mandate the use of such techniques for some, or even all, of the commercial spectrum to be auctioned in the 700 MHz bands.

The Public Notice also seeks comment on Google's proposal that the unpaired 6 MHz E Block (722–728 MHz) in the current Lower 700 MHz band plan should be designated primarily or exclusively to be used for deployment of interactive, two-way broadband services; connected to the public internet; and used to support innovative software-based applications, services and devices.

E. Steps Taken To Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): ''(1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.''

The Public Notice seeks comment on the relative merits of dynamic auction techniques. The Public Notice also seeks comment on whether the Commission should designate the unpaired 6 MHz E Block (722–728 MHz) in the current Lower 700 MHz band plan primarily or exclusively for deployment of broadband communications platforms. To assist the Commission in its analysis, commenters are requested to provide information regarding how small entities would be affected if the Commission were to adopt Google's proposals. Commenters should also provide information on alternative approaches to alleviate any potential burdens on small entities.

F. Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rules

None.

Federal Communications Commission.

James D. Schlichting,

Deputy Chief.

[FR Doc. E7–10417 Filed 5–29–07; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition To List the Mt. Charleston Blue Butterfly as Threatened or Endangered

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of 90-day petition finding.

SUMMARY: We, the Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the Mt. Charleston blue butterfly (*Icaricia shasta charlestonensis*) as threatened or endangered under the Endangered Species Act of 1973, as amended (Act). We find that the petition presents substantial scientific or commercial information indicating that listing the Mt. Charleston blue butterfly may be warranted. Therefore, with the publication of this notice, we are initiating a status review of this subspecies, and we will issue a 12-month finding to determine if the petitioned action is warranted. To ensure that the status review of the Mt. Charleston blue butterfly is comprehensive, we are soliciting scientific and commercial data regarding this subspecies. A determination on critical habitat will be made if and when a listing action is initiated for this subspecies.

DATES: The finding announced in the document was made on May 30, 2007. To be considered in the 12-month finding for this petition, comments and information should be submitted to us by July 30, 2007.

ADDRESSES: Data, information, comments, or questions concerning this petition and our finding should be submitted to the Field Supervisor, Nevada Fish and Wildlife Office, U.S. Fish and Wildlife Service, by mail at 4701 North Torrey Pines Drive, Las Vegas, NV, 89130, or by fax at (702) 515–5231. The petition is available at *http://www.fws.gov/nevada.* The petition, supporting data, and comments will be available for public inspection, by appointment, during normal business hours at the Nevada Fish and Wildlife Office at the above address.

FOR FURTHER INFORMATION CONTACT: Robert D. Williams, Field Supervisor, Nevada Fish and Wildlife Office (see **ADDRESSES**) (telephone 702/515–5230; facsimile 702/515–5231).

SUPPLEMENTARY INFORMATION:

Public Information Solicited

When we make a finding that substantial information is presented to indicate that listing a species may be warranted, we are required to promptly commence a review of the status of the species. To ensure that the status review is complete and based on the best available scientific and commercial information, we are soliciting information on the Mt. Charleston blue butterfly. We request any additional information, comments, and suggestions from the public, other concerned governmental agencies, North American tribes, the scientific community, industry, or any other interested parties concerning the status of the Mt. Charleston blue butterfly. We are seeking information regarding the subspecies' historical and current status and distribution, its ecology, ongoing conservation measures for the subspecies and its habitat, and threats to the subspecies and its habitat.

We will base our 12 month finding on a review of the best scientific and commercial information available, including all information received during the public comment period. If you wish to provide comments you may submit your comments and materials concerning this finding to the Field Supervisor, Nevada Fish and Wildlife Office (see **ADDRESSES** section). Please note that comments merely stating support or opposition to the actions under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act directs that determinations as to whether any species is a threatened or endangered species shall be made ''solely on the basis of the best scientific and commercial data available.'' At the conclusion of the status review, we will issue the 12-month finding on the petition, as provided in section 4(b)(3)(B) of the Act.

If you wish to comment or provide information, you may submit your comments and materials concerning this finding to the Field Supervisor (see **ADDRESSES** section). Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Background

Section 4(b)(3)(A) of the Act requires that the U.S. Fish and Wildlife Service (Service) make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. This finding is based on information contained in the petition and information otherwise available in our files at the time we make the finding. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition, and publish our notice of the finding promptly in the **Federal Register.**

Our standard for substantial scientific or commercial information within the Code of Federal Regulations (CFR) with regard to a 90-day finding is ''that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted'' (50 CFR 424.14(b)). If we find that substantial scientific or commercial information was presented, we are required to promptly commence a status review of this subspecies, if one has not already been initiated under our internal candidate assessment process.

In making this finding, we relied on information provided by the petitioner and otherwise available in our files at the time of the petition review. We evaluated this information in accordance with 50 CFR 424.14(b). The process of making a 90-day finding under section 4(b)(3)(A) of the Act is based on a determination of whether the information in the petition meets the ''substantial scientific or commercial information'' threshold.

On October 20, 2005, we received a petition from The Urban Wildlands Group, Inc., requesting to emergency-list the Mt. Charleston blue butterfly (*Icaricia shasta charlestonensis*) as a threatened or endangered 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. This correspondence also indicated that funding was provided to address this petition in Fiscal Year 2006 and that we anticipated making an initial finding early in Fiscal Year 2007 as to whether or not the petition contained substantial information. The purpose of this finding is to determine whether or not the petition presented substantial information regarding the status of this subspecies within the context of the Act. The petition clearly identified itself as such and included the requisite identification information of the petitioner, as required in 50 CFR 424.14(a).

Species Information

The Mt. Charleston blue butterfly is a distinctive subspecies of the wider ranging Shasta blue butterfly (*Icaricia shasta*), which is a member of Lycaenidae (little butterfly family). The subspecies is known only from the high elevations of the Spring Mountains, located approximately 25 miles (40 kilometers (km)) west of Las Vegas in Clark County, Nevada (Austin 1980, p. 20; Scott 1986, p. 410).

Within *Icaricia shasta* there are six subspecies: *I. s. calchas, I. s. shasta, I. s. minnehaha, I. s. charlestonensis, I. s. pallidissima,* and *I. s. pitkinensis* (Scott 1986, p. 410; Murphy 2006, p. 3). The first mention of *I. s. charlestonensis* as a unique taxon was in 1928 by Garth, who recognized it as distinct from the species *shasta* (Austin 1980, p. 20). Howe in 1975 described specimens from the Spring Mountains as *I. s. shasta* form *comstocki* (Austin 1980, p. 20). However, in 1976, Ferris placed the subspecies into the wider ranging *I. s. minnehaha* (Austin 1980, p. 20). Finally, Austin (1980) asserted that Ferris had not included populations from the Sierra Nevada in his study, and in light of the geographic isolation and distinctiveness of the Spring Mountains *shasta* population, 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 *charlestonensis* (Austin 1980, p. 20). This name and subspecies classification has been retained in the most recent treatments of butterfly taxonomy (Opler and Warren 2002, p. 79).

The wing span of *Icaricia shasta* is ¾ to 1 inch (19 to 26 millimeters (mm)) (Opler 1999, p. 251). Males and females of *Icaricia shasta* are dimorphic. The upperside of males is dark to dull iridescent blue, and females are brown with a blue overlay. The subspecies 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, *I. s. charlestonensis* appears to be most closely related to the Great Basin populations of *I. s. minnehaha* (Austin 1980, p. 23) and can be distinguished from *I. s. minnehaha* by sharper and blacker post medial spots on the underside of the hindwing (Scott 1986, p. 410).

Weiss *et al.* (1997, pp. 10–11) describe the natural habitat for the Mt. Charleston blue as relatively flat ridgelines above 8,202 feet (2,500 meters); however, isolated individuals have been observed as low as 6,562 feet (2,000 meters). Like many butterfly species, the Mt. Charleston blue butterfly is dependent on plants both during larval development (larval host plants) and the adult butterfly flight period (nectar plants). The butterfly requires open habitats that support Torrey's milkvetch (*Astragalus calycosus* var. *mancus*), the only known larval host plant for the subspecies (Weiss *et al.* 1994, p. 3; Weiss *et al.* 1997, p. 10). 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. (Boyd 2005, p. 1; Weiss *et al.* 1994, p. 3). Torrey's milkvetch is a small, low growing, perennial herb that grows in open areas between 5,000–10,804 feet (1,524–3,293 meters) in subalpine, bristlecone, and mixed conifer vegetation communities of the Spring Mountains. Weiss *et al.* (1997, p. 31) describe favorable habitat for the Mt. Charleston blue butterfly as having high densities of Torrey's milkvetch, which exceed 10 plants per square meter. Good habitat contains relatively little grass cover and visible mineral soil (Boyd 2005, p. 1; Service 2006a, p. 1).

The Mt. Charleston blue butterfly is generally presumed to diapause (period of suspended growth or development similar to hibernation) at the base of the larval host plant or in the surrounding substrate for at least one season (Boyd 2005, p. 1). The typical flight and breeding period for the butterfly is early July to mid-August with a peak in late July, although the species 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 butterfly 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 butterfly given its low-to-the-ground flight pattern. Other than observations by surveyors, little information is known regarding the

phenology of the Mt. Charleston blue butterfly, as the key determinants for the interactions between 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).

Based on current and historic occurrences, the geographic range of the Mt. Charleston blue butterfly is on the east side of the Spring Mountains, centered on lands managed by the Forest Service in the Spring Mountains National Recreation Area of the Humboldt-Toiyabe National Forest within Kyle and Lee Canyons, Clark County, Nevada. The majority of the occurrences or observations are in the Lee Canyon area, with a few in Kyle Canyon. Table 1 identifies the fifteen separate current and historic locations of the Mt. Charleston blue butterfly that are 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).

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 surveyed or observed	Status	Primary references
1. South Loop Trail, Kyle Canyon	1995/2005	Presumed extant—core colony	Weiss *et al.* 1997.
2. LVSSR #1, Lee Canyon	1995/2005	Presumed extant—core colony [1]	Weiss *et al.* 1997; Boyd and Austin 2002.
3. LVSSR #2, Lee Canyon	1963/2005	Presumed extant—core colony [1]	Austin 1980; Weiss *et al.* 1994; Weiss *et al.* 1997; Boyd and Austin 2002.
4. Foxtail Camp, Lee Canyon	1998/1998	Presumed extant—ephemeral	Boyd and Austin 1999.
5. Youth Camp, Lee Canyon	1995/1995	Presumed extant—ephemeral	Weiss *et al.* 1997.
6. Gary Abbott, Lee Canyon	1995/1995	Presumed extant—ephemeral	Weiss *et al.* 1997.
7. LVSSR Parking, Lee Canyon	1995/1995	Presumed extant—ephemeral	Weiss *et al.* 1997.
8. Mummy Spring, Kyle Canyon	1995/1995	Presumed extant—ephemeral [2]	Weiss *et al.* 1997.
9. Lee Meadow, Lee Canyon	1965/1995	Presumed extant—ephemeral	Weiss *et al.* 1997.
10. Lee Canyon holotype	1963/1976	Presumed extirpated [2]	Austin 1963; Austin 1980; Weiss *et al.* 1997.
11. Cathedral Rock, Kyle Canyon	1972/1972	Presumed extirpated	Austin 1980; Weiss *et al.* 1997.
12. Kyle Canyon Ski Area	1965/1972	Presumed extirpated [2]	Austin 1980; Weiss *et al.* 1997.
13. Old Town, Kyle Canyon	1970s/1970s	Presumed extirpated [3]	The Urban Wildlands Group, Inc. 2005.
14. Deer Creek, Kyle Canyon	1950/1950	Presumed extirpated	Austin 1980.
15. Willow Creek	1928/1928	Presumed extirpated	Austin 1980; Weiss *et al.* 1997.

[1] LVSSR = Las Vegas Ski & Snowboard Resort; LVSSR #2 is not identified as a separate site in Nevada Natural Heritage Program database (likely combined by Heritage with LVSSR #1).
[2] Location is not mentioned in the petition.
[3] Location is not identified in the Nevada Natural Heritage Program database.

The Service presumes that the Mt. Charleston blue butterfly is extirpated from a location when it has not been sighted at that location through formal surveys or informal observation for more than twenty years. We presume the Mt. Charleston blue butterfly is extirpated from 6 of the 15 locations as noted in Table 1 (The Urban Wildlands Group, Inc. 2005, pp. 1–3; Service 2006b, pp. 8–9). The status of the Mt. Charleston blue butterfly at a location is described as presumed extant—ephemeral by the Service when the location is within the extant range of the subspecies and is within potential recruitment distance of an extant core colony. The butterfly exhibits metapopulation dynamics at these locations, likely emigrating to these smaller patches of habitat from the core colonies during years when environmental conditions are favorable (see subsequent core colonies, metapopulation dynamics, and favorable environmental conditions). At many of these ephemeral locations, the Mt. Charleston blue butterfly has not been sighted through formal surveys or informal observation since observed in 1995 by Weiss *et al.* (1997), or formal surveys have not occurred at that location since the butterfly was sighted in 1995 by Weiss *et al.* (1997). As noted in Table 1, the current status of the Mt. Charleston blue butterfly is presumed extant—ephemeral at 6 of the 15 locations or occurrences (The Urban Wildlands Group, Inc. 2005, pp. 1–3; Service 2006b, pp. 7–8).

Three of the 15 historical locations are presumed to be extant core colonies of the subspecies, as adults have been identified through time and were located during formal surveys in 1995 and 2005: South Loop Trail, Las Vegas Ski and Snowboard Resort (LVSSR) #1, and LVSSR #2 (see Table 1) (Weiss *et al.* 1997; Boyd and Austin 2002; Boyd 2005, p. 1; Service 2006b, p. 7; The Urban Wildlands Group, Inc. 2005, pp. 1–3; Service 2006b, p. 2). The term ''core colony'' as applied to our discussion of the Mt. Charleston blue butterfly is used only to describe a specific type of habitat for the butterfly. For our analysis, we define a Mt. Charleston blue butterfly core colony as a colony that meets the following factors: (1) Contains good quality habitat, defined as habitat containing high densities of the host plant, Torrey's milkvetch, with little grass cover, particularly nonnative grass cover (because grasses have been suggested as a reason for habitat degradation or successional changes that make habitat unsuitable for the subspecies, see discussion below); and (2) persists as habitat that maintains the metapopulation dynamics of the subspecies, such that adults are consistently sighted through formal or informal surveys within the colony and emigrants are provided to smaller, outlying habitat patches. The amount of habitat supporting two of the three core colonies of this subspecies has been mapped using a global positioning unit and field-verified by the Service and Forest Service; the core colony at LVSSR #1 occupies 2.4 acres (0.97 hectares), and the core colony at LVSSR #2 occupies 1.3 acres (0.53 hectares),

totaling 3.7 acres (1.5 hectares) (Service 2006a, p. 1). The total area of the third core Mt. Charleston blue butterfly colony (South Loop Trail) has not been field-verified and is estimated at 5 acres (2 hectares) within Kyle Canyon (The Urban Wildlands Group, Inc. 2005, p. 2). Thus across its range, current estimates indicate the Mt. Charleston blue butterfly is restricted to less than 9 acres (3.6 hectares) of core habitat, and the core habitat represents the only known occupied habitat remaining for this subspecies.

Our files indicate that Boyd (2006, pp. 1–2) conducted focused surveys from late May through August of 2006 for the Mt. Charleston blue butterfly at all extant core colonies and at extant ephemeral locations. In addition to these locations, potential Mt. Charleston blue butterfly habitat along Griffith Peak, the South Loop Trail, North Loop Trail, Bristlecone Trail, and South Bonanza Trail was also surveyed in 2006. No observations of Mt. Charleston blue butterfly were made at any location, including the three core colonies (Boyd 2006, p. 1). However, Murphy (2006, p. 1) hypothesizes that the butterfly potentially may have a survival mechanism to adapt and remain in diapause, and therefore may be able to survive unfavorable or inclement conditions for at least one season.

Most butterfly populations occur in roughly the same numbers from year to year, though nearly every population experiences the occasional significant increase or decline depending on environmental conditions, and desert species seem particularly prone to dramatic fluctuations in numbers (Scott 1986, pp. 108–109). The Mt. Charleston blue butterfly has been characterized as particularly rare, but common in some years as noted in the petition (Boyd and Austin 1999, p. 17; The Urban Wildlands Group, Inc. 2005, p. 2). As previously mentioned, variations in precipitation and temperature that affect both the Mt. Charleston blue butterfly and its larval host plant are likely responsible for the fluctuation in population numbers between years (Weiss *et al.* 1997, pp. 2–3 and 31–32). The specific requirements and timing of environmental conditions for larval host plant development, and in turn subspecies reproduction, is not known. Murphy *et al.* (1990, p. 43) note that in general, extreme weather (drought, late season snowstorms, unusually wet weather, etc.) often is the proximate cause of declines or extinctions of butterfly populations throughout the world. Drought has been shown to negatively impact other butterfly populations (Erlich *et al.* 1980, pp. 101–105; Thomas 1984, p. 344). Late season snowstorms have caused alpine butterfly population extinctions in Colorado (Ehrlich *et al.* 1972, p. 246), and high rainfall years have also been associated with population declines for other butterfly species in Europe (Dobkin *et al.* 1987, p. 164). Drought, late season snowstorms, unusually wet weather, and flash flooding associated with summer monsoon thunderstorms are extreme climatic phenomena that occur within the Spring Mountains at unpredictable intervals and have been reported as negatively affecting numerous butterfly species in the Spring Mountains, including the Mt. Charleston blue butterfly, in all stages of development and their host plants (Weiss *et al.* 1997, pp. 2–3 and 31–32; Boyd *et al.* 2000, p. 3).

The 1995 season was a boom year for the Mt. Charleston blue butterfly (Weiss *et al.* 1997, p. 32). Weiss *et al.* (1997, p. 32) commented that in 1995 almost every patch of host plants encountered during the flight season supported butterflies, including small isolated patches. The 1995 season probably represents the maximum population size when environmental conditions were most favorable and includes both the larger core colonies and the smaller, ephemeral habitat patches. In 1928 and 1963, the subspecies also exhibited higher abundances (Austin 1980, p. 22; The Urban Wildlands Group, Inc. 2005, p. 2).

In contrast, the 1996 season represents a low population size for the Mt. Charleston blue butterfly when environmental conditions were unfavorable and very few patches of habitat were occupied. Weiss *et al.* (1997, pp. 32) indicate an extremely dry winter may have caused poor larval host plant quality and, thus, low overwintering success by Mt. Charleston blue larvae in 1996. In addition, Weiss *et al.* (1997, p. 32) suggested that heavy thunderstorms in early July 1996, which delivered 3 inches of rainfall in a few hours, may have killed any Mt. Charleston blue butterflies that had emerged, as well as pupae waiting to emerge, leading to very reduced numbers observed in survey efforts that year.

Similarly, there were no sightings of the Mt. Charleston blue butterfly in 2006 despite focused survey efforts. One possible explanation for the 2006 season may be extreme weather; prior to 2005, there were numerous years of drought, followed by a record snow in the winter of 2004–2005, a dry winter and spring in 2005–2006, and several localized, high rainfall events and cloudy conditions in the summer of 2006. The following possible explanations for the lack of butterfly sightings were offered by two local Mt. Charleston blue butterfly experts as indicated in our files. Boyd (2006, p. 1) theorizes that the Mt. Charleston blue butterfly's host plant, Torrey's milkvetch, experienced delayed emergence in the year 2005 due to the persistence of the snow pack well into the plant's growing season. The delayed emergence of Torrey's milkvetch in 2005 could have negatively impacted butterfly reproduction in the year 2005, which would equate to low recruitment of emerging juveniles in the year 2006. Boyd (2006, p. 1) further hypothesized that since Torrey's milkvetch flowered in early May and June in 2006 (in response to a dry winter and spring), the emergence of the butterfly (typically in July) could have again been out of synchronization with the host plant. Murphy (2006, p. 1) proposed that the localized rain events in late June and July of 2006 could have killed any butterflies that had emerged to date. Murphy (2006, p. 1) also suggests that the dry winter and spring may have prevented the Mt. Charleston blue butterfly from emerging at all. Murphy (2006, p. 1) hypothesizes that the butterfly potentially may have a survival mechanism to adapt and remain in diapause, and therefore may be able to survive unfavorable or inclement conditions for at least one season. Although individuals were not identified during surveys in 2006, we do not consider this subspecies extirpated from the three core colonies. It will be critical for the Mt. Charleston blue butterfly to successfully reproduce and pupae to emerge in 2007.

Based on information in our files, most butterflies almost invariably exist as regional metapopulations (Murphy *et al.* 1990, p. 44). Metapopulation dynamics make it difficult to interpret the true extent of the distribution of Mt. Charleston blue butterfly. Small habitats tend to support small populations that are frequently extirpated by events that are part of normal variation (Murphy *et al.* 1990, p. 44). The continued existence of smaller populations requires the presence of one or more large reservoir populations or core colonies to provide emigrants to smaller, outlying habitat patches (Murphy *et al.* 1990, p. 44). Boyd and Austin (1999, p. 17) suggest smaller colonies of the Mt. Charleston blue butterfly may be ephemeral in the long term with the larger colonies of the subspecies being the only colonies to persist in poor, dry years.

The Mt. Charleston blue butterfly's larval host plant, Torrey's milkvetch, is dependent on early successional habitat

(Weiss *et al.* 1995, p. 5). Healthy metapopulation dynamics allow butterflies, like the Mt. Charleston blue butterfly, to establish new colonies in new habitat patches as vegetation succession renders occupied habitat unsuitable (Hanski and Simberloff 1997, p. 9). Fire and avalanches are natural disturbances that help create this mosaic of different successional states that supports the Mt. Charleston blue butterfly (Weiss *et al.* 1995, p. 5). Forty-three percent (3.7 acres (1.5 hectares)) of remaining habitat known to be occupied by the butterfly occurs on the LVSSR, which operates on Forest Service lands under a special use permit. Weiss *et al.* (1995, p. 5) observed an old avalanche chute, which supports one of the three core colonies for this subspecies on a LVSSR ski run. Large-scale, natural avalanches in the LVSSR, which could have created new habitat for the butterfly, have been prevented for more than 40 years due to the regular use of explosives in the upper portions of the avalanche chutes by the LVSSR. Fire suppression and other Forest Service management practices have also limited the formation of new replacement habitat for the Mt. Charleston blue butterfly. Similar losses of suitable habitat in woodlands and their negative effect on butterfly populations have been documented elsewhere (Thomas 1984, pp. 337–338). However, as described in the petition, because the natural processes that create and maintain successional habitat in an early state, as required by Torrey's milkvetch, have been limited, the LVSSR now provides important core habitat for the Mt. Charleston blue butterfly (The Urban Wildlands Group, Inc. 2005, p. 2). Periodic maintenance (removal of trees and shrubs) of the ski runs has effectively arrested succession on the ski slopes and maintains the early successional state favorable to the Mt. Charleston blue butterfly; however, the ski runs are not specifically managed to benefit habitat for this subspecies and operation activities regularly modify and remove butterfly habitat.

Threats Analysis

Section 4 of the Act and its implementing regulations (50 CFR 424) set forth the procedures for adding species to the Federal List of Endangered and Threatened Wildlife and Plants. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act: (A) Present or threatened destruction, modification, or curtailment of habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. In making this finding, we evaluated whether threats to the Mt. Charleston blue butterfly presented in the petition may pose a concern with respect to its survival. The Act identifies the five factors to be considered, either singly or in combination, to determine whether a species may be threatened or endangered. Our evaluation of these threats, based on information provided in the petition, is presented below.

A. Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range

The petitioner claims that present or threatened destruction, modification, or curtailment of the habitat or range of the Mt. Charleston blue butterfly threatens this subspecies such that listing may be warranted. The claim is detailed in the petition by multiple instances of destruction or modification of the subspecies' habitat by construction and other activities, including: (1) Bisection of habitat by South Loop Trail and unsanctioned trails created in habitat in Kyle Canyon; (2) resort improvements at LVSSR #1 in Lee Canyon; (3) construction of a berm at LVSSR #2 in Lee Canyon; (4) installation and expansion of snowmaking apparatus at LVSSR #2 in Lee Canyon; (5) small construction activities at Foxtail Camp in Lee Canyon; (6) expansion of the water system at the Youth Camp in Lee Canyon; and (7) expansion of the parking lot at LVSSR in Lee Canyon (The Urban Wildlands Group, Inc. 2005, pp. 2–3). As further detailed below, information in our files supports the petitioner's claim and the examples cited.

(1) The petition describes that Mt. Charleston blue butterfly habitat along South Loop Trail in Kyle Canyon (one of three core colonies) is being impacted by recreation activity, specifically unsanctioned hiking trails. Based on information in our files, an assessment of an unsanctioned hiking trail to a plane crash site in the vicinity of butterfly habitat identified that the unsanctioned trail has disturbed (through loss and trampling) habitat for the Mt. Charleston blue butterfly as stated in the petition (Service 2006c, pp. 2–7).

(2) The petition describes replacement of a snowmaking apparatus or line that occurred within and impacted the habitat at LVSSR #1, another of the three core colonies of the Mt. Charleston blue butterfly. This claim is supported by information in our files (The Urban Wildlands Group, Inc. 2005, p. 3; Service 2006a, pp. 1–5; Forest Service 2004a, p. 1–3; Forest Service 2004b, p. 9; Forest Service 2006b, pp. 1–9). Based on the best available information in our files (habitat mapping performed by Weiss *et al.* (1995, Figure 8C) and habitat mapping performed by the Service and Forest Service in July 2006 (Service 2006a, pp. 1–5)), we calculate that 2.4 acres (0.97 hectares) of this core colony of Mt. Charleston blue butterfly habitat remains, and we estimate that the construction project associated with the replacement of the specified snowmaking line caused the loss of 0.2 acres (0.08 hectares) of the core habitat.

(3) The petition states that the construction of an avalanche deflection berm in 2000 or 2001 at the top of the northwestern-most ski run (location of the third core colony at LVSSR #2) caused loss and degradation of core butterfly habitat. The location of the earthen berm, and information in our files that maps the Mt. Charleston blue butterfly habitat on the LVSSR ski runs, verifies this assertion (Service 2006a, pp. 1–5).

(4) The petition describes further impacts to the core colony habitat at LVSSR #2 associated with the replacement of a snowmaking apparatus or line in 2005 on a ski run east of the core colony, and information in our files confirms this construction project (Forest Service 2004c, p. 8). The petition claims that lower quality peripheral habitat for the butterfly was disturbed. Based on information in our files regarding the extent of the disturbance associated with the snowmaking line and other improvements in 2005, as well as the mapping of Mt. Charleston blue butterfly habitat at LVSSR #2, the petition's assertion is accurate (Forest Service 2006b, pp. 1–9; Service 2006a, pp. 1–5). Outside of the core colony habitat at LVSSR #2, peripheral habitat of lower quality for the subspecies was impacted by the improvements.

(5) The petition does not present specific information regarding the extent of impact from small construction projects at Foxtail Camp in Lee Canyon. We do not have any information in our files to corroborate or refute the petition's claim regarding impacts to Mt. Charleston blue butterfly habitat at this location.

(6) The petitioner also claims that the expansion of the water system at the Youth Camp in Lee Canyon impacted habitat for the Mt. Charleston blue butterfly. This assertion is confirmed by a Forest Service report in our files (Forest Service 2002, pp. 16–18).

(7) The petition identifies a location on the LVSSR where Mt. Charleston blue butterfly habitat was lost due to modifications to a parking lot near the end of State Route 156 (The Urban Wildlands Group, Inc. 2005, p. 3). Based on data in our files, the Mt. Charleston blue butterfly was first recorded at this location during 1995 surveys (Weiss *et al.* 1997, p. 10), and the subspecies has not been observed in the area in recent years (Boyd 2005, p. 1). The petition states that approximately 2 acres (0.81 hectares) once supported a large number of host plants for the butterfly at this site (The Urban Wildlands Group, Inc. 2005, p. 3). The modifications likely occurred in 2004, when the parking area was used as a temporary storage pond for snowmaking water. Given our knowledge of the habitat requirements for the butterfly and remaining host plants around the margins of the parking area, the petition accurately states that Mt. Charleston blue butterfly habitat was impacted by these modifications.

Present destruction, modification, or curtailment of this subspecies' habitat or range is documented by numerous activities described in the petition and verified by information in our files. Of the seven claims made in the petition regarding habitat loss or modification, six were supported by information in our files: (1) Bisection of habitat by South Loop Trail and unsanctioned trails created in habitat in Kyle Canyon; (2) improvements at LVSSR #1 in Lee Canyon; (3) construction of a berm at LVSSR #2 in Lee Canyon; (4) installation and expansion of snowmaking apparatus at LVSSR #2 in Lee Canyon; (5) expansion of the water system at the Youth Camp in Lee Canyon; and (6) expansion of the parking lot at LVSSR in Lee Canyon. The petition states that the current situation of the Mt. Charleston blue butterfly is perilous, with the extant colonies all at risk of extinction (The Urban Wildlands Group, Inc. 2005, p. 2). Based on the information in the petition and our files, 15 locations have been occupied by the Mt. Charleston blue butterfly since 1928. The subspecies is presumed extirpated from 6 of the 15 locations. At another 6 locations, the butterfly's occurrence is extant, but ephemeral. The butterfly exhibits metapopulation dynamics at these locations, likely emigrating to these smaller patches of habitat from the core colonies during years when environmental conditions are favorable. The Mt. Charleston blue butterfly has not been sighted at the majority of these 6 extant ephemeral locations since 1995. Finally, 3 of the 15 locations (estimated to encompass less than 9 acres (3.6 hectares) of habitat) are currently known to be extant core colonies. Habitat loss and modification threatens all three of these occupied core colonies, as documented by the petition and verified by information in our files. We conclude that the petition presents substantial information to indicate that listing may be warranted due to the present or threatened destruction or modification of habitat or range for the Mt. Charleston blue butterfly.

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

Neither the petition nor information in our files provides any information pertaining to Factor B with regard to the Mt. Charleston blue butterfly.

C. Disease or Predation

Neither the petition nor information in our files provides any information pertaining to Factor C with regard to the Mt. Charleston blue butterfly.

D. Inadequacy of Existing Regulatory Mechanisms

Although the Mt. Charleston blue butterfly is not federally listed, some protections are in place, as documented in the petition. The subspecies is included in a 1998 Conservation Agreement for the Spring Mountains National Recreation Area, Clark and Nye Counties, Nevada (Conservation Agreement) signed by the State of Nevada, Forest Service, and the Service (Forest Service 1998, pp. 1–50). The Conservation Agreement described conservation actions for the butterfly on lands within the Forest Service's jurisdiction. In 2000, the 55 species that are the subject of the Conservation Agreement, including the Mt. Charleston blue butterfly, were incorporated as covered species under the Clark County Multiple Species Habitat Conservation Plan (Clark County MSHCP).

The petition makes three assertions that inadequacy of existing regulatory mechanisms is a threat to the Mt. Charleston blue butterfly: (1) Responsibilities as described by section 5.6 of the Conservation Agreement have not been met; (2) required butterfly surveys were not conducted for a project at the LVSSR in 2005; and (3) no mitigation for the loss of habitat from projects described in the petition has occurred to meet the measurable biological goals of no net unmitigated loss under the Clark County MSHCP (The Urban Wildlands Group, Inc. 2005, pp. 1–3). The following details these assertions.

(1) The petition alleges that responsibilities as described in section 5.6 of the Conservation Agreement have not been met (The Urban Wildlands Group, Inc. 2005, p. 1). This section states that the Forest Service and other Conservation Agreement signatories will ''Work with Las Vegas Ski and Snowboard Resort to develop protective strategies for sensitive ecological resources. This will include investigating options for erosion control of the Lee Canyon ski slopes with native seed mixes, including *Astragalus calycosus* var. *mancus* to enhance butterfly habitat, management of herbicides and pesticides, and a plan for eventual elimination of nonnative seeding, and management of the Three Springs area'' (The Urban Wildlands Group, Inc. 2005, p. 1; Forest Service 1998, p. 39). With a change in ownership of the LVSSR in 2004, nonnative seeding at the LVSSR was eliminated. In addition, a Forest Service decision notice dated September 13, 2004, directed the LVSSR to prepare a monitoring plan for disturbed areas, which evolved into a broader Adaptive Management Vegetation Plan (Vegetation Plan) and a specific 2005 Program of Work (Forest Service 2004a, p. 2; Forest Service 2005a, pp. 1–24; Forest Service 2005b, pp. 1–11). One purpose of this Vegetation Plan was to implement the conservation actions described in section 5.6, as well as Forest Service General Management Plan objectives to benefit numerous endemic species within the LVSSR. The Vegetation Plan will guide revegetation efforts at the LVSSR from 2005 through 2011. The objectives of this Vegetation Plan include: increase self-sustaining populations of sensitive plants species and butterfly host plants; eliminate the use and occurrence of nonnative species in the ski area; describe inventory guidelines and protocols; describe rehabilitation guidelines and protocols; describe monitoring guidelines and protocols; and facilitate maintenance, construction, and reconstruction, as well as limited expansion, of skiing opportunities and facilities (Forest Service 2005a, p. 3). Monitoring of disturbed areas and control plots, and targeted native seed collection, occurred in 2005 and 2006. On-the-ground cultivation or planting of native seed has not yet occurred. If implementation of the Vegetation Plan continues with success, the Service estimates that habitat restoration for the Conservation Agreement's species, including the Mt. Charleston blue butterfly, will be

realized in 3 to 5 years (1 to 3 more years for seed collection and cultivation, and 2 additional years for establishment of habitat). This Vegetation Plan is an important step towards meeting the objectives of section 5.6 of the Conservation Agreement, however, the Vegetation Plan was initiated in 2005 and its success is yet to be determined. Thus based on information in our files, the petition is correct that some responsibilities described in section 5.6 of the Conservation Agreement have not been initiated or completed, such as management of the Three Springs area, and on-the-ground cultivation or planting of native seed for erosion control and enhancement of butterfly habitat. However, the petition is incorrect with regard to other responsibilities under Section 5.6 of the Conservation Agreement, as some have been fulfilled or have been initiated, such as elimination of nonnative seeding, and development of the Vegetation Plan to move toward establishing native seed and butterfly host plants at the LVSSR.

(2) The petitioner alleges that butterfly surveys were not completed for a project implemented in 2005 that disturbed Mt. Charleston blue butterfly habitat at the LVSSR (The Urban Wildlands Group, Inc. 2005, p. 3). Section 1.0 of the Conservation Agreement states that the Forest Service, as a general commitment, would ''conduct pre-activity surveys for species of concern prior to taking an action'' (Forest Service 1998, p. 29). Information in our files confirms that pre-activity surveys for butterflies were not completed before either a 2005 construction project associated with replacing a snowmaking line that affected the core colony at LVSSR #1, or other LVSSR projects implemented in 2005 (Forest Service 2004c, p. 1; Forest Service 2005c, p. 7).

(3) The petitioner also asserts that no mitigation for the loss of habitat from projects described in the petition has occurred to provide for no net unmitigated loss under the Clark County MSHCP (The Urban Wildlands Group, Inc. 2005, p. 3). As a signatory to the Implementing Agreement of the Clark County MSHCP, the Forest Service committed to implementing mitigation, minimization, and monitoring actions under the Clark County MSHCP for covered species on Forest Service lands in Clark County. The Clark County MSHCP Environmental Impact Statement identifies two measurable biological goals for the Mt. Charleston blue butterfly: (a) ''No net unmitigated loss of larval host plant or nectar plant species habitat in the Spring Mountains Natural Recreation Area,'' and (b) ''Maintain stable or increasing population numbers and host and larval plant species'' (RECON 2000a, Table 2.5, pp. 2–154).

Information in our files confirms the petitioner's claim that mitigation did not occur for several projects noted in the petition, including: (a) The expansion of the water system at the Youth Camp in Lee Canyon, (b) the modification of the parking area at the LVSSR (likely in 2004), and (c) the construction of an avalanche deflection berm located at the top of the northwestern-most ski run at the LVSSR within the LVSSR #2 core colony for the Mt. Charleston blue butterfly in 2000 or 2001 (Forest Service 2002, pp. 15–18).

However, with regard to the projects implemented in 2005, there is information in our files that the Forest Service based their permitting approval for these projects on implementation of the Vegetation Plan (Forest Service 2005a, pp. 1–24). One purpose of the Vegetation Plan is to achieve mitigation for loss of habitat from various LVSSR project impacts to affected Conservation Agreement species, including the Mt. Charleston blue butterfly. As stated above, the Vegetation Plan was initiated in 2005 with monitoring of disturbed areas and control plots, as well as targeted native seed collection, in 2005 and 2006. The Forest Service and the LVSSR made the commitment to provide for habitat restoration for projects that were implemented in 2005; however, on-the-ground cultivation or planting of native seed has not yet occurred to replace the lost Mt. Charleston blue butterfly habitat. As previously stated, if implementation of the Vegetation Plan continues with success, the Service estimates that habitat restoration for the Mt. Charleston blue butterfly will be realized in 3 to 5 years (1 to 3 more years for seed collection and cultivation, and 2 additional years for establishment of habitat). Overall, it appears that there has been a current net loss of Mt. Charleston blue butterfly larval host plant or nectar plant species habitat in the Spring Mountains National Recreation Area as a result of specific projects. With successful implementation of the Vegetation Plan, measurable biological goals of the MSHCP may be met within 5 years.

In summary, the petition states the following three points: (1) Responsibilities have not been met under section 5.6 of the Conservation Agreement; (2) pre-activity butterfly surveys were not conducted for a project implemented in 2005; and (3) no mitigation for the loss of habitat from projects described in the petition has occurred. As described previously, certain responsibilities have been initiated or met under section 5.6 of the Conservation Agreement, although others have not yet been initiated or fully implemented. Pre-activity butterfly surveys were not conducted prior to multiple construction projects at the LVSSR in 2005, as described in the petition and verified by information in our files. Mitigation for site-specific impacts to butterfly habitat have been implemented for some projects, and not implemented for others. Now it appears that there has been a net loss of habitat containing Mt. Charleston blue butterfly larval host plant or nectar plant species in the Spring Mountains Natural Recreation Area as a result of implementation of specific projects; however, due to actions recently initiated, habitat restoration should be realized in the future. Despite these recent restoration efforts, the interim loss may still be substantial due to restricted size of the occupied habitat and the uncertain population status of the subspecies.

Although there are existing agreements that intended to conserve the Mt. Charleston blue butterfly, to date these agreements either have not been implemented or the limited implementation does not appear to have provided sufficient conservation for this subspecies. Given the uncertain population status of and 2006 survey results for the Mt. Charleston blue butterfly, it is necessary for the Service to re-evaluate the mechanisms currently in place to protect this subspecies. Based on the above information, we find that the petition presents substantial information to indicate that listing may be warranted due to the inadequacy of existing regulatory mechanisms to protect the Mt. Charleston blue butterfly.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

The petitioner describes the threat to Mt. Charleston blue butterfly habitat resulting from vegetation succession and introduced plant species (The Urban Wildlands Group, Inc. 2005, p. 2). The petition provides two illustrations of this threat: (1) The loss of habitat near Old Town in Kyle Canyon due to shading of the larval host plant (as a result of vegetative succession) and introduction of nonnative species including alfalfa; and (2) the loss of the butterfly from Lee Meadow in Lee Canyon (The Urban Wildlands Group, Inc. 2005, p. 3). Based on information in our files, Weiss *et al.* (1995, p. 5) concluded host plant

densities in Lee Meadow appeared insufficient to support the Mt. Charleston blue butterfly. Decreases in the quality or abundance of larval host plant and nectar sources can be caused by changes in plant community composition, particularly changes associated with succession, disturbance, and grazing regimes (Murphy *et al.* 1990, p. 43). Changes in vegetation structure and composition associated with succession may have contributed to the loss of Torrey's milkvetch, and, therefore, to the loss of the Mt. Charleston blue butterfly at historic sites in Kyle Canyon (Boyd and Austin 2002, p. 13). Based on information in our files, Weiss *et al.* (1997, p. 33) describe the impact of erosion control plantings of grasses and alfalfa (*Medicago sativa*) on the butterfly's host plants at the LVSSR as a butterfly management issue due to competition with butterfly host plants and potential structural changes to butterfly habitat. Further information in our files confirmed that the LVSSR ski runs were seeded with both cultivated varieties of native and nonnative grasses and introduced forbs in the 1970s and 1980s (Titus and Landau 2003, pp. 1–3).

The petitioner also mentions wild horse grazing as an issue and notes that wild horses are nearly always present at one of the core colonies of the butterfly (LVSSR #1) (The Urban Wildlands Group, Inc. 2005, p. 2). The petition does not provide any supporting documentation to describe this threat or the extent of impact from the threat to the Mt. Charleston blue butterfly. Based on information in our files, the Clark County MSHCP identified trampling by wild horses and livestock grazing as potential threats to the subspecies and other butterflies (RECON 2000b, p. B–158). The extent of any impact from trampling and grazing to the Mt. Charleston blue butterfly and its host plants is undocumented or unknown.

There is insufficient information in the petition or our files to adequately characterize the threat of vegetation succession, nonnative plant species, or wild horses at the locations identified in the petition or across the range of the subspecies. Therefore, we conclude that there is not substantial scientific or commercial information to indicate that listing the Mt. Charleston blue butterfly may be warranted due to the other natural or manmade factors described in the petition.

Finding

We have reviewed and evaluated the five listing factors with regard to the Mt. Charleston blue butterfly, based on the information in the petition and in our files. On the basis of this review and evaluation, we find that the petition does present substantial information to indicate that listing the Mt. Charleston blue butterfly as threatened or endangered may be warranted.

The Mt. Charleston blue butterfly is known only from the high elevations of the Spring Mountains in Clark County Nevada, where it depends upon its larval host plant, Torrey's milkvetch. The range of the Mt. Charleston blue butterfly is centered on the east side of the Spring Mountains in Kyle and Lee Canyons, on lands managed by the Forest Service in the Spring Mountains National Recreation Area of the Humboldt-Toiyabe National Forest. Based on historic records and surveys, the subspecies has occupied 15 locations since 1928. Currently, the Mt. Charleston blue butterfly is known to occupy three core colonies in Kyle and Lee Canyons. Two of the core colonies of the subspecies in Lee Canyon total 3.7 acres (1.5 hectares), while the size of the core colony in Kyle Canyon is estimated at 5 acres (2 hectares); thus, the Mt. Charleston blue butterfly is currently known to occupy less than 9 acres (3.6 hectares) of habitat.

There is substantial information presented in the petition and verified by information in our files that listing may be warranted for the Mt. Charleston blue butterfly due to the present destruction, modification, or curtailment of the subspecies' habitat or range (Factor A) and the inadequacy of existing regulatory mechanisms (Factor D). Present habitat destruction and modification to the Mt. Charleston blue butterfly and Torrey's milkvetch was documented at the LVSSR in Lee Canyon from multiple projects implemented since 2000, including construction of a berm within a core colony, modifications to a parking lot, and replacement of snowmaking lines (one of which affected a core colony). In addition, expansion of the water system at the Youth Camp in Lee Canyon affected the butterfly's habitat. Finally, a core colony in Kyle Canyon is bisected by the South Loop Trail and is affected by an additional unsanctioned trail.

The petition states that the current situation of the Mt. Charleston blue butterfly is perilous with the extant colonies all at risk of extinction (The Urban Wildlands Group, Inc. 2005, p. 2). Based on the information in the petition and our files, 15 locations have been occupied by the Mt. Charleston blue butterfly since 1928. The subspecies is presumed extirpated from 6 of the 15 locations. At another 6 locations, the butterfly's occurrence is extant, but ephemeral. The butterfly exhibits metapopulation dynamics at these locations, likely emigrating to these smaller patches of habitat from the core colonies during years when environmental conditions are favorable. The Mt. Charleston blue butterfly has not been sighted at the majority of these 6 extant ephemeral locations since 1995. As described in the petition and verified by information in our files, the butterfly's persistently occupied range is currently known to be restricted to three locations or colonies on approximately 9 acres (3.6 hectares), and all three locations are threatened by habitat loss and modification. We are further concerned that formal surveys in 2006 were unable to identify any adult butterflies across the subspecies' known range, including at the three core colonies. While we do not consider the species extirpated from the three core colonies, successful reproduction and emergence of pupae in 2007 is critical for this subspecies.

There is substantial information presented in the petition and verified by information in our files that listing may be warranted for the Mt. Charleston blue butterfly due to the inadequacy of existing regulatory mechanisms (Factor D). The petition describes and information in our files verifies that some responsibilities under the Conservation Agreement (Sections 1.0 and 5.6) have not been met. However, some responsibilities under the Conservation Agreement, such as elimination of non-native seeding at the LVSSR, have been met and still others have recently been initiated. Furthermore, the petition describes and information in our files verifies that mitigation for site-specific impacts to butterfly habitat have been implemented for some projects, and not implemented for others. It appears that currently there has been a net loss of habitat containing Mt. Charleston blue butterfly larval host plant or nectar plant species in the Spring Mountains National Recreation Area as a result of implementation of specific projects. Due to actions recently initiated, however, habitat restoration should be realized in the future. Although there are existing agreements in place that intended to conserve the Mt. Charleston blue butterfly, to date these agreements either have not been implemented or the limited implementation does not appear to have provided sufficient conservation for this subspecies. Given the uncertain population status of and the 2006 survey results for the Mt. Charleston blue butterfly, it is necessary for the Service to re-evaluate the mechanisms currently in place to protect this subspecies.

In summary, based on listing factors A and D, we conclude that the petition has presented substantial information that listing may be warranted for the Mt. Charleston blue butterfly. We will initiate a status review to determine whether listing the subspecies as threatened or endangered is warranted.

References Cited

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

Author

The primary author of this notice is the Nevada Fish and Wildlife Office (see **ADDRESSES**).

Authority

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

Dated: May 15, 2007.

H. Dale Hall,

Director, U.S. Fish and Wildlife Service.

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