public comment period ends on April 8, 2011.

Ynette R. Shelkin,

Editor, Defense Acquisition Regulations System.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2010–0028; MO 92210–0–0008]

Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List the Mt. Charleston Blue Butterfly as Endangered or Threatened

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 12-month petition finding.

SUMMARY: We, the Fish and Wildlife Service (Service), announce a 12-month finding on a petition to list the Mt. Charleston blue butterfly (*Plebejus shasta charlestonensis*) (formerly in genus *Icaricia*) as endangered or threatened under the Endangered Species Act of 1973, as amended. After review of all available scientific and commercial information, we find that listing the Mt. Charleston blue butterfly is warranted. Currently, however, listing of the Mt. Charleston blue is precluded by higher priority actions to amend the Lists of Endangered and Threatened Wildlife and Plants. Upon publication of this 12-month petition finding, we will add the Mt. Charleston blue butterfly to our candidate species list. If an emergency situation develops with this subspecies that warrants an emergency listing, we will act immediately to provide additional protection. We will develop a proposed rule to list this subspecies as our priorities allow. We will make any determination on critical habitat during development of the proposed listing rule.

DATES: The finding announced in the document was made on March 8, 2011.

ADDRESSES: This finding is available on the Internet at *http://www.regulations.gov* at Docket Number FWS–R8–ES–2010–0028 and at *http://www.fws.gov/nevada.* 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, Nevada Fish and Wildlife Office, 4701 North Torrey Pines Drive, Las Vegas, NV 89130. Please submit any new information, materials, comments, or questions concerning this finding to the above street address.

FOR FURTHER INFORMATION CONTACT: Jill Ralston, Deputy Field Supervisor, Nevada Fish and Wildlife Office (*see* **ADDRESSES**); by telephone at (702) 515–5230; or by facsimile at (702) 515–5231. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at (800) 877–8339.

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(B) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), requires that, for any petition containing substantial scientific or commercial information indicating that listing the species may be warranted, we make a finding within 12 months of the date of the receipt of the petition. In this finding, we determine that the petitioned action is: (a) Not warranted, (b) warranted, or (c) warranted, but the immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether species are endangered or threatened, and expeditious progress is being made to add or remove qualified species from the Federal Lists of Endangered and Threatened Wildlife and Plants. Section 4(b)(3)(C) of the Act requires that we treat a petition for which the requested action is found to be warranted but precluded as though resubmitted on the date of such finding, that is, requiring a subsequent finding to be made within 12 months. We must publish these 12-month findings in the **Federal Register**.

Previous Federal Actions

On October 20, 2005, we received a petition dated October 20, 2005, from The Urban Wildlands Group, Inc., requesting that we emergency list the Mt. Charleston blue butterfly (Mt. Charleston blue) (*Plebejus shasta charlestonensis*) (formerly in genus *Icaricia*) as an endangered or threatened species. In a letter dated April 20, 2006, we responded to the petitioner that our initial review did not indicate that an emergency situation existed, but that if conditions changed an emergency rule could be developed. On May 30, 2007, we published a 90-day petition finding (72 FR 29933) in which we concluded that the petition provided substantial information indicating that listing of the Mt. Charleston blue may be warranted, and we initiated a status review. On February 17, 2010, the Center for Biological Diversity filed a complaint in United States District Court, Eastern District of California, indicating that the Service failed to take required actions on seven separate petitions for listed species found throughout the western United States including the Mt. Charleston blue. *On April 26, 2010, CBD amended its complaint in Center for Biological Diversity* v. *Salazar, U.S. Fish and Wildlife Service, Case No.: 1:10–cv–230–PLF (D.D.C.), adding an allegation that the Service failed to issue its 12-month petition finding on the Mount Charleston blue butterfly within the mandatory statutory timeframe.* This notice constitutes the 12-month finding on the October 20, 2005, petition to list the Mt. Charleston blue as endangered or threatened.

Species Information

Taxonomy

The Mt. Charleston blue is a distinctive subspecies of the wider ranging Shasta blue butterfly (*Plebejus shasta*), which is a member of the Lycaenidae family. Pelham (2008, pp. 25–26) recognized seven subspecies of Shasta blue: *P. s. shasta, P. s. calchas, P. s. pallidissima, P. s. minnehaha, P. s. charlestonensis, P. s. pitkinensis,* and *P. s. platazul.* The Mt. Charleston blue is known only from the high elevations of the Spring Mountains, located approximately 25 miles (mi) (40 kilometers (km)) west of Las Vegas in Clark County, Nevada (Austin 1980, p. 20; Scott 1986, p. 410). The first mention of the Mt. Charleston blue as a unique taxon was in 1928 by Garth, who recognized it as distinct from the species Shasta blue (Austin 1980, p. 20). Howe, in 1975 (as cited in Austin 1980, p. 20), described specimens from the Spring Mountains as *P. s. shasta* form *comstocki.* However, in 1976, Ferris (as cited in Austin 1980, p. 20) placed the Mt. Charleston blue with the wider ranging Minnehaha blue subspecies. Finally, Austin asserted that Ferris had not included populations from the Sierra Nevada in his study, and that in light of the geographic isolation and distinctiveness of the Shasta blue population in the Spring Mountains and the presence of at least three other well-defined races of butterflies endemic to the area, it was appropriate to name this population as the individual subspecies Mt. Charleston blue (*P. s. charlestonensis*) (Austin 1980, p. 20). Our use of the genus name *Plebejus,* rather than the synonym *Icaricia,* reflects recent treatments of butterfly taxonomy (Opler and Warren 2003, p. 30; Pelham 2008, p. 265).

The wingspan of Shasta blue species is 0.75 to 1 inch (in) (19 to 26 millimeters (mm)) (Opler 1999, p. 251). Males and females of Shasta blue are dimorphic. The upperside of males is dark to dull iridescent blue, and females are brown with a blue overlay. The species has a discal black spot on the forewing and a row of submarginal black spots on the hindwing. The underside is gray, with a pattern of black spots, brown blotches, and pale wing veins to give it a mottled appearance. The underside of the hindwing has an inconspicuous band of submarginal metallic spots (Opler 1999, p. 251). Based on morphology, the Mt. Charleston blue appears to be most closely related to the Great Basin populations of Minnehaha blue (Austin 1980, p. 23) and can be distinguished from other Shasta blue subspecies by the presence of sharper and blacker post medial spots on the underside of the hindwing (Scott 1986, p. 410).

Biology

The Mt. Charleston blue is generally thought to diapause (a period of suspended growth or development similar to hibernation) at the base of its larval host plant, Torrey's milkvetch (*Astragalus calycosus var. calycosus*), or in the surrounding substrate. The pupae of some butterfly species are known to persist in diapause up to 5 to 7 years (Scott 1986, p. 28). The number of years the Mt. Charleston blue can remain in diapause is unknown. Local experts have speculated that the Mt. Charleston blue may only be able to diapause for one season. However, in response to unfavorable environmental conditions, it is hypothesized that a prolonged diapause period may be possible (Scott 1986, pp. 26–30; Murphy 2006, p. 1; Datasmiths 2007, p. 6; Boyd and Murphy 2008, p. 22).

The typical flight and breeding period for the butterfly is early July to mid-August with a peak in late July, although the subspecies has been observed as early as mid-June and as late as mid-September (Austin 1980, p. 22; Boyd and Austin 1999, p. 17; Forest Service 2006a, p. 9). As with most butterflies, the Mt. Charleston blue typically flies during sunny conditions, which are particularly important for this subspecies given the cooler air temperatures at high elevations (Weiss *et al.* 1997, p. 31). Excessive winds also deter flight of most butterflies, although Weiss *et al.* (1997, p. 31) speculate this may not be a significant factor for the Mt. Charleston blue given its low-to-the-ground flight pattern.

Like all butterfly species, both the phenology (timing) and number of Mt. Charleston blue individuals that emerge and fly to reproduce during a particular year are reliant on the combination of many environmental factors that may constitute a successful ("favorable") or unsuccessful ("poor") year for the subspecies. Other than observations by surveyors, little information is known regarding these aspects of the subspecies' biology, since the key determinants for the interactions among the butterfly's flight and breeding period, larval host plant, and environmental conditions have not been specifically studied. Observations indicate that above or below average precipitation, coupled with above or below average temperatures, influence the phenology of this subspecies (Weiss *et al.* 1997, pp. 2–3 and 32; Boyd and Austin 1999, p. 8) and are likely responsible for the fluctuation in population numbers from year to year (Weiss *et al.* 1997, pp. 2–3 and 31–32).

Most butterfly populations exist as regional metapopulations (groups of spatially separated populations that may function as single populations due to occasional interbreeding) (Murphy *et al.* 1990, p. 44). Boyd and Austin (1999, pp. 17 and 53) indicate this is true of the Mt. Charleston blue. Small habitat patches tend to support smaller butterfly populations that are frequently extirpated by events that are part of normal variation (Murphy *et al.* 1990, p. 44). Boyd and Austin (1999, p. 17) suggest smaller colonies of the Mt. Charleston blue may be ephemeral in the long term, with the larger colonies of the subspecies more likely than smaller populations to persist in "poor" years, when environmental conditions do not support the emergence, flight, and reproduction of individuals. The ability of the Mt. Charleston blue to move between habitat patches has not been studied; however, field observations suggest the subspecies has low vagility (capacity or tendency of a species to move about or disperse in a given environment), on the order of 10 to 100 meters (m) (33 to 330 feet (ft)) (Weiss *et al.* 1995, p. 9), and nearly sedentary behavior (Datasmiths 2007, p. 21; Boyd and Murphy 2008, pp. 3 and 9). Furthermore, dispersal of lycaenid butterflies, in general, is limited and on the order of hundreds of meters (Cushman and Murphy 1993, p. 40). Based on this information, the likelihood of long-distance dispersal is low for the Mt. Charleston blue.

Habitat

Weiss *et al.* (1997, pp. 10–11) describe the natural habitat for the Mt. Charleston blue butterfly as relatively flat ridgelines above 2,500 m (8,200 ft), but isolated individuals have been observed as low as 2,000 m (6,600 ft). Boyd and Murphy (2008, p. 19) indicate that areas occupied by the subspecies feature exposed substrates with limited or no canopy cover or shading, and are on flats or mild slopes with moderate aspects. Like most butterfly species, the Mt. Charleston blue is dependent on plants both during larval development (larval host plants) and the adult butterfly flight period (nectar plants). The Mt. Charleston blue requires areas that support Torrey's milkvetch, the only known larval host plant for the subspecies (Weiss *et al.* 1994, p. 3; Weiss *et al.* 1997, p. 10; Datasmiths 2007, p. 21), as well as primary nectar plants. Torrey's milkvetch and Clokey fleabane (*Erigeron clokeyi*) are the primary nectar plants for the subspecies; however, butterflies have also been observed nectaring on Lemmon's bitterweed (*Hymenoxys lemmonii*) and *Aster* sp. (Weiss *et al.* 1994, p. 3; Boyd 2005, p. 1; Boyd and Murphy 2008, p. 9).

The best available habitat information relates mostly to the Mt. Charleston blue's larval host plant, with little to no information available characterizing the butterfly's interactions with its known nectar plants or other elements of its habitat; thus, the habitat information discussed in this document centers on Torrey's milkvetch. Studies are currently underway to better understand the habitat requirements and preferences of the Mt. Charleston blue (Thompson and Garrett 2010, p. 2; Pinyon 2010a, p. 1). Torrey's milkvetch is a small, low-growing, perennial herb that grows in open areas between 5,000 to 10,800 ft (1,520 to 3,290 m) in subalpine, bristlecone, and mixed-conifer vegetation communities of the Spring Mountains. Within the alpine and subalpine range of the Mt. Charleston blue, Weiss *et al.* (1997, p. 10) observed the highest densities of Torrey's milkvetch in exposed areas and within canopy openings and lower densities in forested areas.

Weiss *et al.* (1997, p. 31) describe favorable habitat for the Mt. Charleston blue as having high densities (more than 10 plants per square meter) of Torrey's milkvetch. Weiss *et al.* (1995, p. 5) and Datasmiths (2007, p. 21) suggest that in some areas butterfly habitat may be dependent on old or infrequent disturbances that create open areas. Vegetation cover within disturbed patches naturally becomes higher over time through natural succession, gradually becoming less favorable to the butterfly. Therefore, we conclude that open areas with relatively little grass cover and visible mineral soil and high

densities of host plants support the highest densities of butterflies (Boyd 2005, p. 1; Service 2006a, p. 1). During 1995, an especially high population year, Mt. Charleston blue were observed in small habitat patches and in open forested areas where Torrey's milkvetch was present in low densities, on the order of 1 to 5 plants per square meter (Weiss *et al.* 1997, p. 10; Newfields 2006, pp. 10 and C5). Therefore, areas with lower densities of the host plant may also be important to the subspecies, as these areas may be intermittently occupied or may be important for dispersal.

Fire suppression and other management practices have likely limited the formation of new habitat for the Mt. Charleston blue. The U.S. Forest Service (USFS) began suppressing fires on the Spring Mountains in 1910 (Entrix 2007, p. 111). Throughout the Spring Mountains, fire suppression has resulted in higher densities of trees and shrubs (Amell 2006, pp. 2–3) and a transition to a closed-canopy forest with shade-tolerant understory species (Entrix 2007, p. 112) that is generally less suitable for the Mt. Charleston blue. Boyd and Murphy (2008, pp. 23 and 25) hypothesized that the loss of presettlement vegetation structure over time has caused the Mt. Charleston blue's metapopulation dynamics to collapse in Upper Lee Canyon. Similar losses of suitable butterfly habitat in woodlands and their negative effect on butterfly populations have been documented (Thomas 1984, pp. 337–338). Natural landscape processes have been modified in the Spring Mountains. Now, the disturbed landscape at the Las Vegas Ski and Snowboard Resort (LVSSR) provides important habitat for the Mt. Charleston blue (The Urban Wildlands Group, Inc. 2005, p. 2). Periodic maintenance (removal of trees and shrubs) of the ski runs has effectively arrested forest succession on the ski slopes and serves to maintain conditions favorable to the Mt. Charleston blue, and to its host and nectar plants. However, the ski runs are not specifically managed to benefit habitat for this subspecies and operation activities regularly modify Mt. Charleston blue habitat or prevent host plants from reestablishing in disturbed areas.

Range and Current Distribution

Based on current and historical occurrences or locations documented in the petition or identified in the State of Nevada Natural Heritage Program database (The Urban Wildlands Group, Inc. 2005, pp. 1–3; Service 2006b, pp. 2–4), the geographic range of the Mt. Charleston blue is primarily on the east side of the Spring Mountains, centered on lands managed by the USFS in the Spring Mountains National Recreation Area of the Humboldt-Toiyabe National Forest within Upper Kyle and Lee Canyons, Clark County, Nevada. The majority of the occurrences or locations are in the Upper Lee Canyon area, while a few are in Upper Kyle Canyon. Table 1 lists the various locations of the Mt. Charleston blue that constitute the subspecies' current and historical range.

TABLE 1—LOCATIONS OR OCCURRENCES OF THE MT. CHARLESTON BLUE BUTTERFLY SINCE 1928 AND THE STATUS OF THE BUTTERFLY AT THE LOCATIONS

Location name	First/last time observed	Most recent survey year(s)	Status	Primary references
1. South Loop Trail, Upper Kyle Canyon.	1995/2010	2007, 2008, 2010	Known occupied, adults consistently observed.	NNHP 2007; Weiss *et al.* 1997; Kingsley 2007; Boyd 2006; Datasmiths 2007; SWCA 2008, Pinyon 2010a, Thompson and Garrett 2010.
2. LVSSR, Upper Lee Canyon	1963/2010	2007, 2008, 2010	Known occupied, adults consistently observed.	NNHP 2007; Weiss *et al.* 1994; Weiss *et al.* 1997; Boyd and Austin 2002; Boyd 2006; Newfields 2006; Datasmiths 2007; Boyd and Murphy 2008, Thompson and Garrett 2010.
3. Foxtail Upper Lee Canyon ...	1995/1998	2006, 2007	Presumed occupied, adults intermittently observed.	NNHP 2007; Boyd and Austin 1999; Boyd 2006; Datasmiths 2007.
4. Youth Camp, Upper Lee Canyon.	1995/1995	2006, 2007	Presumed occupied, adults intermittently observed.	Weiss *et al.* 1997; Boyd 2006; Datasmiths 2007.
5. Gary Abbott, Upper Lee Canyon.	1995/1995	2006, 2007	Presumed occupied, adults intermittently observed.	NNHP 2007; Weiss *et al.* 1997; Boyd 2006; Datasmiths 2007.
6. Lower LVSSR Parking, Upper Lee Canyon.	1995/2002	2007, 2008	Presumed occupied, adults intermittently observed.	Urban Wildlands Group, Inc. 2005; Weiss *et al.* 1997; Boyd 2006; Datasmiths 2007; Boyd and Murphy 2008.
7. Mummy Spring, Upper Kyle Canyon [1].	1995/1995	2006	Presumed occupied, adults intermittently observed.	NNHP 2007; Weiss *et al.* 1997; Boyd 2006.
8. Lee Meadows, Upper Lee Canyon.	1965/1995	2006, 2007	Presumed occupied, adults intermittently observed.	NNHP 2007; Weiss *et al.* 1997; Boyd 2006; Datasmiths 2007.
9. Bonanza Trail	1995/1995	2006, 2007	Presumed occupied	Weiss *et al.* 1997; Boyd 2006; Kingsley 2007.
10. Upper Lee Canyon holotype [1].	1963/1976	2006, 2007	Presumed extirpated	NNHP 2007; Weiss *et al.* 1997; Boyd 2006; Datasmiths 2007.
11. Cathedral Rock, Kyle Canyon.	1972/1972	2007	Presumed extirpated	NNHP 2007; Weiss *et al.* 1997; Datasmiths 2007.
12. Upper Kyle Canyon Ski Area [1].	1965/1972	1995	Presumed extirpated	NNHP 2007; Weiss *et al.* 1997.
13. Old Town, Kyle Canyon [2] ...	1970s	1995	Presumed extirpated	The Urban Wildlands Group, Inc. 2005.
14. Deer Creek, Kyle Canyon ..	1950	unknown	Presumed extirpated	NNHP 2007.
15. Willow Creek	1928	unknown	Presumed extirpated	NNHP 2007; Weiss *et al.* 1997, Thompson and Garrett 2010.

[1] Location is not mentioned in the petition.
[2] Location is not identified in the Nevada Natural Heritage Program database.

We presume that the Mt. Charleston blue is extirpated from a location when it has not been recorded at that location through formal surveys or informal observation for more than 20 years. We selected a 20-year time period because it would likely allow for local extirpation and recolonization events (metapopulation dynamics) to occur and would be enough time for succession or other vegetation shifts to render the habitat unsuitable (*see* discussion in "Biology" and "Habitat" sections above). Using this criterion, the Mt. Charleston blue is considered to be "presumed extirpated" from 6 of the 14 known locations (Locations 9–14 in Table 1) (The Urban Wildlands Group, Inc. 2005, pp. 1–3; Service 2006b, pp. 8–9). Of the remaining eight locations, six locations or occurrences are "presumed occupied" by the subspecies (Locations 3–8 in Table 1) (The Urban Wildlands Group, Inc. 2005, pp. 1–3; Service 2006b, pp. 7–8).

This category is defined as a location within the current known range of the subspecies where adults have been intermittently observed and there is a potential for diapausing larvae to be present. The butterfly likely exhibits metapopulation dynamics at these locations, where the subspecies is subject to local extirpation, with new individuals emigrating from nearby "known occupied" habitat, typically during years when environmental conditions are more favorable to emergence from diapause and the successful reproduction of individuals (*see* discussion in "Habitat" section above). At some of these presumed occupied locations (Locations 4, 5, 7, 8 and 9 in Table 1), the Mt. Charleston blue has not been recorded through formal surveys or informal observation since 1995 by Weiss *et al.* (1997, pp. 1–87). Currently, we consider the occurrence at Mummy Spring as presumed occupied; however, this location is not near known occupied habitat and may be extirpated.

We consider the remaining two Mt. Charleston blue locations or occurrences to be "known occupied" (Locations 1 and 2 in Table 1). The South Loop Trail location in Upper Kyle Canyon (Location 1 in Table 1) is considered known occupied because: (1) The butterfly was observed on the site in 1995, 2002, 2007, and 2010 (Service 2007, pp. 1–2; Kingsley 2007, p. 5; Pinyon 2010, pp. 1–2; Thompson and Garrett 2010, p. 5); and (2) the high quality of the habitat is in accordance with host plant densities of 10 plants per square meter as described in Weiss *et al.* (1997, p. 31; Kingsley 2007, pp. 5 and 10), and is in an area of relatively large size (18.7 acres (ac) (7.6 hectares (ha)) (SWCA 2008, pp. 2 and 5). The South Loop Trail area appears to be the most important remaining population area for the Mt. Charleston blue (Boyd and Murphy 2008, p. 21). The South Loop Trail runs along the ridgeline between Griffith Peak and Charleston Peak and is located within the Mt. Charleston Wilderness. This area was field mapped using a global positioning system unit and included the larval host plant, Torrey's milkvetch, as well as occurrences of two known nectar plants, Lemmon's bitterweed and Clokey fleabane (SWCA 2008, pp. 2 and 5). Adjacent to this "known occupied" habitat of 18.7 ac (7.6 ha) occurs approximately 40 ac (17 ha) of additional habitat containing Lemmon's bitterweed and Clokey fleabane, as well as a smaller patch of Torrey's milkvetch (1.6 ac) (0.65 ha) (SWCA 2008, pp. 2 and 5).

We consider LVSSR in Upper Lee Canyon (Location 2 in Table 1) to be "known occupied" because: (1) The butterfly was first recorded at LVSSR in 1963 (Austin 1980, p. 22) and has been consistently observed at LVSSR every year between 1995 and 2006 (with the exception of 1997 when no surveys were performed, and in recent years when the species was not observed) (Service 2007, pp. 1–2) and in 2010 (Thompson and Garrett 2010, p. 5); and (2) the ski runs contain two areas of high-quality butterfly habitat in accordance with host plant densities of 10 plants per square meter as described in Weiss *et al.* (1997, p. 31). These areas are LVSSR #1(2.4 ac (0.97 ha)) and LVSSR #2 (1.3 ac (0.53 ha)), which have been mapped using a global positioning system unit and field verified. Thus, across its current range, the Mt. Charleston blue is known to persistently occupy less than 22.4 ac (9.1 ha) of habitat.

Status and Trends

The Mt. Charleston blue has been characterized as particularly rare, but common in some years (Boyd and Austin 1999, p. 17; The Urban Wildlands Group, Inc. 2005, p. 2). The 1995 season was the last year the butterfly was present in high numbers. Variations in precipitation and temperature that affect both the Mt. Charleston blue and its larval host plant are likely responsible for the fluctuation in population numbers from year to year (Weiss *et al.* 1997, pp. 2–3 and 31–32). The total population of the Mt. Charleston blue is unknown. We do not have population estimates for the butterfly or specific information showing a change in numbers; however, it appears the population has declined since the last high-population year in 1995 (Murphy 2006, pp. 1–2).

Recent survey information indicates the Mt. Charleston blue population appears to be extremely low. In 2006, surveys within presumed occupied habitat at LVSSR located one individual butterfly adjacent to a pond that holds water for snowmaking (Newfields 2006, pp. 10, 13, and C5). In a later report, the accuracy of this observation was questioned and considered inaccurate (Newfields 2008, p. 27). In 2006, Boyd (2006, pp. 1–2) conducted focused surveys for the subspecies at nearly all previously known locations and within potential habitat along Griffith Peak, North Loop Trail, Bristlecone Trail, and South Bonanza Trail but did not observe the butterfly at any of these locations. In 2007, surveys were again conducted in previously known locations in Upper Lee Canyon and LVSSR, but no butterflies were recorded (Datasmiths 2007, p. 1; Newfields 2008, pp. 21–24). In 2007, two Mt. Charleston blue butterflies were sighted on different dates at the same location on the South Loop Trail in Upper Kyle Canyon (Kingsley 2007, p. 5). In 2008, butterflies were not observed during focused surveys of Upper Lee Canyon and the South Loop Trail (Boyd and Murphy 2008, pp. 1–3; Boyd 2008, p. 1; SWCA 2008, p. 6), although it is possible adult butterflies may have been missed on South Loop Trail because the surveys were performed very late in the season. No formal surveys were conducted in 2009; however, no individuals were seen during the few informal attempts made to observe the species.

Adults of the Mt. Charleston blue were most recently observed in 2010 in the South Loop Trail area and LVSSR. From reports of several adult surveys in July and August at the South Loop area (Thompson and Garrett 2010; Pinyon 2010a, pp. 1–2; Pinyon 2010b), the highest total counted among the days this area was surveyed was 17 on July 28 (Pinyon 2010b). One adult was observed in Lee Canyon at LVSSR on July 23, 2010, but no other adults were detected at LVSSR on surveys conducted August 2, 9, and 18, 2010 (Thompson and Garrett 2010, pp. 4–5). Final reports have not been completed for these projects and the results are considered preliminary.

The availability of known larval and nectar plants does not appear to be correlated to the recent low population numbers of the butterfly as the host plants continue to persist at previously occupied locations and throughout the Spring Mountains. The low number of butterflies observed during the 2006,

2007, 2008, and 2010 seasons could be partially attributed to extreme weather (*e.g.,* heavy precipitation events and drought). Prior to 2005, there were numerous years of drought, followed by a record snow in the winter of 2004–2005. In 2006 and 2007, the area experienced dry winters and springs and severe thunderstorms during the summers and flight periods. Based on the available survey information, the low number of sightings in recent years is likely the result of an already small population size, exacerbated by unfavorable weather conditions. Historical and recent survey information for this subspecies is very limited or unavailable in regard to population data. Thus, we focused our threats analysis on assessed threats at known occupied and presumed occupied locations (summarized in Table 1).

Summary of Information Pertaining to the Five Threat Factors

Section 4 of the Act (16 U.S.C. 1533) and implementing regulations (50 CFR part 424) set forth procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(a)(1) of the Act, a species may be determined to be endangered or threatened based on any of the following five factors:

(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.

We summarize below information regarding the status of and threats to this subspecies in relation to the five factors in section 4(a)(1) of the Act. In making our 12-month finding, we considered and evaluated all scientific and commercial information in our files, including information received in response to our request for information in the notice of 90-day petition finding and initiation of status review (72 FR 29933), and additional scientific information from ongoing species surveys as they became available. In response to the information request, we received two letters from private organizations that provided information and comments on the Mt. Charleston blue.

Factor A: The Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range

Fire Suppression, Succession, and Nonnative Species

Butterflies have extremely specialized habitat requirements (Thomas 1984, p. 337). Changes in vegetation structure and composition as a result of natural processes are a serious threat to butterfly populations because these changes can disrupt specific habitat requirements (Thomas 1984, pp. 337–341; Thomas *et al.* 2001, pp. 1791–1796). Cushman and Murphy (1993, p. 4) determined 28 at-risk lycaenid butterfly species, including the Mt. Charleston blue, to be dependent on one or two closely related host plants. Many of these host plants are dependent on early successional environments. Butterflies that specialize on such plants must track an ephemeral resource base that itself depends on unpredictable and perhaps infrequent ecosystem disturbances. For such butterfly species, local extinction events are both frequent and inevitable (Cushman and Murphy 1993, p. 4). The Mt. Charleston blue may, in part, depend on disturbances that open up the subalpine canopy and create conditions more favorable to its host plant, Torrey's milkvetch, and nectar resources (Weiss *et al.* 1995, p. 5; Boyd and Murphy 2008, pp. 22–28) (*see* Habitat section, above).

Fire suppression in the Spring Mountains has resulted in long-term successional changes including increased forest area and forest structure (higher canopy cover, more young trees, and more trees intolerant of fire) (Nachlinger and Reese 1996, p. 37; Amell 2006, pp. 6–9; Boyd and Murphy 2008, pp. 22–28; Denton *et al.* 2008, p. 21). Frequent low-severity fires would have maintained an open forest structure characterized by uneven-aged stands of fire-resistant ponderosa pine trees (Amell 2006, p. 5) in lower elevations. The lower-elevation habitats of the Mt. Charleston blue has likely been the most affected by fire suppression as indicated by Provencher's 2008 Fire Regime Condition Class analysis of the Spring Mountains (p. 18) in which higher-elevation biophysical settings departed less from the natural range of variability than those at middle elevations.

Large-diameter ponderosa pine trees with multiple fire scars in upper Lee and Kyle Canyons indicate that low-severity fires historically burned through mixed-conifer forests within the range of the Mt. Charleston blue (Amell 2006, p. 3). Open mixed-conifer forests in the Spring Mountains were likely characterized by more abundant and diverse understory plant communities compared to current conditions (Entrix 2007, pp. 73–78). These successional changes have been hypothesized to have contributed to the decline of the Mt. Charleston blue because of reduced densities of larval and nectar plants, decreased solar radiation, and inhibited butterfly movements that subsequently determine colonization or recolonization processes (Weiss *et al.* 1997, p. 26; Boyd and Murphy 2008, pp. 22–28). Boyd and Murphy (2008, p. 23) noted that important habitat characteristics required by Mt. Charleston blue—Torrey's milkvetch and preferred nectar plants occurring together in open sites not shaded by tree canopies—would have occurred more frequently across a more open, forested landscape compared to the current denser forested landscape. Not only would the changes in forest structure and understory plant communities result in habitat loss and degradation for the Mt. Charleston blue across a broad spatial scale, a habitat matrix dominated by denser forest also may be impacting key metapopulation processes by reducing probability of recolonization following local population extirpations in remaining patches of suitable habitat (Boyd and Murphy 2008, p. 25).

The introduction of forbs, shrubs, and nonnative grasses can be a threat to butterfly populations because these species can compete with, and decrease, the quality and abundance of larval host plant and adult nectar sources. This has been observed for many butterfly species including the Quino checkerspot butterfly (*Euphydryas editha quino*) (62 FR 2313; January 16, 1997) and Fender's blue butterfly (*Icaricia icarioides fenderi*) (65 FR 3875; January 25, 2000). Datasmiths (2007, p. 21) also suggest suitable habitat patches of Torrey's milkvetch are often, but not exclusively, associated with older or infrequent disturbance. Weiss *et al.* (1995, p. 5) note that a colony once existed on the Upper Kyle Canyon Ski Area (Location 11 in Table 1), but since the ski run was abandoned no butterflies have been collected there since 1965. Boyd and Austin (2002, p. 13) observe that the butterfly was common at Lee Meadows (Location 8 in Table 1) in the 1960s, but became uncommon at the site because of succession and a potential lack of disturbance. Using an analysis of host plant density, Weiss *et al.* (1995 p. 5) concluded that Lee Meadows does not have enough host plants to support a population over the long term.

Succession, coupled with the introduction of nonnative species, is also believed to be the reason the Mt. Charleston blue is no longer present at the old town site in Kyle Canyon (Location 12 in Table 1) and at the holotype site in Upper Lee Canyon (Location 9 in Table 1) (Urban Wildlands Group, Inc. 2005, p. 3; Boyd and Austin 1999, p. 17).

Management of nonnative species within butterfly habitat is a threat to the butterfly. As mentioned previously (*see* Habitat section), periodic maintenance (removal of trees and shrubs) of the ski runs has effectively arrested succession on the ski slopes and maintains conditions that can be favorable to the Mt. Charleston blue. However, the ski runs are not specifically managed to benefit habitat for this subspecies, and operation activities (including seeding of nonnative species) regularly modify butterfly habitat or prevent host plants from reestablishing in disturbed areas. Weiss *et al.* (1995, pp. 5–6) suggest that the planting of annual grasses and *Melilotus* for erosion control at LVSSR is a threat to Mt. Charleston blue habitat. Titus and Landau (2003, p. 1) observed that vegetation on highly and moderately disturbed areas of the LVSSR ski runs are floristically very different from natural clearings in the adjacent forest that support the butterfly. Seeding nonnative species for erosion control was discontinued in 2005; however, because of erosion problems during 2006 and 2007, and the lack of native seed, LVSSR resumed using a nonnative seed mix, particularly in the lower portions of the ski runs (not adjacent to Mt. Charleston blue habitat) where erosion problems persist.

Based on available information, it appears that in at least four of the six locations where the butterfly historically occurred, suitable habitat is no longer present due to vegetation changes attributable to succession, the introduction of nonnative species, or a combination of the two.

Recreation Development Projects

As previously detailed in the "Range and Current Distribution" section of this finding, the Mt. Charleston blue is a narrow endemic subspecies that is currently known to occupy two locations and presumed to occupy six others. This distribution is on lands managed by the USFS (including LVSSR, which is operated under a USFS special use permit) in the Spring Mountains National Recreation Area within the Humboldt-Toiyabe National Forest. We analyzed USFS' recreation development projects from 2000 to 2007 to determine if habitat impacts resulting from completed and pending projects are a threat to the subspecies at these locations, as cited in the petition and referenced in the 90-day petition finding. In addition to a fuels reduction project, we identified seven projects that have removed or impacted butterfly habitat in Upper Lee Canyon, where the butterfly is known or presumed to be present. We determined that an eighth impact identified in the petition and 90-day petition finding, an unsanctioned trail that bisects habitat on the South Loop Trail in Upper Kyle Canyon, is not a threat to the butterfly (Kingsley 2007, p. 17).

In general, it is difficult to know the full extent of impacts to the Mt. Charleston blue as a result of these projects because butterfly habitat was not mapped for the majority of them nor were some project areas surveyed prior to implementation. The majority of impacts associated with these projects have not been mitigated, and some of the impacted areas have not recovered. Given the slow natural rate of recovery, the pace of restoration efforts (*see* Factor D), and the potential for recurrent disturbance at many of these sites, we do not expect these impacted areas to provide butterfly habitat for many years to come, unless noted below. The following is a summary of the recreation development projects that have removed or impacted Mt. Charleston blue habitat from 2000 to 2010.

(1) During 2000 or 2001, a series of earthen berms were constructed at the top of a ski run at LVSSR. These berms were created by scraping topsoil from the ski run in an area known to support high densities of Torrey's milkvetch. This activity caused loss and degradation of an unknown area of presumed occupied butterfly habitat at LVSSR, Upper Lee Canyon (Location 2 in Table 1) (The Urban Wildlands Group, Inc. 2005, p. 3; Service 2006a, pp. 1–5). We assume, based on the level of soil disturbance, this activity would have also killed any larvae, pupae, or eggs present. Based on the best available information, Torrey's milkvetch has not recolonized the area (Service 2006a, pp. 1–5).

(2) In 2003, the Lee Canyon water system was repaired and expanded, which included construction of new and replacement waterlines through presumed occupied butterfly habitat on Foxtail Ridge adjacent to the Lee Canyon Youth Camp and the lower LVSSR parking lot (Location 3 in Table 1) (Forest Service 2003a, pp. 1–6). Resource surveys did not include butterfly host plants, and the extent of impacts was not calculated (Forest Service 2003b, pp. 21–22). Based on the most recent survey, Torrey's milkvetch still occurs on Foxtail Ridge (Datasmiths 2007, pp. 26–27), and it appears that the Lee Canyon water system project area has been recolonized by Torrey's milkvetch (Kingsley 2007, p. 17); however, the Mt. Charleston blue has not been observed at this location since 1998.

(3) In 2004, the lower LVSSR parking lot was converted into a temporary water storage basin (Forest Service 2004a, p. 1). This activity included excavation of the parking lot and the construction of temporary berms to hold water. Surveys for butterfly host plants were not performed, but butterfly host plants were noted in the project area as part of a rare plant survey (Hiatt 2004, p. 4). Any larvae, pupae, and eggs, along with all vegetation and soil seed bank, would likely have been killed while the basin was filled with water. Approximately 2 ac (0.81 ha) of presumed occupied butterfly habitat were impacted as a result of the project (Location 6 in Table 1) (The Urban Wildlands Group, Inc. 2005, p. 3). The parking lot continues to be used for overflow parking. Recent resource surveys of the area for the proposed expansion of the parking lot (*see* future projects discussion below) indicate host plants have not returned to the parking area and remain along the perimeter (Datasmiths 2007, pp. 26–27).

(4) In 2004, the Entrance Walkway Grade Improvement Project permanently removed (by paving) 0.186 ac (0.075 ha) of Mt. Charleston blue presumed occupied habitat near the main LVSSR parking site for the construction of a walkway (Forest Service 2004b, pp. 21–22; Forest Service 2004c, pp. 1–3).

(5) In 2004 and 2005, the LVSSR Snowmaking Line Replacement Project impacted approximately 7 ac (2.8 ha) of presumed occupied butterfly habitat on the ski runs (Forest Service 2006b, p. 1) and approximately 0.2 ac (0.08 ha) of known occupied habitat at LVSSR, Upper Lee Canyon (Location 2 in Table 1) (The Urban Wildlands Group, Inc. 2005, p. 3; Service 2006a, pp. 1–5; Forest Service 2004c, pp. 1–3; Forest Service 2004d, p. 9; Forest Service 2006b, pp. 1–9). Given the type of disturbance, we presume any butterfly larvae, pupae, and eggs would have been buried or crushed as a result of trenching and equipment access. Revegetation of butterfly habitat impacted from this construction was required (Forest Service 2004c, pp. 1–2; 2004d, p. 9–10), but there are no records available in our files that indicate it has been completed (*see* Factor D).

(6) In 2005, the chairlift #1 at LVSSR was replaced. All vegetation was removed within equipment travel corridors, laydown areas, and construction areas in approximately 4.5 ac (1.8 ha) of presumed occupied butterfly habitat (Location 2 in Table 1) (Forest Service 2006b, p. 2). Given the level of disturbance, we presume any butterfly larvae, pupae, and eggs would have been buried or crushed as a result of trenching and equipment access. Revegetation of butterfly habitat impacted from this construction was required (Forest Service 2005c, p. 2; Forest Service 2005d, pp. 12–14; Forest Service 2005e, pp. 11–12), but there are no records available in our files that indicate it has been completed (*see* Factor D).

(7) Expansion of the snowmaking pond at LVSSR was first proposed in June 2005 and would have permanently impacted 0.48 ac (0.18 ha) of presumed occupied butterfly habitat (Forest Service 2005a, pp. 1–25). The project was revised to reduce impacts in December 2007 (Forest Service 2007b, pp. 1–31) and again in June 2009. Plans for implementation included measures to minimize the amount of area impacted and mitigate for the loss of any butterfly habitat (Forest Service 2009a, p. 18). Construction of the snowmaking pond expansion was initiated and completed in 2010. The construction footprint was adjacent to one patch of Torrey's milkvetch, and overlapped another patch (Forest Service 2010b, Figure 1). A total area of 0.055 ac (0.022 ha) of Torrey's milkvetch habitat patches was impacted by pond expansion construction (Forest Service 2010b, Table 1). Recommendations to mitigate for impacted habitat have been prepared (Forest Service 2010b, pp. 1–5) but not yet implemented. An additional patch of previously undocumented Torrey's milkvetch was observed within the construction zone in May 2010 (Forest Service 2010a, p. 2), and is not included as an area for which mitigation is to be performed (Forest Service 2010b, pp. 1–5).

Future projects are also a threat to the Mt. Charleston blue and its habitat. Four recently approved or future projects could impact Mt. Charleston blue habitat in Upper Lee Canyon, and are summarized below.

(1) Expansion of the lower parking lot at LVSSR was proposed in June 2005 (Forest Service 2005a, pp. 1–25) and, after revisions to reduce impacts to the subspecies' habitat, was reproposed in December 2007 (Forest Service 2007b, pp. 1–31). Expansion of the lower LVSSR parking lot would result in the permanent loss of 2.4 ac (0.97 ha) of previously disturbed butterfly habitat and 0.81 ac (0.33 ha) of undisturbed presumed occupied butterfly habitat (Location 6 in Table 1) (Forest Service 2007b, p. 12). Planning and environmental documents are completed for the project; however, final authorization by the USFS has not occurred and is currently on hold due to concerns about impacts to Mt. Charleston blue (Forest Service 2009a, p. 1).

(2) The snowmaking system improvements project (new snowmaking lines) at LVSSR was proposed in June 2005 (Forest Service 2005a, pp. 1–2). As proposed, the snowmaking lines expansion project would have permanently impacted at that time approximately 8.9 ac (3.6 ha) of known occupied butterfly habitat along the two primary ski runs where known occupied habitat has been delineated for the Mt. Charleston blue (Location 2 in Table 1). The USFS stopped planning efforts for this project in 2007 based on the potential impacts to the Mt. Charleston blue (Forest Service 2007b, pp. 2).

(3) A January 2008 draft Master Development Plan for LVSSR proposes to improve, upgrade, and expand the existing facilities to provide year-round recreational activities. The plan proposes to add winter activities such as tubing, MiniZ, snowshoeing, Nordic skiing, climbing wall, and Euro-bungee, by widening existing runs to create "gladed" areas that would provide larger sliding areas (Ecosign 2008, pp. I–3–I–4). The plan proposes to add summer activities and facilities, including mountain biking and bike park, alpine slides, concerts, hiking, mountain boards, ziptreks, and stargazing (Ecosign 2008, pp. I–3–I–4). Summer activities would impact the butterfly and its known occupied and presumed occupied habitat (Location 2 in Table 1) by attracting visitors in higher numbers during the time of year when larvae and host plants are especially vulnerable to trampling. The Master Development Plan is in draft form and has not yet been approved by the USFS; therefore, no estimate of the potential area of impact is available.

(4) Currently the USFS is planning to restore eroded stream channels in Lee Meadows. Repairs to the channels are expected to impact presumed occupied butterfly habitat mapped at 1.2 ac (0.50 ha) (Location 8 in Table 1) (Forest Service 2009b, p. 10; Datasmiths 2007, p. 27). Project implementation began in 2010 and is expected to be completed in 2011, and includes measures to minimize impacts to, and compensate for the loss of, butterfly habitat (Forest Service 2009b, p. 10).

Fuels Reduction Projects

In December 2007, the USFS approved the Spring Mountains National Recreation Area Hazardous Fuels Reduction Project (Forest Service 2007a, pp. 1–127). This project will result in tree removals and vegetation thinning in three presumed occupied butterfly locations in Upper Lee Canyon, including Foxtail Ridge, Lee Canyon Youth Camp, and Lee Meadows, and result in impacts to approximately 32 ac (13 ha) of presumed occupied habitat that has been mapped in Upper Lee Canyon (Locations 3, 4 and 8 in Table 1) (Forest Service 2007a, Appendix A–Map 2; Datasmiths 2007, p. 26). Manual and mechanical clearing of shrubs and trees will be repeated on a 5- to 10-year rotating basis and will result in direct impacts to the butterfly and its habitat, including crushing or removal of host plants and diapausing larvae (if present). Implementation of this project began in the spring of 2008 throughout the Spring Mountains National Recreation Area, including Lee Canyon.

Although Boyd and Murphy (2008, p. 26) recommended increased forest thinning to improve habitat quality for the Mt. Charleston blue, this project was designed to reduce wildfire risk to life and property in the Spring Mountains National Recreation Area wildland urban interface (Forest Service 2007a, p. 6), not to improve Mt. Charleston blue habitat. Mt. Charleston blues require larval host plants in exposed areas not shaded by forest canopy cover because canopy cover reduces solar exposure during critical larval feeding periods (Boyd and Murphy 2008, p. 23). Shaded fuel breaks created for this project may not be open enough to create or significantly improve Mt. Charleston blue habitat. Also, shaded fuel breaks for this project are concentrated along access roads, property boundaries, campgrounds, picnic areas, administrative sites, and communications sites, and are not of sufficient spatial scale to reduce the threat identified above resulting from fire suppression and succession.

Although this project may result in increased understory herbaceous plant productivity and diversity, there are short-term risks to the butterfly associated with project implementation. In recommending increased forest thinning to improve Mt. Charleston blue habitat, Boyd and Murphy (2008, p. 26) cautioned that thinning treatments would need to be implemented carefully to minimize short-term disturbance

impacts to the butterfly and its habitat. Individual butterflies (larvae, pupae, and adults), and larval host plants and nectar plants, may be crushed during project implementation. In areas where thinned trees are chipped (mastication), layers of wood chips may become too deep and impact survival of butterfly larvae and pupae, as well as larval host plants and nectar plants. Soil and vegetation disturbance during project implementation also could result in increases in weeds and disturbance-adapted species, such as *Chrysothamnus* spp. (rabbitbrush), and these plants could compete with Mt. Charleston blue larval host and nectar plants.

Conservation Agreements and Plans

A conservation agreement was developed in 1998 to facilitate voluntary cooperation among the USFS, the Service, and the State of Nevada Department of Conservation and Natural Resources in providing long-term protection for the rare and sensitive flora and fauna of the Spring Mountains, including the Mt. Charleston blue (Forest Service 1998, pp. 1–50). Many of the conservation actions described in the conservation agreement have been implemented; however, several important conservation actions that would have directly benefited the Mt. Charleston blue have not been implemented. Regardless, many of the conservation actions in the conservation agreement (*e.g.,* inventory and monitoring) would not directly reduce threats to the Mt. Charleston blue. In 2004, the Service and USFS signed a memorandum of agreement that provides a process for review of activities that involve species covered under the 1998 Conservation Agreement (Forest Service and Service 2004, pp. 1–9). Formal coordination through this memorandum of agreement was established to (1) Jointly develop projects that avoid or minimize impacts to listed, candidate and proposed species, and species under the 1998 conservation agreement; and (2) to ensure consistency with commitments and direction provided for in recovery planning efforts and in conservation agreement efforts. More than half of the past projects that impacted Mt. Charleston blue habitat were reviewed by the Service and USFS under this review process, but several were not. Some efforts under this memorandum of agreement have been successful in reducing or avoiding project impacts to the butterfly, while other efforts have not.

The loss or modification of known occupied and presumed occupied butterfly habitat in Upper Lee Canyon, as discussed above, has occurred in the past. However, more recently the USFS has suspended decision on certain projects that would potentially impact Mt. Charleston blue habitat (*see* discussion of lower parking lot expansion and new snowmaking lines projects under Recreation Development Projects, above). In addition, the USFS has recently reaffirmed its commitment to collaborate with the Service in order to avoid implementation of projects or actions that would impact the viability of (Forest Service 2010c). This commitment includes: (1) Developing a mutually agreeable process to review future proposed projects to ensure that implementation of these actions will not lead to loss of viability of the species; (2) reviewing proposed projects that may pose a threat to the continued viability of the species; and (3) jointly developing a conservation agreement (strategy) that identifies actions that will be taken to ensure the conservation of the species (Forest Service 2010c).

The Mt. Charleston blue butterfly is a covered species in the 2000 Clark County Multiple Species Habitat Conservation Plan (MSHCP). The Clark County MSHCP identifies two goals for the Mt. Charleston blue: (a) "Maintain stable or increasing population numbers and host and larval plant species"; and (b) "No net unmitigated loss of larval host plant or nectar plant species habitat" (RECON 2000a, Table 2.5, pp. 2–154; RECON 2000b, pp. B158–B161). The USFS is one of several signatories to the Implementing Agreement for the Clark County MSHCP, because many of the activities from the 1998 Conservation Agreement were incorporated into the MSHCP. Primarily, activities undertaken by USFS focused on conducting surveying and monitoring for butterflies. Although some surveying and monitoring occurred through contracts by the USFS, Clark County and the Service, a butterfly monitoring plan was not fully implemented.

Recently, the USFS has been implementing the LVSSR Adaptive Vegetation Management Plan (Forest Service 2005b, pp. 1–24) to provide mitigation for approximately 11 ac (4.45 ha) of impacts to presumed occupied butterfly habitat (and other sensitive wildlife and plant species habitat) resulting from projects it implemented in 2005 and 2006. Under the plan, LVSSR will revegetate impacted areas using native plant species, including Torrey's milkvetch. However, this program is experimental and has experienced difficulties due to the challenges of native seed availability and propagation. Under the plan, Torrey's milkvetch is being brought into horticultural propagation, and, if successful, plants will begin to be planted in 2011–2013. However, these efforts are not likely to provide replacement habitat to the Mt. Charleston blue for another 5 years (2016–2018), because of the short alpine growing season.

Summary of Factor A

The Mt. Charleston blue is currently known to occur in two locations: The South Loop Trail area in upper Kyle Canyon and LVSSR in upper Lee Canyon. Habitat loss and modification as a result of fire suppression and long-term successional changes in forest structure, implementation of recreational development projects and fuels reduction projects, and nonnative species are continuing threats to the butterfly in Upper Lee Canyon. Since 2000, seven projects have negatively impacted presumed occupied habitat for the Mt. Charleston blue. Approved and future projects could negatively impact additional presumed occupied occurrences of the Mt. Charleston blue in Lee Canyon (identified in Table 1). In addition, if proposed future activities under a draft Master Development Plan are approved, they could threaten the butterfly, as well as its known occupied and presumed occupied habitat at LVSSR.

Because of its small population size, projects that impact even relatively small areas of occupied habitat could threaten the long-term population viability of Mt. Charleston blue. The continued loss or modification of presumed occupied habitat could further impair the long-term population viability of the Mt. Charleston blue in upper Lee Canyon by removing diapausing larvae (if present) and by reducing the ability of the butterfly to disperse during favorable years. The successional advance of trees, shrubs, and grasses and the spread of nonnative species are continuing threats to the butterfly in upper Lee Canyon. The butterfly is presumed extirpated from at least three of the six historical locations, likely due to successional changes and the introduction of nonnative plants. Nonnative forbs and grasses are a threat to the subspecies at LVSSR.

Although there are agreements and plans that are intended to conserve the Mt. Charleston blue and its habitat, to date, some actions under these agreements and plans have not been fully implemented. Future actions could be implemented in accordance with the terms of various agreements and plans; however, this would be voluntary, and

other factors may preclude the USFS from doing so. Therefore, based on the current distribution and recent, existing, and likely future trends in habitat loss, we find the Mt. Charleston blue is threatened by the present and future destruction, modification, and curtailment of its habitat and range.

Factor B: Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Rare butterflies can be highly prized by insect collectors, and collection is a known threat to some butterfly species, such as the Fender's blue butterfly (65 FR 3882; January 25, 2000). In particular, small colonies and populations are at the highest risk. Overcollection or repeated handling and marking of females in years of low abundance can seriously damage populations through loss of reproductive individuals and genetic variability (65 FR 3882; January 25, 2000). Given its diminutive size and similarity to closely related subspecies, the Mt. Charleston blue is not likely to be of considerable aesthetic interest to collectors or the general public.

We are not aware of any information that indicates the butterflies are being sought by collectors or collected for other purposes. Therefore, we do not find that overutilization for commercial, recreational, scientific, or educational purposes threatens the Mt. Charleston blue.

Factor C: Disease or Predation

We are not aware of any information regarding any impacts from either disease or predation on the Mt. Charleston blue. Therefore, we do not find that disease or predation threatens the Mt. Charleston blue.

Factor D: The Inadequacy of Existing Regulatory Mechanisms

Existing regulatory mechanisms or other agreements that could provide some protection for the Mt. Charleston blue include: (1) Local land use laws, processes, and ordinances; (2) State laws and regulations; and (3) Federal laws and regulations. Actions adopted by local groups, States, or Federal entities that are discretionary, including conservation strategies and guidance, are not regulatory mechanisms; however, we will discuss and evaluate them below. The Mt. Charleston blue primarily occurs on Federal land under the jurisdiction of the USFS; therefore, the discussion below primarily focuses on Federal laws.

Local Laws and Ordinances

We are not aware of any local land use laws or ordinances that have been issued by Clark County or other local government entities for protection of the Mt. Charleston blue.

State Law

Nevada Revised Statutes sections 503 and 527 offer protective measures to wildlife and plants, but do not include invertebrate species such as the Mt. Charleston blue. Therefore, no regulatory protection is offered under Nevada State law.

Federal Law

Mt. Charleston blues have been detected in only two general areas in recent years—the South Loop Trail area where adult butterflies were recently detected during the summer of 2010 and LVSSR. The South Loop Trail area is located along the ridgeline between Griffith Peak and Charleston Peak within the Mt. Charleston Wilderness. The U.S. Forest Service manages lands designated as wilderness under the Wilderness Act of 1964 (16 U.S.C. 1131–1136). Within these areas, the Wilderness Act states the following: (1) New or temporary roads cannot be built; (2) there can be no use of motor vehicles, motorized equipment, or motorboats; (3) there can be no landing of aircraft; (4) there can be no other form of mechanical transport; and (5) no structure or installation may be built. As such, Mt. Charleston blue habitat in the South Loop Trail area is protected from direct loss or degradation by the prohibitions of the Wilderness Act. Mt. Charleston blue habitat at LVSSR and elsewhere in Lee Canyon and Kyle Canyon is located outside of the Mt. Charleston Wilderness, and thus is not subject to protections afforded by the Wilderness Act.

The National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 *et seq.*), requires Federal agencies, such as the USFS, to describe proposed agency actions, consider alternatives, identify and disclose potential environmental impacts of each alternative, and involve the public in the decision making process. Federal agencies are not required to select the NEPA alternative having the least significant environmental impacts. A Federal agency may select an action that will adversely affect sensitive species provided that these effects are identified in a NEPA document. The NEPA itself is a disclosure law, and does not require subsequent minimization or mitigation of actions taken by Federal agencies. Although Federal agencies may include conservation measures for the Mt. Charleston blue as a result of the NEPA process, such measures are not required by the statute. The USFS is required to analyze its projects, listed under Factor A, above, in accordance with the NEPA.

The Spring Mountains National Recreation Area is one of 10 districts of the Humboldt-Toiyabe National Forest. Public Law 103–63, dated August 4, 1993 (the Spring Mountains National Recreation Area Act, 16 U.S.C. 460hhh *et seq.*), established the Spring Mountains National Recreation Area to include approximately 316,000 ac (128,000 ha) of Federal lands managed by the USFS in Clark and Nye counties, Nevada, for the following purposes:

(1) To preserve the scenic, scientific, historic, cultural, natural, wilderness, watershed, riparian, wildlife, threatened and endangered species, and other values contributing to public enjoyment and biological diversity in the Spring Mountains of Nevada;

(2) To ensure appropriate conservation and management of natural and recreation resources in the Spring Mountains; and

(3) To provide for the development of public recreation opportunities in the Spring Mountains for the enjoyment of present and future generations.

The National Forest Management Act (NFMA) of 1976, as amended (16 U.S.C. 1600 *et seq.*), provides the principal guidance for the management of activities on lands under USFS jurisdiction, through associated land and resource management plans for each forest unit. Under NFMA and other Federal laws, the USFS has authority to regulate recreation, vehicle travel and other human disturbance, livestock grazing, fire management, energy development, and mining on lands within its jurisdiction. Current guidance for the management of USFS lands in the Spring Mountains National Recreation Area is under the Toiyabe National Forest Land and Resource Management Plan and the Spring Mountains National Recreation Area General Management Plan. In June 2006, the USFS added the Mt. Charleston blue, and three other endemic butterflies, to the Regional Forester's Sensitive Species List in accordance with Forest Service Manual 2670. The objectives of the USFS to manage sensitive species are to prevent listing of species under the Act, maintain viable populations of native species, and develop and implement management objectives for populations and habitat of sensitive species. All of the projects listed in Factor A, above, have been guided by these USFS plans, policies, and guidance. These plans, policies, and

guidance notwithstanding, removal or degradation of known occupied and presumed occupied butterfly habitat has occurred as a result of projects approved by the USFS in upper Lee Canyon. Additionally, this guidance has not been effective in reducing other threats to the Mt. Charleston blue (*e.g.,* nonnative plant species).

Summary of Factor D

Existing regulatory mechanisms are not sufficient to provide for conservation of the Mt. Charleston blue. Nevada Revised Statutes sections 503 and 527 do offer protective measures to wildlife and plants, but do not specifically include protections for invertebrate species, such as the Mt. Charleston blue. Since applicable State regulatory mechanisms that could potentially protect the Mt. Charleston blue are not inclusive of invertebrates, they are not effective in relieving the threats faced by the Mt. Charleston blue butterfly. Although Mt. Charleston blue habitat at the South Loop Trail area is protected by prohibitions of the Wilderness Act from many types of habitat-disturbing actions, habitat where Mt. Charleston blues have occurred in the past within Lee Canyon and Kyle Canyon are outside of designated wilderness and thus not protected by prohibitions of the Wilderness Act. Because of the Mt. Charleston blue's extremely small population size and limited distribution, it is potentially vulnerable to projects or actions that impact even relatively small areas of occupied or suitable habitat. Because existing law, regulation, and policy have not prevented implementation of projects or actions that have resulted in loss or degradation of butterfly habitat (*see* Factor A), we conclude that existing regulatory mechanisms are inadequate to protect the Mt. Charleston blue from threats discussed in this finding.

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

The Mt. Charleston blue population appears to have declined since the last high-population year in 1995. This subspecies has a limited distribution, and population numbers are small. Small butterfly populations have a higher risk of extinction due to random environmental events (Shaffer 1981, p. 131; Shaffer 1987, pp. 69–75; Gilpin and Soule 1986, pp. 24–28). Weather extremes can cause severe butterfly population reductions or extinctions (Murphy *et al.* 1990, p. 43; Weiss *et al.* 1987, pp. 164–167; Thomas *et al.* 1996, pp. 964–969). Given the limited distribution and likely low population numbers of the Mt. Charleston blue, late-season snowstorms, severe summer monsoon thunderstorms, and drought have the potential to adversely impact the subspecies.

Late-season snowstorms have caused alpine butterfly extirpations (Ehrlich *et al.* 1972, pp. 101–105), and false spring conditions followed by normal winter snowstorms have caused adult and pre-diapause larvae mortality (Parmesan 2005, pp. 56–60). In addition, high rainfall years have been associated with butterfly population declines (Dobkin *et al.* 1987, pp. 161–176). Extended periods of rainy weather can also slow larval development and reduce overwintering survival (Weiss *et al.* 1993, pp. 261–270). Weiss *et al.* (1997, p. 32) suggested that heavy summer monsoon thunderstorms adversely impacted Mt. Charleston blue butterflies during the 1996 flight season. During the 2006 and 2007 flight season, severe summer thunderstorms may have affected the flight season at LVSSR and the South Loop Trail (Newfields 2006, pp. 11 and 14; Kingsley 2007, p. 8). Additionally, drought has been shown to lower butterfly populations (Ehrlich *et al.* 1980, pp. 101–105; Thomas 1984, p. 344). Drought can cause butterfly host plants to mature early and reduce larval food availability (Ehrlich *et al.* 1980, pp. 101–105; Weiss 1987, p. 165). This has likely affected the Mt. Charleston blue. Murphy (2006, p. 3) and Boyd (2006, p. 1) both assert a series of drought years, followed by a season of above-average snowfall and then more drought, could be a reason for the lack of butterfly sightings in 2006. Continuing drought could be responsible for the lack of sightings in 2007 and 2008 (Datasmiths 2007, p. 1; Boyd 2008, p. 2).

High-elevation species like the Mt. Charleston blue may be particularly susceptible to some level of habitat loss due to global climate change exacerbating threats already facing the subspecies (Peters and Darling 1985, p. 714; Hill *et al.* 2002, p. 2170). The Intergovernmental Panel on Climate Change (IPCC) has high confidence in predictions that extreme weather events, warmer temperatures, and regional drought are very likely to increase in the northern hemisphere as a result of climate change (IPCC 2007, pp. 15–16). Climate models show the southwestern United States has transitioned into a more arid climate of drought that is predicted to continue into the next century (Seager *et al.* 2007, p. 1181). In the past 60 years, the frequency of storms with extreme precipitation has increased in Nevada by 29 percent (Madsen and Figdor 2007, p. 37). Changes in local southern Nevada climatic patterns cannot be definitively tied to global climate change; however, they are consistent with IPCC-predicted patterns of extreme precipitation, warmer than average temperatures, and drought (Redmond 2007, p. 1). Therefore, we think it likely that climate change will impact the Mt. Charleston blue and its high-elevation habitat through predicted increases in extreme precipitation and drought. Alternating extreme precipitation and drought may exacerbate threats already facing the subspecies as a result of its small population size and threats to its habitat.

Summary of Factor E

Small butterfly populations have a higher risk of extinction due to random environmental events (Shaffer 1981, p. 131; Gilpin and Soule 1986, pp. 24–28; Shaffer 1987, pp. 69–75). Because of its small population and restricted range, the Mt. Charleston blue is vulnerable to random environmental events; in particular, the butterfly is threatened by extreme precipitation events and drought. In the past 60 years, the frequency of storms with extreme precipitation has increased in Nevada by 29 percent (Madsen and Figdor 2007, p. 37), and it is predicted that altered regional patterns of temperature and precipitation as a result of global climate change will continue (IPCC 2007, pp. 15–16). Throughout the entire range of the Mt. Charleston blue, altered climate patterns could increase the potential for extreme precipitation events and drought, and may exacerbate the threats the subspecies already faces given its small population size and the threats to the alpine environment where it occurs. Based on this information, we find that other natural or manmade factors are affecting the Mt. Charleston blue such that these factors threaten the subspecies' continued existence.

Summary of Threats Analysis

The Mt. Charleston blue butterfly is sensitive to environmental variability with the butterfly population rising and falling in response to environmental conditions (*see* "Status and Trends" section). The best available information suggests the Mt. Charleston blue population appears to have been in decline since 1995, the last year the subspecies was observed in high numbers, and that the population is now extremely small (*see* "Status and Trends" section). To some extent the Mt. Charleston blue, like most butterflies, has evolved to survive unfavorable environmental conditions as diapausing larvae or pupae (Scott 1986, pp. 26–30). The pupae of some butterfly species are

known to persist in diapause up to 5 to 7 years (Scott 1986, p. 28). The number of years the Mt. Charleston blue can remain in diapause is unknown. Local experts have speculated that the Mt. Charleston blue may only be able to diapause for one season. However, in response to unfavorable environmental conditions, it is hypothesized that a prolonged diapause period may be possible (Murphy 2006, p. 1; Datasmiths 2007, p. 6; Boyd and Murphy 2008, p. 22). The best available information suggests environmental conditions from 2006 to 2009 have not been favorable to the butterfly (*see* "Status and Trends" section).

Surveys are planned for 2011 to further determine the status and provide more knowledge about the ecology of the Mt. Charleston blue. Threats facing the Mt. Charleston blue, discussed above under listing Factors A, D, and E, will only increase risks to persistence of the butterfly, given its low population size. The loss and degradation of habitat due to fire suppression and succession; implementation of recreation development projects and fuels reduction projects; and increases in nonnative plants (*see* Factor A), along with the lack of adequate regulatory mechanisms to prevent these impacts (*see* Factor D), will increase the inherent risk of extinction of the remaining small population of Mt. Charleston blue. These threats are likely to be exacerbated by the impact of climate change, which is anticipated to increase drought and extreme precipitation events (*see* Factor E).

Finding

As required by the Act, we considered the five factors in assessing whether the Mt. Charleston blue butterfly is endangered or threatened throughout all or a significant portion of its range. We have carefully examined the best scientific and commercial information available regarding the past, present, and future threats faced by the Mt. Charleston blue. We reviewed the petition, information available in our files, other available published and unpublished information, information obtained from consultations with recognized Mt. Charleston blue butterfly experts, and information submitted to us by the public following publication of our notice of 90-day petition finding and initiation of status review (72 FR 29933; May 30, 2007). On the basis of the best scientific and commercial information available, we find that the listing of the Mt. Charleston blue butterfly is warranted, due to the threats associated with habitat destruction or modification (Factor A), the inadequacy of existing regulatory mechanisms (Factor D), and other natural and manmade factors (Factor E). We will make a determination on the status of the species as endangered or threatened when we prepare a proposed listing rule. However, as explained in more detail below, an immediate proposal of a regulation implementing this action is precluded by higher priority listing actions, and progress is being made to add or remove qualified species from the Lists of Endangered and Threatened Wildlife and Plants.

In making this finding, we recognize that there have been declines in the distribution and abundance of the Mt. Charleston blue as a result of natural and human-caused factors. Butterflies that occur in upper Lee Canyon are threatened by fire suppression and succession, implementation of recreation development projects and fuels reduction projects, and increases in nonnative plant species. These threats, if left unchecked, could continue to impair the long-term population viability of the Mt. Charleston blue (Factor A). In addition, the existing voluntary agreements and plans (Factor A), and regulatory mechanisms (Factor D) are inadequate to sufficiently reduce the threats to the subspecies from habitat loss and degradation and nonnative species to a level that does not pose a significant threat to the subspecies. The amount of known habitat persistently occupied at the South Loop Trail and LVSSR is small (less than 23 ac (9 ha)). The threats to the viability of the Mt. Charleston blue because of its limited distribution, extremely low population numbers, and degradation of its habitat will be exacerbated by threats from extreme precipitation events and drought that are predicted to become more frequent under global climate change (Factor E). Due to the threats described above, we find that the Mt. Charleston blue butterfly is warranted for listing throughout its range; however, the promulgation of a listing rule at this time is precluded by higher priority listing actions. We will review whether to list the Mt. Charleston blue butterfly as endangered or threatened when we begin the process to propose listing of this subspecies, as our priorities allow. We will make any determination on critical habitat during development of the proposed listing rule.

We have reviewed the available information to determine if the existing and foreseeable threats render the species at risk of extinction now such that issuing an emergency regulation temporarily listing the species under section 4(b)(7) of the Act is appropriate. During this status review, we considered whether emergency listing of the subspecies was necessary, given the vulnerability of the Mt. Charleston blue to extinction due to its small population size and limited distribution. We have determined that, at this time, issuing an emergency regulation temporarily putting the protections of the Act in place for the subspecies is not appropriate for the following reasons. Nearly the entire range of the Mt. Charleston blue is located on public lands managed by the Humboldt-Toiyabe National Forest, so habitats on these lands are not subject to large-scale development pressures that may occur on private lands. The area where the most persistent population of Mt. Charleston blue currently occurs is the South Loop Trail area, which is located within the Mt. Charleston Wilderness, and thus receives protection afforded by the the Wilderness Act (*see* Factor D discussion). In addition, decisions on proposed projects that would have impacted Mt. Charleston blue habitat at the LVSSR have been suspended or modified recently (*see* Recreation Development Projects under Factor A), and the USFS has recently reaffirmed its commitment to ensure that implementation of projects and actions on Forest Service lands will not cause a loss of viability of the Mt. Charleston blue (*see* Conservation Agreements and Plans under Factor A). However, if the current situation changes and we become aware of projects or actions that pose an immediate threat to the continued existence of the Mt. Charleston blue, we may act immediately to provide the butterfly emergency protections under the Act.

Listing Priority Number

The Service adopted guidelines on September 21, 1983 (48 FR 43098) to establish a rational system for utilizing available resources for the highest priority species when adding species to the Lists of Endangered or Threatened Wildlife and Plants or reclassifying species listed as threatened to endangered status. These guidelines, titled "Endangered and Threatened Species Listing and Recovery Priority Guidelines" (LPN Guidance) address the immediacy and magnitude of threats, and the level of taxonomic distinctiveness by assigning priority in descending order to monotypic genera (genus with one species), full species, and subspecies (or equivalently, distinct population segments of vertebrates). We assigned the Mt. Charleston blue butterfly a Listing Priority Number (LPN) of 3 based on our finding that the

species faces threats that are of high magnitude and are imminent. Because the Mt. Charleston blue butterfly is a subspecies, the highest Listing Priority Number (LPN) we can assign it is an LPN of 3, which is the highest priority that can be provided to a subspecies under our LPN Guidance. Our rationale for assigning the Mt. Charleston blue butterfly an LPN of 3 is outlined below.

Under the Service's LPN Guidance, the magnitude of threat is the first criterion we look at when establishing a listing priority. The guidance indicates that species with the highest magnitude of threat are those species facing the greatest threats to their continued existence. These species receive the highest listing priority. Mt. Charleston blue is highly vulnerable to threats because of its extremely small population size and limited distribution. The magnitude of threats to the Mt. Charleston blue is high due to a combination of existing threats. These threats include habitat loss and degradation due to fire suppression and succession, implementation of fuels reduction projects and habitat-disturbing projects or actions, and spread of nonnative plants (Factor A). In addition, because of its extremely limited range, drought and extreme precipitation events, which are predicted to become more frequent under climate change, potentially impact Mt. Charleston blue across its entire range (Factor E). These threats act synergistically and constitute a significant risk to the continued existence of the Mt. Charleston blue. Given the decline in the population of the Mt. Charleston blue butterfly over the last 15 years, active and sustained conservation of the butterfly and its habitat is required.

Under our LPN Guidance, the second criterion we consider in assigning a listing priority is the immediacy of threats. This criterion is intended to ensure that the species that face actual, identifiable threats are given priority over those for which threats are only potential or species that are intrinsically vulnerable but are not known to be presently facing such threats. The threats described above in this finding are imminent because they are ongoing. The combination of ongoing threats place the continued existence of the Mt. Charleston blue at risk because of its high vulnerability due to extremely small population size and limited distribution.

The third criterion in our LPN guidance is intended to ensure resources are devoted to those species representing highly distinctive or isolated gene pools as reflected by taxonomy. The Mt. Charleston blue butterfly is a valid taxon at the subspecies level, and therefore receives a lower priority than a full species or a species in a monotypic genus. The Mt. Charleston blue butterfly faces high-magnitude, imminent threats, and is a valid taxon at the subspecies level. Thus, in accordance with our LPN guidance, we have assigned the Mt. Charleston blue butterfly an LPN of 3.

We will continue to monitor the threats to the Mt. Charleston blue butterfly, and the subspecies' status on an annual basis, and should the magnitude or the imminence of the threats change, we will revisit our assessment of the LPN.

Work on a proposed listing determination for the Mt. Charleston blue butterfly is precluded by work on higher priority listing actions with absolute statutory, court-ordered, or court-approved deadlines and final listing determinations for those species that were proposed for listing with funds from Fiscal Year 2011. This work includes all the actions listed in the tables below under expeditious progress.

Preclusion and Expeditious Progress

Preclusion is a function of the listing priority of a species in relation to the resources that are available and the cost and relative priority of competing demands for those resources. Thus, in any given fiscal year (FY), multiple factors dictate whether it will be possible to undertake work on a listing proposal regulation or whether promulgation of such a proposal is precluded by higher-priority listing actions.

The resources available for listing actions are determined through the annual Congressional appropriations process. The appropriation for the Listing Program is available to support work involving the following listing actions: Proposed and final listing rules; 90-day and 12-month findings on petitions to add species to the Lists of Endangered and Threatened Wildlife and Plants (Lists) or to change the status of a species from threatened to endangered; annual "resubmitted" petition findings on prior warranted-but-precluded petition findings as required under section 4(b)(3)(C)(i) of the Act; critical habitat petition findings; proposed and final rules designating critical habitat; and litigation-related, administrative, and program-management functions (including preparing and allocating budgets, responding to Congressional and public inquiries, and conducting public outreach regarding listing and critical habitat). The work involved in preparing various listing documents can be extensive and may include, but is not limited to: Gathering and assessing the best scientific and commercial data available and conducting analyses used as the basis for our decisions; writing and publishing documents; and obtaining, reviewing, and evaluating public comments and peer review comments on proposed rules and incorporating relevant information into final rules. The number of listing actions that we can undertake in a given year also is influenced by the complexity of those listing actions; that is, more complex actions generally are more costly. The median cost for preparing and publishing a 90-day finding is $39,276; for a 12-month finding, $100,690; for a proposed rule with critical habitat, $345,000; and for a final listing rule with critical habitat, the median cost is $305,000.

We cannot spend more than is appropriated for the Listing Program without violating the Anti-Deficiency Act (*see* 31 U.S.C. 1341(a)(1)(A)). In addition, in FY 1998 and for each fiscal year since then, Congress has placed a statutory cap on funds which may be expended for the Listing Program, equal to the amount expressly appropriated for that purpose in that fiscal year. This cap was designed to prevent funds appropriated for other functions under the Act (for example, recovery funds for removing species from the Lists), or for other Service programs, from being used for Listing Program actions (*see* House Report 105–163, 105th Congress, 1st Session, July 1, 1997).

Since FY 2002, the Service's budget has included a critical habitat subcap to ensure that some funds are available for other work in the Listing Program ("The critical habitat designation subcap will ensure that some funding is available to address other listing activities" (House Report No. 107–103, 107th Congress, 1st Session, June 19, 2001)). In FY 2002 and each year until FY 2006, the Service has had to use virtually the entire critical habitat subcap to address court-mandated designations of critical habitat, and consequently none of the critical habitat subcap funds have been available for other listing activities. In some FYs since 2006, we have been able to use some of the critical habitat subcap funds to fund proposed listing determinations for high-priority candidate species. In other FYs, while we were unable to use any of the critical habitat subcap funds to fund proposed listing determinations, we did use some of this money to fund the critical habitat portion of some proposed listing determinations so that the proposed

listing determination and proposed critical habitat designation could be combined into one rule, thereby being more efficient in our work. At this time, for FY 2011, we do not know if we will be able to use some of the critical habitat subcap funds to fund proposed listing determinations.

We make our determinations of preclusion on a nationwide basis to ensure that the species most in need of listing will be addressed first and also because we allocate our listing budget on a nationwide basis. Through the listing cap, the critical habitat subcap, and the amount of funds needed to address court-mandated critical habitat designations, Congress and the courts have in effect determined the amount of money available for other listing activities nationwide. Therefore, the funds in the listing cap, other than those needed to address court-mandated critical habitat for already listed species, set the limits on our determinations of preclusion and expeditious progress.

Congress identified the availability of resources as the only basis for deferring the initiation of a rulemaking that is warranted. The Conference Report accompanying Public Law 97–304 (Endangered Species Act Amendments of 1982), which established the current statutory deadlines and the warranted-but-precluded finding, states that the amendments were "not intended to allow the Secretary to delay commencing the rulemaking process for any reason other than that the existence of pending or imminent proposals to list species subject to a greater degree of threat would make allocation of resources to such a petition [that is, for a lower-ranking species] unwise." Although that statement appeared to refer specifically to the "to the maximum extent practicable" limitation on the 90-day deadline for making a "substantial information" finding, that finding is made at the point when the Service is deciding whether or not to commence a status review that will determine the degree of threats facing the species, and therefore the analysis underlying the statement is more relevant to the use of the warranted-but-precluded finding, which is made when the Service has already determined the degree of threats facing the species and is deciding whether or not to commence a rulemaking.

In FY 2011, on December 22, 2010, Congress passed a continuing resolution which provides funding at the FY 2010 enacted level through March 4, 2011. Until Congress appropriates funds for FY 2011 at a different level, we will fund listing work based on the FY 2010 amount. Thus, at this time in FY 2011, the Service anticipates an appropriation of $22,103,000 based on FY 2010 appropriations. Of that, the Service anticipates needing to dedicate $11,632,000 for determinations of critical habitat for already listed species. Also $500,000 is appropriated for foreign species listings under the Act. The Service thus has $9,971,000 available to fund work in the following categories: Compliance with court orders and court-approved settlement agreements requiring that petition findings or listing determinations be completed by a specific date; section 4 (of the Act) listing actions with absolute statutory deadlines; essential litigation-related, administrative, and listing program-management functions; and high-priority listing actions for some of our candidate species. In FY 2010 the Service received many new petitions and a single petition to list 404 species. The receipt of petitions for a large number of species is consuming the Service's listing funding that is not dedicated to meeting court-ordered commitments. Absent some ability to balance effort among listing duties under existing funding levels, it is unlikely that the Service will be able to initiate any new listing determination for candidate species in FY 2011.

In 2009, the responsibility for listing foreign species under the Act was transferred from the Division of Scientific Authority, International Affairs Program, to the Endangered Species Program. Therefore, starting in FY 2010, we used a portion of our funding to work on the actions described above for listing actions related to foreign species. In FY 2011, we anticipate using $1,500,000 for work on listing actions for foreign species which reduces funding available for domestic listing actions, however, currently only $500,000 has been allocated. Although there are currently no foreign species issues included in our high-priority listing actions at this time, many actions have statutory or court-approved settlement deadlines, thus increasing their priority. The budget allocations for each specific listing action are identified in the Service's FY 2011 Allocation Table (part of our record).

For the above reasons, funding a proposed listing determination for the Mt. Charleston blue is precluded by court-ordered and court-approved settlement agreements, listing actions with absolute statutory deadlines, and work on proposed listing determinations for those candidate species with a higher listing priority (*i.e.,* candidate species with LPNs of 1–2.

Based on our September 21, 1983, guidance for assigning an LPN for each candidate species (48 FR 43098), we have a significant number of species with an LPN of 2. Using this guidance, we assign each candidate an LPN of 1 to 12, depending on the magnitude of threats (high or moderate to low), immediacy of threats (imminent or nonimminent), and taxonomic status of the species (in order of priority: Monotypic genus (a species that is the sole member of a genus); species; or part of a species (subspecies, distinct population segment, or significant portion of the range)). The lower the listing priority number, the higher the listing priority (that is, a species with an LPN of 1 would have the highest listing priority).

Because of the large number of high-priority species, we have further ranked the candidate species with an LPN of 2 by using the following extinction-risk type criteria: International Union for the Conservation of Nature and Natural Resources (IUCN) Red list status/rank, Heritage rank (provided by NatureServe), Heritage threat rank (provided by NatureServe), and species currently with fewer than 50 individuals, or 4 or fewer populations. Those species with the highest IUCN rank (critically endangered), the highest Heritage rank (G1), the highest Heritage threat rank (substantial, imminent threats), and currently with fewer than 50 individuals, or fewer than 4 populations, originally comprised a group of approximately 40 candidate species ("Top 40"). These 40 candidate species have had the highest priority to receive funding to work on a proposed listing determination. As we work on proposed and final listing rules for those 40 candidates, we apply the ranking criteria to the next group of candidates with an LPN of 2 and 3 to determine the next set of highest priority candidate species. Finally, proposed rules for reclassification of threatened species to endangered are lower priority, since as listed species, they are already afforded the protection of the Act and implementing regulations. However, for efficiency reasons, we may choose to work on a proposed rule to reclassify a species to endangered if we can combine this with work that is subject to a court-determined deadline.

With our workload so much bigger than the amount of funds we have to accomplish it, it is important that we be as efficient as possible in our listing process. Therefore, as we work on proposed rules for the highest priority species in the next several years, we are preparing multi-species proposals when appropriate, and these may include

species with lower priority if they overlap geographically or have the same threats as a species with an LPN of 2. In addition, we take into consideration the availability of staff resources when we determine which high-priority species will receive funding to minimize the amount of time and resources required to complete each listing action.

As explained above, a determination that listing is warranted but precluded must also demonstrate that expeditious progress is being made to add and remove qualified species to and from the Lists of Endangered and Threatened Wildlife and Plants. As with our "precluded" finding, the evaluation of whether progress in adding qualified species to the Lists has been expeditious is a function of the resources available for listing and the competing demands for those funds. (Although we do not discuss it in detail here, we are also making expeditious progress in removing species from the list under the Recovery program in light of the resource available for delisting, which is funded by a separate line item in the budget of the Endangered Species Program. So far during FY 2011, we have completed one delisting rule.) Given the limited resources available for listing, we find that we are making expeditious progress in FY 2011 in the Listing. This progress included preparing and publishing the following determinations:

FY 2011 COMPLETED LISTING ACTIONS

Publication date	Title	Actions	FR pages
10/6/2010	Endangered Status for the Altamaha Spinymussel and Designation of Critical Habitat.	Proposed Listing Endangered	75 FR 61664–61690
10/7/2010	12-Month Finding on a Petition to list the Sacramento Splittail as Endangered or Threatened.	Notice of 12-month petition finding, Not warranted.	75 FR 62070–62095
10/28/2010	Endangered Status and Designation of Critical Habitat for Spikedace and Loach Minnow.	Proposed Listing Endangered (uplisting)	75 FR 66481–66552
11/2/2010	90-Day Finding on a Petition to List the Bay Springs Salamander as Endangered.	Notice of 90-day Petition Finding, Not substantial.	75 FR 67341–67343
11/2/2010	Determination of Endangered Status for the Georgia Pigtoe Mussel, Interrupted Rocksnail, and Rough Hornsnail and Designation of Critical Habitat.	Final Listing Endangered	75 FR 67511–67550
11/2/2010	Listing the Rayed Bean and Snuffbox as Endangered.	Proposed Listing Endangered	75 FR 67551–67583
11/4/2010	12-Month Finding on a Petition to List Cirsium wrightii (Wright's Marsh Thistle) as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	75 FR 67925–67944
12/14/2010	Endangered Status for Dunes Sagebrush Lizard.	Proposed Listing Endangered	75 FR 77801–77817
12/14/2010	12-Month Finding on a Petition to List the North American Wolverine as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	75 FR 78029–78061
12/14/2010	12-Month Finding on a Petition to List the Sonoran Population of the Desert Tortoise as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	75 FR 78093–78146
12/15/2010	12-Month Finding on a Petition to List *Astragalus microcymbus* and *Astragalus schmolliae* as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	75 FR 78513–78556
12/28/2010	Listing Seven Brazilian Bird Species as Endangered Throughout Their Range.	Final Listing Endangered	75 FR 81793–81815
1/4/2011	90-Day Finding on a Petition to List the Red Knot subspecies *Calidris canutus roselaari* as Endangered.	Notice of 90-day Petition Finding, Not substantial.	76 FR 304–311
1/19/2011	Endangered Status for the Sheepnose and Spectaclecase Mussels.	Proposed Listing Endangered	76 FR 3392–3420
2/10/2011	12-Month Finding on a Petition to List the Pacific Walrus as Endangered or Threatened.	Notice of 12-month petition finding, Warranted but precluded.	76 FR 7634

Our expeditious progress also includes work on listing actions that we funded in FY 2010 and FY 2011 but have not yet been completed to date. These actions are listed below. Actions in the top section of the table are being conducted under a deadline set by a court. Actions in the middle section of the table are being conducted to meet statutory timelines, that is, timelines required under the Act. Actions in the bottom section of the table are high-priority listing actions. These actions include work primarily on species with an LPN of 2, and, as discussed above, selection of these species is partially based on available staff resources, and when appropriate, include species with a lower priority if they overlap geographically or have the same threats as the species with the high priority. Including these species together in the same proposed rule results in considerable savings in time and funding, as compared to preparing separate proposed rules for each of them in the future.

ACTIONS FUNDED IN FY 2010 AND FY 2011 BUT NOT YET COMPLETED

Species	Action
Actions Subject to Court Order/Settlement Agreement	
Flat-tailed horned lizard	Final listing determination.
Mountain plover [4]	Final listing determination.
Solanum conocarpum	12-month petition finding.
Thorne's Hairstreak butterfly [3]	12-month petition finding.
Hermes copper butterfly [3]	12-month petition finding.
4 parrot species (military macaw, yellow-billed parrot, red-crowned parrot, scarlet macaw) [5]	12-month petition finding.
4 parrot species (blue-headed macaw, great green macaw, grey-cheeked parakeet, hyacinth macaw) [5].	12-month petition finding.
4 parrots species (crimson shining parrot, white cockatoo, Philippine cockatoo, yellow-crested cockatoo) [5].	12-month petition finding.
Utah prairie dog (uplisting)	90-day petition finding.
Actions with Statutory Deadlines	
Casey's june beetle	Final listing determination.
Southern rockhopper penguin—Campbell Plateau population	Final listing determination.
6 Birds from Eurasia	Final listing determination.
5 Bird species from Colombia and Ecuador	Final listing determination.
Queen Charlotte goshawk	Final listing determination.
5 species southeast fish (Cumberland darter, rush darter, yellowcheek darter, chucky madtom, and laurel dace) [4].	Final listing determination.
Ozark hellbender [4]	Final listing determination.
Altamaha spinymussel [3]	Final listing determination.
3 Colorado plants (*Ipomopsis polyantha* (Pagosa Skyrocket), *Penstemon debilis* (Parachute Beardtongue), and *Phacelia submutica* (DeBeque Phacelia)) [4].	Final listing determination.
Salmon crested cockatoo	Final listing determination.
6 Birds from Peru and Bolivia	Final listing determination.
Loggerhead sea turtle (assist National Marine Fisheries Service) [5]	Final listing determination.
2 mussels (rayed bean (LPN = 2), snuffbox No LPN) [5]	Final listing determination.
Mt Charleston blue [5]	Proposed listing determination.
CA golden trout [4]	12-month petition finding.
Black-footed albatross	12-month petition finding.
Mount Charleston blue butterfly	12-month petition finding.
Mojave fringe-toed lizard [1]	12-month petition finding.
Kokanee—Lake Sammamish population [1]	12-month petition finding.
Cactus ferruginous pygmy-owl [1]	12-month petition finding.
Northern leopard frog	12-month petition finding.
Tehachapi slender salamander	12-month petition finding.
Coqui Llanero	12-month petition finding/Proposed listing.
Dusky tree vole	12-month petition finding.
3 MT invertebrates (mist forestfly (*Lednia tumana*), *Oreohelix* sp.3, *Oreohelix* sp. 31) from 206 species petition.	12-month petition finding.
5 UT plants (*Astragalus hamiltonii, Eriogonum soredium, Lepidium ostleri, Penstemon flowersii, Trifolium friscanum*) from 206 species petition.	12-month petition finding.
5 WY plants (*Abronia ammophila, Agrostis rossiae, Astragalus proimanthus, Boechere (Arabis) pusilla, Penstemon gibbensii*) from 206 species petition.	12-month petition finding.
Leatherside chub (from 206 species petition)	12-month petition finding.
Frigid ambersnail (from 206 species petition) [3]	12-month petition finding.
Platte River caddisfly (from 206 species petition) [5]	12-month petition finding.
Gopher tortoise—eastern population	12-month petition finding.
Grand Canyon scorpion (from 475 species petition)	12-month petition finding.
Anacroneuria wipukupa (a stonefly from 475 species petition) [4]	12-month petition finding.
Rattlesnake-master borer moth (from 475 species petition) [3]	12-month petition finding.
3 Texas moths (*Ursia furtiva, Sphingicampa blanchardi, Agapema galbina*) (from 475 species petition).	12-month petition finding.
2 Texas shiners (*Cyprinella* sp., *Cyprinella lepida*) (from 475 species petition)	12-month petition finding.
3 South Arizona plants (*Erigeron piscaticus, Astragalus hypoxylus, Amoreuxia gonzalezii*) (from 475 species petition).	12-month petition finding.
5 Central Texas mussel species (3 from 475 species petition)	12-month petition finding.
14 parrots (foreign species)	12-month petition finding.
Berry Cave salamander [1]	12-month petition finding.
Striped Newt [1]	12-month petition finding.
Fisher—Northern Rocky Mountain Range [1]	12-month petition finding.
Mohave Ground Squirrel [1]	12-month petition finding.
Puerto Rico Harlequin Butterfly [3]	12-month petition finding.
Western gull-billed tern	12-month petition finding.
Ozark chinquapin (*Castanea pumila* var. *ozarkensis*) [4]	12-month petition finding.
HI yellow-faced bees	12-month petition finding.
Giant Palouse earthworm	12-month petition finding.
Whitebark pine	12-month petition finding.

ACTIONS FUNDED IN FY 2010 AND FY 2011 BUT NOT YET COMPLETED—Continued

Species	Action
OK grass pink (*Calopogon oklahomensis*) [1]	12-month petition finding.
Ashy storm-petrel [5]	12-month petition finding.
Honduran emerald	12-month petition finding.
Southeastern pop snowy plover and wintering pop. of piping plover [1]	90-day petition finding.
Eagle Lake trout [1]	90-day petition finding.
Smooth-billed ani [1]	90-day petition finding.
32 Pacific Northwest mollusks species (snails and slugs) [1]	90-day petition finding.
42 snail species (Nevada and Utah)	90-day petition finding.
Peary caribou	90-day petition finding.
Plains bison	90-day petition finding.
Spring Mountains checkerspot butterfly	90-day petition finding.
Spring pygmy sunfish	90-day petition finding.
Bay skipper	90-day petition finding.
Unsilvered fritillary	90-day petition finding.
Texas kangaroo rat	90-day petition finding.
Spot-tailed earless lizard	90-day petition finding.
Eastern small-footed bat	90-day petition finding.
Northern long-eared bat	90-day petition finding.
Prairie chub	90-day petition finding.
10 species of Great Basin butterfly	90-day petition finding.
6 sand dune (scarab) beetles	90-day petition finding.
Golden-winged warbler [4]	90-day petition finding.
Sand-verbena moth	90-day petition finding.
404 Southeast species	90-day petition finding.
Franklin's bumble bee [4]	90-day petition finding.
2 Idaho snowflies (straight snowfly and Idaho snowfly) [4]	90-day petition finding.
American eel [4]	90-day petition finding.
Gila monster (Utah population) [4]	90-day petition finding.
Arapahoe snowfly [4]	90-day petition finding.
Leona's little blue [4]	90-day petition finding.
Aztec gilia [5]	90-day petition finding.
White-tailed ptarmigan [5]	90-day petition finding.
San Bernardino flying squirrel [5]	90-day petition finding.
Bicknell's thrush [5]	90-day petition finding.
Chimpanzee	90-day petition finding.
Sonoran talussnail [5]	90-day petition finding.
2 AZ Sky Island plants (*Graptopetalum bartrami and Pectis imberbis*) [5]	90-day petition finding.
I'iwi [5]	90-day petition finding.
High-Priority Listing Actions	
19 Oahu candidate species [2] (16 plants, 3 damselflies) (15 with LPN = 2, 3 with LPN = 3, 1 with LPN = 9).	Proposed listing.
19 Maui-Nui candidate species [2] (16 plants, 3 tree snails) (14 with LPN = 2, 2 with LPN = 3, 3 with LPN = 8).	Proposed listing.
2 Arizona springsnails [2] (*Pyrgulopsis bernadina* (LPN = 2), *Pyrgulopsis trivialis* (LPN = 2))	Proposed listing.
Chupadera springsnail [2] (*Pyrgulopsis chupaderae* (LPN = 2))	Proposed listing.
8 Gulf Coast mussels (southern kidneyshell (LPN = 2), round ebonyshell (LPN = 2), Alabama pearlshell (LPN = 2), southern sandshell (LPN = 5), fuzzy pigtoe (LPN = 5), Choctaw bean (LPN = 5), narrow pigtoe (LPN = 5), and tapered pigtoe (LPN = 11)) [4].	Proposed listing.
Umtanum buckwheat (LPN = 2) and white bluffs bladderpod (LPN = 9) [4]	Proposed listing.
Grotto sculpin (LPN = 2) [4]	Proposed listing.
2 Arkansas mussels (Neosho mucket (LPN = 2) and Rabbitsfoot (LPN = 9)) [4]	Proposed listing.
Diamond darter (LPN = 2) [4]	Proposed listing.
Gunnison sage-grouse (LPN = 2) [4]	Proposed listing.
Miami blue (LPN = 3) [3]	Proposed listing.
4 Texas salamanders (Austin blind salamander (LPN = 2), Salado salamander (LPN = 2), Georgetown salamander (LPN = 8), Jollyville Plateau (LPN = 8)) [3].	Proposed listing.
5 SW aquatics (Gonzales Spring Snail (LPN = 2), Diamond Y springsnail (LPN = 2), Phantom springsnail (LPN = 2), Phantom Cave snail (LPN = 2), Diminutive amphipod (LPN = 2)) [3].	Proposed listing.
2 Texas plants (Texas golden gladecress (*Leavenworthia texana*) (LPN = 2), Neches River rose-mallow (*Hibiscus dasycalyx*) (LPN = 2)) [3].	Proposed listing.
FL bonneted bat (LPN = 2) [3]	Proposed listing.
21 Big Island (HI) species [5] (includes 8 candidate species—5 plants and 3 animals; 4 with LPN = 2, 1 with LPN = 3, 1 with LPN = 4, 2 with LPN = 8).	Proposed listing.
12 Puget Sound prairie species (9 subspecies of pocket gopher (*Thomomys mazama* ssp.) (LPN = 3), streaked horned lark (LPN = 3), Taylor's checkerspot (LPN = 3), Mardon skipper (LPN = 8)) [3].	Proposed listing.
2 TN River mussels (fluted kidneyshell (LPN = 2), slabside pearlymussel (LPN = 2)) [5]	Proposed listing.
Jemez Mountain salamander (LPN = 2) [5]	Proposed listing.

[1] Funds for listing actions for these species were provided in previous FYs.

[2] Although funds for these high-priority listing actions were provided in FY 2008 or 2009, due to the complexity of these actions and competing priorities, these actions are still being developed.

[3] Partially funded with FY 2010 funds and FY 2011 funds.
[4] Funded with FY 2010 funds.
[5] Funded with FY 2011 funds.

We have endeavored to make our listing actions as efficient and timely as possible, given the requirements of the relevant law and regulations, and constraints relating to workload and personnel. We are continually considering ways to streamline processes or achieve economies of scale, such as by batching related actions together. Given our limited budget for implementing section 4 of the Act, these actions described above collectively constitute expeditious progress.

The Mt. Charleston blue butterfly will be added to the list of candidate species upon publication of this 12-month finding. We will continue to monitor the status of this species as new information becomes available. This review will determine if a change in status is warranted, including the need to make prompt use of emergency listing procedures.

We intend that any proposed listing action for the Mt. Charleston blue butterfly will be as accurate as possible. Therefore, we will continue to accept additional information and comments from all concerned governmental agencies, the scientific community, industry, or any other interested party concerning this finding.

References Cited

A complete list of all references cited is available on request from the Nevada Fish and Wildlife Office (*see* **ADDRESSES**).

Authors

The primary authors of this document are the staff members of the U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office (*see* **ADDRESSES**).

Authority

The authority for this action is section 4 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: February 11, 2011.

Rowan W. Gould,

Acting Director, U.S. Fish and Wildlife Service.

[FR Doc. 2011–4884 Filed 3–7–11; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2011–0011; MO 92210–0–0008]

Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition To List the Texas Kangaroo Rat as Endangered or Threatened

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of petition finding and initiation of status review.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the Texas kangaroo rat, *Dipodomys elator,* as endangered or threatened and to designate critical habitat under the Endangered Species Act of 1973, as amended. Based on our review, we find that the petition presents substantial scientific or commercial information indicating that listing the Texas kangaroo rat may be warranted. Therefore, with the publication of this notice, we are initiating a status review to determine if listing the Texas kangaroo rat is warranted. To ensure the status review is comprehensive, we are requesting scientific and commercial data and other information regarding this species. Based on the status review, we will issue a 12-month finding on the petition, which will address whether the petitioned action is warranted, as provided in section 4(b)(3)(B) of the Act.

DATES: To allow us adequate time to conduct this review, we request that we receive information on or before May 9, 2011. Please note that if you are using the Federal eRulemaking Portal (*see* **ADDRESSES** section, below), the deadline for submitting an electronic comment is 11:59 p.m. Eastern Time on this date. After May 9, 2011, you must submit information directly to the Arlington Ecological Services Field Office (*see* **FOR FURTHER INFORMATION CONTACT** section below). Please note that we might not be able to address or incorporate information that we receive after the above requested date.

ADDRESSES: You may submit information by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* In the box that reads "Enter Keyword or ID," enter the Docket number for this finding, which is FWS–R2–ES–2011–0011. Check the box that reads "Open for Comment/Submission," and then click the Search button. You should then see an icon that reads "Submit a Comment." Please ensure that you have found the correct rulemaking before submitting your comment.
- *U.S. mail or hand-delivery:* Public Comments Processing, Attn: FWS–R2–ES–2011–0011; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will post all information received on *http://www.regulations.gov.* This generally means that we will post any personal information you provide us (*see* the Request for Information section below for more details).

FOR FURTHER INFORMATION CONTACT: Thomas J. Cloud, Jr., Field Supervisor, Arlington Ecological Services Field Office, 711 Stadium Drive, Suite 252, Arlington, TX 76011; by telephone (817) 277–1100; or by facsimile (817) 277–1129. If you use a telecommunications device for the deaf (TDD), please call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Request for Information

When we make a finding that a petition presents substantial information indicating that listing a species may be warranted, we are required to promptly review the status of the species (status review). For the status review to be complete and based on the best available scientific and commercial information, we request information on the Texas kangaroo rat from governmental agencies, Native American Tribes, the scientific community, industry, and any other interested parties. We seek information on:

(1) The species' biology, range, and population trends, including:

(a) Habitat requirements for feeding, breeding, and sheltering;

(b) Genetics and taxonomy;

(c) Historical and current range, including distribution patterns;

(d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for the species, its habitat, or both.

(2) The factors that are the basis for making a listing determination for a