

preferred method). Follow the online instructions for submitting comments.

- *Email: [singh.ben@epa.gov](mailto:singh.ben@epa.gov)*. Include the Docket ID No. EPA–R04–UST–2020–0696 in the subject line of the message.

*Instructions:* Submit your comments, identified by Docket ID No. EPA–R04–UST–2020–0696, via the Federal eRulemaking Portal at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from <https://www.regulations.gov>. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit: <https://www.epa.gov/dockets/commenting-epa-dockets>.

Out of an abundance of caution for members of the public and our staff, the public's access to the EPA Region 4 Offices is by appointment only to reduce the risk of transmitting COVID–19. We encourage the public to submit comments via <https://www.regulations.gov> or via email. The EPA encourages electronic comment submittals, but if you are unable to submit electronically or need other assistance, please contact Ben Singh, the contact listed in the **FOR FURTHER INFORMATION CONTACT** provision below. The index to the docket for this action is available electronically at <https://www.regulations.gov>. The documents that form the basis of this codification and associated publicly available docket materials are available for review on the <https://www.regulations.gov> website. The EPA encourages electronic reviewing of these documents, but if you are unable to review these documents electronically, please contact Ben Singh to schedule an appointment to view the documents at the Region 4 Offices. Interested persons wanting to examine these documents should make an appointment at least two weeks in advance. The EPA Region 4 requires all visitors to adhere to the COVID–19

protocol. Please contact Ben Singh for the COVID–19 protocol requirements prior to your appointment.

Please also contact Ben Singh if you need assistance in a language other than English or if you are a person with disabilities who needs a reasonable accommodation at no cost to you. For further information on the EPA Docket Center services and the current status, please visit us online at <https://www.epa.gov/dockets>.

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention, local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19.

**FOR FURTHER INFORMATION CONTACT:** Ben Singh, RCRA Programs and Cleanup Branch, Land, Chemicals and Redevelopment Division, U.S. Environmental Protection Agency, Region 4, Atlanta Federal Center, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960; Phone number: (404) 562–8922, email address: [singh.ben@epa.gov](mailto:singh.ben@epa.gov). Please contact Ben Singh by phone or email for further information.

**SUPPLEMENTARY INFORMATION:** For additional information, see the direct final rule published in the “Rules and Regulations” section of this issue of the **Federal Register**.

#### List of Subjects in 40 CFR Part 282

Administrative practice and procedure, Environmental protection, Hazardous substances, Incorporation by reference, Petroleum, Reporting and recordkeeping requirements, State program approval, and Underground storage tanks.

**Authority:** This action is issued under the authority of sections 2002(a), 7004(b), 9004, 9005 and 9006 of the Solid Waste Disposal Act, as amended, 42 U.S.C. 6912(a), 6974(b), 6991c, 6991d, and 6991e.

Dated: January 18, 2022.

**Daniel Blackman,**

*Regional Administrator, Region 4.*

[FR Doc. 2022–01297 Filed 1–24–22; 8:45 am]

**BILLING CODE 6560–50–P**

## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[Docket No. FWS–R2–ES–2021–0069; FF09E21000 FXES1111090FEDR 223]

RIN 1018–BG01

#### Endangered and Threatened Wildlife and Plants; Endangered Species Status for Sacramento Mountains Checkerspot Butterfly

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to list the Sacramento Mountains checkerspot butterfly (*Euphydryas anicia cloudcrofti*), a butterfly from New Mexico, as an endangered species under the Endangered Species Act of 1973, as amended (Act). After a review of the best available scientific and commercial information, we find that listing the species is warranted. Accordingly, we propose to list the Sacramento Mountains checkerspot butterfly as an endangered species under the Act. If we finalize this rule as proposed, it would add this species to the List of Endangered and Threatened Wildlife and extend the Act's protections to the species. We find that the designation of critical habitat for the Sacramento Mountains checkerspot butterfly is not determinable at this time.

**DATES:** We will accept comments received or postmarked on or before March 28, 2022. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for a public hearing, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by March 11, 2022.

**ADDRESSES:** You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: <http://www.regulations.gov>. In the Search box, enter the docket number or RIN for this rulemaking (presented above in the document headings). For best results, do not copy and paste either number; instead, type the docket number or RIN into the Search box using hyphens. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this

document. You may submit a comment by clicking on "Comment."

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS-R2-ES-2021-0069, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041-3803.

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 Information Requested, below, for more information).

**FOR FURTHER INFORMATION CONTACT:** Shawn Sartorius, Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, 2105 Osuna NE, Albuquerque, NM 87113; telephone 505-346-2525. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800-877-8339.

**SUPPLEMENTARY INFORMATION:**

**Executive Summary**

*Why we need to publish a rule.* Under the Act, if we determine that a species warrants listing, we are required to promptly publish a proposal in the **Federal Register**, unless doing so is precluded by higher-priority actions and expeditious progress is being made to add and remove qualified species to or from the List of Endangered and Threatened Wildlife and Plants. The Service will make a determination on our proposal within 1 year. If there is substantial disagreement regarding the sufficiency and accuracy of the available data relevant to the proposed listing, we may extend the final determination for not more than six months. To the maximum extent prudent and determinable, we must designate critical habitat for any species that we determine to be an endangered or threatened species under the Act. Listing a species as an endangered or threatened species and designation of critical habitat can be completed only by issuing a rule.

*What this document does.* We propose to list the Sacramento Mountains checkerspot butterfly as an endangered species under the Act. As explained later in this document, we conclude that the designation of critical habitat for the Sacramento Mountains checkerspot butterfly is not determinable at this time.

*The basis for our action.* Under the Act, we may determine that a species is an endangered or threatened species because of any of five factors: (A) The present or threatened destruction,

modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We have determined that the Sacramento Mountains checkerspot butterfly is primarily threatened by overgrazing by large ungulates, recreation, climate change, nonnative plants, and an altered wildfire regime.

Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary) to designate critical habitat concurrent with listing to the maximum extent prudent and determinable. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protections; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

**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 governmental agencies, Native American Tribes, the scientific community, industry, or any other interested parties concerning this proposed rule.

We particularly seek comments concerning:

- (1) The species' biology, range, and population trends, including:
  - (a) Biological or ecological requirements of the species, including habitat requirements for feeding, breeding, and sheltering;
  - (b) Genetics and taxonomy;
  - (c) Historical and current range, including distribution patterns;
  - (d) Historical and current population levels, and current and projected trends; and

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

(2) Factors that may affect the continued existence of the species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors.

(3) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to this species and existing regulations that may be addressing those threats.

(4) Additional information concerning the historical and current status, range, distribution, and population size of this species, including the locations of any additional populations of this species.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act (16 U.S.C. 1531 *et seq.*) directs that determinations as to whether any species is an endangered or a threatened species must be made "solely on the basis of the best scientific and commercial data available."

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**.

If you submit information via <http://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <http://www.regulations.gov>.

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>.

Because we will consider all comments and information we receive during the comment period, our final determination may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that the species is threatened instead of

endangered, or we may conclude that the species does not warrant listing as either an endangered species or a threatened species.

#### Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing. For the immediate future, we will provide these public hearings using webinars that will be announced on the Service's website, in addition to the **Federal Register**. The use of these virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

#### Previous Federal Actions

On January 28, 1999, we received a petition from the Southwest Center for Biological Diversity (now Center for Biological Diversity (CBD)) requesting emergency listing of the Sacramento Mountains checkerspot butterfly as endangered with critical habitat. On December 27, 1999, we published a 90-day finding that the petition presented substantial information that listing may be warranted, but that emergency listing was not warranted (64 FR 72300).

On September 6, 2001, we published a 12-month finding and proposed rule to list the Sacramento Mountains checkerspot butterfly as endangered with critical habitat (66 FR 46575). On December 21, 2004, we published a withdrawal of the proposed rule (69 FR 76428), concluding that the threats to the species were not as great as we had perceived when we proposed it for listing.

On July 5, 2007, we received another petition from Forest Guardians (now WildEarth Guardians) and CBD to list the Sacramento Mountains checkerspot butterfly under the Act due to ongoing threats, such as cattle and feral horse grazing, noxious weeds, collection, and climate change, and an imminent plan to spray for insect pests. On December 5, 2008, we published a 90-day finding that the petition presented substantial information that listing may be warranted (73 FR 74123). On September 2, 2009, we published a 12-month finding that listing was not warranted (74 FR 45396).

Please refer to the previous proposed listing and critical habitat rule (66 FR

46575; September 6, 2001), the withdrawal of the proposed listing and critical habitat rule (69 FR 76428; December 21, 2004), and the not-warranted 12-month finding (74 FR 45396; September 2, 2009) for the Sacramento Mountains checkerspot butterfly for a detailed description of previous Federal actions concerning this species.

Since we published the not-warranted rule in 2009, drought from climate change has worsened in New Mexico, worsening habitat conditions for the Sacramento Mountains checkerspot butterfly. Further, during abnormally dry conditions, both feral horses and elk switch to browsing certain plants that are important for the butterfly. Additionally, recreation on the Lincoln National Forest has increased in recent years. Due to heightened concern about the impact of these stressors on the habitat of the Sacramento Mountains checkerspot butterfly, we initiated a discretionary status review of the species in January 2021.

On March 1, 2021, we received a petition from CBD to list the Sacramento Mountains checkerspot butterfly as endangered with critical habitat. At that time, our analysis was already underway, and we included the information provided in the petition in our analysis of the species' status for consideration in this decision.

#### Supporting Documents

An assessment team prepared a current condition assessment report for the Sacramento Mountains checkerspot butterfly. The team was composed of Service biologists in consultation with other species experts. The report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past and present factors (both negative and beneficial) affecting the species. In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we will seek the expert opinions of at least three appropriate specialists regarding the report. The report will be made available for peer and partner review concurrently with this proposed listing determination. Any information we receive will be incorporated into a final rule.

## I. Proposed Listing Determination

### Background

The Sacramento Mountains checkerspot butterfly (butterfly) is a subspecies of the *Anicia* checkerspot, or variable checkerspot, in the Nymphalidae (brush-footed butterfly) family that is native to the Sacramento Mountains in south-central New Mexico. The species requires host plants for larvae, nectar sources for adults, and climatic moisture.

The Sacramento Mountains checkerspot butterfly is a small butterfly with a wingspan of approximately 5 centimeters (cm) (2 inches (in)) that has a checkered pattern with dark brown, red, orange, cream, and black spots, punctuated with dark lines (Ferris and Holland 1980, p. 5). The butterfly's antennae have yellow-orange clubs at the tip, and they have orange legs and eyes (Glassberg 2017, p. 207). Sacramento Mountains checkerspot butterfly's larvae are between 0.5 to 1.0 cm (0.2 to 0.4 in) in length. Over time, the larvae change from bare and brown to wooly and black with orange hairs (Service *et al.* 2005, p. 7).

The Sacramento Mountains checkerspot butterfly inhabits high-altitude meadows in the upper-montane and subalpine zone at elevations between 2,380 and 2,750 meters (m) (7,800 and 9,000 feet (ft)) within the Sacramento Mountains, which are an isolated mountain range in south-central New Mexico (Service 2005 *et al.*, p. 9). The ecosystem at this elevation usually is cool and wet, supporting diverse and robust plant life.

The main larval host plant for the Sacramento Mountains checkerspot butterfly is the New Mexico beardtongue (*Penstemon neomexicanus*) (Ferris and Holland 1980, p. 7), also known as New Mexico penstemon. The preferred adult nectar source is orange sneezeweed (*Helenium (Hymenoxys) hoopesii*), a native perennial forb (Service *et al.* 2005, p. 9). Other plants in the butterfly's habitat include valerian (*Valeriana edulis*), arrowleaf groundsel (*Senecio triangularis*), curlycup gumplant (*Grindelia squarrosa*), figworts (*Scrophularia* sp.), penstemon (*Penstemon* sp.), skyrocket (*Ipomopsis aggregata*), milkweed (*Asclepias* sp.), Arizona rose (*Rosa woodsii*), and Wheeler's wallflower (*Erysimum capitatum*) (Forest Service 1999, entire).

In the Sacramento Mountains, small daily rainstorms (monsoons) are common during the summer months. During this cycle, adult butterflies are active during mid-morning when the sunlight has warmed the air but before

rainstorms move into the area in the afternoon (Forest Service 1999, p. 3). On chilly, cloudy days when temperatures are around 60 degrees Fahrenheit (°F) (16 degrees Celsius (°C)), butterflies are inactive. Sacramento Mountains checkerspot butterflies are most active during sunny days when temperatures remain near 70 °F (21 °C) (Forest Service 1999, p. 4). The optimal temperature range is between 73 and 80 °F (23 and 27 °C) (Ryan 2021a, pers. comm.). When temperatures regularly exceed 80 °F (27 °C) during the summer months, few adult butterflies were detected (Hughes 2021a, pers. comm.).

The Sacramento Mountains checkerspot butterfly is univoltine, meaning there is one generation per year. The butterfly's life cycle is synchronized with the development of host and nectar plants. The flight season lasts from mid-June to the end of August. The exact timing of adult flight can vary dramatically from one year to the next (Service *et al.* 2005, pp. 10–11). The adult butterflies stagger their emergence from pupation, with numbers peaking around the second week of the flight season. Females deposit a cluster of eggs on the underside of New Mexico beardtongue leaves. A female can lay two to three sets of eggs during her short lifetime (Service *et al.* 2005, pp. 10–11). The eggs hatch within 2 weeks, and larvae collectively create a protective silken shelter, known as a tent, over the host plant, feeding upon it until winter or the plant is defoliated (Pratt and Emmel 2010, p. 108). Caterpillars at this stage are relatively immobile and rely on host plant health and abundance to complete the first stages of their life cycle (Arriens *et al.* 2020, p. 2). Caterpillars can leave the plant and search for additional resources, but it is unknown how far they can travel in search of food (Pratt and Emmel 2010, p. 108; Service *et al.* 2005, p. 11).

After the third or fourth growth cycle, the larvae enter a period of arrested metabolism known as diapause. Diapause begins between late September and early October, depending on environmental conditions. During diapause, larvae probably remain in leaf or grass litter near the base of shrubs, under the bark of conifers, or in the loose soils associated with pocket gopher (*Thomomys bottae*) mounds (see 66 FR 46575; September 6, 2001). The larvae remain in diapause until warm spring temperatures, moisture events, host plant growth, or some combination of these events prompts individuals to come out of their suspended state (Service *et al.* 2005, p. 11). It might be possible for caterpillars to re-enter or

remain in diapause for more than one year if environmental conditions are not conducive for growth (Service *et al.* 2005, p. 11).

Between March and April, post-diapause larvae emerge and begin to feed again. In the spring, larvae are more mobile than they were in the fall, moving on average 2.6 meters from their natal tents (Pittenger and Yori 2003, p. 3). They have three or four more growth stages before pupating (forming a chrysalis). Precisely what triggers caterpillars to initiate pupation is not well understood, but likely relies on various environmental cues (Service *et al.* 2005, p. 11). As many as 98 percent of individuals do not survive to the adult stage (Ryan 2021b, pers. comm.).

Because the Sacramento Mountains checkerspot butterfly has a life-history pattern similar to other butterflies in the *Euphydryas* genus that exist as metapopulations, it is likely that this butterfly also has a metapopulation structure (Ehrlich *et al.* 1975, p. 221; Murphy and Weiss 1988, pp. 192–194). A metapopulation is a group of local populations within an area, where typically migration from one local population to other areas containing suitable habitat is possible, but not routine (Murphy and Weiss 1988, p. 192). Movement between areas containing suitable habitat (*i.e.*, dispersal) is restricted due to inhospitable conditions around and between areas of suitable habitat (Service *et al.* 2005, p. 15). Metapopulation-level processes appear to be critical to the long-term persistence of the Sacramento Mountains checkerspot butterfly.

Butterflies in the genus *Euphydryas* are typically restricted to specific habitats (Ehrlich *et al.* 1975, p. 225; Cullenward *et al.* 1979, p. 1; Murphy and Weiss 1988, p. 197). The extent of the historical range of the Sacramento Mountains checkerspot butterfly is unknown due to limited information collected on this subspecies before its description in 1980 (Ferris and Holland 1980, p. 7). Although the Sacramento Mountains checkerspot's historical range is unknown, the species is thought to have once occupied a more extensive (but still limited) area based upon the location of its meadow habitat.

Surveys completed between 1996 and 1997 found that the butterfly occupies roughly 85 square kilometers (33 square miles) within the vicinity of the village of Cloudcroft (see 66 FR 46575; September 6, 2001). However, recent surveys indicate that the butterfly's suitable habitat is likely less than 2 square miles within the range (Forest Service 2020b, entire). The U.S. Forest

Service (Forest Service) has been conducting presence-or-absence surveys since 1998 to estimate the range of the butterfly (Forest Service 1999, p. 2). Based on the best available information, the butterfly continues to exist within the same general localities (Pittenger and Yori 2003, p. 15; McIntyre 2005, pp. 1–2; McIntyre 2008, p. 1; Ryan 2007, pp. 11–12).

The range of the Sacramento Mountains checkerspot butterfly has always been discontinuous and fragmented. Spruce-fir forests punctuate suitable butterfly habitat comprised of mountain meadows, creating intrinsic barriers to butterfly dispersal and effectively isolating populations from one another (Pittenger and Yori 2003, p. 1). It is likely that the meadow habitat upon which the Sacramento Mountains checkerspot butterfly relies was influenced by fire (Brown *et al.* 2001, pp. 116–117). The historical fire regime would have allowed for more temporary connectivity between populations as it opened up the canopy of trees that separate meadows. However, fire suppression on public and private lands to protect commercial and private development in suitable habitat has resulted in the encroachment of conifers.

The Mescalero Apache Nation shares the northern border with the Sacramento Ranger District on the Lincoln National Forest. This border is the northern limit of butterfly surveys. We do not know if the range of the butterfly extends into the lands of the Mescalero Apache Nation because, to our knowledge, no surveys have been conducted on their lands (see 66 FR 46575; September 6, 2001). Although we do not have information on habitat on Mescalero Apache Nation lands, it is unlikely that there is a significant amount of suitable habitat present there because it is generally lower elevation than the Sacramento Mountains checkerspot butterfly requires (*i.e.*, between 2,380 and 2,750 m (7,800 and 9,000 ft)) and is not proximal (*i.e.*, provides connectivity) to known butterfly localities (see 66 FR 46575; September 6, 2001).

Since 1998, populations have been known from 10 meadow units on Forest Service land (Forest Service, 1999, p. 2). The meadows cover the occupied areas within the species' range and give the most accurate representation of species and habitat conditions available. These meadow units include Bailey Canyon, Pines Meadow Campground, Horse Pasture Meadow, Silver Springs Canyon, Cox Canyon, Sleepygrass Canyon, Spud Patch Canyon, Deerhead Canyon, Pumphouse Canyon, and

Yardplot Meadow. The species has been extirpated from several of these meadows recently. The Yardplot Meadow was sold and developed, while suitable habitat in Horse Pasture Meadow was eliminated by logging (Forest Service 2017, p. 3). No adults or caterpillars have been detected within Pumphouse Canyon since 2003, and the species has likely been extirpated at that site (Forest Service 2017, p. 3). In 2020, all 10 meadows were surveyed for butterflies and larvae, and a total of eight butterflies were detected in only Bailey Canyon and Pines Meadow Campground combined (Forest Service 2020b, p. 3), and no larval tents were found at any site (Forest Service 2020b, pp. 1–3; Hughes 2020, pers. comm.).

#### *Regulatory and Analytical Framework*

##### Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species is an endangered species or a threatened species. The Act defines an “endangered species” as a species that is in danger of extinction throughout all or a significant portion of its range, and a “threatened species” as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an endangered species or a threatened species because of any of the following factors:

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

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species’ continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term “threat” to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term “threat” includes actions or conditions that have a direct

impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term “threat” may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an “endangered species” or a “threatened species” only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term “foreseeable future,” which appears in the statutory definition of “threatened species.” Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term “foreseeable future” extends only so far into the future as the Service can reasonably determine that both the future threats and the species’ responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. “Reliable” does not mean “certain”; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species’ likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species’

biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

##### Analytical Framework

The current condition assessment report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The current condition assessment report does not represent a decision by the Service on whether the species should be proposed for listing as an endangered or threatened species under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The following is a summary of the key results and conclusions from the current condition assessment report; the full report can be found at <http://www.regulations.gov> under Docket No. FWS–R2–ES–2021–0069 and at <https://www.fws.gov/southwest/es/NewMexico/>.

To assess Sacramento Mountains checkerspot butterfly viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species’ ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species’ viability.

Our analysis can be categorized into several sequential stages. During the first stage, we evaluated the individual species’ life-history needs. The next stage involved an assessment of the historical and current conditions of the species’ demographics and habitat characteristics, including an explanation of how the species arrived

at its current condition. Throughout these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

#### Summary of Biological Status and Threats

Below, we review the biological condition of the species and its resources, and the threats that influence the species' current and future condition, in order to assess the species' overall viability and the risks to that viability.

For the Sacramento Mountains checkerspot butterfly to maintain viability, its populations or some portion thereof must have sufficient resiliency, redundancy, and representation. Several factors influence the resiliency of Sacramento Mountains checkerspot butterfly populations, including larval and adult abundance and density, in addition to elements of the species' habitat that determine whether Sacramento Mountains checkerspot butterfly populations can survive and reproduce. These resiliency factors and habitat elements are discussed in detail in the current condition assessment report and are summarized here.

#### Species Needs

##### Abundance and Density

To successfully reproduce and increase their fecundity and abundance, butterflies need access to mates. The Sacramento Mountains checkerspot butterfly is not a long-distance flier and probably relies on local abundance and population density to successfully mate and reproduce (Pittenger and Yori 2003, p. 39). Higher densities and more abundant individuals result in more successful mating attempts and ensure species viability. Metapopulation dynamics are also maintained by abundance and density within meadows (Pittenger and Yori 2003, pp. 39–40).

##### Host Plants

The most crucial habitat factor for the Sacramento Mountains checkerspot butterfly is the New Mexico beardtongue's presence and abundance (McIntyre 2021a, pers. comm.). The larvae rely nearly entirely upon the New Mexico beardtongue during pre- and post-diapause. Because of the Sacramento Mountains checkerspot butterfly's dependency on New Mexico beardtongue, it is vulnerable to any type of habitat degradation, which reduces the host plant's health and abundance (Service *et al.* 2005, p. 9).

New Mexico beardtongue is a member of the Plantaginaceae, or figwort, family (Oxelman *et al.* 2005, p. 425). These perennial plants prefer wooded slopes or open glades in ponderosa pine and spruce/fir forests at elevations between 1,830 and 2,750 m (6,000 and 9,000 ft) (New Mexico Rare Plant Technical Council 1999, entire). New Mexico beardtongue is native to the Sacramento Mountains within Lincoln and Otero Counties (Sivinski and Knight 1996, p. 289). The plant is perennial, has purple or violet-blue flowers, and grows to be half a meter tall (1.9 ft). New Mexico beardtongue occurs in areas with loose soils or where there has been recent soil disturbance, such as eroded banks and pocket gopher burrows (Pittenger and Yori 2003, p. ii). Some plant species within the figwort family, including the New Mexico beardtongue, contain iridoid glycosides, a family of organic compounds that are bitter and an emetic (vomiting-inducing) for most birds and mammal species. The Sacramento Mountains checkerspot butterfly, like other subspecies of *Euphydryas anicia*, sequester the iridoid glycosides as caterpillars. It is believed that these compounds make the larvae and adult butterflies unpalatable to predators (Gardner and Stermitz 1987, pp. 2152–2167).

##### Nectar Sources

Access to nectar sources is needed for adult Sacramento Mountains checkerspot butterflies to properly carry out their life cycle. The primary adult nectar source is orange sneezeweed (Service *et al.* 2005, p. 9). To contribute to the species' viability, orange sneezeweed must bloom at a time that corresponds with the emergence of adult Sacramento Mountain checkerspot butterflies. Although orange sneezeweed flowers are most frequently used, the butterfly has been observed collecting nectar on various other native nectar sources (Service *et al.* 2005, pp. 9–10). If orange sneezeweed is not blooming during the adult flight period (*i.e.*, experiencing phenological mismatch), survival and the butterfly's fecundity could decrease.

##### Habitat Connectivity

Before human intervention, the habitat of the Sacramento Mountains checkerspot butterfly was dynamic, with meadows forming and reconnecting due to natural wildfire regimes (Service *et al.* 2005, p. 21). These patterns would have facilitated natural dispersal and recolonization of meadow habitats following disturbance events, especially when there was high butterfly population density in adjacent

meadows (Service *et al.* 2005, p. 21). Currently, spruce-fir forests punctuate suitable butterfly habitat, comprised of mountain meadows, creating intrinsic barriers to butterfly dispersal and effectively isolating populations from one another (Pittenger and Yori 2003, p. 1). Preliminary genetic research suggested there is extremely low gene flow across the species' range or between meadows surveyed (Ryan 2021a, pers. comm.). If new sites are to become colonized or recolonized by the butterfly, meadow areas will need to be connected enough to allow dispersal from occupied areas. Therefore, habitat connectivity is needed for genetically healthy populations across the species' range (Service 2021, p. 8).

##### Risk Factors for the Sacramento Mountains Checkerspot Butterfly

We reviewed the potential risk factors (*i.e.*, threats, stressors) that could be currently affecting the Sacramento Mountains checkerspot butterfly. In this proposed rule, we will discuss only those factors in detail that could meaningfully impact the status of the species. Those risk factors that are unlikely to have significant effects on Sacramento Mountains checkerspot butterfly populations, such as human collection, disease, parasites, predation, insecticides, habitat loss, and livestock grazing, are not discussed here but are evaluated in the current condition assessment report. For example, livestock grazing has the potential to impact the Sacramento Mountains checkerspot butterfly through various mechanisms (Service *et al.* 2005, pp. 29–30; Forest Service 2008, p. 70; McIntyre 2010, pp. 76–77, 94–104; Forest Service 2019, p. 21). However, because there are no active grazing allotments in any areas occupied by the butterfly, livestock grazing is not a primary risk factor for the status of the Sacramento Mountains checkerspot butterfly. The primary risk factors (*i.e.*, threats) affecting the status of the Sacramento Mountains checkerspot butterfly are overgrazing by large ungulates (Factor A), recreation (Factor A), climate change (Factor E), nonnative plants (Factor A), and an altered wildfire regime (Factor A).

##### Overgrazing by Large Ungulates

Historically, Merriam's elk (*Cervus canadensis merriami*), an extinct subspecies of elk, grazed meadows within the Sacramento Mountains. Under normal conditions, these species likely coexisted without impacting the existence of the butterfly. Rocky Mountain elk (*Cervus canadensis nelsoni*) have been introduced to the

Sacramento Mountains, filling the previous ecological niche held by Merriam's elk (New Mexico Department of Game and Fish 2009, unpaginated). At natural population levels and normal environmental conditions, elk do not pose a significant threat to the Sacramento Mountains checkerspot butterfly or its habitat. In fact, some studies have shown a positive correlation between elk grazing and caterpillar abundance (McIntyre 2010, pp. 66–69). Should elk herds expand beyond natural levels or occur during times of resource scarcity, browse pressure from elk can pose a significant threat to the butterfly's habitat and viability (Service 2021, p. 13).

Feral horses were inadvertently released onto the Lincoln National Forest around 2012. Horses are not native to the Sacramento Mountains and add significant browse pressure to meadows. Larger than elk, horses consume large quantities of vegetation. Roughly 60,000 horses now live throughout the Sacramento Mountains (Ryan 2021, pers. comm.).

Under typical habitat conditions, the larval host plant, New Mexico beardtongue, is not a main food source for large ungulates. However, during abnormally dry conditions, both horses and elk switch to browsing New Mexico beardtongue as other food plants become scarce (McIntyre 2010, pp. 71–73). New Mexico beardtongue remains as small rosettes less than an inch tall and does not flower when there is significant browse pressure from large herbivores. These small, stunted plants are not large enough to support tent colonies of caterpillars; any larvae will starve after hatching (Forest Service 2020b, p. 11).

Feral horse and overpopulated elk browsing, compounded with drought due to climate change, significantly impact habitat within meadow ecosystems in the range of the Sacramento Mountains checkerspot butterfly. Over the past several years, sustained drought in Otero County has driven large herbivores to graze most meadow areas to the ground (McMahan *et al.* 2021, pp. 1–2). Currently, vegetation for host plant and nectar sources is scarce in all the meadows throughout the range of the species (Forest Service 2020, p. 11).

In summary, overgrazing by large ungulates results in decline of suitable habitat, limiting larval host plants and adult nectar sources. All meadow units within the range are experiencing impacts from overgrazing.

#### Recreation

Over the past 10 years, recreation has increased in the Lincoln National Forest. The previous proposed listing rule (66 FR 46575; September 6, 2001) determined that off-road vehicle use on Forest Service trails posed some threat to meadow units; off-road vehicle use continues to this day and has increased in popularity. Large recreational vehicle (RV) use has also increased, and the Forest Service does not require permits for parking vehicles within the Lincoln National Forest (Service 2021, p. 14). Meadows within the range of the Sacramento Mountains checkerspot are popular with RV users because they are open, flat, and easily accessible by road (Hughes 2021b, pers. comm.). A variety of these impacts (*e.g.*, soil compaction, barren ground, trampled food plants, multiple trails, vehicle tracking) are evident in areas used by larval and adult life stages of the Sacramento Mountains butterflies; these impacts are reducing the quality or quantity of suitable habitat in and around developed campgrounds or undeveloped campsites in meadows known to support the Sacramento Mountains checkerspot butterfly (Hughes 2021b, pers. comm.).

Recreation can negatively affect the butterfly in several ways. Trampling and crushing can physically kill both individual butterflies and caterpillars. While adults can fly away, these butterflies are slow, especially on cold mornings. Recreational activities can also crush plants, including New Mexico beardtongue and orange sneezeweed. During times of drought, these plants are especially vulnerable and unlikely to survive repeated damage (Service 2021, p. 14). Additionally, RVs compact soil where large vehicles are parked. Repeated trampling by humans around the vehicles, caused by normal camping activities, will further compact soils, making it less likely for New Mexico beardtongue to recover or re-establish in former campsites (Hughes 2021b, pers. comm.).

In summary, recreation by humans can directly kill Sacramento Mountains checkerspot butterflies and their larvae. All meadow units within the range are experiencing some level of impact from recreation.

#### Climate Change

Climate change is impacting natural ecosystems in the southwestern United States (McMahan *et al.* 2021, p. 1). The Sacramento Mountains are sky islands surrounded by a matrix of desert grassland, which hosts a unique mix of flora and fauna (Brown *et al.* 2001, p. 116). This ecosystem is sensitive even to

small changes in temperature and precipitation. Such changes to the environment can significantly alter air temperature, the amount of precipitation, and the timing of precipitation events (Service *et al.* 2005, p. 37).

New Mexico has been in a drought for the past several years. Roughly 54 percent of New Mexico is currently experiencing an exceptional drought, including the Sacramento Mountains (McMahan *et al.* 2021, pp. 1–2). Droughts of this severity push wildlife to alter behavior based on available resources, while vegetation in habitats becomes extremely degraded (McMahan *et al.* 2021, entire).

Over the past several years, annual precipitation levels have decreased throughout the butterfly's range. Snowfall and corresponding snowpack have remained well below normal levels (Forest Service 2020b, pp. 11–12). Some alpine butterflies need high levels of snowpack levels during diapause to shelter from wind and cold temperatures. The same might be true for the Sacramento Mountains checkerspot butterfly, as the species likely evolved with higher levels of winter snowpack than are common over the past decade (Hughes 2021a, pers. comm.). However, while snowpack might be an important factor, we do not have enough evidence to analyze the effects of low snow years on the butterfly.

Recent shifts in climate due to human-induced climate change can impact how species interact with their environment. The timing of butterfly life-history events during an annual cycle shift due to increases in temperature, changes in humidity, and length of growing season. These shifts can directly be attributed to the effects of climate change. For habitat specialists such as the Sacramento Mountains checkerspot butterfly, shifts in phenological timing can have important consequences for population dynamics and viability (Colorado-Ruiz *et al.* 2018, pp. 5706–5707). It is likely that climate change has already caused some level of phenotypic mismatch (when life-history traits are no longer advantageous due to changes in the environment) between the butterfly, host plants, and nectar sources. This shift negatively impacts the butterfly because it has adapted to specific timing of resource availability (*i.e.*, growth of host plants, blooming of nectar sources) in various stages of its life cycle, and climate change has altered the timing, quality, and quantity of those resources.

The Sacramento Mountains checkerspot butterfly needs adequate

vegetation growth in host plants and nectar sources during the summer months to survive (Service *et al.* 2005, p. 15). Vegetation growth within the butterfly's range appears to rely heavily on summer rains. Large rainfall events typically form during the mid-summer months in the Sacramento Mountains, marking the beginning of the monsoon season. These midday showers occur almost daily for several months, stimulating much of the vegetation to grow and proliferate during the midsummer season. Specifically, New Mexico beardtongue growth increases in response to the monsoons. It is thought that moisture might also encourage the butterflies to emerge from diapause as well (Service *et al.* 2005, pp. 37–38).

Climate change is impacting the timing of monsoon events throughout the Southwest (Service 2021, p. 15). New Mexico beardtongue and other plant species in sub-alpine meadows are adapted to the pulse of moisture from monsoons (Service *et al.* 2005, pp. 37–38). With a lack of, or altered, monsoon rains, the butterfly is at risk, as the species relies on vegetation growth dependent upon the timing of precipitation.

The 2020 monsoon season was an exceptionally weak one, with far less precipitation falling than in an average summer (McMahan *et al.* 2021, unpaginated). As a result, New Mexico beardtongue growth was also weak; few plants grew larger than small rosettes on the ground. Even fewer plants survived to produce flowers (Forest Service 2020b, p. 12). Some experts believe that the dry conditions, compounded with increased browse pressure from large ungulates, contributed to the deterioration of habitat throughout the Sacramento Mountains checkerspot butterfly's range (Ryan *et al.* 2021, pers. comm.).

In summary, climate change impacts viability of the Sacramento Mountains checkerspot butterfly. All meadow units within the range are experiencing impacts from climate change.

#### Nonnative Plants

Nonnative plants have begun to encroach into meadow areas within the Lincoln National Forest. Other species of butterfly had become scarcer when nonnative plants appeared in suitable butterfly habitats (Hughes 2021b, pers. comm.). During the drought, Kentucky bluegrass (*Poa pratensis*) proliferated within meadow areas. This aggressive, nonnative plant, which is primarily windblown, can outcompete native wildflowers, such as New Mexico beardtongue. As nonnative plants begin to expand their influence, native plants,

host and nectar plants for butterflies, such as New Mexico beardtongue and orange sneezeweed, are likely to become scarcer (Kennedy 2020, pers. comm.; 62 FR 2313, January 16, 1997).

In summary, nonnative plants can outcompete the native plants that Sacramento Mountains checkerspot butterflies and their larvae require. All meadow units within the range are experiencing some level of impact from nonnative plants.

#### Altered Wildfire Regime

Fire is a natural part of the Sacramento Mountains ecosystem and would have historically maintained many of the ecosystem processes within the butterfly's range. The Lincoln National Forest has largely suppressed wildfires over the past 150 years (Service *et al.* 2005, p. 21). Before human intervention, there would have been gradual ecosystem clines between meadows and forests. Grassland corridors or sparsely forested glades would have connected meadow areas. These habitat types would have allowed for the butterfly to pass through, thereby maintaining metapopulation dynamics. Fire exclusion and suppression have reduced the size of grasslands and meadows by allowing the encroachment of conifers, and these trends are projected to continue (Service *et al.* 2005, pp. 21–22). No significant wildfires have occurred in butterfly habitat since 1916 (Service *et al.* 2005, p. 21). Before active fire suppression, fire in the Sacramento Mountains occurred at intervals between three and ten years (Forest Service 1998, p. 63). These frequent, low-intensity, surface fires historically maintained a forest that was more open (*i.e.*, more non-forested patches of different size; more large, older trees; and fewer dense thickets of evergreen saplings). Such low-intensity fires are now rare events. A large fire can occur within the range of the species; there have been at least nine large, severe wildfires (over 90,000 ac (34,000 ha)) in the Sacramento Mountains during the past fifty years (Forest Service 1998, p. 63). Trees and other woody vegetation have begun encroaching into suitable meadow habitats for the butterfly. Current forest conditions make the chances of a high-severity fire within the range of the butterfly increasingly likely (Service *et al.* 2005, p. 21).

It is likely that fire exclusion and historical cattle grazing have altered and increased the threat of wildfire in ponderosa pine (*Pinus ponderosa*) and mixed conifer forests in the semi-arid western interior forests, including New Mexico (Forest Service 1998, pp. 3, 63).

Further, there has been a general increase in the dominance of woody plants, with a decrease in the herbaceous (non-woody) ground cover used by the butterfly (Service *et al.* 2005, pp. 32–33). These data indicate that the quality and quantity of the available butterfly habitat is decreasing rangewide. Therefore, we conclude that fire exclusion has substantially affected the species and will likely continue to significantly degrade the quality and quantity of suitable habitat.

In summary, the altered fire regime can impact Sacramento Mountains checkerspot butterflies and their larvae. All meadow units within the range are experiencing impacts from altered fire regime.

#### Summary

Our analysis of the current influences on the needs of the Sacramento Mountains checkerspot butterfly for long-term viability revealed there are several threats that pose the largest risk to viability: Overgrazing by large ungulates, recreation, climate change, nonnative plants, and an altered wildfire regime. These influences reduce the availability of host plants and nectar sources, thereby reducing the quantity and quality of habitat, in addition to reducing ecological and genetic diversity.

#### Species Condition

The current condition of the Sacramento Mountains checkerspot butterfly considers the risks to those populations that are currently occurring. In the current condition assessment report, for each population, we developed and assigned condition categories for two demographic factors and three habitat factors that are important for viability of the Sacramento Mountains checkerspot butterfly. The condition scores for each habitat factor were then used to determine an overall condition of each population and meadow: High, moderate, low, very low, or extirpated.

Two populations of the Sacramento Mountains checkerspot butterfly remain in two meadows, Bailey Canyon and Pines Meadow Campground. Historically, the populations likely had greater connectivity, but today they are small and isolated due to the altered wildfire regime resulting in a higher concentration of trees that separate meadows. Repopulation of extirpated locations is unlikely without human assistance. If butterflies have been detected at any site once or more during the last 3 years, that population is not considered extirpated. The two remaining populations are in very low

condition in terms of demographic factors (adult density and larval density) (see Table 1, below) and low condition in terms of overall meadow condition (see Table 2, below). There have not been any observations of adults or

larvae in the past 3 consecutive years in the any of other eight populations, and they are, therefore, considered demographically extirpated. Six of those eight populations have very low overall meadow condition, and two are

considered extirpated for overall meadow condition because suitable habitat for the Sacramento Mountains checkerspot butterfly no longer exists there.

TABLE 1—CURRENT CONDITION OF DEMOGRAPHIC FACTORS OF THE SACRAMENTO MOUNTAINS CHECKERSPOT BUTTERFLY

Meadow unit	Demographic factors	
	Adult density	Larval density
Bailey Canyon .....	Very Low .....	Very Low.
Pines Meadow Campground .....	Very Low .....	Very Low.
Cox Canyon .....	Extirpated .....	Extirpated.
Silver Springs Canyon .....	Extirpated .....	Extirpated.
Pumphouse Canyon .....	Extirpated .....	Extirpated.
Sleepygrass Canyon .....	Extirpated .....	Extirpated.
Spud Patch Canyon .....	Extirpated .....	Extirpated.
Deerhead Canyon .....	Extirpated .....	Extirpated.
Horse Pasture Meadow .....	Extirpated .....	Extirpated.
Yardplot Meadow .....	Extirpated .....	Extirpated.

TABLE 2—CURRENT CONDITION OF HABITAT FACTORS OF THE SACRAMENTO MOUNTAINS CHECKERSPOT BUTTERFLY

Meadow unit	Habitat factors			Overall meadow condition
	Host plants	Nectar sources	Connectivity	
Bailey Canyon .....	Very Low .....	Low .....	Moderate .....	Low.
Pines Meadow Campground .....	Very Low .....	Low .....	Moderate .....	Low.
Cox Canyon .....	Very low .....	Low .....	Low .....	Very Low.
Silver Springs Canyon .....	Very Low .....	Low .....	Moderate .....	Very Low.
Pumphouse Canyon .....	Very Low .....	Low .....	Low .....	Very Low.
Sleepygrass Canyon .....	Very Low .....	Low .....	Moderate .....	Very Low.
Spud Patch Canyon .....	Very Low .....	Low .....	Moderate .....	Very Low.
Deerhead Canyon .....	Extirpated .....	Very Low .....	Low .....	Very Low.
Horse Pasture Meadow .....	Extirpated .....	Extirpated .....	High .....	Extirpated.
Yardplot Meadow .....	Extirpated .....	Extirpated .....	Low .....	Extirpated.

Bailey Canyon and Pines Meadow Campground are two adjacent meadows in the northwest part of the Sacramento Mountains checkerspot butterfly’s range. During the 2020 survey season, approximately eight butterflies were detected in both meadows combined (Forest Service 2020b, p. 3), and no larval tents were found (Forest Service 2020b, pp. 1–3; Phillip Hughes 2020, pers. comm.). Because of these adult and larval density levels, we categorized resiliency for demographics as very low for both meadows, which were the only two where butterflies were found. In addition, the overall meadow condition for these sites was low because there are few host plants and nectar sources present. Although nectar sources are present, they are not blooming or providing enough resources for the butterfly colonies. Further, these meadows are within 800 meters of each other, which is within the dispersal distance of the butterfly, allowing for potential gene flow between populations.

Overall resiliency of Sacramento Mountains checkerspot butterfly populations is very low for demographic factors and low for habitat factors. This is because butterflies were only found in 2 of the 10 documented meadows, and both had very low recorded adult and larval abundance and density numbers. Additionally, these two meadows have poor habitat conditions (few host plants, nectar sources are abundant but provide insufficient resources, and some connectivity to other meadows), and the other eight meadows have either very low condition or are extirpated in terms of habitat factors.

We define representation for the Sacramento Mountains checkerspot butterfly as having ecological and genetic diversity. As a narrow-range endemic, the entire range of the species is approximately 32 square miles. However, suitable habitat is limited to only about 2 square miles. Today, only 0.2 square miles might be occupied by the butterfly. This range contraction suggests that most of the original representation present within the

species has declined. The entirety of the butterfly’s range represents one representation area because of the narrow range and limited ecological diversity. The populations are small and isolated in this single representation area with very little to no connectivity between populations. The occupied meadows are among spruce-fir forests, so some barriers limit the dispersal of individuals among the populations. Due to the limited habitat connectivity of populations, individual Sacramento Mountains checkerspot butterflies rarely, if ever, travel between populations. This effectively restricts the transfer of genetic material, thus limiting genetic diversity. There was likely greater habitat connectivity between populations in the past due to a more natural fire regime. Therefore, overall representation was always limited for this species and has declined in recent years.

We define redundancy for the Sacramento Mountains checkerspot butterfly as having populations or metapopulations spread across the

range. There are only 2 extant Sacramento Mountains checkerspot butterfly populations located in adjacent meadows out of 10 documented metapopulations within the single representation area. Given the historical distribution of the butterfly, it is likely that Sacramento Mountains checkerspot butterfly populations were more abundant within the Sacramento Mountains. Therefore, redundancy of the butterfly has declined over time. As a consequence of these current conditions, the viability of the Sacramento Mountains checkerspot butterfly primarily depends on maintaining and restoring the remaining isolated populations and reintroducing populations where feasible.

We incorporated the cumulative effects of the operative threats into our analysis when we characterized the current condition of the species. Because our characterization of current condition considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative effects analysis.

#### Conservation Efforts and Regulatory Mechanisms

Several habitat management actions can benefit the viability of the Sacramento Mountains checkerspot butterfly. To address the threat of overgrazing from large ungulates, the Lincoln National Forest erected exclosures to protect butterfly habitats from browsing. These efforts are currently focused within Bailey Canyon and Pines Meadow Campground, where adult butterflies were most recently found. Botanists involved with the Sacramento Mountains checkerspot butterfly working group are currently growing plants for habitat restoration. Biologists will soon plant nectar sources, including orange sneezeweed and New Mexico beardtongue, within exclosures to ensure the individual needs of caterpillars and adult butterflies are met.

The Forest Service has proposed that fire management aimed at reducing tree stocking within forested areas surrounding meadows might also help restore suitable habitat and connectivity throughout the range of the butterfly. Maintaining edge habitat and connectivity could greatly improve the butterfly's viability in the long term.

#### Determination of Sacramento Mountains Checkerspot Butterfly's Status

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an "endangered species" or a "threatened species." The Act defines an "endangered species" as a species in danger of extinction throughout all or a significant portion of its range, and a "threatened species" as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of an "endangered species" or a "threatened species" because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

#### Status Throughout All of Its Range

After evaluating threats to the species and assessing the cumulative effect of the threats under the Act's section 4(a)(1) factors, we find that the Sacramento Mountains checkerspot butterfly has declined in abundance, density, and number of populations. Currently, there are only two extant populations where the species exists in very low abundances and are isolated from one another. Furthermore, existing available habitat is reduced in quantity and quality relative to historical conditions. Our analysis revealed several threats that caused these declines and pose a meaningful risk to the viability of the species. These threats are primarily related to habitat changes (Factor A) and include overgrazing by large ungulates, recreation, nonnative plants, and altered wildfire regime, in addition to climate change (Factor E).

Over the past two decades, the species has declined, both in abundance and in the area occupied (Forest Service 2020b, p. 2). Because of increased populations of ungulates (*i.e.*, elk, horses), grazing has increased in the subalpine meadows that support the Sacramento Mountains checkerspot butterfly, reducing the availability of host plants and nectar sources. The reduction in habitat quality and quantity is further exacerbated by the impact of drought associated with

climate change. Additionally, the altered wildfire regime has decreased habitat connectivity, and now populations are more isolated from one another with limited to no dispersal among populations.

We considered sites with butterfly detections during the last 3 years to be extant for the purposes of this proposed determination. Because adults or larvae have not been observed in the past 3 consecutive years in 8 of the 10 populations, we consider those 8 populations functionally extirpated. The two remaining populations are extremely small and isolated. The habitat at those sites is currently in very low condition due to a lack of both host plants for larvae and nectar sources for adults.

Historically, the species, with more abundant and larger populations, would have been more resilient to stochastic events. Even if such events extirpated some populations, they could be recolonized over time by dispersal from nearby surviving populations. Because many of the areas of suitable habitat may be small and support small numbers of butterflies, local extirpation of these small populations is probable. A metapopulation's persistence depends on the combined dynamics of these local extirpations and the subsequent recolonization of these areas by dispersal (Murphy and Weiss 1988, pp. 192–194). Habitat loss and the altered wildfire regime have reduced the size of and connectivity between patches of suitable butterfly habitat. The reduction in the extent of meadows and other suitable non-forested areas has likely eliminated connectivity among some localities and may have increased the distance beyond the normal dispersal ability of the Sacramento Mountains checkerspot butterfly, making recolonization of some patches following local extirpation more difficult. In addition, habitat reduction lowers the quality of remaining habitat by reducing the diversity of microclimates and food plants for larvae and adult butterflies (Murphy and Weiss 1988, p. 190).

Preliminary genetic evidence suggests little gene flow between these units (Ryan *et al.* 2021, pers. comm.). Connectivity, which would promote resiliency and representation, has been lost. Eight populations are functionally extirpated, and the remaining two populations are in very low condition in terms of demographic factors and low condition in terms of habitat factors and are at high risk of loss. The Sacramento Mountains checkerspot butterfly is extremely vulnerable to catastrophic

events (*i.e.*, high-intensity, large wildfires) in suitable butterfly habitats.

In summary, much of the remaining suitable butterfly habitat, and therefore the long-term viability of the species, is at risk due to the direct and indirect effects of overgrazing by large ungulates, recreation, climate change, nonnative plants, and an altered wildfire regime. The remaining populations are fragmented and isolated from one another, unable to recolonize naturally. The populations are largely in a state of chronic degradation due to habitat loss, which is exacerbated by climate change, limiting their resiliency. The limited geographic range of the Sacramento Mountains checkerspot butterfly increases the threat of extinction for this species given the expected continuing loss and degradation of suitable habitat and increased risks of extinction from catastrophic events, such as catastrophic fire. Historically, with a larger range of likely interconnected populations, the species would have been more resilient to stochastic events because even if some populations were extirpated by such events, they could be recolonized over time by dispersal from nearby surviving populations. This connectivity, which would have made for a resilient species overall, has been lost, and with two populations in very low demographic condition and low habitat condition, the remnant populations are at risk of loss. A threatened status for the Sacramento Mountains checkerspot butterfly is not appropriate because the species has already shown significant declines in current resiliency, redundancy, and representation due to the threats mentioned above.

Thus, after assessing the best available information, we determine that the Sacramento Mountains checkerspot butterfly is in danger of extinction throughout all of its range.

#### Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. We have determined that the Sacramento Mountains checkerspot butterfly is in danger of extinction throughout all of its range and accordingly did not undertake an analysis of any significant portion of its range. Because the Sacramento Mountains checkerspot butterfly warrants listing as endangered throughout all of its range, our determination is consistent with the decision in *Center for Biological*

*Diversity v. Everson*, 2020 WL 437289 (D.D.C. Jan. 28, 2020), in which the court vacated the aspect of the Final Policy on Interpretation of the Phrase “Significant Portion of Its Range” in the Endangered Species Act’s Definitions of “Endangered Species” and “Threatened Species” (79 FR 37578; July 1, 2014) that provided the Service does not undertake an analysis of significant portions of a species’ range if the species warrants listing as threatened throughout all of its range.

#### Determination of Status

Our review of the best available scientific and commercial information indicates that the Sacramento Mountains checkerspot butterfly meets the Act’s definition of an “endangered species.” Therefore, we propose to list the Sacramento Mountains checkerspot butterfly as an endangered species in accordance with sections 3(6) and 4(a)(1) of the Act.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness, and conservation by Federal, State, Tribal, and local agencies, private organizations, and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Section 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The recovery planning process involves the identification of actions that are necessary to halt or reverse the species’ decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning consists of preparing draft and final recovery plans, beginning with the development of a recovery outline and making it available

to the public within 30 days of a final listing determination. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery plan also identifies recovery criteria for review of when a species may be ready for removal from protected status (“delisting”), and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) are often established to develop recovery plans. When completed, the recovery outline, draft recovery plan, and the final recovery plan will be available on our website (<http://www.fws.gov/endangered>), or from our New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (*e.g.*, restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

If this species is listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State of New Mexico would be eligible for Federal funds to implement management actions that promote the protection or recovery of the Sacramento Mountains checkerspot butterfly. Information on our grant programs that are available to aid species recovery can be found at <http://www.fws.gov/grants>.

Although the Sacramento Mountains checkerspot butterfly is only proposed for listing under the Act at this time,

please let us know if you are interested in participating in recovery efforts for this species. Additionally, we invite you to submit any new information on this species whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as an endangered or threatened species and with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

Federal agency actions within the species' habitat that may require conference or consultation or both as described in the preceding paragraph include management and any other landscape-altering activities on Federal lands administered by the Forest Service.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to endangered wildlife. The prohibitions of section 9(a)(1) of the Act, codified at 50 CFR 17.21, make it illegal for any person subject to the jurisdiction of the United States to take (which includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these) endangered wildlife within the United States or on the high seas. In addition, it is unlawful to import; export; deliver, receive, carry, transport, or ship in interstate or foreign commerce in the course of commercial activity; or sell or offer for sale in interstate or foreign commerce any species listed as an endangered species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to employees of the Service, the National Marine Fisheries Service, other Federal land

management agencies, and State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22. With regard to endangered wildlife, a permit may be issued for the following purposes: For scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities. The statute also contains certain exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

It is our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a proposed listing on proposed and ongoing activities within the range of the species proposed for listing. Based on the best available information, the following actions are unlikely to result in a violation of section 9, if these activities are carried out in accordance with existing regulations and permit requirements; this list is not comprehensive:

(1) Possession, delivery, or movement, including interstate transport and import into or export from the United States, involving no commercial activity, of dead specimens of this taxon that were collected prior to the effective date of a final rule adding this taxon to the Federal List of Endangered and Threatened Wildlife;

(2) Activities authorized, funded, or carried out by Federal agencies (e.g., grazing management, non-forested area management, private or commercial development, recreational trail or forest road development or use, road construction, prescribed burns, timber harvest, pesticide/herbicide application, or pipeline or utility line construction crossing suitable habitat) when such activity is conducted in accordance with a biological opinion from the Service on a proposed Federal action;

(3) Low-impact, infrequent, dispersed human activities on foot or horseback that do not degrade butterfly habitat (e.g., bird watching, sightseeing, backpacking, hunting, photography, camping, hiking);

(4) Activities on private lands that do not result in the take of the Sacramento Mountains checkerspot butterfly, including those activities involving loss of habitat, such as normal landscape activities around a personal residence,

proper grazing management, road construction that avoids butterfly habitat, and pesticide/herbicide application consistent with label restrictions; and

(5) Activities conducted under the terms of a valid permit issued by the Service pursuant to section 10(a)(1)(A) and 10(a)(1)(B) of the Act.

Based on the best available information, the following activities may potentially result in a violation of section 9 of the Act if they are not authorized in accordance with applicable law; this list is not comprehensive:

(1) Capture (i.e., netting), survey, or collection of specimens of this taxon without a permit from the Service pursuant to section 10(a)(1)(A) of the Act;

(2) Incidental take of Sacramento Mountains checkerspot butterfly without a permit pursuant to section 10(a)(1)(B) of the Act;

(3) Sale or purchase of specimens of this taxon, except for properly documented antique specimens of this taxon at least 100 years old, as defined by section 10(h)(1) of the Act;

(4) Use of pesticides/herbicides that are in violation of label restrictions resulting in take of Sacramento Mountains checkerspot butterfly;

(5) Unauthorized release of biological control agents that attack any life stage of this taxon;

(6) Removal or destruction of the native food plants being used by Sacramento Mountains checkerspot butterfly, defined as *Penstemon neomexicanus*, *Helenium hoopesii*, or *Valeriana edulis*, within areas that are used by this taxon that results in harm to this butterfly; and

(7) Destruction or alteration of Sacramento Mountains checkerspot butterfly habitat by grading, leveling, plowing, mowing, burning, herbicide or pesticide spraying, intensively grazing, or otherwise disturbing non-forested openings that result in the death of or injury to eggs, larvae, or adult Sacramento Mountains checkerspot butterflies through significant impairment of the species' essential breeding, foraging, sheltering, or other essential life functions.

Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be directed to the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

## II. 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.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.*, range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals). Additionally, our regulations at 50 CFR 424.02 define the word "habitat," for the purposes of designating critical habitat only, as the abiotic and biotic setting that currently or periodically contains the resources and conditions necessary to support one or more life processes of a 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 also 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 Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must 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 or biological features that occur in specific occupied areas, we focus on the specific features that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.

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. The implementing regulations at 50 CFR 424.12(b)(2) further delineate unoccupied critical habitat by setting out three specific parameters: (1) When

designating critical habitat, the Secretary will first evaluate areas occupied by the species; (2) the Secretary will only consider unoccupied areas to be essential where a critical habitat designation limited to geographical areas occupied by the species would be inadequate to ensure the conservation of the species; and (3) for an unoccupied area to be considered essential, the Secretary must determine that there is a reasonable certainty both that the area will contribute to the conservation of the species and that the area contains one or more of those physical or biological features essential to 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 from the status report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; 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.

As the regulatory definition of "habitat" at 50 CFR 424.02 reflects, 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) the prohibitions found in section 9 of the Act. 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 the 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 (HCPs), or other species conservation planning efforts if new information available at the time of those 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 Secretary may, but is not required to, determine that a designation would not be prudent in the following circumstances:

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

(ii) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or threats to the species' habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(iii) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

(iv) No areas meet the definition of critical habitat; or

(v) The Secretary otherwise determines that designation of critical habitat would not be prudent based on the best scientific data available.

As discussed earlier in this document, there is currently no imminent threat of collection or vandalism identified under Factor B for this species, and identification and mapping of critical habitat is not expected to initiate any such threat. In our current condition assessment report and proposed listing determination for the Sacramento Mountains checkerspot butterfly, we determined that the present or threatened destruction, modification, or curtailment of habitat or range is a threat to Sacramento Mountains checkerspot butterfly and that those threats in some way can be addressed by section 7(a)(2) consultation measures. The species occurs wholly in the jurisdiction of the United States, and we are able to identify areas that meet the definition of critical habitat. Therefore, because none of the circumstances enumerated in our regulations at 50 CFR 424.12(a)(1) have been met and because the Secretary has not identified other circumstances for which this designation of critical habitat would be not prudent, we have determined that the designation of critical habitat is prudent for the Sacramento Mountains checkerspot 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 Sacramento Mountains checkerspot 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) Data sufficient to perform required analyses are lacking, or

(ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of "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. Careful assessments of the economic and environmental impacts that may occur due to a critical habitat designation are not yet complete, and we are in the process of working with the States and other partners in acquiring the complex information needed to perform those assessments.

The information sufficient to perform a required analysis of the impacts of the designation is lacking. Therefore, we conclude that the designation of critical habitat for the Sacramento Mountains checkerspot butterfly is not determinable at this time. As noted above, the Act allows the Service an additional year to publish a critical habitat designation that is not determinable at the time of listing (16 U.S.C. 1533(b)(6)(C)(ii)).

#### Required Determinations

##### 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 proposed 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.

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 regulations adopted pursuant to section 4(a) of 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)). However, when the range of the species includes States within the Tenth Circuit, such as that of the Sacramento Mountains checkerspot butterfly, under the Tenth Circuit ruling in *Catron County Board of Commissioners v. U.S. Fish and Wildlife Service*, 75 F.3d 1429 (10th Cir. 1996), we undertake a NEPA

analysis for critical habitat designation. We will invite the public to comment on the extent to which the upcoming proposed critical habitat designation may have a significant impact on the human environment, or fall within one of the categorical exclusions for actions that have no individual or cumulative effect on the quality of the human environment. We will complete our analysis, in compliance with NEPA, before finalizing the upcoming proposed critical habitat rule.

**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 solicited information from the Mescalero Apache Nation within the range of the Sacramento Mountain checkerspot butterfly to inform the development of the current condition assessment report, but we did not receive a response. We will also provide the Mescalero Apache Nation the opportunity to review a draft of the current condition assessment report and provide input prior to making our final determination on the status of the Sacramento Mountain checkerspot butterfly. We will continue to coordinate with affected Tribes throughout the listing process as appropriate.

*References Cited*

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

*Authors*

The primary authors of this proposed rule are the staff members of the Fish

and Wildlife Service’s Species Assessment Team and the New Mexico Ecological Services Field 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 amend the table in paragraph (h) by adding an entry for “Butterfly, Sacramento Mountains checkerspot” to the List of Endangered and Threatened Wildlife in alphabetical order under INSECTS to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*  
(h) \* \* \*

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
* INSECTS	*	*	*	*
Butterfly, Sacramento Mountains checkerspot.	<i>Euphydryas anicia cloudcrofti</i> .	Wherever found .....	E	[Federal Register citation when published as a final rule].
*	*	*	*	*

**Martha Williams,**  
Principal Deputy Director, Exercising the Delegated Authority of the Director, U.S. Fish and Wildlife Service.

[FR Doc. 2022–01210 Filed 1–24–22; 8:45 am]

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