

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R6–ES–2011–0037]

**Endangered and Threatened Wildlife and Plants; Revised 90-Day Finding on a
Petition to Reclassify the Utah Prairie Dog from Threatened to Endangered**

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of revised 90-day petition finding.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a revised 90-day finding on a petition to reclassify the Utah prairie dog (*Cynomys parvidens*) from threatened to endangered under the Endangered Species Act of 1973, as amended (Act). As we concluded in our 90-day finding published on February 21, 2007, we find that the February 3, 2003, petition does not present substantial information indicating that reclassifying the Utah prairie dog from threatened to endangered may be warranted. Therefore, we are not initiating a status review in response to the February 3, 2003, petition. However, we ask the public to submit to us any new information that becomes

available concerning the status of, or threats to, the Utah prairie dog or its habitat at any time.

DATES: The revised 90-day finding announced in this document was made on

[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: This finding is available on the Internet at *http://www.regulations.gov* at Docket Number FWS–R6–ES–2011–0037. Supporting documentation we used in preparing this finding is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Utah Ecological Services Field Office, 2369 West Orton Circle, Suite 50, West Valley City, UT 84119. Please submit any new information, materials, comments, or questions concerning this finding to the above address.

FOR FURTHER INFORMATION CONTACT: Larry Crist, Field Supervisor, Utah Ecological Services Field Office (see **ADDRESSES**), by telephone (801–975–3330), or by facsimile (801–975–3331). If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(A) of the Act (16 U.S.C. 1531 *et seq.*) requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition, and publish our notice of this finding promptly in the **Federal Register**.

Our standard for substantial scientific or commercial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding is “that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted” (50 CFR 424.14(b)). If we find that substantial information was presented, we are required to promptly conduct a species status review, which we subsequently summarize in our 12-month finding.

In making this finding, we applied the standards described above for substantial information. Under the Act, a threatened species is defined as a species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. An endangered species is defined as a species which is in danger of extinction throughout all or a significant portion of its range. Therefore, in evaluating the information in this petition to reclassify the Utah prairie dog from threatened to endangered, we have based our determination on whether the petition

presents substantial scientific and commercial information indicating that the species may be currently in danger of extinction throughout all or a significant portion of its range.

Petition History

On February 3, 2003, we received a petition, dated the same day, from Forest Guardians, Center for Native Ecosystems, Escalante Wilderness Project, Boulder Regional Group, Southern Utah Wilderness Alliance, and Terry Tempest Williams (Petitioners) requesting that the Utah prairie dog be reclassified as endangered under the Act (Forest Guardians *et al.* 2003, entire). The petition clearly identified itself as such and included the requisite identification information for the petitioners, as required by 50 CFR 424.14(a). We acknowledged receipt of the petition in a letter to Nicole Rosmarino on November 21, 2003. In that letter we also advised the Petitioners that, due to prior listing allocations in Fiscal Years 2003 and 2004, we would not be able to begin processing the petition in a timely manner. On February 2, 2004, we received a Notice of Intent to sue from the Petitioners for failure to issue the 90-day finding.

On February 2, 2006, the Petitioners filed a complaint for injunctive and declaratory relief in the United States District Court for the District of Columbia. On June 2, 2006, the parties reached a settlement that required the Service to make a 90-day finding on the February 3, 2003, petition on or before February 17, 2007. The 90-day finding published on February 21, 2007 (72 FR 7843), constituted our compliance with the settlement agreement. We found that the petition did not provide substantial

scientific or commercial information indicating that reclassification may be warranted. This decision was challenged by WildEarth Guardians in litigation.

On September 28, 2010, the United States District Court for the District of Columbia vacated and remanded our February 21, 2007, not-substantial 90-day finding (72 FR 7843) back to us for further consideration (*WildEarth Guardians v. Salazar*, Case 1:08-cv-01596-CKK (D.D.C. 2010)). We were directed to address cumulative effects and to consider whether the loss of historical range constituted a significant portion of the species' range. We have considered both of these remanded items in our Findings section below. Additionally, because the finding was remanded by the Court, we considered the petition as resubmitted at the time of the Court's order and now evaluate the information submitted in the petition and the information in Service files as of the remanded date (September 28, 2010). We considered whether this current data affect our original 2007 decision that the petition did not present substantial information indicating that reclassification may be warranted. Although we supplemented our revised 90-day finding with new information since our 2007 90-day finding, our evaluation continues to support a "not substantial" determination. This revised 90-day finding constitutes our compliance with the District Court's order dated September 28, 2010 (*WildEarth Guardians v. Salazar*, Case 1:08-cv-01596-CKK (D.D.C. 2010)).

Previous Federal Actions

We listed the Utah prairie dog as an endangered species on June 4, 1973 (38 FR

14678), pursuant to the Endangered Species Conservation Act of 1969 (the predecessor to the 1973 Act). On November 5, 1979, the Utah Division of Wildlife Resources (UDWR) petitioned the Service to remove the Utah prairie dog from the List of Endangered and Threatened Wildlife. Based on information provided in the petition, the species was reclassified from endangered to threatened on May 29, 1984 (49 FR 22330).

Species Information

We have updated this information since our February 21, 2007, 90-day finding, based on the best information currently available in our files. We determined that updating the basic biological information for the species with information contained in our files has no effect on our decision as to whether or not the petition contains substantial information.

Taxonomy

Prairie dogs belong to the Sciuridae family of rodents, which also includes squirrels, chipmunks, and marmots. There are five species of prairie dogs, all of which are native to North America, and all of which have non-overlapping geographic ranges (Hoogland 2003, p. 232). Taxonomically, prairie dogs (*Cynomys spp.*) are divided into two subgenera (Hoogland 1995, p. 8): the white-tail and the black-tail. The Utah prairie dog (*C. parvidens*) is a member of the white-tailed group, subgenus *Leucocrossuromys*. Other members of this group, which also occur in Utah, are the white-tailed prairie dog

(*C. leucurus*) and the Gunnison prairie dog (*C. gunnisoni*).

The Utah prairie dog is recognized as a distinct species (Zeweloff 1988, p. 148; Hoogland 1995, p. 10), but is most closely related to the white-tailed prairie dog. These two species may have once belonged to a single interbreeding species (Pizzimenti 1975, p. 16), but are now separated by ecological and physiographic barriers. We accept the characterization of the Utah prairie dog as a distinct species because of these ecological and physiographic barriers from other prairie dog species (Zeweloff 1988, p. 148).

Species Description

The Utah prairie dog is the smallest species of prairie dog; individuals are typically 250 to 400 millimeters (mm) (10 to 16 inches (in.)) long (Hoogland 1995, p. 8). Weight ranges from 300 to 900 grams (g) (0.66 to 2.0 pounds (lb)) in the spring and 500 to 1,500 g (1.1 to 3.3 lb) in the late summer and early fall (Hoogland 1995, p. 8). Utah prairie dogs range in color from cinnamon to clay. The Utah prairie dog is distinguishable from other prairie dog species by a relatively short (30 to 70 mm (1.2 to 2.8 in.)) white- or gray-tipped tail and a black “eyebrow” above each eye (Pizzimenti and Collier 1975, p. 1; Hoogland 2003, p. 232).

Life History

Utah prairie dogs hibernate for 4 to 6 months underground each year during the

harsh winter months, although they are occasionally seen above ground during mild weather (Hoogland 2001, p. 918). Adult males cease surface activity during August and September, and females follow suit several weeks later (Hoogland 2003, p. 235). Juvenile prairie dogs remain above ground 1 to 2 months longer than adults and usually hibernate by late November. Emergence from hibernation usually occurs in late February or early March (Hoogland 2003, p. 235).

Mating begins 2 to 5 days after females emerge from hibernation, and can continue through early April (Hoogland 2003, p. 236). Approximately 97 percent of female Utah prairie dogs breed in any given year. They come into estrus (period of greatest female reproductive responsiveness usually coinciding with ovulation) and are sexually receptive for a few hours for only 1 day during the breeding season (Hoogland 2001, p. 919). Females give birth to only one litter per year, in April or May (Hoogland 2001, pp. 919–920; Hoogland 2003, p. 236). Only 67 percent of female prairie dogs successfully wean a litter, which ranges from one to seven pups, with an average of four pups (Pizzimenti and Collier 1975, p. 2; Wright-Smith 1978, p. 10; Hoogland 2001, pp. 919–920, 923). The young emerge from their nursery burrow by early to mid-June and primarily forage on their own (Hoogland 2003, p. 236).

Prairie dog pups attain adult size by October and reach sexual maturity at the age of 1 year (Wright-Smith 1978, p. 9). Less than 50 percent of Utah prairie dogs survive to breeding age (Hoogland 2001, p. 919). Male Utah prairie dogs frequently cannibalize juveniles, which may eliminate 20 percent of the litter (Hoogland 2003, p. 238). Only

about 20 percent of females and less than 10 percent of males survive to age 4 (Hoogland 2001, Figures 1 and 2, pp. 919–920). Utah prairie dogs rarely live beyond 5 years of age (Hoogland 2001, p. 919).

Natal dispersal (movement of first-year individuals away from their area of birth) and breeding dispersal (movement of sexually mature individuals away from the areas where copulation occurred) are comprised mostly of male prairie dogs. Young male Utah prairie dogs disperse in the late summer, with average dispersal events of 0.56 kilometers (km) (0.35 mile (mi)) and long-distance dispersal events of up to 1.7 km (1.1 mi) (Mackley 1988, p. 10). Most dispersers move to adjacent territories (Hoogland 2003, p. 239).

Utah prairie dogs are organized into social groups called clans, consisting of an adult male, several adult females, and their offspring (Wright-Smith 1978, p. 38; Hoogland 2001, p. 918). Clans maintain geographic territorial boundaries, which only the young regularly cross, although all animals use common feeding grounds.

Habitat Requirements and Food Habits

Utah prairie dogs occur in semiarid shrub-steppe and grassland habitats (McDonald 1993, p. 4; Roberts *et al.* 2000, p. 2; Bonzo and Day 2003, p. 1). Within these habitats, they prefer swale-type formations where moist herbaceous vegetation is available (Collier 1975, p. 43; Crocker-Bedford and Spillett 1981, p. 24). Vegetation on

prairie dog colonies is of short stature and allows the prairie dogs to see approaching predators and to have visual contact with other members of the colony (Collier 1975, p. 54; Crocker-Bedford and Spillett 1981, p. 25; Player and Urness 1983, pp. 517, 522).

Utah prairie dogs are predominantly herbivores, though they also eat insects (primarily cicadas (*Cicadidae*)) (Crocker-Bedford and Spillett 1981, p. 8; Hoogland 2003, p. 238). Grasses are a staple of their annual diet (Crocker-Bedford and Spillett 1981, p. 8; Hasenyager 1984, pp. 19, 27), but other plants are selected during different times of the year. Utah prairie dogs only select shrubs when they are in flower, and then only eat the flowers (Crocker-Bedford and Spillett 1981, p. 8). Forbs are consumed in the spring. Forbs also may be crucial to prairie dog survival during drought (Collier 1975, p. 43).

Soil characteristics are an important factor in the location of Utah prairie dog colonies (Collier 1975, pp. 52–53; Turner 1979, p. 51; McDonald 1993, p. 9). Well-drained soils are necessary for Utah prairie dogs' burrows. Soils should be deep enough (at least 1 meter (m) (3.3 feet (ft))) to allow burrowing to depths sufficient to provide protection from predators and insulation from environmental and temperature extremes (McDonald 1993, p. 9). Soil color may aid in disguising prairie dogs from surface predators (Collier 1975, p. 53).

Historical Distribution and Abundance

The Utah prairie dog is the westernmost member of the genus *Cynomys*. Historically, the species' distribution included portions of Utah in Beaver, Garfield, Iron, Kane, Juab, Millard, Piute, Sanpete, Sevier, Washington, and Wayne Counties (Collier 1975, Figure 1, p. 16). The Utah prairie dog may have occurred in portions of over 700 different sections (a section is a land unit equal to 260 hectares (ha) (640 acres (ac)) in southwestern Utah (Collier and Spillett 1973, Table 1, p. 86); but the actual area that the species occupied within each of these sections is not known. While the historical abundance was estimated at 95,000 animals (McDonald 1993, p. 2), we do not consider this a reliable estimate because it was derived from informal interviews with landowners and not actual survey data.

Utah prairie dog populations began to decline when control programs were initiated in the 1920s, and by the 1960s, the species' distribution was greatly reduced as a result of poisoning and unregulated shooting (see *B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes* below), sylvatic plague (a nonnative disease (see *C. Disease or Predation* below), drought, and habitat alteration from conversion of land to agricultural crops (see *A. Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range* below) (Collier and Spillett 1972, pp. 32–35; Service 1991, pp. 3, 6). While the actual numeric reductions in population and habitat occupancy are not known, it is clear that by the early 1970s, the Utah prairie dog was eliminated from large portions of its historical range and populations declined to an estimated 3,300 individuals distributed among 37 Utah prairie dog colonies (Collier and Spillett 1972, pp. 33–35).

Current Distribution and Abundance

The Utah prairie dog's current range is limited to the southwestern quarter of Utah in Beaver, Garfield, Iron, Kane, Piute, Sevier, and Wayne Counties. The species occurs in three geographically identifiable areas within southwestern Utah, which are designated as recovery areas in our 1991 Recovery Plan (Service 1991, pp. 5–6) and in the petition, and as recovery units in our Draft Revised Recovery Plan (Service 2010, pp. 1.3-3, 3.2-7 to 3.2-8). These three recovery units are: (1) The Awapa Plateau in portions of Piute, Garfield, Wayne, and Sevier Counties; (2) the Paunsaugunt in western Garfield County, extending into small areas of Iron and Kane Counties; and (3) the West Desert in Iron County, extending into southern Beaver and northern Washington Counties.

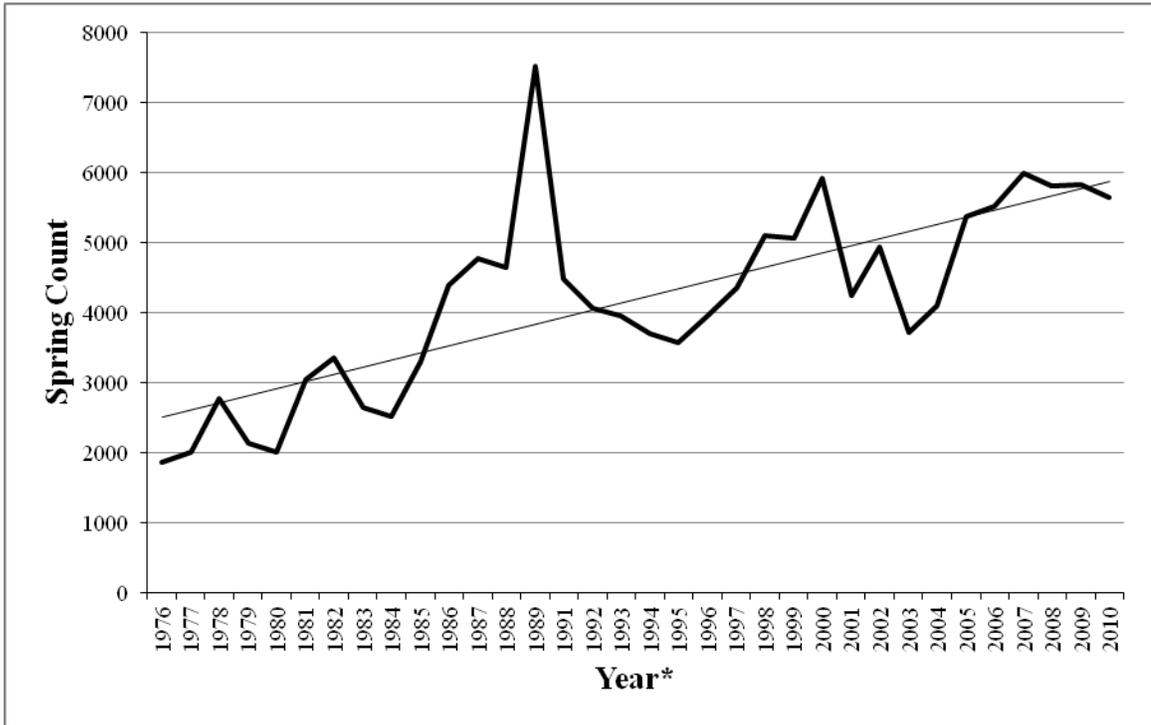
The best available information concerning Utah prairie dog habitat and population trends comes from surveying and mapping efforts conducted by the UDWR annually since 1976. These surveys (hereafter referred to as “spring counts”) count adult Utah prairie dogs every year on all known and accessible colonies in April and May, after the adults have emerged, but before the young are above ground in June (see “Life History”).

Prairie dog spring counts typically underestimate the actual number of adult animals, because only 40 to 60 percent of individual prairie dogs are above ground at any one time (Crocker-Bedford 1975, p. 6). Therefore, we assume that spring counts represent approximately 50 percent of the adult population. We calculate total population

estimates from the spring counts by taking into account the proportion of animals we expect to see (roughly 50 percent as just discussed), the proportion of successfully breeding adult females (67 percent of the 97 percent), and average litter size (four pups) (see “Life History” section above). Taking these factors into consideration, the total population estimate, accounting for reproduction and juveniles, is the spring count multiplied by 7.2. It should be noted that spring count surveys and population estimates are not censuses. Rather, they are designed to monitor population trends over time.

In our 2007 finding, we reported information on the spring counts conducted from 1976 to 2005 in each recovery unit: Awapa Plateau varied from 201 to 1,145 adult prairie dogs; Paunsaugunt varied from 652 to 2,205 adult prairie dogs; and the West Desert varied from 610 to 4,778 adult Utah prairie dogs (see Figure 1 below) (UDWR 2005, entire; 72 FR 7843). As of 2010, the Awapa Plateau recovery unit had a spring count of 614 adult prairie dogs, the Paunsaugunt recovery unit had 835 adult prairie dogs, and the West Desert recovery unit had 4,199 adult prairie dogs (see Figure 1 below) (UDWR 2010a, entire). Overall, spring counts from the past 34 years show considerable annual fluctuations, but stable-to-increasing long-term trends (Figure 1) (UDWR 2005, entire; UDWR 2010a, entire).

FIGURE 1. Utah Prairie Dog Spring Counts with Rangewide Population Trend Line 1976–2010.



* 1990 surveys are not included because they were incomplete (i.e., they did not include private lands) due to staffing and budget limitations.

In addition to population trend information, the UDWR surveys provide information on the amount of mapped and occupied habitat across the species’ range. We define mapped habitat as all areas within the species’ range that were identified and delineated as being occupied by Utah prairie dogs at any time since 1976. Occupied habitats are defined as areas that currently support Utah prairie dogs (i.e., where prairie dogs are seen or heard or where active burrows or other signs are found). The UDWR has mapped 24,142 ha (59,656 ac) of habitat rangewide, of which 13,365 ha (33,025 ac) were occupied in 2009 (UDWR 2010b, entire). All of the mapped habitat is not occupied by Utah prairie dogs, as the species’ distribution is constantly shifting across the landscape. Additional information on Utah prairie dog distribution, abundance, and

trends in each recovery unit can be found in our Draft Revised Recovery Plan (Service 2010, section 1.3)

Evaluation of Information for This Finding

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations at 50 CFR 424 set forth the procedures for adding a species to, or removing a species from, the Federal Lists of Endangered and Threatened Wildlife and Plants. 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) of the Act:

- (A) The present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or
- (E) Other natural or manmade factors affecting its continued existence.

In considering what factors might constitute threats, we must look beyond the mere exposure of the species to the factor to determine whether the species responds to the factor in a way that causes actual impacts to the species. If there is exposure to a factor, but no response, or only a positive response, that factor is not a threat. If there is exposure and the species responds negatively, the factor may be a threat and we then

attempt to determine how significant a threat it is. If the threat is significant, it may contribute to the risk of extinction of the species such that the species may warrant listing as threatened or endangered as those terms are defined by the Act. This does not necessarily require empirical proof of a threat. The combination of exposure and some corroborating evidence of how the species is likely impacted could suffice. The mere identification of factors that could impact a species negatively may not be sufficient to compel a finding that listing or reclassification may be warranted. In our finding for this petition to reclassify a species from threatened to endangered, the information should contain evidence sufficient to suggest that threats that may be acting on the species could result in the species being currently in danger of extinction versus being likely to become so in the foreseeable future.

In making this 90-day finding, we evaluated whether information regarding the threats to the Utah prairie dog, as presented in the petition and other information available in our files, is substantial, thereby indicating that the petitioned action may be warranted. Our evaluation of this information is presented below.

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

Information Provided in the Petition

The Petitioners state that threats to the species' habitat include the following: (1)

Habitat loss from agricultural and urban land conversions; (2) livestock grazing; (3) road construction, off-highway vehicle (OHV) use, and recreation; (4) oil, gas, and mineral development and seismic exploration; and (5) impacts of isolation and fragmentation.

Habitat Loss from Agricultural and Urban Land Conversion

The Petitioners provide two citations (McDonald 1996, pp. 1–2; O’Neill *et al.* 1999, pp.1–2) that described a decline in the species’ rangewide habitat occupancy from the 1920s through 1995. Based on these citations, the Petitioners calculate that occupied Utah prairie dog habitat declined from 181,299 to 2,824 ha (448,000 to 6,977 ac) as of 1995, a decline of 98.4 percent.

The Petitioners state that much of the historical, high-quality Utah prairie dog habitat was in valleys, where crop agriculture and urban activities and expansion historically occurred and are ongoing (Forest Guardians *et al.* 2003, p. 55). The Petitioners cite ongoing habitat loss due to urbanization as a threat to the Utah prairie dog, particularly in the West Desert recovery unit (Bonzo and Day 2003, p. 23) which contains the highest percentage of Utah prairie dogs on private land and is undergoing the highest rate of urbanization compared to other areas across the species’ range (Iron County 2006, p. 22).

The Petitioners discuss various urban development projects that resulted in translocation of Utah prairie dogs and loss of their habitat, both legally (Bonzo and Day

2003, pp. 22–23) (i.e., under habitat conservation plan (HCP) section 10(a)(1)(B) permits and through section 7 consultation) and illegally (McDonald 1996, pp. 24–25). The Petitioners also state that increasing development on private lands can negatively impact prairie dogs on adjacent Federal lands by increasing human activities such as OHV use in previously undisturbed habitats (Forest Guardians *et al.* 2003, p. 57). Finally, the Petitioners are concerned that Utah School and Institutional Trust Lands Administration (SITLA) lands containing Utah prairie dog habitat are being sold to private landowners and, therefore, are not safe from future development (Williams 2002, pp. 91–93).

Livestock Grazing

The petition states that livestock grazing, particularly overgrazing, can degrade Utah prairie dog habitat by causing shrub encroachment (McDonald 1993, pp. 6, 16). The Petitioners provide numerous general references that characterize the effects of overgrazing to grassland habitats, including reducing grass cover and vegetative biomass, degrading riparian areas, damaging cryptobiotic crusts (communities of cyanobacteria, green algae, lichens, mosses, liverworts, and microorganisms that colonize the surface of bare soil), degrading soil conditions, and increasing invasive weeds and wildfires (Forest Guardians *et al.* 2003, pp. 57–75).

With respect to livestock grazing impacts to Utah prairie dogs specifically, the Petitioners cite the 1991 Utah Prairie Dog Recovery Plan (Service 1991, p. 11), a 1993 analysis of 20 years of Utah prairie dog recovery efforts (McDonald 1993, pp. 16–17,

55), and the Utah Prairie Dog Interim Conservation Strategy (Utah Prairie Dog Recovery Implementation Team (UPDRIT) 1997, p. 5) as acknowledging the potential for livestock grazing to degrade Utah prairie dog habitat. The Petitioners conclude that livestock grazing must be recognized as a threat to Utah prairie dogs and curtailed in a manner that promotes Utah prairie dog conservation (Forest Guardians *et al.* 2003, p. 58).

Road Construction, Off-Highway Vehicle Use, and Recreation

The Petitioners state that roads have a negative impact on Utah prairie dogs by increasing direct mortalities from motor vehicle strikes, through loss of habitat due to new road construction and upgrades of existing roads, and through degradation of habitat and increased disturbance due to increased OHV use (Noriega 2000, entire; Forest Guardians *et al.* 2003, pp. 76–79). The Petitioners conclude that recreational activity in Utah prairie dog habitat, including camping, hunting and fishing, OHV use, and hiking, can lead to population declines or extirpation of colonies through direct disturbance or habitat loss (Forest Guardians *et al.* 2003, pp. 78–79). The Petitioners specifically mention the possible extirpation of the Three Peaks Utah prairie dog colony due to intense recreational use (Service 2005a, p. 5).

Oil, Gas, and Mineral Development, and Seismic Exploration

The Petitioners cite numerous references stating that oil and gas exploration and extraction results in the degradation and loss of vegetation and habitats through crushing

vegetation, introducing weed species, and increasing soil erosion or soil compaction (Forest Guardians *et al.* 2003, p. 80). The Petitioners rely on two studies (Young and Sawyer 1981, entire; Menkens and Anderson 1985, entire) that expressed concerns about the impacts of crushed vegetation, compacted soil, and the potential for noise disruption on hibernating prairie dogs.

The petition states that oil and gas leases are being offered in Millard and Sevier Counties within the range of the Utah prairie dog (Forest Guardians *et al.* 2003, p. 88). Mineral development, including shalestone and flagstone extraction, and geothermal leasing are cited as occurring within the range of the Utah prairie dog (Forest Guardians *et al.* 2003, pp. 88–89).

Impacts of Isolation and Fragmentation

The petition states that the remaining prairie dog colonies tend to be isolated and fragmented due to loss and degradation of Utah prairie dog habitat, and the effects of extermination campaigns and plague. Factors such as low reproductive rate, genetic drift, and inbreeding may increase the potential for local extinctions in small populations (Brussard and Gilpin 1989, p. 37). The Petitioners cite several references on black-tailed prairie dogs to conclude that these small, isolated colonies are then more susceptible to local extirpation from factors such as sylvatic plague (Miller *et al.* 1994, 1996 in Forest Guardians *et al.* 2003, p. 90; Mulhern and Knowles 1995, p. 26; Wuerthner 1997, pp. 459, 464).

Evaluation of Information Provided in the Petition and Available in Service Files

The Petitioners conclude that the factors responsible for the loss of Utah prairie dog habitat include habitat loss from agricultural and urban land conversions; livestock grazing; road construction, OHV use, and recreation; oil, gas, and mineral development and seismic exploration; and the impacts of isolation and fragmentation (Forest Guardians *et al.* 2003, p. 54). We agree with the Petitioners' assessment that these factors are threats to the Utah prairie dog. These factors are, in part, the reason that the Utah prairie dog is federally listed as a threatened species (Service 2010, section 1.7; 75 FR 5705, September 17, 2010). However, as described below, the Petitioners do not present substantial information indicating that these factors will cause the Utah prairie dog to be in current danger of extinction such that it may warrant reclassification from threatened to endangered.

Habitat Loss from Agricultural and Urban Land Conversion

We agree with the Petitioners' conclusion that historical Utah prairie dog habitat and populations were lost to agricultural conversion and urban development. However, we believe that the Petitioners' assessment of the extent of historical habitat loss and population decline is inaccurate. The Petitioners' assessment is based largely on the assumption that Utah prairie dogs historically occurred within 713 sections of land (Collier 1975, p. 15), and that mapped habitat was reduced to 2,824 ha (6, 977 ac) by

1995 (McDonald 1997, p. 11). However, much of the area within the 713 sections of land contains unsuitable habitat and was never occupied by prairie dogs (see “Historical Distribution and Abundance” section above). Therefore, it is inaccurate to calculate historical habitat loss based on the total area within those 713 sections (184,666 ha (456,320 ac)).

Our current data show that there are 24,142 ha (59,656 ac) of mapped habitat rangewide, of which 13,365 ha (33,025 ac) were occupied in 2009 (UDWR 2010b, entire). This is almost five times the amount of occupied habitat reported by the Petitioners. Furthermore, our data show that Utah prairie dog habitat occupancy and population trends (see Figure 1) have been stable to increasing since 1995 (McDonald 1997, p. 11; Bonzo and Day 2000, p. 13; UDWR 2010b, entire). Overall, we believe that the Petitioners overestimated the amount of occupied historical habitat, and used outdated information that does not reflect the current amount of occupied habitat and more recent population trends. Given that our data show larger areas of occupied habitat than reported by the Petitioners, and stable-to-increasing long-term population trends, we conclude that we have no substantial scientific or commercial information to indicate that threats from habitat loss may warrant reclassification of the Utah prairie dog from threatened to endangered. We further discuss the consequences of the loss of historical habitat in the Significant Portion of the Range section (see **Finding** below).

We acknowledge that historical Utah prairie dog habitat was lost in large part due to agricultural conversion, a factor considered in our May 29, 1984, reclassification of the

species from endangered to threatened (49 FR 22330). However, the Petitioners do not provide any information on current losses from new agricultural developments. We do not have any information in our files indicating that there are any recent conversions of Utah prairie dog habitat to agricultural use.

We agree that habitat loss due to urbanization is a threat to the species, particularly in the West Desert recovery unit (primarily Iron County); we identified this threat in our May 29, 1984, reclassification of the species from endangered to threatened (49 FR 22330), the 1991 Utah Prairie Dog Recovery Plan (Service 1991, pp. iv, 11), and the 2010 Draft Revised Recovery Plan (Service 2010, pp. 1.7-1 to 1.7-2). Loss of habitat due to urbanization remains one of the primary threats to the species, and is one of the primary reasons that the species remains listed as threatened. However, the Petitioners do not present information that indicates that threats from urbanization may warrant reclassification of the Utah prairie dog from threatened to endangered.

Since our 2007 finding, and primarily during development of our Draft Revised Recovery Plan (Service 2010, entire), we assessed the most currently available information regarding impacts to Utah prairie dog habitat from urbanization. We summarize this evaluation below to ensure that our current information remains consistent with our 2007 finding.

The threatened status of the Utah prairie dog results in the need to develop and implement habitat conservation plans (HCPs) to minimize and mitigate impacts to the

species from urban development on non-Federal lands. Ongoing development and the resulting incidental take of Utah prairie dogs in Iron County is authorized through 2018 under a permit issued under section 10(a)(1)(B) of the Act and the Iron County HCP (Iron County 2006, entire). The Iron County HCP process includes an annual assessment of the amount of incidental take allowed each year. The allowed annual incidental take is calculated as 10 percent of the running 5-year average of prairie dogs counted on Federal or otherwise-protected lands in the West Desert recovery unit.

As of 2009, following 11 years of implementation, the Iron County HCP has permitted a total of 154 ha (381 ac) of habitat and 937 Utah prairie dogs to be incidentally taken since 1998. This is an average of 78 prairie dogs and 12.9 ha (32 ac) of habitat taken annually. The Iron County HCP expires in 2018. We believe these past levels of take are reflective of the average levels of take that are likely to occur in the future, given recent stable population trends for the species. Using the average annual take, we estimate that an additional 702 prairie dogs and 116.5 ha (288 ac) of habitat may be taken through 2018, for a total of 271 ha (669 ac) of occupied habitat and 1,639 prairie dogs over the life of the permit. If the estimated level of take occurs, approximately 6.5 percent of occupied habitat and 5.6 percent of the Utah prairie dog population (see “Current Distribution and Abundance” above) in the West Desert recovery unit will be lost to urbanization. While this amount of take is not to be dismissed, we concluded that this level of take over the life of the 20-year permit was not likely to jeopardize the continued existence of the species (Service 1998, p. 15). Over the last ten years of implementing this HCP, the Utah prairie dog population has been stable to increasing

(UDWR 2005, entire; UDWR 2010a, entire). Based on these population trends while implementing the HCP, we anticipate the additional take estimated over the remaining life of the permit does not threaten the species to the extent that reclassification, or “uplisting,” to endangered status may be warranted. In addition, the take authorized under the Iron County HCP is mitigated through restoration of habitat on Federal lands and the translocation of animals from impacted private lands to approved translocation sites on Federal lands.

There is no current mechanism (i.e., no approved HCP) to authorize incidental take of Utah prairie dogs on non-Federal lands in the Awapa or Paunsaugunt recovery units; and no current mechanism to authorize incidental take in Iron County beyond 2018. We are working with the counties to develop a rangewide HCP that would authorize additional take in Iron, Garfield, and Wayne Counties. The rangewide HCP will be required to minimize and mitigate impacts to the extent practicable, and to ensure that the action will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. Similarly, although there is the potential for SITLA to sell lands occupied by Utah prairie dogs to private developers, the development of these lands could only occur through a permitting process and development of an HCP.

We do not dispute that human activities (i.e., recreation) may increase on Federal lands as a result of nearby private developments. However, the Petitioners only identify one specific development on private land inholdings on the U.S. Forest Service (USFS) Powell Ranger District that could negatively impact prairie dogs. Because the level of

development from this one project is on a small scale with localized impacts, and not indicative of more widespread development, we believe that the information does not indicate that this threat contributes to the risk of extinction of the species such that the species may warrant reclassification to endangered.

In summary, we do not have information, and the Petitioners do not present information, indicating that agricultural conversions are still occurring at high levels or that they threaten the Utah prairie dog to the extent that it may be in current danger of extinction. Habitat loss due to urbanization is a threat to the species, and one of the primary reasons that the species remains listed as threatened. Because of the species' threatened status (see *D. Inadequacy of Existing Regulatory Mechanisms* below), urban development in Utah prairie dog habitats on non-Federal lands can only proceed under approved HCPs and associated 10(a)(1)(B) permits. The only existing countywide HCP for the Utah prairie dog is in Iron County, Utah, and the projected loss of habitat from development through 2018 under the Iron County HCP does not rise to a level where it places the species in danger of extinction. The Iron County HCP was authorized in 1998; since its implementation, the rangewide population of the Utah prairie dog has remained stable to increasing (see Figure 1). Therefore, the Petitioners do not provide substantial information—and we do not have information in our files—that indicates that threats from urbanization may warrant reclassification of the Utah prairie dog from threatened to endangered.

Livestock Grazing

We concur that improper livestock grazing can affect various attributes of prairie dog habitat and food supply. However, most of the citations provided by the Petitioners speak generally to the impacts of improper grazing to grassland habitats. The citations provided by the Petitioners that are specific to Utah prairie dogs indicate that there was historical loss of Utah prairie dog habitats due to improper grazing, and some site-specific reductions in habitat quality, particularly at translocation sites (McDonald 1993, pp. 16–17). However, information in the petition and in our files fails to indicate that grazing negatively impacts Utah prairie dogs to the extent that uplisting to endangered status may be warranted.

We agree that improperly managed grazing regimes can have negative effects on Utah prairie dogs and their habitat, including decreased habitat quality and decreased vegetation diversity (Collier and Spillett 1973, p. 86; McDonald 1993, p. 16). Overgrazing can decrease forage availability, potentially increase Utah prairie dog foraging time, and consequently decrease vigilance and survivorship (Ritchie 1998, p. 9; Cheng and Ritchie 2006, pp. 550–551). Improperly grazed lands resulting in lowered plant diversity can be vulnerable to greater amounts of invasive plant species. Invasive plant species, such as cheatgrass, create an altered fire regime, increasing the amount of fire and further reducing native grasses and shrubs (Masters and Sheley 2001, p. 503). The resultant decreased plant diversity can impact Utah prairie dog weight gain and survival, particularly during drought conditions (Ritchie 1998, p. 9). Invasive species, cheatgrass in particular, occur throughout the range of the Utah prairie dog. However,

since our 2007 finding, the Bureau of Land Management (BLM) has released revised Resource Management Plans concluding cheatgrass monocultures are generally localized as a result of habitat perturbations (BLM 2008a, pp. 3–34). We conclude that while invasive species may impact Utah prairie dog habitat on a site-specific basis, information provided by the Petitioners and in our files does not indicate that invasive species may threaten the Utah prairie dog across the species' range to the point that uplisting to endangered status may be warranted.

We further agree that overgrazing in swale habitats historically led to erosion and reduced the amount of moisture available for grasses and forbs (Crocker-Bedford and Spillett 1981, p. 22). However, the Petitioners provided no information regarding the current level of swale and riparian habitat degradation from livestock grazing in Utah prairie dog habitats, and we have no information in our files showing that this is a long-term or rangewide concern.

We agree that soil characteristics are an important factor in the location of Utah prairie dog colonies (Collier 1975, pp. 52–53; Turner 1979, p. 51; McDonald 1993, p. 9). The petitioners provided ample information on how livestock grazing reduces soil crusts. However, information provided by the Petitioners and in our files does not indicate that the loss of soil crusts has had any impact on the Utah prairie dog.

We have information in our files that demonstrates that livestock grazing also can have beneficial effects on Utah prairie dogs. For example, in properly managed, grazed

habitats, there is higher quality vegetation and a greater amount of nutrient-rich young shoots (Cheng and Ritchie 2006, p. 554). Livestock grazing in early spring, fall, and winter is generally beneficial to Utah prairie dogs because it reduces horizontal cover, which allows animals to spend less time looking for predators (Ritchie and Brown 2005, p. 15). Prescribed rotational grazing may help to maintain suitable vegetation height for Utah prairie dogs, especially in highly productive sites like irrigated pastures or where shrub invasion has occurred (Ritchie and Cheng 2001, p. 2). Other studies suggest that prairie dog density is positively correlated with heavy grazing, which simulates the shortgrass environment preferred by prairie dogs (Coppock *et al.* 1983, p. 7; Holland *et al.* 1992, p. 686; Marsh 1984, p. 203; Fagerstone and Ramey 1996, pp. 88, 92; Slobodchikoff *et al.* 1988, p. 406). Even so, tall vegetation is more common in Gunnison and Utah prairie dog colonies than in black-tailed prairie dog colonies (Hoogland 2003, p. 239). Utah prairie dogs use this taller vegetation as hiding cover. Because Utah prairie dogs use habitats with a shrub component, the UPDRIT revised the Utah prairie dog vegetation guidelines to include a higher percentage of shrubs (UPDRIT 2006, p. 1). This supports our conclusion that there is not substantial information in the petition and in our files suggesting that livestock grazing and shrub encroachment negatively impact the Utah prairie dog to the extent that uplisting to endangered status may be warranted.

In summary, we agree with the Petitioners that livestock grazing can be a threat to the Utah prairie dog, particularly in site-specific areas where improper grazing negatively affects habitat conditions. We have previously acknowledged this threat, most recently in our Draft Revised Recovery Plan (Service 2010, pp. 1.7-3 to 1.7-4). However, neither

the Petitioners' information nor information in our files supports the assertion that grazing is endangering the Utah prairie dog with extinction, especially given that Utah prairie dog populations are stable to increasing rangewide (see Figure 1 above) (UDWR 2005, entire; UDWR 2010a, entire).

Road Construction, Off-Highway Vehicle Use, and Recreation

We acknowledge that direct mortality of prairie dogs occurs on roads. We also acknowledge that OHV use and other types of recreational use, including recreational infrastructure development, has occurred in Utah prairie dog habitat, resulting in habitat loss and possibly, in the instance of the Three Peaks colony, extirpation of the colony (Service 2005a, p. 5).

In our 90-day finding in 2007, we concluded that the impacts of roads and OHV use were limited to localized areas and did not result in population-level effects (72 FR 7843). Since 2007, we have evaluated additional information regarding OHV use across the species' range. We find that there is an increased planning effort on Federal lands toward directing OHV use to designated trails or play areas, and consequently away from Utah prairie dog habitats (Service 2010, p. 1.7-4). Currently, all of the USFS districts and two of the three BLM field offices within the range of the species include off-road travel restrictions in their land use plans. For example, the Dixie and Fishlake National Forests prohibit cross-country vehicle travel forest wide (U.S. Department of Agriculture (USDA) 2006, p. 16; USDA 2009, p. 2). Almost the entire Richfield BLM district is

either closed to OHV use or limited to designated routes (BLM 2008b, pp. 52–55). The Kanab BLM Resource Management Plan includes a conservation measure to preclude cross-country motorized use in occupied or inactive Utah prairie dog colonies (BLM 2008c, p. 62).

In summary, we do not have substantial information suggesting that the localized impacts of roads and OHV recreational use result in population-level effects. In addition, the majority of existing land use plans across the range of the Utah prairie dog restrict off-road recreational use in order to avoid or minimize impacts to prairie dog habitat. Therefore, we conclude that the Petitioners do not provide substantial information—and we do not have information in our files—that indicates that threats from roads and OHV recreational use may warrant reclassification of the Utah prairie dog from threatened to endangered.

Oil, Gas, and Mineral Development and Seismic Exploration

We are aware that oil and gas leasing is occurring within the range of the Utah prairie dog. In our 2007 90-day finding, we stated that there was no scientific or commercial information either in the petition or in our files that quantified the extent of these activities in occupied Utah prairie dog habitat. Since our 2007 90-day finding, the USFS completed a biological assessment for their Oil and Gas Leasing Environmental Impact Statement and determined that no Utah prairie dog habitat will be impacted by development or production activities due to a no-surface-occupancy stipulation (USFS

2010, p. 22). This stipulation prohibits occupancy or disturbance on the lease parcel ground surface and, therefore, oil and gas resources may only be accessed through use of directional drilling from sites outside the no-surface-occupancy area. Furthermore, using a geographic information system to analyze the overlap between Utah prairie dog recovery units and energy resources, we found there are very little coal bed methane and geothermal reserves within the range of the species (Idaho National Engineering and Environmental Laboratory 2003, p. 1; Energy Information Administration 2007, p. 1). In addition, there are no producing oil or gas wells within any of the three recovery units (Utah Division of Oil, Gas, and Mining 2009, p. 1). Based on the location of known reserves and the lack of producing oil and gas wells, we expect direct and indirect impacts from oil and gas development on Utah prairie dogs will be minor and localized.

Since publishing our 2007 90-day finding, we have completed programmatic consultations with the BLM and USFS regarding oil and gas development on lands they manage (BLM 2008b, pp. A11-18; USFS 2010, pp. 10–11). Through the consultation process, we worked with both agencies to develop a set of avoidance and minimization measures for Federal oil and gas leases within the range of the Utah prairie dog (BLM 2005, p. 8; BLM 2008b, pp. A11-18; BLM 2008c, pp. A3-9, A9-13 to A9-14; USFS 2010, pp. 10-11). These measures include prohibitions against surface disturbance within 0.8 km (0.5 mi)) of active Utah prairie dog colonies, and prohibitions against permanent disturbance within 0.8 km (0.5 mi) of potentially suitable, unoccupied Utah prairie dog habitat, as identified by UDWR (BLM 2005, p. 8; BLM 2008b, pp. A11-18; BLM 2008c, pp. A3-9, A0-13 to A9-14; USFS 2010, pp. 10–11). These measures are currently

attached to all BLM and USFS leases within the Utah prairie dog's range. We conclude that these measures avoid and minimize threats to the Utah prairie dog from oil and gas development.

We are aware that seismic exploration is occurring within the range of the Utah prairie dog. The USFS estimates that up to 48.6 ha (120 ac) of Utah prairie dog habitat on USFS land (less than 1 percent of the total available suitable habitat on USFS lands) may be affected by seismic surveys (USFS 2010, p. 22). We do not have similar estimates for BLM lands within Utah prairie dog habitat. However, given the lack of proven reserves and producing wells within any of the recovery units, we anticipate low levels of future seismic exploration on BLM lands. Furthermore, although the Petitioners cited studies that identified potential effects of seismic testing on Utah prairie dogs, these same studies concluded that any impact from seismic testing on Utah prairie dogs is negligible (Young and Sawyer 1981, p. 2; Menkens and Anderson 1985, p. 13). After evaluating the information provided by Petitioners and in our files, we conclude that threats from seismic exploration are localized and temporary.

In summary, we are aware that oil, gas, and mineral development and seismic exploration are occurring within the range of the Utah prairie dog. We agree that oil, gas, and mineral development can impact the species where it occurs—the Utah prairie dog is listed as a threatened species due to threats from a variety of human land use activities. However, there has been a low level of exploration and development to date, and projections for future exploration and development remain low for the majority of the

species' range (Service 2010, p. 1.7-6). In addition, the Federal land management agencies have committed to conservation measures that effectively avoid impacts in occupied or historically occupied Utah prairie dog habitats and minimize impacts in suitable habitats. Thus, we conclude that the Petitioners do not provide substantial information—and we do not have information in our files—that indicates that threats from oil, gas, and mineral development, and seismic exploration may threaten the Utah prairie dog to the point that uplisting it from threatened to endangered under the Act may be warranted.

Isolation and Fragmentation

We concur that the majority of existing Utah prairie dog colonies are small, numbering fewer than 200 individuals (UDWR 2005, entire), and that habitat loss from a variety of land use activities can result in increased isolation and fragmentation of prairie dog habitats. However, the studies presented by the Petitioners for black-tailed prairie dogs may not be directly applicable to the small size and isolation of Utah prairie dog colonies, particularly with respect to the species' response to plague (see *C. Disease or Predation* below). Plague is active across the landscape and, as a result, colonies tend to increase in numbers for a period of years, decline to very small numbers following a plague event, and then increase again (see *C. Disease or Predation* below). Although not explicitly discussed in our 2007 90-day finding, studies show that the lower density of white-tailed prairie dog colonies (compared to black-tailed or Gunnison's prairie dog colonies) may actually benefit that species by slowing plague transmission rates (Eskey

and Haas 1940, pp. 18–19; Cully 1993, p. 40; Cully and Williams 2001, p. 898). This benefit also may apply to Utah prairie dogs, which have similar colony sizes and densities to white-tailed prairie dogs (Service 2010, p. 1.7-7). Despite the fact that Utah prairie dog colonies tend to be small and dispersed across the landscape, their overall population trend is stable to increasing (see Figure 1, above). Therefore, we conclude that the Petitioners do not provide substantial information and we do not have information in our files that indicates that isolation and fragmentation may threaten the Utah prairie dog to the point that the species may warrant uplisting from threatened to endangered.

Summary of Factor A

In summary, we find that the information provided in the petition, as well as other information in our files, does not constitute substantial scientific or commercial information indicating that uplisting the Utah prairie dog from threatened to endangered under the Act may be warranted due to present or threatened destruction, modification, or curtailment of habitat. We agree that there are numerous human land-use threats to the species, including those presented in the Petition, such as urbanization; agricultural uses; livestock grazing; roads; OHV and other recreational uses; and oil, gas, and mineral development and seismic exploration. These threats may result in the loss, fragmentation, and isolation of prairie dog populations. These threats are the reason the Utah prairie dog remains listed as a threatened species. As stated in the **Background** section, a threatened species is defined as a species which is likely to become an

endangered species within the foreseeable future throughout all or a significant portion of its range, whereas an endangered species is a species which is currently in danger of extinction throughout all or a significant portion of its range. The information on threats discussed in Factor A indicates that the Utah prairie dog should continue to be listed as threatened. Many of the claims cited by the Petitioners, and information in our files, indicate that most of the threats have largely localized impacts on specific Utah prairie dog colonies or complexes, particularly those impacts from livestock grazing; roads; OHV use; and oil, gas, and mineral development and seismic exploration. Therefore, we do not have substantial information indicating that the threats rise to the level at which they may put the species in current danger of extinction throughout all or a significant portion of its range.

Urbanization is one of the largest of the identified threats to the species (Service 2010, p. 1.8-4). For development to proceed, a section 10(a)(1)(B) permit and HCP with meaningful mitigation and compensation are required. In addition, the rangewide population of the Utah prairie dog is stable to increasing, indicating that ongoing threats are not having a negative effect on the recoverability of the species (see Figure 1 above). Thus, we have determined that the petition, as well as other information in our files, does not present substantial scientific or commercial information indicating that the present or threatened destruction, modification, or curtailment of habitat or range is a threat to the Utah prairie dog to the extent that uplisting from threatened to endangered under the Act may be warranted.

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

Information Provided in the Petition

The petition states that illegal shooting of Utah prairie dogs still occurs (Forest Guardians *et al.* 2003, pp. 94–98) and provides references to show that shooting can negatively affect prairie dogs in general through population reduction, decreased colony expansion rates, and changes in behavior (Reading *et al.* 1989, p. 19; Miller *et al.* 1993, p. 91; Vosburgh and Irby 1998, pp. 366–368).

Evaluation of Information Provided in the Petition and Available in Service Files

Because the Utah prairie dog is already a listed species, shooting is prohibited by the Act, except as provided for by the special 4(d) rule (see 50 CFR 17.40(g) and *D. Inadequacy of Existing Regulatory Mechanisms* below). Therefore, we conclude that many of the Petitioners' citations regarding the effects of recreational or otherwise broad-scale shooting are not directly applicable to the Utah prairie dog. We acknowledge that isolated instances of shooting do occur, and that it is not feasible for UDWR and Federal land management agencies to patrol all colony locations on a routine basis. Since the fall of 2007, three poisoning incidents and one shooting incident occurred in the West Desert recovery unit. These unauthorized killings resulted in impacts to a few colonies, but these impacts did not extend to the population level (Bell 2008, pers. comm.).

No information is available in the petition or in our files to indicate that illegal shooting occurs on a broad-scale, rangewide basis such that it may significantly affect the species at the population level. Therefore, we conclude that the information provided in the petition, as well as other information in our files, does not present substantial scientific or commercial information indicating that uplisting from threatened to endangered under the Act may be warranted due to overutilization for commercial, recreational, scientific, or educational purposes.

C. Disease or Predation

Information Provided in the Petition

The Petitioners do not specifically identify predation as a threat to the Utah prairie dog. Predation is briefly mentioned by the petitioners as a component of the species ecology (Service 1991, p. 10); as a factor that results in mortality of translocated Utah prairie dogs (Service 1991, p. 13; UPDRIT 1997, p. 5); and as a factor that may increase due to overgrazing, road construction, and energy development (McDonald 1993, p. 6; Forest Guardians *et al.* 2003, pp. 58, 76, 83).

The Petitioners assert that sylvatic plague (*Yersinia pestis*), an exotic bacterial disease, is a significant threat to prairie dogs. They estimate that plague can result in 95 to 100 percent mortality in Gunnison prairie dog colonies (Barnes 1993, p. 33; Fitzgerald 1993, p. 52) and that recovery from plague in black-tailed prairie dog colonies is a slow

process (Knowles 1995, p. 41). In their discussion on isolation and fragmentation, the Petitioners also indicated that small, isolated colonies of black-tailed and Gunnison prairie dogs are more susceptible to local extirpation from factors such as sylvatic plague (Miller *et al.* 1994, 1996 in Forest Guardians *et al.* 2003, p. 90; Mulhern and Knowles 1995, p. 26; Wuerthner 1997, pp. 459, 464).

The Petitioners cite numerous instances of documented and suspected plague events occurring throughout the Utah prairie dog range (Service 1991, p. 12; McDonald 1996, pp. 8–10; Bonzo and Day 2000, pp. 11–14). They also cite ongoing research in Utah prairie dog habitat on plague mitigation through the use of insecticides to kill the fleas that carry the plague bacterium (Forest Guardians *et al.* 2003, p. 100). The Petitioners take the view that as long as plague is present in the ecosystem, the Utah prairie dog may not reach its recovery goals even if all other threat factors are removed (Forest Guardians *et al.* 2003, p. 100).

Evaluation of Information Provided in the Petition and Available in Service Files

In the 2007 90-day finding, we concluded that the Petitioners did not identify predation as a threat to the Utah prairie dog. We agree that predation can have adverse impacts on Utah prairie dogs in unnaturally fragmented colonies or at new translocation sites (Service 2010, p. 1.7-9). For example, badgers can disrupt a translocation site by digging up Utah prairie dogs that have not had a chance to fully develop a burrow system. However, predation is a natural component of healthy prairie dog populations

(Collier and Spillett 1972, p. 36; Service 2010, p. 1.7-9). Thus, we conclude that predation can be a localized threat to some Utah prairie dog colonies, but we have no information to indicate that predation places the species in danger of extinction.

We agree with the petitioners that plague is a threat to the Utah prairie dog; this threat is one of the primary reasons that the species is listed as threatened. Plague was identified as a threat to the species in the 1984 reclassification (49 FR 22330) rule and the 1991 Recovery Plan. In the Draft Revised Recovery Plan, plague is in the top tier of threats to the species and is considered to be a primary threat to the species' survival and conservation (Service 2010, p. 1.7-7). We discussed plague in our 2007 finding, and present updated information to consider in this finding.

We acknowledge that plague exists within all three Utah prairie dog recovery units; individual Utah prairie dog colonies are affected by the disease; and there is currently no mechanism available to prevent periodic plague events from reoccurring. However, we conclude that the Petitioners mischaracterized how plague spreads through Utah prairie dog colonies and, therefore, its effects on the species, by primarily relying on results from studies of Gunnison's and black-tailed prairie dogs. For example, as discussed under A. Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range, white-tailed and Utah prairie dog colonies are less dense and more widely dispersed than black-tailed or Gunnison prairie dog colonies. Studies of Gunnison's and black-tailed prairie dogs have shown that the higher density of their colonies contributes to plague transmission and subsequent mortality (Cully 1993, p. 40;

Cully and Williams 2001, p. 901). Therefore, the lower density of white-tailed and Utah prairie dog colonies may slow plague transmission rates and reduce the overall long-term impact of the disease (Cully 1993, p. 40; Cully and Williams 2001, p. 901).

Social and behavioral traits of the Utah prairie dogs also may reduce the transmission of plague. Utah prairie dogs are more behaviorally similar to white-tailed prairie dogs than black-tailed prairie dogs. White-tailed prairie dogs (and similarly, Utah prairie dogs) spend less time socializing than black-tailed or Gunnison prairie dogs; this characteristic appears to favor their long-term persistence in a plague environment (Biggins and Kosoy 2001, p. 64; 75 FR 30338). Hibernation by Utah and white-tailed prairie dogs also may reduce or delay plague transmission among individual animals (Barnes 1993, p. 34).

Since our 2007 finding, we have learned more about potential methods to minimize the impacts of plague. Deltamethrin and Pyreperm are two insecticides (“dust”) used to successfully control fleas on colonies of different prairie dog species, resulting in higher prairie dog survival rates (Seery *et al.* 2003, p. 721; Hoogland *et al.* 2004, p. 379; Biggins *et al.* in press 2009). Experimental vaccine-laden baits are being studied to determine their effectiveness in immunizing prairie dogs against plague; initial lab results showed high level of survival of black-tailed prairie dogs (Mencher *et al.* 2004, p. 5504; Roche *et al.* 2008, p. 935). A systemic flea control bait is being tested to reduce flea loads on Utah prairie dogs, the primary vector in spreading plague in prairie dogs (Poche *et al.* 2008, pp. 11, 31–32; Jachowski 2009, pp. 14–16, 19–22). Although

there are many ongoing efforts to mediate this threat to the Utah prairie dog, we do not yet know the long-term effectiveness of these plague-control methods, and thus do not rely on their potential success for our conclusions.

In summary, we acknowledge that plague is a threat to the Utah prairie dog. In fact, plague is one of the primary reasons the Utah prairie dog remains listed as a threatened species. However, as previously noted, Utah prairie dog population trends remain stable to increasing (see Figure 1 above) despite the long-term presence of plague in the environment. Thus, we find that the information provided in the petition, as well as other information in our files, does not present substantial scientific or commercial information indicating that uplisting from threatened to endangered under the Act may be warranted due to the effects of disease and predation.

D. Inadequacy of Existing Regulatory Mechanisms

Information Provided in the Petition

The Petitioners make several assertions regarding the inadequacy of existing regulatory mechanisms, specifically discussing: (1) Downlisting; (2) the special 4(d) rule; (3) the Recovery Plan and Interim Conservation Strategy; (4) Federal land management policies; and (5) section 10 HCPs.

Downlisting

The Petitioners state that there was little basis for UDWR to request that the species be delisted in 1984 and little basis for the Service to partially grant the request by downlisting the Utah prairie dog to threatened. The Petitioners base their conclusion largely on Utah prairie dog population trend data from 1976 to 1983. They conclude that the Service originally downlisted the Utah prairie dog in 1984 for political reasons, and that the species has suffered since that downlisting (Forest Guardians *et al.* 2003, p. 103).

Special 4(d) Rule

In those circumstances where the standard regulatory provisions under the Act may not be necessary or appropriate for a threatened species, the Secretary of the Department of the Interior has the discretion under section 4(d) of the Act to determine in a special rule those measures and prohibitions that are necessary and advisable for the conservation of that species. The Petitioners evaluated the 1984 (49 FR 22330) and 1991 (56 FR 27438) special 4(d) rules for the Utah prairie dog. These special rules, as implemented by UDWR, authorize take of prairie dogs on agricultural lands. The Petitioners claim that, when considered cumulatively with threats such as translocation, habitat loss, and plague, the special 4(d) rule is likely harming the Utah prairie dog because of the species' low rate of reproduction (Hoogland 2001, pp. 918–924; Forest Guardians *et al.* 2003, p. 107).

Recovery Plan and Interim Conservation Strategy

The Petitioners assert that the Utah Prairie Dog Recovery Plan contributes to declines of the Utah prairie dog. They believe that the Recovery Plan's scientific basis is in error, with specific respect to prairie dog litter sizes; that the recovery goal is too low; that the emphasis in the plan on translocations is flawed; that there is a lack of adequate staff and funding resources; and that the Recovery Plan neglects conservation of Utah prairie dogs on private lands (Forest Guardians *et al.* 2003, pp. 108–114, 147). They further discuss control authorized under the special 4(d) rule as a fundamental concern of the Recovery Plan (see Special 4(d) Rule above). The Petitioners also state that the Interim Conservation Strategy failed in adequately addressing threats such as plague and livestock grazing (see *A. Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range* above) (Forest Guardians *et al.* 2003, pp. 115–119).

Federal Land Management Policies

The Petitioners state that Federal land management policies contribute to the imperiled status of the Utah prairie dog (Forest Guardians *et al.* 2003, pp. 119–139). The Petitioners express concern regarding Animal and Plant Health Inspection Service (APHIS)–Wildlife Services' policies on grasshopper control and control of Utah prairie dogs. They conclude that livestock allotments on the BLM and USFS lands do not meet the recommended Interim Conservation Strategy vegetation guidelines (Forest Guardians *et al.* 2003, pp. 120–122). They also conclude that noxious weeds are a significant problem in all BLM management areas (Forest Guardians *et al.* 2003, pp. 123–124). The

Petitioners assert that BLM believes that Utah prairie dogs will tolerate economic activity such as mineral extraction (Forest Guardians *et al.* 2003, p. 129), citing a 1997 BLM management plan. Finally, the Petitioners conclude that translocations of prairie dogs to Federal lands are not leading to increased Utah prairie dog populations and, therefore, should be considered a threat to the species.

Section 10 Habitat Conservation Plans

The Petitioners assert that existing HCPs undermine Utah prairie dog conservation efforts. They specifically discuss several small and large-scale (countywide) HCPs and associated permits, most of which were issued in the 1990s (Forest Guardians *et al.* 2003, pp. 150–161). The Petitioners conclude that the HCPs are flawed because they do not consider the cumulative impacts of incidental take, they do not include sufficient discussions of alternative actions, and they fail to implement mitigation.

Evaluation of Information Provided in the Petition and Available in Service Files

The inadequacy of existing regulatory mechanisms was not evaluated as a threat to the species in the 1973 listing (38 FR 14678, June 4, 1973), 1984 downlisting (49 FR 22330, May 29, 1984), or 1991 Recovery Plan. The Draft Revised Recovery Plan concludes that regulatory mechanisms are adequate to address the threats facing the Utah prairie dog with the species' threatened status under the Act (Service 2010, pp. 1.7-9 to

1.7-12).

Downlisting

In 1984, following a petition from UDWR to delist the Utah prairie dog, we analyzed the best available information regarding the species' population and threat factors, and determined that the species should be downlisted to threatened status (49 FR 22330). In our 2007 finding, we determined that there was not substantial information indicating that uplisting the Utah prairie dog to endangered may be warranted. Since our 2007 finding, we have reevaluated the population status and threats to the species. As previously described (see "Current Distribution and Abundance" section above), the Utah prairie dog population is considered to be stable to increasing on a rangewide basis and, therefore, we believe that the current status of the species as threatened, as opposed to being uplisted to endangered, is not placing the species in danger of extinction. Thus, we conclude that information regarding the effects of the species' regulatory status as threatened under the Act does not indicate that uplisting to endangered may be warranted.

Special 4(d) Rule

The special 4(d) rule (56 FR 27438, June 14, 1991) for Utah prairie dogs allows regulated take of Utah prairie dogs on private agricultural lands where damage from prairie dogs is observed (see *E. Other Natural or Manmade Factors Affecting the Continued Existence of the Species* below). Although the current 1991 rule exempts take

of up to 6,000 Utah prairie dogs annually, the actual number of prairie dogs taken during the period 1985–2009 did not exceed 1,760 animals annually (UDWR 2010c, entire). Since 1985, an average of 864 animals has been taken annually, representing an average of 2.5 percent, and never more than 5.3 percent, of the total rangewide estimated population (UDWR 2010c, entire). We have implemented the 4(d) rule for over 25 years, and Utah prairie dog populations continue to remain stable to increasing (see “Current Distribution and Abundance” section above), indicating that the special 4(d) rule is not placing the species in danger of extinction.

Recovery Plan and Interim Conservation Strategy

We agree that the 1991 Recovery Plan is in need of an update. In our 2007 90-day finding we indicated that efforts to revise the 1991 Recovery Plan were underway. Since the 2007 finding, we published a notice of availability for the Draft Revised Recovery Plan on September 17, 2010 (75 FR 57055); we expect to complete the revised Recovery Plan in 2011. This new plan updates and replaces both the 1991 Recovery Plan and Interim Conservation Strategy.

With respect to the Petitioners’ concerns, the Draft Revised Recovery Plan’s population recovery criteria are to achieve counts of 1,000 adult Utah prairie dogs in each recovery unit—this is a higher number than envisioned by the 1991 Recovery Plan and is based on current biological information regarding Utah prairie dog densities and reproductive rates (Service 2010, p. 3.1-7). The Draft Revised Recovery Plan still

envisions the use of translocations, enhanced by improved techniques, as an important component of Utah prairie dog recovery efforts (Service 2010, p. 2.3-4). However, the 2010 Draft Revised Recovery Plan places increased emphasis on protecting Utah prairie dogs on private lands where willing landowners may be interested (Service 2010, pp. 2.3-2 to 2.3-3). Although the Petitioners claim there was a lack of recovery efforts on private land, we have taken significant steps to conserve prairie dogs on private lands, including the use of the Safe Harbor Agreement (SHA) program, conservation easements, conservation banks, and the habitat credit and exchange program. We will briefly discuss each of these tools in the next several paragraphs.

The SHA program promotes voluntary agreements between the Service and private or other non-Federal property owners whose actions contribute to the recovery of Utah prairie dogs. Prior to our 2007 90-day finding, we entered into three SHAs covering 97 ha (240 ac) of occupied and unoccupied habitat within the Paunsaugunt and Awapa Plateau recovery units (Service 2005b, entire; Service 2005c, entire; Service 2006, entire). As of 2010, two more SHAs are in place with private landowners, covering an additional 400 ha (990 ac) of Utah prairie dog habitat. In addition, a rangewide programmatic SHA was completed in 2009, administered by Panoramaland Resource Conservation and Development Council (2009, entire) (Service 2010, p. 1.9-4), to help facilitate the completion of additional SHAs. The SHA program not only facilitates Utah prairie dog conservation efforts on private lands, but also increases the habitat that is actively managed for the species while the landowners are enrolled in the program.

Conservation banks, another recovery effort on private lands, are a means to collectively provide mitigation in an effective manner to offset the impacts of habitat loss. In our 2007 90-day finding, we discussed one approved conservation bank: The 2005 SITLA conservation bank located on Parker Mountain within the Awapa Plateau recovery unit and totaling approximately 307 ha (758 ac). Since then, a second conservation bank was approved in 2009 in the West Desert recovery unit: The Little Horse Valley conservation bank is an 89-ha (220-ac) parcel owned by Iron County (Service 2010, p. 1.9-5). Other conservation banks are in the initial stages of development (Service 2010, p. 1.9-5). Our Draft Revised Recovery Plan sets a goal of protecting 2,023 ha (5,000 ac) of occupied habitat in conservation banks within each recovery unit (Service 2010, p. 3.1-6). The SITLA and Little Horse Valley conservation banks alone represent 15 percent and 4 percent, respectively, of the protected habitat acreage goal in the Awapa and West Desert recovery units.

The Petitioners assert there is a lack of agency personnel and resources to implement the (1991) Recovery Plan and the Interim Conservation Strategy (Forest Guardians *et al.* 2003, p. 147); however, they do not quantify this assertion with any examples or information regarding how lack of personnel adversely affect the prairie dog. As government agencies, we are required to work within our allocated annual budgets. However, despite funding limitations, the Utah prairie dog recovery program is moving forward with several significant actions to further conservation of the species. For example, the BLM implements Utah prairie dog habitat management projects; supports

annual plague treatments; and conducts and funds plague, population, and habitat monitoring and research. The Dixie National Forest dusts Utah prairie dog colonies to reduce plague (over 295 ha (730 ac) were treated in 2009); conducts habitat improvement projects; and manages translocation sites (USFS 2009, entire). Bryce Canyon National Park implements habitat restoration projects; monitors for plague; and hosts Utah prairie dog research efforts. Additionally, the Park conducts outreach programs with local communities, including hosting the first Utah Prairie Dog Day in 2010. In summary, there have been major efforts made within the Utah prairie dog recovery program by all of the Federal agencies involved.

Overall, the Utah Prairie Dog Recovery Plan, and actions within the plan, are not contributing to declines of the Utah prairie dog. If anything, the 1991 Recovery Plan, Interim Conservation Strategy, and 2010 Draft Revised Recovery Plan show a clear progression in our understanding of Utah prairie dog ecology and our ability to address threats to the species. For example, we have improved in our understanding and ability to manage plague outbreaks. We continue to improve translocation techniques and success rates. In addition, we have increased our efforts to work with private landowners to conserve Utah prairie dog habitats. The species' long-term population trend is stable to increasing, indicating that recovery efforts by all of our partners are working to achieve the criteria set forth in the recovery plans.

Federal Land Management Policies

The Petitioners contend that Federal land management policies facilitate Utah prairie dog habitat loss and degradation (Forest Guardians *et al.* 2003, pp. 119–139). They primarily reference 1997 BLM land management plans, but do not provide any evidence that these policies have resulted in the decline of Utah prairie dogs to the point where the species should be listed as endangered. In addition, we concluded in A. Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range that the information provided by the petition and in our files does not indicate that threats from land use activities on these Federal lands rise to the level at which they may put the species in current danger of extinction throughout all or a significant portion of its range.

Because the Utah prairie dog is already listed as threatened, the Federal land management agencies (i.e., BLM, USFS, National Park Service (NPS)) review all proposed land use actions with the Service through consultation under section 7(a)(2) of the Act to ensure that actions will not jeopardize the species, and to minimize effects through implementation of conservation measures and terms and conditions. For example, the BLM and USFS are in the process of revising their land management plans. Through these revisions and associated section 7 consultation processes, the agencies are committed to conservation measures that protect Utah prairie dogs and their habitat from various land use activities (USFS 1986, pp. iv-20 to iv-21, iv-33; BLM 2008b, Appendices 10, 11, 14; BLM 2008c, p. 62, Appendices 1, 2, 9).

Similarly, we completed a programmatic consultation with APHIS–Wildlife Services under section 7 of the Act, to ensure that grasshopper control actions will not

have adverse effects on listed species, including Utah prairie dogs. The consultation contains required conservation measures to protect the species, including a 1.0-mi (1.6-km) buffer zone around occupied Utah prairie dog habitat (USDA 2005, p. 12).

While the Petitioners also are concerned with APHIS–Wildlife Services’ prairie dog control activities (Forest Guardians *et al.* 2003, pp. 140–145), we have received application for and approved only one permit to control Utah prairie dogs on private agricultural land adjacent to a parcel of land protected under a conservation easement. The approval of this permit will not endanger the Utah prairie dog because of its limited scope and the fact that the permitted take is limited to the number of animals that exceed the baseline population size.

The Petitioners are concerned that the Environmental Protection Agency’s labeling for toxicants and fumigants is not adequate for Utah prairie dog protection (Forest Guardians *et al.* 2003, p. 144); however, these chemicals are not registered for use on Utah prairie dogs. We do not currently allow toxicants or fumigants to be used as lethal control methods for Utah prairie dogs and no information exists in our files or in the petition indicating that use of these chemicals is occurring illegally other than in isolated instances.

All Federal agencies are obligated by section 7(a)(1) of the Act to use their authorities to conserve and recover listed species. Because the Utah prairie dog is a threatened species, section 7(a)(1) of the Act is applicable. The BLM, USFS, and NPS

are part of the Utah Prairie Dog Recovery Team and routinely conduct Utah prairie dog recovery efforts (see the “Recovery Plan and Interim Conservation Strategy” section above).

In summary, we agree that the Utah prairie dog is impacted by a variety of Federal land use activities, and that these are in part why the species is listed as threatened; however, as discussed in A. Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range above, these activities do not put the species in danger of extinction. Thus, we conclude that the information regarding the effects of Federal land management policies does not indicate that uplisting to endangered may be warranted.

Section 10 Habitat Conservation Plans

In our 2007 90-day finding, we discussed the Iron County HCP, the Garfield County HCP (never finalized), and an additional HCP (now called the Golf Course HCP) (finalized in 2007). In the section of this finding entitled A. Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range, we again conclude that the information regarding the effects of urban development and the associated HCPs does not indicate that uplisting to endangered may be warranted.

Summary of Factor D

Federal regulatory mechanisms apply in whole or in part to threats described in the sections discussing Factors A, B, C, and E. We conclude in this finding that we do not have substantial information from the Petitioners or in our files that indicates that those threats, as managed under current regulatory mechanisms, rise to the level that places the species in current danger of extinction. We have supplemented this section with new information since our 2007 90-day finding, and our evaluation continues to support our conclusion. Therefore, we find that the information provided in the petition, as well as other information in our files, does not present substantial scientific or commercial information indicating that uplisting from threatened to endangered under the Act may be warranted due to inadequate regulatory mechanisms.

E. Other Natural or Manmade Factors Affecting the Continued Existence of the Species

Information Provided in the Petition

The Petitioners state that rodent control efforts, the Utah prairie dog translocation program, and drought present significant threats to Utah prairie dogs. The petition cites legal take under the special 4(d) rule (50 CFR 17.40(g)) and ongoing illegal poisoning and shooting as endangering the species (Forest Guardians *et al.* 2003, pp. 161–162). In particular, the Petitioners point out that control of Utah prairie dogs under the special 4(d) rule has resulted in legal take of 14,002 prairie dogs (as of 2003) and suggest that annual take levels may be contributing to population declines (Forest Guardians *et al.* 2003, pp. 162–163). The petition alleges that any illegal poisoning that occurs increases the

magnitude of permitted take (Forest Guardians *et al.* 2003, p. 165). The petition calls the translocation program a failure, stating that translocations have not resulted in an increase of Utah prairie dog populations on public lands, and have resulted in a loss of animals on private lands (Forest Guardians *et al.* 2003, p. 166). The petition points out that many translocation sites do not meet Interim Conservation Strategy vegetation guidelines, and that Utah prairie dogs translocated to the Adams Well site have lost weight, thus making them less likely to survive through winter (Forest Guardians *et al.* 2003, pp. 170–184). The petition states that, although drought is a naturally occurring phenomenon, continuing livestock grazing during drought conditions exacerbates the effects of drought on Utah prairie dogs (McDonald 1993, pp. 16–17; Forest Guardians *et al.* 2003, p. 185).

Evaluation of Information Provided in the Petition and Available in Service Files

The threat addressed in the petition regarding the relationship of drought and livestock grazing regimes on Utah prairie dog habitat is discussed under A. Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range. We acknowledged that improper grazing can impact the species during drought conditions in site-specific areas, but the information presented by the Petitioners and in our files does not indicate that this warrants uplisting to endangered status. Illegal shooting is discussed under B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes. Legal take occurring in compliance with the special 4(d) rule (50 CFR 17.40(g)) is discussed under D. Inadequacy of Existing Regulatory Mechanisms. We concluded that these threats are all part of the reason that the species remains listed as

threatened; however, none of these factors rise to the level that places the Utah prairie dog currently in danger of extinction (see “Livestock Grazing” under “A., Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range”; see “Illegal shooting” under “B., Overutilization for Commercial, Recreational, Scientific, or Educational Purposes”; and see “Special 4(d) Rule” under “D., Inadequacy of Existing Regulatory Mechanisms”).

The translocation program is discussed in the next several paragraphs, including additional information evaluated since our 2007 90-day finding. Translocation of Utah prairie dogs is used to increase the numbers of prairie dog colonies in new locations across the species’ range. Translocation of Utah prairie dogs occurs within and between recovery units in part to address the species’ limited levels of genetic diversity (Service 1991, p. 19; Roberts *et al.* 2000, p. 45). Translocation efforts include habitat enhancement at selected translocation sites and live trapping of Utah prairie dogs from existing colonies to move them to the selected translocation sites.

We acknowledge that the translocation program was historically not as successful as predicted. As translocation methodology has improved (Jacquart *et al.* 1986, pp. 54–55; Coffeen 1989, p. 7; Truett *et al.* 2001, pp. 868–869), so has our success rate (Service 2010, pp. 1.9-1 to 1.9-3). For example, 12 of 15 (80 percent) post-1986 translocation sites still had prairie dogs present in 1992, whereas only 5 of 23 (22 percent) of pre-1986 translocation sites were still occupied by prairie dogs in 1992. Furthermore, by 1992, post-1986 translocation sites had a significantly higher number of prairie dogs per site

(840 animals) versus pre-1986 translocation sites (157 animals). By 2008, 23,359 Utah prairie dogs had been translocated from private to public lands (McDonald 1993, p. 39; Table 4, p. 42; Bonzo and Day 2003, pp. 14–16; Brown pers. comm. 2009). As of 2009, 24 translocation sites were occupied: Four of 8 sites in the Awapa Plateau recovery unit; 6 of 8 sites in the Paunsaugunt recovery unit; and 14 of 20 sites in the West Desert recovery unit (Brown pers. comm. 2009) (these are not necessarily the same sites described in the 1980s and 1990s, as new translocation sites are sometimes developed while some old sites may no longer be in use). While translocation success and survival rates were historically low, they have improved over time and it is noteworthy that translocation has resulted in the establishment of new colonies.

The Service's 2006 Recommended Translocation Procedures define specific procedures for locating translocation sites, preparing the sites, live trapping, handling, transporting, releasing, monitoring, and managing animals (Service 2010, Appendix D). For example, current translocation procedures include restrictions on the timing of movements for certain age and sex categories (i.e., early translocation of males to aid in establishing burrows for subsequent females and juveniles released in late summer) (Jacquart 1986, p. 54). Supplemental food and water are used at new translocation sites to increase survival because increased energy expenditures are incurred during the trapping and transport process; increased stimuli of a new environment; increased burrowing activity upon release; and increased vigilance of newly released prairie dogs (Truett *et al.* 2001, p. 869). We also use retention cages to keep the newly translocated prairie dogs at the intended release areas and exclude predators (Truett *et al.* 2001, pp.

868–869). Furthermore, in an effort to minimize the potential for plague transmission between colonies, prairie dogs are not translocated into already-established colonies; animals are not captured and moved from any colonies where plague is suspected; all animals are treated with an insecticide called Deltamethrin (Delta dust) prior to release at translocation sites; and translocation colonies are provided additional treatments of Delta dust as needed. These safeguards appear to be further improving translocation success.

We conclude, based on the long-term stable-to-increasing Utah prairie dog rangewide population trends, that there is no indication that translocations have moved the species' trajectory toward endangerment, despite the mortality of individual animals. Overall, translocations have resulted in the establishment of new Utah prairie dog colonies on Federal lands. Translocations will continue to play an important role in recovery of the Utah prairie dog (Service 2010, p. 2.3-4). Thus, we find that the information provided in the petition, as well as other information in our files, does not present substantial scientific or commercial information indicating that uplisting from threatened to endangered under the Act may be warranted due to other natural or manmade factors affecting the species' continued existence.

Finding

In summary, we agree with the Petitioners' overall identification of threats to the Utah prairie dog. Our 2010 Draft Revised Recovery Plan identifies all of the threats raised by the petitioners, concluding that urbanization and plague remain the top-tier

threats to the species (Service 2010, pp. 2.3-1 to 2.3-2). However, the petition does not present substantial information indicating that the level of threats to the species may place the Utah prairie dog in current danger of extinction. Long-term population trends since the downlisting of Utah prairie dog in 1984 remain stable to increasing, indicating that the threats, while they still exist, are not negatively changing the population trends. In addition, the species is already listed as threatened under the Act, and is already subject to, and receives protection from, the regulatory mechanisms of the Act. As stated in the “Background” section, a threatened species is defined as a species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The level of threats facing Utah prairie dogs indicates that the species should continue to be listed as threatened. This decision is consistent with our original “not substantial” determination when we first evaluated and presented our findings in 2007 (72 FR 7843).

Additional Findings in Compliance with Court Order

On September 28, 2010, the U.S. District Court for the District of Columbia ordered the 2007 90-day finding to be vacated and remanded to the Service for two reasons:

(1) The Service failed to explain how the reduction in the Utah prairie dog’s historical range did not indicate that reclassifying the species as endangered may be warranted, and failed to explain how the reduction in the Utah prairie dog’s historical

range does not constitute a “significant portion of the species’ range.”

(2) The Service failed to explain whether the listing factors’ cumulative effect indicates that reclassifying the Utah prairie dog as endangered may be warranted.

The following sections are incorporated into this 90-day finding in order to comply with the Court’s order. Below we explain our listing process, outline the information provided in the petition, evaluate the information in the petition and available in our files, discuss our interpretation of both “significant portion of the range” and “cumulative effect,” and summarize our findings on these topics.

Significant Portion of the Range

Section 4(b)(3)(A) of the Act (16 U.S.C. 1531 *et seq.*) requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition, and publish our notice of this finding promptly in the **Federal Register**.

Section 4(b)(3)(B) of the Act requires that, for any petition that is found to

contain substantial scientific or commercial information that listing or reclassifying the species may be warranted, we conduct a status review and make a finding within 12 months of the date of receipt of the petition. In the 12-month finding, we determine whether the petitioned action is: (1) Not warranted, (2) warranted, or (3) warranted but precluded by other pending proposals to determine whether species are threatened or endangered, and expeditious progress is being made to add or remove qualified species from the Federal Lists of Endangered and Threatened Wildlife and Plants. We must publish these 12-month findings in the **Federal Register**.

At the 12-month finding stage, we consider the five factors in assessing whether a petitioned entity is threatened or endangered throughout all of its range. If we determine that the petitioned entity does not meet the definition of a threatened or endangered species throughout all of its range, we must next consider in the 12-month finding whether there are any significant portions of the range where the petitioned entity is in danger of extinction or is likely to become endangered in the foreseeable future.

A portion of a species' range is significant if it is part of the current range of the species and it contributes substantially to the representation, resiliency, or redundancy of the species. The contribution must be at a level such that its loss would result in a decrease in the ability to conserve the species.

In determining whether a species is threatened or endangered in a significant portion of its range, we first identify any portions of the current range of the species that

warrant further consideration. The range of a species can theoretically be divided into portions an infinite number of ways. However, there is no purpose to analyzing portions of the range that are not reasonably likely to be significant and threatened or endangered. To identify only those portions that warrant further consideration, we determine whether there is substantial information indicating that: (1) the portions may be significant and (2) the species may be currently in danger of extinction. In practice, a key part of this analysis is whether the threats are geographically concentrated in some way. If the threats to the species are essentially uniform throughout its range, no portion is likely to warrant further consideration. Moreover, if any concentration of threats applies only to portions of the species' range that are not significant, such portions will not warrant further consideration.

If we identify portions that warrant further consideration, we then determine whether the species is threatened or endangered in these portions of its range. Depending on the biology of the species, its range, and the threats it faces, the Service may address either the significance question or the status question first. Thus, if the Service considers significance first and determines that a portion of the range is not significant, the Service need not determine whether the species is threatened or endangered there. Likewise, if the Service considers status first and determines that the species is not threatened or endangered in a portion of its range, the Service need not determine if that portion is significant.

The above description outlines our usual process for considering significant

portions of the range in 12-month findings. To comply with the Court’s order to explain both how the reduction in the Utah prairie dog’s historical range does not constitute a “significant portion of the species” range, and how the reduction in the Utah prairie dog’s historical range does not indicate that reclassifying the species as endangered may be warranted, we include the following evaluation.

Information Provided in the Petition

The Petitioners assert that the Utah prairie dog should be reclassified as endangered within its historical range (Forest Guardians *et al.* 2003, p. 1). As noted in our discussion under A. Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range, they cite that the historical area of the species declined 98.4 percent (Forest Guardians *et al.* 2003, p. 2). The Petitioners also state that Utah prairie dog populations decreased from 95,000 individuals historically to a count of 4,217 in 2001. The Petitioners note that the species’ distribution was much larger prior to the poisoning campaigns in the 1900s (Forest Guardians *et al.* 2003, p. 16), and was then further impacted in the 1960s—resulting in the species’ extirpation from significant portions of their historical range (Forest Guardians *et al.* 2003, p. 17). They further assert that these reductions in range continue to occur (Forest Guardians *et al.* 2003, p. 4).

Evaluation of Information Provided in the Petition and Available in Service Files

When analyzing whether a portion of a species’ range is significant, we examine

the current status of a species, which necessitates examining the species in its current range. Lost historical range, by itself, cannot comprise a significant portion of a species' range as we define it (above) based on our current practice, but is relevant to the analysis of the current and future viability of the species. Therefore, we cannot list a species based merely on the fact that it has lost historical range (however large that loss might be). However, the effect of lost historical range on the viability of the species could potentially prompt us to list a species because the loss of historical range has made the species vulnerable to the point that the entire species is at risk of extinction. In this case, we are not considering listing (or reclassifying) a species based on whether or not it is "endangered" or "threatened" in its lost historical range, but based on whether it is "endangered" or "threatened" throughout its current range because that loss of historical range is so substantial that it undermines the viability of the species as it exists today.

We acknowledge that historical Utah prairie dog habitat was lost; this factor was considered in our May 29, 1984, reclassification of the species from endangered to threatened (49 FR 22330) and in the Draft Revised Recovery Plan (Service 2010, p. 1.3-1). The primary reason for the reduction in historical range was widespread Utah prairie dog poisoning and shooting campaigns (Service 2010, p. 1.3-1); however, these poisoning campaigns are no longer active.

Today, although the species' range is reduced from historical times, the species' long-term (since 1976) population trend is considered stable to increasing (Figure 1) (UDWR 2010a, entire). Thus, we conclude that the viability of the remaining population

is not compromised to the point that the species is currently in danger of extinction.

Both the 1991 Recovery Plan and the Draft Revised Recovery Plan for Utah prairie dog support this justification (Service 2010, pp. 3.2-7 to 3.2-8). In the Draft Revised Recovery Plan, we considered the species' historical range, current range, and recovery needs. Our designation of three recovery units within the species' current range is based on the conservation concepts of representation, redundancy, and resiliency (Service 2010, pp. 3.2-7 to 3.2-8). These recovery units are individually necessary to conserve the genetic, demographic, and ecological diversity necessary for the long-term sustainability of Utah prairie dogs.

However, neither the 1991 Recovery Plan nor the Draft Revised Recovery Plan indicates that achieving Utah prairie dog recovery will require their lost historical range (i.e., areas outside of the three designated recovery units) to be repopulated. In addition, because widespread Utah prairie dog poisoning campaigns no longer occur in the species' habitat, we do not anticipate similar future losses of prairie dog populations. Thus, we conclude that the reduction of the Utah prairie dog's historical range has not made the species vulnerable to the point that the entire species may be currently in danger of extinction.

In summary, the U.S. District Court for the District of Columbia asked us to explain how the reduction in the Utah prairie dog's historical range does not constitute a "significant portion of the species' range," and how the reduction in the Utah prairie

dog's historical range does not indicate that reclassifying the species as endangered may be warranted. As discussed above, for the purpose of giving meaning to "significant portion of the range" in the context of a listing determination, we consider a portion of the species range to be significant if it is part of the current range of the species and it contributes substantially to the representation, resiliency, or redundancy of the species. The Utah prairie dog's lost historical range is not a portion of the species' current range, does not describe the status of the species where and as it exists at the time of our listing determination, and, as such, does not contribute to the representation, resiliency, and redundancy of the species that we consider when making a listing determination. Therefore, the Utah prairie dog's lost historical range does not constitute a "significant portion of the range." Further, as previously explained, we have determined that the reduction in the Utah prairie dog's historical range does not indicate that reclassifying the species as endangered may be warranted, because we believe that the effects of the loss of historical range of the species does not place it in danger of extinction such that reclassifying the Utah prairie dog from threatened to endangered may be warranted.

Cumulative Effects of Listing Factors

Information Provided in the Petition

The Petitioners assert that Utah prairie dog viability is cumulatively impacted by all five of the listing factors. They state that activities such as destruction and degradation of private and public lands, inadequate habitat conservation planning, illegal

shooting and poisoning, an ineffective translocation program, and plague cumulatively impact Utah prairie dog persistence and, therefore, necessitate the reclassification of the species from threatened to endangered (Forest Guardians *et al.* 2003, p. 186).

Evaluation of Information Provided in the Petition and Available in Service Files

We acknowledge that the Utah prairie dog is threatened by several factors, most notably habitat loss and degradation from urbanization, and plague (Service 2010, p. 1.8-3). Ongoing threats, as described in the discussion of Factors A through E, include livestock grazing, road construction, OHV and recreational use, habitat loss from agricultural and urban land conversions, illegal shooting, and plague. The species is listed as threatened because of these factors.

Throughout this finding, we clearly identified the effects of each of these factors to the Utah prairie dog. In many cases, we identified that the effects are often localized to specific areas within the species' range. For example, the threat of urbanization is greatest in the West Desert recovery unit (see "Habitat Loss from Agricultural and Urban Land Conversion" under "A., Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range"); albeit it is one of the largest overall threats to the species. Livestock grazing can be a threat to the species in site-specific areas where improper grazing negatively affects habitat conditions (see "Livestock Grazing" under "A., Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range"). Road construction, OHV use, and recreation may have effects to individuals or

colonies that occur adjacent to the roadways, trails, or play areas; however, these are localized areas and do not result in population-level effects (see “Road Construction, Off-Highway Vehicle Use, and Recreation” under “A., Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range”). Furthermore, there is an increased planning effort on Federal lands toward directing these activities away from Utah prairie dog habitats (Service 2010, p. 1.7-4). Existing and anticipated oil and gas development occurs on only a small percentage of the species habitat, and even then effects are minimized by Federal minimization and mitigation requirements that avoid impacts to suitable prairie dog habitats (see “Oil, Gas, and Mineral Development” under “A., Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range”). Illegal shooting occurs in some instances, but we have only documented isolated incidents. Illegal shooting is not widespread across the species’ range (see “B., Overutilization for Commercial, Recreational, Scientific, or Educational Purposes”). Similarly, predation is a natural occurrence in Utah prairie dog colonies. Effects are normally realized in only isolated instances at highly fragmented colonies or at new translocation sites (see “C., Disease or Predation”).

We determined that none of these threats, by themselves, act to place the species in current danger of extinction. Although most of the threats we analyzed have localized distributions, it is possible that more than one threat may act together to cause the local reduction or extirpation of a colony. However, at a rangewide level, Utah prairie dog population trends are stable to increasing, indicating that the factors identified above, both individually and cumulatively, have no broad-scale effects that threaten the species

to the extent that it is currently in danger of extinction.

Plague occurs across the species' entire range, and could certainly act cumulatively with other threat factors to cause individual colonies to be reduced in size or extirpated (see "C., Disease or Predation"). For example, if habitat is degraded from overgrazing or wildfire, it may hinder the ability of prairie dogs to reestablish a colony that is reduced or eliminated by plague.

However, despite the fact that plague and the other threats to the species have occurred for decades, and sometimes act cumulatively to affect individual colonies or complexes, the population trend of the Utah prairie dog remains stable to increasing across the species' range. Therefore, we conclude that the cumulative effects of these factors do not threaten the species to the extent that reclassifying the species from threatened to endangered may be warranted.

On the basis of our determination under section 4(b)(3)(A) of the Act, we conclude that the petition does not present substantial scientific or commercial information to indicate that reclassifying the Utah prairie dog (*Cynomys parvidens*) under the Act as an endangered species may be warranted at this time. Although we will not review the status of the species at this time, we encourage interested parties to continue to gather data that will assist with the conservation of the Utah prairie dog. If you wish to provide information regarding the Utah prairie dog, you may submit your information or materials to the Field Supervisor, Utah Ecological Services Field Office (see

ADDRESSES), at any time.

References Cited

A complete list of references cited is available on the Internet at <http://www.regulations.gov> and upon request from the Utah Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this document are the staff members of the Utah Ecological Services Field Office (see **ADDRESSES**). The primary authors of the 90-day finding published on February 21, 2007, were the staff members of both the Utah Ecological Services Field Office and the Colorado Ecological Services Field Office.

Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: June 7, 2011

/s/ Rowan W. Gould

Acting Director, U.S. Fish and Wildlife Service

~~[Endangered and Threatened Wildlife and Plants; Revised 90-Day Finding on a Petition to Reclassify the Utah Prairie Dog from Threatened to Endangered]~~

Billing Code 4310-55

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