

INTERNATIONAL SERVICES—Continued

	Payment type code	New fee
<b>Table 10 to § 1.1107</b>		
International Broadcast Stations (IBS) Applications:		
New Construction Permit .....	MSN .....	\$4,475.
Construction Permit Modification .....	FAN .....	\$4,475.
New License .....	MNN .....	\$1,010.
License Renewal .....	MFN .....	\$255.
Frequency Assignment .....	MAN .....	\$90.
Transfer of Control .....	MCN .....	\$665.
Special Temporary Authority .....	MGN .....	\$440.

<b>Table 11 to § 1.1107</b>		
Permit to Deliver Programs to Foreign Broadcast Stations under Section 325(c) Applications:		
New License .....	MBU .....	\$400.
License Modification .....	MBV .....	\$205.
License Renewal .....	MBW .....	\$175.
Special Temporary Authority, Written Request .....	MBX .....	\$175.
Transfer of Control, Written Request .....	MBY .....	\$290.

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**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

[Docket No. FWS-R2-ES-2021-0069; FF09E21000 FXES1111090FEDR 234]

RIN 1018-BG01

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

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

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), are listing the Sacramento Mountains checkerspot butterfly (*Euphydryas anicia cloudcrofti*), a butterfly from New Mexico, as an endangered species under the Endangered Species Act of 1973 (Act), as amended. This rule extends the Act's protections to the Sacramento Mountains checkerspot butterfly. We will propose the designation of critical habitat for the Sacramento Mountains checkerspot butterfly in a future rulemaking.

**DATES:** This rule is effective March 2, 2023.

**ADDRESSES:** The January 25, 2022, proposed rule (87 FR 3739) and this final rule are available on the internet at <https://www.regulations.gov>. Comments and materials we received, as well as supporting documentation we used in preparing this rule, are available for

public inspection at <https://www.regulations.gov> at Docket No. FWS-R2-ES-2021-0069.

**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. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

**SUPPLEMENTARY INFORMATION:**

**Executive Summary**

*Why we need to publish a rule.* Under the Act, a species warrants listing if it meets the definition of an endangered species (in danger of extinction throughout all or a significant portion of its range) or a threatened species (likely to become endangered within the foreseeable future throughout all or a significant portion of its range). If we determine that a species warrants listing, we must list the species promptly and designate the species' critical habitat to the maximum extent prudent and determinable. We have determined that the Sacramento Mountains checkerspot butterfly meets the definition of an endangered species; therefore, we are listing it as such. Listing a species as an endangered or threatened species can be completed only by issuing a rule through the Administrative Procedure Act

rulemaking process (5 U.S.C. 551 *et seq.*).

*What this document does.* We are listing the Sacramento Mountains checkerspot butterfly as an endangered species under the Act. As explained later in this document, we are working on a separate rule to propose critical habitat for the Sacramento Mountains checkerspot butterfly.

*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 endangered due to the following threats: incompatible grazing, recreation, climate change, invasive and 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.

We determined that designation of critical habitat was prudent but not determinable at this time because specific information needed to analyze the impacts of designation was lacking. We are still in the process of assessing this information. We plan to publish a proposed rule to designate critical habitat for the Sacramento Mountains checkerspot butterfly in the near future.

### Previous Federal Actions

On January 25, 2022, we published in the **Federal Register** (87 FR 3739) a proposed rule to list the Sacramento Mountains checkerspot butterfly as an endangered species and concluded that critical habitat was not determinable at that time (16 U.S.C. 1531 *et seq.*). Please refer to that proposed rule for a detailed description of previous Federal actions concerning this butterfly.

### Peer Review

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 Sacramento Mountains checkerspot butterfly, including the impacts of past and present factors (both negative and beneficial) affecting the subspecies. 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 solicited independent scientific review of the information contained in the report. As discussed in the proposed rule, we sent the report to five appropriate and independent peer reviewers and received three responses. The peer reviews can be found at <https://www.regulations.gov>. In preparing the proposed rule, we incorporated the results of these reviews, as appropriate, into the report, which was the foundation for the proposed rule and this final rule.

### Summary of Changes From the Proposed Rule

We received comments and suggested clarifications on the January 25, 2022, proposed rule, and we updated the corresponding text of the current condition assessment report and this rule. Those updates include:

- (1) New observation data of the butterfly in 2020 in Bailey Canyon;
- (2) Additional details and clarification on elk, feral horse, and cattle grazing; and
- (3) Several nonsubstantive clarifications and corrections to ensure better consistency, clarify some information, and update references.

We did not make any substantial changes to this final rule after consideration of the comments we received on the proposed rule.

### Summary of Comments and Recommendations

In the proposed rule published on January 25, 2022 (87 FR 3739), we requested that all interested parties submit written comments on the proposal by March 28, 2022. We also contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. Newspaper notices inviting general public comment were published in the Alamogordo Daily News, Albuquerque Journal, Las Cruces Sun-News, Rio Rancho Observer, and Ruidoso News. We did not receive any requests for a public hearing.

#### Peer Review Comments

As discussed in Peer Review above, we received comments from three peer reviewers on the current condition assessment report. We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding the information contained in the current condition assessment report. The peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions that we incorporated into an updated version of the current condition assessment report. The peer reviewers' comments did not change our determination that the Sacramento Mountains checkerspot butterfly meets the definition of an endangered species under the Act. Below is a summary of comments from peer reviewers we received.

- (1) *Comment:* Peer reviewers commented that we should add information to specific sections of the current condition assessment report,

such as climate change and the butterfly's life history.

*Response:* We added information to these discussions in the current condition assessment report. We elaborated where appropriate but did not go into as great of detail as the reviewers requested because our analysis indicates that the butterfly is in danger of extinction based on its current condition. We acknowledge that there is a greater body of work on these issues, such as climate change in the southwestern United States, and the current condition assessment report is not meant to be a comprehensive literature review on climate change overall, nor would it change our analysis. We will ensure that the impacts of climate change and all other appropriate information as it relates to the butterfly, its life history, and resources are included in recovery planning.

#### Federal Agency Comments

(2) *Comment:* The U.S. Forest Service (Forest Service) commented that we need to define intensive grazing and explain how to measure that in monitoring and defined violations. They further commented that new chemicals and methods of herbicide use need to be clarified.

*Response:* We are not able to provide a specific definition on what constitutes intensive grazing. Rather, we changed "intensive" to "incompatible" to capture any grazing activities that are incompatible with the needs of the Sacramento Mountains checkerspot butterfly. This may include any activities that reduce suitable butterfly habitat by impacting the resource needs of the butterfly, such as presence/quantity of host plants, nectar sources, or moisture. We are also not able to provide information on how new chemicals and methods of herbicide use may affect the subspecies. The use of herbicide by a Federal agency in the presence of a listed species would require that Federal agency to consult with the Service under section 7 of the Act to ensure that the action is not likely to jeopardize the species. Similarly, should a Federal agency use a new chemical or change the timing of herbicide use, they would have to consult with the Service. Particular information regarding use and timing of that chemical would be elucidated in the consultation process, and avoidance and minimization measures would be determined.

- (3) *Comment:* The Forest Service stated that the use of herbicide/pesticides in the list of actions that may not violate section 9 of the Act is a

contradiction to the conservation recommendation that herbicides should be used to restore butterfly habitat.

*Response:* In the January 25, 2022, proposed rule (87 FR 3739), we state that herbicide application authorized or carried out by a Federal agency would not likely violate section 9 of the Act. We clarify in this final rule that any use of herbicides that would result in take of the butterfly would be a violation, not the use of herbicide itself. The use of herbicide or pesticides by a Federal agency in the presence of a listed species would require that Federal agency to consult with the Service under section 7 of the Act to ensure that the Federal agency action is not likely to jeopardize the species, but we do not consider that herbicide use itself would likely result in a violation of section 9 of the Act. Herbicides may also be used as a tool for habitat restoration and would not be a violation of section 9 of the Act if used as directed by the label and after the Federal action agency consults with the Service.

#### *State Agency Comments*

(4) *Comment:* New Mexico Department of Game and Fish commented that the limited data available are insufficient to draw conclusions regarding the impact of elk on the butterfly.

*Response:* We considered the best scientific and commercial data available regarding the Sacramento Mountains checkerspot butterfly to evaluate its status under the Act. Also, in accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited peer review from knowledgeable individuals with scientific expertise that included familiarity with the Sacramento Mountains checkerspot butterfly, the geographic region in which the subspecies occurs, and conservation biology principles. Additionally, we requested comments or information from other concerned governmental agencies, Native American Tribes, the scientific community, industry, and any other interested parties concerning the January 25, 2022, proposed rule (87 FR 3739). Comments and information we received helped inform this final rule. Elk will browse New Mexico beardtongue (*Penstemon neomexicanus*) during drought conditions, as vegetation becomes scarce (McIntyre 2021, pers. comm.). This causes the New Mexico beardtongue to remain as small rosettes that are not large enough to support tent colonies of caterpillars and any larvae will starve after hatching. Browsing ultimately reduces available host plants, which are an essential need for the

viability of the Sacramento Mountains checkerspot butterfly. Therefore, we think it is reasonable to conclude, as we did in this final rule, that elk grazing can impact the Sacramento Mountains checkerspot butterfly's viability, especially when populations are at low numbers.

We agree that outside of drought conditions, the effect of elk on the butterfly's habitat is different and more nuanced. We acknowledge that elk are a natural part of the ecosystem, filling an ecological niche that is generally compatible with the viability of the butterfly. However, during times of prolonged drought, synergistic effects lead to increased habitat degradation, during which times both butterflies and elk can be negatively impacted by increased temperature, decreased precipitation, and increased browse pressure from other ungulates.

(5) *Comment:* The New Mexico Department of Agriculture stated that the proposed rule implied that livestock grazing is not a risk factor to the butterfly due to the absence of livestock, which can be misconstrued to suggest that if the Forest Service were to resume livestock grazing within the range of the subspecies, that would be incompatible with the conservation of the subspecies.

*Response:* The previous version of the current condition assessment report (Service 2021, pp. 12–13) stated that there is no information indicating that livestock grazing significantly affects the butterfly's status now or will do so in the foreseeable future; therefore, livestock grazing is not a significant threat to the butterfly because it does not occur within areas where the butterfly is currently extant. In this rule, we clarify that livestock grazing, were it to occur within occupied habitat, has the potential to impact the Sacramento Mountains checkerspot butterfly especially during drought conditions. We acknowledge that livestock grazing does occur within the butterfly's historical range and acts synergistically to contribute to the decline of habitat suitability within those active allotments. We amended the current condition assessment report and the information in this rule to reflect this analysis of current condition and how it has impacted the subspecies previously. We have also updated the discussion in this final rule of how grazing might affect the butterfly's status now and into the foreseeable future.

#### *Public Comments*

We received 45 public comments on the proposed rule. One comment provided us with new information on the Bailey Canyon population that we

have incorporated into our analysis, but it did not change our determination that the Sacramento Mountains checkerspot butterfly is in danger of extinction. The remaining comments did not provide any new substantial information on the subspecies' status or threats. Therefore, none of the public comments we received changed our determination that the Sacramento Mountains checkerspot butterfly meets the Act's definition of an endangered species. Some commenters provided suggestions that apply to issues outside the scope of this rulemaking, such as recovery strategies for the Sacramento Mountains checkerspot butterfly, but these suggestions are not directly related to the butterfly's this final rule to list the species as an endangered species. These general comments included topics such as the role of the Sacramento Mountains checkerspot butterfly in the ecosystem, the importance of habitat heterogeneity, and the use of specific conservation measures. While these comments are not directly incorporated into this final rule, we have noted the suggestions and look forward to working with our partners on these topics during recovery planning for the Sacramento Mountains checkerspot butterfly. Comments that we incorporated as changes into this final rule, comments outside the scope of this rulemaking, and comments without supporting information did not warrant an explicit response and, thus, are not presented here. Identical or similar comments have been consolidated, and a single response is provided below.

(6) *Comment:* Several commenters stated that critical habitat should be designated for the Sacramento Mountains checkerspot butterfly. One commenter said that it is determinable and gave information on where we should propose critical habitat, while another recommended an approach for us to use for the economic analysis.

*Response:* Section 4(a)(3) of the Act and implementing regulations (50 CFR 424.12) require that we designate critical habitat at the time a species is determined to be an endangered or threatened species, to the maximum extent prudent and determinable. In the proposed listing rule (87 FR 3739; January 25, 2022), we determined that designation of critical habitat was prudent but not determinable because specific information needed to analyze the economic and environmental impacts of designation was lacking. Those analyses were not yet completed at the time we published the proposed rule. We are currently in the process of assessing this information, and we plan to publish a proposed rule to designate

critical habitat for the Sacramento Mountains checkerspot butterfly in the near future. In that upcoming rulemaking, we will evaluate areas to determine if they should be proposed for critical habitat. We will request public comments on the proposed designation of critical habitat for the Sacramento Mountains checkerspot butterfly when we publish that proposed rule.

(7) *Comment:* Several commenters stated concerns about the impacts to landowners, such as taking away their property rights and use of pesticides and stated that we should compensate affected landowners. Another commenter added that the Act is harmful to landowners and violates the 5th Amendment.

*Response:* The 5th Amendment states that private property may not be taken for public use without just compensation. The mere promulgation of a regulation, such as the listing of a species under the Act, does not take private property, unless the regulation on its face denies the property owners all economically beneficial or productive use of their land, which is not the case with the listing of the Sacramento Mountains checkerspot butterfly.

The presence of a listed species does not affect land ownership, establish any restrictions on use of or access to the designated areas, establish specific land management standards or prescriptions, or prevent access to any land. Therefore, the Act does not violate the 5th Amendment as private property is not being taken for public use. Additionally, the presence of a listed species does not allow the Federal Government or public to access private lands.

The Act does not authorize the Service to regulate private actions on private lands, and landowners are not obligated to incur any costs related to the species' conservation or to alter their current land management. Programs are available to private landowners to obtain permits for the incidental take of a listed species (see 50 CFR 17.22 for endangered wildlife and 50 CFR 17.32 for threatened wildlife) and to assist in the voluntary conservation of listed species. Voluntary conservation programs may provide technical or financial assistance to the landowner. Private landowners may contact their local Service field office to obtain information about these permits and programs.

(8) *Comment:* One commenter stated that the Sacramento Mountains checkerspot butterfly is not a true subspecies.

*Response:* We considered the best scientific and commercial data available regarding the Sacramento Mountains checkerspot butterfly's taxonomy. The Sacramento Mountains checkerspot butterfly was first described as a subspecies of the *Anicia* checkerspot in 1980 (Ferris and Holland 1980, pp. 3–9), which was later corroborated (Glassberg 2017, p. 207; Pohl et al. 2016, p. 315). Checkerspot butterflies in the *Euphydryas* genus are similar but can be distinguished from one another by several subtle morphological traits. The Sacramento Mountains checkerspot butterfly has darker colors overall compared to other checkerspots (Ferris and Holland 1980, p. 5). Therefore, we reaffirm our previous conclusion that the Sacramento Mountain's checkerspot butterfly is a valid species, and thus, a valid listable entity under the Act.

(9) *Comment:* One commenter stated that there are many aspects of the butterfly's life history that are unknown or not well understood, which makes it impossible to determine the butterfly's viability.

*Response:* We based this final listing determination on the best available scientific and commercial information, and the commenter did not provide any new information for us to consider. The best available information on the Sacramento Mountains checkerspot butterfly indicates the butterfly needs host plants, larval food sources, and climatic moisture. In assessing the viability of the butterfly, the best available scientific and commercial data provide information about some aspects of subspecies' biology and habitat requirements but may not represent a full and complete knowledge of the subspecies. We drew reasonable conclusions about other aspects of the subspecies' biology and requirements based on similar species, similar habitats, and best available information.

(10) *Comment:* Two commenters asked what our standard is for the "best available science."

*Response:* In accordance with section 4 of the Act, we are required to list a species on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards under the 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 (<https://www.fws.gov/program/information-quality>) provide criteria and guidance, and establish procedures 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 listing recommendations. Primary or original information sources are those that are closest to the subject being studied, as opposed to those that cite, comment on, or build upon primary sources. The Act and our regulations do not require us to use only peer-reviewed literature, but instead they require us to use the "best scientific data available" in a listing determination. We use information from many different sources, including, but not limited to, articles in peer-reviewed journals, scientific status surveys and studies completed by qualified individuals, Master's thesis research that has been reviewed but not published in a journal, other unpublished governmental and nongovernmental reports, reports prepared by industry, personal communication about management or other relevant topics, conservation plans developed by States and counties, biological assessments, other unpublished materials, experts' opinions or personal knowledge, and other sources. We have considered published articles, unpublished research, habitat modeling reports, digital data publicly available on the internet, and the expert opinion of subject biologists to determine that the Sacramento Mountains checkerspot butterfly meets the Act's definition of an endangered species.

Also, in accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited peer review from knowledgeable individuals with scientific expertise that included familiarity with the Sacramento Mountains checkerspot butterfly, the geographic region in which the subspecies occurs, and conservation biology principles. Additionally, we requested comments or information from other concerned governmental agencies, Native American Tribes, the scientific community, industry, and any other interested parties concerning our January 25, 2022, proposed rule (87 FR 3739). Comments and information we received helped inform this final rule.

(11) *Comment:* One commenter asked how the public will know if comments are considered in making a determination or merely noted as "commercial data" and are therefore not actually considered.

*Response:* In accordance with section 4 of the Act, we are required to list a species on the basis of the best scientific and commercial data available.

Therefore, if any comments are received that we classify as “commercial data,” they are considered in our listing determination.

(12) *Comment:* One commenter also asked how the Service plans to address drought and other natural occurrences that are affecting the Sacramento Mountains checkerspot butterfly.

*Response:* Drought and other naturally occurring events are important as they relate to the conservation needs of the butterfly, and we will consider these factors as we develop a recovery plan and specific recovery strategies for the conservation of the Sacramento Mountains checkerspot butterfly.

(13) *Comment:* One commenter asked if the Service bears the total cost of management actions as they relate to recovery.

*Response:* The Service puts as many resources as we can, including recovery grant funding and staff time, into the implementation of recovery actions. Additionally, we also rely on expertise and funding from other Federal agencies, States, Tribes, and other entities to implement recovery of listed species.

(14) *Comment:* One commenter asked which animal(s) any exclosures are meant to keep out of butterfly habitat on the Lincoln National Forest and how many taxpayer dollars will be spent to construct these exclosures.

*Response:* Exclosures that have been erected on the Lincoln National Forest are meant to prevent any large ungulate or grazer from feeding on butterfly host plants and nectar sources. This practice is often used by land management agencies to allow for vegetation to recover from overgrazing. Because the Sacramento Mountains checkerspot butterfly is known to occupy areas entirely on the Lincoln National Forest, we expect that the Forest Service would be a leader in the recovery of the species. We expect that additional exclosures would be paid for by the Service and Forest Service and we do not have estimates on the total cost. When we develop our recovery plan for the species, it will include an estimate of the costs of recovery.

(15) *Comment:* One commenter asked what a “jeopardy finding” is, how it is determined, and what the consequences are.

*Response:* “Jeopardize the continued existence of” means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR

402.02). Per policy and regulation, the jeopardy analysis in a biological opinion relies on four components in our evaluation for each species:

1. The Status of the Species—evaluates the species’ range-wide condition, the factors responsible for that condition, and its survival and recovery needs;

2. The Environmental Baseline—evaluates the condition of the species in the action area, the factors which are responsible for that condition, and the relationship of the action area to the survival and recovery of the species;

3. The Effects of the Action—determines the consequences of the proposed Federal action on the species that are reasonably certain to occur as a result of the proposed action; and,

4. Cumulative Effects—evaluates the effects of future, non-Federal activities in the action area on the species.

The jeopardy determination is made by evaluating the effects of the Federal action in the context of the species’ status. This analysis considers any cumulative effects to determine if the implementation of the action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the species in the wild. The jeopardy analysis places emphasis on consideration of the range-wide survival and recovery needs of the species and the role of the action area in the survival and recovery of the species as the context for evaluating the significance of the effects of the Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

(16) *Comment:* One commenter asked how law enforcement is involved in listing the Sacramento Mountains checkerspot butterfly as an endangered species.

*Response:* The Service’s Office of Law Enforcement works to protect threatened and endangered species by enforcing violations of Section 9 under the Act, such as, but not limited to, preventing the unlawful commercial exploitation of such species. The Service is committed to meeting all requirements and enforcing the Act and doing so legally. The Service maintains a comprehensive approach to conservation, and we will work together with the Office of Law Enforcement to achieve our conservation goals.

(17) *Comment:* One commenter asked how listing of the Sacramento Mountains checkerspot butterfly is determined when the Act directly conflicts with the Wild Free-Roaming Horses and Burros Act of 1971, as amended (16 U.S.C. 1331 *et seq.*).

*Response:* The Wild Free-Roaming Horses and Burros Act was established to protect wild horses and burros on Federal land from capture, branding, harassment, or death by placing them under the jurisdiction of the Bureau of Land Management and the Forest Service. Each Act imposes its own requirements. This rule listing the Sacramento Mountains checkerspot butterfly as an endangered species under the Act does not violate the Wild Free-Roaming Horses and Burros Act because we can achieve conservation of the butterfly while also protecting wild horses and burros on Federal land.

(18) *Comment:* One commenter asked why the Secretary of Commerce is not a determining agency for this rule.

*Response:* The Act states that the term “Secretary” means, except as otherwise provided, the Secretary of the Interior or the Secretary of Commerce as program responsibilities are vested pursuant to the provisions of Reorganization Plan No. 4 of 1970, which established that the Secretary of Commerce would have functions relating to the oceans and atmosphere, including commercial fisheries functions. Because this subspecies falls under the jurisdiction of the Department of the Interior (*i.e.*, the Service) and not the Department of Commerce (*i.e.*, the National Marine Fisheries Service), the Secretary of the Interior maintains program responsibilities under the Act.

(19) *Comment:* One commenter said that our statement that 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 is unlikely to violate section 9 of the Act is a violation of the Lacey Act (16 U.S.C. 3371–3378; 18 U.S.C. 42).

*Response:* Section 9 of the Act (and its implementing regulations at 50 CFR part 17) and the Lacey Act (and its implementing regulations at 50 CFR part 16) impose separate permitting requirements. This rule, authorized by the Act, does not address permitting requirements imposed under the Lacey Act; as a result, importers and exporters are responsible for following all applicable regulatory requirements under the Lacey Act and any other relevant law.

## I. Final Listing Determination

### Background

Please refer to the revised current condition assessment report (Service 2022, entire) and the January 25, 2022, proposed rule to list the Sacramento Mountains checkerspot butterfly (87 FR 3739) for a full summary of the taxon's information. Both are available on our Southwest Region website at <https://www.fws.gov/about/region/southwest> and at <https://www.regulations.gov> under Docket No. FWS-R2-ES-2021-0069.

### Regulatory and Analytical Framework

#### Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and the implementing regulations in title 50 of the Code of Federal Regulations set forth the procedures for determining whether a species is an endangered species or a threatened species, issuing protective regulations for threatened species, and designating critical habitat for threatened and endangered species. In 2019, jointly with the National Marine Fisheries Service, the Service issued final rules that revised the regulations in 50 CFR part 424 regarding how we add, remove, and reclassify threatened and endangered species and the criteria for designating listed species' critical habitat (84 FR 45020; August 27, 2019). At the same time the Service also issued final regulations that, for species listed as threatened species after September 26, 2019, eliminated the Service's general protective regulations automatically applying to threatened species the prohibitions that section 9 of the Act applies to endangered species (84 CFR 44753; August 27, 2019). We collectively refer to these actions as the 2019 regulations.

As with the proposed rule, we are applying the 2019 regulations for this final rule because the 2019 regulations are in effect just as they were when we completed the proposed rule. Although there was a period in the interim—between July 5, 2022, and September 21, 2022—when the 2019 regulations became vacated and the pre-2019 regulations were therefore reinstated (see *Center for Biological Diversity v. Haaland*, No. 4:19-cv-05206-JST, Doc. 168 (N.D. Cal. July 5, 2022) (vacating the 2019 regulations and thereby reinstating the pre-2019 regulations), the 2019 regulations are now in effect, so we must apply them when making listing and critical habitat decisions (*In re: Cattlemen's Ass'n*, No. 22-70194 (9th Cir. Sept. 21, 2022) (staying the district court's order vacating the 2019

regulations until the district court resolved a pending motion to amend the order); *Center for Biological Diversity v. Haaland*, No. 4:19-cv-5206-JST, Doc. Nos. 197, 198 (N.D. Cal. Nov. 16, 2022) (granting plaintiffs' motion to amend July 5, 2022, order and granting government's motion for remand without vacatur).

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 (Service 2022, entire) 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 our decision on whether the species should be listed 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.

To assess Sacramento Mountains checkerspot butterfly's viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency is the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy is the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation is the ability of the species to adapt to both near-term and long-term changes in its physical and biological environment (for example, climate conditions, pathogens). In general, species viability will increase with increases in resiliency, redundancy, and representation (Smith et al. 2018, p. 306). Using these principles, we identified the butterfly's ecological requirements for survival and reproduction at the individual, population, and subspecies levels, and described the beneficial and risk factors influencing the subspecies' viability.

Our analysis can be categorized into several sequential stages. During the first stage, we evaluated the individual subspecies' life-history needs. The next stage involved an assessment of the historical and current conditions of the subspecies' demographics and habitat characteristics, including an explanation of how the subspecies arrived at its current condition. Throughout these stages, we used the best available information to characterize viability as the ability of the subspecies to sustain populations in the wild over time. We use this information to inform our regulatory decision.

The following is a summary of the key results and conclusions from the current condition assessment report; the full report can be found at <https://www.regulations.gov> under Docket No. FWS–R2–ES–2021–0069 and at <https://www.fws.gov/office/new-mexico-ecological-services>.

### Summary of Biological Status and Threats

Below, we review the biological condition of the Sacramento Mountains checkerspot butterfly and its resources, and the threats that influence the subspecies' current and future condition, in order to assess the subspecies' 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 subspecies' 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 maintain or 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 and particular mate-location behaviors 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 the subspecies' 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 2021, 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 plantain, 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 meters (m) (6,000 and 9,000 feet (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 plantain family, including the New Mexico beardtongue, contain iridoid glycosides, a family of organic compounds that are bitter and an emetic (vomit-inducing) for many birds and small 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 distasteful or 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 (*Hymenoxys hoopesii*) (Service et al. 2005, p. 9). Forest Service personnel observed butterflies visiting orange composite flowers (family Asteraceae), including orange sneezeweed, as much as 90 percent of the time during surveys (Forest Service 2000, p. 4). Other surveys have shown that adult butterflies are closely associated with orange sneezeweed flowers (McIntyre 2010, p. 26). Although orange sneezeweed flowers are most frequently used, the butterfly has been observed collecting nectar from various other native nectar sources (Service et al. 2005, pp. 9–10). To contribute to the subspecies' viability, orange sneezeweed and other native nectar sources must bloom at a time that corresponds with the emergence of adult Sacramento Mountains 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. In this case, other species of nectar-producing flowers might be essential for adult butterflies to complete their life cycle.

#### Habitat Connectivity

Before human intervention, the habitat of the Sacramento Mountains checkerspot butterfly is thought to have been dynamic, with meadows forming and reconnecting due to natural wildfire

regimes (Service et al. 2005, p. 21). These patterns and processes 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 meadow habitats, 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 subspecies' range or between meadows surveyed (Ryan 2021, 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 subspecies' 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 rule, we will discuss only those factors in detail that could meaningfully impact the status of the subspecies. Those risk factors that are unlikely to have significant effects on Sacramento Mountains checkerspot butterfly populations, such as human collection, disease, parasites, predation, insecticides, and habitat loss, are not discussed here but are evaluated in the current condition assessment report.

The primary risk factors (*i.e.*, threats) affecting the status of the Sacramento Mountains checkerspot butterfly are incompatible grazing (Factor A), recreation (Factor A), climate change (Factor E), invasive and nonnative plants (Factor A), and an altered wildfire regime (Factor A).

#### *Incompatible Grazing*

Historically, Merriam's elk (*Cervus canadensis merriami*), an extinct subspecies of elk, grazed meadows within the Sacramento Mountains. Under normal conditions, this 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 ecological niche previously occupied 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). However, should elk herds expand beyond natural levels or occur during times of resource scarcity, such as extended periods of drought, browse pressure from elk could pose a significant threat to the butterfly's habitat and viability (Service 2021, p. 13).

Additionally, feral horses were inadvertently released from the Mescalero Apache Reservation and dispersed 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 and graze more heavily in each area before moving to seek more food (Lightfoot 2022, pers. comm.).

The New Mexico beardtongue is not the main source of food for horses or elk. However, research has shown that elk do selectively browse on large, more robust New Mexico beardtongue plants, which are often the same individual plants selected by female Sacramento Mountains checkerspot butterflies for depositing eggs (McIntyre 2010, p. 72). During dry conditions, such as has been seen over the past 10 years, there is less forage on the landscape overall, which increases browse pressure on perennials such as New Mexico beardtongue.

During these times of prolonged drought, synergistic effects lead to increased habitat degradation, during which times both butterflies and elk can be negatively impacted by increased temperature, decreased precipitation, and increased browse pressure from other ungulates. Under such conditions, 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 colonies of caterpillars; any larvae will starve after hatching (Forest Service 2020, p. 11).

The combined effects of feral horse and elk browsing, compounded by drought due to climate change, have significantly impacted 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 more 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 Sacramento Mountains checkerspot butterfly (Forest Service 2020, p. 11).

Impacts of livestock grazing on native wildlife in Southwestern montane ecosystems vary depending on the timing, duration, and intensity of grazing (Service et al. 2005, p. 32). Grazing intensities and durations that exceed the ability of herbaceous plants to recover or survive are detrimental to the Sacramento Mountains checkerspot butterfly (Service et al. 2005, p. 31). Drought and increased temperatures can exacerbate this trend. Overgrazing by stock animals has led to the extinction of some butterfly populations in the United States, including butterflies in the genus *Euphydryas* (Murphy & Weiss 1988, p. 187).

The Forest Service permits livestock grazing in select allotments on the Lincoln National Forest in the Sacramento Mountains. The butterfly's range occurs within about 17 acres (ac) (7.2 hectares (ha)) of the Russia Canyon Allotment (Forest Service 2004, entire), which has two grazing permittees. The Pumphouse Allotment also contains suitable butterfly habitats open to livestock grazing (Service et al. 2005, p. 1; Forest Service 2009, p. 1). Most of the butterfly's range is encompassed by the James Canyon Allotment. Currently, the James Canyon Allotment is vacant (Forest Service 2009, p. 2). At this time, the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) analysis has not yet been finalized, and the James Canyon Allotment remains ungrazed.

The areas where grazing allotments overlap the subspecies' range do not currently contain extant populations of the Sacramento Mountains checkerspot butterfly (Service 2021, p. 12). Extant populations are currently within the ungrazed James Canyon Allotment. Therefore, butterfly individuals are not currently in direct competition with domestic livestock for habitat resources. However, there have been significant impacts from grazing in the past (Lightfoot 2022, pers. comm.).

Livestock grazing, primarily by cattle, has historically been practiced throughout the meadows inhabited by the Sacramento Mountains checkerspot butterfly (Service et al. 2005, p. 29). However, based on the currently available information, the exact relationship between Sacramento Mountains checkerspot butterfly population abundance and cattle grazing is not well understood (Service et al. 2005, p. 30). It is likely the effect of cattle grazing on butterfly abundance varies, depending on the current habitat and climatic conditions. Cattle grazing can result in direct mortality by



trampling eggs and larva or by consuming host plants (White 1986, p. 54), impacting butterfly habitat by changing abundance and distribution of host and nectar plants, reducing vegetative cover, altering vegetative communities, compacting and eroding soil, and reducing natural disturbance regimes (*i.e.*, gopher activity) (Service et al. 2005, p. 29). In some cases, cattle can increase host plant abundance by grazing on competing plant species (Weiss 1999, p. 1480). However, New Mexico beardtongue is consumed by cattle as well, and grazing might reduce available plants and impact the butterfly's presence and survival (McIntyre 2010, pp. 94–104). Research on population abundance in response to grazing for other butterfly species has shown that results vary depending on the species and system studied (Service et al. 2005, p. 30), and Forest Service surveys did not show a strong correlation between grazing and butterfly abundance (Forest Service 2004, p. 7).

Due to current habitat conditions, it is likely that in the areas of the butterfly's range where grazing does occur, that livestock grazing continues to degrade habitat for the Sacramento Mountains checkerspot butterfly. Outside of drought conditions, it might be possible to collect data on the effects of cattle grazing on Sacramento Mountains checkerspot butterfly habitat and establish an adaptive management plan for grazing within butterfly habitat. However, current conditions of butterfly habitat are not compatible with cattle grazing.

In summary, incompatible grazing has resulted in decline of suitable habitat, limiting larval host plants and adult nectar sources for the Sacramento Mountains checkerspot butterfly. All meadow units within the subspecies' range reflect impacts from past and recent grazing.

#### Recreation

Over the past 10 years, recreation has increased in the Lincoln National Forest. The September 6, 2001, proposed listing rule (66 FR 46575) 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 butterfly 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 checkerspot butterfly; 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 regimes. 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 2020, pp. 11–12). Some alpine butterflies need high levels of snowpack during diapause to shelter from wind and cold temperatures. The same might be true for the Sacramento Mountains checkerspot butterfly, as the subspecies likely evolved with higher levels of winter snowpack than have been experienced 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 can impact how species interact with their environment. The timing of butterfly life-history events during an annual cycle can 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, its host plants, and its nectar sources (Service 2022, p. 9). 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 subalpine 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 subspecies 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 2020, 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 2021, the monsoon season in the Sacramento Mountains produced heavy precipitation and several flash-flood events (Hergert et al. 2022, unpaginated). While this precipitation allowed vegetation to temporarily recover, it also caused erosion in some meadow habitat (Hughes 2022, pers. comm.). Despite these large precipitation events during the summer months of 2021, the Sacramento Mountains remain in a moderate to severe drought (U.S. Drought Monitor, <https://droughtmonitor.unl.edu/>, accessed June 30, 2022) and impacts to the butterfly's habitat from climate change are likely to continue.

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

#### Invasive, Nonnative Plants

Invasive, 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 2021a, pers. comm.). During the drought, Kentucky bluegrass (*Poa pratensis*) proliferated within meadow areas. This aggressive, nonnative plant, whose seeds are primarily windblown, can outcompete native wildflowers, such as New Mexico beardtongue. As invasive, nonnative plants begin to expand their influence, native plants, including host and nectar plants for

butterflies, such as New Mexico beardtongue and orange sneezeweed, are likely to be outcompeted and become more scarce (Kennedy 2020, pers. comm.; 62 FR 2313, January 16, 1997).

In summary, invasive, nonnative plants can outcompete the native plants that Sacramento Mountains checkerspot butterflies and their larvae require. All meadow units within the subspecies' 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 Sacramento Mountains checkerspot butterfly's range. Humans have 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 the butterfly's habitat since 1916 (Service et al. 2005, p. 21). Before active fire suppression, fire in the Sacramento Mountains occurred at intervals between 3 and 10 years (Forest Service 1998, p. 63). These frequent, cool, 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 subspecies; there have been at least nine large, hot, high-intensity wildfires (over 90,000 ac (34,000 ha)) in the Sacramento Mountains during the past 50 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 wildfire exclusion has substantially affected the subspecies 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 subspecies' range are experiencing adverse impacts from altered fire regimes.

#### 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: incompatible grazing, recreation, climate change, invasive and 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 essential habitat for the subspecies, in addition to reducing its 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 the 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, which fostered a greater extent and density concentration of trees separating habitat meadows. Dispersal and colonization of extirpated locations is unlikely without human

assistance. If butterflies have not been detected at any site once or more during the last 3 years, we consider that population to be 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 any of the other eight populations, and we therefore consider them to be 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 2020, p. 3), and no larval tents were found (Forest Service 2020, pp. 1–3; Hughes 2020, pers. comm.). One individual observed dozens of Sacramento Mountains checkerspot butterflies in Bailey Canyon in 2020 (Banker 2022, pers. comm.). In 2021, surveys detected 23 adult butterflies and two larval tents (Hughes 2022, pers. comm.). Larvae from the two tents were taken into captivity by experienced biologists to establish a captive refugia (Williams 2021, pers. comm.). Although the 2021 field season represented an increase in population numbers, the adult and larval density levels remain at historical lows. We categorized resiliency for demographics as very low for both meadows, which were the only

two meadows 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. 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 a species’ representation by assessing ecological and genetic diversity. As a narrow-range endemic, the entire range of the Sacramento Mountains checkerspot butterfly is approximately 32 square miles. However, suitable habitat within this range 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 subspecies has declined. The entirety of the butterfly’s range represents one representation area because of the narrow range and limited ecological diversity. The extant populations are small and isolated in this single representation area with no current connectivity between those two populations. There is some connectivity between habitat patches, but there is no connectivity between extant

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 subspecies and has declined since 2010.

We define redundancy for the Sacramento Mountains checkerspot butterfly as multiple populations or metapopulations spread across the subspecies' range. There are only 2 extant Sacramento Mountains checkerspot butterfly populations located in adjacent meadows out of 10 documented populations 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 prior to European colonization of the area. 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 subspecies. 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 subspecies, 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 might 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 are extant. Botanists involved with the Sacramento Mountains checkerspot butterfly

working group have planted New Mexico beardtongue, orange sneezeweed, and other pollinator plants within exclosures for habitat restoration. These efforts will help ensure the individual needs of larvae and adult butterflies are met.

In 2021, the Institute for Applied Ecology, Forest Service, and other partners initiated a conservation project to address, enhance, and restore Sacramento Mountains checkerspot butterfly habitat. Biologists collected, cleaned, propagated, and mixed seeds containing New Mexico beardtongue and four nectar species, including orange sneezeweed. These plants and seeds were then planted into prepared sites within both grazing exclosure fences and protective tubing. Plants were watered by Forest Service staff. Survival rates of plantings were assessed by the Forest Service in late fall and determined to be high (greater than 90 percent). Funds were provided by the Forest Service and the Native Plant Society of New Mexico (Gisler 2022, pers. comm.).

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 subspecies 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 subspecies 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 subspecies. These threats are primarily related to habitat changes (Factor A) and include incompatible grazing, recreation, invasive and nonnative plants, and an altered wildfire regime, in addition to climate change (Factor E).

Over the past two decades, the Sacramento Mountains checkerspot butterfly has declined, both in abundance and in the area occupied (Forest Service 2020, p. 2). Because of increased populations of ungulates (*i.e.*, 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 no dispersal among populations.

We considered sites with butterfly detections during the last 3 years to be extant for the purposes of this 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 subspecies, 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 capability of the Sacramento Mountains checkerspot butterfly, making recolonization of some patches following local extirpation more difficult. In addition, habitat deterioration or 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 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, are in 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 subspecies, is at risk due to the direct and indirect effects of incompatible grazing, recreation, climate change, invasive and nonnative plants, and an altered wildfire regime. The remaining populations are fragmented, isolated from one another, and unable to recolonize naturally. The populations are largely in a state of chronic ongoing, intensifying degradation due to habitat loss, which is exacerbated by climate change, limiting the subspecies' resiliency. The limited geographic range of the Sacramento Mountains checkerspot butterfly increases the threat of extinction for this subspecies given the expected continuing loss and degradation of suitable habitat and increased risks of extinction from catastrophic events, such as wildfire. Historically, with a larger range of interconnected populations, the butterfly 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 sufficiently resilient subspecies overall, has been lost, and with two populations in very low demographic condition and low habitat condition, the remnant populations are at serious risk of imminent loss. A threatened status for the Sacramento Mountains checkerspot butterfly is not appropriate because the subspecies 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 does not conflict with the decision in *Center for Biological Diversity v. Everson*, 435 F. Supp. 3d 69 (D.D.C. 2020) (*Everson*), which vacated the provision 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” (Final Policy) (79 FR 37578, July 1, 2014) providing that if the Services determine that a species is threatened throughout all of its range, the Services will not analyze whether the species is endangered in a significant portion 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 are listing 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 under the Act include recognition as a listed species, planning and implementation of 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, including the Service, 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 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 reclassification to threatened status (“downlisting”) or 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 (<https://www.fws.gov/program/endangered-species>), 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.

Once 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 will 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 <https://www.fws.gov/service/financial-assistance>.

Please let us know if you are interested in participating in recovery efforts for the Sacramento Mountains checkerspot butterfly. Additionally, we invite you to submit any new information on this butterfly 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)(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 any endangered or threatened 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 (action agency) must enter into consultation with the Service.

Federal agency actions within the species' habitat that may require conference, 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 listing on proposed and ongoing activities within the range of the listed species. 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 this final rule (see **DATES**, above);

(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) or 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 at section 10(h)(1) of the Act;

(4) Use of pesticides/herbicides that results 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, incompatible 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 taxon's 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**

Section 4(a)(3) of the Act and implementing regulations (50 CFR 424.12) require that we designate critical habitat at the time a species is determined to be an endangered or threatened species, to the maximum extent prudent and determinable. In the January 25, 2022, proposed listing rule (87 FR 3739), we determined that designation of critical habitat was prudent but not determinable because specific information needed to analyze the impacts of designation was lacking. We are still in the process of assessing this information. We plan to publish a proposed rule to designate critical

habitat for the Sacramento Mountains checkerspot butterfly in the near future.

**Required Determinations**

*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 Mountains checkerspot butterfly to inform the development of the current condition assessment report, but we did not receive a response. We also provided 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 Mountains checkerspot butterfly, but also did not receive a response. As we move forward with recovery planning and developing a proposed critical habitat designation for the Sacramento Mountains checkerspot

butterfly, we will continue to coordinate with affected Tribes.

**References Cited**

A complete list of references cited in this rule is available on the internet at <https://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 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, Plants, Reporting and recordkeeping requirements, Transportation, Wildlife.

**Regulation Promulgation**

Accordingly, we 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 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	88 FR [INSERT FEDERAL REGISTER PAGE WHERE THE DOCUMENT BEGINS], 1/31/2023.
*	*	*	*	*

**Martha Williams,**  
 Director, U.S. Fish and Wildlife Service.  
 [FR Doc. 2023–01146 Filed 1–30–23; 8:45 am]  
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