hectares).

The U.S. Army estimated current black-tailed prairie dog occupied habitat on their lands in Colorado to be 3,500 acres (1,418 hectares) at Fort Carson, 1,318 acres (535 hectares) at Rocky Mountain Arsenal National Wildlife Refuge, 400 acres (162 hectares) at Pueblo Chemical Depot, and 353 acres (143 hectares) at Pinyon Canyon (Woodson, U.S. Army, pers. comm. 2000). There are continued declines due to plague at Pueblo Chemical Depot (Canestorp, U.S. Fish and Wildlife Service, pers. comm.) and Rocky Mountain Arsenal National Wildlife Refuge (Rundle, U.S. Fish and Wildlife Service, pers. comm. 2000), and due to urbanization in the Front Range Metropolitan Area (Rosmarino, Rocky Mountain Animal Defense, *in litt.* 2000).

Kansas - No additional information regarding distribution and abundance of the species in Kansas has been obtained since the 12-month Finding. The Kansas Department of Wildlife and Parks recently conducted aerial surveys, but no estimates are available yet (Luce, Interstate Coordinator - Black-tailed Prairie Dog Conservation Team, pers. comm. 2000).

Montana - The Montana Department of Fish, Wildlife, and Parks provided a Statewide estimate of 80,000-90,000 acres (32,000-36,000 hectares) of black-tailed prairie dog occupied habitat. This estimate does not differ substantially from the estimate in the 12-month Finding of 65,000 acres (26,000 hectares). In their report the Montana Department of Fish, Wildlife, and Parks (2000) also provided estimates of occupied habitat at specific locations--29,000 acres (12,000 hectares) in Phillips and Blaine Counties (Fort Belknap Reservation, Charles M. Russell National Wildlife Refuge, and Bureau of Land Management lands), 10,000-12,000 acres (4,000-5,000 hectares) at Crow Reservation, 6,600 acres (2,700 hectares) on Upper Musselshell Creek, and 6,000 acres (2,400 hectares) at Custer Creek. The estimate does not appear to consider recent declines due to sylvatic plague of approximately 3,600 acres (1,500 hectares) in southern Phillips County (Associated Press 2000).

Nebraska - The Nebraska Game and Parks Commission estimated that 80,000 acres (32,000 hectares) of occupied habitat exists Statewide, based upon aerial surveys conducted by the U.S. Forest Service (Luce, Interstate Coordinator - Black-tailed Prairie Dog Conservation Team, pers. comm. 2000). This estimate does not differ substantially from the estimate in the 12-month Finding of 60,000 acres (24,000 hectares).

New Mexico - The New Mexico Department of Game and Fish noted that there are no accurate, Statewide estimates of occupied habitat, but based upon available information they believe there is likely no more than 50,000 acres (20,000 hectares) of occupied habitat (Schmitt, New Mexico Department of Game and Fish, *in litt.* 2000). This estimate does not differ substantially from the

estimate in the 12-month Finding of 39,000 acres (16,000 hectares). Turner Endangered Species personnel provided an estimate of 650 acres (260 hectares) of occupied habitat at Vermejo Park Ranch (Truett, Turner Endangered Species Fund, pers. comm. 2000).

North Dakota - The North Dakota Game and Fish Department provided a Statewide estimate of 30,000 acres (12,000 hectares) of occupied habitat based upon aerial surveys conducted by the U.S. Forest Service. This estimate does not differ substantially from the estimate in the 12-month Finding of 25,000 acres (10,000 hectares). The National Park Service provided an estimate of 847 acres (343 hectares) of occupied habitat at Theodore Roosevelt National Park (Given, National Park Service, pers. comm. 2000). The North Dakota Game and Fish Department recently contracted for a population viability assessment for the black-tailed prairie dog in North Dakota (Knowles 2000). There appear to be some misunderstandings in this document regarding designation for the black-tailed prairie dog in the 12-month Finding. The Service did not describe the species as endangered (in danger of extinction throughout all or a significant portion of its range); rather, the species was described as threatened (likely to become endangered within the foreseeable future throughout all or a significant portion of its range). The assessment also does not recognize that the Service must evaluate threats and status, as well as any potential need for listing, on a rangewide basis. This document estimates that a minimum of 10,000 acres of occupied habitat is needed for long-term viability of the species in North Dakota in the presence of plague. This and other estimates provided in the document are based upon limited, short-term information, which may not cover a sufficient time span from which to base estimates of long-term viability. The document also recognizes that estimates based on different methodologies may not be comparable. The petitioner also noted these concerns (C. Johnson, National Wildlife Federation, pers. comm. 2001.)

Oklahoma - Lomolino and Smith (in press) estimate that approximately 8,000 acres (3,300 hectares) of occupied habitat exist Statewide. This refines their earlier estimate and does not differ substantially from the estimate in the 12-month Finding of 9,000 acres (3,600 hectares). They also note that mean town size has decreased substantially over the past decade. For example, in Cimarron County mean town size decreased from 84.8 acres (34.3 hectares) in 1988-1989 to 25.5 acres (10.3 hectares) in 1998.

South Dakota - The South Dakota Department of Game, Fish, and Parks provided a Statewide minimum estimate of 150,000 acres (61,000 hectares) of occupied habitat (Stukel, South Dakota Department of Game, Fish and Parks, *in litt.* 2000). This estimate does not differ substantially from the estimate provided in the 12-month Finding of 147,000 acres (60,000 hectares). The National Park Service estimated 4,000 acres (1,600 hectares) of occupied habitat at Badlands National Park and 1,600 acres (650 hectares) at Wind Cave National Park (Given, National Park Service, pers. comm. 2000). Turner Endangered Species personnel estimated 835 acres (340 hectares) of occupied habitat at Bad River Ranch (Truett, Turner Endangered Species Fund, pers. comm. 2000).

Texas - The Texas Parks and Wildlife Department provided an estimate of 86,000 acres

(35,000 hectares) of occupied habitat based upon a 1999 analysis by Texas Tech University of aerial slides taken by Texas Farm Service Agency in 29 counties (Sullivan, Texas Parks and Wildlife Department, pers. comm. 2000). This estimate does not differ substantially from the estimate in the 12-month Finding of 71,000 acres (29,000 hectares). This study also noted that although the amount of Statewide occupied habitat may have been stable over the past 10 years, it is becoming more fragmented (Ernst, Texas Tech University, pers. comm. 2000). The U.S. Army provided an estimate of 330 acres (134 hectares) of occupied habitat at Fort Bliss (Woodson, U.S. Army, pers. comm. 2000). Muleshoe National Wildlife Refuge reported the loss of all occupied habitat, an area of about 600 acres (240 hectares), during the past year due to plague (Starnes, U.S. Fish and Wildlife Service, pers. comm. 2000).

Wyoming - Wyoming Game and Fish Department provided a Statewide estimate of 300,000 acres (122,000 hectares) of occupied habitat based upon information from Sidle (in press) and Wyoming Department of Agriculture. This estimate is substantially higher than the estimate in the 12-month Finding (125,000 acres/51,000 hectares). However, the Wyoming Game and Fish Department also noted it is not confident in the accuracy of recent estimates and hopes to refine monitoring methodologies (Rothwell, Wyoming Game and Fish Department, *in litt.* 2000). The U.S. Army provided an estimate of 700 acres (280 hectares) of occupied habitat at Sheridan Training Area (Woodson, U.S. Army, pers. comm. 2000).

Canada - No additional information regarding distribution and abundance of the species in Canada has been obtained since the 12-month Finding.

Mexico - No additional information regarding distribution and abundance of the species in Mexico has been obtained since the 12-month Finding.

## THREATS

Three major impacts have had a substantial influence on black-tailed prairie dog populations. The first major impact on the species was the initial conversion of prairie grasslands to cropland in the eastern portion of its range around the 1880's to the 1920's. The second major impact was large-scale control efforts to reduce competition between prairie dogs and domestic livestock conducted from about 1918-1972. Some limited recovery and subsequent declines have occurred in populations remaining after these impacts. The third major impact was the inadvertent introduction of an exotic disease, sylvatic plague, from the Old World into North American ecosystems around 1900, with the first recorded impacts on the black-tailed prairie dog in 1946. The influence of plague on black-tailed prairie dog populations is recent in a historical sense, and especially in a biological sense. Its influence may have been masked by other factors, but it has had significant depressant effects on remnant populations in the last 10-15 years. The EDAW (2000), a report completed for Colorado Department of Natural Resources, notes that nearly all experts agree that "the black-tailed prairie dog faces numerous threats throughout most of its range. The effects of sylvatic plague, recreational shooting, and control efforts, when combined

with an increasing trend towards land conversion and habitat fragmentation, are resulting in dramatic reductions of prairie dog towns and colonies, including local extirpation of the species from some areas.” The report also states that “given the threats facing this species in Colorado and throughout its range . . . towns documented as currently active may not be present in the near future.” New information regarding specific threats to the species is discussed below.

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

Rosmarino (Rocky Mountain Animal Defense, in litt. 2000) documented over 3,000 acres (1,200 hectares) of black-tailed prairie dog occupied habitat lost in 2000 due to urban expansion in the Denver/Boulder Metropolitan Area. No other information regarding habitat loss has been obtained since the 12-month Finding. We believe this factor continues to be a moderate threat to the species at present. Significant destruction and modification of black-tailed prairie dog habitat has occurred due to cropland and urban development, changes in vegetative communities, deterioration of burrows, and habitat fragmentation (U.S. Fish and Wildlife Service 2000).

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

No additional information regarding overutilization has been obtained since the 12-month Finding. We continue to believe that the impact due to commercial interest in the species as a pet is not a threat; and that the impact due to recreational shooting is a low threat at present.

C. Disease or Predation.

Some additional information regarding disease has been obtained since the 12-month Finding. We believe that impacts on the species due to disease (plague) continue to be a moderate threat and that impacts due to predation continue to not pose a threat at present.

Sylvatic plague is likely the most important factor in recent reductions of many black-tailed prairie dog populations throughout a significant portion of the species’ range. Approximately 66 percent of the species’ historic range has been affected by plague (Black-footed Ferret Recovery Foundation in litt. 1999). Plague is an exotic disease foreign to the evolutionary history of North American species (Gage, Center for Disease Control, pers. comm. 1999). It is caused by the bacterium *Yersinia pestis*, which can be spread by fleas or transmitted directly between animals. Some species act as carriers of the disease or of infected fleas and show little or no symptoms. Black-tailed prairie dogs demonstrate nearly 100 percent mortality when exposed to plague (Barnes 1993) and cannot be considered carriers. The black-tailed prairie dog is at high risk to plague by having a combination of low resistance and high sociality (Biggins and Kosoy in press).

Exotic diseases can cause major population changes in native wildlife species that are vulnerable to foreign pathogens. For example, plague may affect black-tailed prairie dogs in a

manner similar to the impact caused by avian malaria (*Plasmodium relictum*) on native Hawaiian honeycreepers (*Drepanidinae*). The introduction of avian malaria to the Hawaiian Islands is believed to have played a major role in the decline and extinction of several species of honeycreepers (Atkinson et al. 2000). Recent studies have shown that pox and malaria, in conjunction with habitat loss and the introduction of non-native predators have caused dramatic changes in the distribution and abundance of highly susceptible native forest birds (Yorinks and Atkinson 2000).

In the past year plague outbreaks have been documented at the following sites, causing additional recent losses of occupied habitat--southern Phillips County, Montana--approximately 3,600 acres (1,460 hectares) (Associated Press 2000); Pueblo Chemical Depot, Colorado--approximately 1,000 acres (400 hectares) (Canestorp, U.S. Fish and Wildlife Service, pers. comm.); Rocky Mountain Arsenal National Wildlife Refuge, Colorado--approximately 790 acres (320 hectares) (Rundle, U.S. Fish and Wildlife Service, pers. comm. 2000); and Muleshoe National Wildlife Refuge, Texas--approximately 600 acres (240 hectares) (all occupied habitat on the Refuge) (Starnes, U.S. Fish and Wildlife Service, pers. comm. 2000). The extent to which this pattern affects overall black-tailed prairie dog populations is not clear, but complexes impacted by plague do not appear to recover to their former numbers (U.S. Fish and Wildlife Service 2000).

#### D. The Inadequacy of Existing Regulatory Mechanisms.

Additional information regarding regulatory mechanisms has been obtained since the 12-month Finding. We believe that impacts to the species due to inadequate regulatory mechanisms continue to be a moderate threat at present. Many States, Tribes, and Federal Agencies recognize the historic decline and ecological significance of the species, but few use available regulatory mechanisms to conserve the species. At least one government entity in most States promotes their reduction. Many Federal Agencies allow some limited control of prairie dogs for public health or similar concerns. Some Federal Agencies provide technical or financial support for large-scale control efforts on public or private lands. The National Wildlife Federation (NWF) has recommended that States--(1) repeal or amend all statutes and regulations which classify the prairie dog as a pest, and (2) place management authority for the species with the State wildlife agency (Johnson, National Wildlife Federation, in litt. 2000). The NWF also has evaluated and acknowledged States' recent conservation efforts, but noted that little substantive changes have occurred that would reduce the threat of inadequate regulatory mechanisms (Miller, National Wildlife Federation, pers. comm. 2001).

Representatives from each State wildlife agency within the historic range of the species have formed the Black-tailed Prairie Dog Conservation Team. Their goals include the development of management plans and umbrella Candidate Conservation Agreements with Assurances (CCAA) between each State and the Service. At least partial surveys of occupied habitat have been completed and some conservation efforts have been proposed. Management plans are being developed which may ultimately be useful in the development of CCAAs. Some States



are developing target levels for black-tailed prairie dog occupied habitat, establishing hunting regulations, and proposing regulatory changes. Several Tribes have developed an intertribal black-tailed prairie dog working group and also are pursuing development of management plans and umbrella CCAAs. These activities could contribute to a reduction of threats in the future, but few are now in place. A review of the current status of State, Tribal, and Federal policies, as well as any proposed changes follows.

## STATE POLICIES

### ARIZONA

Regulatory Status—Currently the Arizona Game and Fish Department classifies both prairie dog species native to the State (black-tailed and Gunnison’s) as nongame mammals. In 1999 the hunting season for black-tailed prairie dogs, which are extirpated from the State, was closed (Shroufe, Arizona Game and Fish Department, *in litt.* 1999). The species is listed as endangered on the Arizona “Threatened Native Wildlife” list (Arizona Game and Fish Department 1988).

New Information—The Arizona Game and Fish Commission directed the Department to begin planning for reintroduction of black-tailed prairie dogs. The Department expects the program to be in place within a year (Luce, Interstate Coordinator - Black-tailed Prairie Dog Conservation Team, *in litt.* 2000). Arizona signed the interstate Conservation Assessment and Strategy and a first draft of a Black-tailed Prairie Dog Management Plan (Van Pelt 2000) has been provided to the Service. Plan objectives include--evaluating the feasibility of reintroducing the species, establishing a monitoring program, maintaining and promoting suitable habitat, and maintaining regulatory protection. The Plan notes that by August 2001 the Department will evaluate and if necessary change State regulations to clarify regulatory authority and mandates for prairie dog management. Statutes that mandate control will either be eliminated or modified. No specific regulatory changes have been proposed or enacted at present. No goals regarding minimum acreage of black-tailed prairie dog occupied habitat have been proposed or established.

### COLORADO

Regulatory Status—Currently the Colorado Division of Wildlife considers the black-tailed prairie dog a game species. The Colorado Department of Agriculture designates the species as a pest. No change in the pest designation has been proposed at this time. In 1999, the State Legislature passed a bill prohibiting translocation of prairie dogs and other species without consent of the receiving county’s commissioners (Van Pelt 1999). This restriction limits prairie dog conservation efforts.

New Information—Colorado did not sign the interstate Conservation Assessment and Strategy. An intrastate Memorandum of Understanding (MOU) for Prairie Dog Management in Colorado has been signed by several Colorado agencies and Federal Agencies (Slater, Colorado Division of Wildlife, *in litt.* 2000). This MOU lists several tasks including--developing an inventory of existing black-tailed prairie dog populations, developing a monitoring plan, conducting a comprehensive review of State regulations affecting the

species, and establishing a target acreage of occupied habitat. The Colorado Division of Wildlife Commission has prohibited sport hunting of the species as part of an effort to protect and recover the species. However, landowners and their designated agents are still permitted to shoot prairie dogs causing damage to their property. This exception appears to limit the lands affected by this regulation to public lands. This new regulation takes effect September 1, 2001. The Service believes that this regulatory change is a positive initial step addressing conservation of the species in Colorado (Morgenweck, U.S. Fish and Wildlife Service, *in litt.* 2000). No goals regarding minimum acreage of black-tailed prairie dog occupied habitat have been proposed or established.

#### KANSAS

Regulatory Status—Currently Kansas considers the black-tailed prairie dog an agricultural pest and control is mandated if an adjoining landowner files a complaint (Knowles 1995). In recent years, some counties have invoked “Home Rule” to take authority for prairie dog control from the townships and impose mandatory control requirements. Landowners are given the opportunity to control prairie dogs on their land; if they fail to do so it is done by the county at the landowner’s expense (Van Pelt 1999). The Kansas Department of Wildlife and Parks requires a hunting license for residents and nonresidents to take prairie dogs. The season is year-round with no limits.

New Information—The Kansas Department of Wildlife and Parks is considering introducing legislation in 2001 to rewrite the current eradication law and replace “eradication” with “management.” (Luce, Interstate Coordinator - Black-tailed Prairie Dog Conservation Team, pers. comm. 2000). Kansas signed the interstate Conservation Assessment and Strategy. A draft management plan has been initiated, but has not been provided to the Service. No regulatory changes have been enacted recently. No goals regarding minimum acreage of black-tailed prairie dog occupied habitat have been proposed or established.

#### MONTANA

Regulatory Status—Currently Montana Department of Fish, Wildlife, and Parks hunting regulations classify the prairie dog as a varmint. They require no license to shoot prairie dogs and no limits on take or season exist. The Department protects prairie dogs on some of their State parks (Graham, Montana Department of Fish, Wildlife, and Parks, *in litt.* 1998). The black-tailed prairie dog also is identified as a State “species of special concern” (Flath 1998). The Montana Department of Agriculture classifies the species as a “vertebrate pest” and assists landowners in control of prairie dogs if requested, but control is not mandated (Sullins, Montana Department of Agriculture, pers. comm. 1999).

New Information—Montana signed the interstate Conservation Assessment and Strategy. Drafts of a Conservation Plan for Black-tailed and White-tailed Prairie Dogs in Montana (Montana Department of Fish, Wildlife, and Parks 2000) have been provided to the Service. Plan objectives include: conferring legal status for prairie dogs consistent with current management needs, developing Statewide and regional distribution and abundance standards, and developing management protocols. The Department of Fish, Wildlife, and Parks has proposed legislation to remove prairie dogs from the State list of vertebrate pests. The Department also is considering hunting regulations. These actions have either been proposed or are under consideration, but have not yet been enacted.

#### NEBRASKA

Regulatory Status—Currently Nebraska considers the black-tailed prairie dog an unprotected nongame species that can be taken in any manner without restrictions on shooting or control activities. Permits are not required for residents; nonresidents must have a small-game hunting permit.

New Information—Nebraska did not provide additional information regarding regulatory mechanisms since the 12-month Finding. Nebraska signed the interstate Conservation Assessment and Strategy. A draft management plan has been initiated, but has not been provided to the Service (Luce, Interstate Coordinator - Black-tailed Prairie Dog Conservation Team, *in litt.* 2000). No regulatory changes have been proposed or enacted and no goals regarding minimum acreage of black-tailed prairie dog occupied habitat have been established.

#### NEW MEXICO

Regulatory Status—Currently the New Mexico Department of Game and Fish has no bag limits or seasons for shooting prairie dogs. Residents do not need a license; nonresidents are required to have a current nonresident hunting license.

New Information—Black-tailed prairie dogs are unprotected under State laws; however, potential conservation actions are being evaluated (Schmitt, New Mexico Department of Game and Fish, *in litt.* 2000). New Mexico signed the interstate Conservation Assessment and Strategy. A draft management plan is being developed, but has not been provided to the Service. No specific regulatory changes have been proposed or enacted and no goals regarding minimum acreage of black-tailed prairie dog occupied habitat have been established.

#### NORTH DAKOTA

Regulatory Status—Currently the North Dakota Game and Fish Department classifies the black-tailed prairie dog as a nongame species. Residents are not required to have a hunting license to shoot prairie dogs; however, nonresidents are required to purchase one. There are no bag limits or seasons for prairie dogs. A guidebook is available to aid prairie dog shooters in finding colonies (North Dakota Game and Fish Department undated). The North Dakota Department of Agriculture has designated black-tailed prairie dogs as pests and requires landowners to control them (North Dakota Game and Fish Department 2000). The State Legislative Assembly passed a resolution urging the Service not to list the species (North Dakota Legislative Assembly, *in litt.* 1999). The State Department of Agriculture and county

weed boards have regulatory authority over control efforts (Van Pelt 1999).

New Information—North Dakota did not sign the interstate Conservation Assessment and Strategy. They have provided a draft Black-tailed Prairie Dog State Management Plan (North Dakota Game and Fish Department 2000) to the Service. The plan notes it does not believe the species is threatened. The plan's goal is to maintain a biologically viable population of the species in North Dakota. Objectives include--monitoring species distribution and status every 5 years, maintaining existing occupied habitat (30,000 acres/12,000 hectares), and developing regulatory protection measures if warranted. No specific regulatory changes have been proposed or enacted at present.

#### OKLAHOMA

Regulatory Status—Currently the Oklahoma Department of Wildlife Conservation classifies the black-tailed prairie dog as a Category II Mammal Species of Special Concern and requires a permit prior to any chemical control. Prairie dog eradication is no longer mandatory in Oklahoma, but is assisted by some State and local governments. A license for recreational shooting is required for residents and nonresidents. Prairie dogs cannot be reduced in any county to fewer than 1,000 individuals and control is not permitted on public lands (Van Pelt 1999).

New Information—Oklahoma did not provide additional information regarding regulatory mechanisms since the 12-month Finding. Oklahoma signed the interstate Conservation Assessment and Strategy. A management plan is being developed, but has not been provided to the Service (Luce, Interstate Coordinator - Black-tailed Prairie Dog Conservation Team, *in litt.* 2000). No specific regulatory changes have been proposed or enacted and no goals regarding minimum acreage of black-tailed prairie dog occupied habitat have been established.

#### SOUTH DAKOTA

Regulatory Status—Currently the South Dakota Department of Game, Fish and Parks classifies the black-tailed prairie dog as a predator/varmint and requires a resident or nonresident license to shoot prairie dogs. There is no season or bag limit. The South Dakota Weed and Pest Control Statute designates the species as a Statewide declared pest; therefore, the existence of prairie dogs constitutes an infestation, giving the State authority to enter private land and exterminate prairie dogs. If a county declares an infestation, landowners are responsible for the costs to control prairie dogs on their land whether they want control or not (Van Pelt 1999).

New Information—South Dakota signed the interstate Conservation Assessment and Strategy. A management plan is being developed, but has not been provided to the Service. The Department of Game, Fish, and Parks has recommended to the Game, Fish, and Parks Commission that the black-tailed prairie dog be designated a “species of management concern.” This would remove the “pest” designation. They also have recommended that the State establish a prairie dog shooting season on public lands, with the season closed from March 1 through June 15 by 2002. Landowners would still be allowed to shoot prairie dogs on their property at any time (Stukel, South Dakota Department of Game, Fish, and Parks, *in litt.* 2000). No goals regarding minimum acreage of black-tailed prairie dog occupied

habitat have been proposed or established.

#### TEXAS

Regulatory Status—Currently Texas Parks and Wildlife designates the black-tailed prairie dog as a nongame species and is prohibited by State statutes from listing it as a State endangered species. A license is required to hunt prairie dogs, but there is no season or bag limit. In 1999 a new regulation was established which requires a nongame collection or dealer's permit to possess more than 10 prairie dogs or to sell any number of prairie dogs (Van Pelt 1999). This law does not regulate the killing of prairie dogs for recreational, agricultural, or nuisance purposes (Sansom, Texas Parks and Wildlife Department, *in litt.* 1998). The Texas Health and Safety Code authorizes counties to control prairie dogs and makes the Texas Department of Agriculture the responsible agency to provide information on prairie dog control to requesting counties (Van Pelt 1999).

New Information—Texas signed the interstate Conservation Assessment and Strategy. A draft Black-tailed Prairie Dog Conservation and Management Plan has been provided to the Service. The plan notes that the black-tailed prairie dog is a sensitive and declining species in Texas. Goals of the plan include--determining current status of the species, establishing a monitoring protocol, developing guidelines to address viable population requirements and CCAAs, and reviewing regulations. No specific regulatory changes have been proposed or enacted at present. A preliminary conservation goal of 320,000 acres (130,000 hectares) of black-tailed prairie dog occupied habitat has been proposed (Sullivan, Texas Parks and Wildlife, pers. comm. 2000).

#### WYOMING

Regulatory Status—Currently the Wyoming Game and Fish Department considers the black-tailed prairie dog a nongame wildlife species and a Species of Special Concern. No license is required to hunt prairie dogs, and there is no season, bag limit, or restriction on method of take (Van Pelt 1999). Wyoming Department of Agriculture lists the species as a pest. The Wyoming Weed and Pest Control Act of 1973 authorizes counties to enter private property to control prairie dogs if damage has been documented to neighboring landowners (Knowles 1995).

New Information—Wyoming signed the interstate Conservation Assessment and Strategy. A preliminary draft Black-tailed Prairie Dog Management Plan and Conservation Efforts is available for review on the State's web page (<http://gf.state.wy.us>). Plan objectives include—establishing minimum acreage requirements, developing a monitoring program, and identifying possible regulatory changes. No regulatory changes have been proposed or enacted and no minimum acreage requirements of occupied habitat have been established.

#### TRIBES

##### CHEYENNE RIVER SIOUX TRIBE (SOUTH DAKOTA)

Regulatory Status—Currently the Tribe does not classify the prairie dog as a pest and does not require or encourage their eradication. The Tribe drafted a prairie ecosystem management

plan in 1992 that prohibits chemical control on 44,100 acres (17,860 hectares) of black-tailed prairie dog occupied habitat. Hunting seasons are year-round and without limits on Tribal lands. If prairie dog populations decline below management goals, season lengths and/or permit numbers will be restricted (Bourland and Dupris, Cheyenne River Sioux Tribe, in litt. 1998; Dikeman et al., Cheyenne River Sioux Tribe, in litt. 1999).

New Information—The Tribe has drafted a preliminary umbrella CCAA which suggests 19,000 acres (7,700 hectares) as a minimum acreage of occupied habitat to be maintained.

#### CROW CREEK SIOUX TRIBE (SOUTH DAKOTA)

Regulatory Status—Currently the Tribe prohibits chemical control, but allows recreational shooting and notes that it appears to have no effect on prairie dog numbers (Miller, Crow Creek Sioux tribe, in litt. 1998).

New Information—The Tribe has drafted a preliminary umbrella CCAA which suggests 1,000 acres (400 hectares) as a minimum acreage of occupied habitat to be maintained.

#### FORT BELKNAP (MONTANA)

Regulatory Status—Currently Fort Belknap is a black-footed ferret reintroduction area and consequently has curtailed recreational shooting. No extensive control of prairie dogs occurs on Tribal lands. A prairie dog management plan is in place.

New Information—The Tribe did not provide additional information regarding regulatory mechanisms since the 12-month Finding.

#### ROSEBUD SIOUX TRIBE (SOUTH DAKOTA)

Regulatory Status—The Tribe implemented a licensing program in 1998 to reduce the number of prairie dog shooters. Sales were reduced from approximately 4,000 licenses in 1997 to 2,000 licenses in 1998 (Finegan, Rosebud Sioux Tribe, pers. comm. 1999).

New Information—The Tribe did not provide additional information regarding regulatory mechanisms since the 12-month Finding.

#### OTHER TRIBES

Several other Tribes have participated in inter-tribal meetings and work groups and expressed an interest in developing management plans and CCAAs for the black-tailed prairie dog. These Tribes include--Crow (Montana), Northern Cheyenne (Montana), Ft. Berthold (North Dakota), Standing Rock (North and South Dakota), Lower Brule (South Dakota), Pine Ridge/Oglala Sioux (South Dakota), and Yankton Sioux (South Dakota).

#### FEDERAL AGENCIES

##### BUREAU OF INDIAN AFFAIRS

Regulatory Status—The BIA's involvement in prairie dog control efforts has been principally through funding of prairie dog control programs on Tribal lands.

New Information—The BIA did not provide additional information regarding regulatory mechanisms since the 12-month Finding. No specific regulatory changes have been proposed

or enacted.

#### BUREAU OF LAND MANAGEMENT

Regulatory Status—The BLM manages prairie dogs to meet multiple-use resource objectives including production of livestock forage and prevention of prairie dog encroachment onto adjacent lands.

New Information—In a memorandum dated June 22, 2000, BLM instructed all of its State Directors within the range of the species to “ensure that activities authorized, funded, or carried out by BLM do not contribute to the need to list the black-tailed prairie dog.” Several required actions on BLM managed lands are specified including--ensuring no unauthorized control occurs, ensuring that conservation of the species is addressed in all grazing permit renewals and other activities, evaluating the need to restrict sport hunting, mapping all occupied habitat, and developing a monitoring strategy (Brong, U.S. Bureau of Land Management, in litt. 2000).

#### FISH AND WILDLIFE SERVICE

Regulatory Status—The Service manages over 500 National Wildlife Refuges and their satellites, but only about 15 refuges, satellites, or Waterfowl Production Areas have black-tailed prairie dogs. Three refuges have a significant amount of occupied habitat. On Charles M. Russell and UL Bend National Wildlife Refuges in Montana, 5,150 acres (2,090 hectares) of occupied habitat are managed to enhance its value as a black-footed ferret reintroduction site (Matchett 1997). The Rocky Mountain Arsenal National Wildlife Refuge in Colorado manages black-tailed prairie dogs to support and enrich a diversity of wildlife and is attempting to recover black-tailed prairie dog populations subsequent to repeated plague epizootics (U.S. Fish and Wildlife Service 1998).

New Information—The Service has placed a moratorium on all chemical control and recreational shooting of the species on lands managed by the Service (Clark, U.S. Fish and Wildlife Service, in litt. 2000).

#### U.S. FOREST SERVICE

Regulatory Status—The Forest Service manages approximately 3.7 million acres (1.5 million hectares) of National Grasslands, which support approximately 42,460 acres (17,200 hectares) of black-tailed prairie dog occupied habitat (Sidle, U.S. Forest Service, in litt. 1999).

New Information—The Forest Service has undertaken several actions in an effort to enhance conservation of the species including--designating the black-tailed prairie dog as a Sensitive Species and a Management Indicator Species; limiting poisoning to situations of human health concern, protection of cemeteries and plague management; amending Grassland Plans to increase occupied habitat; and initiating monitoring (Furnish, U.S. Forest Service, in litt. 2000).

#### NATIONAL PARK SERVICE

Regulatory Status—Approximately 6,600 acres (2,700 hectares) of black-tailed prairie dog

occupied habitat exist on lands managed by the Park Service. Their policy is to conserve and recover the species wherever possible. Control is allowed for purposes of human health and safety, good neighbor relations, and to reduce conflicts with other park objectives (Given, National Park Service, pers. comm. 2000).

New Information—In the past 12 months, the Park Service has not chemically controlled the species or allowed recreational shooting (Given, National Park Service, pers. comm. 2000).

#### U.S. AIR FORCE

Regulatory Status—We are aware that black-tailed prairie dogs occur on some U.S. Air Force installations, but we have no information about regulatory status of the species on Air Force lands.

New Information—The Air Force has not provided additional information on regulatory mechanisms.

#### U.S. ARMY

Regulatory Status—Management policies vary depending on the installation. In general there is no chemical control or recreational shooting of prairie dogs. Prairie dog colonies also are avoided during field exercises (Woodson, U.S. Army, pers. comm. 2000).

New Information—The U.S. Army estimates that 6,600 acres (2,700 hectares) of black-tailed prairie dog occupied habitat exist on their lands. This estimate includes 1,318 acres (534 hectares) at the Rocky Mountain Arsenal where prairie dogs are managed by the Service as previously described. Some installations have ongoing plague research and/or management (Woodson, U.S. Army, pers. comm. 2000). No specific regulatory changes have been proposed or enacted.

#### ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Regulatory Status—The APHIS supports prairie dog control programs through grant-in-aid programs to States; technical assistance to States, Tribes, other Federal Agencies, and private landowners; and distribution of toxicants. The APHIS also conducts prairie dog control for landowners, Tribes, States, and other Federal Agencies.

New Information—The APHIS did not provide additional information regarding regulatory mechanisms since the 12-month Finding. No specific regulatory changes have been proposed or enacted.

#### ENVIRONMENTAL PROTECTION AGENCY

Regulatory Status—The EPA deals indirectly with prairie dog control through pesticide labeling programs including restrictions to protect wildlife. Presently, labeling does not restrict prairie dog control, but does address concerns for the endangered black-footed ferret.

New Information—The EPA did not provide additional information regarding regulatory mechanisms since the 12-month Finding. No specific regulatory changes have been proposed or enacted.



## OTHER COUNTRIES

### CANADA

Regulatory Status—In Canada, the black-tailed prairie dog is designated as vulnerable by the Committee on the Status of Endangered Wildlife in Canada. Control is prohibited and only private landowners are permitted to shoot prairie dogs (Fargey, Grasslands National Park, pers. comm. 1998).

New Information—Canada did not provide additional information regarding regulatory mechanisms since the 12-month Finding.

### MEXICO

Regulatory Status—The black-tailed prairie dog is listed as threatened by the Lista de las Especies Amerzadas, the official threatened and endangered species list of the Mexican Government (SEMARNAP 1994). List et al. (1997) reported that in Mexico, laws exist to stop control of black-tailed prairie dogs, but are often not enforced, and extensive control occurs. There are no protected areas for the black-tailed prairie dog in Mexico (Ceballos et al. 1993).

New Information—Mexico did not provide additional information regarding regulatory mechanisms since the 12-month Finding.

## E. Other Natural or Manmade Factors Affecting Its Continued Existence.

We believe that impacts on the species due to chemical control programs continue to be a moderate threat at present. Sales of zinc phosphide, the principal toxicant used to poison prairie dogs, may have increased since the filing of the petition to list the black-tailed prairie dog. At least 18,545 pounds of zinc phosphide bait were sold during Fiscal Year 1998. At least 42,595 pounds of zinc phosphide bait were sold during Fiscal Year 1999 (Gober, U.S. Fish and Wildlife Service, *in litt.* 2000). Without the additive adverse effects of other impacts, black-tailed prairie dog populations can recover to an appreciable degree from control efforts in some areas; and a balance between agricultural and wildlife conservation interests can often be accommodated.

## SUMMARY

Since the 12-month Finding the Service has received approximately 450 additional letters from private individuals, the majority supported listing the species. These letters did not provide any additional significant information regarding the biological or regulatory status of the species. A petition to delist the species was submitted (Zingg, *in litt.* 2000). It expressed several concerns regarding the two petitions to list the species. The petitioner was advised that since the 12-month Finding did not result in the species being listed, a petition to delist was not appropriate.

Historically, black-tailed prairie dog populations coped successfully with various threats, except plague. Populations were large and robust while threats were few with only temporal effects. Presently, most populations are significantly reduced and must cope with many persistent threats. We believe that various threats (especially plague and control) continue to cause local extirpations that could lead to the species becoming vulnerable in a significant portion of its range (U.S. Fish and Wildlife Service 2000). Although there is an apparently large number of individual black-tailed prairie dogs, even after large historic declines in the amount of occupied habitat, the black-tailed prairie dog is a highly social species that for the most part responds to threats as a colony rather than as individuals. Additionally, inadequate regulatory mechanisms are in place for the black-tailed prairie dog. Therefore, populations may not be as viable as their absolute numbers might suggest. The species may have difficulty coping with challenges without the advantage of its historic abundance and wide distribution. Accordingly, the vulnerability of the species to population reductions may be related less to its absolute numbers than to the number of colonies in which it exists, their size, their geospatial relationship, existing barriers to immigration and emigration, and the number and nature of the direct threats to the species. The appropriate time to intervene with management actions to successfully stabilize a colonial species such as the black-tailed prairie dog may be earlier than for some other species.

Several States and Tribes have made commitments to begin conservation efforts. All States within the historic range of the species have formed a Black-tailed Prairie Dog Conservation Team (Luce, Interstate Coordinator - Black-tailed Prairie Dog Conservation Team, *in litt.* 2000). Several Tribes have taken similar steps and formed an intertribal black-tailed prairie dog working group. At least partial inventories have been completed in all States. Draft management plans also are being developed. Both States and Tribes have expressed an interest in the development of CCAAs. Regulatory changes have been proposed by some States, although none have gone into effect. Colorado is the only State that has enacted new regulations, effective September 1, 2001, prohibiting sport hunting of black-tailed prairie dogs on public and private lands in Colorado. Private property owners or their agents can continue to control prairie dogs at any time as is necessary to protect private property.

While positive first steps to conserve and manage black-tailed prairie dogs have been made by some States and Tribes, more conservation work will be needed by all States, Tribes, and Federal Agencies to sufficiently reduce threats to the species. The overall magnitude and immediacy of threats to this species (listing priority 8), as well as the status of the species (threatened), remain unchanged since the 12-month Finding was published. Listing of the species remains warranted, but precluded by 10 species with higher listing priorities. Accordingly, the species remains on the Candidate List.

**FOR RECYCLED PETITIONS:**

- a. Is listing still warranted? yes
- b. To date, has publication of a proposal to list been precluded by other higher priority listing actions? yes
- c. Is a proposal to list the species as threatened or endangered in preparation? no
- d. If the answer to c. above is “no,” provide an explanation of why the action is still precluded.

There are currently nine species on the Region 6 candidate list with higher listing priority numbers than the prairie dog. These include the southern Rocky Mountain population of the boreal toad (LPN 2), the Gunnison sage-grouse (LPN 5), and the Salt Creek tiger beetle (LPN elevated from a 5 to 3 in the current Candidate Notice of Review). Work on listing of the prairie dog is also precluded by the need to complete final listing determinations for the desert yellowhead, mountain plover, and the Holmgren and Shivwits milk-vetches. Listing funds are also being used to complete the final critical habitat determination for the northern Great Plains population of piping plovers.

**LAND OWNERSHIP:** Nationwide, approximately 70 percent of black-tailed prairie dog occupied habitat occurs on State or private land, 20 percent occurs on Tribal land, and 10 percent occurs on Federal land. Federal land owners include--the U.S. Forest Service, U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, and the U.S. Army.

**PRELISTING:** The Black-tailed Prairie Dog Conservation Team formed in 1999, with members representing all 11 States within the historic range of the species. A Memorandum of Understanding to implement a Conservation Assessment and Strategy was signed by nine States in February 2000. All 11 States and several Tribes are developing black-tailed prairie dog management plans and have expressed an interest in umbrella CCAAs with the Service. The Petitioner (NWF) is “cautiously optimistic about the concept of Statewide CCAAs to recover black-tailed prairie dog populations” (Johnson, National Wildlife Federation, *in litt.* 2000). Some States have proposed regulatory changes; one State (Colorado) has enacted changes in hunting regulations which will go into effect in September 2001.

**REFERENCES:** available upon request see contact section.

**LISTING PRIORITY**

THREAT		Taxonomy	Priority
Magnitude	Immediacy		

High	Imminent	Monotypic genus	1
		Species	2
		Subspecies/population	3
	Non-imminent	Monotypic genus	4
		Species	5
		Subspecies/population	6
Moderate to Low	Imminent	Monotypic genus	7
		Species	8*
		Subspecies/population	9
	Non-imminent	Monotypic genus	10
		Species	11
		Subspecies/population	12

**APPROVAL/CONCURRENCE:**

Approve: Ralph Morgenweck 2/20/01  
- Regional Director, Fish and Wildlife Service Date

Concur: \_\_\_\_\_  
- Director, Fish and Wildlife Service Date

Do not concur: \_\_\_\_\_  
- Director, Fish and Wildlife Service Date

Director's Remarks: \_\_\_\_\_  
\_\_\_\_\_  
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Date of annual review: \_\_\_\_\_

Conducted by: \_\_\_\_\_

Changes from October 25, 1999 CNOR: Yes \_\_\_\_\_ No \_\_\_\_\_

Approval: \_\_\_\_\_  
- Regional Director Date