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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service
50 CFR Part 17
RIN 1018—AJ16

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Red-Legged Frog, and Special Rule Exemption Associated With Final Listing for Existing Routine Ranching Activities

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

Federal Register

Thursday,
April 13, 2006

Part II

Department of the Interior

Fish and Wildlife Service

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SUMMARY: We, the U.S. Fish and Wildlife Service (Service), are designating critical habitat for the California red-legged frog (*Rana aurora draytonii*) pursuant to the Endangered Species Act of 1973, as amended (Act). We are further finalizing a special rule associated with final listing of the California red-legged frog as threatened for existing routine ranching activities pursuant to section 4(d) of the Act. In total, approximately 450,288 acres (ac) (182,225 hectares (ha)) fall within the boundaries of the critical habitat designation. The critical habitat is located in Alameda, Butte, Contra Costa, El Dorado, Kern, Los Angeles, Marin, Merced, Monterey, Napa, Nevada, San Benito, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Solano, Ventura and Yuba counties, California.

DATES: This rule becomes effective on May 15, 2006.

ADDRESSES: Comments and materials received, as well as supporting documentation used in the preparation of this final rule, are available for public inspection, by appointment, during normal business hours, at the Sacramento Fish and Wildlife Office, 2800 Cottage Way, Suite W–2605, Sacramento, California, 95825 (telephone 916/414–6600). The final rule and economic analysis are available via the Internet at *http://www.fws.gov/pacific/sacramento.*

FOR FURTHER INFORMATION CONTACT: Arnold Roessler, Listing Branch Chief, Sacramento Fish and Wildlife Office, at the above address (telephone 916/414–6600; facsimile 916/414–6712).

SUPPLEMENTARY INFORMATION:

Role of Critical Habitat in Actual Practice of Administering and Implementing the Act

Attention to and protection of habitat is paramount to successful conservation actions. The role that designation of critical habitat plays in protecting habitat of listed species, however, is often misunderstood. As discussed in more detail below in the discussion of exclusions under section 4(b)(2) of the Act, there are significant limitations on the regulatory effect of designation under section 7(a)(2) of the Act. In brief, (1) designation provides additional protection to habitat only where there is a Federal nexus; (2) the protection is relevant only when, in the absence of designation, destruction or adverse modification of the critical habitat would in fact take place (in other words, other statutory or regulatory protections, policies, or other factors relevant to agency decision-making would not prevent the destruction or adverse modification); and (3) designation of critical habitat triggers the prohibition of destruction or adverse modification of that habitat. However, designation of critical habitat does not require specific actions to restore or improve habitat.

Currently, only 473 species, or 37 percent of the 1,272 listed species in the U.S. under the jurisdiction of the Service, have designated critical habitat. We address the habitat needs of all 1,272 listed species through conservation mechanisms such as listing, section 7 consultations, the section 4 recovery planning process, the section 9 protective prohibitions of unauthorized take, section 6 funding to the States, the section 10 incidental take permit process, and cooperative, nonregulatory efforts with private landowners. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

In considering exclusions of areas originally proposed for designation, we evaluated the benefits of designation in light of *Gifford Pinchot Task Force* v. *United States Fish and Wildlife Service.* In that case, the Ninth Circuit invalidated the Service's regulation defining "destruction or adverse modification of critical habitat." In response, on December 9, 2004, the Director issued guidance to be considered in making section 7 adverse modification determinations. This critical habitat designation does not use the invalidated regulation in our consideration of the benefits of including areas in this final designation. The Service will carefully manage future consultations that analyze impacts to designated critical habitat, particularly those that appear to be resulting in an adverse modification determination. Such consultations will be reviewed by the Regional Office prior to completion to ensure that an adequate analysis has been conducted that is informed by the Director's guidance.

On the other hand, to the extent that designation of critical habitat provides protection, that protection can come at significant social and economic cost. In addition, the mere administrative process of designation of critical habitat is expensive, time-consuming, and controversial. The current statutory framework of critical habitat, combined with past judicial interpretations of the statute, make critical habitat the subject of excessive litigation. As a result, critical habitat designations are driven by litigation and courts rather than biology, and made at a time and under a time frame that limits our ability to obtain and evaluate the scientific and other information required to make the designation most meaningful.

In light of these circumstances, the Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit to the species most in need of protection.

Procedural and Resource Difficulties in Designating Critical Habitat

We have been inundated with lawsuits for our failure to designate critical habitat, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent (NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species, and final listing determinations on existing proposals are all significantly delayed.

The accelerated schedules of court-ordered designations have left the Service with limited ability to provide for public participation or to ensure a defect-free rulemaking process before making decisions on listing and critical habitat proposals, due to the risks associated with noncompliance with judicially imposed deadlines. This in turn fosters a second round of litigation in which those who fear adverse

impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless, and is very expensive, thus diverting resources from conservation actions that may provide relatively more benefit to imperiled species.

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.). These costs, which are not required for many other conservation actions, directly reduce the funds available for direct and tangible conservation actions.

Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this rule. For more information on the California red-legged frog, refer to the revised proposed critical habitat designation published in the **Federal Register** on November 3, 2005 (70 FR 66906).

Previous Federal Actions

Previous Federal actions for the California red-legged frog can be found in our revised proposal of critical habitat for the California red-legged frog published in the **Federal Register** on November 3, 2005 (70 FR 66906). That information is incorporated by reference into this final rule. On November 23, 2005, the federal district court in the Eastern District of California granted a motion to extend the deadline for publication of the final critical habitat until March 31, 2006. This final designation is being completed and published in the **Federal Register** in compliance with that court order.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the California red-legged frog published on April 13, 2004 (69 FR 19620). We also requested written comments from the public on the revised proposed designation of critical habitat for the California red-legged frog published on November 3, 2005 (70 FR 66906). We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on both the proposed and the revised proposed rule. The comment period for the initial proposed rule opened on April 13, 2004, and closed on June 14, 2004. We extended the period from June 14, 2004 to July 14, 2004 (69 FR 32966). Comments and new information received in response to the first proposed rule which were relevant to the revised proposal and final designation were incorporated in the final rule as appropriate and are summarized with the comments received in response to the revised proposed rule below.

During the comment period for the initial proposed rule, we received a total of 88 comment letters from Federal, State, and local governments, and private individuals. Of those comment letters, 30 commenters generally supported the initial proposed designation of 4.1 million acres (1.6 million hectares) or provided specific information pertaining to the subspecies or habitat, and 58 commenters generally did not support the initial proposed designation as written or did not support the inclusion of certain lands. Of the 88 total comment letters, 39 comment letters focused on land areas that we later determined to be nonessential to the conservation of the subspecies and that we are no longer including in this final designation. In summary, in our revised proposed rule and in this final designation, we used the best scientific information available in determining the areas essential for the California red-legged frog and removed all areas that we determined are not essential for the conservation of this subspecies and therefore do not meet the definition of critical habitat. We re-examined all initially proposed areas and removed any areas that do not contain one or more of the PCEs or that were determined to be nonessential for the conservation of the subspecies because: (1) The area is highly degraded and may not be restorable; (2) the area is small, highly fragmented, or isolated and may provide little or no long-term conservation value; and/or (3) other areas within the geographic region were determined to be sufficient to meet the subspecies needs for conservation.

We also considered several criteria in the selection of areas that contain the features essential for the conservation of California red-legged frog and focused on designating units: (1) Throughout the current geographic, elevational, and ecological distribution of the subspecies; (2) that would maintain the current population structure across the subspecies' range; (3) that retain or provide for connectivity between breeding sites allowing for the continued existence of viable and essential metapopulations, despite fluctuations in the status of subpopulations; (4) that possess large continuous blocks of occupied habitat, representing source populations and/or unique ecological characteristics; and (5) that contain sufficient upland habitat around each breeding location to allow for sufficient survival and recruitment to maintain a breeding population over the long term. We proposed critical habitat units in areas that have the highest likelihood to contain self-sustaining populations of California red-legged frogs based on the presence of the PCEs, the density of California red-legged frog occurrences, and the kind, amount, and quality of habitat associated with those occurrences. We believe this strategy allowed us to narrow our initial focus down to the habitats that meet the definition of critical habitat and are essential to the conservation of the subspecies.

During the comment period associated with the revised proposed rule that opened on November 3, 2005, and closed on February 1, 2006, we received 76 comments directly addressing the revised proposed critical habitat designation and the draft economic analysis. Of these comments, three were from peer reviewers, one from a Federal agency, and 32 from organizations. Five commenters supported the designation of critical habitat for the California red-legged frog, and 55 opposed the designation. Sixteen letters included comments or information, but did not express support or opposition to the revised proposed critical habitat designation. Comments received were grouped into 15 general issues specifically relating to the revised proposed critical habitat designation for the California red-legged frog, and are addressed in the following summary and/or incorporated into the final rule as appropriate. We did not receive any requests for a public hearing; however, we did receive one request for a public workshop from the Calaveras County Farm Bureau. On January 10, 2006, we held a public workshop in San Andreas, California, and on January 17, 2006, we held an additional public workshop for the Calaveras County Board of Supervisors and the general public.

Peer Review

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

reviewers. The peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve the final critical habitat rule. One peer reviewer generally accepted our methodology and criteria used in the designation of critical habitat, while another peer reviewer generally agreed with our proposed special rule to exempt routine ranching practices. The other peer review comments are addressed in the following summary and incorporated into the final rule as appropriate.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding critical habitat for the California red-legged frog, and addressed them in the following summary.

Peer Reviewer Comments

(1) *Comment:* One peer reviewer questioned how the future increase in the size of Los Vaqueros reservoir would affect critical habitat in Unit ALA–1A.

Our Response: The area surrounding Los Vaqueros reservoir was excluded from critical habitat because of disproportionately high economic costs. See *Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act* below. Additionally, areas that support California red-legged frog populations, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Federally funded or permitted projects affecting listed species, or subspecies, outside their designated critical habitat areas may still result in jeopardy findings in some cases.

(2) *Comment:* One peer reviewer questioned our rationale for not including the documented population of California red-legged frogs at Corral Hollow in San Joaquin County. Additionally, the same peer reviewer expressed concern that California red-legged frog recovery cannot take place only in occupied areas.

Our Response: In our revised proposed designation of critical habitat for the California red-legged frog, we selected areas based on the best scientific data available that possess those physical and biological features essential to the conservation of the subspecies, and that may require special management considerations or protection. We included areas that were occupied at the time of listing as well as some areas subsequently identified as occupied. We proposed critical habitat units in areas whose populations of California red-legged frogs have the highest likelihood to be self-sustaining based on the presence of the PCEs; the density of California red-legged frog occurrences; and the kind, amount, and quality of habitat associated with those occurrences. The proposed units contain sufficient PCEs to support the behaviors that we have determined are essential to the conservation of the subspecies. In this rule, we did not believe that all occupied habitat should be designated as critical habitat, nor did we believe it necessary to designate unoccupied habitat. In the development of the revised proposed rule, we determined the designation of unit ALA–1, which is located to the west of the Corral Hollow area, was sufficient for the conservation of the California red-legged frog in that area. For more information, please see the Criteria Used to Define Critical Habitat section.

(3) *Comment:* One peer reviewer stated that based on the paper published by Shaffer et al. (2004), the California red-legged frog is a full species and should be recognized as such by the Service.

Our Response: Based on mtDNA evidence, Shaffer et al. (2004) concluded that *Rana aurora aurora* (red-legged frog) and *Rana aurora draytonii* do not constitute a monophyletic group and suggests recognition of each as a separate species. Additionally, Shaffer et al. (2004) suggests *Rana cascadae* (Cascades frog) and *Rana aurora draytonii* are more closely related and should be considered sister taxon. We recognize the paper by Shaffer et al. (2004) presents evidence that can be used to support the argument that the California red-legged frog should be considered a full species. In a cursory review of herpetological and special status species web sites, we found one (The Center for North American Herpetology) that noted Shaffer et al.'s (2004) conclusion that the California red-legged frog was a distinct species, but that web site still uses *Rana aurora draytonii*. Another web site (Amphibia Web) uses *Rana draytonii*. Two other web sites (IUCN Red List and Nature Serve) still list the California red-legged frog as *Rana aurora draytonii*. At this time, we do not find that a formal change in taxonomy for the California red-legged frog is necessary.

(4) *Comment:* One peer reviewer asserted that the lack of a metapopulation focus in the development of the critical habitat designation practically guarantees extinction of California red-legged frogs from 15 or more critical habitat units.

Our Response: We disagree that the designation of critical habitat presented in this rule will lead to the extinction (extirpation) of the California red-legged frog in any of the critical habitat units. We used the best scientific information available in determining those areas essential for the California red-legged frog for our revised proposed critical habitat designation. We considered several criteria in the selection of areas that contain the features essential for the conservation of California red-legged frog and focused on designating units: (1) Throughout the current geographic, elevational, and ecological distribution of the subspecies; (2) that would maintain the current population structure across the subspecies' range; (3) that retain or provide for connectivity between breeding sites, allowing for the continued existence of viable and essential metapopulations, despite fluctuations in the status of subpopulations; (4) that possess large continuous blocks of occupied habitat, representing source populations and/or unique ecological characteristics; and (5) that contain sufficient upland habitat around each breeding location to allow for sufficient survival and recruitment to maintain a breeding population over the long term. We excluded any areas that do not contain one or more of the PCEs or that were determined not to be essential for the conservation of the subspecies because: (1) The area is highly degraded and may not be restorable; (2) the area is small, highly fragmented, or isolated and may provide little or no long-term conservation value; and/or (3) other areas within the geographic region were determined to be sufficient to meet the subspecies' needs for conservation. We disagree that critical habitat units need to be connected within very large contiguous blocks. Connecting large areas of unknown occupancy, which may or may not support California red-legged frogs or the PCEs, would not materially contribute to the conservation of the subspecies. For more information, please see the Criteria Used to Define Critical Habitat section.

(5) *Comment:* One peer reviewer questioned our exclusion of large blocks of private and Federal lands from critical habitat, stating that this essentially shifts the responsibility of threatened and endangered species' protection to entities that have different priorities.

Our Response: There are multiple ways to provide management for species habitat. Statutory and regulatory frameworks that exist at a local level can

provide such protection and management, as can lack of pressure for change (e.g., areas too remote for anthropogenic disturbance). Finally, State, local, or private management plans, as well as management by a Federal agency, can provide protection and management to avoid the need for designation of critical habitat. When we consider a plan to determine its adequacy in protecting habitat, we consider whether the plan, as a whole, will provide the same level of protection that designation of critical habitat would provide. The plan need not lead to exactly the same result as a designation in every individual application, as long as the protection it provides is equivalent overall. In making this determination, we examine whether the plan provides management, protection, or enhancement of the PCEs that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

Section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if [s]he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless [s]he 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 Secretary is afforded broad discretion, and the Congressional record is clear that, in making a determination under the section, the Secretary has discretion concerning which factors to consider and how much weight will be given to any factor.

Under section 4(b)(2), in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If an exclusion is contemplated, then we must determine whether excluding the area would result in the extinction of the subspecies. For more information see Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section below.

General Comments

Comments Related to Habitat and Subspecies-Specific Information

(6) *Comment:* One commenter stated our discussion of the reduction in the range of the California red-legged frog in the revised proposed rule was misleading.

Our Response: We believe our description of the reduction in the range of the California red-legged frog is accurate. We referred to multiple sources when researching the reduction in the range of the California red-legged frog. We consulted the recovery plan; Jennings and Hayes (1994); Fisher and Shaffer (1996); the California Natural Diversity Database (2004 and 2005); Berkeley Museum of Vertebrate Zoology (2004); and the California Academy of Sciences (2004). The map prepared by Jennings and Hayes (1994) depicts historic and extant (as of 1994) occurrences of the California red-legged frog. Approximately 45 counties comprised the historic range of the California red-legged frog, and approximately 17 counties were found to have extant occurrences in 1994. In 1996, when the subspecies was listed, 243 streams or drainages in 22 California counties were documented to contain populations of California red-legged frogs (California Natural Diversity Database (CNDDB) 2004). At the time of listing, California red-legged frogs were believed to have been extirpated from most of the southern Coastal Mountains from Santa Barbara south to Baja California and east along the Transverse (San Gabriel, San Bernadino, Santa Ynez, and Santa Monica Mountains) and Peninsular (San Jacinto, Santa Rosa, Agua Tibia, Laguna, Santa Ana Mountains) Ranges. Since listing, two additional occurrences south of the Tehachapi Mountains at City Creek in San Bernardino county and Andreas Canyon in Riverside county have been discovered (CNDDB 2005) but may no longer be extant. Four additional occurrences have been recorded in the Sierra Nevada foothills since listing, bringing the total to five extant populations, compared to approximately 26 historical records (Berkeley Museum of Vertebrate Zoology 2004; CNDDB 2004; California Academy of Sciences 2004; Barry in litt. 2005). Currently California red-legged frogs are only known from 3 disjunct regions in 26 California counties, and one disjunct region that is still present in Baja California, Mexico (Grismer 2002; Fidenci 2004; R. Smith and D. Krofta, in litt. 2005). Additionally, through comparison of historical museum records (1890–1980) and field surveys (1990–1992), Fisher and Shaffer (1996) present evidence of the extirpation (local extermination) of California red-legged frogs from 24 of 28 counties in a limited portion of the subspecies' historical range.

(7) *Comment:* One commenter suggested we should have included a reference to a paper published by Shaffer et al. (2004) in the subspecies description section of the revised proposed rule.

Our Response: The Service did consult the paper by Shaffer et al. (2004) in development of the revised proposed rule. As noted by the commenter, we referenced the Shaffer et al. (2004) paper in the Geographic Range section of the revised proposed rule. We also cite Shaffer et al. (2004) in the unit description for RIV–1 in the revised proposed rule in regards to California red-legged frog's genetic lineage in southern California. Based on mtDNA evidence, Shaffer et al. (2004) concluded that *Rana aurora aurora* (red-legged frog) and *Rana aurora draytonii* do not constitute a monophyletic group and suggests recognition of each as a separate species. Additionally, Shaffer et al. (2004) suggests *Rana cascadae* (Cascades frog) and *Rana aurora draytonii* are more closely related and should be considered sister taxa. We recognize the paper by Shaffer et al. (2004) presents evidence that can be used to argue that the California red-legged frog should be considered a full species. However, as discussed earlier in our response to comment 3, we conducted a cursory review of scientific web sites, and based on that review, at this time, we do not find that a formal change in taxonomy for the California red-legged frog is necessary.

Comments Related to Threats to the Subspecies

(8) *Comment:* Several commenters did not believe we adequately assessed the current threats to the California red-legged frog, including introduced predators, grazing, urban run-off, pesticides, and fertilizers.

Our Response: As discussed throughout the proposed rule, in our previous final designation of critical habitat for the California red-legged frog (66 FR 14626; March 13, 2001), and in our final recovery plan for the subspecies (Service 2002), threats to those features that are essential to the conservation of the California red-legged frog (i.e., primary constituent elements) may include but are not limited to:

Trematode and chytrid fungus disease; direct and indirect impacts from some human recreational activities; flood control maintenance activities; water diversions; unmanaged overgrazing activities (summarized by Kauffman and Krueger (1984) and Belsky et al. (1999)); competition and predation by nonnative species, such as warm water fish and bullfrogs (Alvarez et al. 2003); habitat removal and alteration by urbanization; and some agricultural pesticides and fertilizers (Hayes et al. 2006). We also included lists of threats that may require special management for each unit description in the revised proposed rule (70 FR 66906) and in this final rule (see *Special Management Considerations or Protections* below).

(9) *Comment:* One commenter disagreed with our statement that California red-legged frogs can persist in the presence of bullfrogs and nonnative predatory fish.

Our Response: We concluded that there are specific conditions under which California red-legged frogs can persist in the presence of bullfrogs and nonnative predatory fish. In aquatic systems subject to seasonal drying, it may be difficult for bullfrogs to become established. Doubledee et al. (2003) studied the relationship between bullfrogs and California red-legged frog persistence. That study showed that bullfrogs and California red-legged frogs can coexist and persist under certain natural and managed regimes. Fellers and Guscio (2004) suggest since bullfrogs require approximately 16 months to metamorphose, periodic drying would be an effective means of preventing a population from becoming established. Additionally, periodic drying may prevent nonnative warm water fish from becoming established as well. Alvarez et al. (2003) present evidence that nonnative predatory fish can have a significant effect on juvenile California red-legged frog survival. Of 90 ponds surveyed in the Los Vaqueros watershed, 7 were found to have nonnative fish. Over 3 years, one or more ponds with nonnative fish were repeatedly drained, and all fish were exhaustively removed. In comparison to surveys conducted before fish removal and surveys conducted after fish removal and pond recharge, juvenile and adult California red-legged frog abundance increased dramatically after nonnative fish were removed, suggesting a strong link to decreased California red-legged frog survival and nonnative fish presence.

Comments Related to Criteria and Methodology

(10) *Comment:* One commenter asserted our description of the Primary Constituent Elements (PCEs) for the California red-legged frog was insufficient and did not conform to *Home Builders Association of Northern California et al.* v. *U.S. Fish and Wildlife Service*, 268 F.Supp.2d 1197 (E.D.C. 2003) in the use of exclusion criteria to define where essential features are found.

Our Response: We used the best scientific information available in determining the identifiable physical and biological features essential for the conservation of the California red-legged frog (PCEs). PCE 4 (dispersal habitat) includes a description of features that may constitute barriers to dispersal for the California red-legged frog and as such could be interpreted as exclusion criteria. However, features that may constitute barriers to dispersal are merely illustrative and are not to be used as exclusion criteria.

We further used the best scientific information available in determining our descriptions of the areas essential for the California red-legged frog as presented in our revised proposed critical habitat designation. We considered several criteria in the selection of areas that contain the features essential for the conservation of California red-legged frog and focused on designating units: (1) Throughout the current geographic, elevational, and ecological distribution of the subspecies; (2) that would maintain the current population structure across the subspecies' range; (3) that retain or provide for connectivity between breeding sites, allowing for the continued existence of viable and essential metapopulations, despite fluctuations in the status of subpopulations; (4) that possess large continuous blocks of occupied habitat, representing source populations and/or unique ecological characteristics; and (5) that contain sufficient upland habitat around each breeding location to allow for sufficient survival and recruitment to maintain a breeding population over the long term. We excluded any areas that do not contain sufficient PCEs to support necessary biological functions or that were determined not to be essential for the conservation of the subspecies because: (1) The area is highly degraded and may not be restorable; (2) the area is small, highly fragmented, or isolated and may provide little or no long-term conservation value; and/or (3) other areas within the geographic region were determined to be sufficient to meet the subspecies' needs for conservation.

Thus, we believe that the development of the PCEs for this designation of critical habitat for the California red-legged frog and the implementation of the criteria and methods identified herein and in our revised proposed rule conform to the standards set forth in *Home Builders Association of Northern California et al.* v. *U.S. Fish and Wildlife Service*, 268 F.Supp.2d 1197 (E.D.C. 2003).

(11) *Comment:* Two commenters asserted the revised proposed rule fails to identify the physical or biological features essential to the conservation of the California red-legged frog. Another commenter suggested that failure to designate unoccupied habitat runs counter to the recovery goals of the California red-legged frog and the intent of the Act. Additionally, the same commenter asserted that we should have designated all occupied habitat.

Our Response: In our revised proposed designation of critical habitat for the California red-legged frog, we selected areas based on the best scientific data available that possess those physical and biological features essential to the conservation of the subspecies, and that may require special management considerations or protection. We included in the revised proposed designation areas that were occupied at the time of listing as well as some areas subsequently identified as occupied. We proposed critical habitat units in areas that have the highest likelihood to contain self-sustaining populations of California red-legged frogs based on: (1) The presence of the PCEs; (2) the density of California red-legged frog occurrences; and (3) the kind, amount, and quality of habitat associated with those occurrences. The revised proposed units contain sufficient PCEs to support the behaviors that we have determined are essential to the conservation of the subspecies. Pursuant to section 3(5)(C) of the Act, critical habitat shall not include the entire geographical area that can be occupied by the species unless otherwise determined by the Secretary. We do not believe that all occupied habitat is essential to the conservation of the subspecies. Thus, in this rule, we only designate those areas determined to be essential to the conservation of the subspecies based on the methodological criteria (refer to the response to Comment (10) above for a list of these criteria).

(12) *Comment:* One commenter suggested that limiting protection of upland and dispersal habitat to 200 feet (ft) and 0.7 mile (mi), respectively, does

not provide for adequate conservation of the California red-legged frog in part due to the need for juvenile frogs to disperse from natal aquatic habitat.

Our Response: We are not aware of any scientific study that provides estimates of juvenile California red-legged frog movement distances. For reasons that are currently unclear, juveniles tend to disperse away from aquatic habitat occupied by adults. Juvenile dispersal is essential for recolonizing temporarily extirpated habitat and preventing genetic isolation as juveniles disperse in more directions, and for longer distances than do migrating adults (Wright, in litt. 1999; Bulger et al. 2003). Juvenile frogs will disperse through a variety of habitats, provided that habitat contains sheltering vegetation or scattered wetlands or streams. Juvenile frogs have been recorded in forested areas, nonnative grasslands, and even croplands (CNDDB 2005); however, frogs are not known to disperse through urbanized or suburban areas, suburban developments, or areas separated from breeding habitat by impassible barriers. Impassible barriers include wide or fast flowing rivers and streams, lakes greater than 50 ac (20 ha), and heavily traveled roads without underpasses or culverts (Reh and Seitz 1990; Fahrig et al. 1995). Juveniles dispersing along riparian corridors may have higher survivorship, as sheltering vegetation and suitable aquatic habitat are both more common in such corridors (M. Jennings, in litt. 2000). Juveniles appear to have less strict requirements for aquatic habitat than adults, and tend to segregate away from adults in water bodies that are shallower or faster moving than those typically used for breeding (Hayes and Jennings 1989; Bobzien pers. comm. 2000; M. Jennings, in litt. 2000). We encourage further research into California red-legged frog juvenile dispersal distances.

We recognize the importance of upland dispersal for the conservation of the California red-legged frog. Bulger et al. (2003) estimated that approximately 75 percent of adult California red-legged frogs are resident in their aquatic habitats, and approximately 90 percent did not move more than 197 ft (60 meters (m)) from their aquatic habitat in a mesic environment. Additionally, the maximum distance moved by a non-migrating California red-legged frog was 427 ft (130 m). Tatarian (2004) found upland use by California red-legged frogs in a more xeric, inland environment averaged 91 ft (27.7 m). A single female California red-legged frog inhabited an upland area, 302 ft (92 m) from its aquatic habitat, continuously for 50 days. Based on the work of Bulger et al. (2003) and Tatarian (2004), and our previous final critical habitat designation (66 FR 14625), we believe that the PCE 3 (upland habitat) distance of 200 ft (60 m) from aquatic habitat is sufficient to provide upland foraging and dispersal habitat for most California red-legged frogs. We do not believe it practicable or necessary to expand this width to capture all upland habitat that may be available to the subspecies. We also believe that the available scientific information does not support a change to our previous determination of the 0.7 mi (1.1 km) dispersal distance. For more information see the Primary Constituent Elements Section below.

(13) *Comment:* One commenter expressed concern at our apparent lack of recognition of the tenuous situation the California red-legged frog is in due to its apparent dependence on stock ponds as habitat. Additionally, the commenter suggested that the California red-legged frog cannot rely on stock ponds as a substitute for naturally occurring ponds, streams, or other naturally occurring aquatic habitat.

Our Response: As outlined in the revised proposed rule, we recognize stock ponds are usually aquatic habitat of poorer quality than naturally occurring ponds, and we do not consider stock ponds as replacement habitat for naturally occurring ponds or streams. Hydroperiods (amount of time the stock pond contains water) may be so short (e.g., when early drawdown of irrigation ponds occurs) that larvae and tadpoles do not have sufficient time to complete metamorphosis. Artificial ponds also require ongoing maintenance and are often temporary structures. Natural soil erosion, sometimes increased by pond breaching; livestock impacts; and off-road vehicle (ORV) use can cause ponds to silt in after a few decades (Hamilton and Jepson 1940), thereby reducing their quality as frog habitat. Often ponds are not maintained because it may be more economical to construct a new pond when the old pond fills with silt and is no longer functional (Hamilton and Jepson 1940). Finally, stock ponds are often geographically isolated from other seasonal wetlands, and colonization of newly created ponds beyond the normal dispersal range may be slow or nonexistent (Pechmann et al. 1989).

Populations of nonnative introduced predaceous fish and bullfrogs, although less prevalent than in natural habitats, sometimes become established in stock ponds and have been implicated in the decline of other amphibian species (Fisher and Shaffer 1996; Hayes and Jennings 1986; Moyle 1973). We also recognize that stock ponds may facilitate the spread of nonnative organisms by providing aquatic habitats in arid landscapes that otherwise may have served as barriers to the spread of such organisms. Despite these potential adverse impacts, the long-term effect of construction of stock ponds on the subspecies is either neutral or beneficial, because the California red-legged frog would have likely been extirpated from many areas if stock ponds had not been built and maintained for livestock production and ranching.

(14) *Comment:* One commenter stated that the units are too small, need to be connected, and should be large contiguous blocks of critical habitat.

Our Response: We used the best scientific information available in determining those areas essential for the California red-legged frog and thus proposed as critical habitat. During our determination process, we considered several criteria in the selection of areas that contain the features essential for the conservation of California red-legged frog. We disagree that all critical habitat units need to be connected within very large contiguous blocks of habitat. Connecting large areas of unknown occupancy, which may or may not support California red-legged frogs or the PCEs, would not materially contribute to the conservation of the subspecies. For more information, please see the Criteria Used to Define Critical Habitat section.

(15) *Comment:* One commenter disagreed with our time estimate that a water feature must hold water for a minimum of 15 weeks to be considered essential breeding habitat and stated that California red-legged frogs would be more common in vernal pool habitats if 15 weeks was sufficient time to complete breeding and metamorphosis.

Our Response: We agree that setting the minimum time to 15 weeks for essential breeding habitat does not provide sufficient time to complete breeding and metamorphosis. Depending on water temperatures, eggs may hatch in 7 to 14 days (Jennings 1988). Eggs may require approximately 3 weeks to develop into tadpoles, and an additional 11–20 weeks to develop into terrestrial frogs (Storer 1925; Wright and Wright 1949; Bobzien et al. 2000). To be considered essential breeding habitat (PCE 1), we have changed the amount of time a water feature must hold water from 15 weeks to 20 weeks, which is an average of the above estimates required for egg and tadpole development into terrestrial frogs. For more information, see the Primary Constituent Elements section below.

(16) *Comment:* Two commenters questioned why we did not designate critical habitat solely within the California red-legged frog recovery plan core area units.

Our Response: Several critical habitat units fall entirely within, or within portions of, recovery plan core areas. The Recovery Plan for the California red-legged frog was completed in 2002 (Service 2002). In developing this critical habitat designation, we used the latest scientific information available, which includes the 2002 Recovery Plan. We also incorporated more recent survey data (CNDDB 2005) and literature (e.g., Bulger et al. 2003; Alvarez 2004; Fellers and Guscio 2004; Fidenci 2004; Shaffer et al. 2004; Tatarian 2004; Fellers and Kleeman 2005). We used all available data to determine the PCEs and develop a strategy for determining areas (i.e., critical habitat units) essential to the conservation of the subspecies. All the units are described in the Critical Habitat section below. We recognize areas other than those designated as critical habitat, such as those defined in the recovery plan, may be important for the eventual recovery of the California red-legged frog. However, these areas did not meet our criteria for being essential. See also response to Comment 10 above.

Comments Related to Site-Specific Areas

(17) *Comment:* One commenter stated that the Unit MNT–2 in Carmel Valley should not be included in the designation because the area already is subject to county and State controls. The commenter also states that the area is not essential for the subspecies.

Our Response: Based upon the information we received, we cannot confirm that Monterey County and the State of California have instituted regulatory controls that would render the critical habitat designation redundant in Unit MNT–2. We believe that Unit MNT–2 meets the criteria we have adopted for determining whether an area should be considered essential.

(18) *Comment:* Numerous commenters were opposed to the revised proposed designation of critical habitat unit CAL–1. They suggest an alternate designation of lands in the Mokelumne River watershed surrounding Pardee Dam Reservoir (managed by East Bay Municipal Utility District (EBMUD)) and/or lands surrounding New Hogan Dam (managed by the U.S. Army Corps of Engineers), suggesting these areas are more suitable for the conservation of the frog as they are managed as protected open spaces. Several commenters questioned our designation of critical habitat in the proposed unit CAL–1, stating Young's Creek is designated as a seasonal stream and is dry during 3–4 months of an average rainfall year. Additionally, other commenters indicated other ponds in the area are also of a seasonal nature, and may be dry by early June in a typical year.

Our Response: Unit CAL–1 contains all the features identified in the PCEs and meets the definition of being essential for the conservation of the California red-legged frog. However, in order to preserve and encourage ongoing partnership activities, we have excluded all of unit CAL–1 from the final designation of critical habitat for the California red-legged frog. See *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* below for more information.

(19) *Comment:* One commenter provided information from EBMUD's website that suggests that California red-legged frogs have been found in surveys conducted in the Mokelumne River watershed, and therefore this area would be more appropriate for the designation of critical habitat than CAL–1.

Our Response: EBMUD's website provides information on California red-legged frogs found in surveys of EBMUD lands in their land holdings east of San Francisco Bay (the East Bay area). However there was no mention of California red-legged frogs found in surveys conducted in the Mokelumne River watershed (EBMUD Mokelumne Watershed Wildlife web page viewed January 25, 2005). For further confirmation, we contacted an EBMUD biologist who has extensive field experience in the lower Mokelumne River watershed, and the biologist confirmed that no California red-legged frogs had been found in EBMUD's Mokelumne River holdings (Reeves pers com. 2006). Additionally, we have excluded all of unit CAL–1 from the final designation of critical habitat for the California red-legged frog. See *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* below for more information.

(20) *Comment:* One commenter stated there is no evidence that the Burnt Bridge Creek watershed supports a population of California red-legged frogs, and a herpetological survey stated that breeding and summer habitat was seemingly absent from Burnt Bridge Creek. Therefore, based on the lack of documentation of the presence of the subspecies, YUB–1 should not be included in the designation of critical habitat.

Our Response: Unit YUB–1 contains all the features identified in the PCEs and meets the definition of being essential for the conservation of the California red-legged frog. In the herpetological report cited by the commenter, Barry (2002) suggests California red-legged frog "breeding habitat and summer habitat is seemingly absent from accessible sections of Burnt Bridge Creek." However, Barry (2002) also states that portions of a terrace and ravine north of Burnt Bridge Creek and east of Oregon Hill Road have dense overgrown blackberry scrub vegetation and that there was some evidence of small ponds or boggy meadows under the vegetation. Prior to a fire in 1999 and discovery in 2000 of California red-legged frogs in Little Oregon Creek, that site was covered by similar blackberry scrub vegetation. Barry (2002), whose surveys were limited to U.S. Forest Service lands, also suggests other locations in the Dobbins and Cottage/Deadwood Creek watersheds that hold promise as California red-legged frog sites; however, due to the prevalence of private land in the area, those and other locations were not surveyed. California red-legged frogs are able to migrate considerable distances overland and have been shown to use small seeps and other wet areas during dispersal events. Additionally, portions of Burnt Bridge Creek are within the known dispersal capabilities of the California red-legged frog (e.g., Bulger et al. 2003) and are considered dispersal habitat as identified in PCE 4.

(21) *Comment:* One commenter requested that the North and South Fork of Webber Creek be excluded from critical habitat since both are fast flowing and would not be conducive to juvenile life stages of the California red-legged frog. However, the commenter suggests both creeks may support adult life stages after reduction of high winter and spring in-stream flows.

Our Response: In areas where streams are subject to high peak winter and spring flows, California red-legged frogs tend to adjust breeding timing and habitat use to coincide with reduction of peak, scouring flows (Fellers pers com. 2004; Bobzien pers com. 2005). Additionally, in determining which areas to designate as critical habitat, we consider those physical and biological features (PCEs) that are essential to the conservation of the subspecies, that are within areas occupied by the subspecies at the time of listing, and that may require special management considerations and protection. This designation is designed for the conservation of PCEs necessary to support the life history functions of the

subspecies. Because not all life history functions require all the PCEs, not all critical habitat will contain all the PCEs.

(22) *Comment:* El Dorado County requested to be excluded from the designation of critical habitat based on the County's general plan.

Our Response: We have reviewed El Dorado County's general plan and found no measures specific to the conservation of the California red-legged frog. The County identifies numerous goals in the Conservation and Open Space Element within its general plan; however, no specific measures with respect to the conservation of the primary constituent elements for the California red-legged frog are mentioned. While we value El Dorado County's voluntary agreement in the interagency protection of Spivey Pond, based on the general plan, we have not excluded El Dorado County in its entirety from designated critical habitat. We have, however, excluded those areas being managed by the Bureau of Land Management (BLM) at Spivey Pond in El Dorado County based on an interagency land use management plan (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* below).

(23) *Comment:* One commenter opposed the designation of the Hearst Corporation's Jack Ranch property in SLO–1. The commenter stated that many areas on the portion of the Jack Ranch within SLO–1 are extremely arid and would not support a California red-legged frog population and, therefore, do not meet the definition of critical habitat. The commenter also argued that the Jack Ranch property does not meet the definition of critical habitat because the property does not require special management considerations or protection. The commenter stated that the Jack Ranch has been responsibly managed for over 40 years in a manner that has protected and benefited the various natural habitats on the ranch. Alternatively, the commenter argued, the Jack Ranch property should be excluded from critical habitat because the benefits of excluding the ranch outweigh the benefits of including it. The commenter asserted that, as a result of the current ranch management practices in place on the Jack Ranch, the various habitats and species present on the ranch are generally flourishing and will continue to benefit if these practices are allowed to continue. The commenter argued that designating the ranch as critical habitat would create regulatory uncertainty, impose economic burdens on the landowner, and increase vulnerability to legal challenge that could threaten the area's long-term viability as a working ranch.

Our Response: Section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographic area occupied by the species on which are found those physical and biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection. Our criteria for determining features essential to the conservation of the subspecies target areas known to be occupied by California red-legged frog at the time of listing; determined to be occupied since the time of listing; or known to possess high-quality habitat likely to be occupied based on proximity to known occurrences, contiguous habitat, and dispersal capabilities of the California red-legged frog. We included large blocks of contiguous habitat that: Provide geographic distribution across the range of the subspecies; contain high-quality habitat; allow for the long-term viability of the subspecies; represent the full range of habitat and environmental variability the subspecies occupies; avoid conflict with existing commercial and residential development; focus on public lands where available; and, where possible, overlap with other critical habitat designations.

As noted in the unit description for SLO–1, this area was known to be occupied by California red-legged frogs at the time of listing and subsequently and contains the following features that are essential for the conservation for the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). (See unit description for SLO–1, Cholame, below). Also as noted in the unit description, threats that may require special management in this unit include: highway construction, which may remove upland or aquatic habitat; overgrazing of aquatic and riparian habitats; and dewatering of aquatic habitats due to water diversions. Therefore, based on the criteria above, occupancy at the time of listing, and the requirement for special management, we have designated SLO–1 as critical habitat, including a portion of the Jack Ranch property within SLO–1.

We recognize that routine ranching activities may be beneficial to the California red-legged frog. Therefore, in conjunction with the designation of critical habitat, we are promulgating a special rule under the authority of section 4(d) of the Act containing the actions and prohibitions necessary to provide for the conservation of the California red-legged frog. The prohibitions outlined in the special rule do not include the take of California red-legged frog during existing routine ranching practices. We believe that this special rule will encourage landowners and ranchers operating on non-Federal land to continue their livestock-related practices that are not only important for livestock operations, but that also provide habitat for the California red-legged frog. See also response to Comment 38 and Special Rule section below.

(24) *Comment:* One commenter stated that 6,400 acres (2,590 ha) of unit SLO–1 should be excluded from the designation because it does not occur within the Cholame Creek watershed. It is the understanding of the commenter that the Cholame Creek watershed is where California red-legged frogs have been documented to occur.

Our Response: Although the unit description for SLO–1 states it "includes locations in the Cholame Creek watershed," California red-legged frogs have also been documented in 2001 (CNDDB 2005) within the watershed for Jack Canyon, which drains toward the San Joaquin Valley. Therefore, we included the area in question in the critical habitat designation as it is occupied, contains the PCEs, and meets our criteria for determining areas essential for the conservation of the subspecies.

(25) *Comment:* One commenter was opposed to the inclusion of land covered under the Hearst Ranch Conservation Agreement in coastal San Luis Obispo County, a portion of which occurs within units SLO–2 and SLO–3. The commenter argued that, because of the level of protection provided by the Hearst Ranch Conservation Agreement, these areas either do not fall within the definition of critical habitat contained in section 3 of the Act or should be excluded under section 4(b)(2) of the Act. The commenter asserted that California red-legged frogs will be protected through specific measures addressed in Hearst Ranch's draft management plan. In addition, the commenter argued that inclusion of land covered under the Hearst Ranch Conservation Agreement would discourage voluntary conservation initiatives on private lands.

Our Response: We recognize the importance of voluntary conservation measures, such as the Hearst Ranch Conservation Agreement and future management plans, that benefit federally listed, proposed, candidate, or other at-risk species. Both unit SLO–2 and SLO–3 have been excluded under section 4(b)(2) of the Act for economic reasons. See the section *Relationship of Critical Habitat to Economic Impacts—*

Exclusions Under Section 4(b)(2) of the Act below for additional information.

(26) *Comment:* One commenter was opposed to the designation of those portions of the Flood Family Ranch Company's property located in units STB–1 and STB–3. The commenter stated that the continuation of cattle grazing on the ranch would be threatened by the critical habitat designation. The commenter expressed concerns that the designation of critical habitat included areas where new vineyards are planned and that the designation would prevent the development of these vineyards. The commenter also argued that the designation would interfere with existing mining activities that occur along the main stem of the Sisquoc River, which runs through the ranch property. The commenter provided information and maps showing the locations of the planned vineyards and mining areas. Finally, the commenter contended that the designation of the ranch lands as critical habitat for the California red-legged frog is improper and unwarranted. The commenter asserted that the Service did not use the best available science for the designation because the Service did not survey the area for the presence of the subspecies and/or the presence of PCEs. To support this, the commenter contended that California red-legged frogs have never been observed in STB–1, yet we proposed designating this area as critical habitat for the California red-legged frog. The commenter further asserted that the Service did not identify any specific special management considerations and protections required within the revised proposed critical habitat areas.

Our Response: Maps and other information provided by the commenter, which show the location of planned vineyards and mining areas, confirm that these areas were not part of the revised critical habitat proposal (70 FR 66906; November 3, 2005) and are not included in this final designation of critical habitat for the California red-legged frog.

Although we did not conduct surveys for California red-legged frog during the course of designating critical habitat, we did use the best scientific data available, in accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12. As noted in the unit descriptions (see STB–1, La Brea Creek unit description, and STB–3, Sisquoc River unit description, below) occurrence records from the time of listing exist for both STB–1 and STB–3. The unit descriptions for both STB–1 and STB–3 also included special management considerations for each unit.

We recognize that routine ranching activities may be beneficial to the California red-legged frog. Therefore, as part of this final rule, we are promulgating a special rule under the authority of section 4(d) of the Act containing the actions and prohibitions necessary to provide for the conservation of the California red-legged frog. The prohibitions outlined in the special rule do not include the take of California red-legged frog during existing routine ranching practices. We believe that this special rule will encourage landowners and ranchers operating on non-Federal land to continue their livestock-related practices that are not only important for livestock operations, but also provide habitat for the California red-legged frog.

(27) *Comment:* One commenter stated that the portion of Piru Creek between Pyramid Lake and Lake Piru in Ventura County (unit VEN–3) is a unique fishing area for residents of southern California and would be closed to public access if critical habitat were designated.

Our Response: The designation of critical habitat does not establish a refuge, wilderness, reserve, preserve, or other conservation area, and we do not anticipate that this fishing area would be closed as a result of it being designated as critical habitat for the California red-legged frog. In addition, this area was designated as critical habitat in the March 13, 2001, final critical habitat designation (66 FR 14626), and there was no closure as a result of that designation. The U.S. Fish and Wildlife Service consults regularly with the U.S. Forest Service on various projects within Los Padres National Forest, and can work with the U.S. Forest Service to develop protective measures and conservation measures that are compatible with continued public access.

Comments Related to Mapping

(28) *Comment:* Several commenters on the April 13, 2004, proposed rule stated that the 4.1 million acres proposed was excessive. Some questioned whether a species that can be found on 4.1 million acres should be listed under the Act.

Our Response: The original proposed rule was very expansive, included areas that did not contain one or more of the PCEs, and were not occupied. We do not now consider those areas to be essential to the conservation of the California red-legged frog. As a result of public comment, refined methodologies, and more detailed analyses of the maps, this final designation has been revised to include only those areas with features we consider to be essential to the conservation of the subspecies. As a result, this final designation is much smaller than the original proposed rule.

(29) *Comment:* A number of commenters identified specific areas that they thought should not be designated as critical habitat.

Our Response: We made an effort to avoid developed areas, such as housing and commercial developments, that are unlikely to contribute to the conservation of the California red-legged frog. We also avoided fragmented areas such as those surrounded by development. Areas within the boundaries of the mapped units, such as buildings, roads, parking lots, railroads, canals, levees, airport runways, other paved areas, lawns, and other urban landscaped areas do not contain the PCEs and, therefore, are not critical habitat and are not included in this designation. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect the subspecies and/or the PCEs in adjacent critical habitat. We avoided known areas of intensive agriculture. Agricultural lands may have been included if they were within areas identified as necessary for dispersal or connectivity between known occurrences. Where site-specific documentation was submitted to us providing a rationale as to why an area should not be designated critical habitat, we evaluated that information in accordance with the definition of critical habitat pursuant to section 3(5)(A) of the Act and the provisions of section 4(b)(2) of the Act. We evaluated the parcels to determine whether modifications to the proposal were warranted. We further examined the proposed critical habitat areas and refined the boundaries to exclude those areas that did not, or were not likely to, contain PCEs for the subspecies, wherever technically feasible. Please refer to the Summary of Changes from the Revised Proposed Rule section for a more detailed discussion.

(30) *Comment:* One commenter requested we remove Snows Quarry from the critical habitat designation which is located within unit ELD–1 because it does not contain the PCEs necessary for the conservation of the California red-legged frog.

Our Response: We have re-evaluated the inclusion of Snows Quarry and concur with the commenter that Snows Quarry does not contain the PCEs necessary for the conservation of the California red-legged frog and therefore should not be included in the critical habitat designation. Due to technical

mapping constraints we did not remove Snows Quarry from unit ELD–1. See the unit description for ELD–1 for more information.

(31) *Comment:* Several commenters requested that we consider designation of alternate areas adjacent to proposed critical habitat or additional areas as critical habitat.

Our Response: We believe we have appropriately designated critical habitat after careful consideration of all the potential areas. See Critical Habitat section for complete discussion of our methods and our response to Comment 10 above.

Comments Related to Regulatory Burden

(32) *Comment:* One individual who provided comments on our April 13, 2004 proposed rule stated that the Service failed to properly document adverse human health or environmental effects of the designation on minority populations and low-income populations, and failed to make those documents public. The commenter did not provide any specific information on whether they believed that disproportionately high human health or environmental impacts would occur to a particular population segment.

Our Response: Executive Order 12898 states that Federal agencies should, to the greatest extent practicable and permitted by law, identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority population and low-income populations. The proposed rules provided information to the public on the designation, areas affected, and types of management actions that may result from the final designation. The designation of critical habitat will not result in any adverse human health or environmental effects on the public, including minority and low-income populations.

(33) *Comment:* Numerous commenters asserted that the designation of critical habitat results in an increased regulatory burden, increased landowner costs, and restricted land uses and property rights.

Our Response: The economic analysis identifies the potential economic costs that may accrue as a result of this designation. These costs will be incurred when a Federal approval or permit is required, or Federal funds are involved with a project proposed on private property. Routine ranching activities are also exempt from take under the new 4(d) rule at 50 CFR 17.43(d).

While the designation of critical habitat does not itself result in the regulation of non-Federal actions on private lands, the listing of the California red-legged frog under the Act may affect private landowner's actions. Actions that could result in take of California red-legged frog (e.g., draining ponds or diverting water from creeks during the breeding season) require authorization for take following consultation under section 7 or an incidental take permit under section 10 of the Act. Because the California red-legged frog has been listed since 1996, proposed actions on private lands that require Federal authorization or funding that may affect the listed entity already undergo consultation under section 7 to ensure that their actions are not likely to jeopardize the continued existence of the subspecies. Future consultations involving private lands will also analyze the effect of the proposed action on designated critical habitat when a Federal nexus exists.

Comments Related to Property Rights

(34) *Comment:* One commenter asserted the designation of critical habitat constitutes an uncompensated taking and is therefore illegal.

Our Response: The designation of critical habitat does not mean that private lands would be taken by the Federal government or reasonable uses would not be allowed. We evaluate this rule in accordance with Executive Order 12630, and we believe that this designation of critical habitat for the California red-legged frog will not have significant takings implications. We determined that: (1) The designation would result in little additional regulatory burden above that currently in place, as the subspecies is already federally listed and the majority of the area designated is occupied by the subspecies; and (2) the designation of critical habitat will not affect private lands on which there is not a Federal nexus. We do not anticipate that property values, rights, or ownership will be significantly affected by the critical habitat designation.

Comments Related to Public Notification

(35) *Comment:* Several commenters stated that we failed to properly notify landowners concerning the proposed critical habitat designation. Furthermore, several commenters have suggested we should extend the public comment period to provide adequate time to address the proposed critical habitat designation.

Our Response: The proposed critical habitat designation was published in the **Federal Register** on April 13, 2004 (69 FR 19364), and we accepted comments from all interested parties for 60 days, ending June 14, 2004. We then extended the public comment period for an additional 30 days (69 FR 32966; June 14, 2004). The revised proposed critical habitat designation was published in the **Federal Register** on November 3, 2005 (70 FR 66906), and we accepted comments from all interested parties for 90 days, ending February 1, 2006. For each rule, the Service also wrote press releases that resulted in newspaper articles throughout California. We held two public workshops where we discussed opportunities for the public to comment and provide input and information. Thus, although we did not specifically notify individual landowners within the designation, we believe we provided adequate opportunity for individuals to review and provide comment on the original and revised proposed rules. We also specifically solicited and received comments from peer reviewers on the revised proposed (70 FR 66906) and previously proposed (69 FR 19620) designation for the California red-legged frog. We have a court-ordered date of March 31, 2006, to finalize a designation for the subspecies. Any additional extensions of the comment period would not have allowed us to complete the designation by that court-ordered date.

Comments Related to Department of Defense Lands

(36) *Comment:* In response to our April 13, 2004, proposed designation (69 FR 19620), the Department of the Army requested that Camp Parks not be designated as critical habitat pursuant to regulations under section 4(a)(3) of the Act. The Army stated that Camp Parks has finalized and implemented an approved INRMP that identifies specific conservation measures for the California red-legged frog.

Our Response: We concur with the Army that it has completed a Service approved INRMP for Camp Parks and that the plan specifically identifies conservation measures for the California red-legged frog. However, as a result of revising our criteria and methodology, we did not identify critical habitat within the Camp Parks area, and, as a result, no section 4(a)(3) determination was necessary. The Camp Parks area is not designated as critical habitat.

(37) *Comment:* The Departments of the Army and Air Force commented that Camp San Luis Obispo (CSLO) has a finalized Integrated Natural Resource Plan (INRMP) that contains management actions that benefit the California red-

legged frog and its habitat. They have requested that CSLO be excluded from designation of critical habitat for the California red-legged frog.

Our Response: We agree with the commenter and, pursuant to the statutory exemption in section 4(a)(3) of the Act for Department of Defense lands that have a completed INRMP that provides a benefit for the subspecies, have not included any lands at CSLO in this final designation based on their INRMP (see the *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below for a detailed discussion).

Comments Related to the Proposed Special (4(d)) Rule

(38) *Comment:* One commenter stated the Service must carry out a NEPA analysis on the special rule because it would reduce protection of the California red-legged frog otherwise afforded to it by its listing in 1996.

Our Response: On recommendation from the Council of Environmental Quality, we have determined that Section 4 listing actions are exempt from NEPA (48 FR 49244). NEPA requires Federal agencies to prepare an environmental impact statement for major Federal actions significantly affecting the quality of the human environment (42 U.S.C. 4332(2)(c)).

In a judicial order and in *Center for Biological Diversity et al.* v *U.S. Fish and Wildlife Service et al.* (Case No. 3:04CV04324–WHA (E.D. Cal) (Filed August 19, 2005) the court confirmed our position and found that NEPA was not required for section 4 listing actions. In the ruling, the court deferred to the Council of Environmental Quality's view that NEPA does not apply to Section 4 actions. The court went on to state that NEPA would, if applicable, confuse matters and the opportunity for public comment, which is part of the section 4 listing and critical habitat designation process under the Act. The process ensures that information regarding how a listing action impacts the public and the environment is part of the decision-making process, and, therefore, it would make no sense to overlay the NEPA scheme on top of Section 4.

(39) *Comment:* Many commenters were generally supportive of the proposed 4(d) rule for the California red-legged frog, but were concerned that we are limiting its definition of "routine ranching activities" to only those mentioned in the revised proposed rule. Additionally, one of the commenters questioned whether new ranching management practices or changes to existing, routine ranching management practices would also be exempted.

Our Response: We recognize livestock ranching as a dynamic process, which requires the ability to adapt to changing environmental and economic conditions. However, many of the activities essential to successful ranching are considered routine, and are undertaken at various times and places throughout the year as need dictates. Although the special rule is not intended to provide a comprehensive list of those ranching activities considered routine, some examples include: maintenance of stock ponds; fence construction for grazing management; planting, harvest, and rotation of unirrigated forage crops; maintenance and construction of corrals, ranch buildings, and roads; discing of field sections for fire prevention management; control of noxious weeds by prescribed fire or by herbicides; placement of mineral supplements; and rodent control. The final version of the special rule includes an expanded definition of routine ranching practices and incorporates additional activities we believe are consistent with the conservation of the California red-legged frog. These activities are those that may provide conservation benefits to the California red-legged frog. The ranching activities listed in this document (see also Special Rule section) are merely examples of practices that we consider to be routine to managing an active ranching operation. Our intention is not to limit activities that may be necessary to the operation of a ranch. For further discussion, clarification, and a non-inclusive list of additional activities considered routine ranching practices, see the Special Rule section below.

(40) *Comment:* One commenter requested that we clarify the statement which was included in the special rule section of the re-proposed rule related to stock pond water levels; "(4) routine management and maintenance of stock ponds and berms to maintain livestock water supplies at levels present at the time of the finalization of this special rule".

Our Response: We recognize livestock ranching as a dynamic process, which requires the ability to adapt to changing environmental and economic conditions. As such we have exempted the routine hydroperiod management of ranching operation stock ponds. The term levels as used above was not intended to set a particular level of water in a stock pond at the time the special rule is finalized. Stock ponds and water levels can be continued to be maintained as necessary to continue the viability of livestock ranching operations. For more information about stock pond hydroperiod management see the *Special Rule* section below.

(41) *Comment:* One commenter questioned whether non-ranching lands converted to ranching would be covered by the special rule, and whether the special rule applies to ranches when they change ownership.

Our Response: The special rule exempts routine ranching practices and does not constitute an exemption from critical habitat itself. The special rule does not apply to specific owners of ranching property, but to the practices that are used to manage the land. As long as routine ranching management practices are maintained when ownership changes, or instituted when land is converted from another use and subsequently managed as ranchland, incidental take of California red-legged frogs resulting from the practice of routine ranching activities will not be a violation of the prohibition identified in section 9 of the Act. For further discussion, clarification, and a non-inclusive list of additional activities considered routine ranching practices, see the Special Rule section below.

(42) *Comment:* Several commenters requested the 4(d) rule be expanded to include agricultural lands and practices related to managing agricultural lands.

Our Response: In the revised proposed rule, we state that agricultural lands such as row crops, orchards, vineyards, and pastures do not constitute barriers to dispersal for the California red-legged frog. We also state agricultural features such as drains, watering troughs, stacks of hay, or other vegetation can serve as temporary shelter for the California red-legged frog during dispersal events. Additionally, ponds used for irrigation of crops in the summer months can provide suitable breeding habitat with proper water management focused on the California red-legged frog life cycle. We also recognize some agricultural practices pose a threat to the California red-legged frog due to loss and modification of habitat. Intensive agriculture often replaces natural varied habitat with monotypic vegetation. Fisher and Shaffer (1996) studied historic records and conducted field surveys for amphibians in the Sacramento and San Joaquin Valleys and the Coast Range. The authors note that amphibian declines may be due in part to introduced exotic species and intensively modified habitat. In the San Joaquin Valley, the authors suggest declines noted there may be due to intense farming, resulting in uninhabitable pools and ponds for

native amphibians and even for introduced exotic species.

While we recognize some agricultural practices, such as routine ranching practices, may provide some beneficial features for the California red-legged frog, we conclude, however, that an exemption for all routine agricultural practices (e.g., dairy, orchard, vineyard, and row crop activities) is not appropriate for the conservation of the California red-legged frog.

(43) *Comment:* Several commenters were opposed to the proposed 4(d) rule because some nonessential routine ranching activities could degrade habitat.

Our Response: The purpose of the 4(d) rule is to recognize the larger conservation value of maintaining existing rangeland habitats that support the California red-legged frog, even though some specific activities may adversely affect the subspecies. Activities likely to occur in those landscapes, should ongoing ranching be removed, such as irrigated agriculture or urban development, remove and fragment upland and aquatic habitats used for breeding, foraging, and migration, which are essential for the subspecies to complete its life cycle. We believe that exemption of the ranching activities described in the special rule results in a net benefit to the conservation of the California red-legged frog (see Special Rule section below).

To the extent ranching activities are compatible with the California red-legged frog, we wish to encourage such activities to continue. We believe that relaxing the general take prohibitions on specific types of non-Federal lands through the special rule is likely to encourage continued responsible ranching, a land use that can provide an overall benefit to the California red-legged frog. We also believe that such a special rule will promote the conservation efforts and partnerships critical for the recovery of the subspecies. We have further described these benefits in our final version of the special rule below. We have committed to monitor the status of the California red-legged frog in areas where exempted activities occur (see section on Special Rule). We hope to enlist the partnership of the ranching community in education and outreach efforts, and through our Conservation Partnerships program.

(44) *Comment:* One commenter stated the 4(d) rule is not necessary or advisable for the conservation of the California red-legged frog.

Our Response: Section 4(d) of the Act imparts the authority to issue regulations necessary and advisable to provide for the conservation of threatened species. Under section 4(d), the Secretary may publish a special rule that modifies the standard prohibitions for threatened species under the implementing regulations for section 9 of the Act at 50 CFR 17.31 with special measures tailored to the conservation of the subspecies. We believe that, in certain instances, easing the general take prohibitions on non-Federal lands may encourage continued responsible land uses that provide an overall benefit to the subspecies. We also believe that such a special rule will promote the conservation efforts and private lands partnerships critical for subspecies recovery (Wilcove et al. 1996; Knight 1999; Main et al. 1999; Norton 2000; Bean 2002; Conner and Matthews 2002; Crouse et al. 2002; James 2002; Koch 2002).

(45) *Comment:* One commenter stated the Service's conclusion that grazing and ranching are neutral or beneficial to the California red-legged frog is not supported, and the record demonstrates the adverse impacts of grazing on the California red-legged frog.

Our Response: In the 1996 final listing rule for the California red-legged frog (61 FR 25813), we cite livestock grazing as a contributing factor in the decline of the subspecies. We also cited many studies in that rule and in the revised proposed critical habitat designation that overgrazing of riparian areas causes detrimental effects to aquatic systems. Numerous studies, summarized by Kauffman and Krueger (1984) and Belsky et al. (1999), have shown that unmanaged livestock grazing (overgrazing) can negatively affect riparian and instream aquatic habitat. Some of the effects of unmanaged grazing include: higher instream water temperatures resulting from reduction or removal of vegetation; channel downcutting; lowered water tables and loss of plunge pools, which results in direct loss of pool habitats for the California red-legged frog (Patla and Keinath 2005); and diminished water quality through increased sediment loads and nutrient levels (Belsky et al. 1999). The Service does recognize that overgrazing has contributed to the decline of the California red-legged frog.

However, as we state in the revised proposed rule, our understanding of the threats of livestock grazing and stock pond development described in the previous final listing of the subspecies has changed. Stock pond and small reservoir impoundments can provide suitable breeding habitat for the California red-legged frog. In many areas, the presence of California red-legged frogs is due solely to these small ponded habitats. For example, at the Point Reyes National Seashore in Marin County, an area where there are more than 120 breeding sites with an estimated total adult population of several thousand California red-legged frogs, the majority of the breeding sites are within stock ponds constructed on lands that have been grazed by cattle for over 150 years (Fellers and Guscio 2004). In the East Bay Regional Park District (EBRPD) lands in Contra Costa and Alameda counties, 43 of the 179 ponds surveyed (25 percent), which were exposed to grazing and were characterized as with and without emergent vegetation, supported successful breeding frog populations and often exhibited high rates of annual breeding (Bobzien et al. 2000). Ponds can silt in after being fenced off from moderate levels of grazing. EBRPD is currently removing fences and restoring ponds as California red-legged frog habitat (Bobzien pers com. 2005). We now recognize that managed livestock grazing at low to moderate levels has a neutral or beneficial effect on California red-legged frog habitat (Bobzien pers com. 2005) by keeping a mix of open water habitat and emergent vegetation. Therefore, we believe grazing helps contribute to the conservation of the California red-legged frog and its habitat. For more information on the special rule, see the Special Rule section below.

(46) *Comment:* One commenter stated the Service should impose safeguards and controls on ranching activities that could be harmful to the California red-legged frog.

Our Response: We recognize some routine ranching activities have the potential for take of the California red-legged frog. However, we are adopting a special rule to exempt take of the California red-legged frog due to routine ranching activities because we believe that easing the general take prohibitions on non-Federal lands may encourage continued responsible land uses that provide an overall benefit to the subspecies. We also believe that such a special rule will promote the conservation efforts and private lands partnerships critical for subspecies recovery (Wilcove et al. 1996; Knight 1999; Main et al. 1999; Bean 2002; Conner and Matthews 2002; Crouse et al. 2002; James 2002; Koch 2002; Norton 2000). However, in easing the take prohibitions under section 9 of the Act, the measures that we have developed in the special rule also contain prohibitions necessary and appropriate to conserve the California red-legged frog. We provide examples of routine ranching practices that are exempt from the take prohibitions under section 9 of

the Act. We also provide suggestions to minimize the take of California red-legged frogs while conducting some routine ranching activities. Our intent is not to create an additional regulatory burden on ranching operations. Our basis for not attempting to regulate routine activities is that, ultimately, we believe that a rancher acting in the best interest of maintaining a sustainable ranching operation is also providing incidental but significant conservation benefits for the California red-legged frog. We recognize that most ranching operations operate on a thin financial margin, and additional regulatory requirements could push some operations to bankruptcy. We believe that sensible ranching operations are compatible with California red-legged frog conservation and recovery, while alternate land uses such as high density urban development, which could replace failed ranching operations, is not compatible. To the extent ranching activities are compatible with the California red-legged frog, we wish to encourage such activities to continue. We believe that relaxing the general take prohibitions on specific types of non-Federal lands through the special rule is likely to encourage continued responsible ranching, a land use that can provide an overall benefit to the California red-legged frog, as opposed to alternative uses. We also believe that such a special rule will promote the conservation efforts and partnerships critical for the recovery of the subspecies. We have further described these benefits in our final version of the special rule. We have committed to monitor the status of the California red-legged frog in areas where exempted activities occur and we hope to enlist the partnership of the ranching community in education and outreach efforts, and through our Conservation Partnerships program. For more information on the special rule, see the Special Rule section below.

Comments From Local Non-Governmental Entities

(47) *Comment:* The Pacific Gas and Electric Company (PG&E) requested that their facilities, including transmission line right-of-ways, be removed from the designation. PG&E stated that the designation of critical habitat would lead to an increased regulatory burden as a result of the section 7 consultation process. PG&E also stated that they are working with us on developing a Habitat Conservation Plan (HCP) and that these areas and areas considered under future Habitat Conservation Plans be excluded from the designation.

Our Response: In our determination of critical habitat, we included only those areas that we determined to contain the features identified in the PCEs and are thus essential to the conservation of the subspecies. To the greatest extent possible, we avoided designating critical habitat adjacent to developed areas and areas containing buildings, electrical substations, and other urban infrastructure related to the distribution and transmission of electricity. However, we did not remove areas under electrical transmission lines or areas within the transmission line right-of-ways from the designation. Although these areas have experienced disturbance in the placement of the transmission line and towers, they still provide at a minimum upland foraging or dispersal habitat, and where the transmission lines cross over streams or ponds, they potentially provide breeding habitat for the California red-legged frog. Because the areas under electrical transmission right-of-ways still contain the PCEs, we did not remove these areas from the designation.

Generally we do not consider excluding critical habitat from an area based on a HCP where the conservation measures have not yet been determined or that has not yet been released to the public for review. Prematurely excluding such areas may significantly influence the outcome of the planning process and limit the effectiveness of the intended conservation activities for the plan. Therefore we have not excluded PG&E transmission right-of-ways from this final designation. For more information on our exclusions see section *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* below.

(48) *Comment:* East Bay Regional Park District (EBRPD) requested clarification of the phrase "portions of" in a statement included in the revised proposed rule regarding exclusion of EBRPD lands from critical habitat.

Our Response: We analyzed all EBRPD lands for exclusion from critical habitat and have concluded that EBRPD lands within units CCS–1B and ALA–1A are excluded from the final critical habitat designation. See the section *Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act* below for additional information.

Comments From Other Federal Agencies

(49) *Comment:* In response to our April 13, 2004, proposed designation (69 FR 19620), the U.S. Forest Service provided habitat survey, occurrence record, and distributional information regarding the California red-legged frog in the Sierra National Forest. They stated that our general characterization of the subspecies being typically found from sea level to 5,000 ft (1,500 m) does not accurately reflect the distribution of the subspecies in the Sierra Nevada Mountains.

Our Response: As a result of the comments received, we revised our methodology and criteria for designating critical habitat. In the revised proposed and this final designation, we did not include U.S. Forest Service land in the Sierra National Forest within this final designation. We also reviewed information within our recovery plan (Service 2002) and occurrence record information (CNDDB 2005) and concur with the U.S. Forest Service that the vast majority of occurrences of the subspecies within the Sierra Nevada Mountains occur below 4,000 ft (1,200 m) and that occurrences found above this elevation are atypical for the subspecies. We have revised the final designation to reflect this information.

(50) *Comment:* In response to our April 13, 2004, proposed designation (69 FR 19620), the U.S. Forest Service provided habitat and survey information for the North Fork Feather River, on the Plumas National Forest, reporting only low to moderate quality habitat and absence of California red-legged frog occurrences. Based on this information, the U.S. Forest Service recommended a reduction in the size of unit 1 from the April 13, 2004, proposed critical habitat designation.

Our Response: Based on our revised methodology and criteria and information provided by the U.S. Forest Service, we have reduced the size of unit BUT–1 (formerly unit 1) to more accurately reflect the occurrence of California red-legged frogs in the Sierra foothills and identify areas containing the features essential to the conservation of the California red-legged frog. For more information see the Criteria Used To Identify Critical Habitat section below.

(51) *Comment:* In response to our April 13, 2004, proposed designation (69 FR 19620), the U.S. Forest Service provided habitat and survey information to support designation of an additional critical habitat unit in the area of the Little Oregon Creek California red-legged frog population. The U.S. Forest Service further recommended specific watersheds and sub-watersheds that could comprise the new critical habitat unit.

Our Response: We concur with the U.S. Forest Service that the population of California red-legged frogs at Little Oregon Creek warrants the designation

of critical habitat. Based on our revised methodology and criteria, we have designated critical habitat unit YUB–1, and we have excluded land from the final designation of critical habitat which is managed under the Sierra Nevada Forest Plan by the Plumas National Forest. For a further discussion of this exclusion see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

(52) *Comment:* The U.S. Forest Service, Plumas National Forest, requested that we clarify the management direction of units YUB–1 and BUT–1.

Our Response: Those portions of units YUB–1 and BUT–1 that are owned and managed by the U.S. Forest Service, Plumas National Forest, are managed both under the Sierra Nevada Forest Plan Amendment (SNFPA) and the Herger-Feinstein Quincy Library Group (HFQLG) Act direction. HFQLG projects planned or implemented within these units would follow the management direction set out in the 2004 HFQLG Record of Decision (ROD) for the SNFPA and the HFQLR ROD, Final Environmental Impact Statement and Final Supplemental Environmental Impact Statement. Non-HFQLG projects planned or implemented within the two units mentioned above would follow the management direction set forth in the 2004 SNFPA ROD. We have excluded all U.S. Forest Service lands in the Sierra Nevada from this final designation (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* below).

(53) *Comment:* The Plumas National Forest also requested we clarify our description of HFQLG vegetation management that we presented in the revised proposed rule. Additionally, they also requested we remove our term "avoidance zones" and replace it with the term "buffer", which is original to the HFQLG language.

Our Response: We identified only one of three vegetation management components that can occur under the HFQLG, *e.g.*, defensible fuel profile zones. The other two components of vegetation management that can be implemented under HFQLG are a silvicultural harvest method of Group Selections (1/2-to-2 acre harvest units where all conifer trees less than 30 inches diameter at breast height are removed) and Individual Tree Selection where selected trees are removed to meet desired conditions for canopy cover or basal area retention. Projects that implement vegetation management under HFQLG apply Scientific Analysis Team (SAT) guidelines for riparian area management. Additionally, non-HFQLG projects implement Aquatic Management Strategy guidelines from the SNFPA.

In our description of HFQLG defensible fuel profile zones, we used the term "avoidance zones" to describe 300 ft (90 m) areas along (or around) waterways and ephemeral wetlands and 500 ft (150 m) areas around known occupied California red-legged sites. Our use of that term was entirely an editorial decision and in no way suggests our attempt to change the intent of HFQLG or SNFPA. We therefore replace the term "avoidance zones" with the term "buffer" which is original to the HFQLG language with the revised text reading: "Buffers would be implemented during DFPZ maintenance activities. A 300 ft (90 m) buffer would be implemented along all waterways and ephemeral wetlands, and a 500 ft (150 m) buffer would be implemented along known occupied California red-legged frog sites."

Comments Related to the Draft Economic Analysis (DEA)

(54) *Comment:* Several commenters stated that mitigation costs are higher than the figure used in the DEA.

Our Response: Mitigation costs were derived from a survey of mitigation banks, developers, and consultants familiar with the permitting process. We believe that these data represent the best available information on mitigation costs in affected counties.

(55) *Comment:* One commenter stated that the DEA fails to calculate costs for commercial real estate development.

Our Response: The DEA includes costs resulting from California red-legged frog conservation relating to commercial real estate development. These costs are calculated as the price of mitigation credits multiplied by the assumed mitigation ratio multiplied by the expected number of acres of commercial development in critical habitat. This approach does not calculate price changes or consumer surplus losses associated with impacts to commercial development; however, the "catchall" nature of the commercial development category precludes accurate estimation of demand-and-supply curves and related surplus measures.

(56) *Comment:* Several commenters stated that the avoidance and mitigation requirements and mitigation costs used in the DEA are inconsistent with the recent *Gifford Pinchot* decision.

Our Response: Avoidance and mitigation requirements and mitigations costs used in the DEA were based on interviews with those familiar with the permitting process, as well as a comprehensive examination of the Service's consultation history. The DEA also assumes that avoidance and mitigation take place within the boundaries of proposed critical habitat. The Ninth Circuit has recently ruled (*Gifford Pinchot*, 378 F.3d at 1071) that the Service's regulations defining "adverse modification" of critical habitat are invalid. As a result, there is some uncertainty involved in considering the costs due to the fact that the consequences of designation are more difficult to predict as the Service cannot rely on decades of factual information based on prior experience.

(57) *Comment:* One commenter stated that the economic analysis fails to quantify costs of critical habitat related to restrictions on timber harvesting on private lands within unit YUB–1 located in Yuba County. The commenter states that the Service has recommended special management measures in its review of various Timber Harvest Plans, including no-harvest buffers of 300 ft on both sides of Class I and Class II watercourses and of 114 ft on both sides of Class III watercourses, and a ban on winter operations.

Our Response: We have provided technical assistance on three timber harvest plans (THPs) on private lands in Yuba County (Oregon Hill THP, Coupe THP, and Flett THP). Technical assistance letters are only recommendations and do not have terms and conditions as do biological opinions. Further, the State did not follow our recommendations in all cases. In the case of the Oregon Hill THP, we recommended five protective measures: no winter timber falling, hauling, or site preparation; directional lighting and other restrictions on pile burning; habitat assessment; dust abatement practices; and application of herbicides by a licensed pest control advisor. In the case of the Coupe THP, we recommended 300-ft buffers on both sides of Class I and Class II watercourses; a ban on winter operations other than directional pile burning; and dustabatement. In the Flett THP, we recommended a ban on winter operations; directional burning; protective measures relating to water intake; a 300-ft buffer on one side of Little Oregon Creek; no herbicide applications within the buffer area; dry-season construction of water crossings; and various restrictions on placement of slash pilings. Our recommendations overlap to a significant degree with the California Forest Practice Rules. These rules generally provide guidance for conducting work outside of riparian areas, location of slash burn piles, erosion control measures, road

construction, threatened and endangered species specific measures, time of operation, and water quality issues. Thus, it is not reasonable to attribute most of the costs of these measures to the conservation of the California red-legged frog; rather they should be treated as part of the regulatory baseline. Furthermore, no HCPs have been completed on private timberland involving the California red-legged frog. Given all these factors, it is our conclusion that the economic impact of critical habitat on private timber operations is minimal and that most recommended conservation measures are properly considered as part of the regulatory baseline.

(58) *Comment:* Several commenters stated that the DEA failed to provide a balanced assessment of economic benefits (such as water filtering and general habitat protection) and costs in relation to the revised proposed critical habitat designation.

Our Response: Section 4(b)(2) of the Act requires the Secretary to designate critical habitat based on the best scientific data available after taking into consideration the economic impact, impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. The Service's approach for estimating economic impacts includes both economic efficiency and distributional effects. The measurement of economic efficiency is based on the concept of opportunity costs, which reflect the value of goods and services foregone in order to comply with the effects of the designation (e.g., lost economic opportunity associated with restrictions on land use). Where data are available, the economic analyses do attempt to measure the net economic impact. However, no data was found that would allow for the measurement of such an impact, nor was such information submitted during the public comment period.

Most of the other benefit categories submitted by the commenter reflect broader social values, which are not the same as economic impacts. While the Secretary must consider economic and other relevant impacts as part of the final decision-making process under section 4(b)(2) of the Act, the Act explicitly states that it is the government's policy to conserve all threatened and endangered species and the ecosystems upon which they depend. Thus, we believe that explicit consideration of broader social values for the subspecies and its habitat, beyond the more traditionally defined economic impacts, is not necessary as Congress has already clarified the social importance.

We note, as a practical matter, it is difficult to develop credible estimates of such values, as they are not readily observed through typical market transactions and can only be inferred through advanced, tailor-made studies that are time consuming and expensive to conduct. We currently lack both the budget and time needed to conduct such research before meeting our court-ordered final rule deadline. In summary, we believe that society places significant value on conserving any and all threatened and endangered species and the habitats upon which they depend and thus needs only to consider whether the economic impacts (both positive and negative) are significant enough to merit exclusion of any particular area without causing the species to go extinct.

(59) *Comment:* Several comments stated that the DEA did not adequately consider impacts on agricultural landowners and that the designation of critical habitat decreases property values.

Our Response: The DEA calculates the impact of critical habitat on agricultural land values by measuring its effect on the likelihood and profitability of residential and commercial development. One comment stated that farm subsidies may trigger a section 7 consultation and that these costs should be included in the DEA. This linkage is speculative and there is no instance of a farm subsidy being used as the basis for a consultation with the Service. Further, activities including discing, plowing, irrigation, chemical application, harvesting and others that are part of normal agricultural operations are also unlikely to trigger a section 7 consultation. Incremental costs to farming operations may result from construction of stream crossings, water diversion, and sediment removal; these costs are discussed in the final economic analysis.

(60) *Comment:* One comment stated that the DEA is deficient in its treatment of impacts on the agricultural sector and on rural areas generally. The comment asserts that designation of critical habitat may jeopardize or delay the receipt of federal subsidies by requiring a section 7 consultation with the Service. The comment asserts that critical habitat designation may impair the ability of farmers to engage in routine agricultural activities necessary to maintain property by requiring a section 7 consultation. The comment goes on to assert that critical habitat designation for the California red-legged frog can jeopardize the viability of the agricultural service infrastructure.

Our Response: In theory, there are several ways that the agricultural sector may be impacted directly by the designation of critical habitat for the California red-legged frog. First, owners of agricultural land may experience a decline in wealth resulting from a reduced ability to convert this land to alternative uses such as housing. Second, critical habitat designation may restrict allowable farming practices on land currently under cultivation, and may impose additional costs on farm operators. Third, critical habitat may make it more difficult to bring new land into farm production. In addition to these direct impacts, there may be indirect effects flowing from these direct impacts. We discuss each type of direct impacts and then discuss the indirect and regional impacts of critical habitat designation.

The DEA recognizes that critical habitat may result in large economic losses to owners of agricultural land, and describes these impacts in great detail. Producer surplus losses measured in the report include losses experienced by landowners. We note that these losses are changes in wealth since designation of critical habitat will lower the market price of land. In cases where critical habitat results in complete avoidance of certain areas, the per-acre wealth loss will be nearly total since the salvage value of land, especially grazing land, is often very low. Again, these types of impacts are included in the DEA and are described on a highly disaggregated basis.

With respect to impacts to lands currently under cultivation, we note that farmland comprises only a small portion of California red-legged frog critical habitat, and that critical habitat is an even smaller proportion of California farmland. The California Farmland Mapping and Monitoring Program (FMMP), conducted by the California Department of Conservation, is a biennial survey of land use activities in California. FMMP defines prime farmland as land that has been used for agricultural production at some time during the four years prior to the mapping date and meets edaphic criteria established by the U.S. Department of Agriculture. FMMP delineated 5.1 million acres of prime farmland in California in its latest round of surveying. Proposed critical habitat intersects 5,129 of those acres, or roughly 0.1 percent of all prime farmland in California; viewed another way, only 0.7 percent of the proposed habitat is classified as prime farmland. 1,075 acres are in Santa Cruz County;

1,037 are in San Luis Obispo; 935 are in San Mateo; 598 are in Contra Costa; 588 are in San Benito; and the remainder is in Monterey, Riverside, Ventura, Napa, Santa Barbara and El Dorado counties.

There are no recorded section 7 consultations concerning ongoing and traditional farming activities such as those listed in the comment letter. This gap is at least partly due to the fact that the Clean Water Act exempts from the Section 404 program discharges associated with normal farming, ranching, and forestry activities such as plowing, cultivating, minor drainage, and harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices (Section 404(f)(1)(A)). To be exempt, these activities must be part of an established, ongoing operation. Further, there is nothing in the record to support the notion that farm subsidies or program payments would be threatened or delayed by the designation of critical habitat.

This leaves the possibility that designation of critical habitat may make it more difficult to bring new land under cultivation. As a threshold matter, we note that there is a long-term downward trend in cultivated acreage in California. At present, the California Department of Food and Agriculture reports that there are roughly 8.5 million acres devoted to field crops, fruit and nut crops, and vegetables and melons, down from a peak of 9.7 million acres in 1981. Thus, it would appear that far more land is leaving agriculture each year than entering it.

It is difficult to predict with any certainty the specific areas that will be brought into agricultural production for the first time. Further, there are often a large number of substitute sites for any new farming activity, most of which are presumably outside of critical habitat since critical habitat comprises less than one percent of all prime farmland in California. As a result, critical habitat may be expected to produce distributional effects, however data are not readily available that would allow us to reasonably forecast these effects.

With respect to indirect and regional effects of critical habitat designation on rural areas, the comment asserts that critical habitat can jeopardize the viability of the infrastructure needed to service the agricultural sector. Without a critical mass of farms, it is argued, service providers will be unable to operate economically. While this point may be true in theory, it is unlikely that even an extreme outcome like the total loss of all prime farmland within critical habitat would jeopardize the agricultural infrastructure. As noted above, prime farmland within critical habitat accounts for less than one-tenth of a percent of all prime farmland in California.

(61) *Comment:* The Office of Advocacy of the U.S. Small Business Administration suggests that the designation of critical habitat for the California red-legged frog, if finalized as proposed, would likely have a significant economic impact on a substantial number of small entities, and therefore should not be certified under the Regulatory Flexibility Act.

Our Response: Following the completion of the proposed critical habitat designation for the California red-legged frog, we took into consideration the potential economic and other relevant effects of the designation as directed by section 4(b)(2) of the Act. On the basis of this evaluation, we excluded many areas due to potential economic effects resulting from the designation or due to conservation partnerships and programs (please refer to the Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act portion of this final rule). We believe that based on these exclusions, we have reduced or eliminated the potential economic burden to a substantial number of small business entities. Thus, we are certifying in this final rule that we do not anticipate that this final designation of critical habitat for the California red-legged frog will have a significant impact on a substantial number of small business entities. Please refer our response to Executive Order 12866 and the Regulatory Flexibility Act in this final rule for more discussion of this issue.

(62) *Comment:* The Office of Advocacy of the U.S. Small Business Administration requested that we exclude certain areas from the final designation where it is believed that the designation of critical habitat would result in a high cost economic burden.

Our Response: As discussed in the Application of Section 4(b)(2)—Economic Exclusion to 19 Census Tracts section of this final rule, we have excluded the 19 census tracts, totaling approximately 250,329 ac (101,305 ha) (approximately 34 percent of the revised proposed critical habitat), from this final rule under section 4(b)(2) of the Act on the basis of potential disproportionately high economic cost. Please refer to that section of the rule for further discussion of this issue. Thus, we believe, that we have adequately responded to the comments from The Office of Advocacy of the U.S. Small Business Administration and our responsibilities for mitigating potential economic burdens to small businesses under the Regulatory Flexibility Act.

(63) *Comment:* The Office of Advocacy of the U.S. Small Business Administration indicates that we should either be certifying that our designations of critical habitat will not have a significant impact on a substantial number of small business entities at the time of our proposal, or providing an Initial Regulatory Flexibility Analysis pursuant to the Regulatory Flexibility Act at that time.

Our Response: As we have indicated in previous final designations of critical habitat and discussions with The Office of Advocacy of the U.S. Small Business Administration, we often do not have available to use the relevant economic information and analysis at the time of proposal to either certify that a proposed designation will not have a significant impact on a substantial number of small business entities or to be able to develop an Initial Regulatory Flexibility Analysis. The data to evaluate potential effects on small business entities, as well as the overall effect of the designation becomes available through the draft economic analysis which is produced shortly following the completion of the proposed designation. On the basis of the information in that draft analysis, we then evaluate the potential effects on the designation with regards to small businesses and to the overall public pursuant to section 4(b)(2) of the Act and various Executive Orders and statutes such as Executive Order 12866 and the Regulatory Flexibility Act. We have then been providing our position on certification of compliance with these specific Executive Orders and statutes in the Notice of Availability for the draft economic analyses. We further review potential effects of the rule based on public comment as we develop the final designation and make revision thereto accordingly. Finally, we revaluate our position on certification of compliance with these specific Executive Orders and statutes and iterate that position in the final designation.

We are currently working on internal processes and procedures to allow for the draft economic analysis to be done more concurrently with proposed designations of critical habitat. This will allow us to evaluate potential economic effects much earlier in the critical habitat rulemaking process, and thus provide our position on certification of compliance with these specific Executive Orders and statutes earlier.

Comments From the State

(64) *Comment:* In response to our April 13, 2004, proposed designation (69 FR 19620), the California Department of Fish and Game (CDFG) requested that we exclude lands that they manage and administer for resource conservation (e.g., State Wildlife Areas, Ecological Reserves) and lands that are administered for fishery resources (e.g., hatcheries, fishing access areas). The CDFG stated that they have specific management objectives for State lands within their jurisdiction to protect wildlife and their habitats, including those occupied by the California red-legged frog. The CDFG further stated the application of critical habitat to CDFG lands would provide no added benefit, result in project delays, and divert scarce monetary resources away from on-the-ground preservation and conservation work.

Our Response: We concur with the CDFG that their mission is to protect and conserve State wildlife resources including the California red-legged frog and that the designation of critical habitat would provide little additional protection for the subspecies. As a response in part to comments received, as well as revising our methodology and criteria, we published a revised proposed critical habitat for the California red-legged frog (70 FR 66906). In the revised proposed and this final designation, we did not include CDFG-owned or administered lands within the critical habitat designation.

(65) *Comment:* The California Department of Transportation (CalTrans) requested that we exclude all lands along highway right-of-ways (ROWs). CalTrans has stated that these ROWs undergo continual maintenance activities, and it is unlikely that such lands would contain the PCEs, and thus not be essential, for the California red-legged frog. CalTrans also stated that if a highway be used as a boundary that the boundary be outside of the ROW and that the unit description clearly state that information.

Our Response: In our determination of critical habitat, we included only those areas that we determined to contain the features identified in the PCEs and that are thus essential to the conservation of the subspecies. To the greatest extent possible, we avoided designating critical habitat adjacent to developed areas and areas containing major highways; however, due to mapping constraints, we may not have removed all such areas from the designation. In our analysis on the economic costs of the designation, we identified four future highway projects in Kern, Merced, Riverside, and San Luis Obispo counties along State Routes 46, 79 and 152. We determined that the benefits of including these lands in the designation were outweighed by the economic costs and these ROWs were removed from the designation. For more information on the exclusion see Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section below.

Summary of Changes From Revised Proposed Rule

In preparing the final critical habitat designation for the California red-legged frog, we reviewed and considered comments from the public on the proposed designation of critical habitat published on April 13, 2004 (69 FR 19620). Based on review of comments received on this initial proposal, we published a revised proposed critical habitat designation along with a DEA on November 3, 2005 (70 FR 66906). As a result of comments received on the initial proposal, the reproposal, the DEA, and a reevaluation of the revised proposed critical habitat boundaries we made changes to our revised proposed designation, as follows:

(1) We revised the proposed critical habitat units based on peer review, public comments, and biological information received during the public comment period and public workshops. After excluding units based on economics or existing management practices, isolated or small fragments that we determined were not essential to the conservation of the California red-legged frog were removed. Additionally, portions of units that did not contain PCEs were removed from the final designation.

(2) Under section 4(a)(3) of the Act, we did not designate DOD lands that have approved INRMPs in place that benefit the subspecies. Under sections 3(5)(a) and 4(b)(2) of the Act, we excluded Vandenberg Air Force Base and Camp San Luis Obispo because they had adequate management plans that cover the California red-legged frog and its habitat. For more information, refer to *"Application of 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act"* below.

(3) We adjusted the boundaries of the revised proposed units as feasible to remove areas that do not contain the primary constituent elements or were included in the revised proposed rule as a result of a mapping error.

(4) We revised the minimum time of water retention for PCE 1 from 15 to 20 weeks. This is the average time required for egg, larvae, and tadpole development into terrestrial frogs based on peer review comments and the currently accepted information on the California red-legged frog (Storer 1925; Wright and Wright 1949; Jennings 1988; Bobzien et al. 2000).

(5) Collectively, we excluded or removed a total of approximately 287,624 ac (116,397 ha) of land from this final critical habitat designation. Please refer to Table 1 for the differences in the amount of area proposed for designation in the revised proposed rule and the areas designated in this final rule. For a detailed discussion of all exclusions and exemptions, please refer to *"Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act"* below.

Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a 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 which are necessary to bring any endangered species 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. Conservation is a process which contributes to improving the status of the species. Individual actions may still be considered conservation even though in and of themselves they do not remove the species' need for protection under the Act.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 requires consultation on Federal actions that are 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 government or public access to private lands. Section 7 is a purely protective measure and does not require implementation of restoration, recovery, or enhancement measures.

To be included in a critical habitat designation, the habitat within the geographical area occupied by the subspecies must first have features that are essential to the conservation of the subspecies. Critical habitat designations identify, to the extent known using the best scientific data available, habitat areas that provide essential life cycle needs of the subspecies (i.e., areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may require special management considerations or protection. Thus, we do not include areas where existing management is sufficient to conserve the subspecies. (As discussed below, such areas may also be excluded from critical habitat pursuant to section 4(b)(2)). Accordingly, when the best available scientific data do not demonstrate that the conservation needs of the subspecies require additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the subspecies at the time of listing. An area currently occupied by the subspecies but was not known to be occupied at the time of listing will likely, but not always, be essential to the conservation of the subspecies and, therefore, typically included in the critical habitat designation.

The Service's Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), and section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria, establish procedures, and provide guidance to ensure that decisions made by the Service represent the best scientific data available. They require Service 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 determining which areas are critical habitat, a primary source of information is generally the listing package for the species. Additional information sources 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, or other unpublished materials and expert opinion or personal knowledge. All information is used in accordance with the provisions of section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the subspecies. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

Areas that support populations, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to designate as critical habitat, we consider those physical and biological features (PCEs) that are essential to the conservation of the subspecies, and within areas occupied by the subspecies at the time of listing, that may require special management considerations and protection. These include, but are not limited to: space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The specific primary constituent elements required for the California red-legged frog are derived from the biological needs of the California red-legged frog as described below and in the revised proposed critical habitat designation published in the **Federal Register** on November 3, 2005 (70 FR 66906).

The areas determined to contain the features essential for the conservation of the California red-legged frog are designed to provide sufficient aquatic habitat for breeding and non-breeding activities and sufficient upland habitat for shelter, foraging, predator avoidance and dispersal.

Aquatic Breeding Habitat

California red-legged frogs typically lay eggs between December and early April. Eggs hatch within 6 to 14 days depending on water temperatures and require approximately 20 days to develop into tadpoles. Tadpoles in turn require anywhere between 11 to 20 weeks to develop into terrestrial frogs (Storer 1925; Wright and Wright 1949; Bobzien et al. 2000). Water bodies suitable for tadpole rearing must remain watered at least until the tadpoles metamorphose into adults, typically between July and September. Adult California red-legged frogs can survive in moist upland areas after breeding habitat has dried, and can live several years to make new breeding attempts. Therefore, aquatic breeding habitat need not be available every year, but it must be available often enough and for appropriate hydroperiods to maintain a California red-legged frog population during most years.

Aquatic breeding habitat is essential for providing space, food, and cover necessary to sustain all life stages of California red-legged frogs. It consists of low-gradient fresh water bodies, including natural and manmade (e.g., stock) ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds. It does not include deep lacustrine water habitat (e.g., deep lakes and reservoirs 50 ac (20 ha) or larger in size).

The aquatic habitat PCE is essential for frog breeding and for providing space, food, and cover necessary to

sustain the early life history stages of larval and juvenile California red-legged frogs. To be considered essential breeding habitat, the aquatic feature must have the capability to hold water for a minimum of 20 weeks in all but the driest of years. This is the average amount of time needed for egg, larvae, and tadpole development and metamorphosis so that juveniles can become capable of surviving in upland habitats. California red-legged frogs usually have completed metamorphosis between July and September. During periods of drought or less-than-average rainfall, these sites may not hold water long enough for individuals to complete metamorphosis. However, these sites would still contain essential features because they constitute breeding habitat in years of average rainfall. Without aquatic breeding habitats, the California red-legged frog would not survive, reproduce, develop juveniles, and grow into adult California red-legged frogs that can complete their life cycles.

Non-Breeding Aquatic Habitat

The aquatic non-breeding habitat is essential for providing the space, food, and cover necessary to sustain California red-legged frogs. Non-breeding aquatic habitat consists of those aquatic elements identified above, and also includes, but is not limited to, other wetland habitats such as intermittent creeks, seeps, and springs. California red-legged frogs can use large cracks in the bottom of dried ponds as refugia to maintain moisture and avoid heat and solar exposure (Alvarez 2004). Without these non-breeding aquatic features, California red-legged frogs would not be able to survive drought periods, or be able to disperse to other breeding habitat.

Upland Habitat

Upland and riparian habitats associated with essential aquatic habitat are essential to maintain California red-legged frog populations. The associated upland and riparian habitats provide food and shelter sites for California red-legged frogs and assist in maintaining the integrity of aquatic sites by protecting them from disturbance and supporting the normal functions of the aquatic habitat. Upland habitat associated with occupied wetland habitat often contains blackberry (*Rubus* sp.) and other upland perennial species that provide for shelter from predatory species and forage habitat (Service 2002).

Upland habitat that contains the features essential to the conservation of the subspecies consists of natural areas within 200 ft (60 m) of the edge of the riparian vegetation or dripline, or the edge of the watershed boundary, whichever is closer. This is based on the dispersal capabilities of the subspecies (see Dispersal Habitat below), and research identifying the use of upland areas by the subspecies (Rathbun et al. 1993; Bulger et al. 2003; Tartarian 2004). Tatarian (2004) found California red-legged frogs inhabiting upland areas for 50 days at a distance of 302 ft (92 m) from aquatic habitat; Bulger et al. (2003) found that the subspecies is capable of inhabiting upland habitats within 200 ft (60 m) of aquatic habitat for continuous durations exceeding 20 days; and Rathbun et al. (1993) observed California red-legged frogs inhabiting upland riparian habitat for durations up to 77 days. California red-legged frogs often disperse from their breeding habitat to forage and seek suitable upland habitat if aquatic habitat is not available.

Suitable upland habitat includes structure that provides shade, moisture, and cooler temperatures. This structure may be natural, such as the spaces under boulders or rocks and organic debris (e.g., downed trees or logs), or it could be manmade, such as industrial debris and agricultural features (drains, watering troughs, abandoned sheds, or stacks of hay or other vegetation). California red-legged frogs will also use small mammal burrows and moist leaf litter as refugia (Jennings and Hayes 1994; Fellers and Kleeman 2005).

Dispersal Habitat

Dispersal habitat provides connectivity among California red-legged frog breeding (and associated upland) habitat patches. While California red-legged frogs can pass many obstacles, and do not require a particular type of habitat for dispersal, the habitat connecting breeding locations and other aquatic habitat must be free of barriers that prevent California red-legged frogs from dispersing.

Designated dispersal habitat consists of upland and riparian habitat contiguous with breeding and non-breeding aquatic habitat, that is free of barriers, and, that connects two or more patches of aquatic breeding habitat within 0.7 mi (1.2 km) of one another. Dispersal barriers include heavily traveled roads (Vos and Chardon 1998) that possess no bridges or culverts, moderate to high density urban or industrial developments with large expanses of asphalt or concrete that do not contain the PCEs or features essential to conservation of the subspecies, and large reservoirs over 50 ac (20 ha) in size that contain predatory species. Agricultural lands such as row crops, orchards, vineyards, and pastures do not constitute barriers to California red-legged frog dispersal.

California red-legged frogs have been documented to travel as far as 2.2 mi (3.6 km) from non-breeding to breeding habitats (Bulger et al. 2003). These long distance movements are migrations rather than use of corridors for moving between habitats (N. Scott and G. Rathbun, in litt. 1998). These movements have also been found to be with apparent disregard to topography, vegetation type, or riparian corridors (Bulger et al. 2003; Fellers and Kleeman 2005). We conclude the 2.2 mi (3.6 km) is likely the upward limit of dispersal capability for the California red-legged frog and that the 0.7 mi (1.2 km) dispersal distance will ensure that connectivity between breeding habitats will be maintained within areas designated as critical habitat. This 0.7 mi (1.2 km) dispersal element also includes areas of non-aquatic (i.e., upland habitat) habitat for shelter.

Accessible dispersal habitat provides opportunities for the California red-legged frog to move freely across the landscape in search of adjacent breeding and non-breeding habitats. Accessible dispersal habitat is considered essential to the conservation of the subspecies and provides for: (1) Opportunities for movement and establishment of home ranges by juvenile recruits; (2) maintaining gene flow by the movement of both juveniles and adults between subpopulations; and (3) recolonization of or recruitment into breeding habitat after local extirpations.

Primary Constituent Elements (PCEs) for the California Red-Legged Frog

Pursuant to our regulations, we are required to identify the known physical and biological features (PCEs) essential to the conservation of the California red-legged frog. All areas designated as critical habitat for California red-legged frogs are occupied, are within the subspecies' historic geographic range, and contain sufficient PCEs to support at least one life history function.

Based on our current knowledge of the life history, biology, and ecology of the subspecies and the requirements of the habitat to sustain the essential life history functions of the subspecies, we have determined that the California red-legged frog's PCEs are:

(1) *Aquatic Breeding Habitat.* Standing bodies of fresh water (with salinities less than 7.0 parts per thousand (ppt)), including: natural and manmade (e.g., stock) ponds, slow moving streams or pools within streams, and other ephemeral or permanent water bodies that typically become

inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest of years.

(2) *Non-Breeding Aquatic Habitat.* Fresh water habitats, as described above, that may or may not hold water long enough for the subspecies to hatch and complete its aquatic life cycle but that do provide for shelter, foraging, predator avoidance, and aquatic dispersal for juvenile and adult California red-legged frogs. Other wetland habitats that would be considered to meet these elements include, but are not limited to: plunge pools within intermittent creeks; seeps; quiet water refugia during high water flows; and springs of sufficient flow to withstand the summer dry period.

(3) *Upland Habitat.* Upland areas within 200 ft (60 m) of the edge of the riparian vegetation or dripline surrounding aquatic and riparian habitat and comprised of various vegetational series such as grasslands, woodlands, and/or wetland/riparian plant species that provides the frog shelter, forage, and predator avoidance. Upland features are also essential in that they are needed to maintain the hydrologic, geographic, topographic, ecological, and edaphic features that support and surround the wetland or riparian habitat. These upland features contribute to the filling and drying of the wetland or riparian habitat and are responsible for maintaining suitable periods of pool inundation for larval frogs and their food sources, and provide breeding, non-breeding, feeding, and sheltering habitat for juvenile and adult frogs (e.g., shelter, shade, moisture, cooler temperatures, a prey base, foraging opportunities, and areas for predator avoidance). Upland habitat can include structural features such as boulders, rocks and organic debris (e.g. downed trees, logs), as well as small mammal burrows and moist leaf litter.

(4) *Dispersal Habitat.* Accessible upland or riparian dispersal habitat within designated units and between occupied locations within 0.7 mi (1.2 km) of each other that allows for movement between such sites. Dispersal habitat includes various natural habitats and altered habitats such as agricultural fields, which do not contain barriers to dispersal. (An example of a barrier to dispersal is a heavily traveled road (Vos and Chardon 1998) constructed without bridges or culverts.) Dispersal habitat does not include moderate to high density urban or industrial developments with large expanses of asphalt or concrete, nor does it include large reservoirs over 50 ac (20 ha) in size, or other areas that do not contain those features identified in PCE 1, 2, or 3 as essential to the conservation of the subspecies.

This designation is designed for the conservation of PCEs necessary to support the life history functions and essential to the conservation of the subspecies. Because not all life history functions require all the PCEs, not all areas designated as critical habitat will contain all the PCEs.

Each of the areas designated in this rule have been determined to contain sufficient PCEs to provide for one or more of the life history functions of the California red-legged frog. In some cases, the PCEs exist as a result of ongoing Federal actions. As a result, ongoing Federal actions at the time of designation will be included in the baseline in any consultation conducted subsequent to this designation.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(1)(A) of the Act, we use the best scientific data available in determining areas that contain the features that are essential to the conservation of the California red-legged frog. The material included data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits; research published in peer-reviewed articles and presented in academic theses and agency reports; and regional Geographic Information System (GIS) coverages. We designated no areas outside the geographical area presently occupied by the subspecies.

In designating critical habitat for the California red-legged frog, we selected areas based on the best scientific data available that possess those physical and biological features essential to the conservation of the subspecies, and that may require special management considerations or protection. We included some areas which were occupied at the time of listing as well as some areas subsequently identified as occupied. We found that the majority of newer occurrence records were within areas already known to support the California red-legged frog. We identified critical habitat units that have the highest likelihood to contain populations of California red-legged frogs based on: (1) The presence of the defined PCEs; (2) the density of California red-legged frog occurrences; and (3) the kind, amount, and quality of habitat associated with those occurrences. The units contain sufficient PCEs to support the behaviors and/or life cycle stages we have determined are essential to the conservation of the subspecies.

Throughout the development process, we avoided identifying areas with single occurrences for designation unless such areas were considered ecologically or biologically unique or had other biological significance. Further, we made an effort to avoid developed areas, such as housing and commercial developments, that are unlikely to contribute to the conservation of the California red-legged frog. We also avoided fragmented areas such as those surrounded by development. Areas within the boundaries of the mapped units such as buildings, roads, parking lots, railroads, canals, levees, airport runways, other paved areas, lawns, and other urban landscaped areas are not critical habitat and are not included in this designation. Federal actions limited to these areas would not trigger a section 7 consultation, unless they affect the subspecies and/or the PCEs in adjacent critical habitat. We avoided known areas of intensive agriculture. Agricultural lands may have been included if they were within areas identified as necessary for dispersal or connectivity between known occurrences.

We considered several criteria in the selection of areas that contain the essential features for the California red-legged frog and focused on designating units: (1) Throughout the current geographic, elevational, and ecological distribution of the subspecies; (2) that would maintain the current population structure across the subspecies' range; (3) that retain or provide for connectivity between breeding sites that allows for the continued existence of viable and essential metapopulations, despite fluctuations in the status of subpopulations; (4) that possess large continuous blocks of occupied habitat, representing source populations and/or unique ecological characteristics; and (5) that contain sufficient upland habitat around each breeding location to allow for sufficient survival and recruitment to maintain a breeding population over the long term.

We first determined the occupancy status of areas on the basis of report data compiled by the CDFG (CNDDB 2005). Occurrence records were reviewed and historical or extirpated records were not considered in the designation. We used the final listing rule to establish those areas occupied at the time of listing. All other areas designations were based on occupancy data collected since listing. Our designation does not include all occupied areas. When determining which occupied areas are essential to the conservation of the subspecies and meet the definition of critical habitat, we considered theories of

metapopulation persistence, on-the-ground survey data, and California red-legged frog longevity. Bulger et al. (2003) found more than 75 percent of California red-legged frogs are resident at permanent aquatic habitats over the course of a year, thereby providing local population stability. Survey data provided to us during the development of the revised proposed critical habitat rule show an average persistence of 19 years for California red-legged frog populations. Additionally, maximum longevity of male and female California red-legged frogs is 8 and 10 years respectively (Jennings et al. in litt. 1992), which also contributes to generational and metapopulation stability.

The extant occurrences within the critical habitat units comprise approximately 63 percent of known extant occurrences within the range of the subspecies. We critically evaluated records in which the exact site location was not precisely identified or could not be confirmed, and removed those locations from our analysis. We then selected areas that are inhabited by populations (source populations) that are capable of maintaining their current population levels and capable of providing individuals to recruit into subpopulations found in adjacent areas. We also selected several areas which have other unique ecological significance, with the goal of maintaining the full range of the habitat variability and evolutionary adaptation in this subspecies. These include areas on the periphery of the current range and elsewhere that represent the distribution of the subspecies, and areas that provide connectivity among source populations or between source populations.

The critical habitat units were delineated by creating approximate areas for the units by screen digitizing polygons (map units) using ArcMap (Environmental Systems Research Institute, Inc.), a computer GIS program. The polygons were created by overlaying occurrence locations extant-at-time-of-listing and subsequent-to-listing California red-legged frog with a 0.7 mi (1.2 km) radius. This distance was used as a guide for mapping the essential features around locations where California red-legged frog populations are present (see Dispersal Habitat above). As stated above, California red-legged frogs have been documented to disperse from ponds and streams a distance over 2.0 mi (3.2 km) (Bulger et al. 2003). However, based on a review of the most current literature and information gathered in development of the Recovery Plan for the subspecies, we have determined that the 2.0 mi (3.2 km) distance is toward the maximum dispersal distance for the subspecies during a single season, and that the 0.7 mi (1.2 km) distance is more reflective of the average dispersal distance for the California red-legged frog (Rathbun et al. 1993; Scott and Rathbun, in litt 1998; Wright, in litt. 1999; Bulger et al. 2003; Tatarian 2004; Fellers and Kleeman 2005). Although the studies discussed above provide an approximation of the distances that California red-legged frogs can move from their aquatic habitats, breeding ponds, and other wetland habitats in search of suitable upland refugia or other breeding locations, we recognize that upland habitat features will influence California red-legged frog movements in a particular landscape. As a result, we made adjustments to the upland areas to include additional areas up to the watershed boundaries or to include habitat containing the PCEs beyond the 0.7 mi (1.2 km) distance where appropriate to aggregate clumps of occurrences. In some other instances, we reduced the areas to remove areas not exhibiting the PCEs from the revised proposed designation including agricultural, developed, disturbed, or fragmented lands.

We evaluated the resulting units (delineating geographic range and potential suitable habitat), refined elevation and hydrologic ranges, and identified areas not containing the essential features (i.e., not containing PCEs) (see Primary Constituent Elements section). We excluded areas because (1) they do not contain sufficient PCEs to support one or more of the subspecies' life processes or they have low quality PCEs because either the area is highly degraded and is likely not restorable or the area is small, highly fragmented, or isolated and may provide little or no long-term conservation value; and/or (2) other areas within the geographic region were determined to be sufficient to meet the conservation needs of the subspecies.

When determining critical habitat boundaries, we made every effort to avoid including developed areas such as: buildings, paved areas, and other structures that lack PCEs for the California red-legged frog. The scale of the maps prepared under the parameters for publication within the *Code of Federal Regulations* may not reflect the exclusion of such developed areas. Any such structures and the land under them remaining within critical habitat boundaries shown on the maps of this final rule are excluded by text and are not designated as critical habitat. Therefore, Federal actions limited to these areas would not trigger section 7 consultation, unless they affect the subspecies and/or primary constituent elements in adjacent critical habitat.

Further refinement of the preliminary areas as described above was based on the extent of aquatic habitat, stream reach, upland dispersal distance and watershed boundaries. We focused on areas of high California red-legged frog abundance, areas to maintain connectivity, and/or areas of unique ecological significance. Refined unit boundaries were delineated using watershed boundaries from the State of California's CALWATER watershed classification system (version 2.2) using the smallest (planning watersheds) watershed designation. Visual inspection of mapped California red-legged frog occurrence records revealed un-surveyed regions surrounded by surveyed regions, mostly in highly developed areas. Rather than designating critical habitat in the development fringe, we designated in areas where fewer surveys have been conducted but where California red-legged frogs are likely to occur based on similarity of habitat and presence of PCEs. In areas where planning watersheds were large and/or had been significantly altered hydrologically, we used alternative structural, political, or topographic boundaries (e.g., roads, county boundaries, ridgeline features, elevation contour lines) as critical habitat boundaries because in these areas the benefits of using planning watersheds were limited in that they included areas outside the subspecies' dispersal distance or were of little conservation value for the California red-legged frog.

Units were designated based on sufficient PCEs being present to support California red-legged frog life processes. Some units contained all PCEs and supported multiple life processes. Some units contained only a portion of the PCEs necessary to support the California red-legged frog's particular use of that habitat. Where a subset of the PCEs were present (e.g., water temperature during migration flows), it has been noted that only PCEs present at designation will be protected.

Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed species incidental to otherwise lawful activities. An incidental take permit application must be supported by a HCP that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the requested incidental take. We often exclude non-Federal public lands and private lands that are covered

by an existing operative HCP and executed implementation agreement (IA) under section 10(a)(1)(B) of the Act from designated critical habitat because the benefits of exclusion outweigh the benefits of inclusion as discussed in section 4(b)(2) of the Act. We have excluded lands covered by the Bonny Doon HCP, the draft East Contra Costa HCP, and the Western Riverside Multiple Species HCP (see *Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act* section below).

A brief discussion of each area designated as critical habitat is provided in the unit descriptions below. Additional detailed documentation concerning the essential nature of these areas is contained in our supporting record for this rulemaking.

Special Management Considerations or Protections

We believe the areas designated as critical habitat will require some level of management and/or protection to address the current and future threats to the California red-legged frog and maintain the PCEs essential to its conservation in order to ensure the overall conservation of the subspecies. Areas in need of management include not only the immediate locations where the subspecies may be present, but additional areas adjacent to these that can provide for normal population fluctuations and/or dispersal. The designation of critical habitat does not imply that lands outside of critical habitat do not play an important role in the conservation of the California red-legged frog. Federal activities outside of critical habitat are still subject to review under section 7 of the Act if they may affect the California red-legged frog or its critical habitat (such as development, land use conversions, watershed condition, etc.). Prohibitions of section 9 of the Act also continue to apply both inside and outside of designated critical habitat.

A detailed discussion of threats to the California red-legged frog and its habitat can be found in the final listing rule (61 FR 25813, May 23, 1996), the previous critical habitat designation (66 FR 14626, March 13, 2001), and the final Recovery Plan (May 28, 2002). Threats that may warrant special management of those features that define essential habitat (primary constituent elements) for the California red-legged frog include, but are not limited to: trematode and chytrid fungus disease; direct and indirect impacts from some human recreational activities; flood control maintenance activities; water diversions; overgrazing activities; competition and predation by nonnative species; and habitat removal and alteration by urbanization.

Critical Habitat Designation

We are designating 34 units as critical habitat for the California red-legged frog. The critical habitat areas described below constitute our best assessment at this time of areas determined to be occupied at the time of listing, that contain the primary constituent elements essential for the conservation of the subspecies and that may require special management, and those additional areas not occupied at the time of listing but which have been found to be essential to the conservation of the California red-legged frog. The areas designated as critical habitat are identified in Tables 1 and 2 below. Table 1 shows a summary of areas that meet the definition of critical habitat for the California red-legged frog, areas excluded, and areas designated as critical habitat. Table 2 identifies the approximate area designated as critical habitat for the California red-legged frog by land ownership.

TABLE 1.—APPROXIMATE AREA (AC, (HA)) OF LOCATIONS SUPPORTING FEATURES ESSENTIAL TO CONSERVATION OF THE CALIFORNIA RED-LEGGED FROG FITTING THE SELECTION CRITERIA FOR CRITICAL HABITAT, AREAS EXCLUDED FROM CRITICAL HABITAT PURSUANT TO SECTION 4(B)(2) OF THE ACT, AND AREAS DESIGNATED AS CRITICAL HABITAT FOR THE CALIFORNIA RED-LEGGED FROG

Areas with essential features		Excluded areas		Total critical habitat	
ac	ha	ac	ha	ac	ha
737,912	298,622	287,624	116,397	450,288	182,225

TABLE 2.—CRITICAL HABITAT UNITS DESIGNATED FOR THE CALIFORNIA RED-LEGGED FROG [AREA ESTIMATES (AC, (HA)) REFLECT THE ENTIRE AREA WITHIN THE CRITICAL HABITAT UNIT BOUNDARIES; AREAS SUPPORTING PCES MAY BE LESS WITHIN EACH UNIT.]

Unit	Federal		State		Private/Local		Total	
	ac	ha	ac	ha	ac	ha	ac	ha
BUT–1A–B	.....	.....	189	77	1,539	623	1,728	699
YUB–1	.....	.....	.....	.....	3,776	1,528	3,776	1,528
NEV–1	1,656	670	11	5	5,065	2,050	6,733	2,725
ELD–1	.....	.....	.....	.....	8,388	3,395	8,388	3,395
NAP–1	.....	.....	.....	.....	2,529	1,024	2,529	1,024
MRN–1	.....	.....	.....	.....	22,559	9,129	22,559	9,129
MRN–2	25,834	10,455	.....	.....	.....	.....	25,834	10,455
SOL–1	.....	.....	.....	.....	2,844	1,151	2,844	1,151
CCS–1A	.....	.....	.....	.....	4,095	1,657	4,095	1,657
ALA–1A	.....	.....	.....	.....	285	115	285	115
ALA–1B	.....	.....	.....	.....	533	216	533	216
SNM–1A	.....	.....	.....	.....	10,398	4,208	10,398	4,208
SNM–2C	.....	.....	1055	427	1,830	741	2,885	1,168
STC–1A	.....	.....	.....	.....	28,059	11,355	28,059	11,355
STC–1B	.....	.....	14,496	5,866	15,210	6,155	29,706	12,201
SCZ–1	.....	.....	280	113	12,794	5,177	13,074	5,291
SCZ–2	115	46	.....	.....	3,942	1,595	4,057	1,642
MER–1A–B	.....	.....	1,869	756	10,308	4,171	12,176	4,928

TABLE 2.—CRITICAL HABITAT UNITS DESIGNATED FOR THE CALIFORNIA RED-LEGGED FROG [AREA ESTIMATES (AC, (HA)) REFLECT THE ENTIRE AREA WITHIN THE CRITICAL HABITAT UNIT BOUNDARIES; AREAS SUPPORTING PCES MAY BE LESS WITHIN EACH UNIT.]—Continued

Unit	Federal		State		Private/Local		Total	
	ac	ha	ac	ha	ac	ha	ac	ha
MNT–1	.....	.....	519	210	.....	.....	519	210
MNT–2	1,074	435	91	37	44,256	17,910	45,420	18,381
SNB–1	.....	.....	2,899	1,173	11,386	4,608	14,285	5,781
SNB–2	13	5	.....	.....	9,603	3,886	9,616	3,891
SNB–3	13,820	5,593	.....	.....	6,217	2,516	20,037	8,109
SLO–1A–B	171	69	.....	.....	17,616	7,129	17,787	7,198
SLO–8	11,545	4,672	.....	.....	4,732	1,915	16,277	6,587
STB–1	20,849	8,437	.....	.....	4,262	1,725	25,111	10,162
STB–3	40,013	16,193	.....	.....	7,427	3,005	47,439	19,198
STB–4	.....	.....	.....	.....	7,662	3,101	7,662	3,101
STB–5	1,112	450	1,255	508	8,960	3,626	11,328	4,584
STB–7	29,206	11,819	.....	.....	3,299	1,335	32,505	13,154
VEN–1	5,151	2,085	.....	.....	1,510	611	6,660	2,695
VEN–2	.....	.....	.....	.....	2,915	1,180	2,915	1,180
VEN–3	8,363	3,384	.....	.....	474	192	8,837	3,576
LOS–1	3,909	1,582	.....	.....	322	130	4,231	1,712
Total	162,830	65,895	22,664	9,172	264,793	107,158	450,288	182,225

Presented below are brief descriptions of all units. The units are listed in order geographically north to south and west to east, with exception of the units in the Sierra Nevada foothills, which are listed first, north to south.

BUT–1, Hughes Place Pond (1,728 ac (699 ha))

This unit is located in east-central Butte County, east of State Highway 70 and west of Oroville-Quincy Highway. BUT–1 is essential for the conservation of the subspecies because the area contains aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2), contains upland habitat for foraging and dispersal activities (PCE 3 and PCE 4), and is occupied by the subspecies. This unit encompasses one of five known extant Sierra Foothill populations identified since the time of listing and is located in the easternmost portion of the subspecies' historic range. This unit represents the California red-legged frog's adaptation to a wide range of habitat and ecological variability, is known to be occupied, contains high quality habitat, and contains the features essential for the conservation of the subspecies. The unit consists of private and State land and is mapped entirely from occurrence records subsequent to the time of listing. Threats that may require special management in this unit include necessary wildland fire suppression activities, which may dewater aquatic habitats and thereby resulting in the desiccation of egg masses or direct death of adults from water drafting; timber harvest activities, which can alter or remove upland habitat; and predation by nonnative species. We have excluded land (approximately 60 percent of the revised proposed unit) from the final designation of critical habitat that is managed under the Sierra Nevada Forest Plan by the Plumas National Forest. For a further discussion of this exclusion see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

YUB–1, Little Oregon Creek (3,776 ac (1,528 ha))

This unit is located in northeastern Yuba County, north of Marysville Road and south of La Porte Road. YUB–1 is considered an area that is essential for the conservation of the subspecies because it contains aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2), contains upland habitat for foraging and dispersal activities (PCE 3 and PCE 4), and is occupied by the subspecies. YUB–1 is the second of five known extant Sierra Foothill populations identified since the time of listing and is located in the easternmost portion of the subspecies' historic range. This unit represents the California red-legged frog's adaptation to a wide range of habitat and ecological variability, is known to be occupied, contains high quality habitat, and contains the features essential for the conservation of the subspecies. This unit consists of private land and is mapped entirely from occurrence records subsequent to the time of listing. Threats that may require special management in this unit include necessary wildland fire suppression activities, which may dewater aquatic habitats and thereby resulting in the desiccation of egg masses or direct death of adults from water drafting; timber harvest activities, which can alter or remove upland habitat; and predation by nonnative species. We have excluded land (approximately 40 percent of the revised proposed unit) from the final designation of critical habitat that is managed under the Sierra Nevada Forest Plan by the Plumas National Forest. For a further discussion of this exclusion see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

NEV–1, Sailor Flat (6,733 ac (2,725 ha))

This unit is located in central Nevada County, approximately 3 mi (5 km) northeast of Nevada City, south of Tyler Foote Road and north of State Highway 20. NEV–1 is considered an area that is essential for the conservation of the subspecies because it contains aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2), contains upland habitat for foraging and dispersal activities (PCE 3 and PCE 4), and is occupied by the subspecies. NEV–1 is the third of five known extant Sierra Foothill populations and is located in the easternmost portion of the subspecies' historic range. This unit represents the California red-legged frog's adaptation to a wide range of habitat and ecological variability, is known to be occupied, contains high quality habitat, and contains the features essential for the conservation of the subspecies. This unit consists of Federal, State, and private land and is

mapped entirely from occurrence records subsequent to the time of listing. Threats that may require special management in this unit include timber harvest activities; removal and alteration of habitat due to potential urban development; necessary wildland fire suppression activities, which may dewater aquatic habitats and thereby result in the desiccation of egg masses or direct death of adults from water drafting; and predation by nonnative species. We have excluded land (approximately 38 percent of the revised proposed unit) from the final designation of critical habitat that is managed under the Sierra Nevada Forest Plan by the Tahoe National Forest. For a further discussion of this exclusion see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

ELD–1, Spivey Pond (8,388 ac (3,395 ha))

This unit is located in central El Dorado County, south of State Highway 50 and east of Newton Road. ELD–1 is essential for the conservation of the subspecies because it contains aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2), contains upland habitat for foraging and dispersal activities (PCE 3 and PCE 4), and is occupied by the subspecies. ELD–1 is the fourth of five known extant Sierra Foothill populations and is located in the easternmost portion of the subspecies' historic range. This unit represents the California red-legged frog's adaptation to a wide range of habitat and ecological variability, is known to be occupied, contains high quality habitat, and contains the features essential for the conservation of the subspecies. The unit consists entirely of private land and is mapped entirely from occurrence records subsequent to the time of listing. Threats that may require special management in this unit include necessary wildland fire suppression activities, which may dewater aquatic habitats and thereby result in the desiccation of egg masses or direct death of adults from water drafting; timber harvest activities; and predation by nonnative species. Snows Quarry does not contain the PCEs and has been removed from this final designation of critical habitat. However, due to technical mapping constraints we did not physically remove the area from the map depicting unit ELD–1. We have excluded land (approximately 5 percent of the revised proposed unit) from the final designation of critical habitat, which is managed under the Sierra Nevada Forest Plan by the El Dorado National Forest. For a further discussion of this exclusion see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

CAL–1, Young's Creek

This unit is the fifth of five known extant Sierra Foothill populations and has been excluded from the final designation. See *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

NAP–1, Wragg Creek (2,529 ac (1,024 ha))

This unit is located in east-central Napa County, is bisected by State Highway 128, and lies largely to the west of State Highway 121. NAP–1 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2), and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). NAP–1 was known to be occupied at the time of listing and is currently occupied. The unit contains permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The unit provides for connectivity between populations further west in the northbay; represents the northern extent of the subspecies' range in the interior coast range; and contains high quality habitat. The unit consists of private land and is mapped from occurrence records at the time of listing and subsequent to the time of listing. Threats that may require special management in this unit include predation by nonnative species, development, and recreational off-road vehicle use.

MRN–1, Salmon Creek (22,559 ac (9,129 ha))

This unit is located in north-central Marin County, east of State Highway 1 and north of Point Reyes Petaluma Road. MRN–1 is occupied and contains occurrence records subsequent to the time of listing. The area contains features essential to the conservation of the subspecies because it contains aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2), contains upland habitat for foraging and dispersal activities (PCE 3 and PCE 4), and is occupied by the subspecies. MRN–1 provides for connectivity between populations in the northbay region, and represents the northern extent of the subspecies' coastal range. The unit contains permanent and ephemeral aquatic habitats suitable for breeding; upland areas for dispersal, shelter, and food; and high quality habitat. The unit consists entirely of private and local government land and is mapped from occurrence records subsequent to the time of listing. Threats that may require special management in this unit include overgrazing of aquatic and riparian habitats and predation by nonnative species.

MRN–2, Point Reyes Peninsula (25,834 ac (10,455 ha))

This unit is located in western Marin County, west of State Highway 1. MRN–2 contains the following features that are essential for the conservation of the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). MRN–2 was known to be occupied at the time of listing and is currently occupied. The unit contains high quality permanent and ephemeral aquatic habitats suitable for breeding, and upland areas for dispersal, shelter, and food. The unit provides for connectivity between populations further inland and represents the southern portion of the geographic range within the northbay. The unit consists entirely of Federal land (National Park Service) and is mapped from occurrence records at-time-of-listing and subsequent to the time of listing. Threats that may require special management in this unit include overgrazing of aquatic and riparian habitats and predation by non-native species.

SOL–1, Sky Valley (2,844 ac (1,151 ha))

This unit is located in southwestern Solano County and a portion of extreme southeastern Napa County, south of Interstate 80 and west of Interstate 680. SOL–1 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). SOL–1 was known to be occupied at the time of listing and is currently occupied. The unit contains high quality permanent and ephemeral aquatic habitats suitable for breeding, upland areas for dispersal, shelter, and food. The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range and represents the southern extent of the subspecies in the interior coast range north of the Suisun Bay. The unit consists of private land and is mapped from occurrence records at the time of listing and subsequent to the time of listing. Threats that may require special management in this unit include

overgrazing of aquatic and riparian habitats, and removal and alteration of habitat due to urbanization.

CCS–1A, Berkeley Hills (4,095 ac (1,657 ha))

This unit is located in western Contra Costa County, south of Alhambra Valley Road and north of Bear Creek Road. CCS–1A contains the following features that are essential for the conservation of the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). CCS–1A was known to be occupied at the time of listing. is currently occupied, and contains high quality permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range and is the only critical habitat designated in Contra Costa County. The unit consists of private land and local government land. Threats that may require special management in this unit include removal and alteration of habitat due to urbanization, overgrazing of aquatic and riparian habitats, and predation by nonnative species.

CCS–1B, Mulligan Hill

This unit has been excluded from the final designation. *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

ALA–1A, Los Vaqueros (285 ac (115 ha))

This unit is located in Alameda County, along Vasco Road. ALA–1A contains the following features that are essential for the conservation of the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). ALA–1A was known to be occupied at the time of listing, is currently occupied, and contains high quality permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range and represents one of only two areas in Alameda County designated as critical habitat. The unit consists of private land and is mapped from occurrence records at-time-of-listing and subsequent to the time of listing. Threats that may require special management in this unit include overgrazing of aquatic and riparian habitat and predation by nonnative species. We have excluded land (approximately 31 percent of the revised proposed unit) from the final designation of critical habitat because it falls within the draft East Contra Costa County Natural Communities Conservation Plan/Habitat Conservation Plan. The remainder of the unit (approximately 68 percent of the revised proposed unit) was excluded for disproportionately high economic costs. For a further discussion of this exclusion see Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section below.

ALA–1B, San Antonio Creek (533 ac (216 ha))

This unit is located in north-central Alameda County, along Collier Canyon. ALA–1B contains the following features that are essential for the conservation of the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). ALA–1B is essential for the conservation of the California red-legged frog since the unit is currently occupied and contains high quality permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range and represents one of only two areas in Alameda County designated as critical habitat. The unit consists of private land and is mapped from occurrence records at the time of listing and subsequent to the time of listing. Threats that may require special management in this unit include removal and alteration of habitat due to urbanization, overgrazing of aquatic and riparian habitats, and predation by nonnative species. Approximately 85 percent of the revised proposed unit was excluded for disproportionately high economic costs. For a further discussion of this exclusion see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

ALA–1C, San Antonio Reservoir

This unit has been excluded from the final designation. See *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

SNM–1A, Cahill Ridge (10,398 ac (4,208 ha))

This unit is located in northwestern San Mateo County, west of Interstate 280 and east of California Route 1. SNM–1A contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). SNM–1A was known to be occupied at the time of listing, is currently occupied, and contains high quality permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The unit represents the only unit in the San Francisco peninsula and would assist in maintaining the California red-legged frog population within the San Francisco area. The unit consists of private land and local government land and is mapped from occurrence records at-time-of-listing and subsequent to the time of listing. Threats that may require special management in this unit include predation by nonnative species.

SNM–1B, Langley Hill

This unit has been excluded from the final designation. See *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

SNM–1C, Peter's Creek

This unit has been excluded from the final designation. See *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

SNM–2A, Gordon Ridge

This unit has been excluded from the final designation. See *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

SNM–2B, Pescadero Creek

This unit has been excluded from the final designation. See *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

SNM–2C, Ano Nuevo (2,885 ac (1,168 ha))

This unit is located in extreme northwestern Santa Cruz County. SNM–2C contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). SNM–2C was known to be occupied at the time of listing, is currently occupied, and contains high quality permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range and represents the northern extent of the subspecies in the Santa Cruz area. The unit consists of

private and State land and is mapped from occurrence records at-time-of-listing and subsequent to the time of listing. Threats that may require special management in this unit include predation by nonnative species.

STC–1A, Cañada de Pala (28,059 ac (11,355 ha))

This unit is located in northcentral Santa Clara County, south of Sierra Road and west of Mount Hamilton. STC–1A contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). STC–1A was known to be occupied at the time of listing, is currently occupied, and contains high quality permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The designation of this unit is expected to assist in preventing further fragmentation of habitat in this portion of the subspecies' range and represents the northern portion of the two areas designated within the Santa Clara area. This unit consists of private and local government land and is mapped from occurrence records at the time of listing and subsequent to the time of listing. Threats that may require special management in this unit include removal and alteration of habitat due to urbanization, overgrazing of aquatic and riparian habitats, and predation by nonnative species.

STC–1B, Henry Coe State Park (29,706 ac (12,021 ha))

This unit is located in southeastern Santa Clara County, east of Anderson Lake and north of State Highway 152. STC–1B contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). STC–1B was known to be occupied at the time of listing and is currently occupied. The unit contains high quality permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range and represents the southern portion of two areas designated within Santa Clara County. The unit consists of private and State land and is mapped from occurrence records at-time-of-listing and subsequent to the time of listing. Threats that may require special management in this unit include predation by nonnative species.

SCZ–1, North Coastal Santa Cruz County (13,074 ac (5,291 ha))

This unit is located along the coastline of Santa Cruz County, from approximately Waddell Creek to Yellow Bank Creek. It includes locations within several watersheds that drain into the Pacific Ocean, and is mapped from occurrence records at the time of listing and subsequent to the time of listing. SCZ–1 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). SCZ–1 provides connectivity between occupied sites along the coast and further inland. In addition, it contains high quality habitat, indicated by high density of extant occurrences, permanent and ephemeral aquatic habitat suitable for breeding and accessible upland areas for dispersal, shelter, and food. The unit represents one of three areas designated in Santa Cruz County. The unit consists of private and State land. Threats that may require special management in this unit include water diversions, which could dewater portions of aquatic habitat, and thereby lead to desiccation of egg masses or temporal loss of aquatic habitat. We have excluded land (4.9 ac (2 ha)) from the final designation of critical habitat which is managed under the Bonny Doon Habitat Conservation Plan. For a further discussion of this exclusion see *Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act* below.

SCZ–2, Watsonville Slough (4,057 ac (1,642 ha))

This unit is located along the coastal plain in southern Santa Cruz County, north of the mouth of the Pajaro River and seaward of California Highway 1. It includes locations in the Watsonville Slough system, including all or portions of Gallighan, Hanson, Harkins, Watsonville, Struve, and the West Branch of Struve sloughs. The unit is mapped from occurrence records at the time of listing and subsequent to the time of listing. SCZ–2 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). SCZ–2 provides connectivity between occupied sites along the coast and further inland. In addition, it contains permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The unit consists of private land and Federal land. Threats that may require special management in this unit include mortality due to agricultural pollution, conversion of habitat by introduced invasive plants, removal and alteration of aquatic and upland habitat due to urbanization, and predation by nonnative species.

MER–1A–B, Pacheco Pass (12,176 ac (4,928 ha))

This unit includes two subunits, MER–1A and MER–1B; and is located in southwestern Merced County and a small portion of southeastern Santa Clara County, west of San Luis Reservoir. MER–1 is essential for the conservation of the subspecies because it contains aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2), contains upland habitat for foraging and dispersal activities (PCE 3 and PCE 4), and is occupied by the subspecies. MER–1 is an area determined to be occupied since the time of listing and is currently occupied. The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range. This is the only unit within the central coast range with drainages that flow into the Central Valley. The unit consists of private and State land and is mapped entirely from occurrence records subsequent to time of listing. Threats that may require special management in this unit include overgrazing of aquatic and riparian habitat and predation by nonnative species.

MNT–1, Elkhorn Slough (519 ac (210 ha))

This unit is located along the coastal plain in northern Monterey County, inland from the town of Moss Landing, and it is mapped from occurrence records at the time of listing and subsequent to the time of listing. MNT–1 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). The designation of MNT–1 is expected to prevent further fragmentation of habitat in this portion of the subspecies' range, contains permanent and ephemeral aquatic habitats suitable for breeding, and contains upland areas for dispersal, shelter, and food. We have determined that these attributes are essential to the conservation of the subspecies. Elkhorn

Slough is unique in that it is a large estuary/freshwater slough system not typically found on the California coast. The unit consists of State land. Threats that may require special management in this unit include mortality due to agricultural pollution, trematode infestation and chytrid fungus infection, and predation by nonnative species.

MNT–2, Carmel River (45,420 ac (18,381 ha))

This unit is located about 3 mi (5 km) south to about 22 mi (35 km) southeast of the city of Monterey and includes locations in the Carmel River Valley and nearby San Jose Creek. It is mapped from occurrence records at the time of listing and subsequent to the time of listing at the Carmel River, and at Las Garzas, San Jose, and San Clemente Creeks. MNT–2 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). MNT–2 is occupied by the subspecies; contains permanent and ephemeral aquatic habitats suitable for breeding; contains sufficient PCEs to support behaviors we have determined are essential to the conservation of the subspecies; and contains accessible upland areas for dispersal, shelter, and food. The unit represents the largest designated habitat within Monterey County. The unit consists of private, State, and Federal land (U.S. Forest Service). Threats that may require special management in this unit include removal and alteration of aquatic and upland habitat due to urbanization, dewatering of aquatic habitat due to water pumping and water diversions, and predation by nonnative species.

SNB–1, Hollister Hills (14,285 ac (5,781 ha))

This unit is located in northwestern San Benito County in the foothills of the Gabilan Range. It is mapped from occurrence records at the time of listing and subsequent to the time of listing near Saint Frances Retreat, San Juan Oaks, Azalea Canyon, Bird Creek, and the Hollister Hills State Vehicle Recreation Area. SNB–1 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). SNB–1 is occupied by the subspecies, is expected to prevent further fragmentation of habitat in this portion of the subspecies' range, and contains permanent and ephemeral aquatic habitats suitable for breeding and accessible upland areas for dispersal, shelter, and food. The unit consists of private and State land. Threats that may require special management in this unit include removal and alteration of aquatic and upland habitat due to recreational and residential development, off-road vehicular activities, and predation by nonnative species.

SNB–2, Paicines Reservoir and Tres Pinos Creek (9,616 ac (3,891 ha))

This unit is located in northwestern San Benito County, approximately 8 mi (13 km) southeast of the City of Hollister and is mapped from occurrence records subsequent-to-listing in and near Paicines Reservoir and Tres Pinos Creek. SNB–2 is considered an area that is essential for the conservation of the subspecies. The area contains aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). SNB–2 is essential to the conservation of the subspecies because it provides connectivity between sites on the coast plain and inner Coast Range, contains permanent and ephemeral aquatic habitats suitable for breeding, and contains upland areas for dispersal, shelter, and food. The unit consists of private and Federal land (Bureau of Land Management (BLM)). Threats that may require special management in this unit include removal and alteration of aquatic and upland habitat due to urbanization and predation by nonnative species.

SNB–3, Pinnacles National Monument (20,037 ac (8,109 ha))

This unit is located in the Gabilan Range at Pinnacles National Monument, about 3.5 mi (5.6 km) west of the town of San Benito in southern San Benito County, and is mapped from occurrence records at the time of listing and subsequent to the time of listing. SNB–3 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range; contains permanent and ephemeral aquatic habitat suitable for breeding and accessible upland areas for dispersal, shelter, and food; and is occupied by the subspecies. The unit consists of private and Federal land (National Park Service, BLM). Threats that may require special management in this unit include overgrazing and trampling of aquatic and upland habitat by feral pigs, recreational activities, and predation by nonnative species.

SLO–1A–B, Cholame (17,787 ac (7,198 ha))

This unit consists of two subunits, SLO–1A and SLO–1b; and is located in northeastern San Luis Obispo and northwestern Kern Counties; includes locations in the Cholame Creek watershed; and is mapped from occurrence records at the time of listing and subsequent to the time of listing. SLO–1 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). SLO–1 contains permanent and ephemeral aquatic habitats suitable for breeding and contains accessible upland areas for dispersal, shelter, and food. The unit is the only area within the southern Coast Range that drains into the Central Valley. The unit consists of private and Federal land (BLM). Threats that may require special management in this unit include highway construction, which may remove upland or aquatic habitat; overgrazing of aquatic and riparian habitats; and dewatering of aquatic habitats due to water diversions.

SLO–2, Piedras Blancas

Lands containing features essential to the conservation of the subspecies in unit SLO–2 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

SLO–3, San Simeon

Lands containing features essential to the conservation of the California red-legged frog in unit SLO–3 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

SLO–4; Santa Rosa Creek

Lands containing features essential to the conservation of the California red-legged frog in unit SLO–4 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

SLO–5, Point Estero to Cayucos Creek

Lands containing features essential to the conservation of the California red-legged frog in unit SLO–5 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

SLO–6, Willow and Toro Creeks

Lands containing features essential to the conservation of the California red-legged frog in unit SLO–6 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.).

SLO–7, San Luis Obispo

Lands containing features essential to the conservation of the California red-legged frog in unit SLO–7 are exempted from critical habitat designation under section 4(a)(3) of the Act (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

SLO–8, Upper Salinas River (16,277 ac (6,587 ha))

This unit is located at the base of Garcia Mountain about 17 mi (27 km) east of the City of San Luis Obispo, and is mapped from occurrence records subsequent to the time of listing. SLO–8 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range and is occupied by the subspecies. The unit represents the only area within the interior coastal mountains within San Luis Obispo County. In addition, it contains permanent and ephemeral aquatic habitats suitable for breeding and contains accessible upland areas for dispersal, shelter, and food. This unit consists of private and Federal land (U.S. Forest Service). Threats that may require special management in this unit include alteration of aquatic and upland habitat by recreational activities and predation by nonnative species.

STB–1, La Brea Creek (25,111 ac (10,162 ha))

This unit is located in Los Padres National Forest in northern Santa Barbara County, and is mapped from occurrence records at the time of listing and subsequent to the time of listing. STB–1 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range. The unit represents the northern portion of areas designated within the Transverse Range. The unit also contains permanent and ephemeral aquatic habitats suitable for breeding; sufficient PCEs to support behaviors we have determined are essential to the conservation of the subspecies; and accessible upland areas for dispersal, shelter, and food. This unit is occupied by the subspecies. The unit consists of private and Federal land (U.S. Forest Service). Threats that may require special management in this unit include alteration of aquatic and upland habitat by recreational activities.

STB–2, San Antonio Terrace

Lands containing features essential to the conservation of the California red-legged frog in unit STB–2 are exempted from critical habitat designation under section 4(a)(3) of the Act (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

STB–3, Sisquoc River (47,439 ac (19,198 ha))

This unit occurs in northern Santa Barbara County, includes locations in the Sisquoc River watershed and is mapped from occurrence records at the time of listing and subsequent to the time of listing. STB–3 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). The designation of this unit is expected to prevent further fragmentation of habitat in this portion of the subspecies' range; it is essential in stabilizing populations of the subspecies in tributaries to the Santa Ynez River; and contains permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The unit consists of private and Federal land (U.S. Forest Service). Threats that may require special management in this unit include alteration of aquatic and upland habitat by recreational activities, predation by nonnative species, and water management practices that could be detrimental to California red-legged frog aquatic habitat.

STB–4, Jalama Creek (7,662 ac (3,101 ha))

This unit is located along the coast in southwestern Santa Barbara County about 4.4 mi (7 km) south of the City of Lompoc, and is mapped from occurrence records at the time of listing and subsequent to the time of listing. STB–4 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). STB–4 is occupied by the subspecies and provides connectivity between locations along the coast and the Santa Ynez River watershed, and this unit contains permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. This unit consists of private land. Threats that may require special management in this unit include predation by nonnative species and water management practices which could negatively affect California red-legged frog aquatic habitat. Populations in this unit may also require special management or protection due to their potential importance in stabilizing populations in tributaries to the Santa Ynez River. Some lands managed by Vandenberg Air Force Base containing features essential to the conservation of the subspecies in the western portion of unit STB–2 are exempted from critical habitat designation under section 4(a)(3) of the Act (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.).

STB–5, Gaviota Creek (11,328 ac (4,584 ha))

This unit is located along the coast in southern Santa Barbara County about 3 mi (5 km) southwest of the town of Buellton, and is mapped from occurrence records at the time of listing and subsequent to the time of listing. STB–5 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). STB–5 is occupied by the subspecies, is expected to prevent further fragmentation of habitat in this portion of the subspecies' range, and contains upland areas for dispersal, shelter, and food. The unit consists of private, State, and Federal land (U.S. Forest Service). Threats that may require special management in this unit include predation by nonnative species and water management practices that could negatively affect California red-legged

frog aquatic habitat. Populations in this unit may also require special management or protection due to their potential importance in stabilizing populations in tributaries to the Santa Ynez River. Approximately 12 percent of the revised proposed unit containing features essential to the conservation of the subspecies in the southeastern portion of unit STB–5 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section below).

STB–6, Arroyo Quemado to Refugio Creek

Lands containing features essential to the conservation of the California red-legged frog in unit STB–6 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

STB–7, Upper Santa Ynez River (32,505 ac (13,154 ha))

This unit is located in southeastern Santa Barbara County about 5 mi (8 km) north of the City of Santa Barbara. It includes locations in the middle and upper Santa Ynez River watershed, and is mapped from occurrence records at the time of listing and subsequent to the time of listing. STB–7 contains the following features that are essential for the conservation of the subspecies: Aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). STB–7 is occupied by the subspecies and is expected to prevent further fragmentation of habitat in this portion of the subspecies' range. It contains high quality habitat, indicated by high density of extant occurrences; permanent and ephemeral aquatic habitats suitable for breeding; and accessible upland areas for dispersal, shelter, and food. The unit consists of private and Federal land (U.S. Forest Service). Threats that may require special management in this unit include flood control and road maintenance activities, which could cause siltation in and reduce available aquatic habitat and directly remove upland habitat. Additional threats that may require special management include recreational activities and predation by nonnative species. Approximately 10 percent of the revised proposed unit containing features essential to the conservation of the subspecies in the eastern portion of unit STB–7 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

VEN–1, Matilija Creek (6,660 ac (2,695 ha))

This unit is located in western Ventura County at Matilija Creek and is mapped from occurrence records at the time of listing and subsequent to the time of listing. VEN–1 contains the following features that are essential for the conservation of the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). VEN–1 is occupied by the subspecies and important to the subspecies' conservation in that persistence of the subspecies in this area will prevent further isolation of breeding locations in this portion of the subspecies' range. This unit also contains permanent and ephemeral aquatic habitats suitable for breeding; contains upland areas for dispersal, shelter, and food; and is expected to prevent further fragmentation of habitat in this portion of the subspecies' range. The unit consists of private and Federal land (U.S. Forest Service). Threats that may require special management in this unit include alteration of aquatic and upland habitat by recreational activities and predation by nonnative species.

VEN–2, San Antonio Creek (2,915 ac (1,180 ha))

This unit is located in western Ventura County at San Antonio Creek and is mapped from occurrence records at the time of listing and subsequent to the time of listing. VEN–2 contains the following features that are essential for the conservation of the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). VEN–2 is occupied by the subspecies. Persistence of the subspecies in this area will prevent further isolation of breeding locations in this portion of the subspecies' range. This unit also contains permanent and ephemeral aquatic habitats suitable for breeding and accessible upland areas for dispersal, shelter, and food, and it is expected to prevent further fragmentation of habitat in this portion of the subspecies' range. The unit consists of private land. Threats that may require special management in this unit include alteration of aquatic and upland habitat by recreational activities, sedimentation of aquatic habitats, and predation by nonnative species.

VEN–3, Piru Creek (8,837 ac (3,576 ha))

This unit is located in eastern Ventura County and northwestern Los Angeles County and is mapped from occurrence records at the time of listing at Piru Creek. VEN–3 contains the following features that are essential for the conservation of the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). VEN–3 is occupied by the subspecies. Persistence of the subspecies in this area is important to prevent further isolation of breeding locations in this portion of the subspecies' range. This unit also contains permanent and ephemeral aquatic habitats suitable for breeding and upland areas for dispersal, shelter, and food. The unit consists of private and Federal land (U.S. Forest Service). Threats that may require special management in this unit include alteration of aquatic and upland habitat by unauthorized off-road vehicle use, conversion of native habitat by introduced invasive plant species, and predation by nonnative species.

VEN–4, Upper Las Virgenes Canyon Open Space Preserve

Lands containing features essential to the conservation of the California red-legged frog in unit VEN–4 are excluded from the critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 3(5)(A) and 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

LOS–1, San Francisquito Creek (4,231 ac (1,712 ha))

This unit is located in northwestern Los Angeles County and is mapped from occurrence records at the time of listing. LOS–1 contains the following features that are essential for the conservation of the subspecies: aquatic habitat for breeding and non-breeding activities (PCE 1 and PCE 2) and upland habitat for foraging and dispersal activities (PCE 3 and PCE 4). LOS–1 contains permanent and ephemeral aquatic habitats suitable for breeding and accessible upland areas for dispersal, shelter, and food. The unit consists of private and Federal land (U.S. Forest Service). Threats that may require special management in this unit include alteration and removal of aquatic and upland habitat by residential development, degradation of habitat by recreational activities, sedimentation of

aquatic habitats, conversion of native habitats by introduced invasive plants, contamination by chytrid fungus and predation by African clawed frogs (*Xenopus laevis*), and other nonnative species including bullfrogs and nonnative fish.

RIV–1, Cole Creek

Lands containing features essential to the conservation of the California red-legged frog in unit RIV–1 are excluded from critical habitat designation under section 4(b)(2) of the Act for economic reasons (see *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below).

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. Recent decisions by the Fifth and Ninth Circuit Court of Appeals have invalidated our regualtory definition for adverse modification. Pursuant to current national policy and the statutory provisions of the Act, destruction or adverse modification is now determined on the basis of the Director's December 9, 2004, memorandum on destruction and adverse modification.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is proposed or designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of critical habitat. This is a procedural requirement only. However, once a proposed species becomes listed, or proposed critical habitat is designated as final, the full prohibitions of section 7(a)(2) apply to any Federal action. The primary utility of the conference procedures is to maximize the opportunity for a Federal agency to adequately consider proposed species and critical habitat and avoid potential delays in implementing their proposed action as a result of the section 7(a)(2) compliance process, should those species be listed or the critical habitat designated.

Under conference procedures, the Service may provide advisory conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The Service may conduct either informal or formal conferences. Informal conferences are typically used if the proposed action is not likely to have any adverse effects to the proposed species or proposed critical habitat. Formal conferences are typically used when the Federal agency or the Service believes the proposed action is likely to cause adverse effects to proposed species or critical habitat, inclusive of those that may cause jeopardy or adverse modification.

The results of an informal conference are typically transmitted in a conference report; the results of a formal conference are typically transmitted in a conference opinion. Conference opinions on proposed critical habitat are typically prepared according to 50 CFR 402.14, as if the proposed critical habitat were designated. We may adopt the conference opinion as the biological opinion when the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)). As noted above, any conservation recommendations in a conference report or opinion are strictly advisory.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, compliance with the requirements of section 7(a)(2) will be documented through the Service's 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, but are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to result in jeopardy to a listed species or the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. "Reasonable and prudent alternatives" are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid jeopardy to the listed species or destruction or adverse modification of 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 a new species is listed or critical habitat is subsequently designated that may be affected and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions may affect subsequently listed species or designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal activities that may affect the California red-legged frog or its designated critical habitat will require section 7 consultation under the Act. Activities on State, Tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act or a permit under section 10(a)(1)(B) of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not Federally-funded, authorized, or permitted, do not require section 7 consultations.

Application of the Jeopardy and Adverse Modification Standards for Actions Involving Effects to the California Red-legged Frog and Its Critical Habitat

Jeopardy Standard

Prior to and following designation of critical habitat, the Service has applied an analytical framework for California red-legged frog jeopardy analyses that relies heavily on the importance of core

area populations of the California red-legged frog. The section 7(a)(2) analysis is focused not only on these populations but also on the habitat conditions necessary to support them.

Adverse Modification Standard

The analytical framework described in the Director's December 9, 2004, memorandum on destruction and adverse modification would be used to complete section 7(a)(2) analyses for Federal actions affecting California red-legged frog critical habitat.

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

Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that the conservation value of critical habitat for the California red-legged frog detailed in the Director's December 9, 2004, memorandum on destruction and adverse modification. Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore result in consultation for the California red-legged frog include, but are not limited to:

(1) Actions that significantly alter water chemistry or temperature. Such activities could include, but are not limited to: release of chemicals, biological pollutants, or heated effluents into the surface water or into connected groundwater at a point source or by dispersed release (non-point source). These activities that alter water conditions beyond the tolerances of the California red-legged frog and result in direct or cumulative adverse affects to these individuals and their life cycles.

(2) Actions that would significantly increase sediment deposition within the stream channel or pond or disturb upland foraging and dispersal habitat. Such activities could include, but are not limited to: excessive sedimentation from livestock overgrazing; road construction; commercial or urban development; channel alteration; timber harvest; unauthorized off-road vehicle or recreational use; and other watershed and floodplain disturbances. These activities could eliminate or reduce the habitat necessary for the growth and reproduction of the California red-legged frog by increasing the sediment deposition to levels that would adversely affect their ability to complete their life cycles.

(3) Actions that would significantly alter channel/pond morphology or geometry. Such activities could include, but are not limited to: channelization; impoundment; road and bridge construction; development; mining; dredging; and destruction of riparian vegetation. These activities may lead to changes to the hydrologic functioning of the stream or pond and alter the timing, duration, water flows, and levels that would degrade or eliminate the California red-legged frog and/or its habitat. These actions can also lead to increased sedimentation and degradation in water quality to levels that are beyond the tolerances of the California red-legged frog.

(4) Actions that eliminate upland foraging and/or aestivating habitat, as well as dispersal habitat, for the California red-legged frog. Such activities could include, but are not limited to: road construction; commercial or urban development; timber harvest; unauthorized off-road vehicle or recreational use; and other watershed and floodplain disturbances.

(5) Introducing, spreading, or augmenting nonnative aquatic species in stream segments or ponds used by California red-legged frog. Possible actions could include, but are not limited to: introduction of chytrid fungus or other diseases; fish or bullfrog stocking for sport; aesthetics; biological control; or other related actions. These activities could affect the growth and reproduction of the California red-legged frog by subjecting eggs, larvae, tadpoles, and adult California red-legged frogs to increased predation pressure, which would adversely affect the California red-legged frog's ability to complete its life cycle.

We consider all of the units designated as critical habitat, as well as those previously proposed areas that have been excluded or exempted, to contain features essential to the conservation of the California red-legged frog. All designated units are within the geographic range of the subspecies, all were occupied by the subspecies at the time of or since listing, and all are likely to be used by the California red-legged frog. Federal agencies already consult with us on activities in areas currently occupied by the California red-legged frog, or if the subspecies may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the California red-legged frog. If you have questions regarding whether specific activities may constitute adverse modification of critical habitat contact the Field Supervisor, Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act

There are multiple ways to provide management for species' habitat. Statutory and regulatory frameworks that exist at a local level can provide such protection and management, as can lack of pressure for change, such as areas too remote for anthropogenic disturbance. Finally, State, local, or private management plans as well as management under Federal agencies jurisdictions can provide protection and management to avoid the need for designation of critical habitat. When we consider a plan to determine its adequacy in protecting habitat, we consider whether the plan, as a whole will provide the same level of protection that designation of critical habitat would provide. The plan need not lead to exactly the same result as a designation in every individual application, as long as the protection it provides is equivalent, overall. In making this determination, we examine whether the plan provides management and protection of the PCEs that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete, by November 17, 2001, an Integrated Natural Resource Management Plan (INRMP). An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes an assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species; a statement of goals and priorities; a detailed description of management actions to be implemented to provide for these ecological needs; and a monitoring and adaptive management plan. Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; and wetland protection, enhancement, and restoration where necessary to support

fish and wildlife and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Public Law No. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

We consult with the military on the development and implementation of INRMPs for installations with listed species. INRMPs developed by military installations located within the range of the critical habitat designation for the California red-legged frog were analyzed for statutory exemption under the authority of section 4(a)(3) of the Act.

Section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if [s]he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless [s]he 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 Secretary is afforded broad discretion and the Congressional record is clear that in making a determination under the section the Secretary has discretion as to which factors and how much weight will be given to any factor.

Under section 4(b)(2) of the Act, in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If an exclusion is contemplated, then we must determine whether excluding the area would result in the extinction of the species. In the following sections, we address a number of general issues that are relevant to the exclusions we considered.

Relationship of Critical Habitat to Section 4(a)(3) of the Act—Approved Integrated Natural Resource Management Plans (INRMPs)

Vandenberg Air Force Base (Vandenberg)

Vandenberg completed an INRMP in 1997, prior to the passage and implementation of the Sikes Act Improvements Act of 1997; in 2003, Vandenberg revised their INRMP, and we provided comments on the revised INRMP, in a letter dated August 2, 2004. The older plan and the revised INRMP provide conservation measures for the California red-legged frog, as well as for the management of important wetland habitats on the base.

Vandenberg's INRMP benefits California red-legged frogs through: (1) Avoidance of California red-legged frogs and their habitat, whenever possible, in project planning; (2) scheduling of activities that may affect California red-legged frogs outside of the peak breeding period (December-March); (3) coordination with Vandenberg water quality staff to prevent degradation and contamination of aquatic habitats; and (4) prohibiting the introduction of nonnative fishes into streams on-base. In addition, Vandenberg's INRMP provides protection to aquatic and upland habitats for the California red-legged frog by excluding cattle from wetlands and riparian areas through the installation and maintenance of fencing. Vandenberg's INRMP specifies periodic monitoring of the distribution and abundance of California red-legged frog populations on the base, and periodic surveys to provide continuous evaluation of the subspecies' status at known and new sites identified on the base.

Based on the above considerations, and consistent with the direction provided in section 4(a)(3)(B)(i) of the Act, we have determined that conservation efforts identified in the INRMP will provide benefits to the California red-legged frog and the features essential to the subspecies conservation occurring on Vandenberg Air Force Base. Therefore, Vandenberg Air Force Base is exempt from inclusion in this designation of critical habitat for the subspecies' pursuant to section 4(a)(3) of the Act.

Camp San Luis Obispo (CSLO)

CSLO completed an INRMP in November 2001. We have examined CSLO's INRMP and determined that it does provide conservation measures for the California red-legged frog, as well as for the management of important riparian, wetland, and upland habitats across the base.

CSLO's INRMP benefits California red-legged frogs through: (1) Protection of riparian habitats and wetlands through implementation of erosion-control measures, including the exclusion of cattle through the installation and maintenance of fencing; (2) enhancement of riparian, wetland, and upland habitats through the implementation of revegetation projects using native vegetation; (3) control of nonnative invasive plant species; (4) elimination of military training exercises within riparian, aquatic, and wetland areas; (5) maintenance and protection of a 63-acre riparian exclosure on Chorro Creek; and (6) policies which prohibit possible sources of contamination (e.g., soakage pits, field shower points, water purification points, portable latrines) within 100 feet of surface water or streambeds. In addition, CSLO's INRMP provides management direction on conserving listed and imperiled species and their habitats on the base, including: (1) review of all training and maintenance activities by staff from CSLO's Environmental Division; (2) environmental awareness briefings given to employees, tenants, troops, and contractors, regarding threatened and endangered species at CSLO; and (3) surveys prior to activities that could potentially affect California red-legged frogs. Sites with known populations of the California red-legged frog are protected from disturbance from human activities and grazing through measures appropriate to the given situation. CSLO's INRMP specifies monitoring of California red-legged frog populations on the base, and periodic surveys to provide continuous evaluation of the subspecies' status at known and new sites identified on the base. In addition, CSLO actively consults with us on all actions that may affect California red-legged frogs on the base, and has implemented conservation measures as recommended.

Based on the above considerations, and consistent with the direction provided in section 4(a)(3)(B)(i) of the Act, we have determined that conservation efforts identified in the INRMP will provide benefits to the California red-legged frog and the features essential to the subspecies' conservation occurring on CSLO. Therefore, CSLO is exempt from inclusion in this designation of critical habitat for the subspecies pursuant to section 4(a)(3) of the Act.

Conservation Partnerships on Non-Federal Lands

Most federally listed species in the United States will not recover without the cooperation of non-Federal landowners. More than 60 percent of the United States is privately owned (National Wilderness Institute 1995), and at least 80 percent of endangered or threatened species occur either partially or solely on private lands (Crouse et al. 2002). Stein et al. (1995) found that only about 12 percent of listed species were found almost exclusively on Federal lands (i.e., 90 to 100 percent of their known occurrences restricted to Federal lands) and that 50 percent of federally listed species are not known to occur on Federal lands at all.

Given the distribution of listed species with respect to land ownership, conservation of listed species in many parts of the United States is dependent upon working partnerships with a wide variety of entities and the voluntary cooperation of many non-Federal landowners (Wilcove and Chen 1998; Crouse et al. 2002; James 2002). Building partnerships and promoting voluntary cooperation of landowners is essential to understanding the status of species on non-Federal lands and is necessary to implement recovery actions such as reintroducing listed species, habitat restoration, and habitat protection.

Many non-Federal landowners derive satisfaction in contributing to endangered species recovery. The Service promotes these private-sector efforts through the Four Cs philosophy—conservation through communication, consultation, and cooperation. This philosophy is evident in Service programs such as Habitat Conservation Plans (HCPs), Safe Harbor Agreements, Candidate Conservation Agreements, and conservation challenge cost-share grants and other partnership funding. Many private landowners, however, are wary of the possible consequences of encouraging endangered species to live on their property, and there is mounting evidence that some regulatory actions by the Federal Government, while well-intentioned and required by law, can under certain circumstances have unintended negative consequences for the conservation of species on private lands (Wilcove et al. 1996; Bean 2002; Conner and Mathews 2002; James 2002; Koch 2002; Brook et al. 2003). Many landowners fear a decline in their property value due to real or perceived restrictions on land-use options where threatened or endangered species are found. Consequently, harboring endangered species is viewed by many landowners as a liability, resulting in anti-conservation incentives because maintaining habitats that harbor endangered species represents a risk to future economic opportunities (Main et al. 1999; Brook et al. 2003).

The purpose of designating critical habitat is to contribute to the conservation of threatened and endangered species and the ecosystems upon which they depend. The outcome of the designation, triggering regulatory requirements for actions funded, authorized, or carried out by Federal agencies under section 7 of the Act, can sometimes be counterproductive to its intended purpose on non-Federal lands. According to some researchers, the designation of critical habitat on private lands significantly reduces the likelihood that landowners will support and carry out conservation actions (Main et al. 1999; Bean 2002; Brook et al. 2003). The magnitude of this negative outcome is greatly amplified in situations where active management measures (e.g., reintroduction, fire management, control of invasive species) are necessary for species conservation (Bean 2002).

The Service believes that the judicious use of excluding specific areas of non-federally owned lands from critical habitat designations can contribute to species' recovery and provide a superior level of conservation than critical habitat alone. For example, less than 17 percent of Hawaii is federally owned, but the State is home to more than 24 percent of all federally listed species, most of which will not recover without State and private landowner cooperation. On the island of Lanai, Castle and Cooke Resorts, LLC, which owns 99 percent of the island, entered into a conservation agreement with the Service. The conservation agreement provides conservation benefits to target species through management actions that remove threats (e.g,. axis deer, mouflon sheep, rats, invasive nonnative plants) from the Lanaihale and East Lanai Regions. Specific management actions include fire control measures, nursery propagation of native flora (including the target species), and planting of such flora. These actions will significantly improve the habitat for all currently occurring species. Due to the low likelihood of a Federal nexus on the island, we believe that the benefits of excluding the lands covered by the MOA exceeded the benefits of including them. As stated in the final critical habitat rule for endangered plants on the Island of Lanai:

On Lanai, simply preventing "harmful activities" will not slow the extinction of listed plant species. Where consistent with the discretion provided by the Act, the Service believes it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation. While the impact of providing these incentives may be modest in economic terms, they can be significant in terms of conservation benefits that can stem from the cooperation of the landowner. The continued participation of Castle and Cooke Resorts, LLC, in the existing Lanai Forest and Watershed Partnership and other voluntary conservation agreements will greatly enhance the Service's ability to further the recovery of these endangered plants.

Secretary Norton's Four Cs philosophy—conservation through communication, consultation, and cooperation—is the foundation for developing the tools of conservation. These tools include conservation grants, funding for Partners for Fish and Wildlife Program, the Coastal Program, and cooperative-conservation challenge cost-share grants. Our Private Stewardship Grant program and Landowner Incentive Program provide assistance to private land owners in their voluntary efforts to protect threatened, imperiled, and endangered species, including the development and implementation of HCPs.

Conservation agreements with non-Federal landowners (e.g., HCPs), contractual conservation agreements, easements, and stakeholder-negotiated State regulations) enhance species conservation by extending species protections beyond those available through section 7 consultations. In the past decade we have encouraged non-Federal landowners to enter into conservation agreements, based on a view that we can achieve greater species conservation on non-Federal land through such partnerships than we can through coercive methods (61 FR 63854; December 2, 1996).

Exclusions Under Section 4(b)(2) of the Act

After consideration under section 4(b)(2) of the Act, the following areas of habitat have been excluded from critical habitat for the California red-legged frog: Bonnie Doon Quarries Settlement Ponds HCP; Draft East Contra Costa HCP; East Bay Regional Park District lands; Spivey Pond Management Area (BLM); U.S. Forest Service lands within the Sierra Nevada; Unit CAL–1 in Calaveras County; and other areas where the designation of critical habitat has been determined to show a disproportionately high economic cost

(See *Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act* section below). A detailed analysis of our exclusion of these lands under section 4(b)(2) of the Act is provided in the paragraphs that follow.

General Principles of Section 7 Consultations Used in the 4(b)(2) Balancing Process

The most direct, and potentially largest, regulatory benefit of critical habitat is that federally authorized, funded, or carried out activities require consultation pursuant to section 7 of the Act to ensure that they are not likely to destroy or adversely modify critical habitat. There are two limitations to this regulatory effect. First, it only applies where there is a Federal nexus—if there is no Federal nexus, designation itself does not restrict actions that destroy or adversely modify critical habitat. Second, it only limits destruction or adverse modification. By its nature, the prohibition on adverse modification is designed to ensure those areas that contain the physical and biological features essential to the conservation of the subspecies or unoccupied areas that are essential to the conservation of the subspecies are not eroded. Critical habitat designation alone, however, does not require specific steps toward recovery.

Once consultation under section 7 of the Act is triggered, the process may conclude informally when the Service concurs in writing that the proposed Federal action is not likely to adversely affect the listed subspecies or its critical habitat. However, if the Service determines through informal consultation that adverse impacts are likely to occur, then formal consultation would be initiated. Formal consultation concludes with a biological opinion issued by the Service on whether the proposed Federal action is likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of critical habitat, with separate analyses being made under both the jeopardy and the adverse modification standards. For critical habitat, a biological opinion that concludes in a determination of no destruction or adverse modification may contain discretionary conservation recommendations to minimize adverse effects to primary constituent elements, but it would not contain any mandatory reasonable and prudent measures or terms and conditions with respect to effects upon designated critical habitat resulting from the proposed federal action. Mandatory reasonable and prudent alternatives to the proposed Federal action would only be issued when the biological opinion results in a jeopardy or adverse modification conclusion.

We also note that for 30 years prior to the Ninth Circuit Court's decision in *Gifford Pinchot*, the Service equated the jeopardy standard with the standard for destruction or adverse modification of critical habitat. The Court ruled that the Service could no longer equate the two standards and that adverse modification evaluations require consideration of impacts on the recovery of species. Thus, under the *Gifford Pinchot* decision, critical habitat designations may provide greater benefits to the recovery of a species. However, we believe the conservation achieved through implementing regional habitat conservation plans (HCPs) or other regional habitat management plans is typically greater than would be achieved through multiple site-by-site, project-by-project, section 7 consultations involving consideration of critical habitat. Management plans commit resources to implement long-term management and protection to particular habitat for at least one and possibly other listed or sensitive species. Section 7 consultations only commit Federal agencies to prevent adverse modification to critical habitat caused by the particular project, and they are not committed to provide conservation or long-term benefits to areas not affected by the proposed project. Thus, any HCP or management plan which considers enhancement or recovery as the management standard will always provide as much or more benefit than a one time consultation under section 7 of the Act for critical habitat designation conducted under the standards required by the Ninth Circuit in the *Gifford Pinchot* decision.

The information provided in this section applies to all the discussions below that discuss the benefits of inclusion and exclusion of critical habitat in that it provides the framework for the consultation process.

Educational Benefits of Critical Habitat

A benefit of including lands in critical habitat is that the designation of critical habitat serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. This helps focus and promote conservation efforts by other parties by clearly delineating areas of high conservation value for the California red-legged frog. In general, the educational benefit of a critical habitat designation always exists, although in some cases it may be redundant with other educational effects. For example, regional HCPs have significant public input and may largely duplicate the educational benefit of a critical habitat designation. This benefit is closely related to a second, more indirect benefit: that designation of critical habitat would inform State agencies and local governments about areas that could be conserved under State laws or local ordinances.

However, we believe that there would be little additional informational benefit gained from the designation of critical habitat for the exclusions we are making in this rule because these areas were included in the revised proposed rule as having habitat containing the features essential to the conservation of the subspecies. Consequently, we believe that the informational benefits are already provided even though these areas are not designated as critical habitat. Additionally, the purpose normally served by the designation of informing State agencies and local governments about areas which would benefit from protection and enhancement of habitat for the California red-legged frog is already well established among State and local governments, and Federal agencies, in those areas that we are excluding from critical habitat in this rule on the basis of other existing habitat management protections.

The information provided in this section applies to all the discussions below concerning the benefits of inclusion and exclusion of critical habitat.

Benefits of Excluding Lands With HCPs or Other Approved Management Plans From Critical Habitat

The benefits of excluding lands with HCPs or other approved management plans from critical habitat designation include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed by a critical habitat designation. Most HCPs and other conservation plans take many years to develop and, upon completion, are consistent with the recovery objectives for listed species that are covered within the plan area. In fact, designating critical habitat in areas covered by a pending HCP or conservation plan could result in the loss of some species' benefits if participants abandon the planning process, in part because of the strength of the perceived additional regulatory compliance that such designation would entail. The time and cost of regulatory compliance for a critical habitat designation do not have to be quantified for them to be perceived as additional Federal regulatory burden

sufficient to discourage continued participation in plans targeting listed species' conservation.

The benefits of excluding lands within approved management plans from critical habitat designation include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed by critical habitat. Many conservation plans provide conservation benefits to unlisted sensitive species. Imposing an additional regulatory review as a result of the designation of critical habitat may undermine conservation efforts and partnerships in many areas. Designation of critical habitat within the boundaries of management plans that provide conservation measures for a species could be viewed as a disincentive to those entities currently developing these plans or contemplating them in the future, because one of the incentives for undertaking conservation is greater ease of permitting where listed species are affected. Addition of a new regulatory requirement would remove a significant incentive for undertaking the time and expense of management planning.

A related benefit of excluding lands within management plans from critical habitat designation is the unhindered, continued ability to seek new partnerships with future plan participants including States, counties, local jurisdictions, conservation organizations, and private landowners, which together can implement conservation actions that we would be unable to accomplish otherwise. If lands within approved management plan areas are designated as critical habitat, it would likely have a negative effect on our ability to establish new partnerships to develop these plans, particularly plans that address landscape-level conservation of species and habitats. By preemptively excluding these lands, we preserve our current partnerships and encourage additional conservation actions in the future.

Furthermore, an HCP or NCCP/HCP application must itself be consulted upon. Such a consultation would review the effects of all activities covered by the HCP which might adversely impact the species under a jeopardy standard, including possibly significant habitat modification (see definition of "harm" at 50 CFR 17.3), even without the critical habitat designation. In addition, Federal actions not covered by the HCP in areas occupied by listed species would still require consultation under section 7 of the Act and would be reviewed for possibly significant habitat modification in accordance with the definition of harm referenced above.

The information provided in this section applies to all the discussions below that discuss the benefits of inclusion and exclusion of critical habitat.

Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act

Bonny Doon Quarries Settlement Ponds Habitat Conservation Plan (Bonny Doon HCP)

The Bonny Doon HCP encompasses 4.9 ac (2 ha) of privately-owned lands in the Santa Cruz Mountains near the town of Davenport, Santa Cruz County, California. California red-legged frogs are present in both of the watersheds (San Vicente Creek and Liddell Creek) where settlement ponds were constructed at the Bonny Doon Quarries. The Bonny Doon HCP was completed and finalized in 1998, concurrently with a final environmental assessment on the HCP pursuant to NEPA. We issued a non-jeopardy biological opinion under section 7 of the Act on the Bonny Doon HCP in August 1999. The Bonny Doon HCP contains measures to minimize and mitigate impacts to the California red-legged frog and its habitat from the operations, maintenance, and possible reclamation activities and to further the conservation of the subspecies. The primary components of the minimization and mitigation include: developing and implementing an employee training program and community outreach program; conducting annual breeding and pre-activity surveys at all settlement and mitigation ponds for California red-legged frogs; avoiding or relocating California red-legged frogs and their tadpoles and eggs during maintenance activities; minimizing impacts of water releases to breeding populations of California red-legged frogs; inspecting the ground under vehicles for California red-legged frogs prior to use; establishing a speed limit of 10 miles per hour on roads within the operational area (although the incidental take permit only authorizes incidental take associated with the proposed operation, maintenance, and reclamation activities in the project area, not the entire operational area); using pesticides and herbicides that do not affect aquatic organisms and applying them in accordance with label precautions; disposing of all food-related trash in closed containers; controlling exotic predators; and enhancing habitat suitability of the mitigation ponds and Settlement Pond 1 for the California red-legged frog. The Bonny Doon HCP and its accompanying Implementing Agreement, which delineates the responsibilities of the Service and the permittee for the implementation of the HCP, are designed to allow the operation and maintenance activities of up to seven settlement ponds and the reclamation of two additional settlement ponds in a manner that will result in conservation of the California red-legged frog and its habitat.

Benefits of Exclusion Outweigh Benefits of Inclusion

We expect the Bonny Doon HCP to provide substantial protection of the PCEs and special management of essential habitat features for the California red-legged frog on Bonny Doon HCP conservation lands. We expect the Bonny Doon HCP to provide a greater level of management for the California red-legged frog on private lands than would designation of critical habitat on private lands. Moreover, inclusion of these non-Federal lands as critical habitat would not necessitate additional management and conservation activities that would exceed the approved Bonny Doon HCP and its implementing agreement. As a result, we do not anticipate any action on these lands would destroy or adversely modify the areas designated as critical habitat. Therefore, we do not expect that including those areas in the final designation would lead to any changes to actions on the conservation lands to avoid destroying or adversely modifying that habitat.

The exclusion of these lands from critical habitat will help preserve the partnerships that we have developed with the local jurisdiction and project proponent in the development of the Bonny Doon HCP, which provides for California red-legged frog conservation. The educational benefits of critical habitat, including informing the public of areas important for the long-term conservation of the subspecies, are still accomplished from material provided on our Web site and through public notice-and-comment procedures required to establish the Bonny Doon HCP. Further, many educational benefits of critical habitat designation will be achieved through the overall designation, and will occur whether or not this particular location is designated. For these reasons, we believe that designating critical habitat has little benefit in areas covered by the Bonny Doon HCP.

We have reviewed and evaluated benefits of inclusion and exclusion of critical habitat for the California red-legged frog. Based on this evaluation,

we find that the benefits of excluding land in the planning area for the Bonny Doon HCP outweigh the benefits of including that portion of critical habitat in unit SCZ–1 as critical habitat.

Exclusion Will Not Result in Extinction of the Subspecies

We do not believe that this exclusion would result in the extinction of the subspecies because the Bonny Doon HCP provides for subspecies' conservation in this area through the detailed minimization and mitigation measures described above.

Draft East Contra Costa County Habitat Conservation Plan (ECCHCP)

The draft ECCHCP was released to the public on September 6, 2005. We expect a finalized plan before the end of December 2006. Participants in this HCP include the County of Contra Costa; the cities of Brentwood, Clayton, Oakley, and Pittsburg, California; and the Contra Costa Water District. The draft ECCHCP encompasses the eastern portion of Contra Costa County from approximately west of Concord to Sand Mound Slough and Clifton Court Forebay on the east. The draft ECCHCP is also a subregional plan under the State's Natural Community Conservation Planning (NCCP) process and was developed in cooperation with the California Department of Fish and Game. The draft ECCHCP identifies the California red-legged frog as a covered subspecies and has identified areas where growth and development are expected to occur, as well as several conservation measures, including (1) Preserving aquatic and upland California red-legged frog habitat; (2) preserving major habitat connections linking existing public lands; (3) incorporating a range of habitat and population management and enhancement measures, including monitoring; (4) fully mitigating the impacts to covered species and subspecies; (5) maintaining ecosystem processes; and (6) contributing to the recovery of covered species and subspecies. When the conservation measures are implemented, they will benefit California red-legged frog conservation by preserving and restoring existing wetland and upland habitat and creating new wetland habitat for the subspecies. We expect that the draft ECCHCP, when finalized, will provide substantial protection for all four of the primary constituent elements for the California red-legged frog, and that protected lands will receive special management they require through funding mechanisms that will be implemented under the ECCHCP. In total, we are excluding approximately 15,160 ac (6,135 ha) of land from units CCS–1B and ALA–1A in Contra Costa County.

Benefits of Exclusion Outweigh the Benefits of Inclusion

We expect the ECCHCP to provide substantial protection of the PCEs and special management of essential habitat for the California red-legged frog on ECCHCP conservation lands. We expect the ECCHCP to provide a greater level of management for the California red-legged frog on private lands than would designation of critical habitat on private lands. Moreover, inclusion of these non-Federal lands as critical habitat would not necessitate additional management and conservation activities that would exceed the approved ECCHCP and its implementing agreement. As a result, we do not anticipate any action on these lands would destroy or adversely modify the areas designated as critical habitat. Therefore, we do not expect that including those areas in the final designation would lead to any changes to actions on the conservation lands to avoid destroying or adversely modifying that habitat.

The exclusion of these lands from critical habitat will help preserve the partnerships that we have developed with the local jurisdiction and project proponent in the development of the ECCHCP. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the subspecies, are still accomplished from material provided on our Web site and through public notice-and-comment procedures required to establish the ECCHCP. For these reasons, we believe that designating critical habitat has little benefit in areas covered by the draft ECCHCP.

We have reviewed and evaluated the benefits of inclusion and the benefits of exclusion of critical habitat for the California red-legged frog. Based on this evaluation, we find that the benefits of exclusion of the lands essential to the conservation of the California red-legged frog in the planning area for the draft ECCHCP outweigh the benefits of including those lands within eastern Contra Costa County.

Exclusion Will Not Result in Extinction of the Subspecies

We do not believe that this exclusion would result in the extinction of the subspecies because the draft ECCHCP seeks to: (1) Preserve between 24,455 to 29,467 ac (9,897 to 11,925 ha) of upland foraging and dispersal habitat (not including additional lands identified in open space and parks); (2) preserve between 28 to 36 wetted ac (11 to 15 wetted ha) of non-stream breeding habitat and between 85 to 98 mi (137 to 158 km) of stream breeding habitat; (3) create approximately 33 wetted ac (13 wetted ha) of ponds; (4) restore approximately 85 ac (34 ha) of perennial wetland complex; (5) preserve major habitat connections linking existing public lands; (6) incorporate a range of habitat and population management and enhancement measures; (7) fully mitigate the impacts of covered species and subspecies, including the California red-legged frog; (8) maintain ecosystem processes; and (9) contribute to the recovery of covered species and subspecies.

Western Riverside Multiple Species Habitat Conservation Plan

In the revised proposed designation published in the **Federal Register** on November 3, 2005 (70 FR 66906), we proposed the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) as a potential exclusion under section 4(b)(2) of the Act. The Economic Analysis for the revised proposed designation identified Unit RIV–1 within a census tract with disproportionately high economic costs. As a result of these costs, Unit RIV–1 has been excluded from the designation (see *Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act* below).

Relationship of Critical Habitat to Approved Management Plans—Exclusions Under Section 4(b)(2) of the Act

East Bay Regional Park

The EBRPD manages 65 regional parks, recreation areas, wilderness, shorelines, preserves, and land bank areas covering over 95,000 ac (34,446 ha) in Alameda and Contra Costa counties. The EBRPD Board of Directors adopted the EBRPD Plan on December 17, 1996, under Resolution Number 1996–12–349. The EBRPD Plan provides for monitoring and conservation of rare, threatened, and endangered taxa, including the California red-legged frog. Conservation efforts take precedence over other park activities if EBRPD activities are determined to have a significant adverse effect on rare, threatened, or endangered taxa (EBRPD 1997).

Benefits of Exclusion Outweigh the Benefits of Inclusion

We expect the EBRPD to provide substantial protection of the PCEs and special management of essential habitat

for the California red-legged frog on EBRPD lands within units CCS–1B and ALA–1A. We expect the EBRPD to provide a greater level of management for the California red-legged frog on private lands than would designation of critical habitat on private lands. Moreover, inclusion of these non-Federal lands as critical habitat would not necessitate additional management and conservation activities already in place by the EBRPD. As a result, we do not anticipate any action on these lands would destroy or adversely modify the areas designated as critical habitat. Therefore, we do not expect that including those areas in the final designation will lead to any changes to actions on the conservation lands to avoid destroying or adversely modifying that habitat.

The exclusion of these lands from critical habitat would help preserve the partnerships that we have developed with the EBRPD. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the subspecies, are still accomplished from material provided on our website and through public notice-and-comment procedures. The public also has been informed through the public participation that occurred during the development of the revised proposed designation and previous listing and critical habitat actions for the subspecies. For these reasons, we believe that designating critical habitat within units CCS–1B and ALA–1A has little benefit in areas managed by the EBRPD.

We have evaluated the conservation measures for the California red-legged frog identified by the EBRPD. Based on this evaluation, we currently find that the benefits of excluding those portions of Unit CCS–1B and ALA–1A considered essential to the conservation of the California red-legged frog within the boundaries of the EBRPD land outweigh the benefits of including those portions of land as critical habitat.

Exclusion Will Not Result in Extinction of the Subspecies

We have determined that exclusion of these lands within Unit CCS–1B and ALA–1A, which are considered occupied habitat, would not result in the extinction of the California red-legged frog. Actions which might adversely affect the subspecies are expected to have a Federal nexus, and would thus undergo a consultation with the Service under section 7 of the Act. The jeopardy standard of section 7 of the Act, and routine implementation of habitat preservation through the section 7 process, provide assurance that the subspecies will not go extinct. In addition, the subspecies is protected from the take prohibitions under section 9 of the Act. The exclusion leaves these protections unchanged from those that would exist if the excluded areas were designated as critical habitat.

The subspecies occurs on lands protected and managed either explicitly for the subspecies, or indirectly through more general objectives to protect natural values; this factor acts in concert with the other protections provided under the Act for these lands absent designation of critical habitat on them, and acts in concert with protections afforded the subspecies by the remaining critical habitat designation for the subspecies, which leads us to find that exclusion of these lands will not result in extinction of the California red-legged frog. We do not believe that this exclusion would result in the extinction of the subspecies because the subspecies is found in other areas and the EBRPD Plan provides for monitoring and conservation of rare, threatened, and endangered taxa, including the California red-legged frog. EBRPD has been actively conducting California red-legged frog surveys and research over the last 15 years under U.S. Fish and Wildlife Service recovery permit number 817400. During the years of 1996, 2000, and 2004, EBRPD conducted California red-legged frog surveys across all park lands for the purpose of population trend monitoring and habitat assessment. Research has also focused on California red-legged frog habitat requirements, tolerances related to water quality, adult and juvenile movements, and the effect of livestock grazing on habitat and frog reproduction. EBRPD provides educational outreach through park interpretive programs and presentation of California red-legged frog research findings at scientific conferences and in peer reviewed journals. Habitat restoration and nonnative predator control are special management actions the EBRPD has used and continues to use for the conservation of the California red-legged frog. Nearly 90 percent of the EBRPD land holdings are protected and managed as natural parklands, thereby providing protection for the PCEs (Bobzien, pers com. 2005). Conservation efforts take precedence over other park activities if EBRPD activities are determined to have a significant adverse effect on rare, threatened, or endangered taxa (EBRPD 1997).

Spivey Pond Management Area (SPMA) (Unit ELD–1)

The SPMA encompasses 54 ac (22 ha) of BLM-owned lands surrounding Spivey Pond in El Dorado County, California. Spivey Pond is one of five known extant California red-legged frog breeding populations in the Sierra Nevada foothills. In July 2004, a management plan for the California red-legged frog was approved and signed by the Service, BLM, Bureau of Reclamation (USBR), CDFG, El Dorado County, El Dorado Irrigation District, the American River Conservancy, and the El Dorado National Forest. The Spivey Pond Management Plan (SPMP) consists of six management objectives specifically for the conservation of the California red-legged frog: Control of bullfrogs and predatory fish; monitoring of water quality; maintenance of the pond's integrity and habitat/water quality; creation and management of additional California red-legged frog breeding habitat; promotion of research and maintenance of a GIS database; and providing input for watershed level planning and activities that may benefit Spivey Pond.

In 1997, a population of a reproducing California red-legged frogs was discovered in Spivey Pond on the north fork of Webber Creek. The previous confirmed sightings of a California red-legged frog in the Webber Creek watershed were in 1972 and 1975 for the entire Sierra Nevada foothill region. At the time of discovery, the Spivey Pond parcel was privately owned and slated for timber harvest and subdivision development. The Service urged the American River Conservancy (ARC) to initiate negotiations with the owners of the Spivey Pond for purchase of the property. With financial assistance from the Service and the USBR, ARC succeeded in purchasing the 54-acre Spivey Pond parcel on April 28, 1998. Additional grant funding from the National Fish and Wildlife foundation was received on September 15, 1998, which allowed for initial pond stabilization and restoration work. On May 3, 1999, all preliminary acquisition and restoration activities were completed, and the parcel was transferred to the BLM to be managed as a wildlife reserve specifically for the benefit of the California red-legged frog. In March 2004, we issued a non-jeopardy biological opinion for development of a new breeding pond for the subspecies (1–1–03–F–0289).

Benefits of Exclusion Outweigh Benefits of Inclusion

We believe that the benefits of excluding the entire 54 ac (22 ha) SPMA from the designation of critical habitat for the California red-legged frog outweigh the benefits of including the SPMA in critical habitat. We find that including the SPMA would result in very minimal, if any additional, benefits to the California red-legged frog, as explained above. The critical habitat designation would remain on lands surrounding the SPMA, thereby providing a measure of protection for the PCEs outside the area, while the management plan would protect the PCEs and provide additional benefits of nonnative predator control, habitat management and creation, and pollution monitoring within the area.

Exclusion Will Not Result in Extinction of the Subspecies

We also find that the exclusion of these lands will not lead to the extinction of the subspecies, nor hinder its recovery because the management emphasis of the SPMA is to protect and enhance habitat for the California red-legged frog.

National Forest Lands Within the Sierra Nevada

We are excluding those portions of critical habitat units BUT–1, YUB–1, NEV–1, and ELD–1 that are managed by the Plumas, Tahoe and El Dorado National Forests from this final designation of critical habitat for the California red-legged frog pursuant to section 4(b)(2) of the Act because those lands are managed under the Sierra Nevada Forest Plan Amendment (SNFPA) (NEV–1, ELD–1, and BUT–1) and Herger-Feinstein Quincy Library Group (HFQLG) (YUB–1, BUT–1, and NEV–1).

Of the five known Sierra Nevada foothill California red-legged frog populations, only the Hughes Place (BUT–1) and Little Oregon Creek (YUB–1) breeding populations are located exclusively on land managed by the U.S. Forest Service (Plumas National Forest). The other three known Sierra Nevada population breeding ponds are located on private (CAL–1 and NEV–1) or other Federally (BLM) owned land (ELD–1). However, portions of two of the three (NEV–1 and ELD–1) critical habitat units are on U.S. Forest Service lands. The Plumas National Forest is taking an active role in the conservation and management of California red-legged frog populations through direct land acquisition and research concerning frog movement in the Sierra Nevada. We are excluding a total of 7,644 ac (3,094 ha) of U.S. Forest Service land from critical habitat units BUT–1, YUB–1, NEV–1 and ELD–1 from this final designation of critical habitat for the California red-legged frog.

The El Dorado and Tahoe National Forests are managed through the implementation of the SNFPA Record of Decision (ROD) by application of the Aquatic Management Strategy (AMS). This strategy includes landscape and project-level analysis, achieving Riparian Conservation Objectives (RCO) and implementation of best management practices (BMPs). Standards and guidelines will be implemented in order to achieve RCOs. These standards and guidelines will include assessing and documenting aquatic conditions prior to implementing ground disturbance activities, and developing mitigation measures to avoid impacting the frog when ground-disturbing activities are within Riparian Conservation Areas (RCA) or critical aquatic refuges (CARs). Application of pesticides will be avoided in areas within 500 ft (150 m) of known occupied sites unless environmental analysis documents demonstrate that pesticides are needed to restore or enhance habitat for the California red-legged frog.

The Plumas National Forest is managed through the implementation of the SNFPA and HFQLG RODs. The HFQLG ROD applies Scientific Analysis Team (SAT) guidelines for riparian area management. These guidelines include implementation of 300 ft (90 m) buffers along all waterways and ephemeral wetlands, and 500 ft (150 m) buffers along known occupied California red-legged frog sites. However, these buffers may be varied if the riparian management objectives of the SAT guidelines can be met. Six critical aquatic refuges will be placed on the Plumas National Forest after completion of the HFQLG pilot project. CARs are used to protect known locations of threatened, endangered, or sensitive species dependent on aquatic or riparian habitats. For non-HFQLG projects, the Plumas National Forest implements the 2004 SNFPA AMS.

Benefits of Exclusion Outweigh Benefits of Inclusion

The SNFPA, through the implementation of its Aquatic Management Strategy, provides more benefits for the conservation of the California red-legged frog than critical habitat would. The SNFPA provides for protection of the PCEs and implementation of actions that could address special management needs such as habitat restoration, nonnative predator control and land acquisitions. Activities conducted under HFQLG provide buffer zone guidelines around known occupied California red-legged frog sites and all other aquatic areas. Furthermore, all actions that occur on USFS lands require consultation under section 7 of the Act. In 2003, we issued a biological opinion on the SNFPA Supplemental Environmental Impact Statement and concluded that the proposed alternative action was not likely to jeopardize the continued existence of the California red-legged frog (Service number 1–1–03–F–2638).

We believe that the benefits of excluding U.S. Forest Service lands managed under the SNFPA and HFQLG from the designation of critical habitat for the California red-legged frog outweigh the benefits of including those lands in critical habitat. We find that including the U.S. Forest Service lands that are managed under the SNFPA and HFQLG would result in very minimal, if any additional, benefits to the California red-legged frog, as explained above. The critical habitat designation would remain on private lands containing essential features adjacent to U.S. Forest Service lands, thereby providing a measure of protection for the PCEs outside of the area.

Exclusion Will Not Result in Extinction of the Subspecies

We also find that the exclusion of these lands will not lead to the extinction of the subspecies, nor hinder its recovery because the SNFPA and HFQLG RODs have provisions for the conservation of the California red-legged frog as part of their aquatic management strategies. These strategies apply standards and guidelines, such as default riparian conservation area buffers, critical aquatic refuges, and scientific analysis team guidelines, to prevent, minimize, maintain, or enhance riparian areas necessary to conservation of the California red-legged frog. In addition, all actions that occur on USFS lands require consultation under section 7 of the Act.

Relationship of Critical Habitat to Conservation Partnerships—Exclusions Under Section 4(b)(2) of the Act

Unit CAL–1, Young's Creek

The Young's Creek unit is located in Calaveras County north of State Route 26 and south of Paloma Road. The unit consists of approximately 4,449 ac (1,801 ha) of land, the majority of which is private land. The unit contains one known population of California red-legged frogs discovered in a single pond

in 2003. Since the discovery, we have been working with the private landowner to enhance the existing pond and develop additional ponds on the property. We have entered into a long-term management agreement with the landowner to conserve these habitats on their lands. The long-term management agreement identifies measures designed to protect, preserve, and enhance habitat for the California red-legged frog. These measures include: control livestock access to riparian and ponded areas, provide technical assistance and oversight, provide biannual monitoring reports, and conduct nonnative fish and bullfrog removal.

Additional Benefits of Exclusion

We have been working with an adjacent landowner in the unit to develop a similar long-term management agreement for areas that could potentially assist in the conservation of the California red-legged frog. However, recently, the second landowner has decided not to pursue an agreement with the Service. We believe that utilizing the Secretary's discretion in excluding this unit will encourage other willing landowners in the unit to continue their conservation activities and will allow the Service to expand enrollment of other private landowners in the unit into conservation partnerships for conserving additional frog habitat. The benefits of exclusion include providing incentive for continued conservation and restoration on private lands where landowners have shown a willingness to participate in such activities.

The Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act and the Federal District Court decision concerning critical habitat (*Center for Biological Diversity* v. *Norton*, Civ. No. 01–409 TUC DCB D. Ariz. Jan. 13, 2003), we have determined that the benefits of excluding unit CAL–1 as critical habitat outweigh the benefits of including it as critical habitat for the California red-legged frog. The area where the California red-legged frog is known to occur is already managed to protect and enhance habitat specifically for the subspecies (e.g., control livestock access to riparian and ponded areas, provide biannual monitoring reports, and conduct nonnative fish and bullfrog removal). Exclusion of these lands will not decrease existing protection of the jeopardy standard under section 7 of the Act or the take prohibitions under section 9 of the Act. Conservation of the California red-legged frog in this area will require proactive restoration efforts and the cooperation of private landowners, and such efforts are currently underway. We believe that designating the remaining lands in the unit as critical habitat will impair our efforts to work with private landowners to conserve and help recover the subspecies in the county. We further believe that utilizing the Secretary's discretion to exclude these lands from designation as critical habitat will encourage willing landowners to continue their conservation activities and will allow us to expand enrollment of private landowners into conservation partnerships for conserving frog habitat. We conclude that the benefits of the public-private partnerships established in this area to conserve the California red-legged frog are superior to the prohibitive protections conferred by a critical habitat designation and the potential for unintended anti-conservation incentives that such designation could bring. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition for special habitat values on lands that are expressly managed to protect and enhance those values and would deter other local conservation efforts for the California red-legged frog in the County.

Exclusion Will Not Result in Extinction of the Subspecies

We do not believe that this exclusion would result in the extinction of the subspecies because the long-term management agreement with the landowner and enhancement and development of additional California red-legged frog habitat on the property will assist in conservation of the subspecies within the area. Also additional areas in the Sierras (e.g., Spivey Pond) are protected and being managed for the benefit of the California red-legged frog.

Relationship of Critical Habitat to Economic Impacts—Exclusions Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act allows the Secretary to take into consideration potential economic impacts of a critical habitat designation and to exclude areas from critical habitat for economic reasons if [s]he determines that the benefits of such exclusion exceed the benefits of designating the area as critical habitat, unless the exclusion will result in the extinction of the species concerned. This is a discretionary authority Congress has provided to the Secretary with respect to critical habitat. Although economics may not be considered when listing a species, Congress has expressly required this consideration when designating critical habitat.

In conducting economic analyses, we are guided by the Tenth Circuit Court of Appeal's ruling in the New Mexico Cattle Growers Association case (248 F.3d at 1285), which directed us to consider all impacts, "regardless of whether those impacts are attributable co-extensively to other causes." As explained in the analysis, due to possible overlapping regulatory schemes and other reasons, there are also some elements of the analysis that may overstate some costs. However, we have taken into consideration that all of the costs and other impacts predicted in the economic analysis may not be avoided by excluding the following areas from this final designation, due to the fact that all of the areas in question are currently occupied by the listed subspecies and there will still be requirements for consultation under section 7 of the Act or for permits under section 10 (henceforth "consultation"), for any authorized take of these subspecies, as well as other protections for the subspecies elsewhere in the Act and under State and local laws and regulations.

Conversely, the Ninth Circuit has recently ruled (*Gifford Pinchot*, 378 F.3d at 1071) that the Service's regulations defining "adverse modification" of critical habitat are invalid because they define adverse modification as affecting both survival and recovery of a species. The Court directed us to consider that determinations of adverse modification should be focused on impacts to recovery. While we have not yet proposed a new definition for public review and comment, compliance with the Court's direction may result in additional costs associated with the designation of critical habitat (depending upon the outcome of the rulemaking). In light of the uncertainty concerning the regulatory definition of adverse modification, our current methodological approach to conducting economic analyses of our critical habitat designations is to consider all conservation-related costs. This approach would include costs related to sections 4, 7, 9, and 10 of the Act, and should encompass costs that would be considered and evaluated in light of the *Gifford Pinchot* ruling.

Application of Section 4(b)(2)—Economic Exclusion to 19 Census Tracts

We are excluding approximately 250,329 ac (101,305 ha) (approximately 34 percent of the revised proposed critical habitat) of the California red-

legged frog's essential habitat in the 19 census tracts listed in Table 3 based on disproportionately high economic costs.

TABLE 3.—EXCLUDED CENSUS TRACTS AND COSTS

Census tract	County	Adjusted welfare impact in final economic analysis
6001451101	Alameda	$45,017,296
6013355104	Contra Costa	39,737,940
6079011502	San Luis Obispo	37,144,976
6079010901	San Luis Obispo	36,953,856
6079011000	San Luis Obispo	36,245,748
6001450721	Alameda	26,886,492
6079010400	San Luis Obispo	21,288,106
6079010500	San Luis Obispo	20,313,812
6083001701	Santa Barbara	17,040,264
6001450701	Alameda	16,035,912
6083002910	Santa Barbara	15,088,389
6111007404	Ventura	14,813,216
6065043224	Riverside	13,885,294
6013303200	Contra Costa	13,203,474
6013355106	Contra Costa	10,361,391
6079010800	San Luis Obispo	9,565,995
6081613700	San Mateo	8,501,778
6095252202	Solano	6,903,767
6081613800	San Mateo	6,820,789
Total		395,808,495

The revised proposed designation and notice of availability of the draft economic analysis (70 FR 66906; November 3, 2005) solicited public comment on the potential exclusion of high cost areas. As we finalized the economic analysis, we identified high costs associated with the revised proposed critical habitat designation to public projects in Kern, Merced, Riverside, and San Luis Obispo counties. These public projects were the widening of State Routes 46, 152, 79, and 46. The final economic analysis indicates additional costs in census tracts in which these projects were located were approximately $687,000 for the four projects. On the basis of the significance of these costs, we determined that the project areas be excluded from the designation. The critical habitat unit associated with the project area in Riverside County is identified in Table 3 above for exclusion, and no additional exclusion of this area was necessary.

Benefits of Inclusion of the 19 Excluded Census Tracts

The areas excluded (Table 3) are currently occupied by the California red-legged frog. If these areas were designated as critical habitat, any actions with a Federal nexus that may adversely affect the critical habitat would require a consultation with us, as explained above in the section of this notice entitled "Effects of Critical Habitat Designation." Primary constituent elements in these areas would be protected from destruction or adverse modification by Federal actions using a conservation standard based on the Ninth Circuit's decision in *Gifford Pinchot*. This requirement would be in addition to the requirement that proposed Federal actions avoid likely jeopardy to the subspecies' continued existence. However, inasmuch as all these units are currently occupied by the subspecies, consultation for activities that may adversely affect the subspecies, including possibly significant habitat modification (see definition of "harm" at 50 CFR 17.3), would be required even without the critical habitat designation. The requirement to conduct such consultation would occur regardless of whether the authorization for incidental take occurs under either section 7 or section 10 of the Act. For the occupied areas, there is still a requirement for a jeopardy analysis to ensure Federal actions are not likely to jeopardize the continued existence of the subspecies.

In the economic analysis, we determined, however, that designation of critical habitat could result in approximately $395,808,495 in costs in these 19 census tracts, the majority of which are directly related to residential development impacts. We believe that the potential decrease in residential housing development that could be caused by this designation of critical habitat for the California red-legged frog would minimize impacts to and potentially provide some protection to the subspecies, aquatic habitats where they reside, and the physical and biological features essential to the subspecies' conservation (i.e., the primary constituent elements). Thus, this decrease in residential housing development would directly translate into a potential benefit to the subspecies that would result from this designation.

Another possible benefit of a critical habitat designation is education of landowners and the public regarding the potential conservation value of these areas. This may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. However, we believe that this education benefit has largely been achieved, or is being achieved in equal measure by other means (e.g., Recovery Plan planning efforts). The critical habitat designation and recovery plan would provide information geared to the general public, landowners, and agencies about areas that are important for the conservation of the subspecies and what actions they can implement to further the conservation of the California red-legged frog within their own jurisdiction and capabilities. The recovery plan also contains provisions for ongoing public outreach and education as part of the recovery process.

In summary, we believe that inclusion of the 19 census tracts as critical habitat would provide some additional Federal

regulatory benefits for the subspecies. However, that benefit is limited to some degree by the fact that the areas proposed as critical habitat are occupied by the subspecies, and therefore there must, in any case, be consultation with the Service for any Federal action that may affect the subspecies in those 19 census tracts. The additional educational benefits that might arise from critical habitat designation are largely accomplished through the multiple opportunities for public notice-and-comment, which accompanied the development of this regulation; publicity associated with prior litigation; and public outreach associated with the development of the draft, and the implementation of the final, Recovery Plan for the California red-legged frog.

Benefits of Exclusion of the 19 Excluded Census Tracts

The economic analysis conducted for this proposal estimates that the costs associated with designating these 19 census tracts would be approximately $395,808,495. Costs would be associated with the designation of critical habitat for the California red-legged frog in amounts shown in Table 3 above. By excluding these census tracts, some or all of these costs will be avoided. Three important public-sector projects, the widening of State Routes 46, 79, and 152, will avoid additional costs associated with critical habitat designation.

Benefits of Exclusion Outweigh the Benefits of Inclusion of the 19 Census Tracts

We believe that the benefits of excluding these lands from the designation of critical habitat—avoiding the potential economic and human costs, both in dollars and jobs, predicted in the economic analysis—exceed the educational and regulatory benefits that could result from including those lands in this designation of critical habitat.

We have evaluated and considered the potential economic costs on the residential development industry relative to the potential benefit for the California red-legged frog and its primary constituent elements derived from the designation of critical habitat. We believe that the potential economic impact of more than approximately $395 million on the development industry significantly outweighs the potential conservation and protective benefits for the subspecies and their primary constituent elements derived from avoiding residential development as a result of this designation.

We also believe that excluding these lands, and thus helping landowners avoid the additional costs that would result from the designation, will contribute to a more positive climate for HCPs and other active conservation measures that provide greater conservation benefits than would result from designation of critical habitat—even in the post-*Gifford Pinchot* environment—which requires only that there be no adverse modification resulting from actions with a Federal nexus. We therefore find that the benefits of excluding these areas from this designation of critical habitat outweigh the benefits of including them in the designation.

We believe that the recovery planning process has already provided information about habitat that contains those features considered essential to the conservation of the California red-legged frog and has facilitated conservation efforts through heightened public awareness of the plight of the listed subspecies to the public, State and local governments, scientific organizations, and Federal agencies. The final Recovery Plan contains explicit objectives for ongoing public education, outreach, and collaboration at local, State, and Federal levels, and between the private and public sectors, in recovering the California red-legged frog.

Exclusion Will Not Result in Extinction of the Subspecies

We believe that exclusion of these lands will not result in the extinction of the California red-legged frog as these areas are considered occupied habitat, and actions that might adversely affect the subspecies are expected to have a Federal nexus, which would trigger a section 7 consultation with the Service. The jeopardy standard of section 7 of the Act, and routine implementation of habitat preservation through the section 7 process, as discussed in the economic analysis, provide assurance that the subspecies will not go extinct. In addition, the subspecies is protected from take under section 9 of the Act. The exclusion leaves these protections unchanged from those that would exist if the excluded areas were designated as critical habitat.

Critical habitat is being designated for the subspecies in other areas that will be accorded the protection from adverse modification by Federal actions using the conservation standard based on the Ninth Circuit decision in *Gifford Pinchot*. Additionally, the subspecies occurs on lands protected and managed either explicitly for the subspecies, or indirectly through more general objectives to protect natural values. This provides protection from extinction while conservation measures are being implemented. For example, the California red-legged frog is protected on lands such as conservation banks and other natural areas protected by perpetual conservation easements and managed specifically for the subspecies and its habitat (e.g., Ohlone Conservation Bank), and also on a variety of natural areas managed to maintain and enhance natural values (e.g., Sierra Nevada U.S. Forest Service Lands, Point Reyes National Park). The subspecies also occurs on lands managed to protect and enhance wetland values under the Wetlands Reserve Program of the Natural Resource Conservation Service. These factors acting in concert with the other protections provided under the Act for these lands absent designation of critical habitat on them, and acting in concert with protections afforded each species by the remaining lands that have been designated critical habitat for the subspecies, lead us to find that exclusion of these 19 census tracts will not result in extinction of the California red-legged frog.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the subspecies concerned.

Concurrent with the publication of the revised proposed critical habitat designation, we announced the availability of an economic analysis that estimated the potential economic effect of the designation. The draft analysis was made available for public review on November 3, 2005 (70 FR 66906). We accepted comments on the draft analysis until February 1, 2006.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for the California red-legged frog. This information is intended to assist the Secretary in making decisions about whether the benefits of excluding particular areas from the designation outweigh the benefits of including those areas in the designation. This economic analysis considers the economic

efficiency effects that may result from the designation, including habitat protections that may be co-extensive with the listing of the subspecies. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. This information can be used by the Secretary to assess whether the effects of the designation might unduly burden a particular group or economic sector.

This analysis focuses on the direct and indirect costs of the rule. However, economic impacts to land use activities can exist in the absence of critical habitat. These impacts may result from, for example, local zoning laws, State and natural resource laws, and enforceable management plans and best management practices applied by other State and Federal agencies. Economic impacts that result from these types of protections are not included in the analysis as they are considered to be part of the regulatory and policy baseline.

We received comments on the draft economic analysis of the revised proposed designation. Following the close of the comment period, we reviewed and considered the public comments and information we received and prepared responses to those comments (see Responses to Comments section above) or incorporated the information or changes directly into this final rule or our final economic analysis.

The November 3, 2005, notice (70 FR 66906) provides a detailed economics section that estimates an economic impact of the designation on land development of $497,647,833. The revised impact on transportation projects is $687,000. The total revised cost of designation is thus $498,334,833, or $24,916,741 annualized over 20 years. By excluding the top 19 census tracts (80 percent of the costs) (refer to the *Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section above for further explanation*), the total cost of this final designation of critical habitat for the California red-legged frog is reduced to $102,526,338 (or $5,126,317 annualized over 20 years).

A copy of the final economic analysis with supporting documents is included in our administrative record and may be obtained by contacting U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office (see **ADDRESSES** section) or by downloading from the Internet at *http://www.fws.gov/sacramento/*.

Special Rule Under Section 4(d) of the Act Associated With Final Listing

Section 4(d) of the Act imparts the authority to issue regulations necessary and advisable to provide for the conservation of threatened species. Under section 4(d), the Secretary may publish a special rule that modifies the standard protections for threatened species under the Service's regulations implementing section 9 of the Act at 50 CFR 17.31 with special measures tailored to the conservation of the species. We believe that, in certain instances, easing the general take prohibitions on non-Federal lands may encourage continued responsible land uses that provide an overall benefit to the subspecies. We also believe that such a special rule will promote the conservation efforts and private lands partnerships critical for subspecies recovery (Wilcove et al. 1996; Knight 1999; Main et al. 1999; Norton 2000; Bean 2002; Conner and Matthews 2002; Crouse et al. 2002; James 2002; Koch 2002). However, in easing the take prohibitions under section 9 of the Act, the measures developed in the special rule must also contain prohibitions necessary and appropriate to conserve the subspecies.

As discussed elsewhere in this final rule, the California red-legged frog faces many threats. Foremost among these is the continuing loss of aquatic breeding and associated uplands. Historically, permanent and ephemeral streams and ponds served as the predominant breeding habitat for the California red-legged frog and were essential components for the subspecies' stability throughout its range (Storer 1925; Jennings and Hayes 1994). With the loss of these natural habitats during the last century, alternative breeding sites have become more critical for the continued survival of the California red-legged frog.

Stock ponds created for livestock ranching are important alternative breeding sites for the California red-legged frog, as evidenced by the substantial number of California red-legged frog locality records from these artificial habitats (CNDDB 2005). While various activities associated with livestock operations may result in inadvertent take of California red-legged frog adults, juveniles, or eggs, livestock ranching stock ponds with suitable adjacent upland habitat provide valuable upland habitat for forage, feeding, predator avoidance, and dispersal for the remaining California red-legged frogs. Maintaining California red-legged frog's use of stock ponds on livestock ranches for breeding appears to be an important link in the conservation and recovery of this subspecies. For this reason, we are, in this rule, finalizing a special rule under section 4(d) of the Act that exempts routine livestock ranching activities on private or Tribal lands where there is no Federal nexus from the take prohibitions under section 9 of the Act. The special rule applies to those situations, whether currently existing or that may develop in the future, where livestock ranching is the primary land use or livelihood and where the routine activities are essential for the continued operation of the livestock ranch.

Special rules developed under section 4(d) of the Act are published in the **Federal Register** concurrent with or subsequent to the listing of a species. With the finalization of this special rule, the general regulations at 50 CFR 17.31 will not apply to the California red-legged frog. Our rationale behind the development of the special rule is discussed below.

Livestock ranching is a dynamic process, which requires the ability to adapt to changing environmental and economic conditions. However, many of the activities essential to successful ranching are considered routine, and are undertaken at various times and places throughout the year as need dictates. Although this special rule is not intended to provide a comprehensive list of those ranching activities considered routine, some examples include: maintenance of stock ponds; fence construction for grazing management; planting, harvest, and rotation of unirrigated forage crops; maintenance and construction of corrals, ranch buildings, and roads; discing of field sections for fire prevention management; control of noxious weeds by prescribed fire or by herbicides; placement of mineral supplements; and rodent control.

Routine activities associated with livestock ranching have the potential to affect California red-legged frogs. Some routine activities have the potential to positively affect California red-legged frogs (e.g., creation of suitable stock pond breeding habitats), while other activities may be neutral with respect to California red-legged frog effects (e.g., construction of ranch buildings in areas unsuitable for California red-legged frog foraging or dispersal). However, other routine ranching activities have the potential to negatively affect California red-legged frogs, depending on when and where the activities are conducted (e.g., direct take from discing fencelines or perimeter areas for fire prevention during a rainy period when California

red-legged frogs may be moving from one area to another).

While section 9 of the Act provides general prohibitions on activities that would result in take of a threatened species, the Service recognizes that routine ranching activities, even those with the potential to inadvertently take California red-legged frogs, may be necessary components of livestock operations. The Service also recognizes that it is, in the long term, a benefit to the California red-legged frog to maintain, as much as possible, those aspects of the ranching landscape that can aid in the recovery of the subspecies. We believe this special rule will further conservation of the subspecies by discouraging further conversions of the ranching landscape into habitats unsuitable for the California red-legged frog and encouraging landowners and ranchers to continue managing the remaining landscape in ways that meet the needs of their operation and provide suitable habitat for the California red-legged frog. Development of this special rule for the California red-legged frog follows that of the final special rule for the California tiger salamander (*Ambystoma californiense*) published in the **Federal Register** on August 4, 2004 (69 FR 47212). One difference between the special rules is that burrow fumigant use is not exempted in the California tiger salamander rule; areas in which the species and subspecies coexist would not be exempted for this use.

Routine Livestock Ranching Activities Exempted by the Special Rule

The activities mentioned above and discussed below are merely examples of routine ranching activities that would be exempted by the special rule. Routine activities may vary from one ranching operation to another, and vary with changing environmental and economic conditions: Routine ranching activities include the activities described below, and any others that a rancher may undertake to maintain a sustainable ranching operation. Our premise for not attempting to regulate routine activities is that, ultimately, we believe that a rancher acting in the best interest of maintaining a sustainable ranching operation also is providing incidental but significant conservation benefits for the California red-legged frog.

In this special rule, we describe and recommend best management practices for carrying out routine ranching activities in ways that would minimize take of California red-legged frogs, but we do not require these practices. Overall, we believe that minimizing the regulatory restrictions on routine ranching activities will increase the likelihood that more landowners will voluntarily allow California red-legged frogs to persist or increase on their private lands, and that the impacts to California red-legged frogs from such activities are far outweighed by the benefits of maintaining a rangeland landscape where California red-legged frogs can coexist with a ranching operation, as opposed to alternative land uses in which California red-legged frogs would be eliminated entirely.

Sustainable Livestock Grazing. The act of grazing livestock on rangelands in a sustainable manner (i.e., not overgrazed to the point where rangeland is denuded and compacted) has the potential for take of the California red-legged frog. Grazing livestock in California red-legged frog-occupied areas may trample individual California red-legged frogs as they move to and from their upland habitats, or as adults and newly metamorphosed juveniles leave breeding ponds (Fellers and Kleeman 2005). California red-legged frog egg masses could be trampled or dislodged from egg braces by livestock milling in the pond. Additionally, numerous studies, summarized by Kauffman and Krueger (1984) and Belsky et al. (1999), have shown that unmanaged livestock grazing (overgrazing) can negatively affect riparian and instream aquatic habitat. Some of the effects of unmanaged grazing include: higher instream water temperatures resulting from reduction or removal of vegetation, channel down-cutting, lowered water tables, and loss of plunge pools, which results in direct loss of pool habitats for the California red-legged frog (Patla and Keinath 2005), as well as diminished water quality through increased sediment loads and nutrient levels (Belsky et al. 1999).

By contrast, sustainable grazing may benefit the California red-legged frog in several ways. For example, at the Point Reyes National Seashore in Marin County, an area where there are more than 120 breeding sites with an estimated total adult population of several thousand California red-legged frogs, the majority of the breeding sites are artificial stockponds constructed on lands that have been grazed by cattle for over 150 years (Fellers and Guscio 2004). On the EBRPD lands in Contra Costa and Alameda counties, 43 of 179 ponds surveyed that were exposed to grazing, and were characterized with and without emergent vegetation, supported successful breeding frog populations, often exhibiting high rates of annual breeding (Bobzien et al. 2000). Sustainable levels of grazing may keep ponds from becoming completely vegetated by emergent aquatic vegetation. During the past 10 years of monitoring, EBRPD has noted 47 of 207 California red-legged frog ponds silted in after being fenced off from livestock grazing (Bobzien, in litt. 2005). California red-legged frogs are typically found in ponds with both open water and emergent aquatic vegetation. The potential benefits of sustainable livestock grazing, according to normally acceptable and established levels of intensity to prevent overgrazing, provide justification for including this routine activity in this special rule.

Stock Pond Management and Maintenance. Stock ponds are necessary components of livestock ranching in many parts of the California red-legged frog range, due to California's dry summer climate and the limited availability of naturally occurring water. As discussed previously, created stock ponds may serve as alternative breeding sites for the California red-legged frog in the absence of seasonal or permanent pond or stream habitats. Once a stock pond is occupied as a California red-legged frog breeding site, however, California red-legged frogs may be vulnerable to take from the routine activities necessary to manage and maintain the stock pond for continued livestock use.

Hydroperiod management (i.e., the amount of time the stock pond contains water) of California red-legged frog-occupied stock ponds may be so short that California red-legged frog larvae cannot complete metamorphosis. Stock ponds with suitable hydroperiods for California red-legged frog breeding cycles may require ongoing maintenance to protect water supplies and the integrity of the storage system. Routine maintenance activities can include periodic dredging, dam or berm repair, and mechanical or chemical control of aquatic vegetation. If any of these activities are conducted during the California red-legged frog breeding season, take of California red-legged frogs may occur. In addition, stock ponds may become infested by mosquitoes, requiring controls in order to protect human or livestock health. Mosquito infestations may be controlled by pesticide applications or by the introduction of nonnative fish species that prey on mosquitoes. Take of California red-legged frogs may occur if pesticide applications are made during the California red-legged frog breeding season. Regardless of the time of year nonnative fish are introduced for mosquito control, they may become established in the stock pond and prey

on California red-legged frogs during the breeding season. For the purposes of this special rule, we considered these various activities with regard to whether they could be readily adapted to avoid take of the California red-legged frog.

Hydroperiod management is likely dependent on many factors, including the annual water needs of the livestock operation and the local hydrological conditions (e.g., annual water availability). In any given year, these variables may cause a ranching operation to adjust a stock pond's hydroperiod in ways that could potentially disrupt the California red-legged frog breeding cycle, resulting in take of California red-legged frog adults, juveniles, or eggs. The Service recommends maintaining consistent water levels through the California red-legged frog breeding and juvenile rearing season (through August) to minimize potential take. Drawdown of stock ponds after juvenile metamorphosis would be desirable in some instances for control of bullfrogs and nonnative predatory fish that prey on California red-legged frogs and can significantly reduce juvenile and adult survival. Although stock pond hydroperiods can theoretically be readily adapted to avoid take by maintaining an optimal breeding period for the California red-legged frog, we recognize that the continued viability of a livestock ranching operation may depend on the flexibility to make these hydroperiod adjustments on short notice. We also acknowledge the Service would not be able to provide timely technical assistance to most land managers. For these reasons, routine hydroperiod management of ranching operation stock ponds is included in this special rule.

Periodic dredging to counter the long-term effects of siltation, and the maintenance or repair of containment structures (e.g., dams, berms, levees), are activities necessary to maintain stock pond utility and integrity (N. Cremers, in litt. 2003). Although these actions may result in take of California red-legged frogs if they coincide with the California red-legged frog breeding season, the need to conduct these maintenance activities is episodic and should not be necessary on a regular basis. In addition, we believe it is unlikely that these activities would be necessary during the California red-legged frog breeding season, except in the case of emergency repairs on a catastrophic breach, as a stock pond's integrity for the spring and summer grazing season should be ensured prior to the previous year's rainy winter season. We believe the infrequent nature of these routine activities, coupled with the likelihood that they will be conducted outside of the California red-legged frog breeding season, will have minimal impacts on California red-legged frogs in occupied stock ponds. For these reasons, the routine activities of periodic dredging and containment structure maintenance for ranching operation stock ponds are included in this special rule.

Aquatic vegetation, whether rooted or free-floating, may impede stock pond functionality. Control of this vegetation may be mechanical, (e.g., harvesters, rakes, skimmers), chemical (e.g., aquatic herbicides), or biological (e.g., introduced herbivorous fish). Both mechanical and chemical control methods may result in inadvertent take of California red-legged frogs if conducted during the California red-legged frog breeding and juvenile metamorphosis seasons. It is unlikely that vegetation control would be needed during the breeding period, as the primary time for explosive vegetative growth is during the warm summer months. However, vegetation control may be necessary prior to juvenile California red-legged frog metamorphosis, which could result in take of pre-adult California red-legged frogs.

Mechanical controls may perturb the breeding habitat or cause death or injury to resident California red-legged frogs; however, these impacts would be restricted in time to singular control events. In contrast, chemical control using aquatic herbicides may have little immediate physical impact on California red-legged frogs or breeding habitat, but may negatively impact California red-legged frog health or reproductive fitness for an indefinite time beyond the control event. Hayes et al. (2006) has shown adverse growth and developmental effects can result from low (0.1 parts per billion) concentrations of a combination of pesticides. In addition, because aquatic herbicides disperse throughout a water body, all California red-legged frogs within the water body may potentially be exposed.

We recognize that routine aquatic vegetation control may be essential for the continued operation of stock ponds, and that this activity may not be readily adapted (e.g., postpone control until after California red-legged frog use of stock pond is discontinued) to avoid take of the California red-legged frog. Although both mechanical and chemical controls have the potential to negatively impact California red-legged frogs, we believe mechanical controls pose less long-term risk to breeding populations of California red-legged frogs. The Service discourages the addition of fish to stock ponds (for recreational use and vegetation control) that are, or could be, used by California red-legged frogs. Nonnative, warm water fish can significantly decrease the survivorship of juvenile California red-legged frogs (Alvarez et al. 2003). For the reasons outlined above, the routine activity of aquatic vegetation control in ranching operation stock ponds is included in this special rule. While chemical control of aquatic vegetation in stock ponds is included under the special rule exemption, the Service recommends that this activity be conducted only outside of the general breeding season (November through April) and juvenile stage (April through September) of the California red-legged frog.

Mosquito abatement in aquatic systems is similar to vegetation management, in that several control methods exist. The aquatic mosquito larvae can be controlled by chemical larvicides (e.g., temephos and methoprene), bacterial larvicides, or biological organisms (e.g., predaceous mosquitofish). In addition, mosquito larvae can be controlled through breeding source reduction and proper water management. Bacterial larvicides are especially target-specific, and likely pose little risk to California red-legged frogs using a stock pond; however, these products must be applied in specific timeframes during larval mosquito development to be efficacious. A broader range of non-target effects may be seen from chemical larvicides, with the potential for direct impacts on higher order taxonomic groups such as frogs (Ankley et al. 1998; Sparling and Lowe 1998). Biological organisms such as mosquitofish may become established in the affected water body and compete for resources with juvenile California red-legged frogs. Lawler et al. (1999) found mosquitofish did not affect the survival of California red-legged frog tadpoles; however, tadpoles weighed 34 percent less at metamorphosis than did tadpoles that developed in the absence of mosquitofish competition.

While mosquito control in stock ponds may be a routine activity on ranching operations, we believe it unlikely that control would be necessary during much of the California red-legged frog breeding season, as this period coincides with the rainy winter and spring months. However, when control cannot be avoided during the latter part of the California red-legged frog breeding season, we believe mosquito control activities can be readily adapted to prevent or minimize potential take of California red-legged

frogs by appropriate water level management and/or the proper application of bacterial larvicides. For this reason, these routine activities are included in this special rule. Also included in the special rule is the routine activity of properly applying (i.e., following label directions and product precautions) either chemical or bacterial larvicides into ranching operation stock ponds outside of the California red-legged frog general breeding season. This exemption for routine mosquito control activities from the take prohibitions under section 9 of the Act does not include the purposeful introduction at any time of nonnative biological organisms (e.g., western mosquitofish (*Gambusia affinis*), other predatory warm water fish such as bluegill or bass, or bullfrogs) that may prey on California red-legged frog adults, larvae, or eggs.

Rodent Control. California red-legged frogs may use small mammal rodent burrows during summer months during upland foraging excursions (Tatarian 2004; Fellers and Kleeman 2005); however, it is unknown the extent to which small mammal burrows are essential for the conservation of the California red-legged frog.

Burrowing rodents, particularly the California ground squirrel, may pose problems for livestock ranching operations to such an extent that control measures are necessary. Ground squirrels in sufficient numbers may deplete livestock forage, while their burrows may be a physical hazard for humans, livestock, and ranching machinery (N. Cremers, in litt. 2003). Common control measures for these rodents include shooting, poisoning with approved pesticides, and mechanical modification of burrow complexes (Salmon and Gorenzel 2002). While shooting of ground squirrels poses little risk to California red-legged frogs, the application of pesticides may result in take of the California red-legged frog. Because the location of burrow complexes cannot be predicted or controlled, rodent control measures must be site-specific and cannot be redirected. Thus, the activity of controlling ground squirrels may not be readily adapted to avoid implementation in California red-legged frog habitats. However, because various control options are available that may minimize or prevent the potential for take of California red-legged frog, routine rodent control activities are included in this special rule.

Burrowing Rodent Control by Pesticide Application. Controlling burrowing rodents with pesticides is generally accomplished through the application of toxicant-treated grains, which are ingested by the target animals, or by the introduction of fumigants (e.g., toxic or suffocating gasses) into burrow complexes. Fumigants are not target-specific, and all organisms inhabiting a treated burrow complex will likely be subject to the effects of the pesticide (i.e., toxicant exposure or oxygen depletion). Although specific data are not available on the effects of fumigants on the California red-legged frog, the permeable skin of amphibians is likely to increase susceptibility to adverse effects from exposure to toxicants (Henry 2000). We believe it is necessary to reduce the impact of fumigants on sheltering California red-legged frogs. Based on the habitat requirement estimates presented above, we recommend not using burrow fumigants within 0.7 mi (1.2 km) in any direction from a water body, natural or human-made, suitable for California red-legged frog breeding. The application of fumigants outside of this area restriction is not prohibited. However, in areas where California red-legged frogs and California tiger salamanders coexist, the use of burrow fumigants is prohibited, and the prohibition of take under section 9 of the Act still applies.

Toxicant-treated grains, primarily using anticoagulant compounds, may be applied by several methods to control burrowing rodents (Silberhorn et al. 2003). Grains may be broadcast over the ground surface at defined rates, placed in confined bait stations, or placed into burrow openings. Ground squirrels and other rodents ingest these baits, and mortality of the exposed animal results from internal hemorrhaging. No data were found on the toxicity of these anticoagulant compounds to California red-legged frogs, although it is possible that exposure to these baits may cause similar adverse effects in California red-legged frogs. It is highly unlikely that California red-legged frogs would directly ingest any grains encountered; however, indirect exposure to the pesticides through dermal contact may occur if the treated grains are placed into California red-legged frog-occupied burrows. In addition, there may be potential for secondary exposure from this application method if sheltering California red-legged frogs consume burrow-dwelling invertebrates that have ingested the treated grains. While no definitive risk assessment can be made for these possible exposures, we believe this application method would result in an increased risk for take of the California red-legged frog and should therefore be avoided whenever possible.

California red-legged frogs may also face these potential indirect and secondary exposures from the broadcast and bait station application methods. However, by widely dispersing the treated grains over the ground surface, the broadcast application method likely reduces the probability of migrating California red-legged frogs being exposed through dermal contact or through ingestion of exposed invertebrates. Similarly, it is unlikely that California red-legged frogs would enter a confined bait station, further reducing the probability of exposure. While we do not endorse the use of rodenticides for ground squirrel or other rodent control, we believe the use of rodenticides present a low risk to California red-legged frog conservation. For the reasons outlined above, broadcast and confined bait station application as part of routine livestock ranch operation are included in the special rule.

Burrowing Rodent Control by Habitat Modification. Colonies of ground squirrels and other burrowing rodents are sometimes controlled by using cultivation equipment to destroy or modify burrow complexes. The technique of deep-ripping is likely to result in complete destruction of the burrow complex and eradication of the rodent colony. Any California red-legged frogs using these burrows as sheltering sites would also likely be killed by this activity. Discing of these burrow systems, followed by surface grading, removes the physical hazard of open holes and may successfully suppress the rodent colony. This process may not destroy the entire burrow complex; some burrows may remain intact. However, sheltering California red-legged frogs may also suffer substantial mortality from this control method.

While modification of a burrow complex may aid in controlling a rodent colony, the primary benefit of such modification for ranching operations is the elimination of the physical hazards associated with burrows and burrow openings (N. Cremers, in litt. 2003). This may be particularly important for areas where livestock congregate in large numbers, such as corrals and stock pond watering sites. Because stock ponds have become important alternative breeding sites for the California red-legged frog, the extent of potential take may be directly related to the intensity of burrow complex modification around such sites. Large-scale modification of these habitats around a stock pond known to support California red-legged frogs would have the potential to eliminate or drastically

reduce a localized breeding population of the California red-legged frog. As discussed previously, the majority of a localized breeding California red-legged frog population may be found in an area of adjacent upland habitat extending up to 0.7 mi (1.2 km) in any direction from the breeding pond.

The Service recognizes that physical modification of rodent burrow complexes may be an essential activity to ranching operations. However, while habitat modification may not be a widespread practice for livestock ranches, we believe that an unmoderated approach to this activity could have the potential for large-scale take of the California red-legged frog in certain locales. Adverse effects upon California red-legged frog that could result from large-scale modifications could include both direct injury or mortality and significant loss of suitable sheltering habitats. We believe that a focused approach to burrow habitat modification would serve to achieve the dual goals of minimizing take of the California red-legged frog and reducing livestock ranching losses. To this end, rodent control through burrow modification is included in this special rule; however, the Service recommends that discing and/or grading of burrows should be limited to those areas where livestock congregate or move in large numbers. The Service also recommends that modification by deep-ripping be avoided within 0.7 mi (1.2 km) of known or potential California red-legged frog breeding ponds. We recognize that discing and/or grading around stock ponds or other suitable breeding pools may increase the risk to California red-legged frogs, and we encourage ranch operators to minimize the modification footprint around these sites as much as possible. We will continue to work with the livestock ranching community in developing and refining ways to attain these dual objectives.

Fire Prevention Management. In order to prevent or minimize the spread of wildfires in rangelands, livestock ranches may need to construct fire breaks in various places throughout the property. These fire breaks may be constructed by using cultivation equipment to create swaths of unvegetated land along property boundaries or between fields. If these fire breaks are constructed over rodent burrow complexes that may be used for sheltering by the California red-legged frog, there is the potential for take of the California red-legged frog. However, the Service recognizes the critical importance of fire prevention management in rangelands, and is thereby including this routine ranching activity in this special rule.

Monitor Impacts on the California Red-legged Frog. While it appears that the California red-legged frog may benefit from the creation of stock ponds and the prevention of rangeland conversion to unsuitable habitat throughout its range, much remains to be learned about the effects of livestock ranching activities on the California red-legged frog. We have concluded that developing a conservation partnership with the livestock ranching community will allow us to answer important questions about the impact of various ranching activities, and will provide valuable information to assist in the recovery of the subspecies. We further believe that, where consistent with the discretion provided by the Act, implementing policies that promote such partnerships is an essential component for the recovery of listed species, particularly where the subspecies occur on private lands. Conservation partnerships can provide positive incentives to private landowners to voluntarily conserve natural resources, and can remove or reduce disincentives to conservation (Wilcove et al. 1996; Knight 1999; Main et al. 1999; Norton 2000; Bean 2002; Conner and Matthews 2002; Crouse et al. 2002; James 2002; Koch 2002). The Service will work closely with the ranching community and others in developing ways to monitor impacts on the California red-legged frog from the routine activities described above. We conclude this commitment is necessary and appropriate, and will provide further insights into land stewardship practices that foster the continued use of California's rangelands in ways beneficial to both the California red-legged frog and the livestock ranching community.

We recognize many of the threats as described in the previous final listing rule (61 FR 25813) still affect the survival of the California red-legged frog. However, as mentioned and outlined in the proposed rule (70 FR 66906) our understanding of the threats of livestock grazing and stock pond development described in the previous final listing of the subspecies has changed. Below we present a threats analysis of the special rule as it relates to the threats outlined in the final listing rule for the California red-legged frog (61 FR 25813) and our current understanding of the role of livestock grazing and stock pond development and maintenance.

Factor A. The present or threatened destruction, modification, or curtailment of the subspecies' habitat or range. The final listing rule for the California red-legged frog (61 FR 5813) cites habitat loss and alteration as primary factors that have negatively affected the California red-legged frog. Grazing and ranching operations throughout the range of the California red-legged frog maintain large undeveloped areas which can provide suitable upland and aquatic habitat for the California red-legged frog. We recognize that most ranching operations operate on a thin financial margin, and additional regulatory requirements could push some operations to bankruptcy. We believe that sensible ranching operations are compatible with California red-legged frog conservation and recovery, while alternate land uses such as high density urban development, which could replace failed ranching operations, are not compatible. To the extent ranching activities are compatible with the California red-legged frog, we wish to encourage such activities to continue. We believe that relaxing the general take prohibitions on specific types of non-Federal lands through the special rule is likely to encourage continued responsible ranching, a land use that can provide an overall benefit to the conservation of the California red-legged frog. The promulgation of this special rule has the potential to reduce the threat of habitat loss due to conversion to other land uses which are incompatible with California red-legged frog conservation.

Livestock grazing was also cited in the final listing rule as a contributing factor to the decline of the California red-legged frog. While we still recognize unmanaged overgrazing as a threat, our understanding of some grazing practices have changed as we outline in the November 3, 2005 revised proposed rule (70 FR 66906). We now recognize that managed livestock grazing at low to moderate levels has a neutral or beneficial effect on California red-legged frog habitat (Bobzien et al. 2000) by keeping a mix of open water habitat and emergent vegetation which is beneficial to the subspecies. In some cases, without managed grazing, stock ponds would quickly fill with emergent vegetation resulting in habitat loss (Bobzien pers. comm. 2005). We provide an exemption of take of the California red-legged frog for livestock grazing according to normally acceptable and established levels of intensity in terms of the number of head of livestock per acre of rangeland. Our basis for not attempting to regulate routine ranching activities is that, ultimately, we believe that a rancher acting in the best interest

of maintaining a sustainable ranching operation is also providing incidental but significant conservation benefits for the California red-legged frog.

Overall we believe that promulgation of this rule may reduce the threat of habitat loss by reducing any real or perceived regulatory controls over rangelands. This would promote sustainable ranches which would help perpetuate maintenance of habitat for California red-legged frog populations.

Factor B. Overutilization for commercial, recreational, scientific, or educational purposes. We know of no information to document or suggest routine ranching activities as outlined above contribute to the commercial, recreational, scientific or educational overutilization use of the California red-legged frog. Overall, we believe the threats of overutilization for commercial, recreational, scientific or educational purposes do not exist within the context of the exemptions provided in the special rule, and do not change as a result of this promulgated rule.

Factor C. Disease or predation. Stock ponds created and maintained as part of a ranching operation can provide suitable breeding and non-breeding aquatic habitat for the California red-legged frog. The intentional introduction of nonnative predators, including warm water fish and bullfrogs, is not exempt from the take prohibition. We realize that natural colonization of stock ponds by bullfrogs could occur, and in some instances of California red-legged frog occupied ponds, could result in the local extirpation of the subspecies. As we mention above, drawdown of stock ponds after juvenile metamorphosis would be desirable in some instances for control of bullfrogs and nonnative predatory fish that prey on California red-legged frogs and can significantly reduce juvenile and adult survival. Although stock pond hydroperiods can theoretically be readily adapted to avoid take by maintaining an optimal breeding period for the California red-legged frog, we recognize that the continued viability of a livestock ranching operation may depend on the flexibility to make these hydroperiod adjustments on short notice. We do exempt routine management and maintenance of stock ponds and berms to maintain livestock water supplies. However, we are not exempting the intentional introduction of species into a stock pond, including non-native fish and bullfrogs, which may prey on California red-legged frog adults, larvae, or eggs. The promulgation of this rule, we believe will not significantly change the nature of threat from disease or predation.

Factor D. The inadequacy of existing regulatory mechanisms. The promulgation of this rule will not modify any existing regulatory mechanisms, except for rangelands covered by the rule itself. Regulatory control over rangelands is modified by this rule, but overall, we believe that this rule will provide some overall benefit to species conservation within these areas.

Factor E. Other natural or manmade factors affecting the subspecies' continued existence. The May 23, 1996, final listing rule for the California red-legged frog (61 FR 25813) cites drought, the overall effect of contaminants, wildfire, extensive flooding, and habitat fragmentation as other factors that threaten the subspecies. As described above under Factor A, we believe the exemption of routine ranching activities would promote the preservation of large open tracts of ranching/grazing lands. Preserving ranching and grazing lands is expected to assist in preventing further habitat fragmentation in that portion of the subspecies' range. Many of these threats are ongoing and probably will occur in areas covered by this special rule under 4(d) of the Act.

Conclusion. We believe that threats discussed in the original listing rule are still present, and the threatened status of the species is still appropriate. However, we believe that the outcome of the special rule under 4(d) of the Act will be to promote the conservation of rangelands and reduce the rate of conversion to other land uses which are incompatible with frog conservation. Thus, we anticipate that the effect of Factor A on the California red-legged frog may be reduced with promulgation of this special rule under 4(d) of the Act.

In our re-evaluation of our April 13, 2004 (69 FR 19620), proposed critical habitat, we identified that a technical error was present in 50 CFR § 17.11 concerning the extent of the geographic range for which the California red-legged frog is listed. The extent of the geographic range has been corrected to reflect the entire range of the subspecies.

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule because it may raise novel legal and policy issues. However, based on our economic analysis, it is not anticipated that this designation of critical habitat for the California red-legged frog will result in an annual effect on the economy of $100 million or more or affect the economy in a material way. Due to the timeline for publication in the **Federal Register,** the Office of Management and Budget (OMB) has not formally reviewed the rule or accompanying economic analysis.

Further, Executive Order 12866 directs Federal Agencies promulgating regulations to evaluate regulatory alternatives (Office of Management and Budget, Circular A–4, September 17, 2003). Pursuant to Circular A–4, once it has been determined that the Federal regulatory action is appropriate, then the agency will need to consider alternative regulatory approaches. Since the determination of critical habitat is a statutory requirement pursuant to the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 et seq.), we must then evaluate alternative regulatory approaches, where feasible, when promulgating a designation of critical habitat.

In developing our designations of critical habitat, we consider economic impacts, impacts to national security, and other relevant impacts pursuant to section 4(b)(2) of the Act. Based on the discretion allowable under this provision, we may exclude any particular area from the designation of critical habitat providing that the benefits of such exclusion outweigh the benefits of specifying the area as critical habitat and that such exclusion would not result in the extinction of the subspecies. As such, we believe that the evaluation of the inclusion or exclusion of particular areas, or combination thereof, in a designation constitutes our regulatory alternative analysis.

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

Under the Regulatory Flexibility Act (RFA) (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., 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 statement of factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA

also amended the RFA to require a certification statement.

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 to 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 (e.g., housing development, grazing, oil and gas production, timber harvesting). 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 only affects activities conducted, funded, or permitted by Federal agencies. 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 subspecies 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 California red-legged frog. 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.

The designation of critical habitat is not expected to result in significant small business impacts since revenue losses would be less than one percent of total small business revenues in affected areas. The impacts on small business, small governments, and small nonprofits are expected to be negligible. The annual number of affected small firms is fewer than two for all counties examined. Counties not examined have even smaller small business losses. Consequently, fewer than three small firms are projected to have annual revenue losses equal to their expected annual revenues as a consequence of critical habitat designation.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements for the approximately four small businesses, on average, that may be required to consult with us each year regarding a project's impact on the California red-legged frog and its habitat. First, if we conclude, in a biological opinion, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer "reasonable and prudent alternatives." Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or result in adverse modification of critical habitat. A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found jeopardy or adverse modification of critical habitat. An agency or applicant could alternatively choose to seek an exemption from the requirements of the Act or proceed without implementing the reasonable and prudent alternative. However, unless an exemption were obtained, the Federal agency or applicant would be at risk of violating section 7(a)(2) of the Act if it chose to proceed without implementing the reasonable and prudent alternatives.

Second, if we find that a proposed action is not likely to jeopardize the continued existence of a listed animal or plant species, we may identify reasonable and prudent measures designed to minimize the amount or extent of take and require the Federal agency or applicant to implement such measures through non-discretionary terms and conditions. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

Based on our experience with consultations pursuant to section 7 of the Act for all listed species, virtually all projects—including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations in section 7 consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. We can only describe the general kinds of actions that may be identified in future reasonable and prudent alternatives. These are based on our understanding of the needs of the subspecies and the threats it faces, as described in the final listing rule (61 FR 25813) and this critical habitat designation. Within the final critical habitat units, the types of Federal actions or authorized activities that we have identified as potential concerns are:

(1) Regulation of activities affecting waters of the United States by the U.S. Army Corps of Engineers under section 404 of the Clean Water Act;

(2) Regulation of water flows, damming, diversion, and channelization implemented or licensed by Federal agencies;

(3) Regulation of timber harvest, grazing, mining, and recreation by the USFS and BLM;

(4) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities;

(5) Hazard mitigation and post-disaster repairs funded by the FEMA; and

(6) Activities authorized or funded by the EPA, U.S. Department of Energy, or any other Federal agency.

It is likely that a developer or other project proponent could modify a project or take measures to protect California red-legged frogs. The kinds of actions that may be included if future

reasonable and prudent alternatives become necessary include conservation set-asides, management of competing non-native species, restoration of degraded habitat, and regular monitoring. These are based on our understanding of the needs of the subspecies and the threats it faces, as described in the final listing rule (61 FR 25813) and revised proposed critical habitat designation (70 FR 66906). These measures are not likely to result in a significant economic impact to project proponents.

In summary, we have considered whether this rule would result in a significant economic effect on a substantial number of small entities. We have determined, for the above reasons and based on currently available information, that it is not likely to affect a substantial number of small entities. Federal involvement, and thus section 7 consultations, would be limited to a subset of the area designated. The most likely Federal involvement could include U.S. Army Corps of Engineers permits, permits we may issue under section 10(a)(1)(B) of the Act, FHA funding for road improvements, hydropower licenses issued by FERC, and regulation of timber harvest, grazing, mining, and recreation by the USFS and BLM. A regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C 801 et seq.)

Under SBREFA, this rule is not a major rule. Our detailed assessment of the economic effects of this designation is described in the economic analysis. Based on the effects identified in the economic analysis, we believe that this rule will not have an annual effect on the economy of $100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Refer to the final economic analysis for a discussion of the effects of this determination. (See **ADDRESSES** section for information on obtaining a copy of the final economic analysis.)

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This final rule to designate critical habitat for the California red-legged frog 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:

(a) 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, 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; AFDC 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 who receive Federal funding, assistance, permits or 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 on to State governments.

(b) 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. As such, Small Government Agency Plan is not required.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with DOI and Department of Commerce policy, we requested information from, and coordinated development of, this final critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by the California red-legged frog may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have 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 features essential to the conservation of the subspecies are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of the subspecies are specifically identified. While making this definition and identification does not alter where and what Federally sponsored activities may occur, it may assist these local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are