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## **DEPARTMENT OF THE INTERIOR**

### **Fish and Wildlife Service**

#### **50 CFR Part 17**

**[Docket No. FWS–R2–ES–2013–0005]**

**[4500030113]**

**RIN 1018–AZ28**

### **Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Jemez Mountains Salamander**

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

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service, designate critical habitat for the Jemez Mountains salamander (*Plethodon neomexicanus*) under the Endangered Species Act of 1973 (Act), as amended. In total, we are designating as critical habitat for this species approximately 90,716 acres (36,711 hectares) in Los Alamos, Rio Arriba, and

Sandoval Counties, New Mexico. The effect of this regulation is to conserve the Jemez Mountains salamander's habitat under the Act.

**DATES:** This rule is effective on [INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION].

**ADDRESSES:** This final rule is available on the Internet at

*<http://www.fws.gov/southwest/es/NewMexico/index.cfm>* and at

*<http://www.regulations.gov>* at Docket No. FWS–R2–ES–2013–0005. Comments and

materials we received, as well as supporting documentation used in preparing this final

rule, are available for public inspection, by appointment, during normal business hours, at

the U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, 2105

Osuna NE, Albuquerque, NM 87113; telephone 505–346–2525; or facsimile 505–346–

2542.

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at *<http://www.fws.gov/southwest/es/NewMexico/index.cfm>*, at *<http://www.regulations.gov>* at Docket No. FWS–R2–ES–2013–0005, and at the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we developed for this critical habitat designation are also available at the Fish and Wildlife Service website and Field Office set out above, and may also be included in the preamble of this rule or at *<http://www.regulations.gov>*.

**FOR FURTHER INFORMATION CONTACT:** Wally Murphy, Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, 2105 Osuna NE, Albuquerque, NM 87113; by telephone 505–346–2525; or by facsimile 505–346–2542. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

**SUPPLEMENTARY INFORMATION:**

**Executive Summary**

*Why we need to publish a rule.* Under the Endangered Species Act (Act), any species that is determined to be an endangered or threatened species requires critical habitat to be designated, to the maximum extent prudent and determinable. Designations and revisions of critical habitat can only be completed by issuing a rule.

We listed the Jemez Mountains salamander as an endangered species on September 10, 2013 (78 FR 55599). This is a final rule to designate critical habitat for the Jemez Mountains salamander. Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat.

The critical habitat areas we are designating in this rule constitute our current best

assessment of the areas that meet the definition of critical habitat for the Jemez Mountains salamander. We are designating as critical habitat for the species approximately 90,716 acres (36,711 hectares) in Los Alamos, Rio Arriba, and Sandoval Counties, New Mexico.

*We have prepared economic and environmental analyses of the designation of critical habitat.* In order to consider economic impacts, we have prepared an analysis of the economic impacts of the critical habitat designation and related factors. We also prepared an environmental analysis of the designation of critical habitat in order to evaluate whether there would be any significant environmental impacts as a result of the critical habitat designation. We announced the availability of the draft economic analysis and the draft environmental assessment in the **Federal Register** on February 12, 2013 (78 FR 9876), allowing the public to provide comments on our analyses. We have incorporated the comments and have completed the final economic analysis and final environmental analysis for this final designation.

*Peer review and public comment.* We sought comments from seven independent specialists to ensure that our designation is based on scientifically sound data and analyses. We obtained opinions from three of the seven knowledgeable individuals with scientific expertise to review our technical assumptions and analysis, and to determine whether or not we had used the best available scientific information. These peer reviewers generally concurred with our methods and conclusions, and they provided additional information, clarifications, and suggestions to improve this final rule.

Information we received from peer review is incorporated in this final revised designation. We also considered all comments and information we received from the public during the comment period.

### **Previous Federal Actions**

These actions are described in the **Previous Federal Actions** section of the final listing rule published on September 10, 2013 (78 FR 55599).

### **Background**

The Jemez Mountains salamander is restricted to the Jemez Mountains in northern New Mexico, in Los Alamos, Rio Arriba, and Sandoval Counties, around the rim of the collapsed caldera (large volcanic crater), with some occurrences on topographic features (e.g., resurgent domes) on the interior of the caldera. The majority of salamander habitat is located on federally managed lands, including the U.S. Forest Service (USFS), the National Park Service (Bandelier National Monument), Valles Caldera National Preserve, and Los Alamos National Laboratory, with some habitat located on tribal land and private lands (New Mexico Endemic Salamander Team 2000, p. 1). The Valles Caldera National Preserve is located within the valley of the extinct volcanic crater itself and is part of the National Forest System (owned by the U.S. Department of Agriculture), but run by a nine-member Board of Trustees, some of whom are not USFS employees.

For additional background information on the biology, taxonomy, distribution, and habitat of the Jemez Mountains salamander, see the **Background** section of the final listing rule published on September 10, 2013 (78 FR 55599).

### **Summary of Comments and Recommendations**

We requested written comments from the public on the proposed designation of critical habitat for the Jemez Mountains salamander during two comment periods. The first comment period associated with the publication of the proposed rule (77 FR 56482) opened on September 12, 2012, and closed on November 13, 2012. We also requested comments on the proposed critical habitat designation and associated draft economic analysis and draft environmental assessment during a comment period that opened February 12, 2013, and closed on March 14, 2013 (78 FR 9876). We also contacted appropriate Federal and State agencies, scientific experts and organizations, and other interested parties and invited them to comment on the proposal. A newspaper notice inviting general public comment was published in the Los Alamos Monitor. We did not receive any requests for a public hearing.

During the first comment period, we received nine comment letters addressing the proposed listing of the Jemez Mountains salamander and the proposed critical habitat designation. During the second comment period, we received 11 comment letters addressing the proposed listing of the Jemez Mountains salamander, the proposed critical habitat designation, the draft economic analysis, or the draft environmental assessment.

All substantive information related to the proposed critical habitat designation that was provided during comment periods has either been incorporated directly into this final determination or is addressed below. Comments we received are grouped into general issues specifically relating to the proposed critical habitat designation for the Jemez Mountains salamander, and are addressed in the following summary and incorporated into the final rule as appropriate.

### *Peer Review*

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from seven knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received responses from three of the peer reviewers.

We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding critical habitat for the Jemez Mountains salamander. All three peer reviewers agreed that the information presented in the proposed rule to list the Jemez Mountains salamander with critical habitat is scientifically sound and well researched; agreed that the assumptions, analyses, and conclusions are well reasoned; and generally agreed that the information is well formulated and that the risks or threats to the species have been appropriately evaluated. The peer reviewers provided clarifications and suggestions to improve the final rules to list the Jemez

Mountains salamander as endangered and to designate critical habitat. Peer reviewer comments specifically regarding the designation of critical habitat are addressed in the following summary and incorporated into the final rule as appropriate.

*Peer Reviewer Comments*

(1) *Comment:* Two peer reviewers thought we should not have removed isolated historical data points (i.e., survey locations). One peer reviewer noted that there did seem to be sufficient area for the conservation of the species, and the other peer reviewer thought the isolated historical point data should be included, especially for areas in the northeast portion of the Valles Caldera National Preserve if large numbers of salamanders were previously reported.

*Our Response:* We removed isolated historical data points from our analysis only in occasional instances when the areas at and around such isolated data points have not been visited for approximately 20 years or more. The survey data for these areas are insufficient to determine whether the areas are occupied. We are not aware of any area where large numbers of salamanders have ever been observed that is outside of the critical habitat boundaries designated in this final rule.

(2) *Comment:* One peer reviewer commented that solid stands of Ponderosa pine (*Pinus ponderosa*) are not optimal salamander habitat, and few, if any, salamanders are likely to occur here due to the drier conditions, suggesting that the primary constituent element of certain tree species alone or in combination should not include Ponderosa pine alone.

*Our Response:* Based on the biological and physiological needs of the species, pure stands of Ponderosa pine may not be the most favorable type of habitat and do not represent the majority of habitat; however, the species does occur in pure stands of Ponderosa pine.

The primary constituent elements essential to the conservation of the species (such as space, food, cover, and protected habitat) include tree canopy cover greater than 50 percent, elevation between 6,988 to 11,254 feet (ft) (2,130 to 3,430 meters (m)), coniferous logs, and underground habitat (more detailed description of these features are in the *Primary Constituent Elements for the Jemez Mountains Salamander* section of this final rule). The pure stands of Ponderosa pine contain at least one of the primary constituent elements for the Jemez Mountains salamander. Consequently, the Service designated critical habitat in stands of pure Ponderosa pine in both units (e.g., west of Seven Springs in Unit 1, and at American Springs and adjacent to the Rio Cebolla in Unit 2).

(3) *Comment:* One peer reviewer commented on the statement in the proposed critical habitat rule, “There does not seem to be any areas in occupied salamander habitat that are protected from disturbance” (77 FR 56504; September 12, 2012) and suggested that Redondo Peak, the highest point where salamanders are found, might be protected from disturbance.

*Our Response:* Redondo Peak does receive some protection at this time because the Valles Caldera Trust manages for its ecological and scenic values, and also protects

its significant cultural, religious, and historic values. The Valles Caldera Preservation Act (16 U.S.C. 698v *et seq.*) prohibits motorized access as well as any construction of roads, structures, or facilities on Redondo Peak above 10,000 ft (3,048 m). While Redondo Peak is afforded some protection from new actions that would disturb habitat, it still experiences impacts to habitat from past silvicultural practices, alterations in vegetation composition and fire regimes, existing roads, and climate change. The *Background* section under **Critical Habitat** below in this final rule provides additional information.

(4) *Comment*: Two peer reviewers and some commenters thought additional information regarding our understanding of the subsurface rock and soil components of salamander habitat should be included in the habitat section.

*Our Response*: Subsurface geology and loose rocky soil structure may be an important attribute of salamander habitat (Degenhardt *et al.* 1996, p. 28). However, the composition of this belowground habitat has not been fully investigated, although soils comprised of pumice or tuft generally are not suitable. The salamander's belowground habitat appears to be deep, fractured, subterranean igneous rock in areas with high soil moisture (New Mexico Endemic Salamander Team 2000, p. 2). Everett (2003) reported that the salamander occurred in areas where soil texture was composed of 56 percent sandy clay loam, 36 percent clay loam, 6 percent sandy loam, and 2 percent silty clay loam (p. 28); the overall soil bulk density ranged from 0.2 to 0.98 ounces per cubic inch (oz per in<sup>3</sup>) (0.3 to 1.7 grams per cubic centimeter (g per cm<sup>3</sup>) (p. 28); and average soil

moisture ranged from 4.85 to 59.7 percent (p. 28). Sites with salamanders had a soil pH of 6.6 ( $\pm 0.08$ ), and sites without salamanders had a soil pH of 6.2 ( $\pm 0.06$ ) (Ramotnik 1988, pp. 24–25). We have updated the relevant sections of this final rule to better describe our current understanding of subsurface rock and soil components where the Jemez Mountains salamander occurs. We have clarified the language in relevant sections of this final rule. We are not aware of any reliable information that is currently available to us on these topics that was not considered in this designation process.

*Comments From the U. S. Forest Service*

(5) *Comment:* It is questionable whether the data used in the proposed rule are sufficient for the Service to determine critical habitat and primary constituent elements.

*Our Response:* It is often the case that biological information may be lacking for rare species; however, we reviewed all available information and incorporated it into this final rule. Section 4(a)(3) of the Act (16 U.S.C. 1531 *et seq.*), and its implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist: (1) Information sufficient to perform required analyses of the impacts of the designation is lacking, or (2) the biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat. When critical habitat is not

determinable, the Act provides for an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)). We reviewed the best available scientific information pertaining to the biological needs of the species and habitat characteristics where this species is located. We sought comments from independent peer reviewers to ensure that our designation is based on scientifically sound data, assumptions, and analysis. We also solicited information from the general public, nongovernmental conservation organizations, State and Federal agencies that are familiar with the species and their habitats, academic institutions, and groups and individuals that might have information that would contribute to an update of our knowledge of the species as well as the activities and natural processes that might be contributing to the decline of the species. We conclude that the designation of critical habitat is determinable for the Jemez Mountains salamander.

(6) *Comment:* Practical ways to measure primary constituent elements should be defined, and the scale at which primary constituent elements are measured on the landscape should be specified. It is virtually impossible for the USFS to plan for a specific range in canopy cover or plan a thinning or prescribed fire project with canopy cover as an objective. Forests of the Jemez Mountains are dynamic in nature, consisting of mixed severity fire regimes in moist mixed conifer up to spruce-fir forests that likely ranged from moderately closed canopy to closed and also resulted in patches within stands with open canopy following stand-replacement fires.

*Our Response:* The Service is not requiring the USFS to plan for a specific range

in canopy cover or plan a thinning or prescribed fire project with canopy cover as an objective. Rather, we are evaluating whether the affected critical habitat would continue to serve its intended conservation role for the species. Determining effects to critical habitat will be determined through section 7 consultation with the Service. These consultations will take place within the context of dynamic forests in need of restoration. We anticipate consultations with the USFS analyzing the primary constituent element of “moderate to high tree canopy cover, typically 50 to 100 percent canopy closure, that provides shade and maintains moisture and high relative humidity at the ground surface” for the Jemez Mountains salamander will be similar to consultations with the USFS analyzing the primary constituent element of “A shade canopy created by the tree branches covering 40 percent or more of the ground” for the Mexican spotted owl (*Strix occidentalis lucida*), particularly where the ranges of the species overlap.

(7) *Comment:* The primary constituent element of canopy cover needs to be defined as a range rather than a specific number and possibly by forest type.

*Our Response:* In this final rule, we have clarified the primary constituent element concerning canopy cover is a range. The range for tree canopy is defined in this final rule as moderate to high tree canopy cover, typically 50 to 100 percent canopy closure, that provides shade and maintains moisture and high relative humidity at the ground surface.

(8) *Comment:* High canopy cover is likely to decrease the amount of moisture

reaching the soil surface through sublimation (transformation from a solid to a gas without becoming a liquid) of snow from the tree canopy (Storck *et al.* 2002), further impacting moisture regimes for salamanders.

*Our Response:* The relationship between seasonal precipitation, canopy cover, vegetation type, tree density, geology, soil type, and soil moisture is complex and not well-studied in the Jemez Mountains. Everett (2003, p. 24) characterized Jemez Mountains salamander's habitat as having an average canopy cover of 76 percent, with a range between 58 to 94 percent, and average soil moisture between 4.85 and 59.7 percent (p. 28). When Jemez Mountains salamanders have been observed above ground during the day, they are primarily found in high moisture retreats (such as under and inside decaying logs and stumps, and under rocks and bark) (Everett 2003, p. 24) with high overstory canopy cover.

Soil moisture conditions can vary spatially between the ground under tree canopy and the ground without tree canopy, as a result of the interrelated processes among soil evaporation, leaf interception, runoff generation and redistribution, and plant water use (Breshears *et al.* 1998, p. 1015). Relative to the ground without tree canopy, the ground beneath the canopy receives reduced precipitation input due to the interception of the precipitation from leaves. This also influences soil evaporation rates (Breshears *et al.* 1998, p. 1010). In a study measuring spatial variations in soil evaporation caused by tree shading for a water-limited pine forest in Israel, the authors report that the spatial variability in soil evaporation correlated with solar radiation, which was up to 92 percent

higher in exposed compared to shaded sites, and with water content, which was higher in exposed areas during the wetting season, but higher in the shaded areas during the drying season (Raz-Yaseef and Yakir 2010, p. 454). This study highlights the importance of shade and soil moisture conservation, and generally supports the findings of Breshears *et al.* (entire).

Without specific studies measuring these processes in salamander habitat, we are not able to determine how the changes in vegetation composition and structure may have altered soil moisture, evaporation, and temperature processes, but we do understand that vegetation structure can directly influence hydrological processes that are correlated to solar radiation, precipitation, and seasonality, as well as other abiotic factors, such as soil type, slope, and topography. Furthermore, these complex interactions should be considered when forest restoration treatments that alter canopy cover are conducted in salamander habitat.

(9) *Comment:* Consultations could result in modifications, which result in delays to projects that would reduce the threat of high-intensity wildfire, thereby causing significant impacts to human health and safety.

*Our Response:* Under no circumstances should a Service representative obstruct an emergency response decision made by the action agency where human life is at stake. In any future consultation for the salamander, the Service does not intend or expect to recommend measures that will increase the threat of high-intensity wildfire. Both public

and private entities may experience incremental time delays for projects and other activities due to requirements associated with the need to re-initiate the section 7 consultation process or compliance with other laws triggered by the designation. To the extent that delays result from the designation, they are considered indirect, incremental impacts of the designation.

(10) *Comment:* Several commenters stated that more scientific information is needed to accurately define the primary constituent elements, that the primary constituent elements are overly broad and are not appropriate, and the the Service has not looked at all the scientific data available on the ecology of the Jemez Mountains.

*Our Response:* Section 4(b)(2) of the Act states, “The Secretary shall designate critical habitat, and make revisions thereto, under subsection (a)(3) on the basis of the best scientific data available.” We considered the best scientific information available to us at this time, as required by the Act. This designation is based upon the known body of information on the biology of the Jemez Mountains salamander and its most closely related species, as well as effects from land-use practices on their continued existence. All three peer reviewers confirmed that the information contained within this rule is scientifically sound; based on a combination of reasonable facts, assumptions, and conclusions; and well considered. We are not aware of any reliable information that is currently available to us that was not considered in this designation process. This final determination constitutes our best assessment of areas needed for the conservation of the species. Much remains to be learned about this species. Should credible, new

information become available that contradicts this designation, we will reevaluate our analysis and, if appropriate, propose to modify this critical habitat designation, depending on available funding and staffing. We must make this determination on the basis of the best information available at this time, and we may not delay our decision until more information about the species and its habitat are available (see *Southwest Center for Biological Diversity v. Babbitt*, 215 F.3d 58 (D.C. Cir. 2000)).

(11) *Comment*: Several commenters stated that the primary constituent elements and critical habitat for the salamander are contrary to managing fire-resilient forests, are contrary to restoring forests to a sustainable fire regime condition class, or are a significant contribution to fuel loading and risk of catastrophic fire. Designation and management of critical habitat will place an additional burden on land management agencies, further inhibiting their ability to prevent or suppress large-scale, stand-replacing wildfire, one of the greatest threats to the salamander and its habitat. Some of the primary constituent elements are based on current conditions, not historical conditions. Management for the salamander should be done in a manner to improve fire resiliency and with a goal of moving habitat toward old growth characteristics where feasible, taking into consideration ecological conditions such as slope, aspect, soil productivity, and recognizing that forests are dynamic where climate, fire, and disease are drivers. The citation used for canopy cover is based on current and unsustainable forest conditions. Application of survey requirements for salamanders across the described range of above 6,900 ft (2,103 m) would effectively prevent management from occurring at any scale that would influence landscape-level wildfire.

*Our Response:* We understand fire-resilient forests to be forests that are able to survive wildfires relatively intact, or with less severe ecological damage than would occur in non-resilient forests. The Service recognizes that salamander habitat has undergone change resulting from historical grazing practices and effective fire suppression, most often resulting in shifts in vegetation composition and structure and increased risk of large-scale, stand-replacing wildfire. While we do not have a full understanding of how these particular alterations affect the salamander (potentially further drying habitat through increased water demand or increased density of trees, or, alternatively, potentially increasing habitat moisture from a higher canopy cover), we do know that the changes in the vegetative component of salamander habitat have greatly increased the risk of large-scale, stand-replacing wildfire.

In the proposed rule and this final rule, the Service identifies reducing fuels to minimize the risk of severe wildfire in a manner that considers the salamander's biological requirements as a special management activity that could ameliorate threats to the species. We note that fires are a natural part of the fire-adapted ecosystem in which the salamander has evolved. This may include prescribed fire and thinning treatments, restoration of the frequency and spatial extent of such disturbances as regeneration treatments, and implementation of prescribed natural fire management plans where feasible. We consider use of such treatments to be compatible with the ecosystem management of habitat mosaics and the best way to reduce the threats of catastrophic wildfire. The maintenance of primary constituent elements, moist microhabitat

conditions, and attributes of a mixed severity fire regime (a mosaic of differing fire intensities) over a portion of the landscape and in areas that support salamanders is important to the recovery of the salamander, and critical habitat designation does not preclude the proactive treatments necessary to reduce the risk of catastrophic fire or proactively managing forests to restore them to old growth conditions, nor are there survey requirements associated with this designation.

The loss of salamander habitat by catastrophic fire is counter to the intended benefits of critical habitat designation. Furthermore, we expect that some activities may be considered to be of benefit to salamander habitat and, therefore, would not be expected to adversely modify critical habitat or place an additional burden on land management agencies. In addition, critical habitat does not preclude adaptive management or the incorporation of new information on the interaction between natural disturbance events and forest ecology. We continue to support sound ecosystem management and the maintenance of biodiversity, and we will fully support land management agencies in addressing the management of fire to protect and enhance natural resources under their stewardship.

During a multi-agency, multi-stakeholder collaborative meeting in 2010, to discuss salamander conservation and forest management, attendants recognized the importance of allowing fire to return to southwestern forests, and the Jemez Mountains, in particular. There was agreement that focusing restoration treatments on south-facing slopes that have converted to xeric mixed conifer over the past 100 years would break up

the continuity of excessive fuels across the landscape and would be a good starting place to reduce the risk of large-scale wildfires in the Jemez Mountains. It was agreed upon that there would be short-term negative impacts to the salamander and its habitat on south-facing slopes, but that the approach overall was beneficial to the conservation of the species and its habitat over its entire range (Jemez Mountains Salamander Adaptive Planning Workshop 2010, pp. 8–11).

(12) *Comment:* The USFS stated that using only the decision criterion of administrative costs associated with expanded consultation fails to include the full range of costs when projects are delayed or changed. The USFS suggests that the Service should also calculate the costs associated with the reasonable and prudent alternatives that could result from consultation, such as relocation of projects outside salamander habitat or monitoring for salamanders before activities occur.

*Our Response:* As stated in the executive summary of the final economic analysis, the Service anticipates that in cases where an action is found to adversely modify critical habitat for the salamander, the action would also be found to jeopardize the species (IEc 2013, p. ES–4). That is, actions which the Service is likely to recommend avoiding adverse modification are the same as those to avoid jeopardy. Thus, the incremental impacts of the critical habitat designation for the salamander appear unlikely to include additional conservation actions or project modifications. As a result, the economic analysis focused on quantifying the incremental impacts associated with the administrative effort of addressing potential adverse modification of critical

habitat in the context of section 7 consultations.

*Comments Received From the U.S. Forest Service on the Draft Environmental Assessment*

(13) *Comment:* The draft environmental assessment should describe the effects that large areas (such as the area currently proposed as critical habitat) of closed canopy may have to the salamander under current fire conditions.

*Our Response:* We understand that the forests of the Jemez Mountains are dynamic, and we are not suggesting that the entire area of critical habitat consists of uniformly closed canopy throughout the two units of critical habitat. Furthermore, the designation of critical habitat does not require the creation of primary constituent elements where they do not currently exist. The proposed rule included the Service's analysis of the relationship of forest canopy to Jemez Mountains salamander habitat and fire conditions, concluding, "Therefore, forest composition and structure conversions resulting in increased canopy cover and denser understory pose threats to the salamander now and are likely to continue in the future" (77 FR 56489; September 12, 2012).

(14) *Comment:* The draft environmental assessment first states it will analyze effects on physical, biological, and socioeconomic resources, but its analysis then states it only focuses on consultation impacts.

*Our Response:* Section 3.1.1 of the final environmental assessment, “Methodology,” explains why the proposed action is not expected to produce effects to physical and biological resources environments, and why the analysis focuses on the impacts of expanding jeopardy consultations to include adverse modification (Mangi Environmental Group 2013, pp. 20–23).

(15) *Comment:* The draft environmental assessment states that effects from designating critical habitat would be minor, but presents no evidence. The USFS would argue that not being able to implement a project, such as the Southwest Jemez Mountains Collaborative Forest Landscape Restoration Project, to its full extent is likely to result in a high-intensity wildfire with associated costs to society and natural resources.

*Our Response:* As stated in the final environmental assessment, we may use habitat as a proxy for species presence in future consultations, because the life history and behavior of salamanders make them difficult to survey or detect (Mangi Environmental Group 2013, pp. 21–22). Therefore, consultation outcomes that affect the Southwest Jemez Mountains Collaborative Forest Landscape Restoration Project would be the same whether or not critical habitat is designated, and the impacts of concern here are not attributable to the designation of critical habitat.

(16) *Comment:* The environmental assessment should analyze the benefits of exclusion of critical habitat according to section 4(b)(2) of the Act.

*Our Response:* Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor. We did not identify any areas for exclusion that were appropriate for consideration under section 4(b)(2) of the Act; therefore there were no exclusions to evaluate in the environmental assessment.

(17) *Comment:* The draft environmental assessment lists contradictory recommendations to avoid destruction or adverse modification of critical habitat and to avoid jeopardy.

*Our Response:* No consultations have yet been conducted for the Jemez Mountains salamander, so the potential outcomes and modifications presented in the environmental assessment represent a range of possible outcomes. The type of project, the timing of the project, and the duration of the project, in addition to other factors, will be evaluated during any future consultations and will determine the specific outcomes or

recommended modifications. In most cases, we expect that the same agencies and types of projects will go through the section 7 consultation process with or without critical habitat, and we anticipate that recommended actions in a section 7 consultation will be same to avoid adverse modification and jeopardy.

(18) *Comment:* Cumulative effects analysis in the draft environmental assessment needs to: (a) Identify spatial and temporal bounds, (b) include cumulative effects for other foreseeable listings, (c) total all consultation costs within the proposed area, and (d) clarify what cumulative effects are being considered.

*Our Response:* The spatial bounds for cumulative analysis are the boundaries of proposed critical habitat. While it is possible that certain activities requiring consultation could occur outside of critical habitat, there is none currently foreseeable. Also, it was beyond the purview of the environmental assessment to speculate on the prudence or actual boundaries of a critical habitat designation for candidate species. In addition, total consultation costs are given in the analysis of socioeconomic impacts as approximately \$260,000 (IEc 2013, p. ES-4). Mention of this figure has been added to the cumulative impacts analysis of socioeconomic effects in the final environmental assessment (Mangi Environmental Group 2013, p. 63). For clarity, the following section in “Methodology” is repeated in the “Cumulative Effects” section of the final environmental assessment: “In the case of the salamander, the Service expects that the same agencies and types of projects would go through the section 7 consultation process with or without critical habitat, and that the same number of projects would likely undergo consultation with

critical habitat as without. Therefore, the analysis of impacts to resources and activities focuses on the impacts of expanding jeopardy consultations to include analysis of adverse modification.”

(19) *Comment:* The only costs listed in the environmental assessment are for the Socioeconomics and Development sections.

*Our Response:* In our economic analysis, the Service estimates the present value of all incremental impacts to be approximately \$264,000 over 20 years, assuming a 7 percent discount rate. These incremental costs are administrative costs resulting from the consideration of adverse modification in section 7 consultations regarding fire management (\$120,000), road maintenance (\$71,000), and other Federal and State land management activities, such as noxious weed control, recreational management, livestock grazing, and the operation of the Seven Springs Fish Hatchery (\$73,000) (IEc 2012). The components of total consultation costs are now itemized in the final environmental assessment (Mangi Environmental Group 2013, pp. 59–60).

(20) *Comment:* The map on page 16 of the draft environmental assessment should show where salamanders are found, and overlay the essential, survey, and peripheral zones.

*Our Response:* The map on page 16 of the environmental assessment displays the proposed critical habitat units. Overlaying the habitat management zones, as described in

the multi-agency Salamander Conservation Plan (NMEST 2000), does not aid in evaluating the environmental impacts of critical habitat designation. The coordinates or plot points or both from which the maps for designated critical habitat are generated are included in the administrative record for this critical habitat designation and are available at <http://www.fws.gov/southwest/es/NewMexico/index.cfm>, at <http://www.regulations.gov> at Docket No. FWS-R2-ES-2013-0005, and at the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we developed for this critical habitat designation will also be available on the Service's websites and at New Mexico Ecological Services Field Office.

(21) *Comment:* In the draft environmental assessment, the Service projects a number of consultations within the "Land Use" section, but for no other resources.

*Our Response:* Projected numbers of consultations have been added to the relevant sections of the final environmental assessment: 20 formal consultations for fire management, 6 for travel and recreation, 4 for noxious weed management, 2 for the Seven Springs Fish Hatchery, and 5 for road projects (Mangi Environmental Group 2013, p. 32).

(22) *Comment:* There is a contradiction in the draft environmental assessment statement that, "As human development and recreation increase in the Jemez Mountains the presence of Wild Urban Interfaces (WUIs) could increase within and around proposed

critical habitat.”

*Our Response:* Page 45 the draft environmental assessment stated, “Projects that increase human disturbances in remote locations like residential development, construction of roads and trails in recreational areas, and road clearing and maintenance activities, could adversely affect the species and its habitat,” which is consistent with the statement to which the commenter refers (Mangi Environmental Group 2013, pp.45). However, we are unaware of any major construction projects planned within the proposed critical habitat. Beyond this, the commenter’s concern is not clear, but we have replaced the word “as” in the statement on p. 39 to “if,” to clarify that such increases are not inevitable (Mangi Environmental Group 2013, p. 39).

(23) *Comment:* Explain the acronyms EMP and EST in Table 3.5 of the draft environmental assessment.

*Our Response:* The acronyms refer to the number of employees (EMP) and establishments (EST) in each industry type. This has been clarified in the “Table Heading” of the final environmental assessment (Mangi Environmental Group 2013, p. 52)

(24) *Comment:* Clarify whether Table 3.7 on page 54 of the draft environmental assessment applies to areas of the Santa Fe National Forest within proposed habitat, or to the whole National Forest, and if the latter, explain why it is relevant to this analysis.

*Our Response:* The numbers represent visitors to the whole National Forest, and are provided as overall context for the analysis.

*Comments From the State*

We received comments from the New Mexico Department of Agriculture regarding the proposal to designate critical habitat for the Jemez Mountains salamander, which are addressed below.

(25) *Comment:* The Service should address the Jemez Mountains salamander as a watershed health issue rather than a single species habitat preservation issue, and the designation of critical habitat will be counter-productive to solving the problem of poor watershed health in the Jemez Mountains. The USFS commented that the need to designate critical habitat is not supported by evidence.

*Our Response:* The Service is required to designate critical habitat concurrently with listing a species. See our response to comment 5, above, for an explanation of critical habitat designation requirements under the Act. Designating critical habitat for the Jemez Mountains salamander does not preclude forest restoration or management practices, including but not limited to prescribed fire and thinning treatments, restoration of the frequency and spatial extent of such natural disturbances, and implementation of prescribed natural fire management plans where feasible. We consider use of such

treatments to be compatible with the ecosystem management of habitat mosaics and the best way to reduce the threats of catastrophic wildfire to Jemez Mountains salamander habitat and provide protection for the species. In addition, critical habitat designation for the Jemez Mountains salamander does not preclude adaptive management or the incorporation of new information on the interaction between natural disturbance events and forest ecology. We continue to support sound ecosystem management and the maintenance of biodiversity, and we will fully support land management agencies in addressing the management of fire to protect and enhance natural resources under their stewardship.

(26) *Comment:* The efforts of private landowners and Soil and Water Conservation Districts (SWCDs) to prevent catastrophic wildfire and rehabilitate after wildfire are not considered. The New Mexico Department of Agriculture indicated that private landowners and SWCDs are thinning defensible spaces, implementing sustainable grazing practices, and implementing water development actions.

*Our Response:* We recognize that private landowners and SWCDs are contributing to rehabilitation in burned areas by, among other things, seeding and controlling erosion. We know that private landowners and SWCDs are some of the numerous partners that are working with the Southwest Jemez Mountains Collaborative Forest Landscape Restoration Project. However, we do not know the extent of these actions nor their impact to the Jemez Mountains salamander or its habitat at this time.

(27) *Comment:* The Service should partner with ongoing efforts, such as the Southwest Jemez Mountains Collaborative Forest Landscape Restoration Project, to effectively improve the watershed health of the Jemez Mountains and thus benefit the salamander.

*Our Response:* We agree that strong partnerships and collaborations are essential for the restoration and conservation of our natural resources. The Service appreciates the ongoing efforts and collaborations with its existing partners, including members of the Southwest Jemez Mountains Collaborative Forest Landscape Restoration Project. We have attended, and continue to attend, planning and monitoring meetings, and we provide technical support for the Southwest Jemez Mountains Collaborative Forest Landscape Restoration Project. In addition, we look forward to establishing new partnerships to forward conservation.

*Comments From the New Mexico Department of Agriculture on the Draft Environmental Assessment and Economic Analysis*

(28) *Comment:* The designation of critical habitat could limit access to project sites with the effect of increasing associated costs or preventing access entirely, resulting in limited or cancelled watershed restoration work.

*Our Response:* The designation of critical habitat does not prevent access to any land, whether private, tribal, State or Federal. Critical habitat receives protection under

section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat. The final environmental analysis lists potential project modifications that could be recommended to avoid adverse modification (Mangi Environmental Group 2013, pp. 42–43). This analysis includes looking at the limitations on the timing and route of access to a forest or fuels management project.

(29) *Comment:* The designation of critical habitat could limit access, and ranching activity would be negatively affected.

*Our Response:* See our response to comment 28, above. In section 1.8.1, Livestock Grazing, of the final environmental analysis, the following sentence has been revised from, “Impacts may include small-scale habitat modification, such as livestock

trail establishment or soil compaction, or direct effects, such as trampling” To, “Impacts may include small-scale habitat modification, such as livestock trail establishment or soil compaction; limitations on access to grazing allotments by livestock managers through road closures or decommissioning; or direct effects, such as trampling” (Mangi Environmental Group 2013, pp. 12–13).

(30) *Comment:* Listing of the salamander and designation of critical habitat may further slow progress of the Southwest Jemez Mountains Collaborative Forest Landscape Restoration Project by adding another level of bureaucracy and taking federal funding away from on-the-ground watershed restoration work to use for regulatory compliance associated with the Act.

*Our Response:* Section 3.3.1 of the final economic analysis has been revised to discuss this concern (IEc 2013, p. 3–6). The analysis quantifies estimated additional administrative costs of critical habitat for the Jemez Mountains salamander to be approximately \$23,000 annually across all agencies. As stated in the executive summary of the economic analysis, the Service anticipates that in cases where an action is found to adversely modify critical habitat for the salamander, the action would also be found to jeopardize the species. That is, actions which the Service is likely to recommend to avoid adverse modification are the same as those to avoid jeopardy. Thus, the incremental impacts of the critical habitat designation for the salamander appear unlikely to include additional conservation actions or project modifications. As a result, this analysis focuses on quantifying the incremental impacts associated with the administrative effort of

addressing potential adverse modification of critical habitat in the context of section 7 consultations. We recognize that there may be additional administrative costs associated with this critical habitat designation, but we do not think that these costs will have a significant negative impact on the Southwest Jemez Mountains Collaborative Forest Landscape Restoration Project.

*Comments From Santa Clara Pueblo*

(31) *Comment:* The Service indicated in the proposed rule that salvage logging and timber harvesting could adversely affect the salamander's habitat because these activities, among other things, compact soils or increase the risk of warming the soil moisture. In response, the Santa Clara Pueblo commented that, rather than decreasing soil moisture, responsible timber harvesting can actually increase available soil moisture because transpiration of the vegetation is decreased and more soil moisture becomes available for residual plant growth and for the salamander.

*Our Response:* We agree with these statements, and believe that how actions such as timber harvesting occur could result in adverse, beneficial, or both impacts to the salamander and its habitat.

(32) *Comment:* The Santa Clara Pueblo stated that it is in discussions with the USFS regarding co-management stewardship activities in some National Forest Service lands pursuant to the Tribal Forest Protection Act (25 U.S.C. 3101 *et seq.*); some of the

proposed Tribal Forest Protection Act project lands are located within the areas proposed by the Service as critical habitat for the salamander. The Santa Clara Pueblo notes that the draft economic analysis does not consider economic impacts that the Santa Clara Pueblo would incur if fire management activities are curtailed due to the designation of critical habitat and if, as a result, additional stand replacement fires starting or burning through the Santa Fe National Forest and Valles Caldera National Preserve lands could jump onto unburned or replanted Santa Clara Pueblo lands. They cite, in particular, areas in Unit 1, known as the Upper Santa Clara Creek watershed, the Antlers and Cerro Toledo, as being of concern. They note that the Las Conchas fire severely burned 16,000 acres in Santa Clara Creek Canyon, their spiritual sanctuary.

*Our Response:* The following material has been added to section 1.8.1 in the final environmental assessment (Mangi Environmental Group 2013, p. 13) under a new header “Tribal Resources”: “There are no tribal lands within the critical habitat designation. However, the designation includes lands within the Santa Fe National Forest and Valles Caldera National Preserve that are adjacent to the Santa Clara Pueblo (Pueblo). Much of these adjacent areas were severely burned during the Las Conchas Fire of 2011. These lands include culturally important areas for the Pueblo and have unhealthy, unburned forest conditions that make them a continued, immediate threat to catastrophic wildfire spreading onto Pueblo lands (Santa Clara Pueblo 2013). Therefore, the Pueblo has entered in discussions with the USFS, pursuant to the Tribal Forest Protection Act, to co-manage stewardship projects on these lands, including hazardous fuels reduction and ensuring there are proper fuel breaks to protect remnant unburned areas on Pueblo lands

from fires coming off National Forest lands. Consultations with Santa Fe National Forest on fire management activities proposed on Pueblo-adjacent lands pursuant to the Tribal Forest Protection Act will be conducted in accordance with the Service's responsibilities as outlined in Secretarial Order 3206, which states (Appendix, section 3(C)(3)(c), "When the Services enter into formal consultations with agencies not in the Departments of the Interior or Commerce, on a proposed action which may affect tribal rights or tribal trust resources, the Services shall notify the affected Indian tribe(s) and encourage the action agency to invite the affected tribe(s) and the BIA [Bureau of Indian Affairs] to participate in the consultation process" (Service 1997)."

Section 3.3 of the economic analysis has been modified to reflect Pueblo concerns, including potential impacts on tribal economic and cultural activities associated with changes to planned fire management activities. This section assumes that Tribal Forest Protection Act activities will be included in the USFS consultations forecasted to occur every 10 years. The economic analysis has included Santa Clara Pueblo Tribal Forest Protection Act activities under chapter 3, Fire Management under Baseline Conservation Efforts (IEc, April 22, 2013, p. 3–7)

(33) *Comment:* Santa Clara Pueblo stated that the primary constituent elements could affect fire protection, forest, and ecological restoration management measures for projects associated with the Tribal Forest Protection Act.

*Our Response:* See our responses to comments 11 and 25, above.

*Public Comments*

(34) *Comment:* Jemez Mountains salamanders have been found in areas without canopy or with a canopy other than mixed conifer. The emphasis placed on some of the primary constituent elements and not others are based on the relative ease or difficulty of finding salamanders in habitat with those elements.

*Our Response:* Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species. See our response to comment 5, above, for an explanation of critical habitat designation requirements under the Act.

While the Jemez Mountains salamander can be found in areas outside forested areas and outside coniferous forest in particular, when active above ground, the Jemez Mountains salamander is more commonly found within forested areas under decaying logs, rocks, bark, or moss mats, or inside decaying logs and stumps. Jemez Mountains salamanders are generally found in association with decaying coniferous logs, particularly Douglas fir, considerably more often than deciduous logs, likely due to the differences in physical features (e.g., coniferous logs have blocky pieces with more cracks and spaces than deciduous logs) (Ramotnik 1988, p. 53). See the *Criteria Used To Identify Critical Habitat* section of this final rule for a complete description of the information used to designate critical habitat.

Our initial step in identifying critical habitat was to determine the physical or

biological habitat features essential to the conservation of the species. The Service has identified four primary constituent elements sufficient to support the life-history processes and which are essential to the conservation of the species. We then identified the geographic areas that are occupied by the Jemez Mountains salamander and that contain one or more of the physical or biological features. We are designating two critical habitat units based on sufficient elements of the physical or biological features being present to support the Jemez Mountains salamander's life processes. Some portions of the units contain all of the identified elements of physical or biological features and support multiple life processes. Some portions of units contain only some elements of the physical or biological features necessary to support the Jemez Mountains salamander's particular use of that habitat. The Service did not place emphasis on one primary constituent element over another.

(35) *Comment:* The proposed rule cited the influence of soil pH in salamander habitat, but ignores it as a primary constituent element.

*Our Response:* Soil pH may be an important variable in salamander habitat; however, data concerning soil pH in Jemez Mountains salamander habitat are limited to nine sites (four logged and five unlogged), seven of which are in relatively close proximity to each other in one drainage on the west side of the Jemez Mountains (Ramotnik 1988, p. 40). Ramotnik (1988, p. 41) reported a significant difference in pH between the logged areas and the unlogged areas where salamanders were found, but it is not known if salamanders were present prior to logging. Consequently, we do not believe

these data are sufficient to extrapolate across the range of the species and do not conclude that pH within a certain range is a primary constituent element for the salamander.

(36) *Comment:* Preference of salamander habitat use on steep slopes as reported in Ramotnik (1988) has been dismissed.

*Our Response:* Additional survey information since Ramotnik (1988) indicates that salamanders use habitat on all slopes. Further, Everett (2003) reported that the salamander occurred on all slope aspects (p. 21) (the average slope ranged from 4 to 40.5 degrees (p. 24)).

(37) *Comment:* No evidence is presented that time above ground is necessary for the salamander's life cycle, but most of the primary constituent elements of critical habitat have to do with above ground components of mixed conifer forests.

*Our Response:* Please see our responses to comments 4, 10, and 34. Additionally, above ground surface activity during wet surface conditions is a characteristic of the natural history of the Jemez Mountains salamander. Stomach contents consist primarily of above-ground and ground-dwelling invertebrates. Further, plethodontid salamanders store fat reserves in their tails for energetic use when foraging opportunities are reduced or do not exist (e.g., underground). Consequently, we conclude that one purpose for above ground activity is to feed. Additionally, based on reproductive studies, this species mates in July and August, which coincides with the above-ground activity period. We, therefore, conclude that time above ground is

necessary for foraging and mating. See the *Criteria Used To Identify Critical Habitat* section of this final rule for a complete description of the information used to designate critical habitat.

(38) *Comment*: One commenter stated that the draft economic analysis should include a section explaining the benefits of having critical habitat for the Jemez Mountains salamander. The commenter also stated that itemized costs would be beneficial to the analysis.

*Our Response*: Chapter 6 of the draft economic analysis discussed benefits of the designation. Chapters 3–5 and Appendix B present detailed information and assumptions used to develop estimates of the anticipated incremental costs of the designation.

### **Changes from the Previously Proposed Critical Habitat Designation**

In this final critical habitat designation, we are finalizing the minor changes that were proposed in the reopening of the public comment period that published on February 12, 2013 (78 FR 9876). At that time, we amended the PCEs that we proposed in our September 12, 2012 proposed rule (77 FR 56482) to provide additional clarification to the PCEs concerning tree canopy cover and ground surface in forest areas (PCEs 1 and 3a). The overall intent of the proposed PCEs did not change. Additionally, we revised the size of the two proposed critical habitat units from our September 12, 2012, rule, based on recently finalized map data that were still in draft form during our initial

analysis. The updated map data resulted in minor changes in size and ownership in both proposed units. There was a slight reduction in the overall area proposed, with some reduction of private lands and addition of a small parcel of State lands. In the September 12, 2012 (77 FR 56482) proposed rule, we proposed a total of approximately 90,789 ac (36,741 ha) in two units. Based on new map data, we updated the approximate area and land ownership of both proposed critical habitat units; the updated information is in Table 2 below. The total Federal critical habitat consists of 56,897 ac (23,025 ha) of U.S. Forest Service lands, 23,745 ac (9,609 ha) of Valles Caldera National Preserve lands, and 7,198 ac (2913 ha) of National Park Service lands. When we used the updated map information, we identified a 73-ac (30-ha) parcel owned by New Mexico Department of Game and Fish in the Western Jemez Mountains Unit. Based on these revisions, we proposed and are now finalizing a total of approximately 90,716 ac (36,711 ha) in two critical habitat units, which is 73 ac (30 ha) less than what we proposed our September 12, 2012 proposed rule (77 FR 56482). Such a small change in the acreage does not affect the accuracy of the maps published in the September 12, 2012 (77 FR 56482) proposed rule. Finally, in the **Proposed Regulation Promulgation** section of our September 12, 2012 (77 FR 56482), proposed rule we erroneously presented the map as an index map. We have corrected this error in this final rule by presenting the map as the map of Unit 1 and Unit 2.

## **Critical Habitat**

### *Background*

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

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

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

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

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

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse

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

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed, are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of

the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

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

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat

designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

*Physical or Biological Features*

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

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

We derive the specific physical or biological features essential for the Jemez Mountains salamander from studies of this species' habitat, ecology, and life history as described in the **Critical Habitat** section of the proposed rule to designate critical habitat

published in the **Federal Register** on September 12, 2012 (77 FR 56482), and in the information presented below. Additional information can be found in the final listing rule published in the **Federal Register** on September 10, 2013 (78 FR 55599). We have determined that the Jemez Mountains salamander requires the following physical or biological features:

#### Space for Individual and Population Growth and for Normal Behavior

The Jemez Mountains salamander is restricted to areas in the Jemez Mountains around the rim of a large volcanic crater. There are also some Jemez Mountain salamanders that have been found on topographic features (e.g., resurgent domes) on the interior of the crater. The widespread presence of igneous rock throughout the area is the result of the volcanic origins of the Jemez Mountains. It is possible that the salamander may be distributed in this restricted area because of the fractured rock and interstitial crevices and gaps that occur here.

The Jemez Mountains salamander has been observed in forested areas of the Jemez Mountains located along two sides of the volcanic crater, ranging in elevation from 6,998 to 10,990 ft (2,133 to 3,350 m) (Ramotnik 1988, pp. 78, 84). The Jemez Mountains salamander spends much of its life underground, but it can be found active above ground from July through September, when environmental conditions are warm and wet. The aboveground habitat occurs within forested areas, primarily within areas that contain Douglas fir (*Pseudotsuga menziesii*), blue spruce (*Picea pungens*), Engelman

spruce (*P. engelmannii*), white fir (*Abies concolor*), limber pine (*Pinus flexilis*), Ponderosa pine (*Pinus ponderosa*), Rocky Mountain maple (*Acer glabrum*), and aspen (*Populus tremuloides*) (Degenhardt *et al.* 1996, p. 28; Reagan 1967, p. 17). Redondo Peak contains both the maximum elevation in the Jemez Mountains (11,254 ft (3,430 m)) and the highest salamander observation (10,990 ft (3,350 m)). Surveys have not yet been conducted above this highest observation on Redondo Peak, but the habitat contains those primary constituent elements we have identified from areas known to contain the salamander. Alternatively, the vegetation communities and moisture conditions at elevations below 6,998 ft (2,133 m) are not suitable for the Jemez Mountains salamander.

The salamander's underground habitat appears to be deep, fractured, subsurface igneous rock in areas with high soil moisture (NMEST 2000, p. 2). Subsurface geology and loose rocky soil structure may be an important attribute of underground salamander habitat (Degenhardt *et al.* 1996, p. 28). Geologic and moisture constraints likely limit the distribution of the species (NMEST 2000, p. 2). Soil pH (acidity or alkalinity) may limit distribution as well. However, the composition of this subterranean habitat has not been fully investigated. Everett (2003) reported that the salamander occurred in areas where soil texture was composed of 56 percent sandy clay loam, 36 percent clay loam, 6 percent sandy loam, and 2 percent silty clay loam (p. 28); the overall soil bulk density ranged from 0.2 to 0.98 ounces per cubic inch (oz per in<sup>3</sup>) (0.3 to 1.7 grams per cubic centimeter (g per cm<sup>3</sup>) (p. 28); and average soil moisture ranged from 4.85 to 59.7 percent (p. 28). Sites with salamanders had a soil pH of 6.6 ( $\pm$  0.08), and sites without salamanders had a soil pH of 6.2 ( $\pm$  0.06) (Ramotnik 1988, pp. 24–25). The salamander's subterranean

habitat appears to be deep, fractured, subterranean igneous rock in areas with high soil moisture (New Mexico Endemic Salamander Team 2000, p. 2). Many terrestrial salamander species deposit eggs in well-hidden sites, such as underground cavities, decaying logs, and moist rock crevices (Pentranka 1998, p. 6). Because the Jemez Mountain salamander spends the majority of its life below ground and because Jemez salamander eggs have not been discovered in the wild, Jemez Mountains salamander eggs are probably laid and hatch underground in the fractured interstices of subterranean igneous rock.

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

Jemez Mountains salamanders are terrestrial salamanders that are generally active at night and have diurnal (daytime) retreats to places that have higher moisture content relative to surrounding areas that are exposed to warming from the sun and air currents (Duellman and Trueb 1986, p. 198). Jemez Mountain salamanders lack lungs; instead, they are cutaneous respirators (meaning they exchange gases, such as oxygen and carbon dioxide, through their skin). To support cutaneous respiration, its skin is permeable and must be kept moist at all times. Consequently, Jemez Mountains salamanders must address hydration needs above all other life-history needs. The salamander must obtain its water from its habitat, and the salamander has no physiological mechanism to stop dehydration or water loss to the environment. We suspect that these components may be a main driver behind salamander occurrences and distribution. Diurnal retreats that provide moist and cool microhabitats are important for physiological requirements in

terrestrial salamanders and also influence the salamander's ability to forage, because foraging typically dehydrates individuals and these retreats allow for rehydration (Duellman and Trueb 1986, p. 198). Temperature also affects hydration and dehydration rates, oxygen consumption, heart rate, and metabolic rate, and thus influences body water and body mass in Jemez Mountains salamanders (Duellman and Trueb 1986, p. 203; Whitford 1968, pp. 247–251). Daytime retreats can be under rocks, in interiors of logs, in depths of leaf mulch, in shaded crevices, and in burrows in the soil (Duellman and Trueb 1986, p. 198). When Jemez Mountains salamanders have been observed above ground during the day, they are primarily found in high moisture retreats (such as under and inside decaying logs and stumps, and under rocks and bark) (Everett 2003, p. 24) with high overstory canopy cover. Everett (2003, p. 24) characterized the Jemez Mountains salamander's habitat as having an average canopy cover of 76 percent, with a range between 58 to 94 percent and soil that had average soil moisture from 4.85 to 59.7 percent (p. 28). If water uptake is sufficient during the day, the animal can afford to lose water during nocturnal activities (Duellman and Trueb 1986, p. 198). Even though many kinds of terrestrial amphibians are normally active only at night, they often become active during the day immediately after heavy rains (Duellman and Trueb 1986, p. 198).

High moisture diurnal retreats and high canopy closure are typical habitat features that correlate with plethodontid salamanders. For example, the three habitat features with apparently strong associations with the Siskiyou Mountains salamander (*Plethodon stormi*), a western plethodon species, are rocky soil types with adequate interstitial spaces, forest canopy closure above 70 percent, and conifer forest types with average tree

size above 17 in (43.2 cm) diameter at breast height (Olson *et al.* 2009, p. 24). Another example is that coarse woody debris is the most important habitat feature for two other plethodontid salamanders in Douglas fir forests in Washington. It was suggested that these two plethodontid salamanders may prefer certain types of woody debris as cover, especially those associated with large, moderately to well-decomposed snags and logs (Aubry *et al.* 1988, pp. 32, 35).

Based on this information, we conclude that substrate moisture through its effect on absorption and loss of water is the most important factor in the ecology of this species (Heatwole and Lim 1961, p. 818). Thus, moist and cool microhabitats are essential for the conservation of the species.

In regard to food, Jemez Mountains salamanders have been found to consume prey species that are diverse in size and type, with ants, mites, and beetles being eaten most often (Cummer 2005, p. 43).

#### Cover or Shelter

When active above ground, the Jemez Mountains salamander is usually found within forested areas under decaying logs, rocks, bark, or moss mats, or inside decaying logs and stumps. Jemez Mountains salamanders are generally found in association with decaying coniferous logs, particularly Douglas fir, considerably more often than deciduous logs, likely due to the differences in physical features (e.g., coniferous logs

have blocky pieces with more cracks and spaces than deciduous logs) (Ramotnik 1988, p. 53). Large-diameter (greater than 10 in (25 cm)) decaying logs provide important aboveground habitat because they are moist and cool compared to other cover; larger logs maintain higher moisture and lower temperature longer than smaller logs. These high-moisture retreats also offer shelter and protection from some predators (e.g., skunks (Mephitidae), owls (Strigiformes)).

The percent surface area of occupied salamander habitat covered by decaying logs, rocks, bark, moss mats, and stumps averaged 25 percent (Everett 2003, p. 35); however, Everett (2003, p. 35) noted that areas with high percentages of area of habitat covered by decaying logs, rocks, bark, moss mats, and stumps are difficult to survey and locate salamanders when present, and may bias the data toward lower percentages of area covered by decaying logs, rocks, bark, moss mats, and stumps.

Furthermore, there may be high-elevation meadows located within the critical habitat units that are used by the Jemez Mountains salamander. Jemez Mountains salamanders utilize habitat vertically and horizontally above ground and below ground. Currently, we do not fully understand how salamanders utilize areas like meadows, where the aboveground vegetation component differs from areas where salamanders are more commonly encountered (e.g., forested areas); however, salamanders have been found in high-elevation meadows. Therefore, meadows are considered part of the physical or biological features for the Jemez Mountains salamander.

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

Little is known about the reproduction of the Jemez Mountains salamander. Although many terrestrial salamanders deposit eggs in well-hidden sites, such as underground cavities, decaying logs, and moist rock crevices (Pentranka 1998, p. 6), an egg clutch has never been observed during extensive Jemez Mountains salamander surveys. Because the salamander spends the majority of its life below ground, eggs are probably laid and hatch underground. However, we currently lack the information to identify the specific elements of the physical or biological features needed for breeding, reproduction, or rearing of offspring.

### Habitats Protected from Disturbance or Representative of the Historical, Geographic, and Ecological Distributions of the Species

All occupied salamander habitat has undergone change resulting from historical grazing practices and effective fire suppression, most often resulting in shifts in vegetation composition and structure and increased risk of large-scale, stand-replacing wildfire (see *Factor A* discussion in the final listing rule published on September 10, 2013 (78 FR 55599)). This species was first described in 1950, about halfway through the approximate 100-year period of shifting vegetation composition and structure and building of fuels for wildfire in the Jemez Mountains. Thus, research and information pertaining to habitat for this species occurs in the context of a species existing in an altered ecological situation. Nonetheless, while we do not have a full understanding of

how these particular alterations affect the salamander (potentially further drying habitat through increased water demand of increased density of trees, or, alternatively, potentially increasing habitat moisture from a higher canopy cover), we do know that the changes in the vegetative component of salamander habitat have greatly increased the risk of large-scale, stand-replacing wildfire. Furthermore, we are only aware of small-scale treatments or forest-restoration projects that have been implemented to reduce this risk. Thus, there do not seem to be any areas in occupied salamander habitat that are entirely protected from disturbance. Even so, the representative geographic and ecological habitat includes salamander habitat in both burned and unburned areas. Although areas not burned by large-scale, stand-replacing fires are better habitat, the Jemez Mountains salamander has still been found in recently burned habitat (12 years post-fire in the Cerro Grande fire).

*Primary Constituent Elements for the Jemez Mountains Salamander*

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

Based on our current knowledge of the physical or biological features and habitat

characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to the Jemez Mountains salamander are:

(1) Moderate to high tree canopy cover, typically 50 to 100 percent canopy closure, that provides shade and maintains moisture and high relative humidity at the ground surface, and:

(a) Consists of the following tree species alone or in any combination:

Douglas fir (*Pseudotsuga menziesii*); blue spruce (*Picea pungens*); Engelman spruce (*Picea engelmannii*); white fir (*Abies concolor*); limber pine (*Pinus flexilis*); Ponderosa pine (*Pinus ponderosa*); and aspen (*Populus tremuloides*); and

(b) Has an understory that predominantly comprises: Rocky Mountain maple (*Acer glabrum*); New Mexico locust (*Robinia neomexicana*); oceanspray (*Holodiscus* spp.); or shrubby oaks (*Quercus* spp.).

(2) Elevations from 6,988 to 11,254 ft (2,130 to 3,430 m).

(3) Ground surface in forest areas with:

(a) Moderate to high volumes of large fallen trees and other woody debris, especially coniferous logs at least 10 in (25 cm) in diameter, particularly Douglas fir, which are in contact with the soil in varying stages of decay from freshly fallen to nearly fully decomposed; or

(b) Structural features, such as rocks, bark, and moss mats, that provide the species with food and cover.

(4) Underground habitat in forest or meadow areas containing interstitial spaces provided by:

- (a) Igneous rock with fractures or loose rocky soils;
- (b) Rotted tree root channels; or
- (c) Burrows of rodents or large invertebrates.

With this designation of critical habitat, we intend to identify the physical or biological features essential to the conservation of the species, through the identification of the features' primary constituent elements sufficient to support the life-history processes of the species.

#### *Special Management Considerations or Protections*

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection. The features essential to the conservation of this species may require special management considerations or protection to reduce the following threats: Historical and current fire management practices; severe wildland fire; forest composition and structure conversions; post-fire rehabilitation; forest management; roads, trails, and habitat fragmentation; recreation; and climate change. Furthermore, disease and the use of fire retardants or other chemicals may threaten the salamander in

the future, and may need special management considerations. Amphibians, like the salamander, are typically very susceptible to chemicals (LABAT Environmental 2007) due to their permeable skin. However, at this time, the Service does not consider disease or chemical use a threat. A more complete discussion of the threats to the salamander and its habitats can be found in **Summary of Factors Affecting the Species** section of the final listing rule published on September 10, 2013 (78 FR 55599).

Management activities that could ameliorate these threats include (but are not limited to): (1) Reducing fuels to minimize the risk of severe wildfire in a manner that considers the salamander's biological requirements; (2) not implementing post-fire rehabilitation techniques that are detrimental to the salamander in the geographic areas of occupied salamander habitat; and (3) removing unused roads and trails, and restoring habitat. A more complete discussion of the threats to the salamander and its habitats can be found in **Summary of Factors Affecting the Species** section of the final listing rule published on September 10, 2013 (78 FR 55599).

#### *Criteria Used To Identify Critical Habitat*

As required by section 4(b)(2) of the Act, we used the best scientific data available to designate critical habitat. We reviewed available information pertaining to the habitat requirements of this species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we considered whether designating additional areas outside those currently occupied is necessary to ensure the conservation of the species.

We are not designating any areas outside the geographic area occupied by the species because the designated areas can support populations large enough to provide for the conservation of the species.

Our initial step in identifying critical habitat was to determine the physical or biological habitat features essential to the conservation of the species, as explained in the previous section. We then identified the geographic areas that contain one or more of the physical or biological features. We also considered information on salamander locations from recent surveys. We used various sources of available information and supporting data that pertain to the habitat requirements of the Jemez Mountains salamander. These included, but were not limited to, the 12-month finding published on September 9, 2010 (75 FR 54822); reports under section 6 of the Act submitted by New Mexico Department of Game and Fish that provided information regarding biology, survey data, and habitat; the Multi-Agency (New Mexico Department of Game and Fish, USFS, and NPS) Jemez Mountains Salamander Conservation Management Plan that provides information on salamander habitat and biology; research published in peer-reviewed articles concerning the biology, habitat, and ecology of Jemez Mountains salamanders and other plethodontid species; unpublished academic theses that provided information regarding location, habitat, ecology, physiology, and ecological shifts of Jemez Mountains salamander; agency reports from USFS, NPS, and Los Alamos National Lab; and Bureau of Land Management mapping information.

We plotted point data of survey locations for the salamander using ArcMap

(Environmental Systems Research Institute, Inc.), a computer GIS program, which were then used in conjunction with elevation, topography, vegetation, and land ownership information. The point data consisted of detection (367 points) and non-detection (1,022 points) survey locations. The designated critical habitat units are based on the detection and non-detection data, and physical and biological data on habitat features necessary to support life-history processes of the species. These areas were all located within the unit boundaries generated by the GIS model. Areas that have been burned in recent fires (e.g., Las Conchas Fire and Cerro Grande Fire) were not excluded from the units because fire burns in a mosaic pattern (a mix pattern of burned and unburned patches), and sufficient elements of physical and biological features remain subsequent to wildfire that allow salamanders to continuously occupy areas that have been burned. We selected areas within the geographical area occupied at the time of listing that contain the physical or biological features essential to their conservation. We also verified that these areas required special management. Large areas with very limited or no detections were not included in the designation. Finally, both units are considered wholly occupied because salamanders use both aboveground and belowground habitat, moving and utilizing habitat vertically and horizontally. Also, high-elevation meadows located within the units are also considered wholly occupied because the salamanders have been found there. While it is possible that salamanders may not be detected at the small scale of a survey (measured in meters), the entire unit is considered with the geographic area occupied by the species because of the similarity and continuous nature of the physical and biological features such as dense tree canopy cover, higher levels of ground moisture, many fallen logs, surface rocks and woody debris, and igneous soil that allows the

salamanders to travel below ground as well as above ground. This is due to the fact that the lands within the units are virtually all high-elevation forests growing on top of igneous soil located around the rim of a long extinct volcano.

Recent surveys of Jemez Mountains salamanders conducted by the USFS found Jemez Mountain salamanders in a specific area where the salamander had not been located before, but was within the area we are designating as critical habitat. This demonstrates the occupancy of the areas we have designated as critical habitat.

After utilizing the above methods, we refined the model to exclude areas of isolated historical survey point data, which are predominantly on USFS and Valles Caldera National Preserve lands within the northeastern and northwestern part of the Jemez Mountains, but also include small areas on the Santa Clara Pueblo, Los Alamos National Laboratory, and private lands.

The areas we are designating are not located within developed lands. They contain very few buildings, but do include several highways and forest roads. When determining critical habitat boundaries within this final rule, we made every effort to avoid including lands covered by buildings, pavement, and other structures because such lands lack physical or biological features for the Jemez Mountains salamander. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such buildings and roads. Any such lands inadvertently left inside critical habitat boundaries shown on the map of this final rule

have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

The critical habitat designation is defined by the map, as modified by any accompanying regulatory text, presented at the end of this document in the **Regulation Promulgation** section. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which the map is based available to the public on <http://www.regulations.gov> at Docket No. FWS–R2–ES–2013–0005, on our Internet site at <http://www.fws.gov/southwest/es/NewMexico/>, and at the New Mexico Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

We are designating as critical habitat lands that we have determined are occupied at the time of listing and contain sufficient physical or biological features to support life-history processes essential for the conservation of the Jemez Mountains salamander.

We are designating two units based on sufficient elements of physical or biological features being present to support the Jemez Mountains salamander's life processes. Some portions of the units contain all of the identified elements of physical or biological features and support multiple life processes. Some portions of units contain only some elements of the physical or biological features necessary to support the Jemez

Mountains salamander's particular use of that habitat.

### **Final Critical Habitat Designation**

We are designating two units as critical habitat for the Jemez Mountains salamander. The critical habitat areas described below constitute our best assessment at this time of areas that meet the definition of critical habitat. Those two units are: (1) Western Jemez Mountains Unit, and (2) Southeastern Jemez Mountains Unit. Table 1 shows the occupied units.

**TABLE 1.—Occupancy of Jemez Mountains salamander by designated critical habitat units.**

Unit	Occupied at Time of Listing?	Currently Occupied?
1	Yes	Yes
2	Yes	Yes

The approximate area of each critical habitat unit is shown in Table 2.

**TABLE 2.—Designated critical habitat units for Jemez Mountains salamander.**

[Area estimates reflect all land within critical habitat unit boundaries.]

Critical Habitat Unit	Land Ownership by Type	Size of Unit in Acres (Hectares)
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1. Western Jemez Mountains Unit	Federal	41,466 (16,781)
	Private	906 (367)
	State	73 (30)
	Total Unit 1	42,445 (17,177)
2. Southeastern Jemez Mountains Unit	Federal	46,374 (18,767)
	Private	1,897 (768)
	Total Unit 2	48,271 (19,535)
Total	Federal	87,840 (35,548)
	Private	2,803 (1,134)
	State	73 (30)
	Total	90,716 (36,711)

Note: Area sizes may not sum due to rounding.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Jemez Mountains salamander, below.

*Unit 1: Western Jemez Mountains*

Unit 1 consists of 42,445 ac (17,177 ha) in Rio Arriba and Sandoval Counties, New Mexico, in the western portion of the Jemez Mountains. In Unit 1, 41,466 ac (16,781 ha) are federally managed, with 26,531 ac (10,736 ha) on USFS lands and 14,935

ac (6,044 ha) on Valles Caldera National Preserve lands; 73 ac (30 ha) are New Mexico Department of Game and Fish lands; and 906 ac (367 ha) are private lands. This unit is located in the western portion of the distribution of the Jemez Mountains salamander and includes Redondo Peak. This unit is within the geographical area occupied by the salamander and contains elements of essential physical or biological features. The physical or biological features require special management or protection from large-scale, stand-replacing wildfire; actions that would disturb salamander habitat by warming and drying; actions that reduce the availability of aboveground cover objects including downed logs; or actions that would compact or disturb the soil or otherwise interfere with the capacity of salamanders to move between subterranean habitat and aboveground habitat.

*Unit 2: Southeastern Jemez Mountains*

Unit 2 consists of 48,271 ac (19,535 ha) in Los Alamos and Sandoval Counties, New Mexico, in the eastern, southern, and southeastern portions of the Jemez Mountains. In Unit 2, 46,375 ac (18,767 ha) are federally managed, with 30,366 ac (12,288 ha) on USFS lands, 8,811 ac (3,565 ha) on Valles Caldera National Preserve lands, and 7,198 ac (2,912 ha) on National Park Service lands (Bandelier National Monument). The remaining 1,897 ac (768 ha) in Unit 2 are private lands. This unit is within the geographical area occupied by the salamander and contains elements of essential physical or biological features. The physical or biological features require special management or protection from large-scale, stand-replacing wildfire; actions that would disturb

salamander habitat by warming and drying; actions that reduce the availability of aboveground cover objects including downed logs; or actions that would compact or disturb the soil or otherwise interfere with the capacity of salamanders to move between subterranean habitat and aboveground habitat.

## **Effects of Critical Habitat Designation**

### *Section 7 Consultation*

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

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

the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

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

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

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

When we issue a biological opinion concluding that a project is likely to

jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

- (1) Can be implemented in a manner consistent with the intended purpose of the action,
- (2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,
- (3) Are economically and technologically feasible, and
- (4) Would, in the Director’s opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

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

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

agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

*Application of the “Adverse Modification” Standard*

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for the Jemez Mountains salamander. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

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

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Jemez Mountains salamander. These activities include, but are not limited to:

(1) Actions that would disturb salamander habitat by warming and drying. Such activities could include, but are not limited to, landscape restoration projects (e.g., forest thinning and manipulation); prescribed burns; wildland fire use; wildland-urban-interface projects (forest management at the boundary of forested areas and urban areas); forest silvicultural practices (including salvage logging); or other forest management or landscape-altering activities that reduce canopy cover, or warm and dry habitat. These activities could reduce the quality of salamander habitat or reduce the ability of the salamander to carry out normal behavior and physiological functions, which are tightly tied to moist cool microhabitats. Additionally, these actions could also reduce available high-moisture retreats, which could increase the amount of time necessary to regulate body water for physiological function and thus reduce the amount of time available for foraging and finding a mate, ultimately reducing fecundity.

(2) Actions that reduce the availability of the ground surface within forested areas containing downed logs that are greater than 10 in (0.25 m) in diameter and of any stage of decomposition; or removal of large-diameter trees (especially Douglas fir) that would otherwise become future high quality cover. Such activities could include, but are not limited to, the activities listed in (1), above. Aboveground cover objects within the forest provide high-moisture retreats relative to surrounding habitat and offer opportunities to regulate body water and influence the salamander's capacity to forage and reproduce.

(3) Actions that would compact or disturb the soil or otherwise interfere with the

capacity of salamanders to move between subterranean habitat and aboveground habitat. Such activities could include, but are not limited to, use of heavy equipment, road construction, and pipeline installation.

(4) Actions that spread disease into salamander habitat. Such activities could include water drops (i.e., picking up surface water contaminated with aquatic amphibian pathogens (e.g., *Batrachochytrium dendrobatidis* (*Bd*)) and dropping it in forested habitat). While we do not know the susceptibility of amphibian pathogens on the Jemez Mountains salamander, some pathogens (e.g., *Bd*) have caused many other amphibian species extinctions and declines and could potentially threaten the Jemez Mountains salamander.

(5) Actions that contaminate forested habitats with chemicals. Such activities could include aerial drop of chemicals such as fire retardants or insecticides. Amphibians in general are sensitive to chemicals with which they come in contact because they use their skin for breathing and other physiological functions. We would need to consult to identify if the particular chemicals proposed for use in the action impacted the species.

## **Exemptions**

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

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: “The

Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan [INRMP] prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is designated.” There are no Department of Defense lands with a completed INRMP within the critical habitat designation.

## **Exclusions**

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

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

factor.

#### Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared a draft economic analysis of the proposed critical habitat designation and related factors (IEc 2013). The draft analysis, dated February 8, 2013, was made available for public review from February 12, 2013, through March 14, 2013 (78 FR 9876). Following the close of the comment period, a final analysis (dated April 22, 2013) of the potential economic effects of the designation was developed taking into consideration the public comments we received and any new information (IEc 2013, entire).

The intent of the final economic analysis (FEA) is to quantify the economic impacts of all potential conservation efforts for the Jemez Mountains salamander; some of these costs will likely be incurred regardless of whether we designate critical habitat (baseline). The economic impact of the final critical habitat designation is analyzed by comparing scenarios both “with critical habitat” and “without critical habitat.” The “without critical habitat” scenario represents the baseline for the analysis, considering protections already in place for the species (e.g., under the Federal listing and other Federal, State, and local regulations). The baseline, therefore, represents the costs incurred regardless of whether critical habitat is designated. The “with critical habitat”

scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts are those not expected to occur absent the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat above and beyond the baseline costs; these are the costs we consider in the final designation of critical habitat. The analysis looks retrospectively at baseline impacts incurred since the species was listed, and forecasts both baseline and incremental impacts likely to occur with the designation of critical habitat.

The FEA also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of conservation activities on government agencies, private businesses, and individuals. The FEA measures lost economic efficiency associated with residential and commercial development and public projects and activities, such as economic impacts on water management and transportation projects, Federal lands, small entities, and the energy industry. Decision-makers can use this information to assess whether the effects of the designation might unduly burden a particular group or economic sector. Finally, the FEA considers costs that may occur in the 20 years following the designation of critical habitat, which was determined to be the appropriate period for analysis because limited planning information was available for most activities to forecast activity levels for projects beyond a 20-year timeframe. The FEA quantifies economic impacts of Jemez Mountains salamander conservation efforts associated with the following categories of activity: severe wildland fire, fire

management, other Federal land management, livestock grazing, and transportation. No impacts are forecast for private development, because no projects with a Federal nexus were identified within the study area.

Key findings of the FEA include: total present value baseline costs are approximately \$26 million over 20 years following the designation, assuming a 7 percent discount rate (\$29 million assuming a 3 percent discount rate); total present value incremental impacts are approximately \$260,000 over 20 years following the designation, assuming a 7 percent discount rate (\$330,000 assuming a 3 percent discount rate); all incremental costs are administrative in nature and result from the consideration of adverse modification in section 7 consultations; both units are expected to experience similar levels of incremental impact; and differences in forecast impacts across the two units are predominately a result of the distribution of land ownership, rather than differences in activities across units.

Our economic analysis did not identify any disproportionate costs that are likely to result from the designation. Consequently, the Secretary is not exerting his discretion to exclude any areas from this designation of critical habitat for the Jemez Mountains salamander based on economic impacts.

A copy of the FEA with supporting documents may be obtained by contacting the New Mexico Ecological Services Field Office (see **ADDRESSES**) or by downloading from the Internet at <http://www.regulations.gov>, or the Service's Internet site at

*<http://www.fws.gov/southwest/es/NewMexico>.*

#### Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this final rule, we have determined that the lands within the designation of critical habitat for the Jemez Mountains salamander are not owned or managed by the Department of Defense, and, therefore, we anticipate no impact on national security. We considered excluding Los Alamos National Lab, which is under the Department of Energy. However, we have determined that lands within the designation of critical habitat are not owned or managed by the Los Alamos National Lab. Consequently, the Secretary is not exerting her discretion to exclude any areas from this final designation based on impacts on national security.

#### Exclusions Based on Other Relevant Impacts

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

United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this final rule, we have determined that there are currently no HCPs or other management plans for the Jemez Mountains salamander, and the final designation does not include any tribal lands or trust resources. We anticipate no impact on tribal lands, partnerships, or HCPs from this critical habitat designation. We also considered impacts on private lands, but we do not predict any impacts to designated critical habitat, over and above those related to jeopardy consultation. Further, we do not anticipate restricting any fire suppression or forest restoration. Accordingly, the Secretary is not exercising her discretion to exclude any areas from this final designation based on other relevant impacts.

### **Required Determinations**

#### *Regulatory Planning and Review (Executive Orders 12866 and 13563)*

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

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce

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

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

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C. 801 *et seq.*), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. In this final rule, we are certifying that the critical habitat designation for the Jemez Mountains salamander will

not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts on these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities such as fire management, private development, transportation, and livestock grazing. We apply the “substantial number” test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly

define “substantial number” or “significant economic impact.” Consequently, to assess whether a “substantial number” of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat will only affect activities that have a Federal involvement; designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies. In areas where the Jemez Mountains salamander is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect the species. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they authorize, fund, or carry out that may affect the Jemez Mountains salamander. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities (see *Application of the “Adverse Modification” Standard* section).

In our final economic analysis of the critical habitat designation, we evaluated the potential economic effects on small business entities resulting from conservation actions related to the listing of the Jemez Mountains salamander and the designation of critical habitat. The designation of critical habitat for the Jemez Mountains salamander is unlikely to directly affect any small entities. As described in the main text of the FEA, 97 percent of land in the designation is federally owned. Anticipated incremental impacts in critical habitat are primarily related to 37 formal consultations and 45 informal consultations on fire management and other Federal land management activities (comprising approximately 99 percent of the annual anticipated incremental costs of the designation). The remaining forecast impacts are anticipated to be conducted for road and highway maintenance projects. Little to no impact to third parties is expected associated with these activities. For this reason, this analysis finds little to no impacts to small entities as a result of critical habitat designation for the salamander.

In summary, we considered whether this designation will result in a significant economic effect on a substantial number of small entities. Based on the above reasoning and currently available information, we concluded that this rule will not result in a significant economic impact on a substantial number of small entities. Therefore, we are certifying that the designation of critical habitat for the Jemez Mountains salamander will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute “a significant adverse effect” when compared to not taking the regulatory action under consideration. The economic analysis finds that none of these criteria are relevant to this analysis. Thus, based on information in the economic analysis, energy-related impacts associated with the Jemez Mountains salamander conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

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

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

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

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

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

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

(2) We do not believe that this rule will significantly or uniquely affect small governments because it will not produce a Federal mandate of \$100 million or greater in any year, that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments and, as such, a Small Government Agency Plan is not required.

*Takings—Executive Order 12630*

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for Jemez Mountains salamander in a takings implications assessment. As discussed above, the designation of critical habitat affects only Federal actions. Although private parties that receive Federal funding, assistance, or require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal

agency. The FEA found that this designation will not affect a substantial number of small entities, because 97 percent of land in the designation is federally owned. Further, based on information contained in the FEA and described within this document, it is not likely that economic impacts to a property owner will be of a sufficient magnitude to support a takings action. The takings implications assessment concludes that this designation of critical habitat for the Jemez Mountains salamander does not pose significant takings implications for lands within or affected by the designation.

*Federalism—Executive Order 13132*

In accordance with Executive Order 13132 (Federalism), this rule does not have significant Federalism effects. A federalism impact summary statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this critical habitat designation with appropriate State resource agencies in New Mexico. We received comments from the New Mexico Department of Agriculture and have addressed them in the **Summary of Comments and Recommendations** section of this rule. The Service anticipates that in cases where an action is found to adversely modify critical habitat for the salamander, the action would also be found to jeopardize the species. That is, actions which the Service is likely to recommend to avoid adverse modification are the same as those to avoid jeopardy. Thus, the incremental impacts of the critical habitat designation for the salamander appear unlikely to include additional conservation actions/project modifications. The designation of critical habitat in areas currently occupied by the

Jemez Mountains salamander imposes no additional restrictions to those put in place by the listing of the salamander and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) will be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

*Civil Justice Reform—Executive Order 12988*

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order.

We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the Jemez Mountains salamander. The designated areas of critical habitat are presented on a map, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

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

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This

position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)). However, when the range of the species includes States within the Tenth Circuit, such as that of the Jemez Mountains salamander, under the Tenth Circuit ruling in *Catron County Board of Commissioners v. U.S. Fish and Wildlife Service*, 75 F.3d 1429 (10th Cir. 1996), we undertake a NEPA analysis for critical habitat designation and notify the public of the availability of the draft environmental assessment for a proposal when it is finished. We performed the NEPA analysis, and prepared a draft environmental assessment for critical habitat designation and notified the public of its availability in the **Federal Register** on February 12, 2013 (78 FR 9876). The final environmental assessment concluded that the designation is unlikely to result in any significant environmental impacts. The Service then completed a finding of no significant impacts (FONSI). The final environmental assessment and the FONSI have been completed and are available for review with the publication of this final rule. You may obtain a copy of the final environmental assessment and FONSI online at <http://www.regulations.gov>, by mail from the New Mexico Ecological Services Field Office (see **ADDRESSES**), or by visiting our Web site at <http://www.fws.gov/southwest/es/NewMexico/index.cfm>.

#### *Government-to-Government Relationship with Tribes*

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal

Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We determined that there are no tribal lands occupied by the Jemez Mountains salamander at the time of listing that contain the physical or biological features essential to conservation of the species, and no tribal lands unoccupied by the Jemez Mountains salamander that are essential for the conservation of the species. Therefore, we are not designating critical habitat for the Jemez Mountains salamander on tribal lands.

However, this critical habitat designation includes lands within the Santa Fe National Forest and Valles Caldera National Preserve that are adjacent to the Santa Clara Pueblo. These lands include culturally important areas for the Santa Clara Pueblo and have unhealthy, unburned forest conditions that make them a continued, immediate threat to catastrophic wildfire spreading onto Santa Clara Pueblo lands (Santa Clara Pueblo 2013). Therefore, the Santa Clara Pueblo has entered in discussions with the USFS, pursuant to the Tribal Forest Protection Act, to co-manage stewardship projects on these lands, including hazardous fuels reduction and ensuring there are proper fuel breaks to protect remnant unburned areas on Santa Clara Pueblo lands from fires coming off

National Forest lands. Consultations with Santa Fe National Forest on fire management activities proposed on Pueblo-adjacent lands pursuant to the Tribal Forest Protection Act will be conducted in accordance with the Service's responsibilities as outlined in Secretarial Order 3206

#### References Cited

A complete list of all references cited is available on the Internet at <http://www.fws.gov/southwest/es/NewMexico/index.cfm>, at <http://www.regulations.gov> at Docket No. FWS-R2-ES-2013-0005, and upon request from the New Mexico Ecological Services Field Office (see FOR FURTHER INFORMATION CONTACT).

#### Authors

The primary authors of this rulemaking are the staff members of the New Mexico Ecological Services Field Office.

#### List of Subjects in 50 CFR Part 17

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

#### 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—[AMENDED]

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

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

2. Amend § 17.11(h) by revising the entry for “Salamander, Jemez Mountains” under “AMPHIBIANS” in the List of Endangered and Threatened Wildlife to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*

(h) \* \* \*

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						

\* \* \* \* \*

AMPHIBIANS

\* \* \* \* \*

Salamander, Jemez Mountains	<i>Plethodon neomexicanus</i>	U.S. (NM)	Entire	E	819	17.95(d)	NA
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\* \* \* \* \*

3. In § 17.95, amend paragraph (d) by adding an entry for “Jemez Mountains Salamander (*Plethodon neomexicanus*),” in the same alphabetical order that the species appears in the table at § 17.11(h), to read as follows:

**§ 17.95 Critical habitat—fish and wildlife.**

\* \* \* \* \*

(d) *Amphibians.*

\* \* \* \* \*

Jemez Mountains Salamander (*Plethodon neomexicanus*)

(1) Critical habitat units are depicted for Los Alamos, Rio Arriba, and Sandoval Counties, New Mexico, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the Jemez Mountains salamander consist of four components:

(i) Moderate to high tree canopy cover, typically 50 to 100 percent canopy closure, that provides shade and maintains moisture and high relative humidity at the ground surface, and:

(A) Consists of the following tree species alone or in any combination:

Douglas fir (*Pseudotsuga menziesii*); blue spruce (*Picea pungens*); Engelman spruce (*Picea engelmannii*); white fir (*Abies concolor*); limber pine (*Pinus flexilis*); Ponderosa pine (*Pinus ponderosa*); and aspen (*Populus tremuloides*); and

(B) Has an understory that predominantly comprises: Rocky Mountain maple (*Acer glabrum*); New Mexico locust (*Robinia neomexicana*); oceanspray (*Holodiscus* spp.); or shrubby oaks (*Quercus* spp.).

(ii) Elevations from 6,988 to 11,254 feet (2,130 to 3,430 meters).

(iii) Ground surface in forest areas with:

(A) Moderate to high volumes of large fallen trees and other woody debris, especially coniferous logs at least 10 inches (25 centimeters) in diameter, particularly Douglas fir, which are in contact with the soil in varying stages of decay from freshly fallen to nearly fully decomposed; or

(B) Structural features, such as rocks, bark, and moss mats, that provide the species with food and cover.

(iv) Underground habitat in forest or meadow areas containing interstitial spaces provided by:

(A) Igneous rock with fractures or loose rocky soils;

(B) Rotted tree root channels; or

(C) Burrows of rodents or large invertebrates.

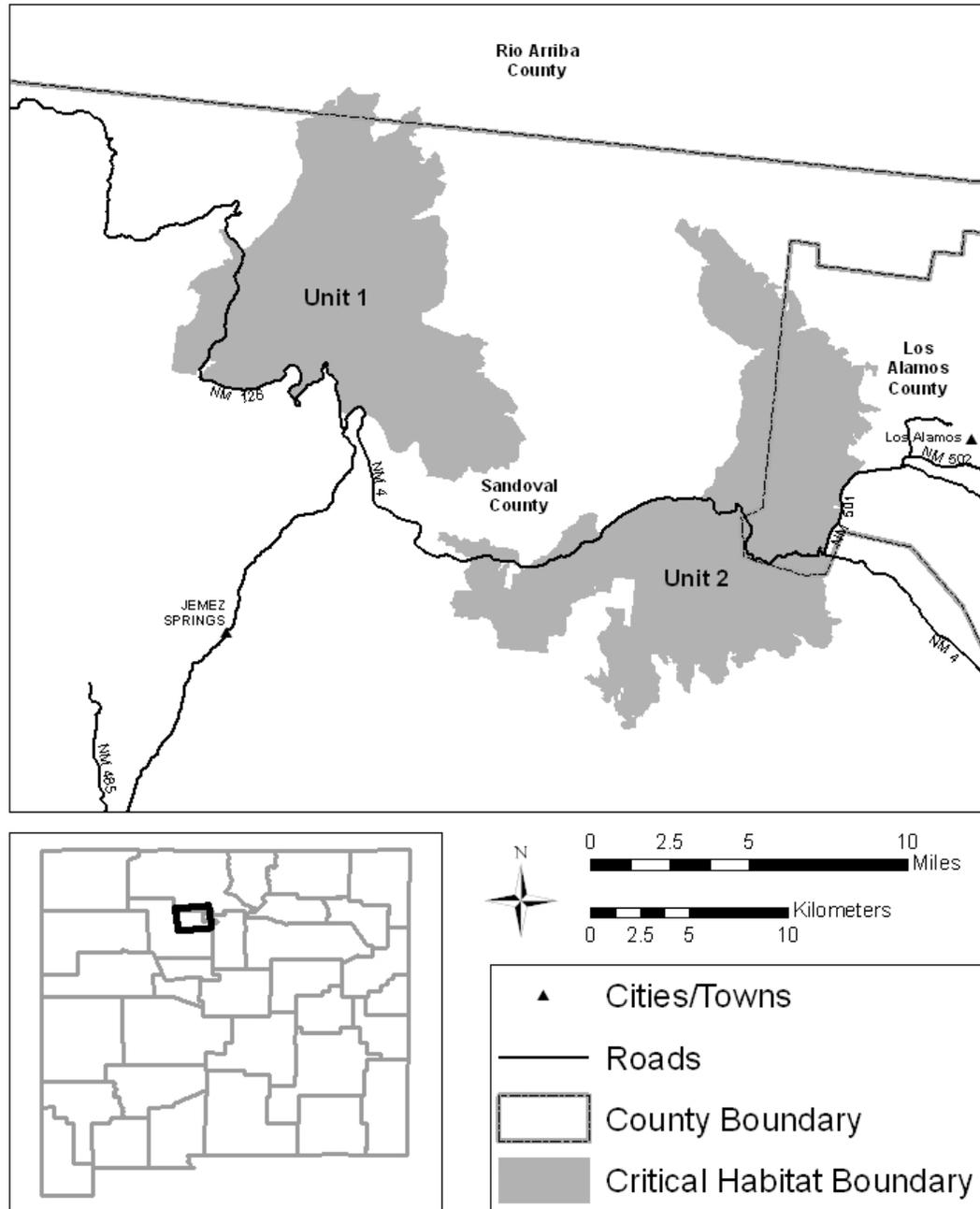
(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on [INSERT DATE 30 DAYS AFTER DATE OF

FEDERAL REGISTER PUBLICATION].

(4) *Critical habitat map units.* Data layers defining map units were created using digital elevation models, GAP landcover data, salamander observation data, salamander habitat suitability models, and were then mapped using the USA Contiguous Albers Equal Area Conic USGS version projection. The map in this entry, as modified by any accompanying regulatory text, establishes the boundaries of the critical habitat designation. The coordinates or plot points or both on which the map is based are available to the public at the Service's internet site at <http://www.fws.gov/southwest/es/NewMexico/>, at <http://www.regulations.gov> at Docket No. FWS-R2-ES-2013-0005, and at the New Mexico Ecological Services Field Office. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(5) Unit 1: Western Jemez Mountains, Rio Arriba and Sandoval Counties, New Mexico. Map of Units 1 and 2 follows:

## Critical Habitat for *Plethodon neomexicanus* (Jemez Mountains salamander)



(6) Unit 2: Southeastern Jemez Mountains, Los Alamos and Sandoval Counties, New Mexico. Map of Unit 2 is provided at paragraph (5) of this entry.

\* \* \* \* \*

Dated: November 5, 2013.

Rachel Jacobson

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

Billing Code 4310-55-P

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