Billing Code 4310-55

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2013–0105]

[4500030114]

RIN 1018-AZ91

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Mount Charleston Blue Butterfly (*Plebejus shasta charlestonensis*)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, propose to designate critical habitat for the Mount Charleston blue butterfly (*Plebejus shasta charlestonensis*) under

the Endangered Species Act. In total, approximately 5,561 acres (2,250 hectares) are being proposed for designation as critical habitat. The proposed critical habitat is located in the Spring Mountains of Clark County, Nevada. If we finalize this rule as proposed, it would extend the Act's protections to this species' critical habitat. We also announce the availability of a draft economic analysis of the proposed designation of critical habitat for the Mount Charleston blue butterfly.

DATES: We will accept comments on the proposed rule or draft economic analysis that are received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**) must be received by 11:59 p.m. Eastern Time on the closing date.

We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Public Meeting: We will hold a public meeting on this proposed rule on August 5, 2014, from 6 to 8 p.m. at the location specified in **ADDRESSES**. People needing reasonable accommodations in order to attend and participate in the public meeting should contact Dan Balduini, Nevada Fish and Wildlife Office, as soon as possible (see **FOR FURTHER INFORMATION CONTACT).**

ADDRESSES: You may submit comments on the proposed rule or draft economic analysis by one of the following methods:

(1) *Electronically*: Go to the Federal eRulemaking Portal: *http://www.regulations.gov*. In the Search box, enter FWS–R8–ES–2013–0105, which is the docket number for this rulemaking. You may submit a comment by clicking on "Comment Now!"

(2) *By hard copy*: Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R8–ES–2013–0105; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

We request that you send comments **only** by the methods described above. We will post all comments on *http://www.regulations.gov*. This generally means that we will post any personal information you provide us (see the **Public Comments** section below for more information).

Document availability: The draft economic analysis is available at *http://www.fws.gov/Nevada*, at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0105, and at the Nevada Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**). The coordinates or plot points or both from which the map in the rule portion is generated, as well as any additional tools or supporting information that we may develop for this critical habitat designation, will also be available from these sources and included in the administrative record for this critical habitat designation.

Public meeting: The public meeting regarding the proposed critical habitat designation for the Mount Charleston blue butterfly will be held at the U.S. Fish and Wildlife Service office building, 4701 N. Torrey Pines Drive, Las Vegas, Nevada.

FOR FURTHER INFORMATION CONTACT: Edward D. Koch, Field Supervisor, U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office, 1340 Financial Blvd, Suite 234, Reno, Nevada 89502–7147; telephone (775) 861–6300 or facsimile (775) 861–5231. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. This is a proposed rule to designate critical habitat for the endangered Mount Charleston blue butterfly (*Plebejus shasta charlestonensis*). Under the Act, critical habitat shall be designated, to the maximum extent prudent and determinable, for any species determined to be an endangered or threatened species under the Act. Designations and revisions of critical habitat can be completed only by issuing a rule. In total, we are proposing approximately 5,561 acres (2,250 hectares) for designation as critical habitat for the Mount Charleston blue butterfly in the Spring Mountains of Clark County, Nevada. This proposal fulfills obligations to submit a

proposed critical habitat rule or finalize a not prudent determination for critical habitat for the Mount Charleston blue butterfly to the **Federal Register** in accordance with *In re: Endangered Species Act Section 4 Deadline Litig., Misc. Action No. 10-377 (EGS), MDL Docket No. 2165 (D.D.C.).*

The basis for our action. Section 4(b)(2) of the Endangered Species Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species.

We prepared an economic analysis of the proposed designation of critical habitat. In order to consider the economic impacts of the proposed critical habitat designation, we prepared an analysis of the economic impacts of the proposed critical habitat designation and related factors. We hereby announce the availability of the draft economic analysis, and seek public review and comment.

We will seek peer review. We are seeking comments from knowledgeable individuals with scientific expertise to review our analysis of the best available science and application of that science and to provide any additional scientific information to improve

this proposed rule. We have invited peer reviewers to comment on our specific assumptions and conclusions in this critical habitat designation. Because we will consider all comments and information received during the comment period, our final determinations may differ from this proposal.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned government agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as "critical habitat" under section 4 of the Act (16 U.S.C. 1531 *et seq*.) including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(2) Specific information on:

(a) The amount and distribution of Mount Charleston blue butterfly habitat;

(b) What areas, that were occupied at the time of listing (or are currently occupied) and that contain features essential to the conservation of the species, should be

included in the designation and why;

(c) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change;

(d) What areas not occupied at the time of listing are essential for the conservation of the species and why; and

(e) The larval host or adult nectar plants: *Astragalus calycosus* var. *calycosus* (Torrey's milkvetch), *Astragalus lentiginosus* var. *kernensis* (Kern plateau milkvetch), *Astragalus platytropis* (Broad keeled milkvetch) and *Erigeron clokeyi* (Clokey's fleabane), *Hymenoxys lemmonii* (Lemmon bitterweed), *Hymenoxys cooperi* (Cooper rubberweed), and *Eriogonum umbellatum* var. *versicolor* (sulphur-flower buckwheat).

(f) Potential effects from the Carpenter 1 Fire that occurred in July 2013 to populations and distribution of the Mount Charleston blue butterfly, and changes to the amount and distribution of habitat for the Mount Charleston blue butterfly that may have been altered by the fire, including information on the ability of the Mount Charleston blue butterfly or its habitat to recover from the effects of the Carpenter 1 Fire.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Whether we should remove some areas from the final designation of critical habitat due to high levels of recreational use that may have significantly diminished the presence or quality of the physical and biological features of this habitat, as discussed

below in *Areas Surrounding Recreation Infrastructure* in the **Proposed Critical Habitat Designation** section. These locations are within the established boundaries or developed infrastructure (for example, roads, parking areas, fire pits, etc.) of campgrounds and day use areas that have extremely high levels of public visitation and associated recreational disturbance. We are specifically seeking public comment on whether these locations, identified in *Areas Surrounding Recreation Infrastructure* below, contain the physical or biological features essential to the conservation of the species, and, therefore, whether they meet the definition of critical habitat. A map of the specific locations for potential removal can be found on the Nevada Fish and Wildlife Office website at: *http://www.fws.gov/nevada/* and at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0105.

(5) Information on the projected and reasonably likely impacts of climate change on the Mount Charleston blue butterfly and proposed critical habitat.

(6) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation; in particular, any impacts on small entities or families, and the benefits of including or excluding areas that exhibit these impacts.

(7) Information on the extent to which the description of economic impacts in the draft economic analysis is a reasonable estimate of the likely economic impacts.

(8) The likelihood of adverse social reactions to the designation of critical habitat, as discussed in the associated documents of the draft economic analysis, and how the consequences of such reactions, if likely to occur, would relate to the conservation and regulatory benefits of the proposed critical habitat designation.

(9) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act.

(10) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments **only** by the methods described in **ADDRESSES**.

All comments submitted electronically via *http://www.regulations.gov* will be presented on the website in their entirety as submitted. For comments submitted via hard copy, we will post your entire comment—including your personal identifying information—on *http://www.regulations.gov*. You may request at the top of your document that we withhold personal information such as your street address, phone

number, or e-mail address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *http://www.regulations.gov*, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Previous Federal Actions

In an earlier **Federal Register** volume, we published a final rule to list the Mount Charleston blue butterfly as endangered (78 FR 57750, September 19, 2013). This proposed critical habitat designation is based upon determinations made in the final listing rule. For additional information on previous Federal actions, please refer to the September 19, 2013, final listing rule.

On March 8, 2011, we published a 12-month finding (76 FR 12667) in which we concluded that listing the Mount Charleston blue butterfly was warranted, but precluded by higher priority listing actions. On October 26, 2011, we included the Mount Charleston blue butterfly as a new candidate in the Candidate Notice of Review (76 FR 66370). On September 27, 2012, we published a proposed rule (77 FR 59518) to list the Mount Charleston blue butterfly as endangered, and the lupine blue butterfly, Reakirt's

blue butterfly, Spring Mountains icarioides blue butterfly, and two Spring Mountains dark blue butterflies as threatened due to similarity of appearance to the Mount Charleston blue butterfly. A 60-day comment period following publication of this proposed rule closed on November 13, 2012. Based on comments we received during this period, we determined that designation of critical habitat for the Mount Charleston blue butterfly is prudent. This document consists of a proposed rule to designate critical habitat for the Mount Charleston blue butterfly.

Background

It is our intent to discuss below only those topics directly relevant to the designation of critical habitat for the Mount Charleston blue butterfly in this proposed rule. For further information on the subspecies' biology and habitat, population abundance and trends, distribution, demographic features, habitat use and conditions, threats, and conservation measures, please see the final listing rule for Mount Charleston blue butterfly, published September 19, 2013 (78 FR 57750); the September 27, 2012, proposed rule (77 FR 59518); and the 12-month finding for the species (76 FR 12667; March 8, 2011). These documents are available from the Environmental Conservation Online System (ECOS) (*http://ecos.fws.gov/ecos/indexPublic.do*), the Nevada Fish and Wildlife Office website (*http://www.fws.gov/nevada/*), or from the Federal eRulemaking Portal (*http://www.regulations.gov*).

Prudency Determination

In our proposed listing rule for the Mount Charleston blue butterfly (76 FR 59518; September 27, 2012), we concluded that designation of critical habitat was not prudent in accordance with 50 CFR 424.12(a)(1), because collection was a threat to the Mount Charleston blue butterfly, and designation was expected to increase the degree of this threat to the subspecies and its habitat. In that proposal, we requested information from the public during the public comment period and solicited information from peer reviewers on whether the determination of critical habitat was prudent and determinable, what physical or biological features were essential to the conservation of the subspecies, and what areas contained those features or were otherwise essential for the conservation of the species.

In the final listing rule, we reported that peer reviewers commented that designating critical habitat would not increase the threat to the Mount Charleston blue butterfly from collection, because those individuals interested in collecting Mount Charleston blue butterflies would be able to obtain occurrence locations from other sources, such as the internet. In addition, the U.S. Department of Agriculture's Forest Service (Forest Service) issued a closure order to butterfly collecting in areas where the Mount Charleston blue butterfly occurs, thus minimizing the threat of collection (78 FR 57750). Based on information gathered from peer reviewers and the public during the comment period, we determined that it was prudent to designate critical habitat for the Mount Charleston blue butterfly (78 FR 57750).

For more information regarding our determination to designate critical habitat, please see our responses to comments in the final listing determination for Mount Charleston blue butterfly published September 19, 2013. Based on the information we received on the physical or biological features essential to the Mount Charleston blue butterfly, and information on areas otherwise essential for the subspecies, we have determined that the designation of critical habitat is prudent and determinable, and we are proposing critical habitat at this time.

Species Information

Taxonomy and Species Description

The Mount Charleston blue butterfly is a distinct 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 butterflies: *P. s. shasta*, *P. s. calchas*, *P. s. pallidissima*, *P. s. minnehaha*, *P. s. charlestonensis*, *P. s. pitkinensis*, and *P. s. platazul* in "A catalogue of the butterflies of the United States and Canada with a complete bibliography of the descriptive and systematic literature" published in volume 40 of the Journal of Research on the Lepidoptera (2008, pp. 379–380). The Mount Charleston blue butterfly is known to occur only in the high elevations of the Spring Mountains, located approximately 40 kilometers (km) (25 miles (mi)) west of Las Vegas in Clark County, Nevada (Austin 1980, p. 20; Scott 1986, p. 410). The first mention of the Mount Charleston blue butterfly as a unique taxon was in 1928 by Garth

(p. 93), who recognized it as distinct from the species Shasta blue butterfly (Austin 1980, p. 20). Howe (in 1975, Plate 59) described specimens from the Spring Mountains as the *P. s. shasta* form *comstocki*. However, in 1976, Ferris (p. 14) placed the Mount Charleston blue butterfly with the wider ranging Minnehaha blue subspecies. Finally, Austin asserted that Ferris had not included specimens from the Sierra Nevada Mountains of extreme western Nevada in his study, and in light of the geographic isolation and distinctiveness of the Shasta blue butterfly population in the Spring Mountains and the presence of at least three other well-defined races (subspecies) of butterflies endemic to the area, it was appropriate to name this population as a subspecies, *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 Integrated Taxonomic Information System (ITIS) recognizes the Mount Charleston blue butterfly as a valid subspecies based on Austin (1980) (Retrieved May 1, 2013, from the Integrated Taxonomic Information System on-line database, *http://www.itis.gov*). The ITIS is hosted by the United States Geological Survey (USGS) Center for Biological Informatics (CBI) and is the result of a partnership of Federal agencies formed to satisfy their mutual needs for scientifically credible taxonomic information.

As a subspecies, the Mount Charleston blue butterfly is similar to other Shasta blue butterflies, with a wingspan of 19 to 26 millimeters (mm) (0.75 to 1 inch (in)) (Opler

1999, p. 251). The Mount Charleston blue butterfly is sexually dimorphic; males and females occur in two distinct forms. The upper side of males is dark to dull iridescent blue, and females are brown with some blue basally (Opler 1999, p. 251). The species has a row of submarginal black spots on the dorsal side of the hind wing and a discal black spot on the dorsal side of the forewing and hind wing, which when viewed up close distinguishes it from other small, blue butterflies occurring in the Spring Mountains (Austin 1980, pp. 20, 23; Boyd and Austin 1999, p. 44). The underside of the wings is gray, with a pattern of black spots, brown blotches, and pale wing veins giving it a mottled appearance (Opler 1999, p. 251). The underside of the hind wing has an inconspicuous band of submarginal metallic spots (Opler 1999, p. 251). Based on morphology, the Mount Charleston blue butterfly is most closely related to the Great Basin populations of the Minnehaha blue butterfly (Austin 1980, p. 23), and it can be distinguished from other Shasta blue butterfly subspecies by the presence of a clearer, sharper, and blacker post-median spot row on the underside of the hind wing (Austin 1980, p. 23; Scott 1986, p. 410).

Distribution

Based on current and historical occurrences or locations (Austin 1980, pp. 20–24; Weiss *et al.* 1997, Map 3.1; Boyd and Murphy 2008, p. 4, Pinyon 2011, Figure 9–11; Andrew *et al*. 2013 pp. 1–93; Thompson *et al.* 2014, pp. 97–158), the geographic range of the Mount Charleston blue butterfly is in the upper elevations 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 Upper Kyle and Lee Canyons, Clark County, Nevada. The majority of the occurrences or locations are along the upper ridges in the Mount Charleston Wilderness and in Upper Lee Canyon area, while a few are in Upper Kyle Canyon. Please refer to Table 1 of the final rule listing the Mount Charleston blue butterfly as an endangered species (78 FR 57750) for a synopsis of locations where the Mount Charleston blue butterfly has been detected since 1928.

Habitat and Biology

Weiss *et al.* (1997, pp. 10–11) describe the natural habitat for the Mount 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 soil and rock substrates with limited or no canopy cover or shading.

Other than observations by surveyors, little information is available regarding most aspects of the subspecies' biology and the key determinants for the interactions among the Mount Charleston blue butterfly's life history and environmental conditions. 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).

Like most butterfly species, the Mount Charleston blue butterfly is dependent on specific plant species for the adult butterfly flight period (nectar plants), when breeding and egg-laying occurs, and for larval development (described under Physical and Biological Features, below (Weiss *et al.* 1994, p. 3; Weiss *et al.* 1997, p. 10; Boyd 2005, p. 1; DataSmiths 2007, p. 21; Boyd and Murphy 2008, p. 9; Andrew *et al.* 2013, pp. 4–12; Thompson *et al.* 2014, pp. 97–158)). 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 2006, p. 9, Thompson *et al.* 2014, pp. 105–116).

Like all butterfly species, both the phenology (timing) and number of Mount Charleston blue butterfly individuals that emerge and fly to reproduce during a particular year appear to be reliant on the combination of many environmental factors that may constitute a successful ("favorable") or unsuccessful ("poor") year for the subspecies. Specific information regarding diapause of the Mount Charleston blue butterfly is lacking, and while geographic and subspecific variation in life histories can vary, we presume information on the diapause of the closely related Shasta blue butterfly is similar to that of the Mount Charleston blue butterfly. The Shasta blue butterfly is generally thought to diapause at the base of its larval host plant or in the surrounding substrate (Emmel and Shields 1978, p. 132) as an egg the first winter and as a larva near maturity the second winter (Ferris and Brown 1981, pp. 203–204; Scott 1986, p. 411); however,

Emmel and Shields (1978, p. 132) suggested that diapause was passed as partly grown larvae, because freshly hatched eggshells were found near newly laid eggs (indicating that the eggs do not overwinter). More recent observations of late summer hatched and overwintering unhatched eggs of the Mount Charleston blue butterfly eggs laid in the Spring Mountains may indicate that it has an environmentally cued and mixed diapause life cycle; however, further observations supporting egg viability are needed to confirm this (Thompson *et al.* 2014, p. 131).

Prolonged or multiple years of diapause has been documented for several butterfly families, including Lycaenidae (Pratt and Emmel 2010, p. 108). For example, the pupae of the variable checkerspot butterfly (*Euphydryas chalcedona*, which is in the Nymphalid family) are known to persist in diapause up to 5 to 7 years (Scott 1986, p. 28). The number of years the Mount Charleston blue butterfly can remain in diapause is unknown. Boyd and Murphy (2008, p. 21) suggest the Mount Charleston blue butterfly may be able to delay maturation during drought or the shortened growing seasons that follow winters with heavy snowfall and late snowmelt by remaining as eggs. Experts have hypothesized and demonstrated that, in some species of Lepidoptera, a prolonged diapause period may be possible in response to unfavorable environmental conditions (Scott 1986, pp. 26–30; Murphy 2006, p. 1; DataSmiths 2007, p. 6; Boyd and Murphy 2008, p. 22), and this has been hypothesized for the Mount Charleston blue butterfly as well (Thompson *et al.* 2013a, presentation). Little has been confirmed regarding the length of time or life stage in which the Mount Charleston blue butterfly diapauses.

Most butterfly populations exist as regional metapopulations (Murphy *et al.* 1990, p. 44). Boyd and Austin (1999, pp. 17 and 53) suggest this is true of the Mount Charleston blue butterfly. 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). According to Boyd and Austin (1999, p. 17), smaller colonies of the Mount Charleston blue butterfly 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 Mount Charleston blue butterfly to move between habitat patches has not been studied; however, field observations indicate 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 m (33 to 330 ft) (Weiss *et al.* 1995, p. 9), and nearly sedentary behavior (DataSmiths 2007, p. 21; Boyd and Murphy 2008, pp. 3 and 9). Furthermore, movement of lycaenid butterflies, in general, is limited and on the order of hundreds of meters (Cushman and Murphy 1993, p. 40); however, there are small portions of a population that can make substantially long movements (Arnold 1983, pp. 47–48).

Based on this information, the likelihood of dispersal more than hundreds of meters is low for the Mount Charleston blue butterfly, but it may occur. Thompson *et al.* (2013a, presentation) have hypothesized that the Mount Charleston blue butterfly could diapause for multiple years (more than 2) as larvae and pupae until vegetation conditions are favorable to support emergence, flight, and reproduction (Thompson *et al.* 2013a,

presentation). This could account for periodic high numbers of butterflies observed at more sites in years with favorable conditions, as was documented by Weiss *et al.* in 1995, than years with unfavorable conditions. Additional future research regarding diapause patterns of the Mount Charleston blue butterfly is needed to further our understanding of this subspecies.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer

necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a

critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical and biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. We designate critical habitat in areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR

34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded

by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical habitat is not prudent when one or both of the following situations exist:

(1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or

(2) such designation of critical habitat would not be beneficial to the species.

Based on information received after publication of the proposed listing rule, we determined that the threat of take attributed to collection under Factor B has been reduced with the implementation of a Forest Service closure order to limit collection in the Spring Mountains. We also determined from peer and public review of the proposed listing rule that identification and mapping of critical habitat is not expected to exacerbate the threat of collection, because location information is available on the internet and the closure order reduces the threat of collection. In the absence of finding that the designation of critical habitat would increase threats to a species, if there are any benefits to a critical habitat designation, then a prudent finding is warranted. Here, the potential benefits of designation include: (1) triggering consultation under section 7 of the Act, in new areas for actions in which there may be a Federal nexus where it would not otherwise occur because, for example, it is or has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species. Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to the species and may provide some measure of benefit, we find that designation of critical habitat is prudent for the Mount Charleston blue butterfly.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the Mount Charleston blue butterfly is

determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

(i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or

(ii) The biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat.

When critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where this species is located. This and other information represent the best scientific data available and led us to conclude that the designation of critical habitat is determinable for the Mount Charleston blue butterfly.

Physical or Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

(1) Space for individual and population growth and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, or rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

We derive the specific physical or biological features essential to the Mount Charleston blue butterfly from studies of this species' habitat, ecology, and life history as described below. Additional information can be found in the final listing rule published in the **Federal Register of** September 19, 2013 (78 FR 57750). We have determined that the following physical or biological features are essential to the Mount Charleston blue butterfly:

Space for Individual and Population Growth and for Normal Behavior

The Mount Charleston blue butterfly is known to occur only in the high elevations of the Spring Mountains, located approximately 40 km (25 mi) west of Las Vegas in Clark County, Nevada (Austin 1980, p. 20; Scott 1986, p. 410). Historically, the Mount Charleston blue butterfly was detected at elevations as low as 1,830 m (6,000 ft) in the Spring Mountains (Austin 1980, p. 22; Austin 1981, p. 66; Weiss *et al*. 1995, p. 5). Currently, the Mount Charleston blue butterfly is presumed or known to occupy habitat occurring between 2,500 m (8,200 ft) elevation and 3,500 m elevation (11,500 ft) (Austin

1980, p. 22; Weiss *et al*. 1997, p. 10; Boyd and Austin 1999, p. 17; Pinyon 2011, p. 17; Andrew *et al*. 2013, pp. 20–61; Thompson *et al.* 2014, pp. 97–158). Dominant plant communities between these elevation bounds are variable (Forest Service 1998, pp. 11–12), but locations that support the Mount Charleston blue butterfly are characterized by open areas bordered, near, or surrounded by forests composed of ponderosa pine (*Pinus ponderosa*), Great Basin bristlecone pine (*Pinus longaeva*), and white fir (*Abies concolor*) (Andrew *et al.* 2013, p. 5). These open forest conditions are often created by disturbances such as fire and avalanches (Weiss *et al*. 1995, p. 5; DataSmiths 2007, p. 21; Boyd and Murphy 2008, pp. 23–24; Thompson *et al.* 2014, pp. 97–158), but the open forest conditions may also exist as a function of an area's ecological system (Provencher 2008, p. 134).

The Mount Charleston blue butterfly is described to occur on relatively flat ridgetops, gently sloping hills, or meadows, where tree cover is absent to less than 50 percent (Austin 1980, p. 22; Weiss *et al*. 1995, pp. 5–6; Weiss *et al*. 1997, pp. 10, 32–34; Boyd and Austin 1999, p. 17; Boyd and Murphy 2008, p. 19; Andrews *et al*. 2013, p. 3; Thompson *et al.* 2014, p. 138). These locations and characteristics are likely correlated with the ecological requirements of the Mount Charleston blue butterfly's larval host plants (Weiss *et al*. 1997, p. 22) and adult nectar plants (described below).

Therefore, based on the information above, we identify flat or gently sloping areas between 2,500 m (8,200 ft) and 3,500 m (11,500 ft) elevation in the Spring Mountains as a physical or biological feature essential to the Mount Charleston blue butterfly for space

for individual and population growth and for normal behavior.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

The best scientific information available regarding food, water, air, light, minerals, and other nutritional or physiological requirements of the Mount Charleston blue butterfly's life stages (egg, larva, pupa, adult) result from observations by surveyors, and research to determine the requirements and environmental conditions essential to the Mount Charleston blue butterfly. In general, resources that are thought to fulfill these requirements occur in open areas with exposed soil and rock substrates with short, widely spaced forbs and grasses. These areas allow light to reach the ground in order for adult nectar and larval host plants to grow.

Adult Mount Charleston blue butterflies have been documented feeding on nectar from a number of different flowering plants, but most frequently these species are *Erigeron clokeyi* (Clokey's fleabane), *Eriogonum umbellatum* var. *versicolor* (sulphur-flower buckwheat), *Hymenoxys cooperi* (Cooper rubberweed), and *Hymenoxys lemmonii* (Lemmon bitterweed) (Weiss *et al*. 1997, p. 11; Boyd and Murphy 2008, pp. 13, 16; Pinyon 2011, p. 17; Andrew 2013, pp. 3–4; Thompson *et al.* 2014, pp. 117–118). Densities of nectar plants generally occur at more than 2 per square meter (m^2) (20 per square foot (ft^2)) for smaller plants such as *E. clokeyi* and more than 0.1 per m^2 (1 per ft^2) for larger and taller plants such as *Hymenoxys* sp. and *E. umbellatum* (Thompson *et al.* 2014, p. 138). Nectar plants typically occur within 10 m (33 ft) of larval host plants and

in combination provide nectar during the adult flight period between mid-July and early August (Thompson *et al.* 2014, p. 138). Other species which adult Mount Charleston blue butterflies have been documented using as nectar plants include *Antennaria rosea* (rosy pussy toes), *Cryptantha* species (cryptantha; the species *C. angustifolia* originally reported is likely a misidentification because this species occurs in much lower elevation desert habitat (Niles and Leary 2007, p. 26)), *Ericameria nauseosa* (rubber rabbitbrush), *Erigeron flagellaris* (trailing daisy), *Guiterrezia sarothrae* (broom snake weed), *Monardella odoratissima* (horsemint), *Petradoria pumila* var. *pumila* (rock-goldenrod), and *Potentilla concinna* var. *concinna* (Alpine cinquefoil) (Boyd and Murphy 2008, pp. 13, 16; Thompson *et al.* 2014, pp. 117–118).

Based on surveyors' observations, several species appear to be important food plants for the larval life stage of the Mount Charleston blue butterfly. Therefore, we consider those plants on which surveyors have documented Mount Charleston blue butterfly eggs to be larval host or food plants (hereafter, referred to as larval host plants). Based on this, *Astragalus calycosus* var. *calycosus*, *Astragalus lentiginosus* var. *kernensis*, and *Astragalus platytropis* are all considered larval host plants for the Mount Charleston blue butterfly (Weiss *et al.* 1997, p. 10; Austin and Leary 2008, p. 86; Andrew *et al.* 2013, pp. 7–8; Thompson *et al.* pp. 121–131) (See *Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring* below for more details). Future surveys and research may document the importance of other plant species as food resources for Mount Charleston blue butterfly larvae. Densities of host plants are generally greater than two per m^2 (20 per ft^2) (Weiss 1997, p. 34; Andrew *et al*. 2013, p.

9; Thompson *et al.* 2014, p. 138).

In addition, the Mount Charleston blue butterfly requires open canopy cover (open forest). Specifically, the Mount Charleston blue butterfly requires areas where tree cover is absent or low. This may be due to ecological requirements of the larval host plants or adult nectar plants or due to the flight behavior of the Mount Charleston blue butterfly. As with most butterflies, the Mount Charleston blue butterfly typically flies during sunny conditions, which are particularly important for this subspecies given the cooler air temperatures at high elevations in the Spring Mountains of Nevada (Weiss *et al.* 1997, p. 31).

The areas where the Mount Charleston blue butterfly occurs often have shallow exposed soil and rock substrates with short, widely spaced forbs and grasses (Weiss *et al*. 1997, pp. 10, 27, and 31; Boyd 2005, p. 1; Service 2006a, p. 1; Kingsley 2007, pp. 9–10; Boyd and Murphy 2008, p. 19; Pinyon 2011, pp. 17, 21; Andrew *et al*. 2013, pp. 9–13; Thompson *et al.* 2014, pp. 137–143). These vegetative characteristics may be important as they would not impede the Mount Charleston blue butterfly's low flight behavior (Weiss *et al*. 1997, p. 31) (reported to be 15 centimeters (cm) (38 in) or less (Thompson *et al*. 2014, p. 118)). Some taller grass or forb plants may be present when their density is less than five per m^2 (Thompson *et al.* 2014, pp. 138–139).

Therefore, based on the information above, we identify open habitat that permits light to reach the ground, nectar plants for adults and host plants for larvae, and exposed

soil and rock substrates with short, widely spaced forbs and grasses to be physical or biological features for this subspecies that provide food, water, air, light, minerals, or other nutritional or physiological requirements.

Cover or Shelter

The study and delineation of habitat for many butterflies has often been associated with larval host plants, breeding resources, and nectar sources for adults (Dennis 2004, p. 37). Similar to other butterfly species (Dennis 2004, p. 37), there is little to no information available about the structural elements required by the Mount Charleston blue butterfly for cover or shelter. However, we infer that, because of their low vagility, cover or shelter used by any life stage of the Mount Charleston blue butterfly will be in close association or proximity to larval or adult food resources in its habitat.

For larvae, diapause is generally thought to occur at the base of the larval host plant or in the surrounding substrate (Emmel and Shields 1978, p. 132). Mount Charleston blue butterfly larvae feed after diapause. Like other butterflies, after larvae become large enough, they pupate (Scott 1986, p. 24). Pupation most likely occurs in the ground litter near a main stem of the larval host plant (Emmel and Shields 1978, p. 132). After pupation, adults feed and mate in the same areas where larvae diapause and pupation occurs. In addition, no specific areas for overnight roosting by adult Mount Charleston blue butterflies have been reported. However, adults have been observed using areas in moderately dense forest stands immediately adjacent to low-cover areas

with larval host and nectar plants (Thompson *et al*. 2014, p. 120).

Therefore, based on the information above, we identify areas with larval host plants and adult nectar plants, and areas immediately adjacent to these plants, to be a physical or biological feature for this subspecies that provides cover or shelter.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

The Mount Charleston blue butterfly has specific site requirements for its flight period when breeding and reproduction occur, and these requirements may be correlated to its limited vagility and short lifespan. The typical flight and breeding period for the Mount Charleston blue 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 2006, p. 9; Thompson *et al.* 2014, pp. 104–116). Breeding opportunities for individual Mount Charleston blue butterflies are presumably short in duration during its lifespan, which may range from 2 to 12 days, as has been reported for other closely related species (Arnold 1983, Plebejinae in Table 44). Therefore, the Mount Charleston blue butterfly may generally be constrained to areas where adult nectar resources are in close proximity to plants on which to breed and lay eggs. Researchers have documented Mount Charleston blue butterfly breeding behavior in close spatial association with larval host and adult nectar plants (Thompson *et al.* 2014, pp. 121–125).

The presence of Mount Charleston blue butterfly adult nectar plants, such as *Erigeron clokeyi*, appears to be strongly associated with its larval host plants (Andrew *et al*. 2013, p. 9). Female Mount Charleston blue butterflies have been observed ovipositing a single egg per host plant, which appears to weakly adhere to the host plant surface; this has been observed most typically within basal leaves (Thompson *et al*. 2014, p. 129). Ovipositing by butterflies on plants is not absolute evidence of larval feeding or survival (Austin and Leary 2008, p. 1), but may provide a stronger inference in combination with close adult associations and repeated observations. Presuming the Mount Charleston blue butterfly's diapause behavior is similar to the closely related Shasta blue butterfly, the Mount Charleston blue butterfly diapauses as an egg or as a larva at the base of its egg and larval host plants or in the surrounding substrate (Emmel and Shields 1978, p. 132; Ferris and Brown 1981, pp. 203–204; Scott 1986, p. 411).

In 1987, researchers documented two occasions when Mount Charleston blue butterflies oviposited on *Astragalus calycosus* var. *calycosus* (= var. *mancus*) (Austin and Leary 2008, p. 86). Based on this documentation and subsequent observations of adult Mount Charleston blue butterflies, *Astragalus calycosus* var. *calycosus* was the only known larval host plant for the Mount Charleston blue butterfly (Austin and Leary 2008, p. 86). In 2011 and 2012, researchers from the University of Nevada Las Vegas observed female Mount Charleston blue butterflies landing on and ovipositing on *Astragalus lentiginosus* var. *kernensis* (Kern Plateau milkvetch) and *Astragalus platytropis* (broadkeeled milkvetch), which presumably also function as larval host plants (Andrew *et al.* 2013, pp. 4–12; Thompson *et al*. 2014, pp. 122–134). Andrew *et al.* (2013, p. 5)

also documented Mount Charleston blue butterfly eggs on all three plant species. Other subspecies of Shasta blue butterflies have been reported to use more than one plant during larval development, including *Astragalus platytropis* (Austin and Leary 2008, pp. 85–86). Because the subspecies has been documented ovipositing on these three plant species and other subspecies of Shasta blue butterflies are known to use multiple larval host plants, we consider *Astragalus calycosus* var. *calycosus*, *Astragalus lentiginosus* var. *kernensis*, and *Astragalus platytropis* to be the host plants used during Mount Charleston blue butterfly larval development.

Therefore, based on the information above, we identify areas with larval host plants, especially *Astragalus calycosus* var. *calycosus*, *Astragalus lentiginosus* var. *kernensis*, or *Astragalus platytropis*, and adult nectar plants, especially *Erigeron clokeyi*, *Eriogonum umbellatum* var. *versicolor*, *Hymenoxys cooperi*, and *Hymenoxys lemmonii*, during the flight period of the Mount Charleston blue butterfly to be a physical or biological feature for this subspecies that provides sites for breeding, reproduction, or rearing (or development) of offspring.

Habitats That Are Protected from Disturbance or are Representative of the Historical, Geographical, and Ecological Distributions of the Subspecies

Habitat for the Mount Charleston blue butterfly that is protected from disturbance or representative of the historical, geographical, and ecological distributions of the subspecies occurs in locations with limited canopy cover that comprise the appropriate

species of larval host and adult nectar plants. Although some of these open locations occur due to wind and other environmental stresses that inhibit tree and shrub growth, fire is one of the most prevalent disturbances across the landscape of the Mount Charleston blue butterfly. To better understand the fire frequency and severity at Mount Charleston blue butterfly locations, we characterized fire regimes at these locations using condition classes developed by Provencher (2008, Appendix II; Barrett *et al*. 2010, p. 15). Fire regime condition classes are classified by fire frequency, which is the average number of years between fires, and fire severity, which represents the percent replacement of dominant overstory vegetation (Barrett *et al*. 2010, p. 15). Fire regimes can be broadly categorized for Mount Charleston blue butterfly locations based on elevation. Higher elevation locations, generally above 2,740 m (9,000 ft) elevation, occur in fire regime condition classes 4 and 5 (Provencher 2008, Appendix II). Lower elevation locations, generally below 2,740 m (9,000 ft), occur in fire regime condition classes 2 and 3 (Provencher 2008, Appendix II).

In higher elevation locations where the Mount Charleston blue butterfly is known or presumed to occur (South Loop Trail, Mummy Springs, upper Bonanza Trail, and Griffith Peak), disturbance from fire is relatively infrequent, with variable severity (fire regime condition classes 4 and 5 in Provencher 2008, Appendix II), occurring every 35 to 200 years at a high severity, or occurring more frequently than every 200 years with a variable but generally high severity (Barrett *et al*. 2010, p. 15). Other disturbances likely to occur at the high-elevation Mount Charleston blue butterfly locations are from wind and other weather phenomena (Provencher 2008, Appendix II). At these high-elevation

habitats, fire frequency and severity are relatively similar to historic regimes (Provencher 2008, Table 4, 5 and Appendix II), so vegetation succession should be within the normal range of variation. Vegetation succession at some high-elevation areas that currently lack trees may cause these areas to become more forested, but other areas that are scoured by wind or exposed to other severe environmental stresses may remain non-forested (for example, South Loop Trail; Andrew *et al.* 2013, pp. 20–27) (Provencher and Anderson 2011, pp. 1–116; NVWAP 2012, p. 177). Thus, we expect higher elevation locations will be able to continue to provide open areas with the appropriate vegetation necessary to support individuals and populations of Mount Charleston blue butterflies.

In contrast, at lower elevation locations where the Mount Charleston blue butterfly is known or presumed to occur (Las Vegas Ski and Snowboard Resort (LVSSR), Foxtail, Youth Camp, Gary Abbott, Lower LVSSR Parking, Lee Meadows, Bristlecone Trail, and lower Bonanza Trail), disturbance from fire is likely to occur less than every 35 years with more than 75 percent being high-severity fires, or is likely to occur more than every 35 years at mixed-severity and low-severity (fire regime condition classes 2 and 3 in Provencher 2008, Appendix II). At these lower elevation habitats, fire frequency and severity appear to have departed from historic regimes (Provencher 2008, Table 4, 5 and Appendix II). Lack of fire due to fire exclusion or reduction in natural fire cycles as has been demonstrated in the Spring Mountains (Entrix 2008, p. 113) and other proximate mountain ranges (Amell 2006, pp. 2–3), has likely 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; Abella *et al.* 2012, pp. 128, 130) at these lower elevation locations. Without fire in some of these locations, herbs and small forbs may be nearly absent as the vegetation moves towards later successional classes with increasing tree overstory cover (Provencher 2008, Appendix II). Therefore, habitat at the lower elevation Mount Charleston blue butterfly locations is more dissimilar from what would be expected based on historic fire regimes (Provencher 2008, Table 4, 5 and Appendix II). Thus, in order for Mount Charleston blue butterfly individuals and populations to be maintained at lower elevation locations, active habitat management will likely be necessary.

In July 2013, the Carpenter 1 Fire burned into habitat of the Mount Charleston blue butterfly along the ridgelines between Griffith Peak and South Loop spanning a distance of approximately 3 miles (5 km). Within this area there are low-, moderate-, or high-quality patches of Mount Charleston blue butterfly habitat intermixed with non-habitat. The majority of Mount Charleston blue butterfly moderate- or high-quality habitat through this area was classified as having a very low or low soil-burn severity (Kallstrom 2013, p. 4). The characteristics of Mount Charleston blue butterfly habitat in this area of widely spaced grass and forbs, exposed soil and rocks, and low tree canopy cover result in lower fuel loading and continuity, which likely contributed to its low burn severities. While areas of moderate- and high-quality Mount Charleston blue butterfly habitat may have had a very low or low soil-burn severity rating, it is unknown to what extent butterflies in egg, larval, pupal, or adult life stages were exposed to lethal levels of smoke, gases, and convection or radiant heat from the fire. Until surveys are performed

on the ground, damage to larval host and adult nectar plants in unburned, very low or low soil-burn severity areas cannot be determined. Butterflies in an adult life stage may have been able to escape the fire.

Areas with the highest observed concentrations of Mount Charleston blue butterflies in moderate- and high-quality habitat were outside the fire perimeter in an area slightly lower in elevation, below a topographic crest, and may have been unaffected by heat and smoke from the fire. Butterflies in these areas may have received topographic protection with rising smoke and convective heat moving above them; however, it is unknown if they were exposed to lethal radiant heat. Life stages of the butterfly low to the ground, in the soil, or among the rocks also may have been afforded some protection from the smoke and heat.

Areas of lower quality habitat appear to have had higher tree-canopy cover and generally experienced low to moderate soil-burn severity. Only a small percentage of documented Mount Charleston blue butterfly locations occurred in these areas. Some effects of the fire may improve habitat for the Mount Charleston blue butterfly in the long term by opening the tree canopy, providing additional areas for larval host and nectar plants to grow, and releasing stored nutrients; however, improvements will depend upon successional conditions, such as soil types and moisture, and seed sources.

Recreational activities, trail-associated erosion, and the introduction of weeds or invasive grasses are likely the greatest threats that could occur within areas of Mount

Charleston blue butterfly habitat burned by the Carpenter 1 Fire. Other potential threats to the Mount Charleston blue butterfly habitat associated with the fire may include trampling or grazing of new larval host or nectar plants by wild horses (*Equus ferus*) and elk (*Cervus elaphus*). However, use of this Mount Charleston blue butterfly habitat in these watersheds by wild horses and elk is currently very low.

Effects on the Mount Charleston blue butterfly or its habitat from climate change will vary across its range because of topographic heterogeneity (Luoto and Heikkinen 2008, p. 487). 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 believe that climate change will impact the Mount Charleston blue butterfly 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.

Based on the information above, we identify habitat where natural disturbance, such as fire which creates and maintains openings in the canopy (fire regime condition classes 2, 3, 4, and 5), to be a physical or biological feature for this subspecies that provides habitats that are representative of the historical, geographical, and ecological distributions of the subspecies.

Primary Constituent Elements for Mount Charleston Blue Butterfly

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of Mount Charleston blue butterfly in areas occupied at the time of listing, focusing on the features' primary constituent elements. We consider primary constituent elements to be those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to Mount Charleston blue butterfly are:

(1) Areas of dynamic habitat between 2,500 m (8,200 ft) and 3,500 m (11,500 ft) elevation with openings or where disturbance provides openings in the canopy that have no more than 50 percent tree cover (allowing sunlight to reach the ground), widely

spaced low (< 15 cm (0.5 ft)) forbs and grasses, and exposed soil and rock substrates. When taller grass and forb plants greater than or equal to 15 cm (0.5 ft) in height are present, the density is less than five per m^2 (50 per ft^2).

(2) The presence of one or more species of host plants required by larvae of the Mount Charleston blue butterfly for feeding and growth. Known larval host plants are *Astragalus calycosus* var. *calycosus*, *Astragalus lentiginosus* var. *kernensis*, and *Astragalus platytropis*. Densities of host plants must be greater than two per m^2 (20 per ft^2).

(3) The presence of one or more species of nectar plants required by adult Mount Charleston blue butterflies for reproduction, feeding, and growth. Common nectar plants include *Erigeron clokeyi*, *Hymenoxys lemmonii*, *Hymenoxys cooperi* and *Eriogonum umbellatum* var. *versicolor*. Densities of nectar plants must occur at more than two per m^2 (20 per ft^2) for smaller plants, such as *E. clokeyi*, and above 0.1 per m^2 (1 per ft^2) for larger and taller plants such as *Hymenoxys* sp. and *E. umbellatum*. Nectar plants typically occur within 10 m (33 ft) of larval host plants and in combination provide nectar during the adult flight period between mid-July and early August. Additional nectar sources that could be present in combination with the common nectar plants include *Antennaria rosea*, *Cryptantha* sp., *Ericameria nauseosa* ssp., *Erigeron flagellaris* (Trailing daisy), *Guiterrezia sarothrae*, *Monardella odoratissima*, *Petradoria pumila* var. *pumila*, and *Potentilla concinna* var. *concinna*.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the subspecies at the time of listing contain features which are essential to the conservation of the subspecies and which may require special management considerations or protection. Special management considerations or protection may be necessary to eliminate or reduce the magnitude of threats that affect the subspecies. Threats to the Mount Charleston blue butterfly and its features identified in the final listing rule for the Mount Charleston blue butterfly (78 FR 57750) include: (1) loss and degradation of habitat due to changes in natural fire regimes and succession; (2) implementation of recreational development projects and fuels reduction projects; (3) increases of nonnative plants; (4) collection; (5) small population size and few occurrences; and (6) exacerbation of other threats from the impacts of climate change, which is anticipated to increase drought and extreme precipitation events. In addition to these threats, (7) wild horses present an additional threat by causing the loss and degradation of habitat resulting from trampling of host and nectar plants as well as the direct mortality of Mount Charleston blue butterfly where it is present (Boyd and Murphy 2008, pp. 7 and 27; Andrew *et al*. 2013, pp. 37–66; Thompson *et al*. 2014, pp. 150–152).

Threats to the Mount Charleston blue butterfly and its habitat and recommendations for ameliorating them have been described for each location and the subspecies in general (Boyd and Murphy 2008, pp. 1–41; Andrew *et al*. 2013 pp. 1–93; Thompson *et al*. 2014, pp. 97–158, 267–288). Management activities that could

ameliorate these threats include (but are not limited to): (1) Reestablishment and maintenance of habitat and landscape connectivity within and between populations; (2) habitat restoration and control of invasive nonnative species; (3) monitoring of ongoing habitat loss and nonnative plant invasion; (4) management of recreational activities to protect and prevent disturbance of Mount Charleston blue butterflies to reduce loss or deterioration of habitat; (5) maintenance of the Forest Service closure order prohibiting collection of the Mount Charleston blue butterfly and other blue butterfly species without a permit, in order to minimize the detrimental effects of collecting rare species; (6) removal or exclusion of wild horses in Mount Charleston blue butterfly habitat; and (7) providing educational and outreach opportunities to inform the public regarding potential adverse impacts to the species or sensitive habitat from disturbance caused by recreational activities in the summer or winter. These management activities will protect the physical and biological features by avoiding or minimizing activities that negatively affect the Mount Charleston blue butterfly and its habitat while promoting activities that are beneficial to them. Additionally, management of critical habitat lands will help maintain or enhance the necessary environmental components, foster recovery, and sustain populations currently in decline.

All of the areas proposed to be designated as critical habitat occur within the Spring Mountains National Recreation Area, and are covered by the 1998 Spring Mountains National Recreation Area (SMNRA) Conservation Agreement. To date, the Conservation Agreement has not always been effective in protecting existing habitat for the Mount Charleston blue butterfly or yielding significant conservation benefits for the

species. The Forest Service is currently in the process of revising the SMNRA Conservation Agreement, and the Service is a cooperator in this process. However, since the Conservation Agreement is currently under revision, and completion has not occurred prior to publication of this proposed rule, it is unclear what level of protection or conservation benefit the final SNMRA Conservation Agreement will provide for the Mount Charleston blue butterfly.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. We review available information pertaining to the habitat requirements of the species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we consider whether designating additional areas—outside of the geographical area currently occupied—are necessary to ensure the conservation of the species. We are proposing to designate critical habitat in areas within the geographical area occupied by the subspecies at the time of listing in October 2013 because such areas contain the physical or biological features that are essential to the conservation of the subspecies. We are not proposing to designate areas outside the geographical area occupied by the subspecies at the time of listing because they would provide limited benefit and are not needed to conserve the species.

When determining the possible distribution of areas that meet the definition of critical habitat for the Mount Charleston blue butterfly, we considered all known suitable

habitat patches remaining within the subspecies' historical range from Willow Creek, south to Griffith Peak within the SMNRA. For the Mount Charleston blue butterfly, we included locations of known populations and suitable habitat immediately adjacent to, or areas between, known populations that provide connectivity between these locations.

This section provides the details of the process we used to delineate the proposed critical habitat for the Mount Charleston blue butterfly. The areas being proposed for critical habitat in this proposed rule are areas where the Mount Charleston blue butterfly occur and that contain the physical and biological features essential to the conservation of the species. These areas have been identified through incidental observations and systematic surveys or studies occurring over a period of several years. This information comes from multiple sources, such as reports, journal articles, and Forest Service project information. Based on this information, we are proposing to designate critical habitat in specific areas within the geographical area currently occupied by the Mount Charleston blue butterfly that contain the physical and biological features essential to the conservation of the species.

We delineated the proposed critical habitat boundaries using the following steps:

(1) We compiled and mapped Mount Charleston blue butterfly observation locations (points) and polygons of habitat that included larval host and nectar plants, or only larval host plants delineated in previous studies or surveys from Austin (1980), Weiss *et al*. (1997), Service (2006b), DataSmiths (2007), Newfields 2008, SWCA (2008), Carsey *et*

al. 2011, Holthuijzen *et al*. (2011), Pinyon (2011), Andrew *et al*. (2013), and Thompson *et al*. (2014). The location information from the data sources used provided enough information to identify specific geographic areas by corroborating narratively described locations and mapped locations. These surveys are the best available data on the current distribution, habitat, and features that provide the basis for identifying areas of critical habitat for the Mount Charleston blue butterfly.

(2) Observed locations of Mount Charleston blue butterflies described above were used to create larger polygons of suitable habitat by buffering observed locations by 100 meters (330 feet). These polygons assumed that suitable habitat was present up to 100 m (330 ft) around an observed location, because it is estimated that individual Mount Charleston blue butterflies can utilize areas between 10 to 100 m (33 to 330 ft; Weiss *et al*. 1995, Table 1) from observed locations.

(3) Polygons of suitable habitat were identified from previously delineated habitat described above and were considered suitable if the habitat polygon contained: (a) observed locations of Mount Charleston blue butterflies; (b) delineated habitat that was rated by the investigator (Pinyon 2011, pp. 1–39) as either “moderate” or “good” quality; and (c) contained both larval host and nectar plants, or only larval host plants. It was inferred that nectar plants would also be present in areas where only larval host plants were detected and butterflies were observed since both larval host and nectar plants must be in close proximity for Mount Charleston blue butterflies to be present (Boyd and Murphy 2008, pp. 1–31).

(4) Connectivity corridors were included, as they provide important areas for dispersal of butterfly populations between or adjacent to areas of suitable habitat. We approximated connectivity corridors by buffering polygons of suitable habitat by 2,440 m (8,005 ft), to simulate dispersal ability of the Mount Charleston blue butterfly. Buffered areas were considered to be within connectivity corridors if they were between or adjacent to areas of suitable habitat, and contained larval host and nectar plants or only larval host plants, and included areas not within 100 m (330 ft) of observed butterfly locations. Areas that did not contain surveyed habitat or were rated as "poor" quality or "inadequate" habitat by investigators were excluded. Quarter-quarter sections (see below for description of quarter-quarter section) that were bounded on all sides by other quarter-quarter sections meeting the above criteria were included to avoid creating "donut holes" within corridors. In contrast to distances moved within a single patch of habitat, which has been estimated to be between 10 to 100 m (33 to 330 ft), dispersal can be defined as movement between patches of habitat (Bowler and Benton 2005, p. 207). Studies suggest that mobility in closely related butterfly species is similar (Burke *et al.* 2011, p. 2284). Therefore, we approximated the dispersal distance of the Mount Charleston blue butterfly to be up to 2,440 m (8,005 ft), based on documented movement distances observed during a mark-and-recapture study of a subspecies (Mission blue butterfly [*Plebejus icariodes missionensis*]) (Arnold 1983, p. 48), which is a subspecies of the closely related Boisduval's blue butterfly (*Plebejus icarioides*) (Gompert *et al.* 2008, Figure 2; Burke *et al.* 2011, Supplementary File S4).

(5) Observed locations, suitable habitat, and connectivity corridors, as described above, are all considered to be within the present geographic range of the subspecies.

(6) Critical habitat boundaries were delineated using a data layer of the Public Land Survey System (PLSS), which includes quarter–quarter sections (16 ha (40 ac)). Quarter–quarter sections are proposed as critical habitat if they contain observed locations, suitable habitat, or connectivity corridors. Quarter–quarter sections were used to delineate critical habitat boundaries because they provide a readily available systematic method to identify areas that encompass the physical and biological features essential to the conservation of the Mount Charleston blue butterfly and they provide boundaries that are easy to describe and interpret for the general public and land management agencies. Critical habitat boundaries were derived from the outer boundary of the polygons selected from the PLSS quarter–quarter sections in the previous steps.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for Mount Charleston blue butterfly. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7

consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

We are proposing for designation of critical habitat lands that we have determined are occupied at the time of listing and contain sufficient elements of physical or biological features to support life-history processes that we have determined are essential to the conservation of Mount Charleston blue butterfly. Three units are proposed for designation based on sufficient elements of physical or biological features being present to support Mount Charleston blue butterfly life-history processes. All units contain all of the identified elements of physical or biological features and support multiple life-history processes.

The critical habitat designation is defined by the map, as modified by any accompanying regulatory text, presented at the end of this document in the rule portion. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which the map is based available to the public on *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0105, on our Internet site http://www.fws.gov/nevada/nv_species/mcb_butterfly.html, and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT** above).

Proposed Critical Habitat Designation

We are proposing three units as critical habitat for Mount Charleston blue butterfly that total 5,561 ac (2,250 ha). The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for Mount Charleston blue butterfly. The three areas we propose as critical habitat are: (1) South Loop, (2) Lee Canyon, and (3) North Loop. We are requesting additional information and comment on the potential removal of some specific areas in the Lee Canyon Unit within localities commonly referred to as Foxtail, Old Mill, McWilliams and Las Vegas Ski and Snowboard Resort lower parking lot that have extremely high levels of public visitation and associated recreational disturbance. These areas are specifically described in the **Information Requested** section above. All the proposed critical habitat units are occupied at the time of listing (are currently occupied). Table 1 shows the occupied units; the approximate area of each proposed critical habitat unit is also shown in Table 1.

TABLE 1. Proposed critical habitat units for Mount Charleston blue butterfly. [Area estimates reflect all land within critical habitat unit boundaries.]

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Acres (Hectares)
1. South Loop ……	Federal State Local Private	2,308 (934) 0 0 0
2. Lee Canyon ……	Federal State Local	2,833 (1,146) 0 4(2)

	Private	3(1)
3. North Loop ……	Federal State Local Private	413 (167) 0 0 0
Total ……	Federal State Local Private	5,554 (2,247) 0 4(2) 3(1)

Note: Area sizes may not sum due to rounding.

We present brief descriptions below of all units and reasons why they meet the definition of critical habitat for Mount Charleston blue butterfly.

Unit 1: South Loop

Unit 1 consists of 2,308 ac (934 ha) and is located in Clark County, Nevada. This unit extends south and southeast from near the summit of Charleston Peak along high-elevation ridges to Griffith Peak. The unit likely represents the largest population of Mount Charleston blue butterflies and is the southernmost area identified as critical habitat for the subspecies.

The unit is within the geographic area occupied by the Mount Charleston blue butterfly at the time of listing. It contains the physical or biological features essential to the conservation of the subspecies, including: elevations between 2,500 m (8,200 ft) and 3,500 m (11,500 ft) elevation; no tree cover or no more than 50 percent tree cover; widely spaced, low (less than 15 cm (0.5 ft)) forbs and grasses, with exposed soil and rock substrates; the presence of one or more species of larval host plants; and the presence of

one or more species of nectar plants.

Habitat in the unit is threatened by the impacts associated with climate change, such as increased drought and extreme precipitation events. Therefore, the physical or biological features essential to the conservation of the species in this unit may require special management considerations or protection to minimize impacts resulting from this threat (see Special Management Considerations or Protection section above).

A portion of this unit was burned in July 2013, as part of the Carpenter 1 Fire, which burned into habitat of the Mount Charleston blue butterfly along the ridgelines between Griffith Peak and South Loop, spanning a distance of approximately 3 mi (5 km). Within this area, there are low-, moderate-, or high-quality patches of Mount Charleston blue butterfly habitat intermixed with non-habitat. The majority of Mount Charleston blue butterfly habitat of moderate or high quality in this area was classified as having a very low burn-severity or low soil burn-severity (Kallstrom 2013, p. 4). Areas with the highest observed concentrations of Mount Charleston blue butterflies within moderate- and high-quality habitat were outside the fire perimeter. Areas of lower quality habitat appear to have had higher tree canopy cover and generally experienced low to moderate soil burn-severity.

Although the burn in this unit may have had short-term impacts to larval host or nectar plants, it is likely that the burn may have long-term benefits to Mount Charleston blue butterfly habitat by reducing canopy cover, thereby providing additional areas for

larval host and nectar plants to grow, and releasing nutrients (Brown and Smith 2000, p. 26) into the soil, improving overall plant health and vigor, depending upon successional conditions such as soil types and moisture, and seed sources (Kallstrom 2013, p. 4). Therefore, we have proposed critical habitat designation for areas that contained the physical or biological features essential to the conservation of the Mount Charleston blue butterfly prior to the Carpenter 1 Fire, but may have been burned by the fire, because we anticipate these areas continue to contain the physical or biological features essential to conservation of the subspecies.

This unit is completely within the boundaries of the U.S. Department of Agriculture, Humboldt–Toiyabe National Forest, Spring Mountains National Recreation Area. The entire unit is within the Mount Charleston Wilderness, and southwestern portions of the unit overlap with the Carpenter Canyon Research Natural Area. This unit is within the area addressed by the Spring Mountains National Recreation Area Conservation Agreement.

Unit 2: Lee Canyon

Unit 2 consists of 2,833 ac (1,146 ha) of Federal land, 4 ac (2 ha) of local land, and 3 ac (1 ha) of private land, and is located in Clark County, Nevada. This unit extends south and southeast from McFarland Peak and along the Bonanza Trail through Lee Canyon to slopes below the north side of the North Loop Trail and the west side of Mummy Mountain. This unit represents the northernmost area identified as critical

habitat for the subspecies.

The unit is within the geographic area occupied by the Mount Charleston blue butterfly at the time of listing. It contains the physical or biological features essential to the conservation of the subspecies including: elevations between 2,500 m (8,200 ft) and 3,500 m (11,500 ft); no tree cover or no more than 50 percent tree cover; widely spaced, low (< 15 cm (0.5 ft)) forbs and grasses, with exposed soil and rock substrates; the presence of one or more species of larval host plants; and the presence of one or more species of nectar plants.

Habitat in the unit is threatened by: loss and degradation of habitat due to changes in natural fire regimes and succession; implementation of recreational development projects and fuels reduction projects; increases of nonnative plants; and the exacerbation of other threats from the impacts of climate change, which is anticipated to increase drought and extreme precipitation events. Therefore, the features essential to the conservation of the species in this unit require special management considerations or protection to minimize impacts resulting from these threats (see Special Management Considerations or Protection section above).

This unit is completely within the boundaries of the U.S. Department of Agriculture, Humboldt–Toiyabe National Forest, Spring Mountains National Recreation Area with less than 1 percent owned by private landowners or Clark County. Approximately 33 percent of the west side of the unit is within the Mount Charleston

Wilderness. This unit is within the area addressed by the Spring Mountains National Recreation Area Conservation Agreement.

Unit 3: North Loop

Unit 3 consists of 413 ac (167 ha) and is located in Clark County, Nevada. This unit extends northeast from an area between Mummy Spring and Fletcher Peak along high-elevation ridges down to an area above the State Highway 158. The unit represents the easternmost area identified as critical habitat for the subspecies.

The unit is within the geographic area occupied by the Mount Charleston blue butterfly at the time of listing. It contains all elements of physical or biological features essential to the conservation of the subspecies including: elevations between 2,500 m (8,200 ft) and 3,500 m (11,500 ft); no tree cover or no more than 50 percent tree cover; widely spaced, low (less than 15 cm (0.5 ft)) forbs and grasses with exposed soil and rock substrates; the presence of one or more species of larval host plants; and the presence of one or more species of nectar plants.

Habitat in the unit is threatened by the impacts associated with climate change, such as increased drought and extreme precipitation events. Therefore, the features essential to the conservation of the species in this unit require special management considerations or protection to minimize impacts resulting from this threat (see Special Management Considerations or Protection section above).

This unit is completely within the boundaries of the U.S. Department of Agriculture, Humboldt–Toiyabe National Forest, Spring Mountains National Recreation Area. Approximately 92 percent of the unit is within the Mount Charleston Wilderness. This unit is within the area addressed by the Spring Mountains National Recreation Area Conservation Agreement.

Areas Surrounding Recreation Infrastructure

We may remove locations identified below from the critical habitat designation based on information received through the notice and comment process on this proposed rule. These locations overlap slightly with Mount Charleston blue butterfly habitat previously mapped by DataSmiths 2007. These locations are at the fringe of previously mapped habitat and most of these areas may lack one or more of the primary constituent elements or are heavily impacted by public recreation. We may remove a 25-meter (m) (82-foot (ft)) perimeter distance around established boundaries or developed infrastructure that is consistent with the conclusions of a study on the Karner blue butterfly (*Lycaeides melissa samuelis*), which indicated that habitat within short distances of recreational features may be insufficient to offset recreational impacts on butterfly behavior (Bennett *et al*. 2010, p. 27, Bennett *et al*. 2013, pp. 1794–1795). This distance also is consistent with observations that impacts associated with the campgrounds, day use areas, and roads tend to be concentrated within a 25-m (82-ft) buffer (Cole 1993, p. 111; Cole 2004, p. 55; Monz *et al.*2010, p. 556; Randy Swick, pers. obs.).

Specifically, we may remove locations referred to as Dolomite Campground, Foxtail Girl Scout Camp, Foxtail Group Picnic Area, Foxtail Snow Play Area, Lee Canyon Guard Station, Lee Meadows (extirpated Mount Charleston blue butterfly location), McWilliams Campground, Old Mill Picnic Area and Youth Camp. These locations are within the established boundaries or developed infrastructure (for example, roads, parking areas, fire pits, etc.) for the above-listed campgrounds and day use areas that have extremely high levels of public visitation and associated recreational disturbance. High levels of recreational disturbance in these areas have either severely degraded available habitat including host and nectar plants, or the intense level of recreational activity severely limits or precludes the use of these areas by the Mount Charleston blue butterfly. Additionally, small "doughnut holes" and slivers of land encircled by the buffered areas would be included within the areas that may be removed from the final designation, because these fragments would not meet the definition of critical habitat for this species. We do not intend to remove areas larger than 0.10 acres (0.04 hectares) occurring between the above areas from critical habitat designation, including the ridge between Foxtail Day Use Area and Lee Meadows, because of the potential for these areas to contain physical or biological features essential to the conservation of the species.

We are specifically seeking public comment on whether the locations mentioned above contain the physical or biological features essential to the conservation of the species to aid us in our decision of whether to remove them from this critical habitat designation. A map of the specific locations for potential removal can be found on the

Nevada Fish and Wildlife Office at: *http://www.fws.gov/nevada/* and at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0105.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action that is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of "destruction or adverse modification" (50 CFR 402.02) (see *Gifford Pinchot Task Force* v. *U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club* v. *U.S. Fish and Wildlife Service et al*., 245 F.3d 434, 442 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with

implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq*.) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify

critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions

for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the subspecies. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for Mount Charleston blue butterfly. As discussed above, the role of critical habitat is to support life-history needs of the subspecies and provide for the conservation of the subspecies. Generally, the conservation roles of Mount Charleston blue butterfly critical habitat units are to support viable self-sustaining populations of the subspecies.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Mount Charleston blue

butterfly. These activities include, but are not limited, to actions that would cause the quality, quantity, functionality, accessibility, or fragmentation of habitat or features to change unfavorably for Mount Charleston blue butterfly. Such activities could include, but are not limited to: ground or soil disturbance, either mechanically or manually; clearing or grading; erosion control; silviculture; fuels management; fire suppression; development; snow management; recreation; wild horse or burro management; and herbicide or pesticide use. These activities could alter: invasion rates of invasive or nonnative species; habitat necessary for the growth and reproduction of these butterflies and their host or nectar plants; and movement of adults between habitat patches. Such alterations may directly or cumulatively cause adverse effects to Mount Charleston blue butterflies and their life cycles.

Exemptions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

(1) An assessment of the ecological needs on the installation, including the need

to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: "The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

There are no Department of Defense lands with a completed INRMP within the proposed critical habitat designation.

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion

outweigh the benefits of inclusion, the Secretary may exercise her discretion to exclude the area only if such exclusion would not result in the extinction of the species.

When considering the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan. In the case of the Mount Charleston blue butterfly, the benefits of critical habitat include public awareness of the presence of the species and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for Mount Charleston blue butterfly due to protection from adverse modification or destruction of critical habitat. In practice, situations with a Federal nexus exist primarily on Federal lands or for projects undertaken or funded by Federal agencies.

We have not proposed to exclude any areas from critical habitat, but are seeking comments on some areas that may be removed from the final designation due to high levels of recreational use that have significantly diminished the value of the physical and biological features of this habitat. However, the final decision on whether to remove or exclude any areas will be based on the best scientific data available at the time of the final designation, including information obtained during the comment period and information about the economic impact of designation. Accordingly, we have prepared a draft economic analysis concerning the proposed critical habitat designation (DEA), which is available for review and comment (see **ADDRESSES**).

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate the impacts that a specific critical habitat designation may have on restricting or modifying specific land uses or activities for the benefit of the species and its habitat within the areas proposed. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for this particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both "with critical habitat" and "without critical habitat." The "without critical habitat" scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat (e.g., under the Federal listing as well as other Federal, State, and local regulations). The baseline, therefore, represents the costs of all efforts attributable to the listing of the species under the Act (i.e., conservation of the species and its habitat incurred regardless of whether critical habitat is designated). The "with critical habitat" scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts would not be expected without the designation of critical habitat for the species. In other words, the incremental costs are

those attributable solely to the designation of critical habitat, above and beyond the baseline costs of listing the species without critical habitat. These are the costs used when evaluating the benefits of inclusion and exclusion of particular areas from the final designation of critical habitat should we choose to conduct an optional 4(b)(2) exclusion analysis.

For this particular designation, we developed an Incremental Effects Memorandum (IEM) considering the probable incremental economic impacts that may result from this proposed designation of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for the Mount Charleston blue butterfly (IEc 2014). We began by conducting a screening analysis of the proposed designation of critical habitat in order to focus our analysis on the key factors that are likely to result in incremental economic impacts. The purpose of the screening analysis is to filter out the geographic areas in which the critical habitat designation is unlikely to result in probable incremental economic impacts. In particular, the screening analysis considers baseline costs (i.e., absent critical habitat designation) and includes probable economic impacts where land and water use may be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. The screening analysis filters out particular areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. Ultimately, the screening analysis allows us to focus our analysis on evaluating the specific areas or sectors that may incur probable

incremental economic impacts as a result of the designation. The screening analysis also assesses whether units are unoccupied by the species and may require additional management or conservation efforts as a result of the critical habitat designation for the species that may incur incremental economic impacts. This screening analysis combined with the information contained in our IEM are what we consider our draft economic analysis of the proposed critical habitat designation for the Mount Charleston blue butterfly and is summarized in the narrative below.

Executive Orders 12866 and 13563 direct Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly impacted entities, where practicable and reasonable. We assess to the extent practicable, the probable impacts, if sufficient data are available, to both directly and indirectly impacted entities. As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation. In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the Mount Charleston blue butterfly, first we identified, in the IEM dated February 10, 2014, probable incremental economic impacts associated with the following categories of activities: (1) Federal lands management (Forest Service); (2) fire management; (3) forest management; (4) recreation; (5) conservation /restoration; and (6) development. We considered each industry or category individually. Additionally, we considered whether their activities

have any Federal involvement. Critical habitat designation will not affect activities that do not have any Federal involvement; designation of critical habitat affects only activities conducted, funded, permitted, or authorized by Federal agencies. In areas where the Mount Charleston blue butterfly is present, Federal agencies already are required to consult with the Service under section 7 of the Act on activities they fund, permit, or implement that may affect the species. If we finalize this proposed critical habitat designation, consultations to avoid the destruction or adverse modification of critical habitat would be incorporated into the existing consultation process. Therefore, disproportionate impacts to any geographic area or sector are not likely as a result of this critical habitat designation.

In our IEM, we attempted to clarify the distinction between the effects that will result from the species being listed and those attributable to the critical habitat designation (i.e., the difference between the jeopardy and adverse modification standards) for the Mount Charleston blue butterfly's critical habitat. Because the designation of critical habitat for Mount Charleston blue butterfly was proposed shortly after the listing, it has been our experience that it is more difficult to discern which conservation efforts are attributable to the species being listed and those which will result solely from the designation of critical habitat. However, the following specific circumstances in this case help to inform our evaluation: (1) The essential physical and biological features identified for critical habitat are the same features essential for the life requisites of the species and (2) any actions that would result in sufficient harm or harassment to constitute jeopardy to the Mount Charleston blue butterfly would also likely adversely affect the essential

physical and biological features of critical habitat. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for this species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this proposed designation of critical habitat.

The proposed critical habitat designation for the Mount Charleston blue butterfly totals approximately 5,561 acres (2,250 hectares) in three units, all of which were occupied at the time of listing and contain the PCEs. In these areas any actions that may affect the species or its habitat would also affect designated critical habitat, and it is unlikely that any additional conservation efforts would be recommended to address the adverse modification standard over and above those recommended as necessary to avoid jeopardizing the continued existence of the Mount Charleston blue butterfly. Therefore, only administrative costs are expected in all of the proposed critical habitat designation. While this additional analysis will require time and resources by both the Federal action agency and the Service, it is believed that, in most circumstances, these costs would predominantly be administrative in nature and would not be significant.

The Forest Service has administrative oversight of 99.9 percent of the proposed critical habitat area and, as the primary Federal action agency in section 7 consultations would incur incremental costs associated with the critical habitat designation. In some cases third parties may be involved in areas such as Unit 2 in Lee Canyon, particularly where the Las Vegas Ski and Snowboard Report special-use-permit area overlaps.

However, consultation is expected to occur even in the absence of critical habitat, and incremental costs would be limited to administrative costs resulting from the potential for adverse modification. It is unlikely that there will be any incremental costs associated with the 0.1 percent of non-Federal land, for which we do not foresee any Federal nexus and thus is outside of the context of section 7 of the Act.

The probable incremental economic impacts of the Mount Charleston blue butterfly critical habitat designation are expected to be limited to additional administrative effort as well as minor costs of conservation efforts resulting from a small number of future section 7 consultations. This is due to two factors: (1) all the proposed critical habitat units are considered to be occupied by the species, and incremental economic impacts of critical habitat designation, other than administrative costs, are unlikely; and (2) the majority of proposed critical habitat is in designated Wilderness Areas where actions are currently limited and few actions are anticipated that will result in section 7 consultation or associated project modifications. Section 7 consultations for critical habitat are estimated to range between $410 and $9,100 per consultation. No more than 12 consultations are anticipated to occur in a year. Based upon these estimates, the maximum estimated incremental cost is estimated to be no greater than $109,200 in a given year. At the maximum estimate of $9,100 per consultation, in order to reach the threshold of $100 million of incremental administrative impacts in a single year, critical habitat designation would have to result in more than 10,989 consultations in a single year. Thus, the annual administrative burden is unlikely to reach $100 million. Therefore, future probable incremental economic impacts are not likely to exceed $100

million in any single year and disproportionate impacts to any geographic area or sector are not likely as a result of this critical habitat designation.

As we stated earlier, we are soliciting data and comments from the public on the DEA, as well as all aspects of the proposed rule. We may revise the final rule or supporting documents to incorporate or address information we receive during the public comment period. In particular, we may refine our designation based on information received, or exclude an area from critical habitat, if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of this species.

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared an analysis of the probable economic impacts of the proposed critical habitat designation and related factors. The proposed critical habitat areas include Federal land, lands owned by Clark County, and privately owned land. Some of these lands are used for recreation (for example, skiing, camping, and hiking) and silviculture.

During the development of a final designation, we will consider economic impacts based on information in our economic analysis, public comments, and other new

information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this proposal, we have determined that the lands within the proposed designation of critical habitat for the Mount Charleston blue butterfly are not owned or managed by the Department of Defense, and, therefore, we anticipate no impact on national security. Consequently, the Secretary is not intending to exercise her discretion to exclude any areas from the final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any habitat conservation plans (HCPs) or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

HCPs, established under section 10(a)(1)(B) of the Act, provide for partnerships with non-Federal parties to conserve the ecosystems upon which listed and nonlisted species depend, ultimately contributing to their recovery. HCPs are planning documents required as part of an application for an incidental take permit. They describe the anticipated effects of the proposed taking; how those impacts will be minimized, or mitigated; and how the HCP is to be funded.

We will consider exclusions from the proposed designation under section 4(b)(2) of the Act based on partnerships, management, or protection afforded by cooperative management efforts. Some areas within the proposed designation are included in the Clark County Multiple Species Habitat Conservation Plan (MSHCP), which includes the Mount Charleston blue butterfly as a covered species. The MSHCP, developed in 2000 by numerous cooperators, including representatives of Federal, State, and county agencies and other public and private organizations, is available at http://www.clarkcountynv.gov/depts/dcp/Pages/CurrentHCP.aspx. The MSHCP identifies those actions necessary to maintain the viability of natural habitats in the county for the 79 species covered by the MSHCP and benefits many other species residing in those habitats. We request information on the benefits of this plan to the conservation of the Mount Charleston blue butterfly, and whether this species will be retained as a covered species in this plan into the future.

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data and analyses. We have invited these peer reviewers to provide peer review during this public comment period.

We will consider all comments and information received during this comment period on this proposed critical habitat rule during our preparation of a final critical habitat determination. Accordingly, the final decision may differ from this proposal.

Public Hearings

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in **ADDRESSES**. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of Executive Order 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. Executive Order 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.*)*

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq*.) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C 801 *et seq*.), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a

regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include such businesses as manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and forestry and logging operations with fewer than 500 employees and annual business less than $7 million. To determine whether small entities may be affected, we will consider the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations.

Under the RFA, as amended, and following recent court decisions, Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and not the potential impacts to indirectly affected entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the Agency is not likely to adversely modify critical habitat. Therefore, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Under these circumstances, it is our position that only Federal action agencies will be directly regulated by this designation. Therefore, because Federal agencies are not small entities, the Service may certify that the proposed critical habitat rule will not have a significant economic impact on a substantial number of small entities.

In conclusion, we believe that, based on our interpretation of directly regulated entities under the RFA and relevant case law, this designation of critical habitat will only directly regulate Federal agencies, which are not by definition small business entities. And as such, we certify that, if promulgated, this designation of critical habitat would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required. However, though not necessarily required by the RFA, in our draft economic analysis for this proposal we considered and evaluated the potential effects to third parties that may be involved with consultations with Federal action agencies related to this action.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. In our economic analysis, we did not find that the proposed critical habitat designation for the Mount Charleston blue butterfly will significantly affect energy supplies, distribution, or use, as the degree of overlap between proposed critical habitat and energy supplies is insignificant, and normal operations of these resources within current guidelines are not anticipated to adversely modify critical habitat. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.*)*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq*.), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a

regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the

legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because minimal proposed critical habitat is within the jurisdiction of small governments. Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with Executive Order 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), this rule is not anticipated to have significant takings implications. As discussed above, the designation of critical habitat affects only Federal actions. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. Due to current public knowledge of the species protections and the prohibition against take of the species both within and outside of the proposed areas, we do not anticipate that property values will be affected by the critical habitat designation. However, we will review and

revise this preliminary assessment as warranted, and prepare a Takings Implication Assessment.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism summary impact statement is not required. In keeping with Department of the Interior policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Nevada. The designation of critical habitat in areas currently occupied by the Mount Charleston blue butterfly would impose no additional restrictions to those currently in place and, therefore, would have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the features necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding,

assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the species. The designated areas of critical habitat are presented on a map, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.*)*

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq*.). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or

sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.*)*

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work

directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes.

We determined that there are no tribal lands that were occupied by the Mount Charleston blue butterfly at the time of listing that contain the features essential to the conservation of the species and no tribal lands unoccupied by the Mount Charleston blue butterfly that are essential for the conservation of the species. Therefore, we are not proposing to designate critical habitat for the Mount Charleston blue butterfly on tribal lands.

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;

(2) Use the active voice to address readers directly;

(3) Use clear language rather than jargon;

(4) Be divided into short sections and sentences; and

(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of

the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

References Cited

A complete list of references cited in this rulemaking is available on the Internet at *http://www.regulations.gov* and upon request from the Nevada Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the Nevada Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245; unless otherwise noted.

2. In § 17.11(h), revise the entry for "Butterfly, Mount Charleston blue" under Insects in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
* * * * * * *							
Insects							
* * * * * * *							
Butterfly, Mount Charleston blue	*Plebejus shasta charlestonensis*	U.S.A. (Clark County, NV; Spring Mountains)	Entire	E	820	17.95(i)	N/A
* * * * * * *							

3. In § 17.95, amend paragraph (i) by adding an entry for "Mount Charleston Blue Butterfly (*Plebejus shasta charlestonensis)*," in the same alphabetical order that the species appears in the table at § 17.11(h), to read as follows***:***

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(i) *Insects.*

* * * * *

Mount Charleston Blue Butterfly (*Plebejus shasta charlestonensis*)

(1) Critical habitat units are depicted for Clark County, Nevada, on the map below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the Mount Charleston blue butterfly consist of three components:

(i) Areas of dynamic habitat between 2,500 meters (8,200 feet) and 3,500 m (11,500 ft) elevation with openings or where disturbance provides openings in the canopy

that have no more than 50 percent tree cover (allowing sunlight to reach the ground), widely spaced low (less than 15 centimeters (0.5 feet) in height) forbs and grasses, and exposed soil and rock substrates.

(ii) The presence of one or more species of host plants required by larvae of the Mount Charleston blue butterfly for feeding and growth. Known larval host plants are *Astragalus calycosus* var. *calycosus*, *Astragalus lentiginosus* var. *kernensis*, and *Astragalus platytropis*. Densities of host plants must be greater than 2 per square meter (20 per square foot). When taller grass and forb plants (greater than or equal to 15 centimeters (0.5 feet) in height) are present, their density is less than 5 per square meter (50 per square foot).

(iii) The presence of one or more species of nectar plants required by adult Mount Charleston blue butterflies for reproduction, feeding, and growth. Common nectar plants include *Erigeron clokeyi*, *Hymenoxys lemmonii*, *Hymenoxys cooperi* and *Eriogonum umbellatum* var. *versicolor*. Densities of nectar plants must occur at a minimum of two per square meter for smaller plants such as *E. clokeyi* and as low as 0.1 per square meter (1 per square foot) for larger and taller plants such as *Hymenoxys* sp. and *E. umbellatum*. Nectar plants may occur up to 10 meters (33 feet) from larval host plants. Nectar plants typically occur within 10 meters (33 feet) of larval host plants and in combination provide nectar during the adult flight period between mid-July and early August. Additional nectar sources that could be present in combination with the common nectar plants include *Antennaria rosea*, *Cryptantha* sp., *Ericameria nauseosa* ssp., *Erigeron*

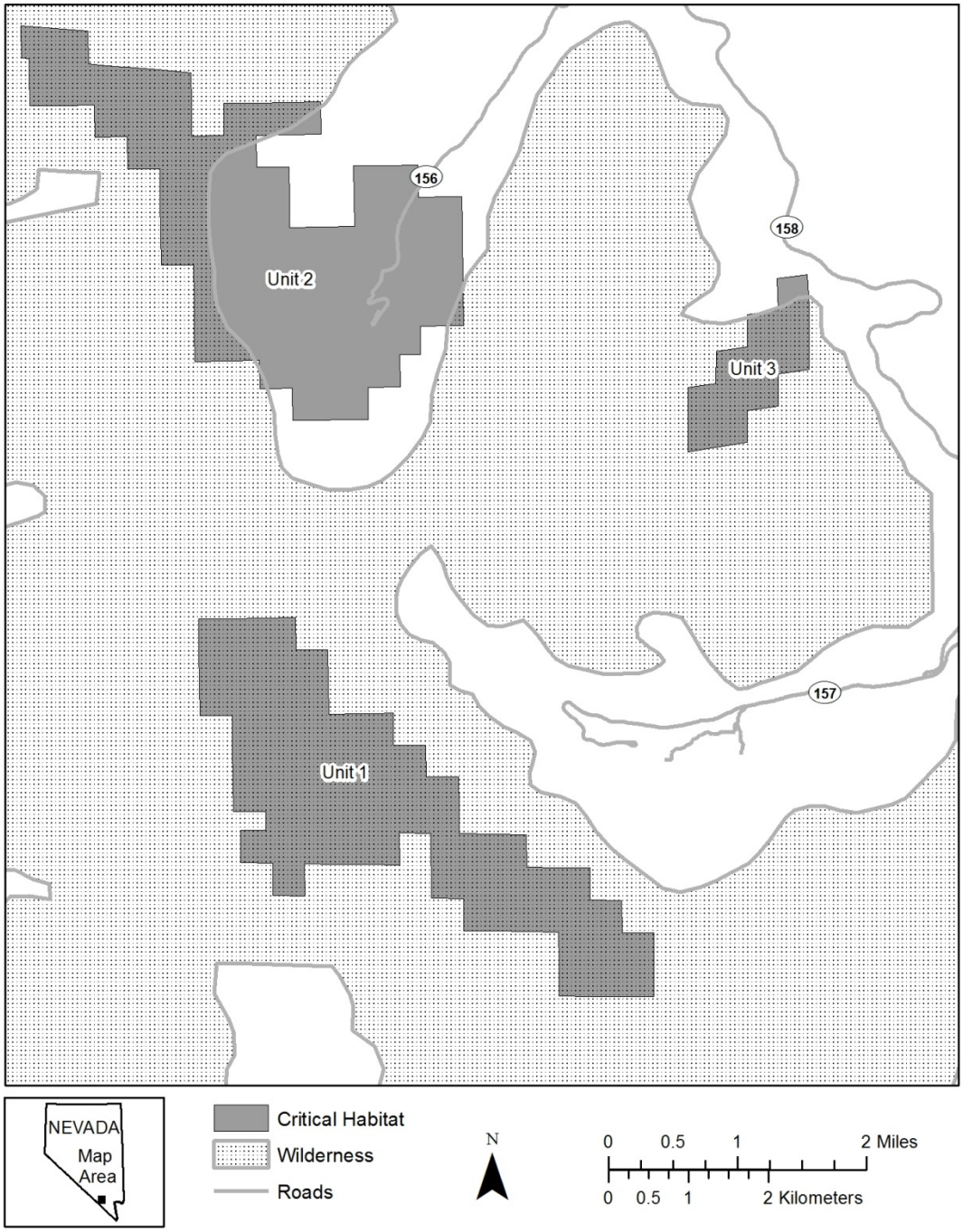
flagellaris (Trailing daisy), *Guiterrezia sarothrae*, *Monardella odoratissima*, *Petradoria pumila* var. *pumila*, and *Potentilla concinna* var. *concinna*.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [INSERT THE EFFECTIVE DATE OF THE FINAL RULE].

(4) Critical habitat map units. Data layers defining map units were created on a base of BLM (Bureau of Land Management) PLSS (Public Land Survey System) quarter–quarter sections. Critical habitat units were then mapped using UTM (Universal Transverse Mercator) Zone 11 North, NAD 1983 (North American Datum) coordinates. The map in this entry, as modified by any accompanying regulatory text, establishes the boundaries of the units of the critical habitat designation. The coordinates or plot points or both on which the map is based are available to the public at the Service's internet site, (http://www.fws.gov/nevada/nv_species/mcb_butterfly.html), (*http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0105), and at the field office responsible for this rule. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Note: Map follows:

Critical Habitat for Mount Charleston Blue Butterfly (*Plebejus shasta charlestonensis*) Clark County, Nevada



* * * * *

Dated: _____

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Assistant Secretary for Fish and Wildlife and Parks

[**~~Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Mount Charleston Blue Butterfly (*Plebejus shasta charlestonensis*)~~**]