AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

FEDERAL REGISTER

Vol. 81 Friday,
No. 166 August 26, 2016

Part II

Department of the Interior

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Yellow-Legged Frog, the Northern DPS of the Mountain Yellow-Legged Frog, and the Yosemite Toad; Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2012–0074; 4500030113]

RIN 1018–AY07

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Yellow-Legged Frog, the Northern DPS of the Mountain Yellow-Legged Frog, and the Yosemite Toad

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the Sierra Nevada yellow-legged frog (*Rana sierrae*), the northern distinct population segment (DPS) of the mountain yellow-legged frog (*Rana muscosa*), and the Yosemite toad (*Anaxyrus canorus*) under the Endangered Species Act of 1973, as amended (Act). There is significant overlap in the critical habitat designations for these three species. The designated area, taking into account overlap in the critical habitat designations for these three species, is in total approximately 733,357 hectares (ha) (1,812,164 acres (ac)) in Alpine, Amador, Calaveras, El Dorado, Fresno, Inyo, Lassen, Madera, Mariposa, Mono, Nevada, Placer, Plumas, Sierra, Tulare, and Tuolumne Counties, California. All critical habitat units and subunits are occupied by the respective species. The effect of this rule is to designate critical habitat under the Act for the conservation of the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad.

DATES: This rule is effective September 26, 2016.

ADDRESSES: This final rule is available on the Internet at *http://www.regulations.gov* and *http://www.fws.gov/sacramento.* Comments and materials we received, as well as supporting documentation we used in preparing this final rule, are available for public inspection at *http://www.regulations.gov.* All of the comments, materials, and documentation that we considered in this rulemaking are available by appointment, during normal business hours, at: U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way, W–2605, Sacramento CA 95825; telephone 916–414–6600; facsimile 916–414–6612.

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2012–0074, and at the Sacramento Fish and Wildlife Office (*http://www.fws.gov/sacramento*; see **FOR FURTHER INFORMATION CONTACT**, below). Any additional tools or supporting information that we developed for this critical habitat designation will also be available at the Fish and Wildlife Service Web site and Field Office set out above, and may also be included in the preamble of this rule and at *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Jennifer Norris, Field Supervisor, U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way, W–2605, Sacramento CA 95825; telephone 916–414–6700; facsimile 916–414–6612. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. This is a final rule to designate critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad. Under the Endangered Species Act, any species that is determined to be an endangered or threatened species requires critical habitat to be designated, to the maximum extent prudent and determinable. Designations and revisions of critical habitat can only be completed by issuing a rule.

We listed the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog as endangered species, and the Yosemite toad as a threatened species, on April 29, 2014 (79 FR 24256). On April 25, 2013, we published in the **Federal Register** a proposed critical habitat designation for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad (78 FR 24516). Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat.

The critical habitat areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad. Here we are designating:

- Approximately 437,929 ha (1,082,147 ac) for the Sierra Nevada yellow-legged frog in Plumas, Lassen, Sierra, Nevada, Placer, El Dorado, Amador, Calaveras, Alpine, Mariposa, Mono, Madera, Tuolumne, Fresno, and Inyo Counties, California;

- Approximately 89,637 hectares (221,498 acres) for the northern DPS of the mountain yellow-legged frog in Fresno, Inyo and Tulare Counties, California; and

- Approximately 303,889 hectares (750,926 acres) for the Yosemite toad in Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California.

This rule is a final rule designating critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad. This rule designates critical habitat necessary for the conservation of these listed species.

We have prepared an economic analysis of the designation of critical habitat. In order to consider economic impacts, we have prepared an analysis of the economic impacts of the critical habitat designations and related factors. We announced the availability of the draft economic analysis (DEA) in the **Federal Register** on January 10, 2014 (79 FR 1805), allowing the public to provide comments on our DEA. We have incorporated the comments and have completed the final economic analysis (FEA) concurrently with this final determination.

Peer review and public comment. We formally sought comments from five independent specialists to ensure that our designations are based on scientifically sound data and analyses. We obtained opinions from three knowledgeable individuals with scientific expertise to review our technical assumptions and analysis, and whether or not we had used the best available information. These peer reviewers generally concurred with our methods and conclusions, and provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated in these final designations. We also considered all comments and information we received from the public during the comment periods.

Previous Federal Actions

Please refer to the proposed listing rule for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad (78 FR 24472, April 25, 2013) for a detailed description of previous Federal actions concerning these species.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad during three comment periods. The first comment period associated with the publication of the proposed designation (78 FR 24516) opened on April 25, 2013, and closed on June 24, 2013. A second comment period opened on July 19, 2013, and closed on November 18, 2013 (78 FR 43122). We also requested comments on the proposed critical habitat designation and associated draft economic analysis (DEA) during a third comment period that opened on January 10, 2014, and closed on March 11, 2014 (79 FR 1805). We received requests for public hearings, and two were held in Sacramento, California, on January 30, 2014. We also held two public informational meetings, one in Bridgeport, California, on January 8, 2014, and the other in Fresno, California, on January 13, 2014. We also participated in several public forums, one sponsored by Congressman McClintock and two sponsored by Congressman LaMalfa. We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and DEA during these comment periods.

During the first comment period, we received six comment letters directly addressing the proposed critical habitat designation. During the second comment period, we received 545 comment letters addressing the proposed critical habitat designation or DEA. During the third comment period, we received 221 comment letters addressing the proposed critical habitat designation or DEA. During the January 30, 2014, public hearings, 21 individuals or organizations made comments on the designation of critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad.

All substantive information provided during the comment periods has either been incorporated directly into this final determination or is addressed below. Comments we received are either directly answered, or are sometimes grouped into general issues specifically relating to the proposed critical habitat designation for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad, and are addressed in the following summary and incorporated into the final rule as appropriate.

Comments From Federal Agencies

We received comments from three Federal agencies regarding the proposed critical habitat designations for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad. Comments we received are addressed below.

(1) *Comment:* The U.S. Forest Service (USFS) suggested removal of certain areas from the proposed critical habitat in the Inyo National Forest for Sierra Nevada yellow-legged frog due to local extirpation, and the removal of Echo Lakes from subunit 2E due to high recreational use and conflicts with Lahontan cutthroat trout introductions.

Our Response: We do not agree that populations are extirpated in these areas of Inyo National Forest, and we are therefore not removing these areas from critical habitat. Our records indicate that the populations in these areas remain extant, based on the criteria we used to determine occupancy. These criteria require three consecutive zero-count visual-encounter surveys of the Sierra Nevada yellow-legged frog to confirm extirpation using post-1995 frog survey records. With regard to critical habitat exclusions, we have evaluated the requests from USFS and many others (see *Comments from States* and *Public Comments,* below), and have reconsidered the inclusion of a limited number of developed reservoirs from our final critical habitat designation. As a result of this reconsideration, Echo Lakes (Upper and Lower) are not included in this final critical habitat designation. A list of other reservoirs affected by our reconsideration, and our associated rationale and criteria used to derive this list, are explained below (see Criteria Used To Identify Critical Habitat, below).

(2) *Comment:* USFS requested a mix of critical habitat additions for the Sierra Nevada yellow-legged frog and Yosemite toad in certain areas, and they commented that we did not propose critical habitat to provide connectivity between occupied habitat subunits. Specific areas recommended for expansion of Sierra Nevada yellow-legged frog critical habitat included: Hellhole Meadow in the Lake Tahoe Basin Management Unit; Bourland Meadow, Moore Creek, and Skull Creek in the Stanislaus National Forest; Middle Creek in the El Dorado National Forest; additions to areas in the Plumas National Forest, including subunit 1D, subunit 1B, and areas to merge subunit 1B and 1C across extant localities and to increase connectivity and protect newly discovered localities in subunit 2A; and the Witcher Meadow/Birch Creek area to provide a source for frog translocations into Rock Creek drainage and Eastern Brook Lakes in the Inyo National Forest. USFS also asked about the potential for future critical habitat additions.

Our Response: We concur that our proposed designation of critical habitat did not include broad-scale connectivity across subunits. However, in many areas of high-quality habitat, we are designating large areas that do allow connectivity between likely metapopulations as well as some areas for dispersal of individuals to recolonize historical habitat should management result in positive population trends. We acknowledge that for genetic clades with greater numbers of extant populations, we did not include every Sierra Nevada yellow-legged frog locality. However, designation as critical habitat is not a prerequisite for future conservation actions (such as those through a conservation strategy and recovery plan) implemented by the agencies with appropriate jurisdiction. Currently, we are working with USFS and the National Park Service (NPS) on the development of a conservation strategy that can help guide conservation actions until the completion of a recovery plan for Sierra Nevada yellow-legged frog and Yosemite toad. We agree that these areas are important habitat to consider during development of these plans and will be factored into the conservation of Sierra Nevada yellow-legged frog and Yosemite toad. We are optimistic that our positive collaborative partnership with USFS and NPS will continue in the future. Additional critical habitat would only be designated under a revision of the current critical habitat rule, which we do not currently envision.

(3) *Comment:* USFS and others commented that our database was lacking records for all occurrences or that, in some cases, populations that we considered extant were actually extirpated.

Our Response: As discussed in the occurrence criteria, we used available location data from multiple sources for frog localities seen in surveys since 1995 (that have not been confirmed to be extirpated through subsequent surveys) and for Yosemite toad localities documented since 2000. It appears that some highlighted data discrepancies are a function of multiple data sources, as not all agencies are aware of the same records. In some areas, we missed localities, either because we did not receive the data during our initial data request period, or the populations were actually discovered after drafting the proposed critical habitat designation. We often must institute a cutoff date for receipt of new information in order to complete our critical habitat designations in time for internal review and subsequent publication. However, we did have the vast majority of information available during the drafting of proposed rule to designate critical habitat.

We have re-evaluated all the available occupancy data, and other than a portion of subunit 1A for the Sierra Nevada yellow-legged frog, we have not changed our designation as a result of the occupancy information for any subunits for Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, or Yosemite toad. The limited areas that do have extant populations, unknown to us at the time of drafting, are not currently essential for the overall conservation of the species because of their limited extent. However, through the development of a final conservation strategy and recovery plan, the potential for these areas to contribute to species recovery will be considered.

(4) *Comment:* USFS commented that there is overlap in critical habitat designations for the Yosemite toad and Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*) in the El Dorado, Inyo, Stanislaus, and Sierra National Forests; for the Yosemite toad and Paiute cutthroat trout (*Oncorhynchus clarkii seleniris*) in the Sierra National Forest; for the Sierra Nevada yellow-legged frog and Paiute cutthroat trout in the Humboldt-Toiyabe National Forest; for the Sierra Nevada yellow-legged frog and Lahontan cutthroat trout in the El Dorado, Inyo, Tahoe, and Humboldt-Toiyabe National Forests, and the Lake Tahoe Basin Management Unit; and between the northern DPS of the mountain yellow-legged frog and Little Kern golden trout (*Oncorhynchus mykiss whitei,* listed as *Oncorhynchus aguabonita whitei*) in the Sequoia National Forest. They suggested considering this overlap and the possibly conflicting restoration objectives as a reason to exclude critical habitat for the frogs and toad in these areas.

Our Response: We concur that these critical habitat designations do overlap as outlined by USFS. Such overlap is to be expected when methodology for habitat designation is based on physical or biological features. We do not intend for the designation of critical habitat for the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog to necessarily preclude restoration opportunities for listed fish species in these areas. We intend to factor in the consideration of conflicting species restoration goals during the respective conservation planning efforts that will be coordinated amongst the Federal and State resource agencies, rather than at the stage of the critical habitat designation process.

(5) *Comment:* The United States Marine Corps (USMC) requested that the Marine Corps Mountain Warfare Training Center near Bridgeport be exempted under section 4(a)(3) of the Act (16 U.S.C. 1531 *et seq.*) due to a draft integrated natural resources management plan (INRMP) that is in preparation, and they also requested an exclusion under section 4(b)(2) of the Act because of impacts to national security. The Marine Corps Mountain Warfare Training Center itself includes a base camp and residence quarters, but training activities take place across a wide area of the Humboldt-Toiyabe National Forest.

Our Response: We appreciate the unique nature and value of this training center for the USMC and other Armed Services to meet their high-altitude training needs. However, we find that the section 4(a)(3) exemption does not apply in this case because the INRMP remains in draft form, and thereby does not fully meet the section 4(a)(3) exemption standard. In addition, based on the draft INRMP map, the base camp itself is not located within the critical habitat designation. We appreciate the USMC's efforts to address natural resources at their training facility, and we will continue to work with them to finalize their INRMP.

The USMC also requested exclusion of the Marine Corps Mountain Warfare Training under section 4(b)(2) of the Act because of impacts to national security. Critical habitat designation and subsequent consultation under the Act focuses upon potential effects to the primary constituent elements (PCEs). Based on the information contained within the draft INRMP and information from the Humboldt-Toiyabe National Forest (USFS) regarding training conducted in subunit 2H, we do not anticipate significant impact on USMC training activities and thus national security in this area. Therefore, the Secretary is not exercising her discretion to exclude the Marine Corps Mountain Warfare Training under section 4(b)(2) of the Act for purposes of national security within subunit 2H. We look forward to working with the USMC and USFS to coordinate future activities within critical habitat.

(6) *Comment:* NPS commented that including upland habitat in the critical habitat designation for the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog is not required because frogs are not expected to be in these areas unless they are within aquatic habitat complexes. NPS proposed an alternate buffer of 300 meters (m) (980 feet (ft)) to buffer the frogs' primary habitat.

Our Response: While we concur that the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow legged frog spend a predominant amount of their lives in wetland habitats, they are known to travel across mesic terrestrial habitat, and such dispersal and migration is required to recolonize habitat areas from which they have been extirpated. Therefore, this is an essential component of the species' life-history requirements, and inclusion of corridors in mesic habitat connecting wetland habitats is an element of our criteria defining habitat that is essential to the species' conservation. We do not interpret NPS's comment to suggest that we exclude these mesic upland areas.

We do concur that frogs are very unlikely to be found in xeric upslope habitats (catchments up to ridgelines where NPS does request exclusions), some of which were included in the designation. The Sierra Nevada yellow-legged frog and northern DPS of the mountain yellow-legged frog, being amphibians, are quite likely sensitive to a wide range of aquatic contaminants, and the PCE of water quality is potentially influenced by upgradient activities. Further, in light of future threats associated with climate change, the PCE of water quantity to provide for the critical wetland areas is relevant.

We understand NPS's contention that NPS-managed catchments do not include many of the threat factors extant within other federally managed lands, and as such, recreational land uses predominant in the National Parks are unlikely to impact natural hydrology. However, the PCEs were written to take into consideration physical or biological features of habitat, regardless of jurisdiction or magnitude of operative

threats. It is appropriate to apply the same criteria across jurisdictional boundaries based on habitat attributes as outlined in the discussion of physical or biological features section of this document.

In these instances where PCEs are not affected by the action (*i.e.,* no threats to habitat are introduced through Federal activities), a 'not likely to adversely affect' determination may be reached. During informal consultation, factors such as project area proximity to known frog localities and the specific nature of the project are factored in to the determination.

Comments From States

Section 4(i) of the Act states, ''the Secretary shall submit to the State agency a written justification for his failure to adopt regulations consistent with the agency's comments or petition.'' We did not receive comments from the State of California pertaining to the Yosemite toad proposed critical habitat designation. Comments received from the California Department of Fish and Wildlife (CDFW) regarding the proposal to designate critical habitat for the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog are addressed below.

(7) *Comment:* CDFW recommended various Sierra Nevada yellow-legged frog critical habitat subunit removals based on differences in our data records (CDFW's current records do not indicate frogs in certain subunits because their current records do not include all USFS data), and because some of these areas experience heavy recreational use and have very low restoration potential.

Our Response: Based on the comments from CDFW that provided additional survey results, we have updated our records for the Sierra Nevada yellow-legged frog. We evaluated these updated data, in addition to the data we were provided by USFS, and we currently have a comprehensive occurrence database for the Sierra Nevada yellow-legged frog based on the best scientific data available. We recently reviewed all records based on the criteria followed by CDFW for their status evaluation conducted by the State to determine whether the species warrants listing under the California Endangered Species Act (CDFW (formerly CDFG) 2011, pp. 12–16) (*i.e.,* extant since 1995, unless three consecutive zero count surveys indicate extirpation). Our current records indicate that all proposed critical habitat units and subunits are occupied by extant populations. With this rule, we are designating these units and subunits as critical habitat for the Sierra Nevada yellow-legged frog.

We concur with the CDFW that certain reservoirs with higher degrees of development (managed reservoirs that have high water-level fluctuations and are surrounded by developed infrastructure such as significant number of cabins and/or a marina) and high public-use pressure (paved road-accessible reservoirs) have lower restoration potential. We have evaluated such reservoirs for removal from critical habitat in light of our existing criteria. This is discussed in full detail below (see Criteria Used To Identify Critical Habitat, below).

(8) *Comment:* CDFW recommended additions to Sierra Nevada yellow-legged frog critical habitat and the northern DPS of the mountain yellow-legged frog critical habitat to increase connectivity between certain subunits and to take advantage of good habitat areas for restoration opportunities in areas where we did not propose critical habitat.

Our Response: Based on their distance from existing known frog populations, we did not propose these additional areas for critical habitat designation. Please refer also to our response to Comment (2), above. We do agree that the areas recommended by CDFW represent potential areas for translocation of frogs once methods have been proven successful, and will consider including such areas in the final conservation strategy currently being developed in coordination with CDFW, USFS, and NPS, and in a future recovery plan.

Public Comments

(9) *Comment:* We received several comments that we should not designate private lands as critical habitat.

Our Response: According to section 4(a)(3)(A) of the Act, the Secretary of the Interior shall, to the maximum extent prudent and determinable, concurrently with making a determination that a species is an endangered species or a threatened species, designate critical habitat for that species. As directed by the Act, we proposed as critical habitat those areas occupied by the species at the time of listing and that contain the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. The Act does not provide for any distinction between landownerships in those areas that meet the definition of critical habitat.

(10) *Comment:* We received numerous comments expressing general and specific concerns about restrictions that commenters believe will be imposed on private lands as a result of critical habitat designation. We received several comments expressing concerns regarding the taking of private property through designation of critical habitat.

Our Response: When prudent and determinable, the Service is required to designate critical habitat under the Act. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership or establish any closures or place any restrictions on use of or access to the designated areas. Critical habitat designation also does not establish specific land management standards or prescriptions. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. Where a landowner requests Federal agency funding or is required to obtain Federal agency authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

(11) *Comment:* We received several comments expressing concern that roads, buildings, ski resorts, hydroelectric facilities and infrastructure, etc., have been included in proposed critical habitat.

Our Response: When determining critical habitat boundaries within the proposed rule, we followed a habitat/species distribution (MaxEnt) model (see ''(3) Habitat Unit Delineation,'' below) for determining critical habitat areas in the case of the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog. This model did not incorporate extant stressors, such as level of development or fish presence, for example. To do so may have biased against the assurance that the appropriate areas requiring special management considerations be

identified. In the case of the Yosemite toad, a similar model was utilized, but not relied upon, because of its implicit consideration of stressors in the model inputs.

For all three species, we made an effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack the physical or biological features. The maps we prepared may not reflect the non-inclusion of such developed lands. Any such lands left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat.

Areas that have been partially developed, or undeveloped areas proximate to developed structures, may and often do have physical or biological features that can sustain the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, or the Yosemite toad during at least part of their life cycle, or may serve as habitat corridors to connect more suitable areas and allow dispersal, migration, and recolonization of historical habitat. These areas with the essential physical or biological features, or that may act as corridors, remain in the final critical habitat designation.

(12) *Comment:* We received numerous comments expressing concerns regarding access to public lands (road closures, off-highway vehicle (OHV) restrictions, grazing, fishing, etc.). We received numerous comments requesting specific exclusions for recreational reasons, primarily fishing within the range of the Sierra Nevada yellow-legged frog.

Our Response: Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. However, the designation of critical habitat does not prevent access to any land, whether private, tribal, State, or Federal. Designation of critical habitat does not affect land ownership. Critical habitat designation also does not establish specific land management standards or prescriptions. Critical habitat also does not preclude access to fishing in any specific lakes.

We considered a section 4(b)(2) exclusion for other relevant impacts (including recreational fishing) at a number of sites within the proposed critical habitat. However, in responding to public, agency, and peer review comments, and upon re-examination, we determined that these areas have very low restoration potential because of high public use, their developed state, and their distance from known frog occurrences. Using our revised criteria for identifying critical habitat, we found that many of these areas do not meet the criteria for inclusion in the designation, and, therefore, we have not included them in this final designation.

(13) *Comment:* Several commenters expressed concern about the use of the incremental approach to quantify the cost of the proposed rulemaking. One commenter states that the DEA should instead rely on a coextensive or full impact approach. The commenter asserts that the incremental approach withholds information about the true economic impacts of designating certain areas as critical habitat. In particular, the commenter asserts the incremental approach fails to adequately address secondary and indirect effects of the designation or account for the cumulative and synergistic effects of multiple laws restricting the use of land and water resources within proposed critical habitat.

Our Response: Because the purpose of the economic analysis is to facilitate the mandatory consideration of the economic impact of the designation of critical habitat, to inform the discretionary section 4(b)(2) exclusion analysis, and to determine compliance with relevant statutes and Executive Orders, focusing the economic analysis of the designation of critical habitat for the three Sierra amphibians on the incremental impact of the designation is appropriate. We acknowledge that significant debate has occurred regarding the incremental approach, with several courts issuing divergent opinions. Most recently, the U.S. Ninth Circuit Court of Appeals concluded that the incremental approach is appropriate, and the U.S. Supreme Court declined to hear the case (*Home Builders Association of Northern California* v. *United States Fish and Wildlife Service,* 616 F.3d 983 (9th Cir. 2010), cert. denied, 179 L. Ed. 2d 301, 2011 U.S. Lexis 1392, 79 U.S.L.W. 3475 (2011); *Arizona Cattle Growers* v. *Salazar,* 606 F.3d 1160 (9th Cir. 2010), cert. denied, 179 L. Ed. 2d 300, 2011 U.S. Lexis 1362, 79 U.S. L.W. 3475 (2011)). Subsequently, on August 28, 2013, we revised our approach to conducting impact analyses for designations of critical habitat, specifying that the incremental approach should be used (78 FR 53058, p. 53062).

(14) *Comment:* Several commenters assert that the baseline of the analysis is flawed. They assert that because critical habitat must be designated concurrently with a listing decision, there would be no listing without a critical habitat designation. Therefore, the baseline for the economic analysis should be the existing state of regulation prior to the listing of the species under the Act.

Our Response: Critical habitat cannot be designated for a species that is not listed under section 4 of the Act. However, it is possible to list a species without simultaneously designating critical habitat. A listing decision always precedes a critical habitat designation, even if they are promulgated concurrently. The U.S. Office of Management and Budget's (OMB) guidelines for best practices concerning the conduct of economic analysis of Federal regulations (Circular A–4) direct agencies to measure the costs of a regulatory action against a baseline, which it defines as the ''best assessment of the way the world would look absent the proposed action.'' OMB's direction is reflected in our regulations specifying the approach we use to conduct impact analyses for designations of critical habitat (78 FR 53058; August 28, 2013).

(15) *Comment:* Several commenters assert that the Service can no longer segregate and disregard probable economic impacts on the basis that they are not quantifiable. The commenters state that prior court decisions within the Ninth Circuit allowed the Service to meet its obligation to consider probable economic impacts by analyzing only those impacts that the Service, in its discretion, deemed to be certain and quantifiable (historically, the costs of section 7 consultation). They assert that the DEA, however, is misleading if the economic impact of critical habitat designation is limited only to the costs incurred by Federal agencies during section 7 consultation. One commenter suggests that probable economic impacts include impacts to non-Federal activities that would be affected by the section 7 constraints on the Federal activities. The commenter also indicates that the DEA should consider economics related to non-Federal activities. Another commenter also cites 50 CFR 424.19, effective October 30, 2013, which explicitly recognizes that impacts which may only be (or may be better) analyzed qualitatively are properly addressed in an economic analysis.

Our Response: Economic impacts to non-Federal entities are considered in quantitative terms, where data allow, and qualitatively throughout the DEA. First, Exhibit 2–1 of the DEA presents the unit incremental administrative costs of section 7 consultation used in

the economic analysis. The total unit cost presented in that exhibit includes costs to the Service, other Federal agencies, and third parties. Third parties include such non-Federal entities as project proponents (*e.g.,* hydroelectric and timber harvest activities) and State agencies (*e.g.,* CDFW) that may also participate in the consultation process. Thus, the economic analysis is not limited only to costs incurred by Federal agencies. Incremental costs incurred by third parties during the consultation process range from $260 to $1,400 per consultation.

Other potential impacts, where data limitations prevent quantification, are described qualitatively in the DEA. For example, in assessing the potential incremental cost of the proposed rule on hydroelectric facilities, section 4.2.2 of the DEA considers the potential for additional time delays that may occur because of the need to complete the section 7 consultation process. Similarly for timber harvest activities on privately owned lands, section 4.2.5 of the DEA considers the potential for the designation of critical habitat to cause unintended changes in the behavior of individual landowners, other Federal agencies, State, or local permitting or regulatory agencies. Specifically, this section of the DEA recognizes potential costs that may arise from changes in the public's perception of the burden placed on privately owned land from the designation of critical habitat.

In accordance with 50 CFR 424.19(b), which states, ''Impacts may be qualitatively or quantitatively described,'' the Service considers both the qualitative and quantitative effects listed in the economic analysis when developing the critical habitat for these species.

(16) *Comment:* One commenter states that the DEA effectively ignores impacts related to different conservation efforts since the DEA is unable to predict the types of projects that may require different conservation efforts. The commenter cites a passage from the DEA on page ES–6, which states: ''At this time, however, the Service is unable to predict the types of projects that may require different conservation efforts. Thus, impacts occurring under such circumstances are not quantified in this analysis. We focus on quantifying incremental impacts associated with the additional administrative effort required when addressing potential adverse modification of critical habitat in section 7 consultation.'' The commenter states that the lack of consideration of economic impacts related to conservation efforts makes the DEA useless and fraudulent, and suggests withdrawing the proposed critical habitat designation until a properly conducted economic analysis is available.

Our Response: Section 2.3 of the DEA describes the reasons why we do not anticipate these critical habitat designations will result in additional conservation requirements. Additionally, Appendix C of the DEA includes a memorandum, titled ''Comments on How the DEA Should Estimate Incremental Costs for Sierra Nevada Yellow-legged Frog, Northern DPS of the Mountain Yellow-legged Frog, and Yosemite Toad Proposed Critical Habitat Designation,'' describing our reasoning on this issue. In general, where critical habitat is occupied by the listed species, conservation measures implemented in response to the species' listing status under the Act are expected to sufficiently avoid potential destruction or adverse modification of critical habitat. Thus, generally such projects are already avoiding adverse modification under the regulatory baseline, and no additional conservation measures or project modifications are expected following the critical habitat designation. In such instances, the DEA assumes that the incremental costs of the designations are limited to the portion of administrative effort required to address adverse modification during section 7 consultation. These assumptions are highlighted in the DEA as the chief source of uncertainty in the analysis. As discussed in section 2.3 of the DEA, we do acknowledge that there may be ''limited instances'' in which an action proposed by a Federal agency could result in adverse modification but not jeopardy of the species. However, information that would allow the identification of such instances is not available.

(17) *Comment:* Two commenters state that the DEA fails to adequately account for the costs to energy activities. One commenter asserts that the Service failed to prepare and submit a ''Statement of Energy Effects,'' which is required for all ''significant energy actions.'' The commenter further states that the Service should seek public input and review of the Statement of Energy Effects before submitting it, to assure it is done honestly and accurately.

Our Response: Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute ''a significant adverse effect'' when compared to not taking the regulatory action under consideration. These outcomes include, for example, reductions in electricity production in excess of 1 billion kilowatt-hours per year or in excess of 500 megawatts of installed capacity, or increases in the cost of energy production or distribution in excess of one percent.

As presented in chapter 4 of the DEA, impacts to the energy industry from the designation of critical habitat for the three Sierra amphibians is expected to be limited to additional administrative costs, and is not anticipated to result in any impacts to the supply, distribution, or use of energy. As shown in Exhibit 2–1 of the DEA, incremental costs incurred by third parties during the consultation process are approximately $875 per consultation. Based on the revenues of the energy companies reported in section A.1.2, the designation is unlikely to affect the cost of energy production or distribution.

(18) *Comment:* Several commenters assert that the assumption in the DEA that the entire designation is considered occupied is flawed. One commenter notes that the critical habitat units are generally large, and while at least one population may exist in each unit, the vast majority of acreage, water bodies, and meadows in any given subunit are likely to be unoccupied. Thus, assigning an ''occupied'' status to the entire unit misrepresents the extent of the species' distribution and is indefensible.

Our Response: As stated in section 4.1 of the DEA, in determining whether a specific critical habitat unit is considered occupied by the respective species, the DEA relies on information regarding species occupancy from the proposed rule. Specifically, the Service states: ''All units and subunits proposed for designation as critical habitat are currently occupied by the Sierra Nevada mountain yellow-legged frogs, the northern DPS of the mountain yellow-legged frogs, or Yosemite toads . . . We are proposing to designate only geographic areas occupied by the species because the present geographic range is of similar extent to the historical range and therefore sufficient for the conservation of the species'' (78 FR 24516, April 25, 2014, pp. 24522, 24523). In other words, the best available information suggests that all areas proposed as critical habitat be treated as occupied during consultation. See also the response to Comment (7), above.

In addition, we also considered the possibility that due to the large size of some critical habitat units, species occupancy may be uncertain for a

specific project location within an occupied unit. In these instances, the Federal action agency may not be aware of the need to consult under the jeopardy standard, and the designation of critical habitat may therefore result in an increase in the number of consultations. In such instances, the full costs of section 7 consultation and resulting project modifications would be considered incremental. As stated in section 4.1 of the DEA, discussions with USFS, NPS, and CDFW, the three agencies most likely to consult with the Service in the study area, indicate that the designation is unlikely to have such an effect. All three agencies typically consult with the Service on a programmatic level across much of the State, and thus would be aware of the potential presence of the species throughout its range. Furthermore, all three agencies already have in place programs that protect the amphibians and their habitat. As a result, impacts to the amphibians and their habitat are already considered across the array of economic activities identified as threats to species conservation and recovery. Consequently, we assume that the designation is unlikely to change the section 7 consultation process or incur associated project modifications due solely to the designation of critical habitat.

(19) *Comment:* A commenter states that if the Service provided Industrial Economics Incorporated (IEc) with likely conservation efforts to be imposed, these efforts should be shared with the public. The commenter also cites paragraph 90 of the DEA, which provides categories of conservation efforts, including ''non-native fish eradication, installation of fish barriers, modifications of fish stocking activities, changes in grazing activities, minimizing disturbance of streamside and riparian vegetation, minimizing soil and compaction and minimizing impacts on local hydrology.'' The commenter asks whether there are specific examples of when and where these conservation efforts would be considered and what the conservation measures associated with each effort are. The commenter goes on to state that conferencing is required during the listing decision-making period. Through conferencing, the Service should have a general idea of what conservation measures are being requested and what conservation measures might be imposed by the Service. The commenter asks about what measures are being requested and recommended during conferencing.

Our Response: The information presented in the DEA regarding possible conservation measures to protect the three Sierra amphibians was obtained from the proposed listing rule. The Service did not provide any additional information regarding possible conservation measures. More importantly, however, we reiterate that because all areas are considered occupied, the economic analysis concluded that the designation is unlikely to result in the requirement of additional conservation measures above and beyond those required to avoid jeopardy (*i.e.,* in response to the listing of the species). In other words, the designation of conservation measures required to avoid jeopardy is expected to sufficiently avoid potential destruction or adverse modification of critical habitat.

As to the availability of additional information on conservation measures from conferencing, due to the timing of the proposed rules to list and designate critical habitat for these three species, information on project modifications from conferencing was unavailable at the time the DEA was developed. Since the publication of the DEA, the Service released a programmatic biological opinion on the forest programs associated with nine National Forests in the Sierra Nevada of California for the amphibians. The biological opinion, released in December 2014, provides more detailed information on general conservation measures as well as program-specific conservation measures for the three Sierra amphibians. The full biological opinion is publicly available at: *http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/USFS_SNA_pbo.pdf.* The conservation measures included in this biological opinion are intended to ensure activities at the National Forest do not jeopardize the species and provide additional evidence of the types of baseline protection likely to be provided by the listing of the species. We updated the FEA to reference the new information on species conservation measures available from the December 2014 biological opinion.

(20) *Comment:* One commenter states that similar economic impacts were reviewed in the August 2006 Economic Analysis of Critical Habitat Designation for the Mountain Yellow-Legged Frog. The critical habitat designation for the Mountain Yellow-Legged Frog included 8,770 acres in Los Angeles, San Bernardino, and Riverside Counties. The commenter highlighted the findings from that analysis, which estimated total future impacts between $11.4 million to $12.9 million (undiscounted) over 20 years, of which impacts to recreational trout fishing accounted for 57 percent of total impacts. The commenter states that this designation is over 200 times larger than the designation proposed in southern California, yet the DEA found only $17,500 in impacts related to fishing over 17 years.

Our Response: The economic analysis for the critical habitat designation for the southern DPS of the mountain yellow-legged frog is not comparable with the economic analysis conducted for the critical habitat designation for the three Sierra amphibians. Specifically, the 2006 economic analysis for the critical habitat designation for the southern DPS of the mountain yellow-legged frog relied on the coextensive methodology of estimating economic impacts. However, the current policy directs the Service to use the incremental approach to economic analyses based in part on several legal precedents, including *Arizona Cattle Growers' Assoc.* v. *Salazar,* 606 F.3d 1160 (9th Cir. 2010), cert. denied, 179 L. Ed. 2d 300, 2011 U.S. Lexis 1362, 79 U.S. L.W. 3475 (2011) and *Cape Hatteras Access Preservation Alliance* v. *DOI,* 2010 U.S. Dist. Lexis 84515 (D.D.C. August 17, 2010). As such, the DEA for the three Sierra amphibians relies on the incremental approach (see also Comment (13), above).

(21) *Comment:* One commenter states that the Service should engage the public for their input when writing the DEA.

Our Response: In the process of developing the DEA, we conducted two rounds of outreach actions. First, we reached out to each of the 10 National Forests and 2 National Parks that fall within proposed critical habitat boundaries. The majority of the proposed critical habitat falls within areas managed by the USFS (61 percent) and the NPS (36 percent). Through these conversations, Federal entities indicated that they will undertake actions to protect the species regardless of whether critical habitat is designated. These agencies are the parties entrusted with public land management, as more than 95 percent of all the land designated as critical habitat is under their ownership and jurisdiction. Second, we conducted outreach with third-party entities that may participate in section 7 consultations because they may seek permits to conduct activities on Federal lands. For example, in evaluating potential impacts to dams and water diversions located within the proposed critical habitat boundaries, we reached out to hydroelectric project owners as stated in section 4.2.2 of the DEA. These affected parties are ideal candidates to help frame economic impacts of critical

habitat designation and consultation with the Service.

(22) *Comment:* One commenter states that the assumed consultation costs are extremely low and that man hours should also be shown to help discern the level of effort assumed for consultation.

Our Response: The DEA relies on the best available information to estimate the administrative costs of section 7 consultation. As described in Exhibit 2–1 of the DEA, the consultation cost model is based on a review of consultation records and interviews with staff from three Service field offices, telephone interviews with Federal action agencies (*e.g.,* BLM, USFS, and U.S. Army Corps of Engineers), and telephone interviews with private consulting firms who perform work in support of permittees. In the case of Service and Federal agency contacts, we determined the typical level of effort required to complete several different types of consultations (*i.e.,* hours or days of time), as well as the typical Government Service (GS) level of the staff member performing this work. In the case of private consultants, we interviewed representatives of firms in California and New England to determine the typical cost charged to clients for these efforts (*e.g.,* biological survey, preparation of materials to support a biological assessment). The model is periodically updated with new information received in the course of data collection efforts supporting economic analyses and public comment on more recent critical habitat rules. In addition, the GS rates are updated annually.

(23) *Comment:* One commenter states that the DEA fails to include costs associated with additional reviews required under the California Environmental Quality Act (CEQA) for lands designated as critical habitat for the three Sierra amphibians. Whenever a public agency authorizes, approves, funds, or carries out an activity that will result in a physical change to the environment, CEQA requires the entity to undertake an environmental review. The commenter asserts that the DEA improperly excludes a discussion of the additional costs of processing projects under CEQA due to the designation.

Our Response: The potential for incremental impacts related to the triggering of new requirements under CEQA is relevant to non-Federal lands included in the proposed rule, which account for less than 5 percent of the total designation. Section 2.3.2 of the DEA provides a general discussion of the potential for critical habitat to trigger other State and local laws. The DEA concludes that such incremental impacts are unlikely in the case of the three Sierra amphibians due to the widespread awareness of the species and their habitats and existing management strategies to protect the species. For a discussion of these management strategies, see chapter 3 of the DEA.

Importantly, the three Sierra amphibians are thought to occupy all the areas proposed for designation. Thus, for activities occurring on private land, such as logging activities requiring a State-approved timber harvest plan, CEQA is likely to be triggered due to the presence of a listed species, regardless of whether critical habitat is present. Furthermore, the Sierra Nevada yellow-legged frog and the mountain yellow-legged frog are listed species under the California Endangered Species Act; thus, the presence of these species would already trigger CEQA absent the designation of critical habitat.

(24) *Comment:* Several commenters state that the DEA does not adequately address regional economic impacts. One commenter states that the DEA only presents costs to managing governmental agencies rather than regional economic impacts. Another commenter is particularly concerned with distributional impacts related to recreation on Squaw Ridge in Amador County.

Our Response: Given the limited nature of incremental impacts likely to result from this designation, measurable regional impacts are not anticipated as a result of this designation. Therefore, we did not use a regional input-output model to estimate regional impacts. Section 2.2.2 of the DEA discusses distributional and regional economic effects in greater depth.

(25) *Comment:* Several commenters identify the chytrid fungus (*Batrachochytrium dendrobatidis* (Bd)) epidemic as a significant threat to the amphibians and their habitat. The commenters state that the DEA should include the economic cost of eradicating Bd. Without a plan to reduce or eliminate Bd, the commenters note it is debatable whether creating critical habitat designations would have much benefit to the species.

Our Response: We agree that disease and pathogens, including Bd, represent a significant threat to the amphibians. Chytridiomycosis, the disease caused by Bd, directly affects individual members of the species. However, it does not result in adverse modification of critical habitat as a result of Federal activities. Further, there are currently no known methods (and therefore no plans or restoration efforts to associate with costs) to eliminate Bd, and reducing its spread among areas is the only current known mitigation measure. These mitigation measures were already in place prior to the listing of the species. In other words, no additional conservation efforts intended to reduce the spread of Bd would be undertaken in response to the critical habitat designation. Therefore, we do not anticipate that this critical habitat designation will result in incremental costs associated with Bd mitigation efforts.

(26) *Comment:* Several commenters are concerned about economic impacts related to fishing, and they state that the elimination or reduction of fish in this area would create immense economic impacts to affected areas and to the life and livelihood of all who live and work in the area.

Our Response: As discussed in section 4.2.1 of the DEA, the proposed rulemaking is not anticipated to result in the elimination or reduction of fish within areas designated as critical habitat. In other words, any changes in fish stocking activities would occur regardless of the critical habitat designation, as these will occur in response to the listing of the species. As discussed in chapter 3 of the DEA, there are a number of programs that provide significant baseline protections to the amphibians from fish predation, including the California Department of Fish and Wildlife (CDFW) High Mountain Lakes Project, the Restoration of Native Species in High Elevation Aquatic Ecosystems Plan under development by the Sequoia & Kings Canyon National Park, and the High Elevation Aquatic Ecosystem Recovery and Stewardship Plan under development by the Yosemite National Park. With the listing of the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog (the species' for which fish presence is a threat), additional regulatory protections are now in place. The DEA assumes that the incremental costs of the designation associated with fish stocking programs would be limited to the administrative costs of the additional effort to address adverse modification during consultation.

(27) *Comment:* Several commenters express concern that the designation will affect fishing in affected counties and highlight the importance of fishing to the local economies affected by the designation. For example, recreational fishing contributes more than $2 billion annually to California's economy, and within Mono County, investments in fish stocking and tourism are estimated

to total approximately $8.8 million over the next 17 years.

Our Response: As discussed in Comment (26), we do not anticipate that the critical habitat designation will result in changes to fish-stocking activities over and above protections that are already in place as a consequence of the State and Federal listings of the frogs. As a result, reductions in visitors and associated spending are not anticipated. We added a description of the importance of recreational fishing to the regional economy to the FEA.

(28) *Comment:* Several commenters are concerned about the economic impact to livestock and packstock grazing activities. One commenter states that the loss of use, or reduction in available use, of grazing allotments on National Forests would significantly impact the ranchers who currently depend on the livestock forage provided by Federal grazing allotments. Another commenter asserts that the designation will prevent ranchers from accessing and using existing property rights within federally controlled lands, including water rights, easements, rights-of-way, and grazing preferences within BLM and USFS grazing allotments designated as critical habitat. The commenter states that the DEA should include analysis of the economic effects of excluding ranching.

Our Response: The act of designating critical habitat does not summarily preclude access to any land, whether private, tribal, State or Federal. Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. Furthermore, designation of critical habitat does not affect land ownership, or establish any closures or any restrictions on use of or access to the designated areas through the designation process, nor does it establish specific land management standards or prescriptions, although Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. Finally, as discussed in section 4.2.3 of the DEA, the rulemaking is not anticipated to result in the loss of or reduction in grazing activities on Federal lands designated as critical habitat. This conclusion is consistent with discussions with USFS staff. Notably, USFS has routinely considered measures to protect the amphibians and their habitat since the three amphibians were designated as ''Sensitive Species'' in 1998. Consequently, we anticipate that the incremental cost of the designation is limited to the additional administrative effort incurred by USFS staff during consultation.

(29) *Comment:* Several commenters are concerned that the DEA does not use current and accurate data for its analysis of grazing impacts, and these commenters state that text and exhibits in chapter 4 of the DEA summarizing information related to grazing allotments by National Forests do not include information for the Humboldt-Toiyabe National Forest (HTNF). The commenters provide acreage, activity status, and animal use month numbers for allotments in HTNF within Sierra Nevada yellow-legged frog and Yosemite toad proposed critical habitat.

Our Response: Section 4.2.3 of the FEA has been updated to include grazing activities in HTNF. Specifically, we identify a total of seven grazing allotments in HTNF that overlap the designation. This new information affects the upper bound estimate, increasing the total incremental costs of the designation associated with grazing activities by a total of approximately $3,000, from $152,200 to $155,100.

(30) *Comment:* One commenter questions whether the DEA considered packstock operations in HTNF and in Inyo National Forest (INF). The commenter mentions six different pack operations in the two forests and gives service day numbers for these operations.

Our Response: Section 4.2.3 of the FEA has been updated to include the additional six packstock operations identified by the commenter in HTNF and INF. Specifically, this new information affects the upper bound estimate, increasing the total incremental costs of the designation associated with packstock grazing activities by a total $17,300, from $45,900 to $63,200.

(31) *Comment:* Multiple commenters express concern about the potential impacts of the designation on the region's tourism and recreation economy and highlight the importance of tourism and recreation to the region's economy.

Our Response: As discussed in chapter 4 of the DEA, the Service is unlikely to require additional conservation measures that would reduce or eliminate recreational activities within areas designated as critical habitat due solely to the designation of critical habitat. Because all areas designated as critical habitat are considered to be currently occupied, any changes in recreational activities on Federal lands are likely to occur even in the absence of the designation. We added a description of the importance of recreation to the regional economy in the FEA.

(32) *Comment:* One commenter states that timber harvests on private lands are also likely to be affected by the designation and expects that critical habitat designation will add additional costs to private timber harvest activities through additional monitoring requirements. Family forest landowners, of which there are 197,000 in California, operate their forests on very thin economic margins. Additional costs can make harvest uneconomical and lead to a huge loss in the economic value of the property.

Our Response: In section 4.2.5 of the DEA, we qualitatively discuss potential indirect impacts of stigma on private lands where past timber harvest activity has occurred. Timber harvest activities on private lands in California must comply with the California Forest Practice Rules (CFPR). The CFPR includes measures that provide significant baseline conservation benefits to the amphibians and their habitat within timber harvest areas on private lands. Given the extensive protection already required by State law and regulation, it is unlikely any new requirements will be imposed due solely to the designation of critical habitat.

(33) *Comment:* One commenter states that the fact that private property values would decline is not a ''stigma''; it is a reality. As the Federal Government introduces regulatory burdens (in essence de facto ''liens'' against a property), the value goes down.

Our Response: Section 4.2.5 of the DEA discusses potential indirect impacts of stigma. We agree that stigma effects, if they occur, may result in real economic losses. All else equal, a property that is designated as critical habitat may have a lower market value than an identical property that is not within the boundaries of critical habitat due to the public's perception of limitations or restrictions. As the public becomes aware of the true regulatory burden imposed by critical habitat (*e.g.,* regulation under section 7 of the Act is unlikely), the impact of the designation on property markets may decrease. If stigma effects on markets were to occur, these impacts would be considered indirect, incremental impacts of the designation. Data limitations prevent the quantification of these effects.

(34) *Comment:* One commenter states that the DEA has not addressed the economic impact of foregone opportunities to manage vegetation and

cites declines in timber harvest levels on National Forests between the 1980s and present day and attributes these declines to the northern spotted owl (*Strix occidentalis caurina*) and subsequent standards for the California spotted owl (*Strix occidentalis occidentalis*). The commenter estimates a total economic jobs impact of $867 million annually in lost payroll. A 1.8-million acre critical habitat designation for the frogs and toad will have a significant economic impact that the economic analysis has failed to address. It is impossible to quantify the impacts because the proposed rule does not identify how much of the proposed designation is productive forest land.

Our Response: As discussed in chapter 4 of the DEA, the Service is unlikely to require additional conservation measures that would reduce or eliminate vegetation management activities within areas designated as critical habitat due solely to the designation of critical habitat. Because all areas we are designating as critical habitat are considered to be currently occupied, any changes in vegetation management activities on Federal lands are likely to occur even in the absence of the designation.

Moreover, the geographic overlap between amphibians (whose habitat is largely at higher elevations than most timber harvest activities) and managed forests is relatively minimal across the range of area we are designating as critical habitat. Exhibit 4–15 of the DEA identifies the critical habitat units where timber harvests are likely and, within each unit, the number of acres suitable for timber harvests. Specifically, these acres include: (1) Areas identified by USFS under Land Suitability Classes 1 and 2; (2) areas included in past timber harvest plans from 1997 to 2013; and (3) areas included in past non-industrial timber management plans from 1991 to 2013. Based on these criteria, the economic analysis identifies approximately 5,396 acres as suitable for timber harvest activities in seven critical habitat units.

(35) *Comment:* Several commenters are concerned that the critical habitat designation will impose limitations on fuel reduction projects. The commenters mention the recent Rim Fire in Tuolumne County, which burned over 257,000 acres primarily in the Stanislaus National Forest and cost over $127 million to get under control. Another commenter states that overgrown forests are far more likely to result in catastrophic wildfire and adversely modify habitat if fire management activities, such as water drafting, chemical retardant use, and construction of fuel breaks, are limited. Such fires would have devastating impacts to the frogs and economic impacts to communities.

Our Response: We agree with the commenter that catastrophic wildfires represent a direct threat to the species and their habitat. In the final listing rule, the Service discusses in more detail the complex relationship between the amphibians, their habitats, and fire (79 FR 24256; April 29, 2014). We updated the FEA to better recognize the threat that catastrophic fire poses to the species and their habitat and the positive role that fuels management can play in reducing the adverse effects of catastrophic fire.

Since the publication of the DEA, we released a programmatic biological opinion for forest programs in nine National Forests in the Sierra Nevada of California for the amphibians. The biological opinion provides information on conservation measures, including many derived from best management practices included in the 2004 Sierra Nevada Forest Plan Amendment. One such conservation measure suggests, ''the use of prescribed fire or mechanical methods to achieve resource objectives to reduce flooding and erosion perturbations. This may be achieved by managing the frequency, intensity and extent of wildfire.'' Thus, we acknowledge the importance of managing wildfires as it relates to species and habitat conservation. Other conservation measures related to maintaining water quality and soil stability are also included.

(36) *Comment:* Multiple commenters state that the baseline conditions for fuel management and timber harvest as articulated in paragraphs 160–163 of the DEA are based on treatments over the last 5 to 10 years, a period of known reductions in fuel and timber harvest activities now recognized as a major cause of catastrophic wildfire. The commenters state that activity levels are currently well below that needed to sustain the forest environment, and these commenters expect fuel management and timber harvest activities to dramatically increase in the next few years. One commenter cites the USFS California Region's Ecological Restoration: Leadership Intent publication, which states that the USFS intends to perform forest health and fuels reduction treatments on up to 9 million acres of National Forest land over the next 15 to 20 years, which represents a three- to four-fold increase in current intensity of activity.

Our Response: According to communications with USFS and NPS staff (see discussion in section 4.2.4 of the DEA), fire management activities are infrequently implemented at the high elevations in wilderness areas where the amphibians are generally located. According to communications with USFS, based on the infrequent nature of fuels management activities in proposed critical habitat areas, as well as the repetitive nature of fuels management practices, staff anticipate pursuing a programmatic consultation for fuels management activities. As a result, the DEA forecasted one programmatic consultation for fuels management activities in 2014 (a consultation that has since been completed). As no historical fuels management activities were identified on NPS lands proposed as critical habitat, we do not forecast section 7 consultations associated with fuels management activities on NPS lands over the analysis period. To allocate the administrative costs of section 7 consultation across proposed critical habitat areas, this analysis relies on the number of acres in each affected unit classified as ''wildland urban interface'' (WUI). In the FEA, we add a discussion of the uncertainty associated with our forecast of the amount of fuels management activities likely to be undertaken in the future. Because USFS is addressing its section 7 consultation obligations through a single programmatic consultation, even if the degree of activity increases, impacts on forecast administrative costs are likely to be minimal.

(37) *Comment:* Multiple commenters state that the baseline WUI described in paragraph 163 of the DEA is inaccurate. The DEA does not estimate any WUI acres within the East Amador subunit (Subunit 2F), but, according to the commenters, this subunit includes the Bear River home track, Silver Lake home tracks, and numerous other private homes, all surrounded by WUIs. Additionally, Amador County is in the process of defining the WUIs in the forested areas through a community wildfire protection plan, which will likely define much of the area as WUI. The commenters ask whether community wildfire protection plans and USFS district rangers were included in the informational resources for WUI designations.

Our Response: As stated in section 4.2.4 of the DEA, our analysis of fire management activities was based on communication with USFS staff, who indicated that they would likely pursue a programmatic consultation for fuels management activities given the infrequent and repetitive nature of these activities. As stated in this section of the DEA, our analysis estimates that approximately 131,300 acres are

classified as WUI within National Forest boundaries and the 15 critical habitat units and subunits where fuels management activities are identified as a threat. This analysis is based on WUI Geographic Information System (GIS) data available from Region 5 of the USFS. The commenter is correct that there are WUI acres in Subunit 2F. As a result of a transcription error, Exhibit 4–13 of the DEA indicates that there are no acres of WUI in Subunit 2F. The correct number of acres classified as WUI should be 34,485 acres for Subunit 2F. This error has been corrected in the FEA. The present value and annualized incremental impact values reported in the table in the FEA are correct. The $2,200 estimate is reached by multiplying the incremental administrative cost of a programmatic consultation by the ratio of WUI acres in subunit 2F to total WUI acres within proposed critical habitat (34,485/131,312 = 0.26).

(38) *Comment:* One commenter states that the designation will likely cause severe restrictions on land access and could limit or forbid mining.

Our Response: The act of designating critical habitat does not summarily preclude access to any land, whether private, tribal, State, or Federal. Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. Furthermore, designation of critical habitat does not affect land ownership, or establish any closures or any restrictions on use of or access to the designated areas through the designation process, nor does it establish specific land management standards or prescriptions, although Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat.

(39) *Comment:* One commenter states that the DEA does not analyze the impacts of the designation on the administration of connective waterways and adjoining lands. In particular, the commenter expresses concern that the designation will change the manner in which the Carson Water Subconservancy District's exercises its water rights to Lost Lakes, including its ability to release these waters to the West Fork of the Carson River.

Our Response: As discussed in chapter 4 of the DEA, the Service is unlikely to require additional conservation measures that would impact water management within areas we are designating as critical habitat due solely to the designation of critical habitat. Because all areas we are designating as critical habitat are considered to be currently occupied, any changes in water management activities on Federal lands are likely to occur even in the absence of the designation.

(40) *Comment:* One commenter states that Exhibit 4–3 of the DEA incorrectly indicates that the Big Creek Dam projects are located in Yosemite Toad Unit 4, and that these projects are not located in Mono County but are more likely located in Unit 14. This error is then carried through to economic impact calculations in Exhibit 4–21 of the DEA.

Our Response: The commenter is correct. According to the California Energy Commission's Hydroelectric Generation Facilities map, the Big Creek facilities are located in Fresno and Madera Counties. We have updated the FEA to reflect that consultation costs for these projects are now attributed to Unit 14 rather than Unit 4. This change does not affect the total incremental impacts estimated for water management activities.

(41) *Comment:* Several commenters object to the DEA's interpretation of the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) and state that the Service is not excused from the consideration of economic impacts to small entities under section 4(b)(2) of the Act. One commenter states that the Federal agency must provide a factual basis for ''no significant economic certification.'' According to the commenter, in the DEA, the factual basis for the certification is lacking. The commenter states that the Service ignored substantial information on the record documenting the probable impacts of the proposed designation on small businesses, small organizations, and small government jurisdictions in order to make the requisite certification under the RFA.

Our Response: Under the RFA, Federal agencies are only required to evaluate the potential incremental impacts of a rulemaking on directly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the agency is not likely to adversely modify critical habitat. Therefore, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Under these circumstances, it is the Service's position that only Federal action agencies will be directly regulated by this designation. Therefore, because Federal agencies are not small entities, the Service may certify that the proposed critical habitat rule, as well as this final designation, will not have a significant economic impact on a substantial number of small entities. Because certification is possible, no initial or final regulatory flexibility analysis is required.

(42) *Comment:* One commenter states that the absence of quantitative economic benefits provides no reference point for comparative economic analysis. The commenter does not accept that, whatever the economic loss, compensation in biological returns will occur and states that, by using subjective determinations, the benefits will always outweigh the costs and the legitimate concerns of the affected parties are undermined, essentially making the DEA irrelevant.

Our Response: Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The DEA and updated FEA provide the best available estimate of the economic costs associated specifically with the designation. These costs may be evaluated against qualitative values, but also must be considered in the broader context of the mandates of the Act to conserve endangered species and designate as critical habitat those areas with the physical or biological features in need of special management considerations or protections that are essential to the species' conservation. Section 4(b)(2) of the Act states that the Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. The designation of critical habitat must by law consider economic costs, but this is not the sole determinant of the final decision; that decision is not solely a cost-benefit analysis.

(43) *Comment:* One commenter states that the Service should better address the economic benefits of the critical habitat designation, including benefits to water quality, benefits to other rare

species, benefits to areas where people recreate, and health benefits that may accrue from better air or water quality. The commenter states that these benefits should be more clearly addressed qualitatively and, where possible, the value of these critical ecosystem services should be quantified.

Our Response: Chapter 5 of the DEA describes the economic benefits of the critical habitat designation. It is not possible to predict at this time what, if any, economic benefits will accrue solely as a result of critical habitat designation. Following the incremental cost approach, the designation of critical habitat is unlikely to result in ancillary benefits identified by the commenter, as these will already be in place as a consequence of listing the species. Regardless, as stated in the response to Comment (42), above, the economic analysis is not a traditional cost-benefit analysis necessitating full estimation and quantitative (or qualitative) evaluation of economic benefits to weigh against costs in order the provide the Secretary with the information needed to use her discretion in considering areas for section 4(b)(2) exclusion.

(44) *Comment:* We received several comments indicating that protections for the frogs and toad are already in place, and that critical habitat designation is unnecessary or will not help. Specifically, many mentioned CDFW already has a conservation program in place or that protections afforded by Wilderness Areas and NPS lands are sufficient.

Our Response: The Service is not relieved of its statutory obligation to designate critical habitat based on the contention that it is unnecessary or will not help the species. Moreover, we do not agree with the argument that specific areas and essential features within critical habitat do not require special management considerations or protection because adequate protections are already in place. In *Center for Biological Diversity* v. *Norton,* 240 F. Supp. 2d 1090 (D. Ariz. 2003), the court held that the Act does not direct us to designate critical habitat only in those areas where ''additional'' special management considerations or protection is needed. If any area provides the physical or biological features essential to the conservation of the species, even if that area is already well managed or protected, that area still qualifies as critical habitat under the statutory definition if special management is needed.

In the case of the ongoing aquatic biodiversity management planning (ABMP) process being conducted by CDFW, these plans remain incomplete, and the specific criteria applied during the decision process selecting protected native amphibian areas do not necessarily reflect the same ultimate conservation outcome that we are tasked to accomplish (*i.e.,* the conservation of the Sierra Nevada yellow-legged frog). We are currently collaborating with CDFW on a conservation strategy for the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog. This strategy (as well as the CDFW's ABMPs) is not complete; therefore, conservation actions are not yet assured, and critical habitat designation is still required.

In the case of Wilderness Areas and NPS lands, these Federal lands remain as multiple-use resource areas, even though they offer a greater relative degree of protection when compared to National Forests without Wilderness status. Nonetheless, designation of critical habitat requires that Federal agencies consult with the Service to ensure their actions do not destroy or adversely modify critical habitat. While NPS in particular has an exemplary record in managing these species, even before listing, the designation of critical habitat and the consultation process will provide additional assurance that activities in these areas will not destroy or adversely modify the habitat of these species.

(45) *Comment:* We received many comments with concerns that we proposed designation of too much habitat, including numerous comments specifically questioning why aquatic-dependent species needed a critical habitat designation that is not solely comprised of wetland areas.

Our Response: We define critical habitat to the extent it is essential to conserve endangered or threatened species under the Act. Such species are in decline and their habitat is in need of protection, special management, and restoration in order to reverse population declines and reduce extinction risk. In determining the amount of habitat essential to conserve a species, we consider factors such as: The need for replicate occurrences of the species across the landscape; connectivity between habitat areas to allow movement, adaptation, and natural recolonization to offset localized losses; and sufficient populations safeguarded to preserve genetic and ecological diversity. The areas we are designating as critical habitat in this final rule contain the physical or biological features essential for the conservation of the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad in view of the factors above and the uncertainty of future habitat conditions as a result of climate change.

The inclusion of upland areas within critical habitat is to protect habitat areas required for normal metapopulation dispersal, habitat use, and recolonization of suitable habitat not currently containing the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, or Yosemite toad, and to protect the primary constituent elements of water quality and quantity (see our response to Comment (6), above). In addition, the Yosemite toad does utilize upland habitats extensively (see *Physical or Biological Features for the Yosemite Toad,* below).

(46) *Comment:* One commenter asked us to substantiate our critical habitat designations with population numbers.

Our Response: Critical habitat designation is not based on absolute abundances, and we also generally do not have nor require such data before designating critical habitat. Although we utilized the most up-to-date scientific information reflected in survey data from the last few decades (historic, plus extant localities since 1995), the protocols set up for these surveys did not include mark-recapture type techniques, which are required to assess actual abundances. We have raw count values from visual encounter surveys, which are helpful in establishing relative abundance, but not definitive population counts. Note also, at low abundances, visual encounter survey methods may miss extant populations due to low encounter probabilities. Also, while the survey coverage by USFS and CDFW is extensive, it is not exhaustive. This means it is very likely there are extant localities we have missed. Given all these considerations, we cannot provide absolute abundance data at the scale of each critical habitat subunit.

This critical habitat designation is based on the identification of specific areas within the geographical area occupied by the species at the time of listing that contain the physical or biological features essential for the conservation of the species. We also use a set of criteria to identify the geographic boundaries of the designation. A critical habitat designation does not require definitive data regarding abundances; such data are pertinent to the overall determination of whether a species is considered an endangered or threatened species under the Act. Regardless, we are required to use the best scientific data available to inform our critical

habitat determination, and we have done so in this final designation for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad.

(47) *Comment:* One commenter submitted information regarding wetland pollution by livestock grazing and suggested the results of studies did not support large critical habitat designations for the Yosemite toad.

Our Response: We appreciate the additional information provided. Our critical habitat designations are based on multiple criteria, and the delineation of critical habitat for the Yosemite toad is based on the types of areas utilized by the toad during its varied lifestages and areas needed for dispersal and emigration in order to provide for the conservation of the species. Critical habitat designation is based upon the presence of physical or biological features required by the Yosemite toad, not on the relative degree of any given threat. Threats themselves are evaluated in the context of a listing decision.

(48) *Comment:* One commenter asked whether we utilized the California Wildlife Habitat Relationships (CWHR) model to derive proposed critical habitat.

Our Response: We did not use the CWHR range map to derive critical habitat. In the case of the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog, a superior modeling tool was available in the form of a MaxEnt 3.3.3 model (see ''(3) Habitat Unit Delineation'' under *Sierra Nevada Yellow-Legged Frog and Northern DPS of the Mountain Yellow-legged Frog* in Criteria Used to Identify Critical Habitat, below), which CDFW had also utilized during their status evaluation (CDFW (formerly CDFG) 2011, pp. A–1—A–4). We used this base model along with other criteria as outlined below to define critical habitat. In the case of the Yosemite toad, we initially approached CDFW for their CWHR layer, but they informed us that it had not yet passed their own internal quality control review for reliability, and so we had to rely on other resources for defining the Yosemite toad's habitat. We have since received a range map from USFS, and we used that information as supplemental information to this final critical habitat designation.

(49) *Comment:* One commenter was concerned about the designation of Slate Creek as critical habitat and how it may affect suction dredge mining, and this commenter expressed an opinion that fish removal would be more effective at frog restoration than critical habitat designation.

Our Response: Critical habitat designation is necessary to identify areas, containing the physical or biological features that may require protection or special management considerations, in order to conserve an endangered or threatened species. It is true that fish removal is one potential restoration tool amongst a suite of possible actions. It does not follow, however, that all designated areas will involve such restoration measures. For any potential risk factors, including suction dredge mining, adverse modification to critical habitat will be analyzed through consultation on projects that have a Federal nexus, and these situations will be handled on a project-by-project basis, unless covered in a programmatic consultation process.

(50) *Comment:* We received several comments stating that critical habitat is not determinable because we cannot know where the fungal pathogen *Batrachochytrium dendrobatidis* (Bd) will spread, the magnitude of its dispersal, nor its persistence time in the environment of contaminated habitats. The commenters asserted, therefore, that no ''safe'' habitat exists for the species and critical habitat designation will not be helpful.

Our Response: We concur that there is scientific uncertainty regarding the rate of spread of Bd and its persistence in affected habitat areas. However, critical habitat designation does not target only ''safe'' habitats where species are expected to persist. Critical habitat designations cover the areas containing the physical or biological features that may require special management considerations and protection to allow for the conservation of the species. Critical habitat designation is based on the physical or biological features essential for the conservation of the species, not the absence of threat factors.

(51) *Comment:* We received several comments indicating we came close to violating 16 U.S.C. 1532(5)(C), which states that ''critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.''

Our Response: 16 U.S.C. 1532(5)(C) states, ''Except in those circumstances determined by the Secretary, critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.'' We currently have the definitive range maps for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad. Frog ranges were derived using information received from the University of California at Santa Barbara Sierra Nevada Aquatic Research Lab, and the Yosemite toad's range was provided by USFS, recently updated by expert input. The historical range of the Sierra Nevada yellow-legged frog is nearly 6 million acres. The historical range of the northern DPS of the mountain yellow-legged frog is almost 1.2 million acres. The historical range of the Yosemite toad is greater than 2.6 million acres. In addition, we are aware of extant locations of these species outside of our critical habitat designations. Therefore, we did not propose, nor are we designating now, the entire geographical areas that could be occupied by the respective species.

(52) *Comment:* One commenter indicated that grazing is not a threat factor to the Yosemite toad, and, therefore, critical habitat for this species should be kept as small as possible around currently occupied areas.

Our Response: When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection. The criteria used to determine the extent of this area are based on whether such area contains the essential physical or biological features, among other factors. However, the presence of a particular threat factor is not a criterion by which the extent of the area is defined.

(53) *Comment:* We received a comment from Pacific Gas and Electric Company that we should exclude two reservoirs in subunit 1A for the Sierra Nevada yellow-legged frog. USFS also commented that these areas and acreage proximate to these reservoirs within the Lassen National Forest should be excluded because they are not occupied by Sierra Nevada yellow-legged frogs.

Our Response: Subsequent to the publication of the proposed critical habitat designation, CDFW indicated to us that two of our extant records of Sierra Nevada yellow-legged frogs in the watershed on the western portion of subunit 1A for the Sierra Nevada yellow-legged frog were erroneous. We deleted the localities from our database, and per the criteria used to designate critical habitat, these reservoirs and surrounding lands have been removed from subunit 1A. This change results in a reduction of approximately 6,057 ha (15,012 ac) in subunit 1A for Sierra Nevada yellow-legged frog.

(54) *Comment:* We received a comment from Pacific Gas and Electric Company that we exclude the Blue Lakes Unit from the Yosemite toad

critical habitat designation because it is a hybridization zone with western toad (*Anaxyrus boreas*).

Our Response: We are aware that the Blue Lakes Unit is within a zone of hybridization. Given the difficulty in differentiating the Yosemite toad from western toad (or, for that matter, either species from hybrids), and given that the presence of hybrids indicates that native genes are also extant within the area, removing the unit from critical habitat designation is not warranted. Despite hybridization, this area still meets the definition of critical habitat.

(55) *Comment:* We received one comment encouraging us to designate additional critical habitat for the northern DPS of the mountain yellow-legged frog. Specific areas identified included Breckenridge Mountain within the Giant Sequoia National Monument, and Taylor Meadow in the Sequoia National Forest, to effectively decrease the gap between the critical habitat units for the northern and southern DPS by 31 miles.

Our Response: The criteria we applied in determining critical habitat boundaries were based on the identification of specific areas with the physical or biological features essential to the conservation of the species, but also focused on areas with proximity to known, extant populations. The first reason for this approach is to protect important habitat areas (the areas containing physical or biological features requiring special management considerations and protection). This approach also works under the rationale that natural dispersal and recolonization in proximate areas is preferable to translocation, or captive propagation and reintroduction to restored historical habitat. While captive rearing and reintroduction can and may be utilized within an overall recovery effort for the respective species, this more detailed level of planning is not completed to date.

With regard to increasing connectivity between the southern DPS of the mountain yellow-legged frog and the northern DPS of the mountain yellow-legged frog, it is unclear if restoring connectivity between the DPSs will be an appropriate recovery target, because natural interchange is impossible and these metapopulations are discrete and significant, comprising different genetic clades.

Peer Review

In accordance with our peer review 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 species, the geographic region in which the species occur, and conservation biology principles. We received responses from three of the five peer reviewers about our proposed critical habitat designation.

We reviewed all comments we received from the peer reviewers for substantive issues and new information regarding critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad. The peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve the final critical habitat rule. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

(56) *Comment:* Two peer reviewers noted that certain populations were not included in critical habitat. These included populations in the southwest portion of Sierra Nevada yellow-legged frog Clade 3 in the western Sierra National Forest (Lakecamp Lake and Ershim Meadow), and the peer reviewers suggested inclusion due to the ecological uniqueness of the habitat (as meadow/stream populations). Other locations not included were Upper and Lower Summit Meadows in Yosemite National Park, Calaveras Big Trees, and Birch Creek and Dry Creek/Crooked Meadows in the Inyo National Forest.

Our Response: We concur that these populations occur in ecologically unique habitats. For genetic clades with more extant metapopulations, we did not include every locality within the critical habitat designation. If populations were geographically removed, and opportunities for natural dispersal between occupied habitat are limited within such genetic clades, some of these populations were not included in the critical habitat designation (whereas other populations that were geographically closer and had natural dispersal between occupied habitat within such clades were included). Please refer also to our response to Comment (2), above.

(57) *Comment:* One peer reviewer indicated that the loss of populations from designated subunits would jeopardize the long-term viability of the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog, and, therefore, considerable research and management efforts focused upon fish eradications, frog translocations, reintroductions, and Bd treatments will be necessary to ensure the persistence of frog populations in some units or subunits.

Our Response: We concur that considerable research, restoration, and management efforts are critical to the conservation of both species of frogs. We anticipate that all mentioned elements will be central to the upcoming conservation strategy and future recovery plan.

(58) *Comment:* Two peer reviewers highlighted that the MaxEnt model used to delineate critical habitat may be biased toward high mountain lakes and underrepresent stream-based populations.

Our Response: We acknowledge these comments. One of the peer reviewers (Dr. Knapp, the developer of the model) indicated this bias is based on differences in survey intensity of lake versus stream habitats, but presumed the bias to be relatively small and ultimately unquantifiable. Subsequent review of our criteria as written for the proposed critical habitat designation indicates that we inadvertently omitted one aspect of our delineation methodology. Specifically, in stream-based populations, because Dr. Knapp had indicated that the MaxEnt model was potentially less reliable for streams, we utilized the 0.2 probability of occurrence in such systems, as opposed to the 0.4 threshold we utilized for lake-based delineations. This oversight has been amended in the narrative for the criteria outlined in this final critical habitat designation. This change in narrative is a clarification of methodology, and did not result in a change to any critical habitat boundaries.

(59) *Comment:* One peer reviewer noted two areas with relatively high toad abundances that were not included in the proposed Yosemite toad critical habitat: Headwaters of West Walker in the Humboldt-Toiyabe National Forest and meadows southwest of Volcanic Knob on the Sierra National Forest.

Our Response: We acknowledge and appreciate this comment. We did not include every known Yosemite toad locality in our proposed critical habitat designation, but rather we included those areas containing the physical or biological features that are essential to the conservation of the species. Please also refer to responses to Comments (2) and (3), above.

(60) *Comment:* One peer reviewer suggested that we split Sierra Nevada yellow-legged frog subunit 3B into three distinct units due the likelihood that this subunit is in fact comprised of clades 2 and 3, not simply clade 3 following Vredenburg *et al.* (2007).

Our Response: We concur that the most plausible genetic clade designations follow the peer reviewer's comment. However, the entirety of subunit 3B for the Sierra Nevada yellow-legged frog, as delineated, encompasses watersheds with mixed genetic lineage (clades 2 and 3), and, therefore, it was difficult to segregate one from the other without designating multiple subunits within an entirely contiguous area. This condition also holds for subunits 3C and 4C for the Sierra Nevada yellow-legged frog. Given that the regulatory protections for the actual lands are identical regardless of nomenclature, we opted for simplicity and kept subunits 3B and 3C as single subunits and numbered them for their predominant genetic clade per Vredenburg *et al.* (2007). For subunit 4C, we assigned the number based on the range map we used, which was developed and provided to us by the same peer reviewer. We are hopeful that future genetic studies elucidate the genetic lineage of each specific locale in these regions.

Summary of Changes From Proposed Rule

Based on comments we received following publication of the proposed critical habitat designation, we revised PCEs 1 and 2 for the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog to better clarify the intent of the PCE language with respect to the presence of introduced fish within critical habitat. It was clear from public and agency input that readers misinterpreted what we meant regarding PCE 1. We intended to say that PCE 1 (aquatic breeding habitat) ideally should not have introduced fishes present, but that introduced fishes may be present in PCE 2. Given that an area only has to have one physical or biological feature present to meet the definition of critical habitat, areas that have fish present are still considered critical habitat if they meet PCE 2. Therefore, we did not intend to imply that areas have to be ''free of fish'' to be critical habitat. The specific changes include: Clarification regarding the ''fishless'' component within PCE 1 (aquatic breeding habitat) and a typographical error within PCE 2 (non-breeding aquatic habitat) to clarify that prey base was meant to sustain juvenile and adult frogs intermittently using this habitat (not tadpoles). Other updates since our last proposed rule include adding the known manageable threat of fish persistence and stocking for the Northern DPS of the mountain yellow-legged frog for critical habitat units 4A Frypan Meadows, 4B Granite Basin, 4C Sequoia Kings, 4D Kaweah River, and 5A Blossom Lakes to Table 6. In addition, the known threats that may affect the essential physical or biological features identified for the critical habitat units for the Yosemite toad have been updated since our last proposed rule and the adjustments are included in the Threats column of Table 7. We have also included minor corrections or clarifications following our peer reviewer comments. We provide the full revised PCEs below.

Additionally, based on comments received from the public, State and Federal agencies, and the peer reviewer who developed the habitat model used in part to identify areas with the requisite physical or biological features, we have reevaluated our criteria for determining critical habitat. This reevaluation has resulted in the reduction of the number of sites included in this final critical habitat designation for the Sierra Nevada yellow-legged frog because current habitat conditions were not reflected in our original analysis (see ''(4) Additional Criteria Applied to Final Critical Habitat Designation for Sierra Nevada Yellow-legged Frog'' under *Sierra Nevada Yellow-Legged Frog and Northern DPS of the Mountain Yellow-legged Frog* in Criteria Used to Identify Critical Habitat, below). Therefore, we are not finalizing designation of some sites that we proposed for critical habitat designation the Sierra Nevada yellow-legged frog (see Table 2, below). We are also not finalizing 6,057 ac (15,012 ha) in subunit 1A because of information we received from CDFW regarding occupancy of the proposed subunit (see Comment (53), above). In total, these changes result in a reduction of approximately 9,412 ha (23,253 ac) in the critical habitat designation for the Sierra Nevada yellow-legged frog from what we proposed for this species (see Table 2, below). The boundaries of critical habitat designations for the northern DPS of the mountain yellow-legged frog and the Yosemite toad remain the same as what we proposed. Finally, we are changing the name of Subunit 2F from Squaw Ridge to East Amador. A full list of designated units and subunits is provided below (see Tables 1, 3, and 4). In the incremental effects memorandum, we indicated that we did not anticipate a substantial number of consultations that would result in adverse modification from the designation of critical habitat and, therefore, we did not anticipate a substantial difference in administrative effort to analyze projects that include critical habitat from those that would only include the species. In reducing the area of final critical habitat for the Sierra Nevada yellow-legged frog, and maintaining the area proposed for critical habitat within the final designations for the northern DPS of the mountain yellow-legged frog and Yosemite toad, we believe the economic impacts to Federal agencies remain small and insignificant.

The known manageable threat of fish persistence and stocking has been identified for the Northern DPS of the mountain yellow-legged frog for critical habitat units 4AFrypan Meadows, 4B Granite Basin, 4C Sequoia Kings, 4D Kaweah River, and 5A Blossom Lakes since our last proposed rule.

Critical Habitat

Background

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

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

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

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

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

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

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

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

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

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

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

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

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of the species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome. On February 11, 2016, we published a final rule in the **Federal Register** (81 FR 7413) to amend our regulations concerning the procedures and criteria we use to designate and revise critical habitat. That rule became effective on March 14, 2016, but, as stated in that rule, the amendments it sets forth apply to ''rules for which a proposed rule was published after March 14, 2016.'' We published our proposed critical habitat designation for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad on April 25, 2013 (78 FR 24516); therefore, the amendments set forth in the February 11, 2016, final rule at 81 FR 7413 do not apply to this final designation of critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad.

Physical or Biological Features

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

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

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

(3) Cover or shelter;

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

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

We derive the specific physical or biological features essential for the Sierra Nevada yellow-legged frog, the

northern DPS of the mountain yellow-legged frog, and the Yosemite toad from studies of these species' habitat, ecology, and life history as described in the proposed rule to designate critical habitat published in the **Federal Register** on April 25, 2013 (78 FR 24516), and in the information presented below. Additional information can be found in the final listing rule published in the **Federal Register** on April 29, 2014 (79 FR 24256). Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad in areas occupied at the time of listing, focusing on the features' primary constituent elements. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Physical or Biological Features for the Sierra Nevada Yellow-Legged Frog and the Northern DPS of the Mountain Yellow-Legged Frog

We have determined that the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog (hereafter referred to collectively as mountain yellow-legged frogs) require the following physical or biological features:

Space for Individual and Population Growth and for Normal Behavior

Mountain yellow-legged frogs are highly aquatic (Stebbins 1951, p. 340; Mullally and Cunningham 1956, p. 191; Bradford *et al.* 1993, p. 886). Although they tend to stay closely associated with high-elevation water bodies, they are capable of longer distance travel, whether along stream courses or over land in between breeding, foraging, and overwintering habitat within lake complexes. Individuals may use different water bodies or different areas within the same water body for breeding, foraging, and overwintering (Matthews and Pope 1999, pp. 620–623; Wengert 2008, p. 18). Within water bodies, adults and tadpoles prefer shallower areas and shelves (Mullally and Cunningham 1956, p. 191; Jennings and Hayes 1994, p. 77) with solar exposure (features rendering these areas warmer (Bradford 1984, p. 973), which also make them more suitable as prey species). High-elevation habitats tend to have lower relative productivity (suggesting populations are often resource limited); therefore, sufficient space is also needed to avoid competition with other frogs and tadpoles for limited food resources.

Therefore, based on the information above, we identify high-elevation water bodies and adjacent lands within and proximate to water bodies utilized by extant frog metapopulations (mountain lakes and streams) to be a physical or biological feature needed by mountain yellow-legged frogs to provide space for their individual and population growth and for normal behavior.

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

Adult mountain yellow-legged frogs are thought to feed preferentially upon terrestrial insects and adult stages of aquatic insects while on the shore and in shallow water (Bradford 1983, p. 1171); however, feeding studies on mountain yellow-legged frogs in the Sierra Nevada are limited. Remains found inside the stomachs of mountain yellow-legged frogs in southern California represented a wide variety of invertebrates, including beetles, ants, bees, wasps, flies, true bugs, and dragonflies (Long 1970, p. 7). Larger frogs have been observed to eat more aquatic true bugs (Order Hemiptera) (Jennings and Hayes 1994, p. 77). Adult mountain yellow-legged frogs have also been found to eat Yosemite toad tadpoles (Mullally 1953, p. 183; Zeiner *et al.* 1988, p. 88) and Pacific treefrog tadpoles (Pope 1999b, pp. 163–164), and they are also cannibalistic (Heller 1960, p. 127; Vredenburg *et al.* 2005, p. 565).

Mountain yellow-legged frog tadpoles graze on benthic detritus, algae, and diatoms along rocky bottoms in streams, lakes, and ponds (Bradford 1983, p. 1171; Zeiner *et al.* 1988, p. 88). Tadpoles have also been observed cannibalizing eggs (Vredenburg 2000, p. 170) and feeding on the carcasses of dead metamorphosed frogs (Vredenburg *et al.* 2005, p. 565). Other species may compete with frogs and tadpoles for limited food resources. Introduced fishes are the primary competitors, reducing the available prey base for mountain yellow-legged frogs (Finlay and Vredenburg 2007, p. 2187).

The ecosystems utilized by mountain yellow-legged frogs have inherent community dynamics that sustain the food web. Habitats, therefore, must maintain sufficient water quality to sustain the frogs within the tolerance range of healthy individual frogs, as well as acceptable ranges for maintaining the underlying ecological community. These key physical parameters include pH, temperature, nutrients, and uncontaminated water. The high-elevation habitats that support mountain yellow-legged frogs require sufficient sunlight to warm the water where they congregate, and to allow subadults and adults to sun themselves.

Persistence of frog populations is dependent on a sufficient volume of water feeding into their habitats to provide the aquatic conditions necessary to sustain multiyear tadpoles through metamorphosis. This makes the hydrologic basin (or catchment area) a critical source of water for supplying downgradient habitats. The catchment area sustains water levels in lakes and streams used by mountain yellow-legged frogs via surface and ground water transport, which are crucially important for maintaining frog habitat.

Therefore, based on the information above, we identify sufficient quantity and quality of source waters that support habitat used by mountain yellow-legged frogs (including the balance of constituents to support a sustainable food web with a sufficient prey base), absence of competition from introduced fishes, exposure to solar radiation, and shallow (warmer) areas or shelves within ponds or pools to be a physical or biological feature needed by mountain yellow-legged frogs to provide for their nutritional and physiological requirements.

Cover or Shelter

Mountain yellow-legged frogs require conditions that allow for overwinter survival, including lakes or pools within streams that do not freeze to the bottom, or refugia within or adjacent to such systems (such as underwater crevices) so that overwintering tadpoles and frogs do not freeze or experience anoxic conditions during their winter dormancy period (Bradford 1983, pp. 1173–1179; Matthews and Pope 1999, pp. 622–623; Pope 1999a, pp. 42–43; Vredenburg *et al.* 2005, p. 565). Cover for adults to protect themselves from terrestrial and avian predators is also an important habitat feature, especially in cases where aquatic habitat itself does not provide adequate protection from terrestrial or avian predators due to insufficient water depth. Although cover within aquatic habitat may be important in the short term to avoid fish predation, the observation of low coexistence between introduced trout and frog populations (Knapp 1996, pp. 1–44) suggests that cover alone is insufficient to preclude extirpation by fish predation.

Therefore, based on the information above, we identify refuge from lethal overwintering conditions (freezing and anoxia), and physical cover from

aquatic, avian, and terrestrial predators to be a physical or biological feature needed by the mountain yellow-legged frog.

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

Mountain yellow-legged frogs are known to utilize habitats differently depending on season (Matthews and Pope 1999, pp. 620–623; Wengert 2008, p. 18). Reproduction and rearing require water bodies (or adequate refugia) that are sufficiently deep that they do not dry out in summer or freeze through in winter (except infrequently). Therefore, the conditions within the catchment for these habitats must be maintained such that sufficient volume and timing of snowmelt and adequate transport of precipitation to these rearing water bodies sustain the appropriate balance of conditions to maintain mountain yellow-legged frog's life-history needs. Conditions that determine the depth, siltation rates, or persistence of these water bodies (including sufficient perennial water at depths that do not freeze overwinter) are key determinants of habitat functionality (within tolerance ranges of each particular system). Finally, pre-breeding adult frogs need access to these water bodies in order to utilize resources available within nonbreeding habitat.

Therefore, based on the information above, we find the persistence of breeding and rearing habitats and access to and from seasonal habitat areas (whether via aquatic or terrestrial migration) to be a physical or biological feature needed by the mountain yellow-legged frog to allow successful reproduction and development of offspring.

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

In addition to migration routes (areas that provide back and forth between habitat patches within the metapopulation) without impediments across the landscape between proximal ponds within the ranges of functional metapopulations, mountain yellow-legged frogs require dispersal corridors (areas for recolonization and range expansion) to reestablish populations in extirpated areas within its current range to provide ecological and geographic resiliency (U.S. Forest Service *et al.* 2015, p. 35). Maintenance and reestablishment of such populations across a diversity of ecological landscapes is necessary to provide sufficient protection against changing environmental circumstances (such as climate change). This provides functional redundancy to safeguard against stochastic events (such as wildfires), but this redundancy also may be necessary as different regions or microclimates respond to changing climate conditions.

Establishing or maintaining populations across a broad geographic area spreads out the risk to individual populations across the range of the species, thereby conferring species resilience. Finally, protecting a wide range of habitats across the occupied range of the species simultaneously maintains genetic diversity of the species, which protects the underlying integrity of the major genetic clades (Vredenburg *et al.* 2007, pp. 370–371), whose persistence is important to the ecological fitness of these species as a whole (Allentoft and O'Brien 2010 pp. 47–71; Johansson *et al.* 2007, pp. 2693–2700).

Therefore, based on the information above, we identify dispersal routes (generally fish free), habitat connectivity, and a diversity of high-quality habitats across multiple watersheds throughout the geographic extent of the species' ranges and sufficiently representative of the major genetic clades to be a physical or biological feature needed by the mountain yellow-legged frog.

Primary Constituent Elements for Sierra Nevada Yellow-Legged Frog and the Northern DPS of the Mountain Yellow-Legged Frog

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the primary constituent elements specific to the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog are:

(1) *Aquatic habitat for breeding and rearing.* Habitat that consists of permanent water bodies, or those that are either hydrologically connected with, or close to, permanent water bodies, including, but not limited to, lakes, streams, rivers, tarns, perennial creeks (or permanent plunge pools within intermittent creeks), pools (such as a body of impounded water contained above a natural dam), and other forms of aquatic habitat. This habitat must:

(a) For lakes, be of sufficient depth not to freeze solid (to the bottom) during the winter (no less than 1.7 m (5.6 ft), but generally greater than 2.5 m (8.2 ft), and optimally 5 m (16.4 ft) or deeper (unless some other refuge from freezing is available)).

(b) Maintain a natural flow pattern, including periodic flooding, and have functional community dynamics in order to provide sufficient productivity and a prey base to support the growth and development of rearing tadpoles and metamorphs.

(c) Be free of introduced predators.

(d) Maintain water during the entire tadpole growth phase (a minimum of 2 years). During periods of drought, these breeding sites may not hold water long enough for individuals to complete metamorphosis, but they may still be considered essential breeding habitat if they provide sufficient habitat in most years to foster recruitment within the reproductive lifespan of individual adult frogs.

(e) Contain:

(i) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders (for basking and cover);

(ii) Shallower microhabitat with solar exposure to warm lake areas and to foster primary productivity of the food web;

(iii) Open gravel banks and rocks or other structures projecting above or just beneath the surface of the water for adult sunning posts;

(iv) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks and vegetation to provide cover from predators; and

(v) Sufficient food resources to provide for tadpole growth and development.

(2) *Aquatic nonbreeding habitat (including overwintering habitat).* This habitat may contain the same characteristics as aquatic breeding and rearing habitat (often at the same locale), and may include lakes, ponds, tarns, streams, rivers, creeks, plunge pools within intermittent creeks, seeps, and springs that may not hold water long enough for the species to complete its aquatic life cycle. This habitat provides for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult mountain yellow-legged frogs. Aquatic nonbreeding habitat contains:

(a) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders (for basking and cover);

(b) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(c) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks and vegetation to provide cover from predators;

(d) Sufficient food resources to support juvenile and adult foraging;

(e) Overwintering refugia, where thermal properties of the microhabitat protect hibernating life stages from winter freezing, such as crevices or holes within bedrock, in and near shore; and/or

(f) Streams, stream reaches, or wet meadow habitats that can function as corridors for movement between aquatic habitats used as breeding or foraging sites.

(3) *Upland areas.*

(a) Upland areas adjacent to or surrounding breeding and nonbreeding aquatic habitat that provide area for feeding and movement by mountain yellow-legged frogs.

(i) For stream habitats, this area extends 25 m (82 ft) from the bank or shoreline.

(ii) In areas that contain riparian habitat and upland vegetation (for example, mixed conifer, ponderosa pine, montane conifer, and montane riparian woodlands), the canopy overstory should be sufficiently thin (generally not to exceed 85 percent) to allow sunlight to reach the aquatic habitat and thereby provide basking areas for the species.

(iii) For areas between proximate (within 300 m (984 ft)) water bodies (typical of some high mountain lake habitats), the upland area extends from the bank or shoreline between such water bodies.

(iv) Within mesic habitats such as lake and meadow systems, the entire area of physically contiguous or proximate habitat is suitable for dispersal and foraging.

(b) Upland areas (catchments) adjacent to and surrounding both breeding and nonbreeding aquatic habitat that provide for the natural hydrologic regime (water quantity) of aquatic habitats. These upland areas should also allow for the maintenance of sufficient water quality to provide for the various life stages of the frog and its prey base.

Physical or Biological Features for the Yosemite Toad

We have determined that the Yosemite toad requires the following physical or biological features:

Space for Individual and Population Growth and for Normal Behavior

The Yosemite toad is commonly associated with wet meadow habitats in the Sierra Nevada of California. It occupies aquatic, riparian, and upland habitat throughout a majority of its range. Suitable habitat for the Yosemite toad is created and maintained by the natural hydrologic and ecological processes that occur within the aquatic breeding habitats and adjacent upland areas. Yosemite toads have been documented breeding in wet meadows and slow-flowing streams (Jennings and Hayes 1994, pp. 50–53), shallow ponds, and shallow areas of lakes (Mullally 1953, pp. 182–183). Upland habitat use varies among the different sexes and life stages of the toad (Morton and Pereyra 2010, p. 391); however, all Yosemite toads utilize areas within 1.5 km (0.9 mi) of breeding sites for foraging and overwintering, with juveniles predominantly overwintering in close proximity to breeding areas (Martin 2008, p. 154; Morton and Pereyra 2010, p. 391; Liang *et al.* 2010, p. 6).

Yosemite toads must be able to move between aquatic breeding habitats, upland foraging sites, and overwintering areas. Yosemite toads have been documented to move as far as 1.26 km (0.78 mi) between breeding and upland habitats (Liang 2010, p. ii). Based on observational data from three previous studies, Liang *et al.* (2010, p. 6) estimated the maximum travel distance for the Yosemite toad to be 1.5 km (0.9 mi). Upland habitat used for foraging includes lush meadows with herbaceous vegetation (Morton and Pereyra 2010, p. 390), alpine-dwarf scrub, red fir, lodgepole pine, and subalpine conifer vegetation types (Liang 2010, p. 81), and the edges of talus slopes (Morton and Pereyra 2010, p. 391).

Therefore, based on the information above, we identify both lentic (still) and lotic (flowing) water bodies, including meadows, and adjacent upland habitats with sufficient refugia (for example, logs, rocks) and overwintering habitat that provide space for normal behavior to be a physical or biological feature needed by Yosemite toads for their individual and population growth and for normal behavior.

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

Little is known about the diet of Yosemite toad tadpoles. However, their diet presumably approximates that of related *Anaxyrus* species, and likely consists of microscopic algae, bacteria, and protozoans. Given their life history, it is logical to presume they are opportunistic generalists. Martin (1991, pp. 22–23) reports tadpoles foraging on detritus and plant materials (algae), but also identifies Yosemite toad tadpoles as potential opportunistic predators, having observed them feeding on the larvae of Pacific chorus frog and predaceous diving beetle, which may have been dead or live. The adult Yosemite toad diet comprises a large variety of insects, with Hymenoptera (ants, wasps, bees, sawflies, horntails) comprising the largest proportion of the summer prey base (Martin 1991, pp. 19–22).

The habitats utilized by the Yosemite toad have inherent community dynamics that sustain the food web. Habitats also must maintain sufficient water quality and moisture availability to sustain the toads throughout their life stages, so that key physical parameters within the tolerance range of healthy individual frogs, as well as acceptable ranges for maintaining the underlying ecological community, are maintained. These parameters include, but are not limited to, pH, temperature, precipitation, slope, aspect, vegetation, and lack of anthropogenic contaminants at harmful concentrations. Yosemite toad locations are associated with low slopes, specific vegetation types (wet meadow, alpine-dwarf shrub, montane chaparral, red fir, and subalpine conifer), and certain temperature regimes (Liang and Stohlgren 2011, p. 217).

Therefore, based on the information above, we identify sufficient quantities and quality of source waters, adequate prey resources and the balance of constituents to support the natural food web, low slopes, and specific vegetation communities to be a physical or biological feature needed by Yosemite toads to provide for their nutritional and physiological requirements.

Cover or Shelter

When not actively foraging, Yosemite toads take refuge under surface objects, including logs and rocks (Stebbins 1951, pp. 245–248; Karlstrom 1962, pp. 9–10), and in rodent burrows (Liang 2010, p. 95). Thus, areas of shelter interspersed with other moist environments, such as seeps and springs, are necessary. Yosemite toads also utilize rodent burrows (Jennings and Hayes 1994, pp. 50–53), as well as cover under surface objects and below willows, for overwintering (Kagarise Sherman 1980, pers. obs., as cited in Martin 2008, p. 158).

Therefore, based on the information above, we identify surface objects, rodent burrows, and other cover or overwintering areas to be a physical or biological feature needed by the Yosemite toad to provide cover and shelter.

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

Yosemite toads are prolific breeders that lay their eggs at snowmelt. Suitable breeding and embryonic rearing habitat generally occurs in very shallow water of subalpine lentic and lotic habitats,

including wet meadows, lakes, and small ponds, as well as shallow spring channels, side channels, and sloughs. Eggs typically hatch within 4 to 6 days (Karlstrom 1962, p. 19), with rearing through metamorphosis taking approximately 5 to 7 weeks after eggs are laid (U.S. Forest Service *et al.* 2015, p. 250). These times can vary depending on prey availability, temperature, and other abiotic factors.

The suitability of breeding habitat may vary from year to year due primarily to the amount of precipitation and local temperatures. Given the variability of habitats available for breeding, the high site-fidelity of breeding toads, an opportunistic breeding strategy, as well as the use of lotic systems, Yosemite toads require a variety of aquatic habitats to successfully maintain populations.

Therefore, based on the information above, we identify both lentic and slow-moving lotic aquatic systems that provide sufficient temperature for hatching and that maintain sufficient water for metamorphosis (a minimum of 5 weeks) to be a physical or biological feature needed by the Yosemite toad to allow for successful reproduction and development of offspring.

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

In addition to migration routes without impediments between upland areas and breeding locations across the landscape, Yosemite toads require dispersal corridors to utilize a wide range of breeding habitats in order to provide ecological and geographic resiliency in the face of changing environmental circumstances (for example, climate). This provides functional redundancy to safeguard against stochastic events, such as wildfires, but also may be necessary as different regions or microclimates respond to changing climate conditions. Maintaining populations across a broad geographic extent also reduces the risk of a stochastic event that extirpates multiple populations across the range of the species, thereby conferring species resilience. Finally, protecting a wider range of habitats across the occupied range of the species can assist in maintaining the genetic diversity of the species.

Therefore, based on the information above, we identify dispersal routes, habitat connectivity, and a diversity of habitats throughout the geographic extent of the species' range that sufficiently represent the distribution of the species (including inherent genetic diversity) to be a physical or biological feature needed by the Yosemite toad.

Primary Constituent Elements for the Yosemite Toad

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

(1) *Aquatic breeding habitat.* (a) This habitat consists of bodies of fresh water, including wet meadows, slow-moving streams, shallow ponds, spring systems, and shallow areas of lakes, that:

(i) Are typically (or become) inundated during snowmelt;

(ii) Hold water for a minimum of 5 weeks, but more typically 7 to 8 weeks; and

(iii) Contain sufficient food for tadpole development.

(b) During periods of drought or less than average rainfall, these breeding sites may not hold surface water long enough for individual Yosemite toads to complete metamorphosis, but they are still considered essential breeding habitat because they provide habitat in most years.

(2) *Upland areas.* (a) This habitat consists of areas adjacent to or surrounding breeding habitat up to a distance of 1.25 km (0.78 mi) in most cases (that is, depending on surrounding landscape and dispersal barriers), including seeps, springheads, talus and boulders, and areas that provide:

(i) Sufficient cover (including rodent burrows, logs, rocks, and other surface objects) to provide summer refugia,

(ii) Foraging habitat,

(iii) Adequate prey resources,

(iv) Physical structure for predator avoidance,

(v) Overwintering refugia for juvenile and adult Yosemite toads,

(vi) Dispersal corridors between aquatic breeding habitats,

(vii) Dispersal corridors between breeding habitats and areas of suitable summer and winter refugia and foraging habitat, and/or

(viii) The natural hydrologic regime of aquatic habitats (the catchment).

(b) These upland areas should also maintain sufficient water quality to provide for the various life stages of the Yosemite toad and its prey base.

With this designation of critical habitat, we identify the physical or biological features and their associated PCEs that support the life-history processes essential to the conservation of the species.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection.

The features essential to the conservation of the Sierra Nevada yellow-legged frog and northern DPS of the mountain yellow-legged frog may require special management considerations or protection to reduce the following threats: The persistence of introduced trout populations in essential habitat; the risks related to the spread of pathogens; the effects from water withdrawals and diversions; impacts associated with timber harvest and fuels reduction activities; impacts associated with inappropriate livestock grazing; and intensive use by recreationists, including packstock camping and grazing.

Conservation actions that could ameliorate the threats described above include (but are not limited to) nonnative fish eradication; installation of fish barriers; modifications to fish stocking practices in certain water bodies; physical habitat restoration; and responsible management practices covering potentially incompatible activities, such as timber harvest and fuels management, water supply development and management, inappropriate livestock grazing, packstock grazing, and other recreational uses. These management practices will protect the PCEs for the mountain yellow-legged frog by reducing the stressors currently affecting population viability. Additionally, management of critical habitat lands will help maintain the underlying habitat quality, foster recovery, and sustain populations currently in decline.

The features essential to the conservation of the Yosemite toad may require special management considerations or protection to reduce the following threats: Impacts associated with timber harvest and fuels reduction activity; impacts associated with inappropriate livestock grazing; the spread of pathogens; and intensive use by recreationists, including packstock camping and grazing.

Management activities that could ameliorate the threats described above include (but are not limited to) physical habitat restoration and responsible management practices covering potentially incompatible beneficial uses

such as timber harvest and fuels management, water supply development and management, livestock and packstock grazing, and other recreational uses. These management activities will protect the PCEs for the Yosemite toad by reducing the stressors currently affecting population viability. Additionally, management of critical habitat lands will help maintain or enhance the necessary environmental components, foster recovery, and sustain populations currently in decline.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations, we review available information pertaining to the habitat requirements of the species and identify occupied areas at the time of listing that contain the features essential to the conservation of the species. If, after identifying currently occupied areas, we determine that those areas are inadequate to ensure conservation of the species, in accordance with the Act and our implementing regulations, we then consider whether designating additional areas—outside those currently occupied—are essential for the conservation of the species. We are not designating any areas outside the geographical area occupied by the species because occupied areas are sufficient for their conservation.

We are designating critical habitat units that we have determined based on the best scientific data available are known to be currently occupied and contain the primary constituent elements of the physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and the Yosemite toad (under section 3(5)(A)(i) of the Act). These species exhibit a metapopulation life-history model, and although they tend towards high site-fidelity, individuals within these populations can and do move through suitable habitat to take advantage of changing conditions. Additional areas outside the aquatic habitat within each unit or subunit were incorporated to assist in maintaining the hydrology of the aquatic features and to recognize the importance of dispersal between populations. In most instances, we aggregated areas we knew to be occupied, together with areas needed for hydrologic function and dispersal, into single units or subunits as described at 50 CFR 424.12(d) of our regulations. However, not all areas within each unit are being used by the species at all times, because, by definition, individuals within metapopulations move in space and time.

For the purposes of this final rule (as in our proposed rule), we equate the geographical area occupied at the time of listing with the current range for each of the species (50 CFR 424.12). Therefore, we are designating specific areas within the geographical area occupied at the time of listing (see criteria below) on which are found those physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection pursuant to section 3(5)(A)(i) of the Act. Within the current range of the species, based on the best scientific data available, some watersheds may or may not be actively utilized by extant frog or toad populations, but we consider these areas to be occupied at the scale of the geographic range of the species. We use the term ''utilized'' to refer to the finer geographic scale at the watershed or survey locality level of resolution when the species actively uses the area.

For this final rule, we completed the following basic steps to delineate critical habitat (specific methods follow below):

(1) We compiled all available data from observations of Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad;

(2) We identified, based on the best scientific data available, populations that are extant at the time of listing (current) versus those that are extirpated;

(3) We identified areas containing the components comprising the physical or biological features that may require special management considerations or protection;

(4) We circumscribed boundaries of potential critical habitat units based on the above information; and

(5) We removed, to the extent practicable, all areas that did not have the specific the physical or biological feature components, and therefore are not considered essential to the conservation of the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, or Yosemite toad.

(6) Following receipt of additional information from public comments along with those from USFS and CDFW, we reevaluated a number of sites in the proposed designation for the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog. The re-evaluation was necessary because the MaxEnt 3.3.3e model we used to derive the proposed critical habitat designation was based on historical habitat conditions that did not reflect current habitat conditions and land use of these sites (Knapp 2013). This information has bearing on the restoration potential of such areas. Although the model limitations applied to both frog species, none of the additional criteria used to filter the aquatic habitats within the range of the northern DPS of the mountain yellow-legged frog (see following) suggested or supported change from the proposed designation for the northern DPS of the mountain yellow-legged frog. By comparison, our reevaluation did result in a reduction of sites from the proposed designation for the Sierra Nevada yellow-legged frog. All further discussion on the additional analysis (see ''(4) Additional Criteria Applied to Final Critical Habitat Designation for Sierra Nevada Yellow-legged Frog,'' below) only affects the final critical habitat designation for the Sierra Nevada yellow-legged frog.

Specific criteria and methodology used to determine critical habitat unit boundaries are discussed by species below.

Sierra Nevada Yellow-Legged Frog and Northern DPS of the Mountain Yellow-Legged Frog

We are treating these two species as similar in habitat and behavior.

(1) Data Sources

We obtained observational data from the following sources to include in our Geographic Information System (GIS) database for mountain yellow-legged frog: (a) Surveys of the National Parks within the range of the mountain yellow-legged frog, including information collected by R. Knapp's Sierra Lakes Inventory Project, and G. Fellers; (b) CDFW High Mountain Lakes Project survey data; (c) Sierra Nevada Amphibian monitoring program (SNAMPH) survey data from USFS; and (d) unpublished data collected by professional biologists during systematic surveys. Collectively, our survey data spanned August 1993 through September 2010. We cross-checked our database against the California Natural Diversity Data Base (CNDDB) reports, and we opted to utilize the above sources in lieu of the CNDDB data, due to the systematic nature of the surveys and their inherent quality control.

(2) Occurrence Criteria

We considered extant all localities where presence of living mountain yellow-legged frog has been confirmed since 1995, unless the last three (or more) consecutive surveys have found no individuals of any life stage. The 1995 cutoff date was selected because it reflects a logical break point given the underlying sample coverage and relatively long lifespan of the frogs and is consistent with the recent status evaluation by CDFW, and is therefore consistent with trend analyses compiled as part of that same effort (CDFW (formerly CDFG) 2011, pp. 17–25). We considered the specific areas within the currently occupied geographic range of the species that include all higher-quality habitat (see ''(3) Habitat Unit Delineation,'' below) that is contiguous to extant mountain yellow-legged frog populations. To protect remnant populations, areas where surveys confirmed the presence of mountain yellow-legged frog using the criteria above were generally considered necessary to conservation, including: All hydrologically connected waters within a distance of 3 km (1.9 mi), all areas overland within 300 m (984 ft) of survey locations, and the remainder of the watershed upgradient of that location. The 3-km (1.9-mi) boundary was derived from empirical data recording frog movements using radiotelemetry (see derivation below). Watersheds containing the physical or biological features (as indicated by the MaxEnt Model), and with multiple and repeated positive survey records spread throughout the habitat area, were completely included. If two subareas within adjacent watersheds (one utilized, and one not known to be utilized) had contiguous high-quality habitat, the area was included up to approximately 3 km (1.9 mi) of the survey location. These areas are considered essential to the conservation of the species, because they are presumed to be within the dispersal capacity of extant frog metapopulations or their progeny.

Two detailed movement studies using radio telemetry have been completed for mountain yellow-legged frogs from which movement and home range data may be derived. One of the studies, focused on the mountain yellow-legged frog, occurred in a lake complex in Dusy Basin in Kings Canyon National Park (Matthews and Pope 1999, pp. 615–624). The other study included a stream-dwelling population of what was, at the time, identified as the Sierra Nevada yellow-legged frog in Plumas County, California (Wengert 2008, pp. 1–32). While recent information suggests that at least some of the frogs in the Wengert study may have actually been foothill yellow-legged frog (*Rana boylii*) (Poorten *et al.* 2013, p. 4), we expect that the movement distances recorded are applicable to the Sierra Nevada yellow-legged frog within a stream-based system, because the ecology is comparable between the two similar taxa in regard to stream systems. The movement patterns of the mountain yellow-legged frog within the lake complex included average distances moved within a 5-day period ranging from 43–145 m (141–476 ft) (Matthews and Pope, 1999, p. 620), with frogs traveling greater distances in September compared to August and October. This period reflects foraging and dispersal activity during the pre-wintering phase. Estimated average home ranges from this study ranged from 53 square meters (174 square ft) in October to more than 5,300 square meters (0.4 ac) in September (Matthews and Pope 1999, p. 620). The stream telemetry study recorded movement distances from 3–2,300 m (10–7,546 ft) (average was 485 m (1,591 ft)) within a single season (July through September), with as much as 3,300 m (10,827 ft) of linear stream habitat utilized by a single frog across seasons (Wengert 2008, p. 11). Home ranges in this study were estimated at 167,032 square meters (12.6 ac).

The farthest reported distance of a mountain yellow-legged frog from water is 400 m (1,300 ft) (Vredenburg *et al.* 2005, p. 564). Frogs within habitat connected by lake networks or migration corridors along streams exhibit greater movement and home range. Frogs located in a mosaic of fewer lakes or with greater distances between areas with high habitat value are not expected to move as far over dry land. We used values within the range of empirical data to derive our boundaries, but erred towards the maxima, for reasons explained below.

These empirical results may not necessarily be applied across the range of the mountain yellow-legged frog. It is likely that movement is largely a function of the underlying habitat mosaic particular to each location. Available data are limited to the two studies of different species spanning distinct habitat types. Therefore, generalizations across the range may not be inaccurate; however, two points are evident. First, although mountain yellow-legged frogs are known to be highly associated with aquatic habitat and to exhibit high site-fidelity (Stebbins 1951, p. 340; Mullally and Cunningham 1956, p. 191; Bradford *et al.* 1993, p. 886; Pope 1999a, p. 45), they do have the capacity to move relatively large distances, even within a single season. Our criteria for deriving critical habitat units, therefore, must take into account not only dispersal behavior and home range, but also consider the underlying habitat mosaic (and site-specific data, where available) when defining final boundaries for critical habitat.

Another factor to consider when estimating home ranges from point samples is encounter probability within the habitat range (whether the point location where the surveyed frog is observed is at the center or edge of a home range). It is more likely that surveys will encounter individuals in their preferred habitat areas, especially when point counts are attributed to main lakes (and during the height of the breeding season or closer to the overwintering season). Nevertheless, the full extent of actual utilized habitat may be removed in time and space from the immediate area defined by point locations identified during one-time surveys. The underlying uncertainty associated with point encounters means that it is difficult, and possibly inaccurate, to utilize bounded home ranges from empirical data when you lack site-specific information regarding habitat use about the surveyed sample unit. Additionally, emigration and recolonization of extirpated sites require movement through habitat across generations, which may venture well beyond estimated single-season home ranges or movement distances. Therefore, the estimates from the very limited field studies are available as guidelines, but we also use the nature and physical layout of underlying habitat features (or site-specific knowledge, where available) to better define critical habitat units.

Finally, results from studies conducted in single localities should be considered estimates. Measured distance movements and estimated home ranges from limited studies should not be the sole determinants in habitat unit delineation. The ability of frogs to move along suitable habitat corridors should also be considered. This is especially significant in light of the need for dispersal and recolonization of unoccupied habitat as the species recovers from declines resulting from fish stocking and the spread of Bd. It is evident from the data that frogs can, over the course of a season (and certainly over a lifespan), move through several kilometers of habitat (if the intervening habitat is suitable).

Therefore, given observed dispersal ability based on available data, we have

determined as a general guideline that aquatic habitats associated with survey encounters (point estimates or the entirety of associated water bodies) and those within 3 km (1.9 mi) (approximating the upper bound of observed estimates of movement from all available data) along stream or meadow courses, and within 300 m (984 ft) overland (an intermediate value between the maximum observed distance traveled across dry land within a season) are included in the delineated habitat units, unless some other habitat parameter (as outlined in the PCEs, above) indicates low habitat utility or practical dispersal barriers such as high ridges or rough terrain. At a minimum, stream courses and the adjacent upland habitat up to a distance of 25 m (82 ft) are included (based on an estimate from empirical data in Wengert (2008, p. 13)). A maximum value was utilized here because habitat along stream courses must protect all frogs present and include key features of habitat quality (see PCEs, above).

(3) Habitat Unit Delineation

To identify specific areas containing the physical or biological features essential for mountain yellow-legged frogs that may require special management considerations or protection, we examined the current and historical locations of mountain yellow-legged frogs in relation to the State of California's CALWATER watershed classification system (version 2.2), using the smallest planning watersheds.

In order to circumscribe the boundaries of potential critical habitat, we adopted the CALWATER boundaries, where appropriate, and delineated boundaries based on currently occupied aquatic habitat, as well as historically occupied habitats within the current range of the species. Watershed boundaries or other topographic features were utilized as the boundary when they provided for the maintenance of the hydrology and water quality of the aquatic system. Additional areas were included in order to provide for the dispersal capacity of the frogs, as discussed above.

To further refine the boundaries, we obtained the MaxEnt 3.3.3e species distribution model covering both the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog (CDFG 2011, pp. A–1—A–5; Knapp, unpublished data). This model utilizes 10 environmental variables that were selected based on known physiological tolerances of the mountain yellow-legged frog and the Sierra Nevada yellow legged frog to temperature and water availability. The variables used as model inputs included elevation, maximum elevation of unit watershed, slope, average annual temperature, average temperature of coldest quarter of the year, average temperature of the warmest month of the year, annual precipitation, precipitation during the driest quarter of the year, distance to water, and lake density. The model additionally allows for interactions among these variables and can fit nonlinear relationships using a diversity of feature classes (CDFG 2011, pp. A–1—A–5).

The MaxEnt model renders a grid output with likelihood of frog occurrence, a practical index of historical habitat quality. This output was compared to 2,847 frog occurrence records to determine the fit of the model. The model derived by Dr. Knapp fit the data well. Area under the curve (AUC) values are a measure of model fit, where values of 0.5 are random and values approaching 1.0 are fully accounted for within the model. The model fit for the MaxEnt 3.3.3e species distribution model covering both the Sierra Nevada yellow-legged frog and the northern DPS of the mountain yellow-legged frog had AUC values of 0.916 (standard deviation (s.d.) = 0.002) and 0.964 (s.d. = 0.006), respectively.

Individual critical habitat units were constructed to reflect the balance of frog dispersal ability and habitat use (in other words, based on movement distances), along with projections of habitat quality as expressed by the probability models (MaxEnt grid outputs) and other habitat parameters consistent with the PCEs defined above.

Specifically, we considered areas to be actively utilized if extant occurrences existed within 300 m (984 ft) overland, or within 3 km (1.9 mi) if connected by high-quality dispersal habitat (stream or high lake density habitat). In general, areas up-gradient from occupied water bodies (within the catchment) were circumscribed at the watershed boundary. Aquatic habitat of high quality (defined by higher probability of frog presence) within 3 km (1.9 mi) from extant survey records was included, along with areas necessary to protect the relevant physical or biological features. We circumscribed all habitats with MaxEnt model output of 0.4 and greater within utilized watersheds, but also extended boundaries to include stream courses, ridges, or watershed boundaries where appropriate to protect the relevant physical or biological features. The threshold value of 0.4 was utilized as an index for establishing the historical range by Knapp, as it incorporated most historical and current frog locations (CDFG 2011, p. A–3). Using the available data (CDFW *et al.* unpub. data), this figure accounted for approximately 90 percent of extant population habitat association using our occurrence criteria (1,504 of 1,674 survey records). In the case of stream-based populations, we used a lower threshold for habitat suitability (0.2) to compensate for possible model bias and limited coverage in such habitats.

Where the MaxEnt 3.3.3e species distribution model indicated poor quality of intervening habitat in the mapped landscape within 3 km (1.9 mi) of survey records, we generally cropped these areas at dispersal barriers or watershed boundaries, but may have also followed streams or topographic features. To minimize human error from visual interpolation of habitat units, we aggregated the high-quality habitat grids from the model output in ArcGIS using a neighbor distance within 1,000 m (3,281 ft), and we used this boundary to circumscribe model outputs when selecting this boundary parameter. The 1,000-m (3,281-ft) aggregating criterion most closely agreed with manual visual interpolation methods that minimized land area included during unit delineation.

If areas were contiguous to designated areas within utilized watersheds, we include the higher quality habitat of the adjacent watersheds with model ranking 0.4 or greater. These areas are essential if they are of sufficiently high habitat quality to be important for future dispersal, translocation, and restoration consistent with recovery needs. In general, for these ''neighboring'' watersheds, circumscribed habitat boundaries followed either the 0.4+ MaxEnt aggregate polygon boundary, stream courses, or topographic features that otherwise constituted natural dispersal barriers. Further, subunit designation does not include catchment areas necessary to protect relevant physical or biological features if the mapped area was greater than 3 km (1.9 mi) from a survey location. This lower protective standard was appropriate because these areas were beyond the outside bound of extant survey records, and our confidence that these areas are, or will be, utilized is lower.

We also used historical records in some instances to include proximate watersheds that may or may not be currently utilized within subareas of high habitat quality as an index of the utility of habitat essential to the conservation of the frogs. This methodology was adopted to compensate for any uncertainties in our underlying scientific and site-specific knowledge of ecological features that

indicate habitat quality. Unless significant changes have occurred on the landscape, an unutilized site confirmed by surveys to have historically supported frog populations likely contains more of the physical or biological features relative to one that has no historical records.

(4) Additional Criteria Applied to Critical Habitat for Sierra Nevada Yellow-Legged Frog

While the MaxEnt 3.3.3e model was an effective indicator of PCEs, and useful in defining suitable habitat based on the physical or biological features required by the Sierra Nevada yellow-legged frog, Dr. Knapp informed us in peer review that the model was based on physical and ecological parameters as a historical model that does not necessarily take into account current habitat conditions. Based on this feedback, and in light of many comments highlighting that such sites are degraded by water development and receive high public use (often being lower elevation reservoirs, which are less optimal than high-elevation, ''back country'' lakes and streams for frog restoration), we determined it was necessary to apply additional criteria to re-evaluate whether these very low restoration potential areas in fact should be included in the designation of critical habitat for the Sierra Nevada yellow-legged frog.

It was first necessary to find a method to objectively identify which areas have very low restoration potential. We used three factors to evaluate areas to determine which ones are characterized by: (1) High public use and disturbance, (2) water level fluctuations from reservoir management, and (3) a location where they are far removed from extant frog metapopulations. Based on these factors, we determined that such areas would be poor candidates for restoration actions when other, better, opportunities exist in geographic proximity.

We identified all reservoirs that were located close to paved roadways or populated areas and outside the expected, current, utilized range of extant Sierra Nevada yellow-legged frog populations. This included all reservoirs within 1 km (0.62 mi) of a paved roadway (TIGER/L shape files, U.S. Census 2014) or populated area (ESRI Streetmap Premium for ArcGIS 2013) that also have a dam (water control feature within 10 m (33 ft) (based on USGS National Hydrography Dams Dataset 2013)), and were greater than 3 km (1.8 mi) from an extant frog locality.

We also identified all lakes and streams slated for fish stocking by the CDFW (CDFW unpubl. data). We evaluated the list of areas proposed for the Statewide stocking program pending a final record of decision on the Hatchery Operations Environmental Impact Statement/Report (ICF Jones and Stokes, 2010). We looked at all those areas and further screened them to identify only those outside and intersecting a 3-km (1.9-mi) buffer to extant frog localities.

We then identified all areas that were brought up during the public comment periods (including agency comments) because they are subject to high levels of public consumptive uses (such as cabins, resorts, angling, and other recreational activities) or other significant habitat alteration. These are areas where, during our public comment periods, the commenter(s) identified, by name, locations that currently experience recreational use (including angling), have low habitat-restoration value, lack extant frogs, or are distanced from extant frogs.

There were many areas common to each of the three evaluation groups above. We aggregated all sites identified using the process above, and we eliminated the duplicates. We evaluated each area on a case-by-case basis to determine whether it met the criteria for final designation. We analyzed the overall impact that the absence of a specific location would have on the conservation value of the of critical habitat subunit in which it was located. The analysis used the same ecological qualifications, based on the physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frogs and the amount and spatial arrangement of features needed in each subunit to meet the definition of critical habitat.

If a site was intersecting, or within, a 3-km (1.9-mi) buffer denoting proximity to extant frog metapopulations, we applied additional weighting within our analysis using parameters such as: Distance by land to the extant locality, distance by stream to the extant locality, overall habitat quantity and habitat quality (by MaxEnt 3.3.3e model) within that same subunit and in immediate proximity to the site under consideration for reevaluation, and number and spatial arrangement (density and overall dispersion) of other extant frog localities within that same subunit. We also factored in the relative status of the particular genetic clade to which that subunit is associated. Sites that are within 500 m (1,640 ft) overland, or 1 km (0.62 mi) via stream from an extant frog locality remain in this final critical habitat designation. These figures are conservative estimates for single season movement (from empirical data, USFWS unpubl. data), which may be used to approximate functional home range; are consistent with the 1.0-km distance used during the California State Department of Fish and Wildlife status evaluation (CDFW 2011) to define metapopulation connectivity; and are currently the standard being implemented within ongoing consultations (USFWS 2014).

This analysis was conducted in the context of the spatial and ecological features of each critical habitat subunit and the conservation needs of the species. Although these areas do have the PCEs reflecting the physical or biological features comprising critical habitat, they are not being included in this final critical habitat designation because current habitat conditions were not reflected in our original habitat model. These areas were ultimately eliminated based on the criteria we used for determining the boundaries of critical habitat. As a result of comments received during the public comment period and peer review, we are now considering current habitat conditions and the restoration potential of these degraded habitats in light of the recovery needs for Sierra Nevada yellow-legged frog.

A full list of sites we no longer include in this critical habitat designation appears in Table 2, below. The areal extent of each site on the list is based on the high-water line for solely the aquatic portion of the lake, reservoir, or stream stretch. Additionally, unless explicitly indicated (by name) in Table 2, the surrounding lands, waterways, or tributaries of each site on the list remain in the final designation. Areas that are not explicitly indicated by name in Table 2 remain part of the final critical habitat designation. Interested parties with questions as to whether a particular project lies within designated critical habitat for Sierra Nevada yellow-legged frog within the immediate proximity to one of the areas listed in Table 2 should contact the local jurisdictional field office of the Service to resolve uncertainty.

Yosemite Toad

(1) Data Sources

We obtained observational data from the following sources to include in our GIS database for the Yosemite toad: (a) Surveys of the National Parks within the range of the Yosemite toad, including information collected by R. Knapp's Sierra Lakes Inventory Project and G. Fellers; (b) survey data from each of the

National Forests within the range of the species; (c) CDFW High Mountain Lakes Project survey data; and (d) SNAMPH survey data from USFS. We cross-checked the data received from each of these sources with information contained in the CNDDB. Given that the data sources (a) through (d) are the result of systematic surveys, provide better survey coverage of the range of the Yosemite toad, and are based on observation data of personnel able to accurately identify the species, we opted to utilize the above sources in lieu of the CNDDB data.

(2) Occurrence Criteria

We considered extant all localities where Yosemite toad has been detected since 2000. The 2000 date was used for several reasons: (1) Comprehensive surveys for Yosemite toad throughout its range were not conducted prior to 2000, so data prior to 2000 are limited; and (2) given the longevity of the species, toad locations identified since 2000 are likely to contain extant populations.

We considered the occupied geographic range of the species to include all suitable habitats within dispersal distance and geographically contiguous to extant Yosemite toad populations. To maintain genetic integrity and provide for sufficient range and distribution of the species, we identified areas with dense concentrations of Yosemite toad populations interconnected or interspersed among suitable breeding habitats and vegetation types, as well as populations on the edge of the range of the species. We also delineated specific areas to include dispersal and upland migration corridors.

Two movement studies using radiotelemetry have been completed for the Yosemite toad from which migration distances may be derived. One study took place in the Highland Lakes on the Stanislaus National Forest (Martin 2008, pp. 98–113), and the other took place in the Bull Creek watershed on the Sierra National Forest (Liang 2010, p. 96). The maximum observed seasonal movement distances from breeding pools within the Highland Lakes area was 657 m (2,157 ft) (Martin 2008, p. 144), while the maximum at the Bull Creek watershed was 1,261 m (4,137 ft). Additionally, Liang *et al.* (2010, p. 6) utilized all available empirical data to derive a maximum movement distance estimate from breeding locations to be 1,500 m (4,920 ft), which they utilized in their modeling efforts. Despite these reported dispersal distances, the results may not necessarily apply across the range of the species. It is likely that movement is largely a function of the habitat types particular to each location.

We used the mean plus 1.96 times the standard error as an expression of the 95 percent confidence interval (Streiner 1996, pp. 498–502; Curran-Everett 2008, pp. 203–208) to estimate species-level movement behavior from such studies. Using this measure, we derived a confidence-bounded estimate for average distance moved in a single season based on the Liang study (2010, pp. 107–109) of 1,015 m (3,330 ft). We focused on the Liang study because it had a much larger sample size and likely captured greater variability within a population. However, given that Liang *et al.* (2010, p. 6) estimated and applied a maximum movement distance of 1,500 m (4,920 ft), we opted to choose the approximate midpoint of these two methods, rounded to the nearest 0.25 km (0.16 mi) and determined 1,250 m (4,101 ft) to be an appropriate estimated dispersal distance from breeding locations. As was the case with the estimate chosen for the mountain yellow-legged frog complex, this distance does not represent the maximum possible dispersal distance, but represents a distance that will reflect the movement of a large majority of Yosemite toads.

Therefore, our criteria for identifying the boundaries of critical habitat units take into account dispersal behavior and distances, but also consider the underlying habitat quality and types, specifically the physical or biological features (and site-specific knowledge, where available), in defining boundaries for essential habitat.

(3) Habitat Unit Delineation

To identify areas containing the physical or biological features essential for the Yosemite toad that may require special management considerations or protection, we examined the current and historical locations of Yosemite toads in relation to the State of California vegetation layer, USFS meadow information dataset, the State of California's CALWATER watershed classification system (version 2.2) using the smallest planning watersheds, and appropriate topographic maps.

In order to circumscribe the boundaries of potential critical habitat, we expanded the bounds of known breeding locations for the Yosemite toad by the 1,250-m (4,101-ft) dispersal distance and delineated boundaries also taking into account vegetation types, meadow complexes, and dispersal barriers. Where appropriate, we utilized the CALWATER boundaries to reflect potential barriers to dispersal (high, steep ridges), and delineated boundaries based on our best estimate of what constitutes currently utilized habitat. Watershed boundaries or other topographic features were marked as the unit boundary when that boundary provided for the maintenance of the hydrology and water quality of the aquatic system.

In some instances (such as no obvious dispersal barrier or uncertainty regarding the suitability of habitat within dispersal distance of a known toad location), to further refine the boundaries, we obtained the MaxEnt 3.3.3e species habitat suitability/distribution model developed and utilized by Liang *et al.* (2010) and Liang and Stohlgren (2011), which covered the range of the Yosemite toad. This model utilized nine environmental and three anthropogenic data layers to provide a predictor of Yosemite toad locations that serves as a partial surrogate for habitat quality and therefore underlying physical or biological features or PCEs. The variables used as model inputs included slope, aspect, vegetation, bioclimate variables (including annual mean temperature, mean diurnal range, temperature seasonality, annual precipitation, precipitation of wettest month, and precipitation seasonality), distance to agriculture, distance to fire perimeter, and distance to timber activity.

As the model incorporated factors that did not directly correlate to the physical or biological features or PCEs (for example, distance to agriculture, distance to fire perimeter, and distance to timber activity) (Liang and Stohlgren 2011, p. 22)), further analysis was required. In areas that were either occupied by the Yosemite toad or within dispersal distance of the toad (but the model indicated a low probability of occurrence), we assessed the utility of the model by further estimating potential sources of model derivation (such as fire or anthropogenic factors). If habitat quality indicated by the MaxEnt model was biased based on factors other than those linked to physical or biological features or PCEs, we discounted the MaxEnt output in those areas and based our designation on the PCEs. In these cases, areas are included in our critical habitat designation that ranked low in the MaxEnt output.

Individual critical habitat units are constructed to reflect toad dispersal ability and habitat use, along with projections of habitat quality, as expressed by the probability models (MaxEnt grid outputs) and other habitat parameters consistent with the PCEs defined above.

We also used historical records as an index of the utility of habitat essential to the conservation of the Yosemite toad to help compensate for any uncertainties in our underlying scientific and site-specific knowledge of ecological features that indicate habitat quality, as we did for the frogs.

When determining critical habitat boundaries within this final rule, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad (*i.e.,* areas with none of the PCEs extant). The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation under the Act with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the Regulation Promulgation section. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *http://www.regulations.gov* at Docket No. FWS–R8–ES–2012–0074, on our Internet site *http://www.fws.gov/sacramento,* and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT**, above).

Units are designated based on sufficient elements of physical or biological features being present to support the life processes of the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, or the Yosemite toad. Some units contain all of the identified elements of physical or biological features and support multiple life processes, while some segments contain only some elements of the physical or biological features necessary to support the species' particular use of that habitat. It is important to understand that not all PCEs are required to provide functional habitat. When trying to determine if any specific areas or infrastructure are excluded by narrative, it is best to discuss your particular project with the Fish and Wildlife Office of jurisdiction.

Final Critical Habitat Designation

Based on the above described criteria, we are designating 437,929 ha (1,082,147 ac) as critical habitat for the Sierra Nevada yellow-legged frog (Table 1). This area represents approximately 18 percent of the historical range of the species as estimated by Knapp (unpublished data). All subunits designated as critical habitat are considered occupied (at the subunit level) and include lands within Lassen, Plumas, Sierra, Nevada, Placer, El Dorado, Amador, Calaveras, Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California.

TABLE 1—DESIGNATED CRITICAL HABITAT UNITS FOR THE SIERRA NEVADA YELLOW-LEGGED FROG

Subunit No.	Subunit name	Hectares (ha)	Acres (ac)
1A	Morris Lake	1,079	2,665
1B	Bean Creek	13,523	33,417
1C	Deanes Valley	2,020	4,990
1D	Slate Creek	2,688	6,641
2A	Boulder/Lone Rock Creeks	4,500	11,119
2B	Gold Lake	6,189	15,294
2C	Black Buttes	55,057	136,049
2D	Five Lakes	3,758	9,286
2E	Crystal Range	33,406	82,548
2F	East Amador	43,414	107,278
2G	North Stanislaus	10,462	25,851
2H	Wells Peak	11,711	28,939
2I	Emigrant Yosemite	86,161	212,908
2J	Spiller Lake	1,094	2,704
2K	Virginia Canyon	891	2,203
2L	Register Creek	838	2,070
2M	White Mountain	8,416	20,796
2N	Unicorn Peak	2,088	5,160
3A	Yosemite Central	1,408	3,480
3B	Cathedral	38,784	95,837
3C	Minarets	3,090	7,636
3D	Mono Creek	18,481	45,666
3E	Evolution/Le Conte	87,136	215,318
3F	Pothole Lakes	1,736	4,289
Total		437,929	1,082,147

Following further evaluation (see *Criteria Used To Identify Critical Habitat* above), response to comments, and peer review, we are removing certain areas formerly included within the proposed critical habitat designation (these removal areas are already subtracted from the totals listed in Table 1). These areas are listed below.

TABLE 2—AREAS ELIMINATED FROM FINAL CRITICAL HABITAT DESIGNATION FOR THE SIERRA NEVADA YELLOW-LEGGED FROG BY CRITICAL HABITAT SUBUNIT [1]

Subunit	Specific	Areas meeting the definition of critical habitat, in hectares (acres)	Areas removed from critical habitat, in hectares (acres)
1A. Morris Lake	Unoccupied Watershed	7,154 (17,677)	6,076 (15,012)
1B. Bean Creek	Bucks Lake	14,224 (35,148)	700 (1,731)
2B. Gold Lake	Big Deer Lake, Long Lake, Packer Lake, Salmon Lakes (Upper and Lower), Sardine Lakes (Upper and Lower), Saxonia Lake, Smith Lake, Volcano Lake, Young America Lake.	6,354 (15,702)	165 (408)
2C. Black Buttes	Bowman Reservoir, Cascade Lakes, Donner Euer Valley, Faucherie Lake, Ice Lakes, Independence Lake, Jackson Lake, Kidd Lake, Lake Angela, Lake Mary, Lake Van Norden, Lower Lola Montez Lake; Rock Lakes (Upper and Lower), Sawmill Lake, Spaulding Reservoir.	55,961 (138,283)	904 (2,234)
2E. Crystal Range	South Fork American River at Camp Sacramento, Buck Island Lake, Dark Lake, Echo Lakes (Upper and Lower), Rockbound Lake, Rubicon Reservoir, Wrights Lake.	33,666 (83,191)	260 (643)
2F. East Amador	Bear River Reservoirs (Upper and Lower), Caples Lake, Frog Lake, Kinney Reservoir, Kirkwood Lake, Woods Lake.	44,047 (108,842)	633 (1,564)
2G. North Stanislaus	Alpine Lake, Duck Creek North Fork Diversion Reservoir, Union Reservoir, Utica Reservoir.	10,701 (26,444)	240 (593)
2I. Emigrant Yosemite	Camp Lake, Hyatt Lake	86,181 (212,958)	20 (50)
2M. White Mountain	Ellery Lake, South Fork Lee Vining Creek, Lee Vining Creek (Saddlebag Creek), Odell Lake, Saddlebag Lake, Steelhead Lake, Tioga Lake, Towser Lake.	8,596 (21,242)	180 (446)
3B. Cathedral	Gem Lake	38,892 (96,104)	108 (267)
3D. Mono Creek	Rock Creek, Rock Creek Lake	18,504 (45,723)	23 (57)
3E. Evolution/Leconte	Apollo Lake, Grass Lake, Lamarck Lakes (Upper and Lower), Lamarck Creek, South Lake.	87,239 (215,572)	103 (253)

[1] These areas were eliminated either because of erroneous occupancy records (subunit 1A) (no lake was removed) or because of very low recovery potential due to highly fluctuating water levels, heavy recreational use, and distance from extant frogs (all other subunits).

We are designating 89,637 ha (221,498 ac) as critical habitat for the northern DPS of the mountain yellow-legged frog (Table 3). This area represents approximately 19 percent of the historical range of the northern DPS of the mountain yellow-legged frog in the Sierra Nevada. All subunits designated as critical habitat are considered occupied (at the subunit level) and include lands within Fresno, Inyoand Tulare Counties, California.

TABLE 3—DESIGNATED CRITICAL HABITAT UNITS FOR THE NORTHERN DPS OF THE MOUNTAIN YELLOW-LEGGED FROG

Subunit No. [1]	Subunit name	Hectares (ha)	Acres (ac)
4A	Frypan Meadows	1,585	3,917
4B	Granite Basin	1,777	4,391
4C	Sequoia Kings	67,566	166,958
4D	Kaweah River	3,663	9,052
5A	Blossom Lakes	2,069	5,113
5B	Coyote Creek	9,802	24,222
5C	Mulkey Meadows	3,175	7,846
Total		89,637	221,498

[1] Subunit numbering begins at 4, following designation of southern DPS of the mountain yellow-legged frog (3 units).

We are designating 303,889 ha (750,926 ac) as critical habitat for the Yosemite toad (Table 4). This area represents approximately 28 percent of the historical range of the Yosemite toad in the Sierra Nevada. All units designated as critical habitat are considered occupied (at the unit level) and include lands within Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California.

TABLE 4—DESIGNATED CRITICAL HABITAT UNITS FOR THE YOSEMITE TOAD

Unit No.	Unit name	Hectares (ha)	Acres (ac)
1	Blue Lakes/Mokelumne	14,884	36,778
2	Leavitt Lake/Emigrant	30,803	76,115
3	Rogers Meadow	11,797	29,150
4	Hoover Lakes	2,303	5,690

TABLE 4—DESIGNATED CRITICAL HABITAT UNITS FOR THE YOSEMITE TOAD—Continued

Unit No.	Unit name	Hectares (ha)	Acres (ac)
5	Tuolumne Meadows/Cathedral	56,530	139,688
6	McSwain Meadows	6,472	15,992
7	Porcupine Flat	1,701	4,204
8	Westfall Meadows	1,859	4,594
9	Triple Peak	4,377	10,816
10	Chilnualna	6,212	15,351
11	Iron Mountain	7,706	19,043
12	Silver Divide	39,987	98,809
13	Humphrys Basin/Seven Gables	20,666	51,067
14	Kaiser/Dusy	70,978	175,390
15	Upper Goddard Canyon	14,905	36,830
16	Round Corral Meadow	12,711	31,409
Total		303,889	750,926

Sierra Nevada Yellow-Legged Frog

We are designating three units encompassing 24 subunits as critical habitat for the Sierra Nevada yellow-legged frog. The critical habitat units and subunits that we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Sierra Nevada yellow-legged frog. Units are numbered for the three major genetic clades (Vredenburg *et al.* 2007, p. 361) that have been identified rangewide for the Sierra Nevada yellow-legged frog. Distinct portions within each clade are designated as subunits. The 24 subunits we designate as critical habitat are listed in Table 5, and all subunits are known to be currently occupied based on the best available scientific and commercial information.

TABLE 5—CRITICAL HABITAT SUBUNITS FOR THE SIERRA NEVADA YELLOW-LEGGED FROG (IN HECTARES AND ACRES), LAND OWNERSHIP, AND KNOWN THREATS THAT MAY AFFECT THE ESSENTIAL PHYSICAL OR BIOLOGICAL FEATURES WITHIN THE GEOGRAPHICAL AREA OCCUPIED BY THE SPECIES AT THE TIME OF LISTING

Critical habitat subunit	Federal ha (ac)	State/local [3] ha (ac)	Private ha (ac)	Total [1] ha (ac)	Known manageable threats [2]
1A. Morris Lake	1,079	0	0	1,079	1, 2, 3, 4, 5
	(2,665)	(0)	(0)	(2,665)	
1B. Bean Creek	12,464	0	1,060	13,523	1, 3, 4, 5
	(30,798)	(0)	(2,619)	(33,417)	
1C. Deanes Valley	1,962	0	58	2,020	3, 4, 5
	(4,847)	(0)	(143)	(4,990)	
1D. Slate Creek	2,259	0	429	2,688	3, 4, 5
	(5,581)	(0)	(1,060)	(6,641)	
2A. Boulder/Lone Rock Creeks	3,953	0	547	4,500	1, 2, 3, 4, 5
	(9,767)	(0)	(1,352)	(11,119)	
2B. Gold Lake	5,488	0	702	6,189	1, 3, 4, 5
	(13,561)	(0)	(1,734)	(15,294)	
2C. Black Buttes	32,649	0	22,408	55,057	1, 2, 3, 4, 5
	(80,678)	(0)	(55,371)	(136,049)	
2D. Five Lakes	2,396	0	1,362	3,758	1, 4, 5
	(5,921)	(0)	(3,365)	(9,286)	
2E. Crystal Range	31,261	0	2,145	33,406	1, 2, 3, 5
	(77,249)	(0)	(5,299)	(82,548)	
2F. East Amador	40,140	56	3,218	43,414	1, 2, 3, 4, 5
	(99,188)	(138)	(7,952)	(107,278)	
2G. North Stanislaus	10,445	0	16	10,462	1, 2, 3, 4, 5
	(25,811)	(0)	(41)	(25,851)	
2H. Wells Peak	11,650	0	61	11,711	1, 3, 4, 5
	(28,788)	(0)	(150)	(28,939)	
2I. Emigrant Yosemite	86,089	*50	22	86,161	1, 3
	(212,730)	(*124)	(54)	(212,908)	
2J. Spiller Lake	1,094	0	0	1,094	1
	(2,704)	(0)	(0)	(2,704)	
2K. Virginia Canyon	891	0	0	891	1
	(2,203)	(0)	(0)	(2,203)	
2L. Register Creek	838	0	0	838	1
	(2,070)	(0)	(0)	(2,070)	
2M. White Mountain	8,366	0	49	8,416	1
	(20,674)	(0)	(122)	(20,796)	
2N. Unicorn Peak	2,088	0	0	2,088	1
	(5,160)	(0)	(0)	(5,160)	

TABLE 5—CRITICAL HABITAT SUBUNITS FOR THE SIERRA NEVADA YELLOW-LEGGED FROG (IN HECTARES AND ACRES), LAND OWNERSHIP, AND KNOWN THREATS THAT MAY AFFECT THE ESSENTIAL PHYSICAL OR BIOLOGICAL FEATURES WITHIN THE GEOGRAPHICAL AREA OCCUPIED BY THE SPECIES AT THE TIME OF LISTING—Continued

Critical habitat subunit	Federal ha (ac)	State/local [3] ha (ac)	Private ha (ac)	Total [1] ha (ac)	Known manageable threats [2]
3A. Yosemite Central	1,408 (3,480)	0 (0)	0 (0)	1,408 (3,480)	1
3B. Cathedral	38,784 (95,837)	0 (0)	0 (0)	38,784 (95,837)	1, 3
3C. Minarets	3,090 (7,636)	0 (0)	0 (0)	3,090 (7,636)	1, 5
3D. Mono Creek	18,481 (45,666)	0 (0)	0 (0)	18,481 (45,666)	1, 3, 5
3E. Evolution/Leconte	86,968 (214,903)	*81 (*200)	87 (215)	87,136 (215,318)	1, 3
3F. Pothole Lakes	1,735 (4,286)	0 (0)	1 (2)	1,736 (4,289)	1, 5
Total	405,578 (1,002,204)	56 (138) *131 (*324)	32,165 (79,481)	437,929 (1,082,146)	

Note: Area sizes may not sum due to rounding.

[1] Area estimates in ha (ac) reflect the entire area within the designated critical habitat unit boundaries. Area estimates are rounded to the nearest whole integer that is equal to or greater than 1.

[2] Codes of known threats that may require special management considerations or protection of the essential physical or biological features:
1. Fish Persistence and Stocking
2. Water Diversions/Development
3. Inappropriate Grazing
4. Timber Harvest/Fuels Reduction
5. Recreation

[3] Asterisks * signify local jurisdictional (County) lands and are presented for brevity in the same column with State jurisdiction lands.

We present brief descriptions of all units and reasons why they meet the definition of critical habitat for the Sierra Nevada yellow-legged frog below. Each unit and subunit contains the physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog, which may require special management considerations or protection (see *Special Management Considerations or Protection,* above).

Unit 1: Sierra Nevada Yellow-Legged Frog Clade 1

Unit 1 represents the northernmost portion of the species' range. It reflects unique ecological features within the range of the species, comprising populations that are stream-based. Unit 1, including all subunits, is an essential component of the entirety of this critical habitat designation due to the unique genetic and geographic distribution this unit encompasses. The frog populations within Clade 1 of the Sierra Nevada yellow-legged frog are at very low numbers and face significant threats from habitat fragmentation. The critical habitat within the unit is necessary to sustain viable populations within Clade 1 of the Sierra Nevada yellow-legged frog, which are at very low abundances. Unit 1 is crucial to the species for range expansion and recovery.

Subunit 1A: Morris Lake

The Morris Lake subunit consists of approximately 1,079 ha (2,665 ac), and is located in Plumas County, California, approximately 4 km (2.5 mi) northwest of Highway 70. Land ownership within this subunit consists entirely of Federal land within the Plumas National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Morris Lake subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 1B: Bean Creek

The Bean Creek subunit consists of approximately 13,523 ha (33,417 ac). It is located in Plumas County, California, approximately 3 km (1.9 mi) south of Highway 70 near the intersection with Caribou Road, and it is bisected on the south end by the Oroville Highway. Land ownership within this subunit consists of approximately 12,464 ha (30,798 ac) of Federal land and 1,060 ha (2,619 ac) of private land. The Bean Creek subunit is located entirely within the boundaries of the Plumas National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Bean Creek subunit may require special management considerations or protection due to the presence of introduced fishes, inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 1C: Deanes Valley

The Deanes Valley subunit consists of approximately 2,020 ha (4,990 ac) and is located in Plumas County, California, approximately 5.7 km (3.6 mi) south of Buck's Lake Road, 6.4 km (4 mi) east of Big Creek Road, 7.5 km (4.7 mi) west of Quincy-LaPorte Road, and 3.5 km (2.2 mi) north of the Middle Fork Feather

River. Land ownership within this subunit consists of approximately 1,962 ha (4,847 ac) of Federal land and 58 ha (143 ac) of private land. The Deanes Valley subunit is located entirely within the boundaries of the Plumas National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Deanes Valley subunit may require special management considerations or protection due to inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 1D: Slate Creek

The Slate Creek subunit consists of approximately 2,688 ha (6,641 ac), and is located in Plumas and Sierra Counties, California, approximately 0.7 km (0.4 mi) east of the town of LaPorte, and 2.5 km (1.6 mi) southwest of the west branch of Canyon Creek. Land ownership within this subunit consists of approximately 2,259 ha (5,581 ac) of Federal land and 429 ha (1,060 ac) of private land. The Slate Creek subunit is located entirely within the boundaries of the Plumas National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing and contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Slate Creek subunit may require special management considerations or protection due to inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Unit 2: Sierra Nevada Yellow-Legged Frog Clade 2

This unit represents a significant fraction of the Sierra Nevada yellow-legged frog's range, and it reflects unique ecological features within the range by comprising populations that are both stream- and lake-based. Unit 2, including all subunits, is an essential component of the entirety of this critical habitat designation due to the unique genetic and geographic distribution this unit encompasses. The frog populations within Clade 2 of the Sierra Nevada yellow-legged frog distribution are at very low to intermediate abundance and face significant threats from habitat fragmentation resulting from the introduction of fish. The critical habitat within the unit is necessary to sustain viable populations within Clade 2 of the Sierra Nevada yellow-legged frog, which are at very low to intermediate abundances. Unit 2 is crucial to the species for range expansion and recovery.

Subunit 2A: Boulder/Lone Rock Creeks

The Boulder/Lone Rock Creeks subunit consists of approximately 4,500 ha (11,119 ac), and is located in Plumas and Lassen Counties, California, between 8 km (5 mi) and 18 km (11.3 mi) west of Highway 395 near the county line along Wingfield Road. Land ownership within this subunit consists of approximately 3,953 ha (9,767 ac) of Federal land and 547 ha (1,352 ac) of private land. Subunit 2A includes Antelope Lake (which receives two creeks as its northwestern headwaters), and these water bodies provide connectivity for both main areas within the subunit. The Boulder/Lone Rock Creeks subunit is located predominantly within the boundaries of the Plumas National Forest, with some area lying within the Lassen National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Boulder/Lone Rock Creeks subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 2B: Gold Lake

The Gold Lake subunit consists of approximately 6,189 ha (15,294 ac), and is located in Plumas and Sierra Counties, California, approximately 8.7 km (5.4 mi) south of Highway 70, and 4.4 km (2.75 mi) north of Highway 49, along Gold Lake Highway to the east. Land ownership within this subunit consists of approximately 5,488 ha (13,561 ac) of Federal land and 702 ha (1,734 ac) of private land. The Gold Lake subunit is located within the Plumas and Tahoe National Forests. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Gold Lake subunit may require special management considerations or protection due to introduced fishes, inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 2C: Black Buttes

The Black Buttes subunit consists of approximately 55,057 ha (136,049 ac), and spans from Sierra County through Nevada County into Placer County, California. It is 8.5 km (5.3 mi) west of Highway 89, and 3.7 km (2.3 mi) north of the North Fork American River, and is bisected on the south by Highway 80. Land ownership within this subunit consists of approximately 32,649 ha (80,678 ac) of Federal land and 22,408 ha (55,371 ac) of private land. The Black Buttes subunit is located entirely within the boundaries of the Tahoe National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Black Buttes subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 2D: Five Lakes

The Five Lakes subunit consists of approximately 3,758 ha (9,286 ac), and is located in the eastern portion of Placer County, California, approximately 2 km (1.25 mi) west of Highway 89 and 12.3 km (7.7 mi) east of Foresthill Road. Land ownership within this subunit consists of

approximately 2,396 ha (5,921 ac) of Federal land and 1,362 ha (3,365 ac) of private land. The Five Lakes subunit is located entirely within the boundaries of the Tahoe National Forest, including area within the Granite Chief Wilderness. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Five Lakes subunit may require special management considerations or protection due to the presence of introduced fishes, timber management and fuels reduction, and recreational activities.

Subunit 2E: Crystal Range

The Crystal Range subunit consists of approximately 33,406 ha (82,548 ac), and is located primarily in El Dorado and Placer Counties, California, approximately 3.8 km (2.4 mi) west of Highway 89, bounded on the south by Highway 50, and 7 km (4.4 mi) east of Ice House Road. The Crystal Range subunit includes portions of the Desolation Wilderness. Land ownership within this subunit consists of approximately 31,261 ha (77,249 ac) of Federal land and 2,145 ha (5,299 ac) of private land. The Crystal Range subunit includes areas within the Eldorado and Tahoe National Forests and also the Lake Tahoe Basin Management Unit. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Crystal Range subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, inappropriate grazing activity, and recreational activities.

Subunit 2F: East Amador

The East Amador subunit consists of approximately 43,414 ha (107,278 ac), and is located in Amador, Alpine, and El Dorado Counties, California. The East Amador subunit is roughly bounded on the northwest by Highway 88, and on the southeast by Highway 4. Land ownership within this subunit consists of approximately 40,140 ha (99,188 ac) of Federal land, 56 ha (138 ac) of State land, and 3,218 ha (7,952 ac) of private land. The East Amador subunit includes areas within the Eldorado, Stanislaus, and Humboldt-Toiyabe National Forests, and areas within the Emigrant Wilderness. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the East Amador subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 2G: North Stanislaus

The North Stanislaus subunit consists of approximately 10,462 ha (25,851 ac), and is located in Alpine, Tuolumne, and Calaveras Counties, California. It is south of the North Fork Mokelumne River, and is bisected by Highway 4, which traverses the unit from southwest to northeast. Land ownership within this subunit consists of approximately 10,445 ha (25,811 ac) of Federal land and 16 ha (41 ac) of private land. The North Stanislaus subunit is located entirely within the boundaries of the Stanislaus National Forest, the Mokelumne Wilderness and Carson-Iceberg Wilderness. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the North Stanislaus subunit may require special management considerations or protection due to the presence of introduced fishes, water diversions and operations, inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 2H: Wells Peak

The Wells Peak subunit consists of approximately 11,711 ha (28,939 ac), and is located in Alpine, Mono, and Tuolumne Counties, California, approximately 6.4 km (4 mi) west of Highway 395, and bounded by Highway 108 on the south. Land ownership within this subunit consists of approximately 11,650 ha (28,788 ac) of Federal land and 61 ha (150 ac) of private land. Federal holdings within the Wells Peak subunit are within the Humboldt-Toiyabe and Stanislaus National Forests, and the Carson-Iceberg and Emigrant Wilderness Areas. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Wells Peak subunit may require special management considerations or protection due to introduced fishes, inappropriate grazing activity, timber management and fuels reduction, and recreational activities.

Subunit 2I: Emigrant Yosemite

The Emigrant Yosemite subunit consists of approximately 86,161 ha (212,908 ac), and is located in Tuolumne and Mono Counties, California, approximately 11 km (6.9 mi) south of Highway 108 and 7.4 km (4.6 mi) north of Hetch Hetchy Reservoir. Land ownership within this subunit consists of approximately 86,089 ha (212,730 ac) of Federal land, 50 ha (124 ac) of local jurisdiction lands, and 22 ha (54 ac) of private land. The Emigrant Yosemite subunit is predominantly in Yosemite National Park and the Stanislaus and Humboldt-Toiyabe National Forests, including lands within the Emigrant and Hoover Wilderness Areas. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the

Emigrant Yosemite subunit may require special management considerations or protection due to the presence of introduced fishes and inappropriate grazing activity.

Subunit 2J: Spiller Lake

The Spiller Lake subunit consists of approximately 1,094 ha (2,704 ac), and is located in Tuolumne County, California, approximately 1.2 km (0.75 mi) west of Summit Lake. The Spiller Lake subunit consists entirely of Federal land, all located within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Spiller Lake subunit may require special management considerations or protection due to fish persistence.

Subunit 2K: Virginia Canyon

The Virginia Canyon subunit consists of approximately 891 ha (2,203 ac), and is located in Tuolumne County, California, approximately 4.3 km (2.7 mi) southwest of Spiller Lake, and roughly bounded on the east by Return Creek. The Virginia Canyon subunit consists entirely of Federal land, all located within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Virginia Canyon subunit may require special management considerations or protection due to fish persistence.

Subunit 2L: Register Creek

The Register Creek subunit consists of approximately 838 ha (2,070 ac), and is located in Tuolumne County, California, approximately 1.2 km (0.75 mi) west of Regulation Creek, with Register Creek intersecting the subunit on the southwest end and running along the eastern portion to the north. The Register Creek subunit consists entirely of Federal land, all located within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Register Creek subunit may require special management considerations or protection due to fish persistence.

Subunit 2M: White Mountain

The White Mountain subunit consists of approximately 8,416 ha (20,796 ac), and is located in Tuolumne and Mono Counties, California, approximately 12.4 km (7.75 mi) west of Highway 395, and is intersected on the southeast boundary by Tioga Pass Road (Highway 120). Land ownership within this subunit consists of approximately 8,366 ha (20,674 ac) of Federal land and 49 ha (122 ac) of private land. The White Mountain subunit is predominantly located within Yosemite National Park and Inyo National Forest, with area located within the Hoover Wilderness. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the White Mountain subunit may require special management considerations or protection due to fish persistence.

Subunit 2N: Unicorn Peak

The Unicorn Peak subunit consists of approximately 2,088 ha (5,160 ac), and is located in Tuolumne County, California, and is intersected from east to west on its northern boundary by Tioga Pass Road (Highway 120). The Unicorn Peak subunit consists entirely of Federal land, all within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Unicorn Peak subunit may require special management considerations or protection due to fish persistence.

Unit 3: Sierra Nevada Yellow-Legged Frog Clade 3

This unit represents a significant portion of the species' range, and it reflects a core conservation area comprising the most robust remaining populations at higher densities (closer proximity) across the species' range. Unit 3, including all subunits, is an essential component of the entirety of this critical habitat designation due to the unique genetic and distributional area this unit encompasses. The frog populations within Clade 3 of the Sierra Nevada yellow-legged frog distribution face significant threats from habitat fragmentation. The critical habitat within the Unit is necessary to sustain viable populations within Clade 3 of the Sierra Nevada yellow-legged frog, which are at very low abundances. Unit 3 is crucial to the species for range expansion and recovery.

Subunit 3A: Yosemite Central

The Yosemite Central subunit consists of approximately 1,408 ha (3,480 ac), and is located in Mariposa County, California, approximately 4 km (2.5 mi) northwest of Tioga Pass Road (Highway 120) in the heart of Yosemite National Park. The Yosemite Central subunit consists entirely of Federal lands within Yosemite National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Yosemite Central subunit may require special management considerations or protection due to fish persistence.

Subunit 3B: Cathedral

The Cathedral subunit consists of approximately 38,784 ha (95,837 ac), and is located in Mariposa, Madera, Mono, and Tuolumne Counties, California, approximately 15.6 km (9.75 mi) west of Highway 395 and 9.4 km (5.9 mi) south of Highway 120. The

Cathedral subunit consists entirely of Federal land, including lands in Yosemite National Park, the Inyo National Forest, and an area within the Ansel Adams Wilderness. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Cathedral subunit may require special management considerations or protection due to the presence of introduced fishes and inappropriate grazing activity.

Subunit 3C: Minarets

The Minarets subunit consists of approximately 3,090 ha (7,636 ac), and is located in Madera County, California, approximately 5.4 km (3.4 mi) southwest of Highway 203. The Minarets subunit consists entirely of Federal land located within the Inyo National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Minarets subunit may require special management considerations or protection due to the presence of introduced fishes and recreational activities.

Subunit 3D: Mono Creek

The Mono Creek subunit consists of approximately 18,481 ha (45,666 ac), and is located in Fresno and Inyo Counties, California, approximately 16 km (10 mi) southwest of Highway 395. The Mono Creek subunit consists entirely of Federal land located within the Sierra and Inyo National Forests, including area within the John Muir Wilderness. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Mono Creek subunit may require special management considerations or protection due to the presence of introduced fishes, inappropriate grazing activity, and recreational activities.

Subunit 3E: Evolution/Leconte

The Evolution/Leconte subunit consists of approximately 87,136 ha (215,318 ac), and is located in Fresno and Inyo Counties, California, approximately 12.5 km (7.8 mi) southwest of Highway 395. Land ownership within this subunit consists of approximately 86,968 ha (214,903 ac) of Federal land, 81 ha (200 ac) of local jurisdictional lands, and 87 ha (215 ac) of private land. The Evolution/Leconte subunit is predominantly within the Sierra and Inyo National Forests, including area within the John Muir Wilderness, and Kings Canyon National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Evolution/Leconte subunit may require special management considerations or protection due to the presence of introduced fishes and inappropriate grazing activity.

Subunit 3F: Pothole Lakes

The Pothole Lakes subunit consists of approximately 1,736 ha (4,289 ac), and is located in Inyo County, California, approximately 13.1 km (8.2 mi) west of Highway 395. Land ownership within this subunit consists of approximately 1,735 ha (4,286 ac) of Federal land and 1 ha (2 ac) of private land. The Pothole Lakes subunit is almost entirely located within the Inyo National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog in the Pothole Lakes subunit may require special management considerations or protection due to the presence of introduced fishes and recreational activities.

Northern DPS of the Mountain Yellow-Legged Frog

We are designating two units and seven subunits as critical habitat for the northern DPS of the mountain yellow-legged frog. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the northern DPS of the mountain yellow-legged frog. Units are named after the major genetic clades (Vredenburg *et al.* 2007, p. 361), of which three exist rangewide for the mountain yellow-legged frog, and two are within the northern DPS of the mountain yellow-legged frog in the Sierra Nevada. Distinct units within each clade are designated as subunits. Unit designations begin numbering sequentially, following the three units already designated on September 14, 2006, for the southern DPS of the mountain yellow-legged frog (71 FR 54344). The seven subunits we designate as critical habitat are listed in Table 6 and are, based on the best available scientific and commercial information, currently occupied.

TABLE 6—CRITICAL HABITAT UNITS FOR THE NORTHERN DPS OF THE MOUNTAIN YELLOW-LEGGED FROG (IN HECTARES AND ACRES), LAND OWNERSHIP, AND KNOWN THREATS THAT MAY AFFECT THE ESSENTIAL PHYSICAL OR BIOLOGICAL FEATURES FOR UNITS WITHIN THE GEOGRAPHICAL AREA OCCUPIED BY THE SPECIES AT THE TIME OF LISTING

Critical habitat unit	Federal Ha (Ac)	Private Ha (Ac)	Total [1] Ha (Ac)	Known manageable threats [2]
4A. Frypan Meadows	1,585 (3,917)	0 (0)	1,585 (3,917)	1

TABLE 6—CRITICAL HABITAT UNITS FOR THE NORTHERN DPS OF THE MOUNTAIN YELLOW-LEGGED FROG (IN HECTARES AND ACRES), LAND OWNERSHIP, AND KNOWN THREATS THAT MAY AFFECT THE ESSENTIAL PHYSICAL OR BIOLOGICAL FEATURES FOR UNITS WITHIN THE GEOGRAPHICAL AREA OCCUPIED BY THE SPECIES AT THE TIME OF LISTING—Continued

Critical habitat unit	Federal Ha (Ac)	Private Ha (Ac)	Total [1] Ha (Ac)	Known manageable threats [2]
4B. Granite Basin	1,777 (4,391)	0 (0)	1,777 (4,391)	1
4C. Sequoia Kings	67,566 (166,958)	0 (0)	67,566 (166,958)	1
4D. Kaweah River	3,663 (9,052)	0 (0)	3,663 (9,052)	1
5A. Blossom Lakes	2,069 (5,113)	0 (0)	2,069 (5,113)	1
5B. Coyote Creek	9,792 (24,197)	10 (24)	9,802 (24,222)	1, 5
5C. Mulkey Meadows	3,175 (7,846)	0 (0)	3,175 (7,846)	1, 3, 5
Total	89,627 (221,474)	10 (24)	89,637 (221,498)	

Note: Area sizes may not sum due to rounding.

[1] Area estimates in ha (ac) reflect the entire area within the designated critical habitat unit boundaries. Area estimates are rounded to the nearest whole integer that is equal to or greater than 1.

[2] Codes of known threats that may require special management considerations or protection of the essential physical or biological features:
1. Fish Persistence and Stocking
2. Water Diversions/Development
3. Inappropriate Grazing
4. Timber Harvest/Fuels Reduction
5. Recreation

We present brief descriptions of all subunits and reasons why they meet the definition of critical habitat for the northern DPS of the mountain yellow-legged frog below. Each unit and subunit designated as critical habitat for the northern DPS of the mountain yellow-legged frog contains aquatic habitat for breeding activities (PCE 1); and/or aquatic habitat to provide for shelter, foraging, predator avoidance, and dispersal during nonbreeding phases within their life history (PCE 2); and/or upland areas for feeding and movement, and catchment areas to provide for water supply and water quality (PCE 3); and is currently occupied by the species. Each unit and subunit contains the physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog, which may require special management (see the *Special Management Considerations or Protection* section of this final rule for a detailed discussion of the threats to the northern DPS of the mountain yellow-legged frog's habitat and potential management considerations).

Unit 4: Northern DPS of the Mountain Yellow-Legged Frog Clade 4

This unit represents a significant portion of the northern DPS of the mountain yellow-legged frog's range and reflects a core conservation area comprising the most robust remaining populations at higher densities (closer proximity) across the species' range. Unit 4, including all subunits, is an essential component to the entirety of this critical habitat designation due to the unique genetic and distributional area this unit encompasses. The frog populations within Clade 4 of the northern DPS of the mountain yellow-legged frog distribution face significant threats from habitat fragmentation. The critical habitat within the unit is necessary to sustain viable populations within Clade 4 northern DPS of the mountain yellow-legged frog, which are at very low abundances. Unit 4 is crucial to the species for range expansion and recovery. In addition, Clade 4 includes the only remaining basins with high-density, lake-based populations that are not infected with Bd, and Bd will likely invade these uninfected populations in the near future unless habitat protections and special management considerations are implemented. It is necessary to broadly protect remnant habitat across the range of Clade 4 to facilitate species persistence and recovery.

Subunit 4A: Frypan Meadows

The Frypan Meadows subunit consists of approximately 1,585 ha (3,917 ac), and is located in Fresno County, California, approximately 4.3 km (2.7 mi) northwest of Highway 180. The Frypan Meadows subunit consists entirely of Federal land, located predominantly within the boundaries of the Kings Canyon National Park, with some overlap into the Monarch Wilderness within the Sequoia National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Frypan Meadows subunit may require special management considerations or protection due to fish persistence.

Subunit 4B: Granite Basin

The Granite Basin subunit consists of approximately 1,777 ha (4,391 ac), and is located in Fresno County, California, approximately 3.2 km (2 mi) north of Highway 180. The Granite Basin subunit consists entirely of Federal land, located within the boundaries of the Kings Canyon National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Granite Basin subunit may require special management considerations or protection due to fish persistence.

Subunit 4C: Sequoia Kings

The Sequoia Kings subunit consists of approximately 67,566 ha (166,958 ac), and is located in Fresno, Inyo and Tulare Counties, California, approximately 18 km (11.25 mi) west of Highway 395 and 4.4 km (2.75 mi) southeast of Highway 180. The Sequoia Kings subunit consists entirely of Federal land, all within Sequoia and Kings Canyon National Parks. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Sequoia Kings subunit may require special management considerations or protection due to the presence of introduced fishes and fish persistence.

Subunit 4D: Kaweah River

The Kaweah River subunit consists of approximately 3,663 ha (9,052 ac), and is located in Tulare County, California, approximately 2.8 km (1.75 mi) east of Highway 198. The Kaweah River subunit consists entirely of Federal land, all within Sequoia National Park. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Kaweah River subunit may require special management considerations or protection due to fish persistence.

Unit 5: Northern DPS of the Mountain Yellow-Legged Frog Clade 5

This unit represents the southern portion of the species' range and reflects unique ecological features within the range of the species because it comprises populations that are stream-based. Unit 5, including all subunits, is an essential component of the entirety of this critical habitat designation due to the unique genetic and distributional area this unit encompasses. The frog populations within Clade 5 of the northern DPS of the mountain yellow-legged frog's distribution are at very low numbers and face significant threats from habitat fragmentation. The critical habitat within the nit is necessary to sustain viable populations within Clade 5 of the northern DPS of the mountain yellow-legged frog, which are at very low abundances. Unit 5 is crucial to the species for range expansion and recovery.

Subunit 5A: Blossom Lakes

The Blossom Lakes subunit consists of approximately 2,069 ha (5,113 ac), and is located in Tulare County, California, approximately 0.8 km (0.5 mi) northwest of Silver Lake. The Blossom Lakes subunit consists entirely of Federal land, located within Sequoia National Park and Sequoia National Forest. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Blossom Lakes subunit may require special management considerations or protection due to fish persistence.

Subunit 5B: Coyote Creek

The Coyote Creek subunit consists of approximately 9,802 ha (24,222 ac), and is located in Tulare County, California, approximately 7.5 km (4.7 mi) south of Moraine Lake. Land ownership within this subunit consists of approximately 9,792 ha (24,197 ac) of Federal land and 10 ha (24 ac) of private land. The Coyote Creek subunit is predominantly within Sequoia National Park and Sequoia and Inyo National Forests, including area within the Golden Trout Wilderness. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Coyote Creek subunit may require special management considerations or protection due to the presence of introduced fishes and recreational activities.

Subunit 5C: Mulkey Meadows

The Mulkey Meadows subunit consists of approximately 3,175 ha (7,846 ac), and is located in Tulare and Inyo Counties, California, approximately 10 km (6.25 mi) west of Highway 395. The Mulkey Meadows subunit consists entirely of Federal land, all within the Inyo National Forest, including area within the Golden Trout Wilderness. This subunit is considered to be within the geographical area occupied by the species at the time of listing, and it contains the physical or biological features essential to the conservation of the species, is currently functional habitat sustaining frogs, and is needed to provide for core surviving populations and their unique genetic heritage.

The physical or biological features essential to the conservation of the northern DPS of the mountain yellow-legged frog in the Mulkey Meadows subunit may require special management considerations or protection due to the presence of introduced fishes, inappropriate grazing activity, and recreational activities.

Yosemite Toad

We are designating 16 units as critical habitat for the Yosemite toad. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Yosemite toad. The 16 units we designate as critical habitat are listed in Table 7, and all 16 units are currently occupied.

TABLE 7—CRITICAL HABITAT UNITS FOR THE YOSEMITE TOAD (IN HECTARES AND ACRES), LAND OWNERSHIP, AND KNOWN THREATS THAT MAY AFFECT THE ESSENTIAL PHYSICAL OR BIOLOGICAL FEATURES FOR UNITS WITHIN THE GEOGRAPHICAL AREA OCCUPIED BY THE SPECIES AT THE TIME OF LISTING

Critical habitat unit	Federal Ha (Ac)	Private Ha (Ac)	Total [1] Ha (Ac)	Threats [2]
1. Blue Lakes/Mokelumne	13,896 (34,338)	987 (2,440)	14,884 (36,778)	2, 4, 5, 6
2. Leavitt Lake/Emigrant	30,789 (76,081)	13 (33)	30,803 (76,115)	2, 4, 5, 6
3. Rogers Meadow	11,797 (29,150)	0 (0)	11,797 (29,150)	5, 6
4. Hoover Lakes	2,303 (5,690)	0 (0)	2,303 (5,690)	4, 5, 6
5. Tuolumne Meadows/Cathedral	56,477 (139,557)	53 (131)	56,530 (139,688)	4, 5, 6
6. McSwain Meadows	6,472 (15,992)	0 (0)	6,472 (15,992)	4, 5, 6
7. Porcupine Flat	1,701 (4,204)	0 (0)	1,701 (4,204)	4, 5, 6
8. Westfall Meadows	1,859 (4,594)	0 (0)	1,859 (4,594)	4, 5, 6
9. Triple Peak	4,377 (10,816)	0 (0)	4,377 (10,816)	4, 5, 6
10. Chilnualna	6,212 (15,351)	0 (0)	6,212 (15,351)	4, 5, 6
11. Iron Mountain	7,404 (18,296)	302 (747)	7,706 (19,043)	2, 3, 4, 5, 6
12. Silver Divide	39,986 (98,807)	1 (2)	39,987 (98,809)	2, 4, 5, 6
13. Humphrys Basin/Seven Gables	20,658 (51,046)	8 (21)	20,666 (51,067)	4, 5, 6
14. Kaiser/Dusy	70,670 (174,629)	308 (761)	70,978 (175,390)	2, 3, 4, 5, 6
15. Upper Goddard Canyon	14,905 (36,830)	0 (0)	14,905 (36,830)	5, 6
16. Round Corral Meadow	12,613 (31,168)	97 (241)	12,711 (31,409)	2, 4, 5, 6
Total	302,118 (746,551)	1,771 (4,376)	303,889 (750,927)	

Note: Area sizes may not sum due to rounding.

[1] Area estimates in ha (ac) reflect the entire area within the designated critical habitat unit boundaries. Area estimates are rounded to the nearest whole integer that is equal to or greater than 1.

[2] Codes of known threats that may require special management considerations or protection of the essential physical or biological features:
1. Water Diversions
2. Inappropriate Grazing
3. Timber Harvest/Fuels Reduction
4. Recreation
5. Climate Change
6. Disease and Predation (threats of uncertain magnitude)

We present brief descriptions of all units and reasons why they meet the definition of critical habitat for the Yosemite toad below. Each unit designated as critical habitat for the Yosemite toad contains aquatic habitat for breeding activities (PCE 1) and/or upland habitat for foraging, dispersal, and overwintering activities (PCE 2), and is currently occupied by the species. Each unit contains the physical or biological features essential to the conservation of the Yosemite toad, which may require special management (see the *Special Management Considerations or Protection* section of this final rule for a detailed discussion of the threats to Yosemite toad habitat and potential management considerations).

Unit 1: Blue Lakes/Mokelumne

This unit consists of approximately 14,884 ha (36,778 ac), and is located in Alpine County, California, north and south of Highway 4. Land ownership within this unit consists of approximately 13,896 ha (34,338 ac) of Federal land and 987 ha (2,440 ac) of private land. The Blue Lakes/Mokelumne unit is predominantly within the Eldorado, Humboldt-Toiyabe, and Stanislaus National Forests, including lands within the Mokelumne and Carson-Iceberg Wilderness Areas. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit represents the northernmost portion of the Yosemite toad's range and constitutes an area of high genetic diversity. The Blue Lakes/Mokelumne unit is an essential component of the entirety of this critical habitat designation due to the genetic and distributional area this unit encompasses.

The physical or biological features essential to the conservation of the Yosemite toad in the Blue Lakes/Mokelumne unit may require special management considerations or protection due to inappropriate grazing and recreational activities. This unit also has threats due to disease,

predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 2: Leavitt Lake/Emigrant

This unit consists of approximately 30,803 ha (76,115 ac), and is located near the border of Alpine, Tuolumne, and Mono Counties, California, predominantly south of Highway 108. Land ownership within this unit consists of approximately 30,789 ha (76,081 ac) of Federal land and 13 ha (33 ac) of private land. The Leavitt Lake/Emigrant unit is predominantly within the Stanislaus and Humboldt-Toiyabe National Forests, including lands within the Emigrant and Hoover Wilderness Areas, and Yosemite National Park. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit is considered essential to the conservation of the species because it contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Leavitt Lake/Emigrant unit provides continuity of habitat between adjacent units, as well as providing for a variety of habitat types necessary to sustain Yosemite toad populations under a variety of climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Leavitt Lake/Emigrant unit may require special management considerations or protection due to inappropriate grazing and recreational activities. This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 3: Rogers Meadow

This unit consists of approximately 11,797 ha (29,150 ac) of Federal land located entirely within Humboldt-Toiyabe National Forest, including area within the Hoover Wilderness and Yosemite National Park. The Rogers Meadow unit is located along the border of Tuolumne and Mono Counties, California, north of Highway 120. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations, is located in a relatively pristine ecological setting, and represents a variety of habitat types utilized by the species. The Rogers Meadow unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units as well as providing for a variety of habitat types necessary to sustain Yosemite toad populations under various climate regimes. This unit has no manageable threats (note that disease, predation, and climate change are not considered manageable threats). However, the physical or biological features with this unit require special protection because of the unit's value as occupied habitat that provides geographic connectivity to allow for Yosemite toad metapopulation persistence and resilience across the landscape to changing climate.

Unit 4: Hoover Lakes

This unit consists of approximately 2,303 ha (5,690 ac) of Federal land located entirely within the Inyo and Humboldt-Toiyabe National Forests, including area within the Hoover Wilderness and Yosemite National Park. The Hoover Lakes unit is located along the border of Mono and Tuolumne Counties, California, east of Highway 395. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains Yosemite toad populations with a high degree of genetic variability east of the Sierra crest within the central portion of the species' range. This unit contains habitats that are important to the Yosemite toad facing an uncertain climate future. The Hoover Lakes unit is an essential component of the entirety of this critical habitat designation because it provides a continuity of habitat between adjacent units, provides for the maintenance of genetic variation, and provides habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of Yosemite toad in the Hoover Lakes unit may require special management considerations or protection due to recreational activities. This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 5: Tuolumne Meadows/Cathedral

This unit consists of approximately 56,530 ha (139,688 ac), and is located within Tuolumne, Mono, Mariposa, and Madera Counties, California, both north and south of Highway 120. Land ownership within this unit consists of approximately 56,477 ha (139,557 ac) of Federal land and 53 ha (131 ac) of private land. The Tuolumne Meadows/Cathedral unit is predominantly within the Inyo National Forest, with area within the Hoover Wilderness and Yosemite National Park. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations, represents a variety of habitat types utilized by the species, has high genetic variability, and, due to the long-term occupancy of this unit, is considered an essential locality for Yosemite toad populations. The Tuolumne Meadows/Cathedral unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, as well as providing for a variety of habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Tuolumne Meadows/Cathedral unit may require special management considerations or protection due to recreational activities. This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 6: McSwain Meadows

This unit consists of approximately 6,472 ha (15,992 ac) of Federal land located entirely within Yosemite National Park. The McSwain Meadows unit is located along the border of Tuolumne and Mariposa Counties, California, north and south of Highway 120 in the vicinity of Yosemite Creek. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This contains Yosemite toad populations located at the western edge of the range of the species within the central region of its geographic distribution. This area contains a

concentration of Yosemite toad localities, as well as representing a wide variety of habitat types utilized by the species. This unit contains habitats that are essential to the Yosemite toad facing an uncertain climate future. The McSwain Meadows unit is an essential component of the entirety of this critical habitat designation because it provides a unique geographic distribution and variation in habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of Yosemite toad in the McSwain Meadows unit may require special management considerations or protection due to recreational activities. This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 7: Porcupine Flat

This unit consists of approximately 1,701 ha (4,204 ac) of Federal land located entirely within Yosemite National Park. The Porcupine Flat unit is located within Mariposa County, California, north and south of Highway 120 and east of Yosemite Creek. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a concentration of Yosemite toad localities in proximity to the western edge of the species' range within the central region of its geographic distribution and provides a wide variety of habitat types utilized by the species. The Porcupine Flat unit is an essential component of the entirety of this critical habitat designation due to its proximity to Unit 6, which allows Unit 7 to provide continuity of habitat between Units 5 and 6, and its geographic distribution and variation in habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Porcupine Flat unit may require special management considerations or protection due to recreational activities. This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 8: Westfall Meadows

This unit consists of approximately 1,859 ha (4,594 ac) of Federal land located entirely within Yosemite National Park. The Westfall Meadows unit is located within Mariposa County, California, along Glacier Point Road. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. The Westfall Meadows unit contains Yosemite toad populations located at the western edge of the species' range within the central region of its geographic distribution, and south of the Merced River. Given that the Merced River acts as a dispersal barrier in this portion of Yosemite National Park, it is unlikely that there is genetic exchange between Unit 8 and Unit 6; thus Unit 8 represents an important geographic and genetic distribution of the species essential to conservation. This unit contains habitats essential to the conservation of the Yosemite toad, which faces an uncertain climate future. Unit 8 is an essential component of the entirety of this critical habitat designation because it provides a unique geographic distribution and variation in habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Westfall Meadows unit may require special management considerations or protection due to recreational activities.

This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 9: Triple Peak

This unit consists of approximately 4,377 ha (10,816 ac) of Federal land located entirely within the Sierra National Forest and Yosemite National Park. The Triple Peak unit is located within Madera County, California, between the Merced River and the South Fork Merced River. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Triple Peak unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, specifically east-west connectivity, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Triple Peak unit may require special management considerations or protection due to recreational activities.

This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 10: Chilnualna

This unit consists of approximately 6,212 ha (15,351 ac) of Federal land located entirely within Yosemite National Park. The Chilnualna unit is located within Mariposa and Madera Counties, California, north of the South Fork Merced River. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Chilnualna Unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Chilnualna unit may require special management considerations or protection due to recreational activities.

This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 11: Iron Mountain

This unit consists of approximately 7,706 ha (19,043 ac), and is located within Madera County, California, south of the South Fork Merced River. Land ownership within this unit consists of

approximately 7,404 ha (18,296 ac) of Federal land and 302 ha (747 ac) of private land. The Iron Mountain unit is predominantly within the Sierra National Forest and Yosemite National Park. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. Further, this unit contains the southernmost habitat within the central portion of the range of the Yosemite toad. The Iron Mountain unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of Yosemite toad in the Iron Mountain unit may require special management considerations or protection due to inappropriate grazing, timber harvest and fuels reduction, and recreational activities.

This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 12: Silver Divide

This unit consists of approximately 39,987 ha (98,809 ac), and is located within Fresno, Inyo, Madera, and Mono Counties, California, southeast of the Middle Fork San Joaquin River. Land ownership within this unit consists of approximately 39,986 ha (98,807 ac) of Federal land and 1 ha (2 ac) of private land. The Silver Divide unit is predominantly within the Inyo and Sierra National Forests, including lands within the John Muir and Ansel Adams Wilderness Areas. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Silver Divide unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Silver Divide unit may require special management considerations or protection due to inappropriate grazing and recreational activities. This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 13: Humphrys Basin/Seven Gables

This unit consists of approximately 20,666 ha (51,067 ac), and is located within Fresno and Inyo Counties, California, northeast of the South Fork San Joaquin River. Land ownership within this unit consists of approximately 20,658 ha (51,046 ac) of Federal land and 8 ha (21 ac) of private land. The Humphrys Basin/Seven Gables unit is predominantly within the Inyo and Sierra National Forests, including area within the John Muir Wilderness. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations and represents a variety of habitat types utilized by the species. The Humphrys Basin/Seven Gables unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Humphrys Basin/Seven Gables unit may require special management considerations or protection due to recreation activities.

This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 14: Kaiser/Dusy

This unit consists of approximately 70,978 ha (175,390 ac), and is located in Fresno County, California, between the south fork of the San Joaquin River and the north fork of the Kings River. Land ownership within this unit consists of approximately 70,670 ha (174,629 ac) of Federal land and 308 ha (761 ac) of private land. The Kaiser/Dusy unit is predominantly within the Sierra National Forest. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations, represents a variety of habitat types utilized by the species, and is located at the southwestern extent of the Yosemite toad range. The Kaiser/Dusy unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Kaiser/Dusy unit may require special management considerations or protection due to inappropriate grazing, timber harvest and fuels reduction, and recreational activities.

This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Unit 15: Upper Goddard Canyon

This unit consists of approximately 14,905 ha (36,830 ac) of Federal land located entirely within Kings Canyon National Park and the Sierra National Forest. The Upper Goddard Canyon unit is located within Fresno and Inyo Counties, California, at the upper reach of the South Fork San Joaquin River. This unit is currently occupied and contains the physical or biological features essential to the conservation of the species. This unit contains a high concentration of Yosemite toad breeding locations, represents a variety of habitat types utilized by the species, and is located at the easternmost extent within the southern portion of the Yosemite toad's range. The Upper Goddard Canyon unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, as well as habitat types necessary to sustain Yosemite toad populations under various climate regimes. This unit has no manageable threats (note that disease, predation, and climate change are not considered manageable threats). However, the area requires special protection because of its value as

occupied habitat that provides geographic connectivity to allow for Yosemite toad metapopulation persistence and resilience across the landscape to changing climate.

Unit 16: Round Corral Meadow

This unit consists of approximately 12,711 ha (31,409 ac), and is located in Fresno County, California, south of the North Fork Kings River. Land ownership within this unit consists of approximately 12,613 ha (31,168 ac) of Federal land and 97 ha (241 ac) of private land. The Round Corral Meadow unit is predominantly within the Sierra National Forest. This unit contains a high concentration of Yosemite toad breeding locations, represents a variety of habitat types utilized by the species, and encompasses the southernmost portion of the range of the species. The Round Corral Meadow unit is an essential component of the entirety of this critical habitat designation because it provides continuity of habitat between adjacent units, represents the southernmost portion of the range, and provides habitat types necessary to sustain Yosemite toad populations under various climate regimes.

The physical or biological features essential to the conservation of the Yosemite toad in the Round Corral Meadow unit may require special management considerations or protection due to inappropriate grazing and recreational activities. This unit also has threats due to disease, predation, and climate change. Climate change is not considered a manageable threat. The need for special management considerations or protection due to disease and predation is currently undefined due to uncertainty regarding the extent and magnitude of these particular stressors.

Effects of Critical Habitat Designation

Section 7 Consultation

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

We published a final rule setting forth a new definition of destruction or adverse modification on February 11, 2016 (81 FR 7214), which became effective on March 14, 2016. Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.

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

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

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

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

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

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

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

(3) Are economically and technologically feasible, and

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

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

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

Application of the ''Adverse Modification'' Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that result in a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of these species or that preclude or significantly delay development of such features. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

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

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Sierra Nevada yellow-legged frog and northern DPS mountain yellow-legged frog. If

these actions occur at a scale or with a severity that detrimentally impacts the recovery potential of a unit, then the project may represent an adverse modification to critical habitat under the Act. Such actions are evaluated in the context of many factors, and any one alone may not necessarily lead to an adverse modification determination. These activities 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 surface water or into connected ground water at a point source or by dispersed release (non-point source). These activities may alter water conditions beyond the tolerances of the Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog and result in direct or adverse effects to their critical habitat.

(2) Actions that would significantly increase sediment deposition within the stream channel, lake, or other aquatic feature, or disturb riparian foraging and dispersal habitat. Such activities could include, but are not limited to, excessive sedimentation from livestock overgrazing, road construction, 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 Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog by increasing the sediment deposition to levels that would adversely affect a frog's ability to complete its life cycle.

(3) Actions that would significantly alter channel or lake morphology, geometry, or water availability. Such activities could include, but are not limited to, channelization, impoundment, road and bridge construction, development, mining, dredging, destruction of riparian vegetation, water diversion, water withdrawal, and hydropower generation. These activities may lead to changes to the hydrologic function of the channel or lake, and alter the timing, duration, waterflows, and levels that would degrade or eliminate mountain yellow-legged frog habitat. These actions can also lead to increased sedimentation and degradation in water quality to levels that are beyond the tolerances of the Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog.

(4) Actions that significantly reduce or limit the availability of breeding or overwintering aquatic habitat for the Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog. Such activities could include, but are not limited to, stocking of introduced fishes, water diversion, water withdrawal, and hydropower generation. These actions could lead to the reduction in available breeding and overwintering habitat for the Sierra Nevada yellow-legged frog or northern DPS of the mountain yellow-legged frog through reduction in water depth necessary for the frog to complete its life cycle. Additionally, the stocking of introduced fishes could prevent or preclude recolonization of otherwise available breeding or overwintering habitats, which is necessary for range expansion and recovery of the Sierra Nevada yellow-legged frog and northern DPS of the mountain yellow-legged frog metapopulations.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the Yosemite toad. These activities 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 ground water at a point source or by dispersed release (non-point source). These activities could alter water conditions beyond the tolerances of the Yosemite toad and result in direct or cumulative adverse effects to the critical habitat.

(2) Actions that would significantly increase sediment deposition within the wet meadow systems and other aquatic features utilized by Yosemite toad. Such activities could include, but are not limited to, excessive sedimentation from livestock overgrazing, road construction, inappropriate fuels management activities, channel alteration, inappropriate timber harvest activities, 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 Yosemite toad by increasing the sediment deposition to levels that would adversely affect a toad's ability to complete its life cycle.

(3) Actions that would significantly alter wet meadow or pond morphology, geometry, or inundation period. Such activities could include, but are not limited to, livestock overgrazing, channelization, impoundment, road and bridge construction, mining, dredging, and inappropriate vegetation management. These activities may lead to changes in the hydrologic function of the wet meadow or pond and alter the timing, duration, waterflows, and levels that would degrade or eliminate Yosemite toad habitat. These actions can also lead to increased sedimentation and degradation in water quality to levels that are beyond the tolerances of the Yosemite toad.

(4) Actions that disturb or eliminate upland foraging or overwintering habitat, as well as dispersal habitat, for the Yosemite toad. Such activities could include, but are not limited to, livestock overgrazing, road construction, recreational development, timber harvest activities, unauthorized off-road vehicle or recreational use, and other watershed and floodplain disturbances. These activities could eliminate or reduce essential cover components in terrestrial habitats of the Yosemite toad and adversely affect a toad's ability to successfully overwinter or oversummer and may fragment habitat.

Exemptions

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

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: ''The Secretary shall not designate as critical habitat any lands or other 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 [INRMP] prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.'' There are no Department of Defense lands with a completed INRMP within the critical habitat designation.

Consideration of Impacts Under Section 4(b)(2) of the Act

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

legislative history are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Consideration of Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum (IEM) and draft economic analysis (DEA) of the proposed critical habitat designation and related factors (Industrial Economics, Incorporated 2013). The analysis, dated August 27, 2013, was made available for public review from January 10, 2014, through March 11, 2014 (Industrial Economics, Incorporated 2013). The DEA addressed potential economic impacts of critical habitat designation for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad. Following the close of the comment period, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Additional information relevant to the probable incremental economic impacts of critical habitat designation for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad is summarized below and available in the Final Economic Analysis (FEA) (Industrial Economics, Incorporated 2015), available at *http://www.regulations.gov.*

All areas identified for critical habitat designation are occupied by or proximate to one or more of the listed amphibian species. The Service anticipates that conservation efforts recommended through section 7 consultation as a result of the listing of the species (*i.e.,* to avoid jeopardy) will, in most cases, also avoid adverse modification of critical habitat. In limited instances, the Service has indicated that adverse modification findings could generate an outcome of conservation measures different than those recommendations for jeopardy findings. At this time, however, the Service is unable to predict the types of projects that may require different conservation efforts. Thus, impacts occurring under such circumstances are not quantified in this analysis. We focus on quantifying incremental impacts associated with the additional administrative effort required when addressing potential adverse modification of critical habitat in section 7 consultation.

The DEA estimated total incremental impacts between $630,000 and $1.5 million. The FEA estimates slightly higher total costs: Between $760,000 and $1.7 million. The key findings are as follows: Low-end total present value impacts anticipated to result from the designation of all areas proposed as critical habitat for the amphibians are approximately $760,000 over 20 years, assuming a 7 percent discount rate ($960,000 assuming a 3 percent discount rate). High-end total present value impacts are approximately $1.7 million over 20 years, assuming a 7 percent discount rate ($2.3 million assuming a 3 percent discount rate). The actual impact for each activity likely falls between the two bounds considered; however information allowing for further refinement of the presented methodology presented is not readily available.

The increase in costs reflects the following updates/changes:

(1) Updated grazing/packstock analysis based on additional information provided by Humboldt-Toiyabe National Forest (HTNF) and public commenters.

(2) Expanded analytic time frame. The DEA estimated incremental impacts over a 17-year time frame. The FEA updated this analysis to use a 20-year analytic timeframe. The only activity that this had a material effect on is hydropower, for which the FEA forecasts annual consultations, thus expanding the time frame by 3 years and resulting in an increase in the number of consultations. This change also impacts annualized impact calculations.

(3) The FEA updated the first year of analysis to 2015, whereas the DEA had assumed 2014 as the first year of the analysis. This change does not affect the total number of consultations forecast, but changes the year in which consultations occur. In other words, we assume that consultations set for the first year of the analysis will still occur in the first year of the analysis (2015).

(4) The FEA updates the dollar year of the analysis from 2014 to 2015, and thus includes updating the GS salary rates from which the administrative costs are derived.

Exclusions Based on Economic Impacts

Our economic analysis did not identify any disproportionate costs that are likely to result from the designation. Consequently, the Secretary is not exercising her discretion to exclude any areas from this designation of critical habitat for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad based on economic impacts.

A copy of the IEM, DEA, and FEA may be obtained from the Sacramento Fish and Wildlife Office (2800 Cottage Way, Room W–2605, Sacramento CA, 95825, or see *http://www.fws.gov/sacramento/*) or by downloading from the Internet at *http://www.regulations.gov.*

Exclusions Based on National Security Impacts or Homeland Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense in the proposed critical habitat designation where a national security impact might exist. In preparing this final rule, we have determined that no lands within the designation of critical habitat for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad are owned or exclusively managed by the Department of Defense or Department of Homeland Security. The area that is managed by the Humboldt-Toiyabe National Forest and used by the USMC for high-altitude training purposes via special use permit can be successfully managed through a completed INRMP with ongoing uses; therefore, we anticipate no impact on national security or homeland security. Consequently, the Secretary is not exercising her discretion to exclude any areas from this final designation based on impacts on national security or homeland security.

Exclusions Based on Other Relevant Impacts

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

In preparing this final rule, we have determined that there are currently no permitted HCPs or other approved management plans for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, or the Yosemite toad, and the final designation does not include any tribal lands or tribal trust resources. We anticipate no

impact on tribal lands, partnerships, or HCPs from this critical habitat designation. Accordingly, the Secretary is not exercising her discretion to exclude any areas from this final designation based on other relevant impacts.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

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

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

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

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

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include 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 considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

The Service's current understanding of the requirements under the RFA, as amended, and following recent court decisions, is that Federal agencies are only required to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and, therefore, are not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation. There is no requirement under RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities are directly regulated by this rulemaking, the Service certifies that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

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

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

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

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' These terms are defined in 2 U.S.C. 658(5)–(7). ''Federal intergovernmental mandate'' includes a regulation that ''would impose an enforceable duty upon State, local, or tribal governments'' with two exceptions. It excludes ''a condition of Federal assistance.'' It also excludes ''a duty arising from participation in a voluntary Federal program,'' unless the regulation ''relates to a then-existing Federal program under which $500,000,000 or more is

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

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because only a tiny fraction of designated critical habitat is under small government jurisdiction. Further, the designation of critical habitat imposes no obligations on State or local governments. 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. Incremental impacts may occur due to administrative costs of section 7 consultations for project activities; however, these are not expected to significantly affect small governments as they are expected to be borne by the Federal Government and CDFW. By definition, Federal agencies are not considered small entities, although the activities they fund or permit may be proposed or carried out by small entities. Small governments will be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions will not adversely affect the critical habitat. Therefore, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights''), we have analyzed the potential takings implications of designating critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad in a takings implications assessment. Based on the best available information, the assessment concludes that this designation of critical habitat for the Sierra Nevada yellow-legged frog, the northern DPS of the mountain yellow-legged frog, and the Yosemite toad does not pose significant takings implications.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this final rule does not have significant Federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this critical habitat designation with, appropriate State resource agencies in California. We received comments from the California Department of Fish and Wildlife (CDFW), and we have addressed them in the Summary of Comments and Recommendations section of this rule. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between the Federal Government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur). Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) will be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, and Yosemite toad. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

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

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

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

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

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We determined that there are no tribal lands occupied by the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, or Yosemite toad at the time of listing that contain the physical or biological features essential to conservation of the species, and no tribal lands unoccupied by the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, or Yosemite toad that are essential for the conservation of the species. Therefore, we are not designating critical habitat for the Sierra Nevada yellow-legged frog, northern DPS of the mountain yellow-legged frog, or Yosemite toad on tribal lands.

References Cited

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

Authors

The primary authors of this rulemaking are the staff members of the Sacramento Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

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

■ 2. Amend § 17.11(h) by revising the entries for ''Frog, mountain yellow-legged [Northern California DPS]'', ''Frog, Sierra Nevada yellow-legged'', and ''Toad, Yosemite'' under AMPHIBIANS in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
* *	*	*	*	* *
AMPHIBIANS				
* *	*	*	*	* *
Frog, mountain yellow-legged [Northern California DPS].	*Rana muscosa*	Northern California DPS—U.S.A., northern California.	E	79 FR 24255; 4/29/2014 50 CFR 17.95(d).CH
* *	*	*	*	* *
Frog, Sierra Nevada yellow-legged.	*Rana sierrae*	Wherever found	E	79 FR 24255; 4/29/2014 50 CFR 17.95(d).CH
* *	*	*	*	* *
Toad, Yosemite	*Anaxyrus canorus*	Wherever found	T	79 FR 24255; 4/29/2014 50 CFR 17.95(d).CH
* *	*	*	*	* *

■ 3. In § 17.95, amend paragraph (d) by adding entries for ''Mountain Yellow-legged Frog (*Rana muscosa*), Northern California DPS'', ''Sierra Nevada Yellow-legged Frog (*Rana sierrae*)'', and ''Yosemite Toad (*Anaxyrus canorus*)'' in the same alphabetical order that these species appear in the table at § 17.11(h), to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(d) *Amphibians.*

* * * * *

Mountain Yellow-Legged Frog (*Rana muscosa*), Northern California DPS

(1) Critical habitat units are depicted for Fresno, Inyo and Tulare Counties, California, on the maps in this entry.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the

conservation of the northern DPS of the mountain yellow-legged frog consist of:

(i) *Aquatic habitat for breeding and rearing.* Habitat that consists of permanent water bodies, or those that are either hydrologically connected with, or close to, permanent water bodies, including, but not limited to, lakes, streams, rivers, tarns, perennial creeks (or permanent plunge pools within intermittent creeks), pools (such as a body of impounded water contained above a natural dam), and other forms of aquatic habitat. This habitat must:

(A) For lakes, be of sufficient depth not to freeze solid (to the bottom) during the winter (no less than 1.7 meters (m) (5.6 feet (ft)), but generally greater than 2.5 m (8.2 ft), and optimally 5 m (16.4 ft) or deeper (unless some other refuge from freezing is available)).

(B) Maintain a natural flow pattern, including periodic flooding, and have functional community dynamics in order to provide sufficient productivity and a prey base to support the growth and development of rearing tadpoles and metamorphs.

(C) Be free of introduced predators.

(D) Maintain water during the entire tadpole growth phase (a minimum of 2 years). During periods of drought, these breeding sites may not hold water long enough for individuals to complete metamorphosis, but they may still be considered essential breeding habitat if they provide sufficient habitat in most years to foster recruitment within the reproductive lifespan of individual adult frogs.

(E) Contain:

(*1*) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders (for basking and cover);

(*2*) Shallower microhabitat with solar exposure to warm lake areas and to foster primary productivity of the food web;

(*3*) Open gravel banks and rocks or other structures projecting above or just beneath the surface of the water for adult sunning posts;

(*4*) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks and vegetation to provide cover from predators; and

(*5*) Sufficient food resources to provide for tadpole growth and development.

(ii) *Aquatic nonbreeding habitat (including overwintering habitat).* This habitat may contain the same characteristics as aquatic breeding and rearing habitat (often at the same locale), and may include lakes, ponds, tarns, streams, rivers, creeks, plunge pools within intermittent creeks, seeps, and springs that may not hold water long enough for the species to complete its aquatic life cycle. This habitat provides for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult mountain yellow-legged frogs. Aquatic nonbreeding habitat contains:

(A) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders (for basking and cover);

(B) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(C) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks and vegetation to provide cover from predators;

(D) Sufficient food resources to support juvenile and adult foraging;

(E) Overwintering refugia, where thermal properties of the microhabitat protect hibernating life stages from winter freezing, such as crevices or holes within bedrock, in and near shore; and/or

(F) Streams, stream reaches, or wet meadow habitats that can function as corridors for movement between aquatic habitats used as breeding or foraging sites.

(iii) *Upland areas.*

(A) Upland areas adjacent to or surrounding breeding and nonbreeding aquatic habitat that provide area for feeding and movement by mountain yellow-legged frogs.

(*1*) For stream habitats, this area extends 25 m (82 ft) from the bank or shoreline.

(*2*) In areas that contain riparian habitat and upland vegetation (for example, mixed conifer, ponderosa pine, montane conifer, and montane riparian woodlands), the canopy overstory should be sufficiently thin (generally not to exceed 85 percent) to allow sunlight to reach the aquatic habitat and thereby provide basking areas for the species.

(*3*) For areas between proximate (within 300 m (984 ft)) water bodies (typical of some high mountain lake habitats), the upland area extends from the bank or shoreline between such water bodies.

(*4*) Within mesic habitats such as lake and meadow systems, the entire area of physically contiguous or proximate habitat is suitable for dispersal and foraging.

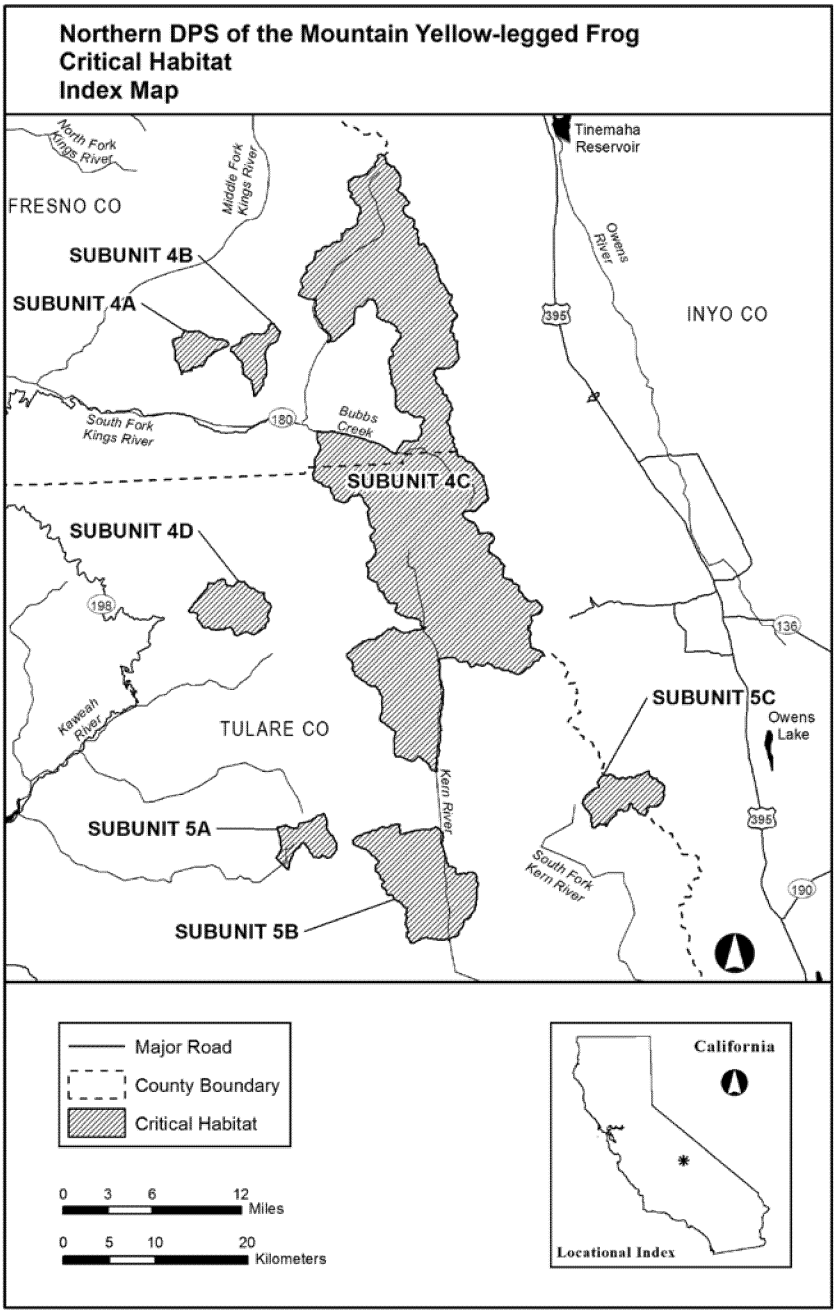
(B) Upland areas (catchments) adjacent to and surrounding both breeding and nonbreeding aquatic habitat that provide for the natural hydrologic regime (water quantity) of aquatic habitats. These upland areas should also allow for the maintenance of sufficient water quality to provide for the various life stages of the frog and its prey base.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries of designated critical habitat on September 26, 2016.

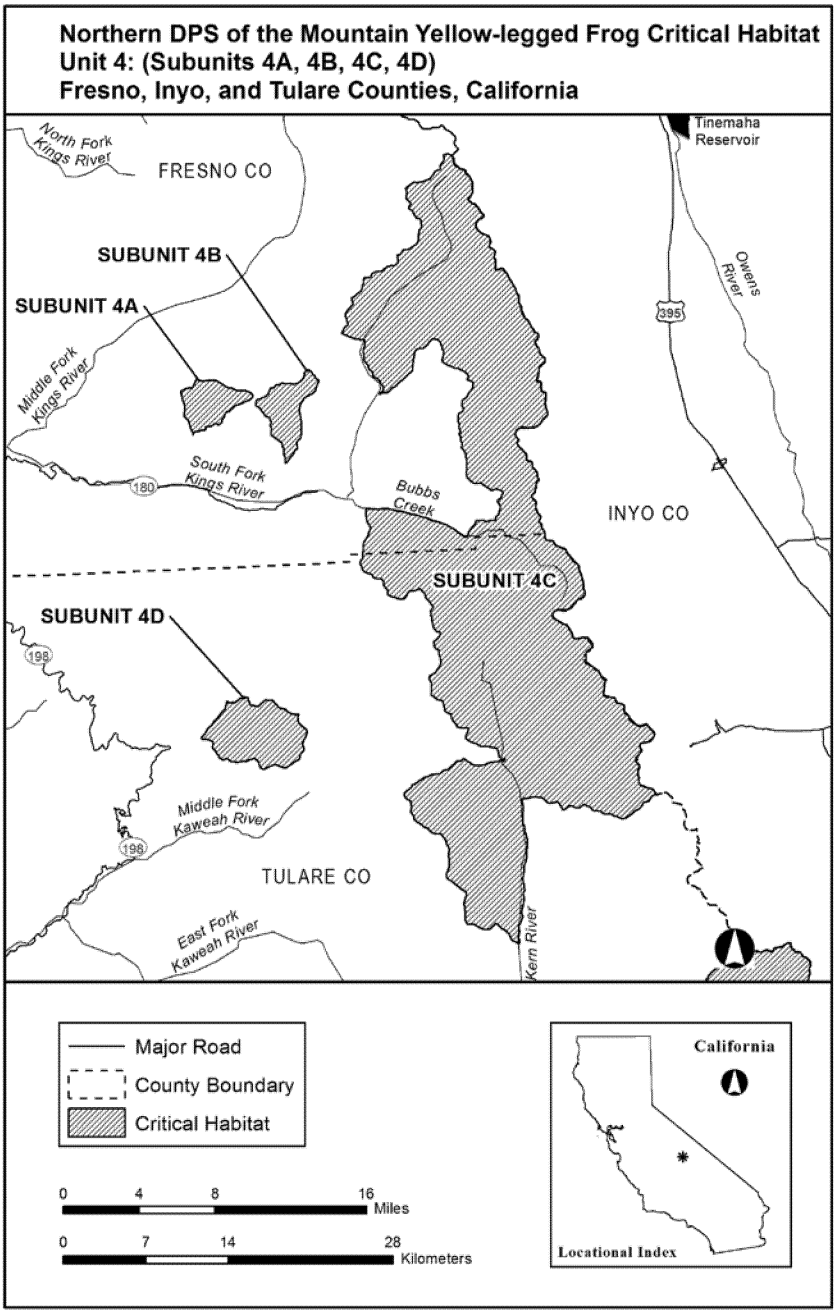
(4) *Critical habitat map units.* The critical habitat subunit maps were originally created using ESRI's ArcGIS Desktop 10.2.1 software and then exported as .emf files. All maps are in the North American Datum of 1983 (NAD83), Universal Transverse Mercator (UTM) Zone 10N. The California County Boundaries dataset (Teale Data Center), and the USA Minor Highways, USA Major Roads, and USA Rivers and Streams layers (ESRI's 2010 StreetMap Data) were incorporated as base layers to assist in the geographic location of the critical habitat subunits. The coordinates or plot points or both on which each map is based are available to the public on *http://regulations.gov* at Docket No. FWS–R8–ES–2012–0074, on our Internet site (*http://www.fws.gov/sacramento*), and at the Sacramento Fish and Wildlife Office, 2800 Cottage Way Room W–2605, Sacramento, CA 95825.

(5) Index map for northern DPS of the mountain yellow-legged frog critical habitat follows:

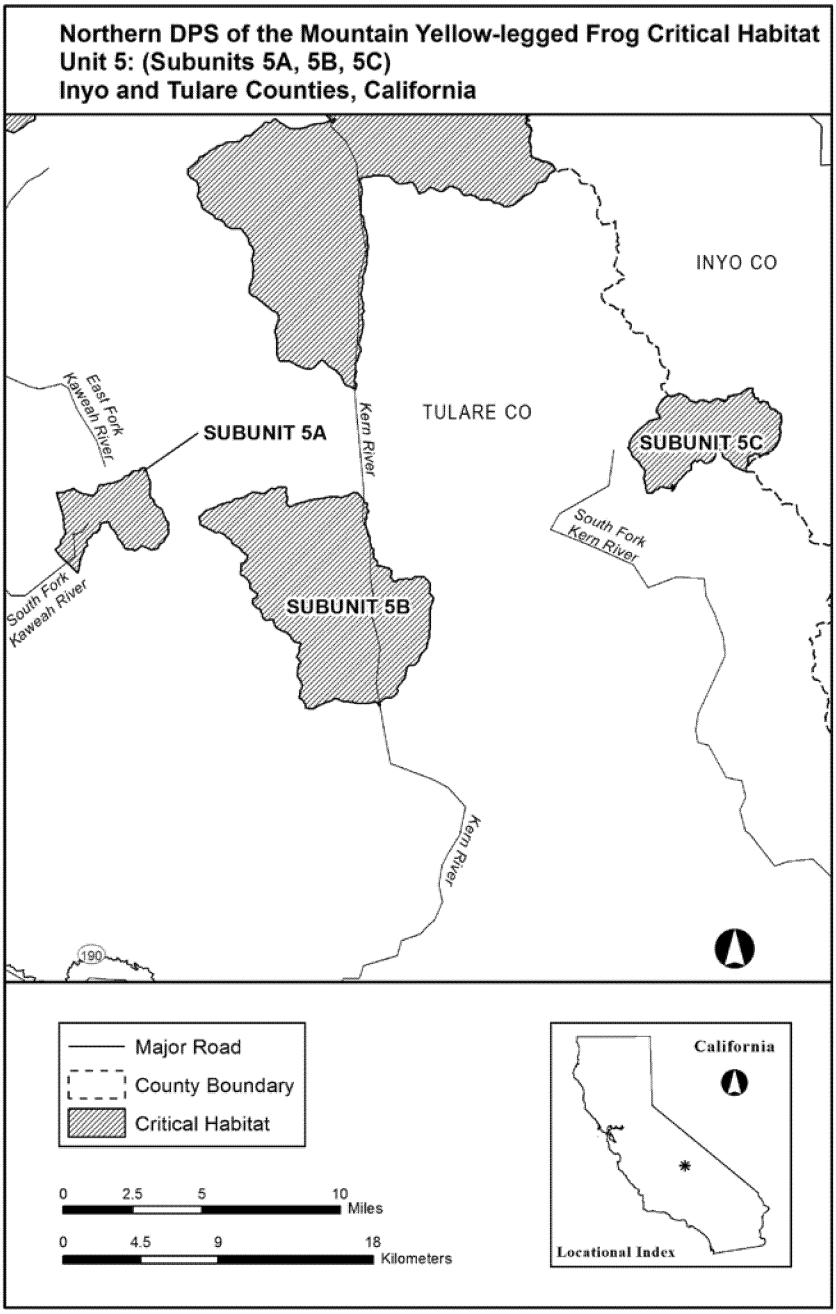
BILLING CODE 4333–15–P



(6) Unit 4 (Subunits 4A, 4B, 4C, 4D), Fresno, Inyo, and Tulare Counties, California. Map follows:



(7) Unit 5 (Subunits 5A, 5B, 5C), Tulare and Inyo Counties, California. Map follows:



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* * * * *

Sierra Nevada Yellow-Legged Frog (*Rana sierrae*)

(1) Critical habitat units are depicted for Lassen, Plumas, Sierra, Nevada, Placer, El Dorado, Amador, Alpine, Calaveras, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California, on the maps in this entry.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the Sierra Nevada yellow-legged frog consist of:

(i) *Aquatic habitat for breeding and rearing.* Habitat that consists of permanent water bodies, or those that are either hydrologically connected with, or close to, permanent water bodies, including, but not limited to, lakes, streams, rivers, tarns, perennial creeks (or permanent plunge pools within intermittent creeks), pools (such as a body of impounded water contained above a natural dam), and other forms of aquatic habitat. This habitat must:

(A) For lakes, be of sufficient depth not to freeze solid (to the bottom) during the winter (no less than 1.7 meters (m) (5.6 feet (ft)), but generally greater than 2.5 m (8.2 ft), and optimally 5 m (16.4 ft) or deeper (unless some other refuge from freezing is available)).

(B) Maintain a natural flow pattern, including periodic flooding, and have functional community dynamics in order to provide sufficient productivity and a prey base to support the growth and development of rearing tadpoles and metamorphs.

(C) Be free of introduced predators.

(D) Maintain water during the entire tadpole growth phase (a minimum of 2 years). During periods of drought, these breeding sites may not hold water long enough for individuals to complete metamorphosis, but they may still be

considered essential breeding habitat if they provide sufficient habitat in most years to foster recruitment within the reproductive lifespan of individual adult frogs.

(E) Contain:

(*1*) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders (for basking and cover);

(*2*) Shallower microhabitat with solar exposure to warm lake areas and to foster primary productivity of the food web;

(*3*) Open gravel banks and rocks or other structures projecting above or just beneath the surface of the water for adult sunning posts;

(*4*) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks and vegetation to provide cover from predators; and

(*5*) Sufficient food resources to provide for tadpole growth and development.

(ii) *Aquatic nonbreeding habitat (including overwintering habitat).* This habitat may contain the same characteristics as aquatic breeding and rearing habitat (often at the same locale), and may include lakes, ponds, tarns, streams, rivers, creeks, plunge pools within intermittent creeks, seeps, and springs that may not hold water long enough for the species to complete its aquatic life cycle. This habitat provides for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult mountain yellow-legged frogs. Aquatic nonbreeding habitat contains:

(A) Bank and pool substrates consisting of varying percentages of soil or silt, sand, gravel, cobble, rock, and boulders (for basking and cover);

(B) Open gravel banks and rocks projecting above or just beneath the surface of the water for adult sunning posts;

(C) Aquatic refugia, including pools with bank overhangs, downfall logs or branches, or rocks and vegetation to provide cover from predators;

(D) Sufficient food resources to support juvenile and adult foraging;

(E) Overwintering refugia, where thermal properties of the microhabitat protect hibernating life stages from winter freezing, such as crevices or holes within bedrock, in and near shore; and/or

(F) Streams, stream reaches, or wet meadow habitats that can function as corridors for movement between aquatic habitats used as breeding or foraging sites.

(iii) *Upland areas.*

(A) Upland areas adjacent to or surrounding breeding and nonbreeding aquatic habitat that provide area for feeding and movement by mountain yellow-legged frogs.

(*1*) For stream habitats, this area extends 25 m (82 ft) from the bank or shoreline.

(*2*) In areas that contain riparian habitat and upland vegetation (for example, mixed conifer, ponderosa pine, montane conifer, and montane riparian woodlands), the canopy overstory should be sufficiently thin (generally not to exceed 85 percent) to allow sunlight to reach the aquatic habitat and thereby provide basking areas for the species.

(*3*) For areas between proximate (within 300 m (984 ft)) water bodies (typical of some high mountain lake habitats), the upland area extends from the bank or shoreline between such water bodies.

(*4*) Within mesic habitats such as lake and meadow systems, the entire area of physically contiguous or proximate habitat is suitable for dispersal and foraging.

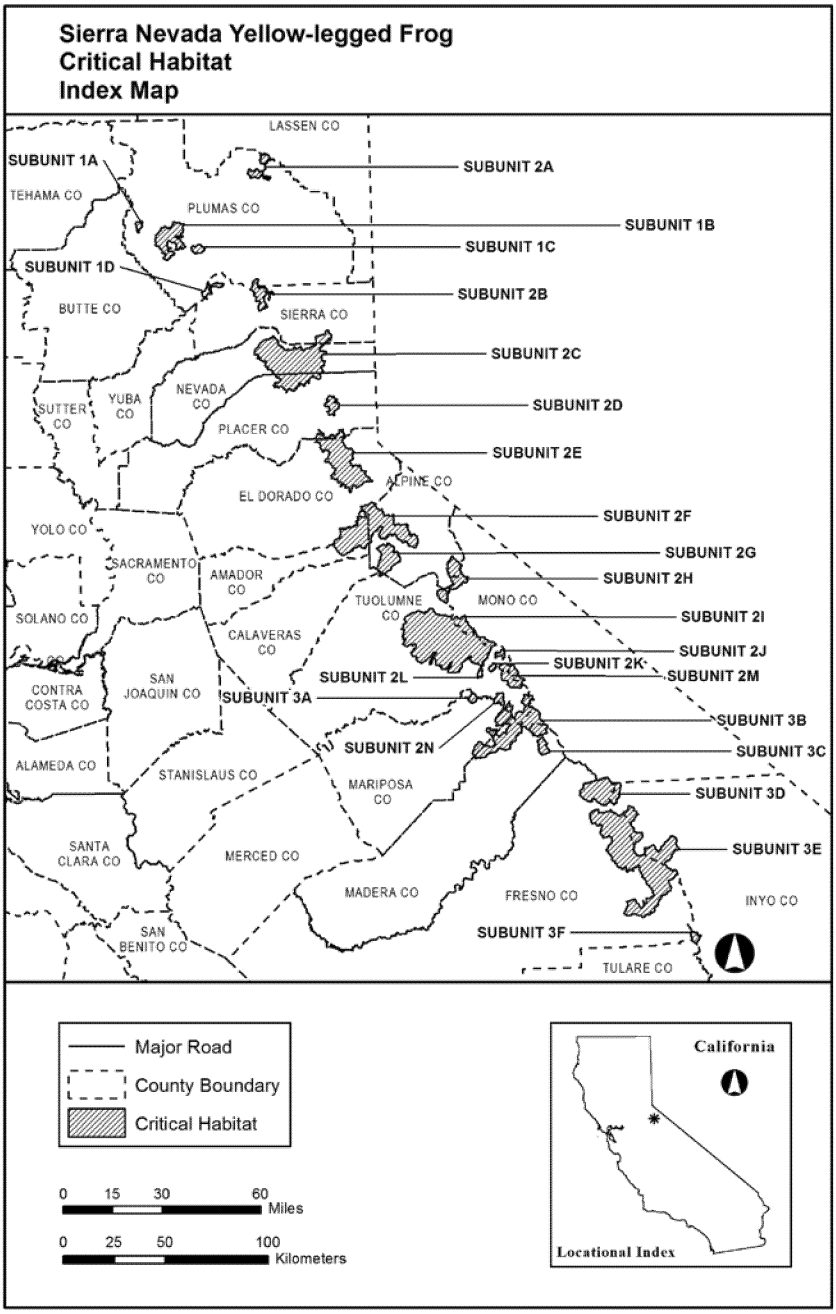
(B) Upland areas (catchments) adjacent to and surrounding both breeding and nonbreeding aquatic habitat that provide for the natural hydrologic regime (water quantity) of aquatic habitats. These upland areas should also allow for the maintenance of sufficient water quality to provide for the various life stages of the frog and its prey base.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries of designated critical habitat on September 26, 2016.

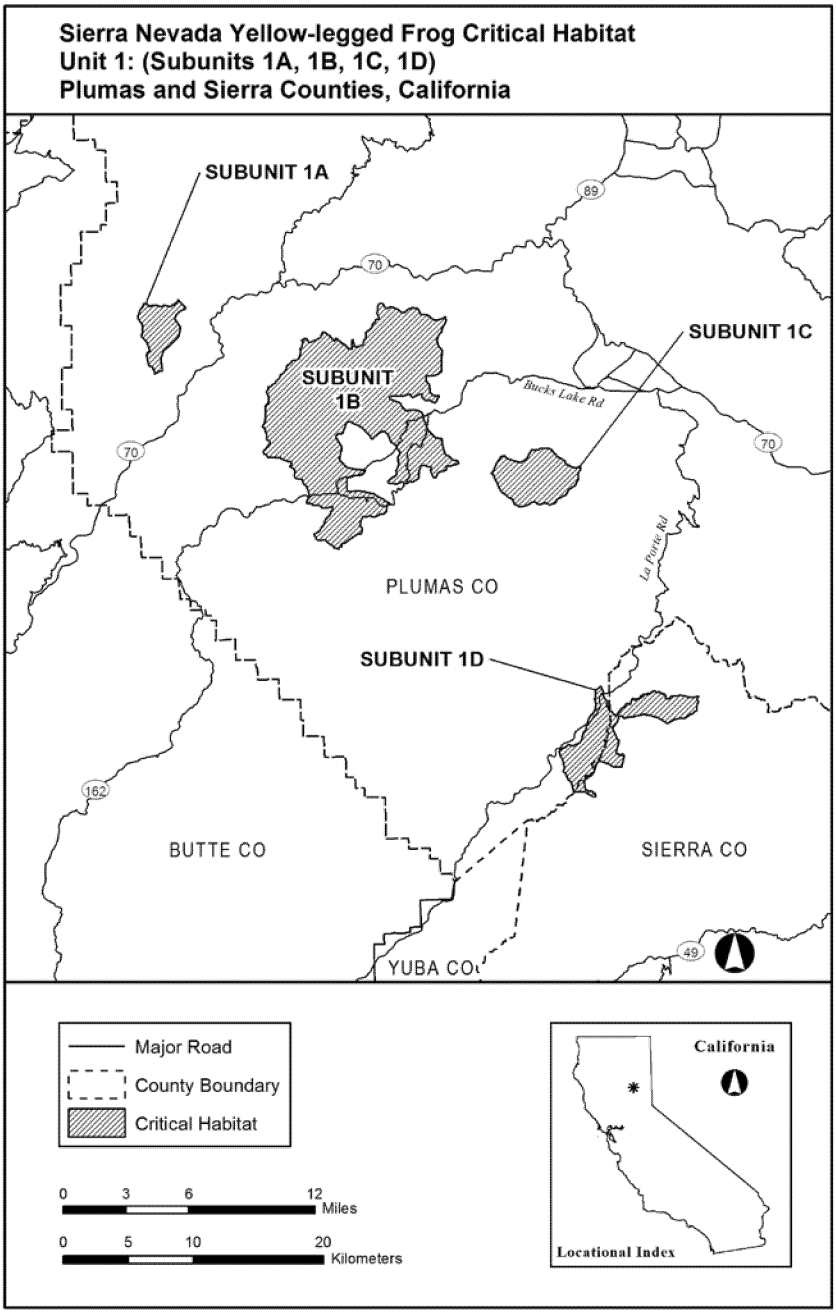
(4) *Critical habitat map units.* The critical habitat subunit maps were originally created using ESRI's ArcGIS Desktop 10.2.1 software and then exported as .emf files. All maps are in the North American Datum of 1983 (NAD83), Universal Transverse Mercator (UTM) Zone 10N. The California County Boundaries dataset (Teale Data Center), and the USA Minor Highways, USA Major Roads, and USA Rivers and Streams layers (ESRI's 2010 StreetMap Data) were incorporated as base layers to assist in the geographic location of the critical habitat subunits. The coordinates or plot points or both on which each map is based are available to the public on *http://regulations.gov* at Docket No. FWS–R8–ES–2012–0074, on our Internet site (*http://www.fws.gov/sacramento*), and at the Sacramento Fish and Wildlife Office, 2800 Cottage Way Room W–2605, Sacramento, CA 95825.

(5) Index map for Sierra Nevada yellow-legged frog critical habitat follows:

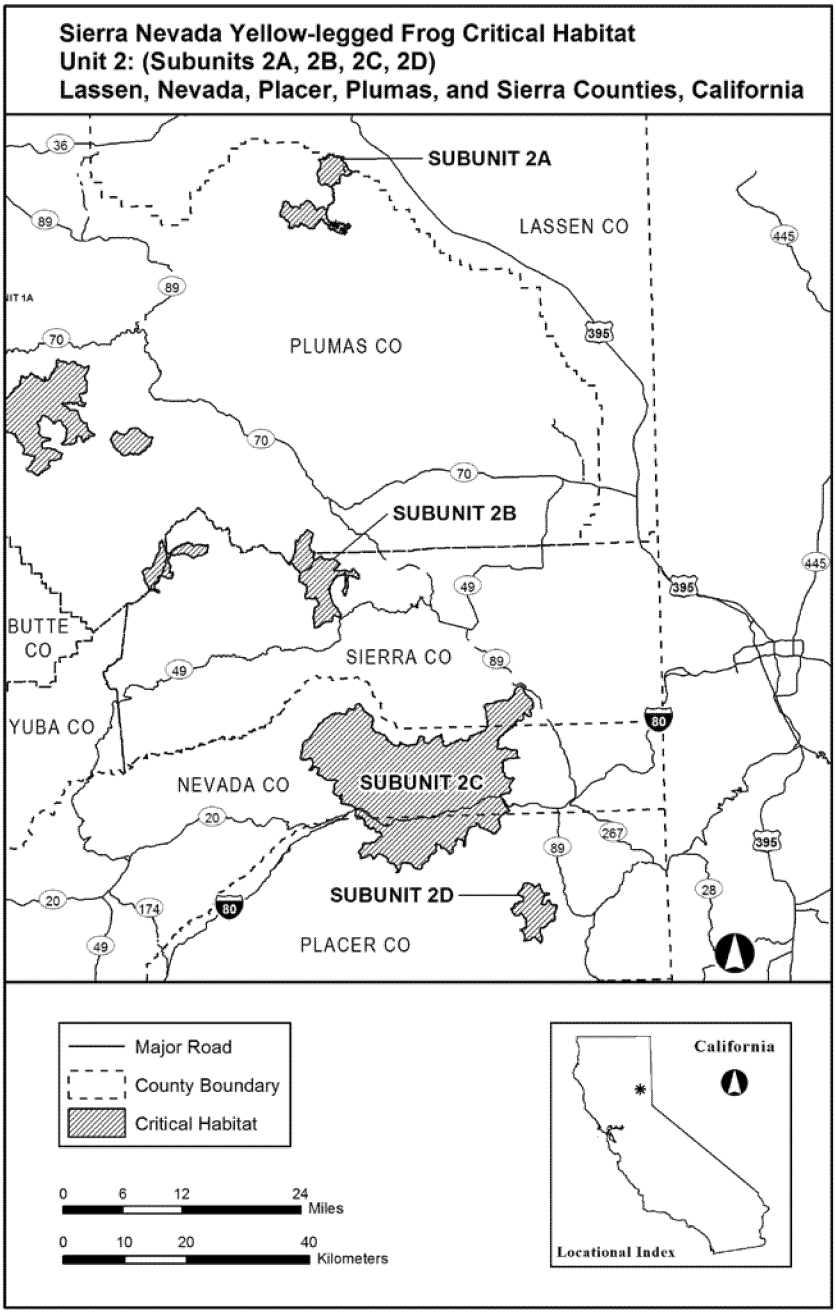
BILLING CODE 4333–15–P



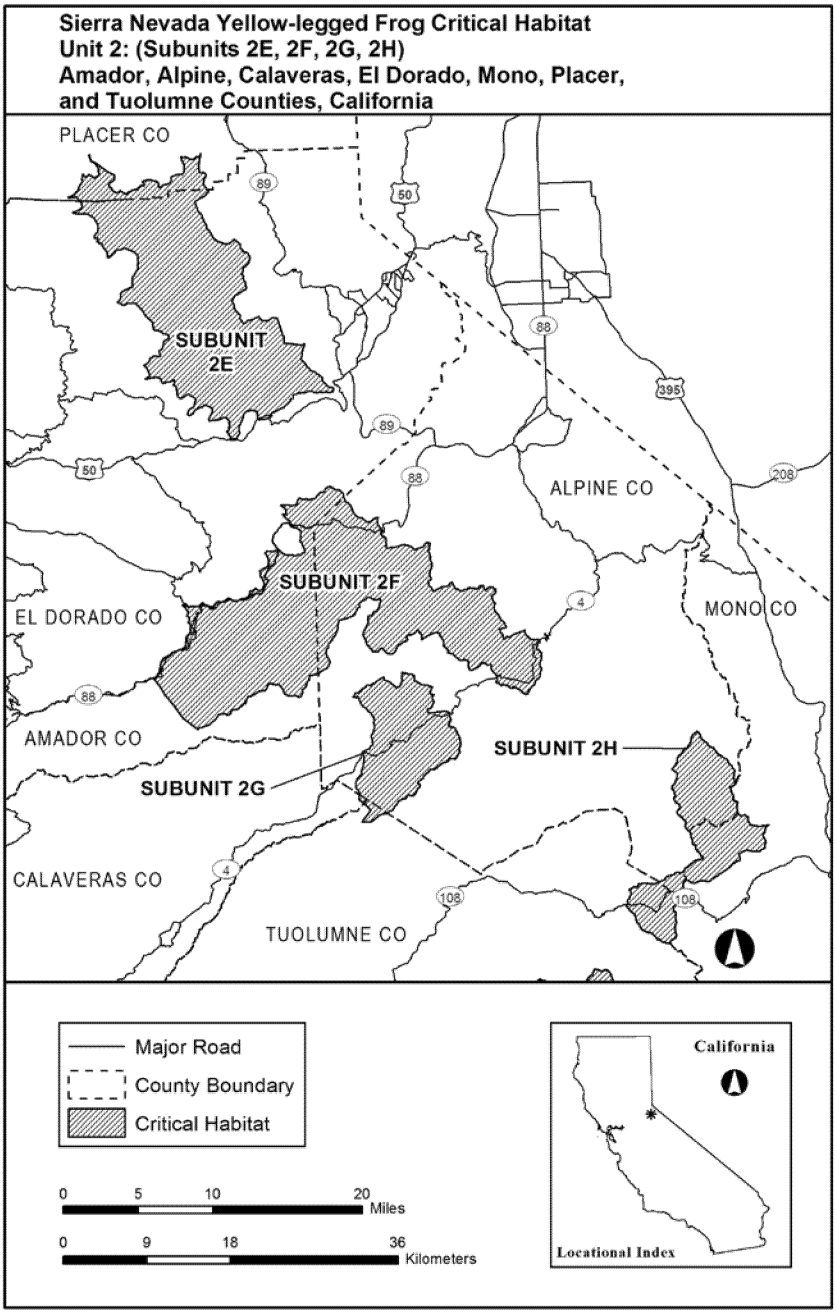
(6) Unit 1 (Subunits 1A, 1B, 1C, 1D), Plumas, and Sierra Counties, California. Map follows:



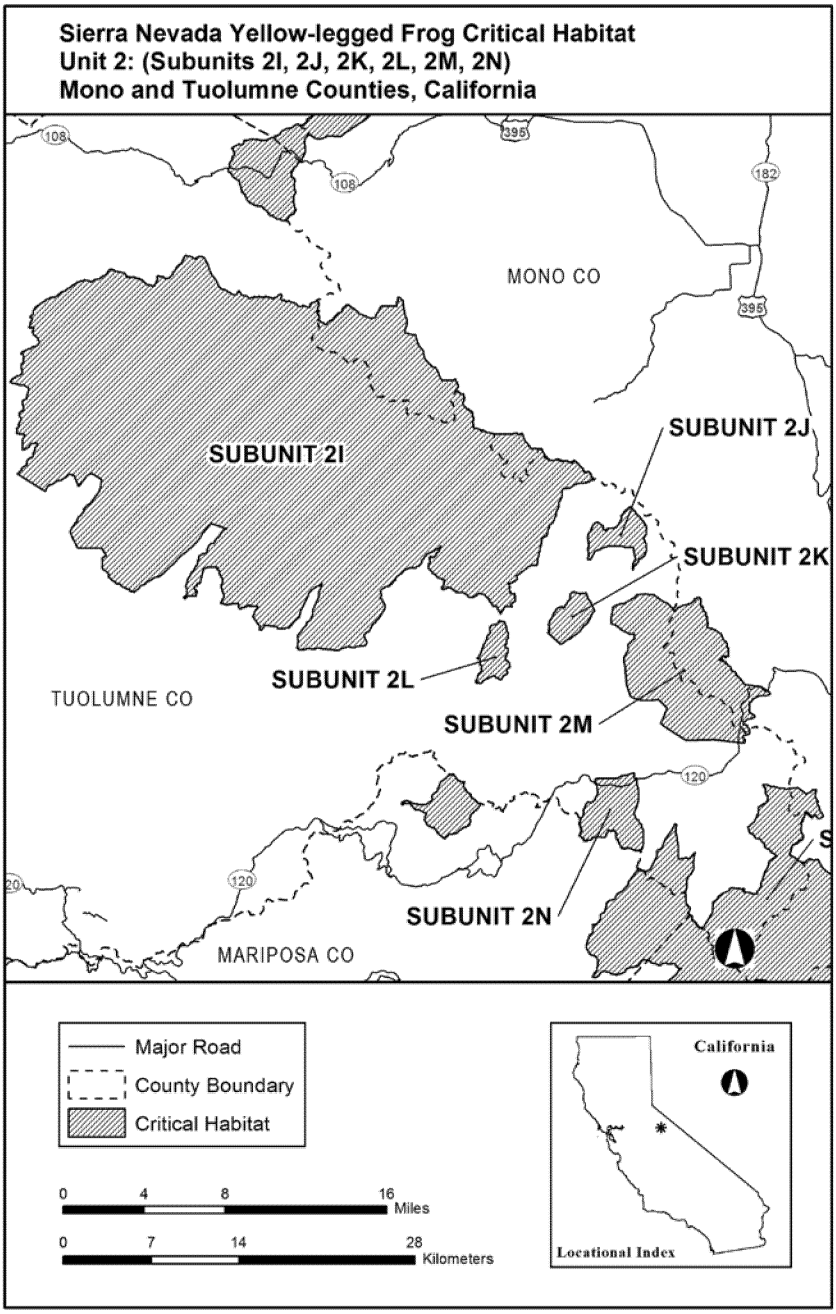
(7) Unit 2 (Subunits 2A, 2B, 2C, 2D), Lassen, Plumas, Sierra, Nevada, and Placer Counties, California. Map follows:



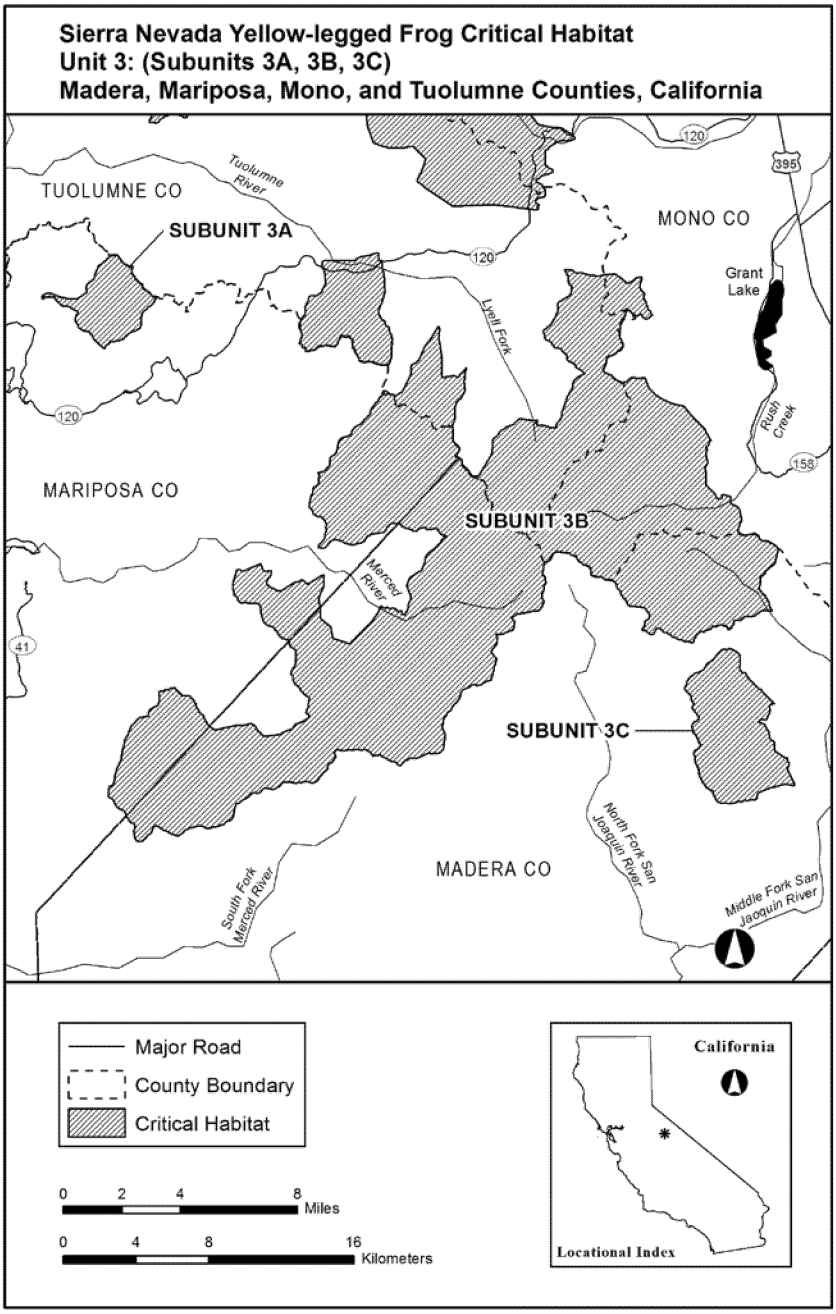
(8) Unit 2 (Subunits 2E, 2F, 2G, 2H), Placer, El Dorado, Amador, Alpine, Calaveras, Tuolumne, and Mono Counties, California. Map follows:



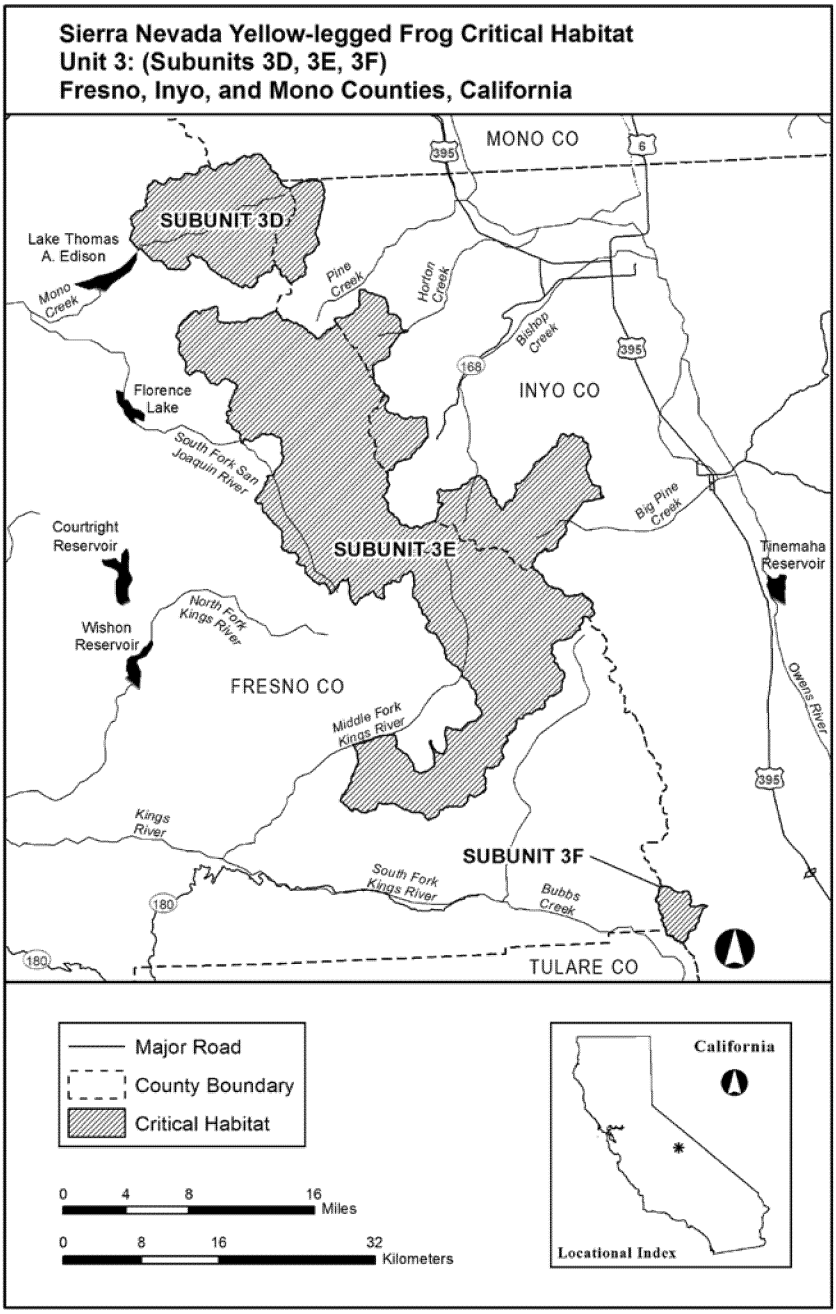
(9) Unit 2 (Subunits 2I, 2J, 2K, 2L, 2M, 2N), Tuolumne and Mono Counties, California. Map follows:



(10) Unit 3 (Subunits 3A, 3B, 3C), Tuolumne, Mariposa, Mono, and Madera Counties, California. Map follows:



(11) Unit 3 (Subunits 3D, 3E, 3F), Mono, Fresno, and Inyo Counties, California. Map follows:



* * * * *

Yosemite Toad (*Anaxyrus canorus*)

(1) Critical habitat units are depicted for Alpine, Tuolumne, Mono, Mariposa, Madera, Fresno, and Inyo Counties, California, on the maps in this entry.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the Yosemite toad consist of two components:

(i) *Aquatic breeding habitat.*

(A) This habitat consists of bodies of fresh water, including wet meadows, slow-moving streams, shallow ponds, spring systems, and shallow areas of lakes, that:

(*1*) Are typically (or become) inundated during snowmelt;

(*2*) Hold water for a minimum of 5 weeks, but more typically 7 to 8 weeks; and

(*3*) Contain sufficient food for tadpole development.

(B) During periods of drought or less than average rainfall, these breeding sites may not hold surface water long enough for individual Yosemite toads to complete metamorphosis, but they are still considered essential breeding habitat because they provide habitat in most years.

(ii) *Upland areas.*

(A) This habitat consists of areas adjacent to or surrounding breeding habitat up to a distance of 1.25 kilometers (0.78 miles) in most cases (that is, depending on surrounding landscape and dispersal barriers), including seeps, springheads, talus and boulders, and areas that provide:

(*1*) Sufficient cover (including rodent burrows, logs, rocks, and other surface objects) to provide summer refugia,

(*2*) Foraging habitat,

(*3*) Adequate prey resources,

(*4*) Physical structure for predator avoidance,

(*5*) Overwintering refugia for juvenile and adult Yosemite toads,

(*6*) Dispersal corridors between aquatic breeding habitats,

(*7*) Dispersal corridors between breeding habitats and areas of suitable summer and winter refugia and foraging habitat, and/or

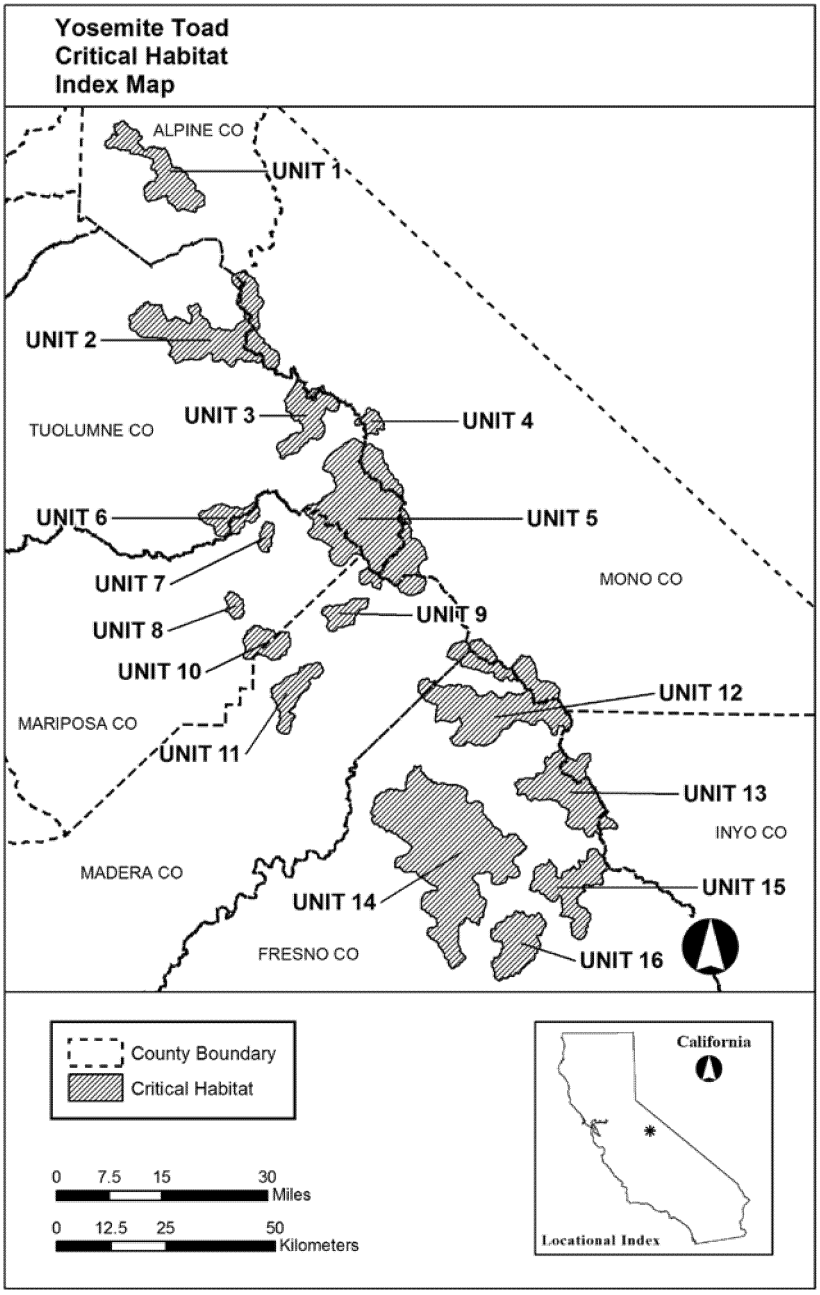
(*8*) The natural hydrologic regime of aquatic habitats (the catchment).

(B) These upland areas should also maintain sufficient water quality to provide for the various life stages of the Yosemite toad and its prey base.

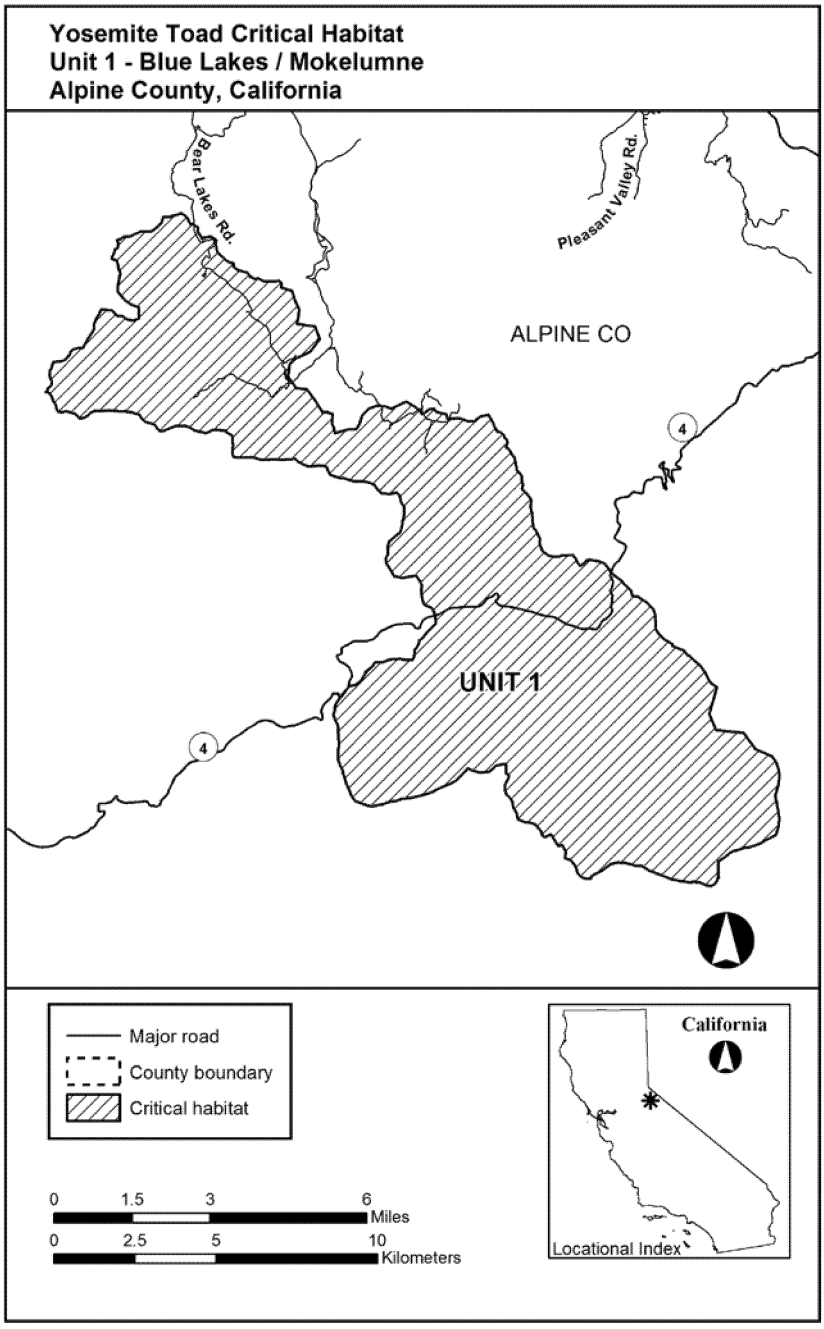
(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries of designated critical habitat on September 26, 2016.

(4) *Critical habitat map units.* The critical habitat subunit maps were originally created using ESRI's ArcGIS Desktop 10 software and then exported as .emf files. All maps are in the North American Datum of 1983 (NAD83), Universal Transverse Mercator (UTM) Zone 10N. The California County Boundaries dataset (Teale Data Center), and the USA Minor Highways, USA Major Roads, and USA Rivers and Streams layers (ESRI's 2010 StreetMap Data) were incorporated as base layers to assist in the geographic location of the critical habitat subunits. The coordinates or plot points or both on which each map is based are available to the public on *http://regulations.gov* at Docket No. FWS–R8–ES–2012–0074, on our Internet site (*http://www.fws.gov/sacramento*), and at the Sacramento Fish and Wildlife Office, 2800 Cottage Way Room W–2605, Sacramento, CA 95825.

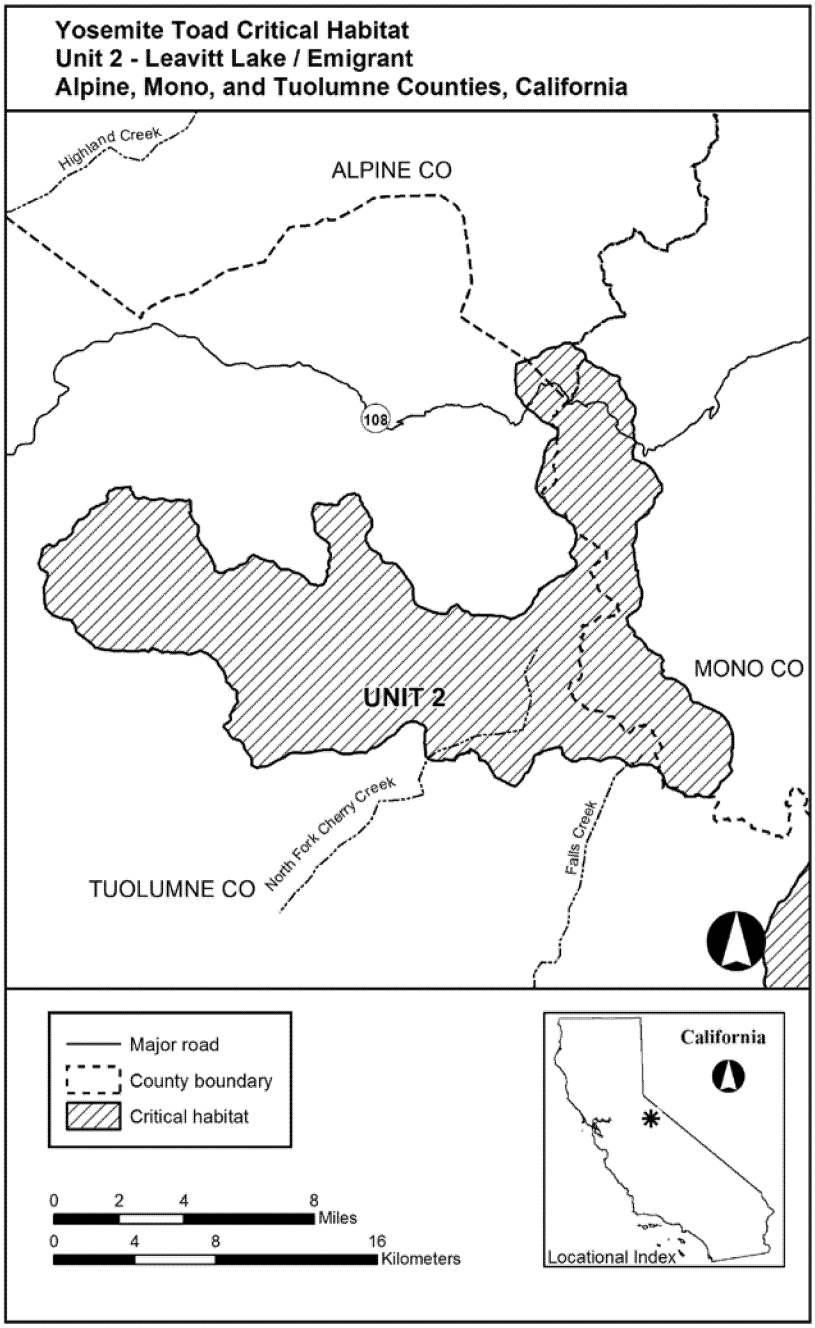
(5) Index map for Yosemite toad critical habitat follows:



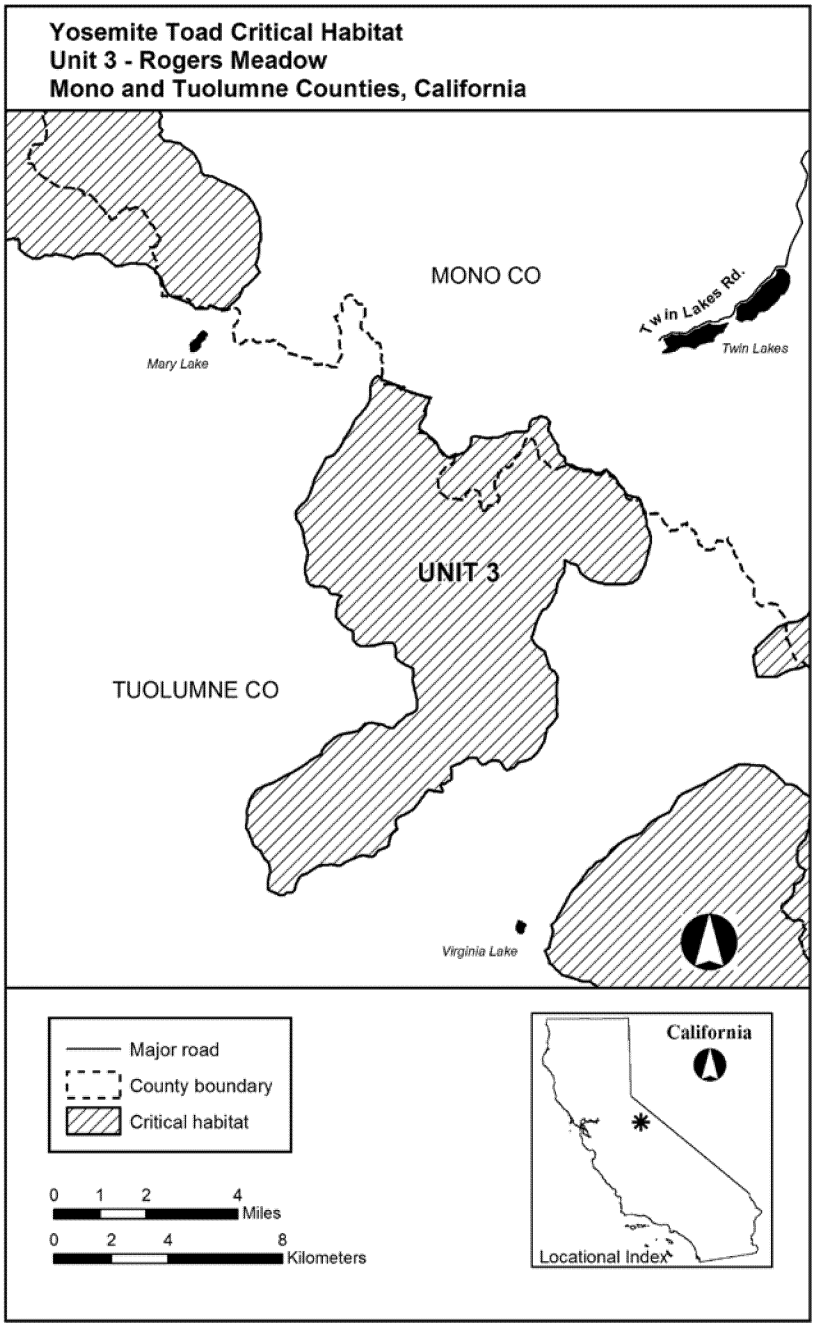
(6) Unit 1: Blue Lakes/Mokelumne, Alpine County, California. Map follows:



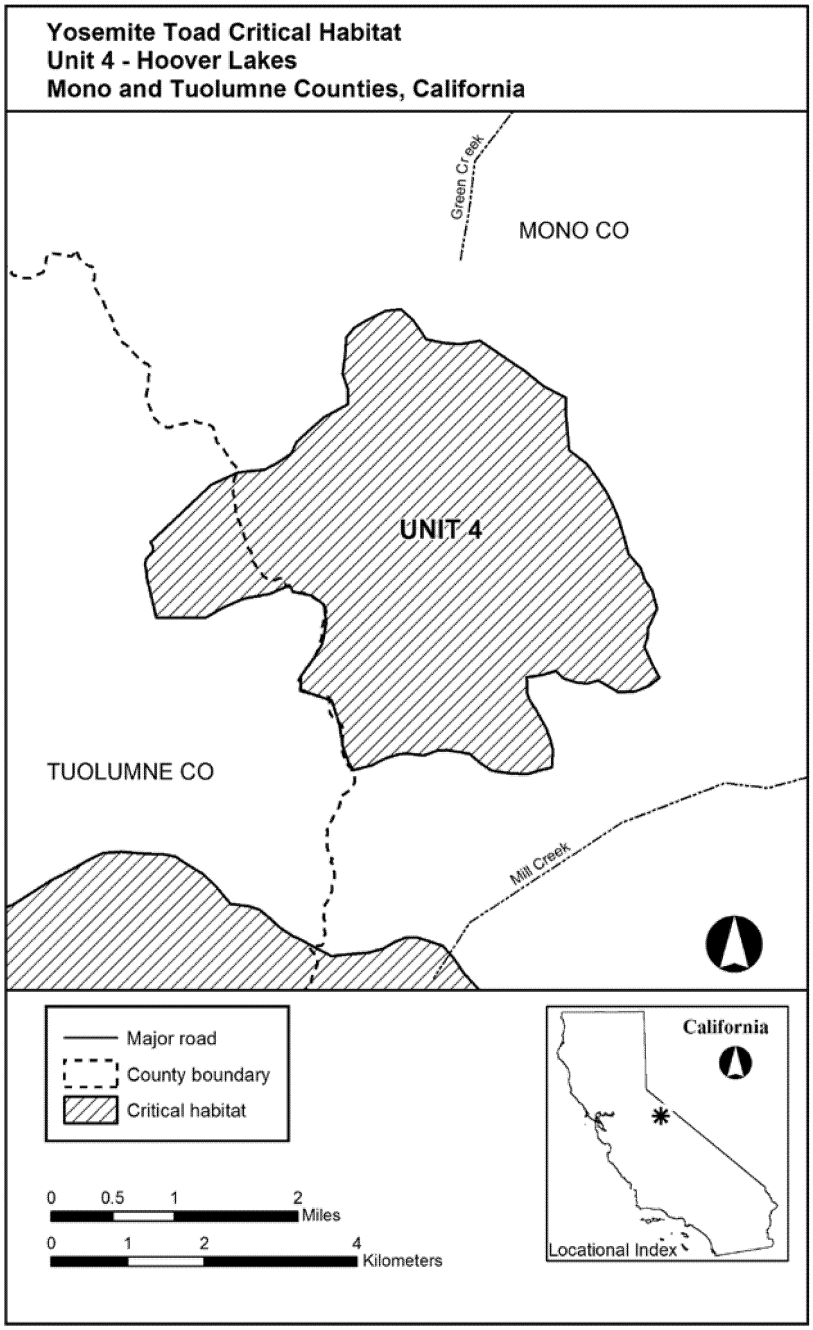
(7) Unit 2: Leavitt Lake/Emigrant, Alpine, Mono, and Tuolumne Counties, California. Map follows:



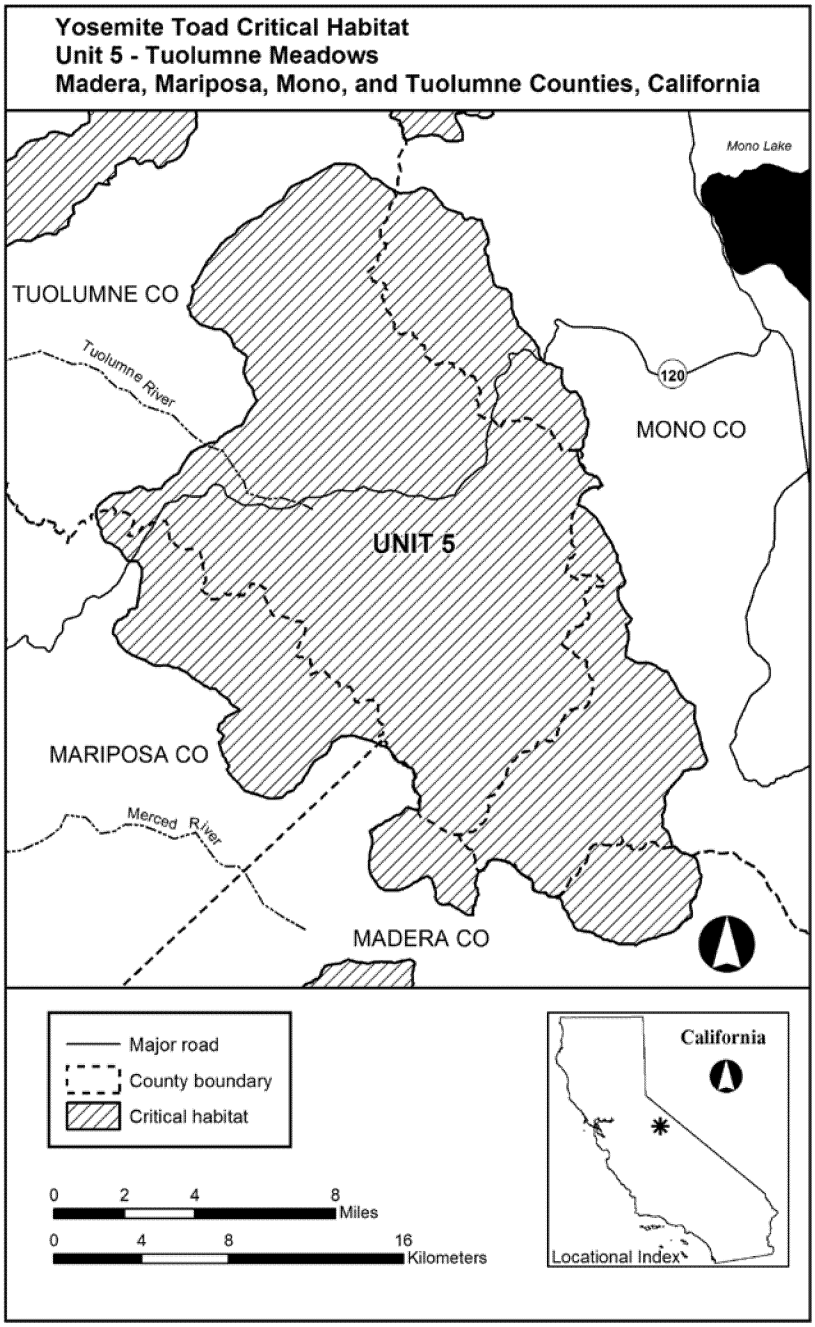
(8) Unit 3: Rogers Meadow, Mono and Tuolumne Counties, California. Map follows:



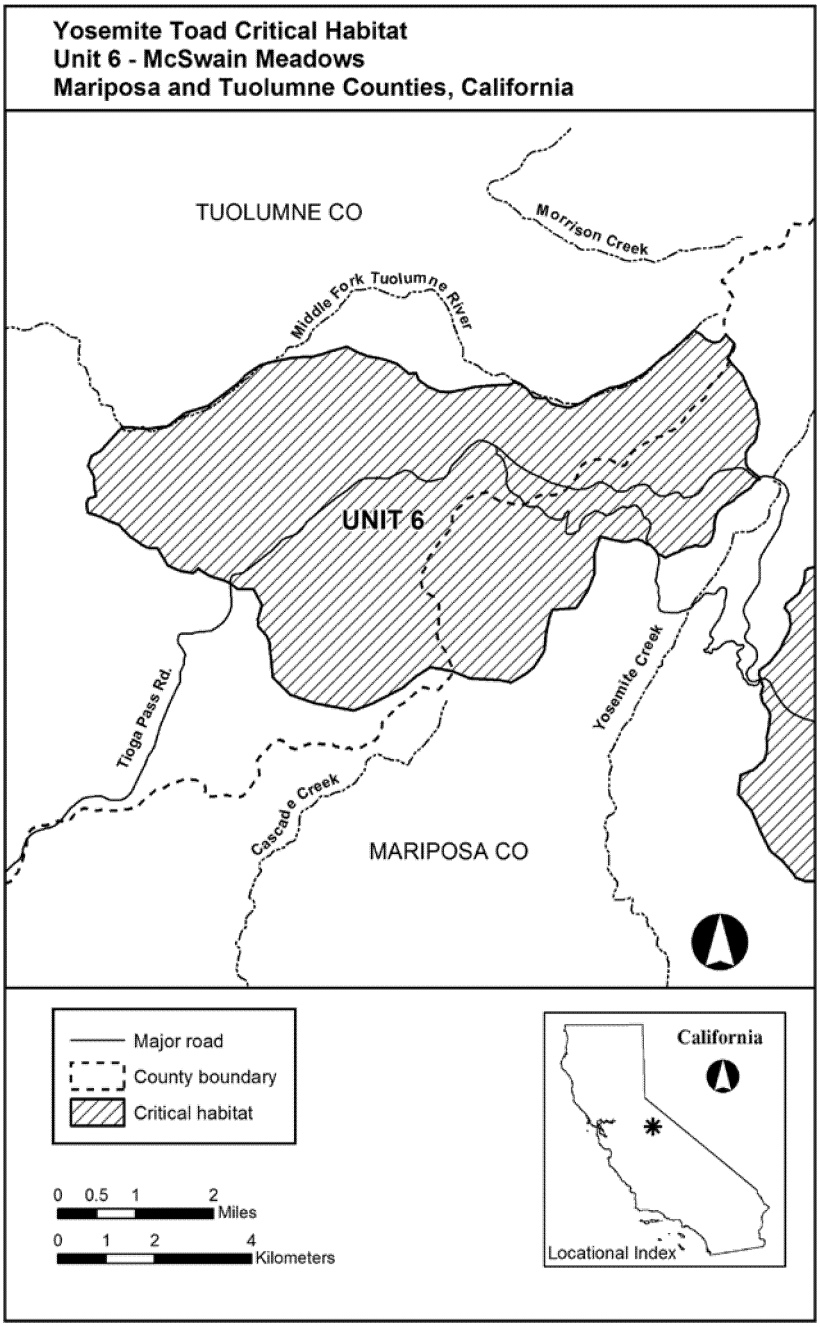
(9) Unit 4: Hoover Lakes, Mono and Tuolumne Counties, California. Map follows:



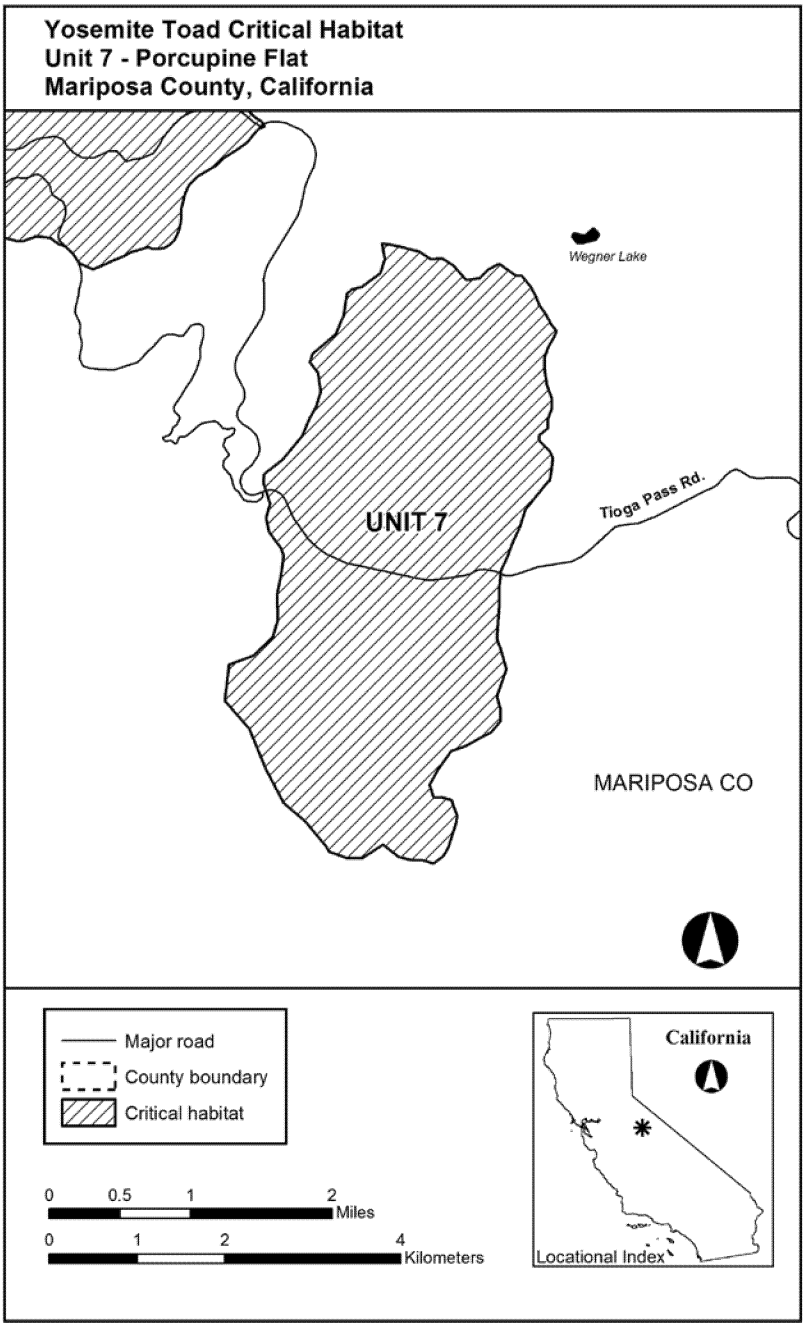
(10) Unit 5: Tuolumne Meadows/Cathedral, Madera, Mariposa, Mono, and Tuolumne Counties, California. Map follows:



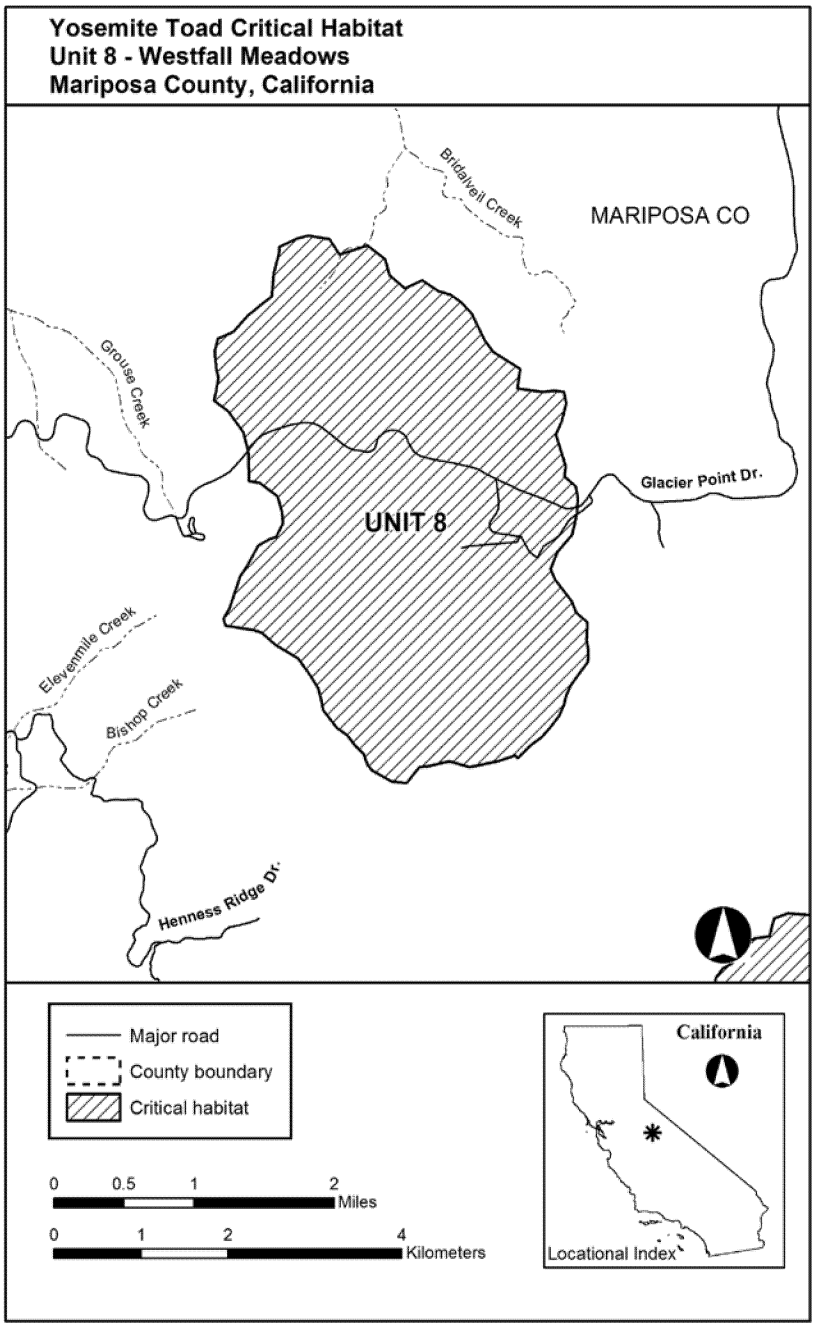
(11) Unit 6: McSwain Meadows, Mariposa and Tuolumne Counties, California. Map follows:



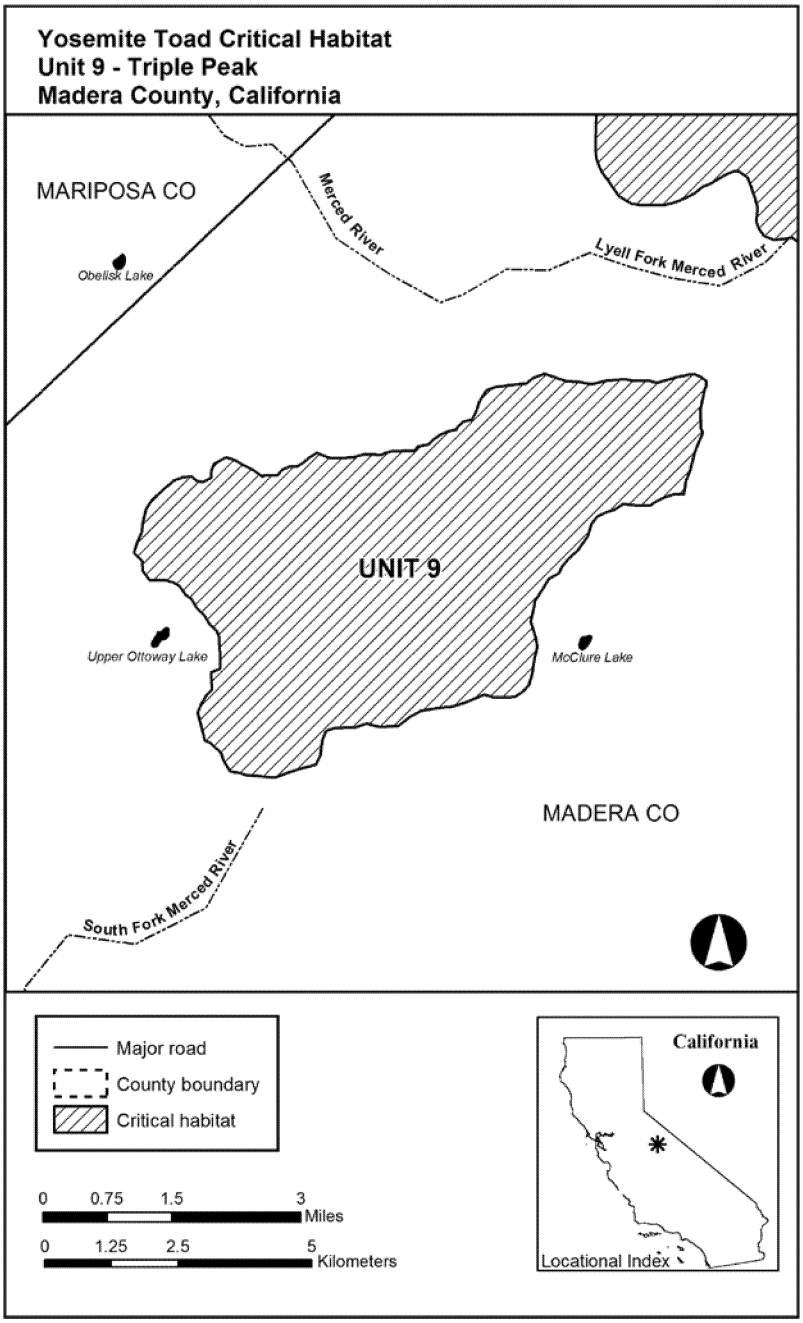
(12) Unit 7: Porcupine Flat, Mariposa County, California. Map follows:



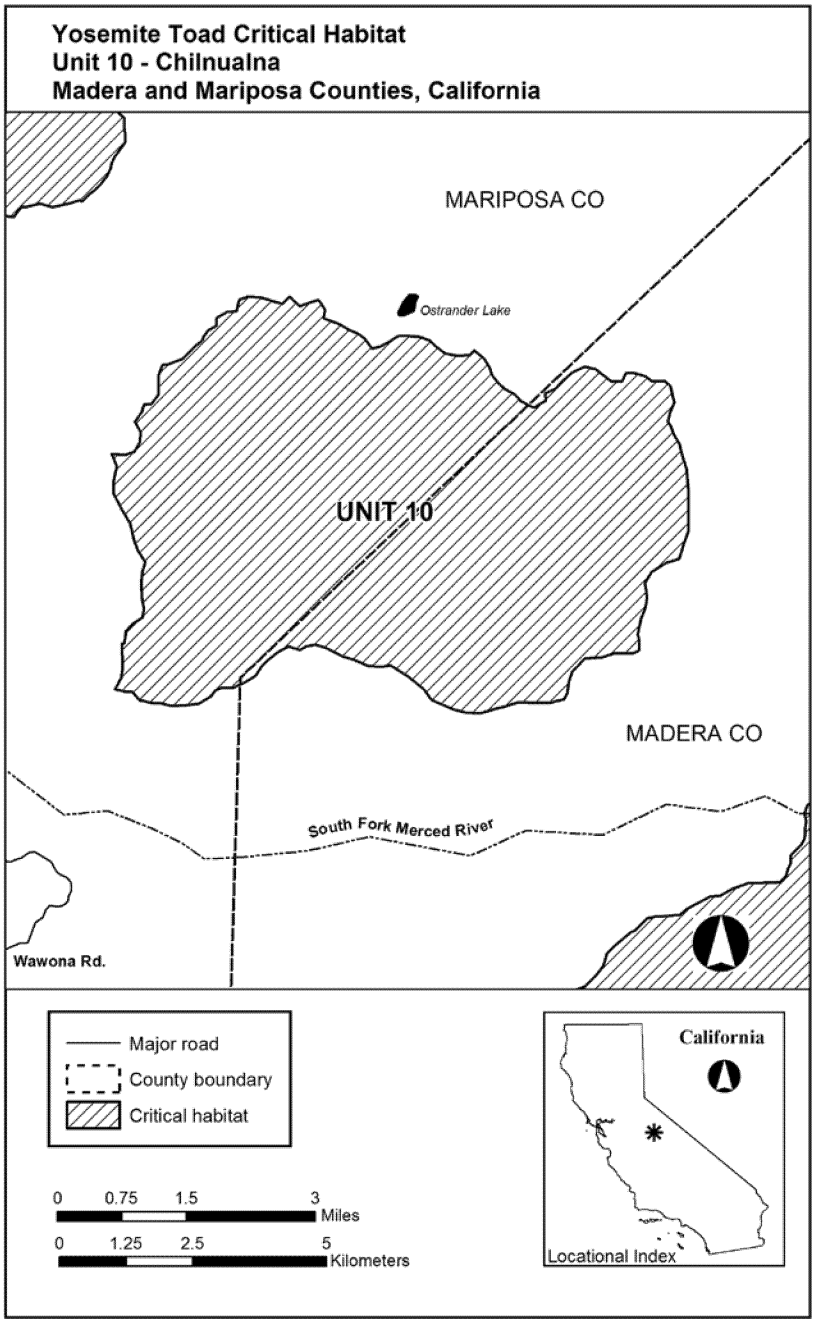
(13) Unit 8: Westfall Meadows, Mariposa County, California. Map follows:



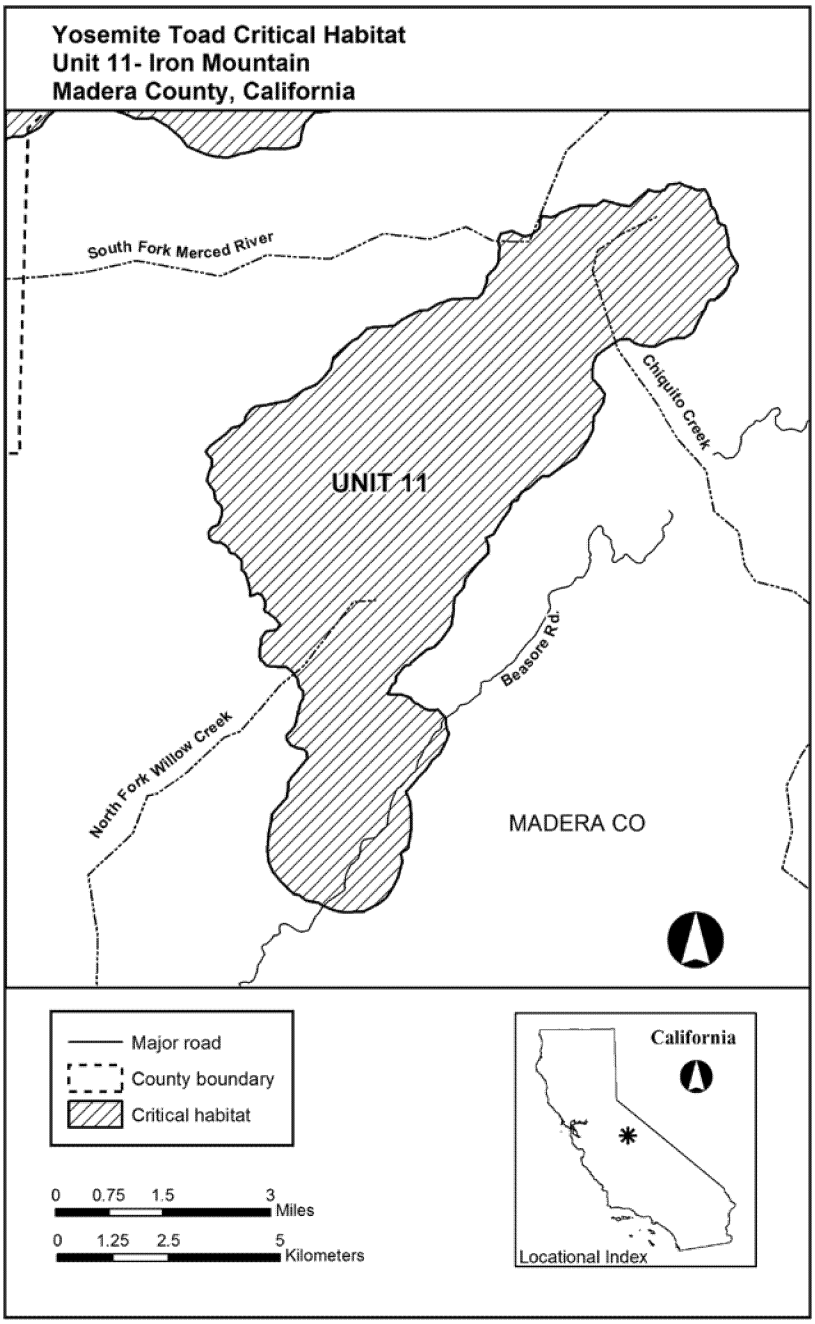
(14) Unit 9: Triple Peak, Madera County, California. Map follows:



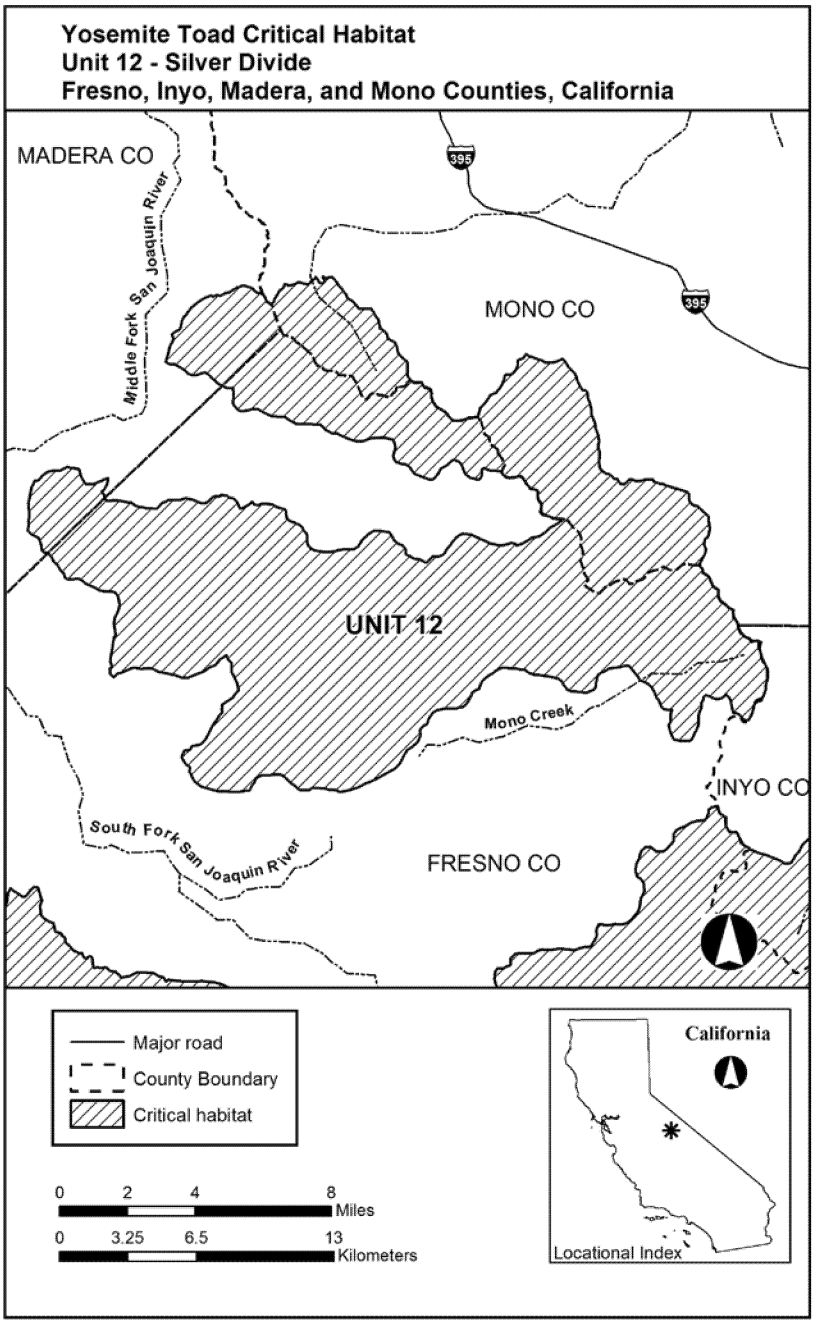
(15) Unit 10: Chilnualna, Madera and Mariposa Counties, California. Map follows:



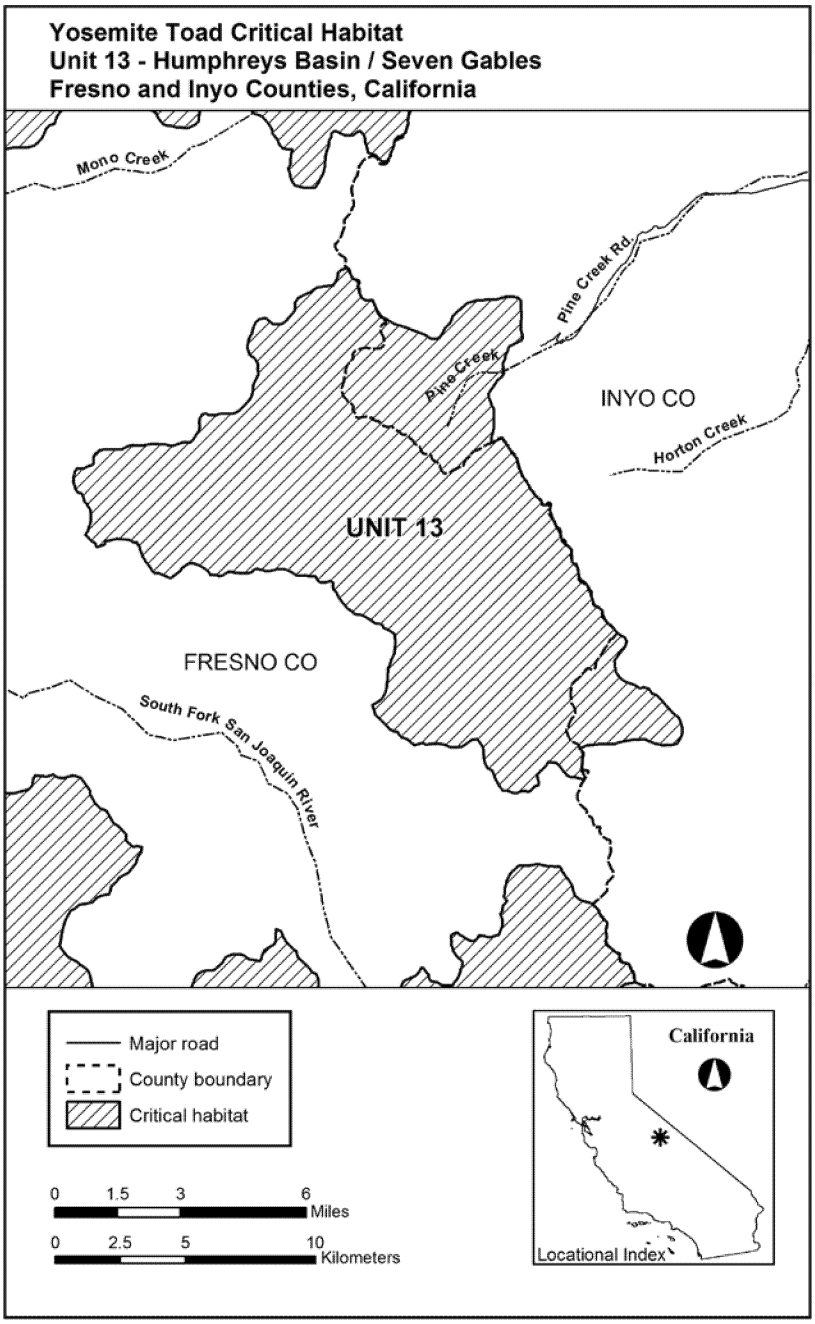
(16) Unit 11: Iron Mountain, Madera County, California. Map follows:



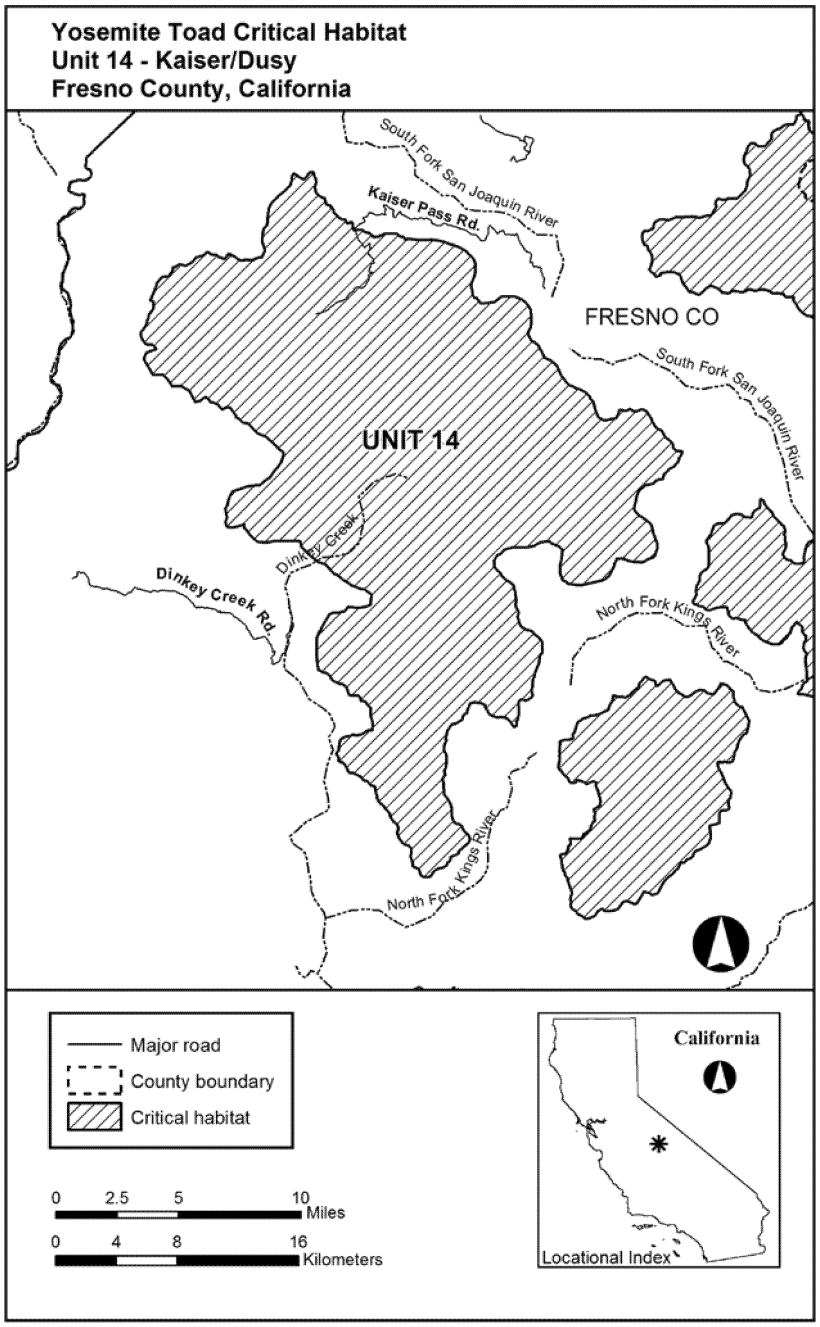
(17) Unit 12: Silver Divide, Fresno, Inyo, Madera, and Mono Counties, California. Map follows:



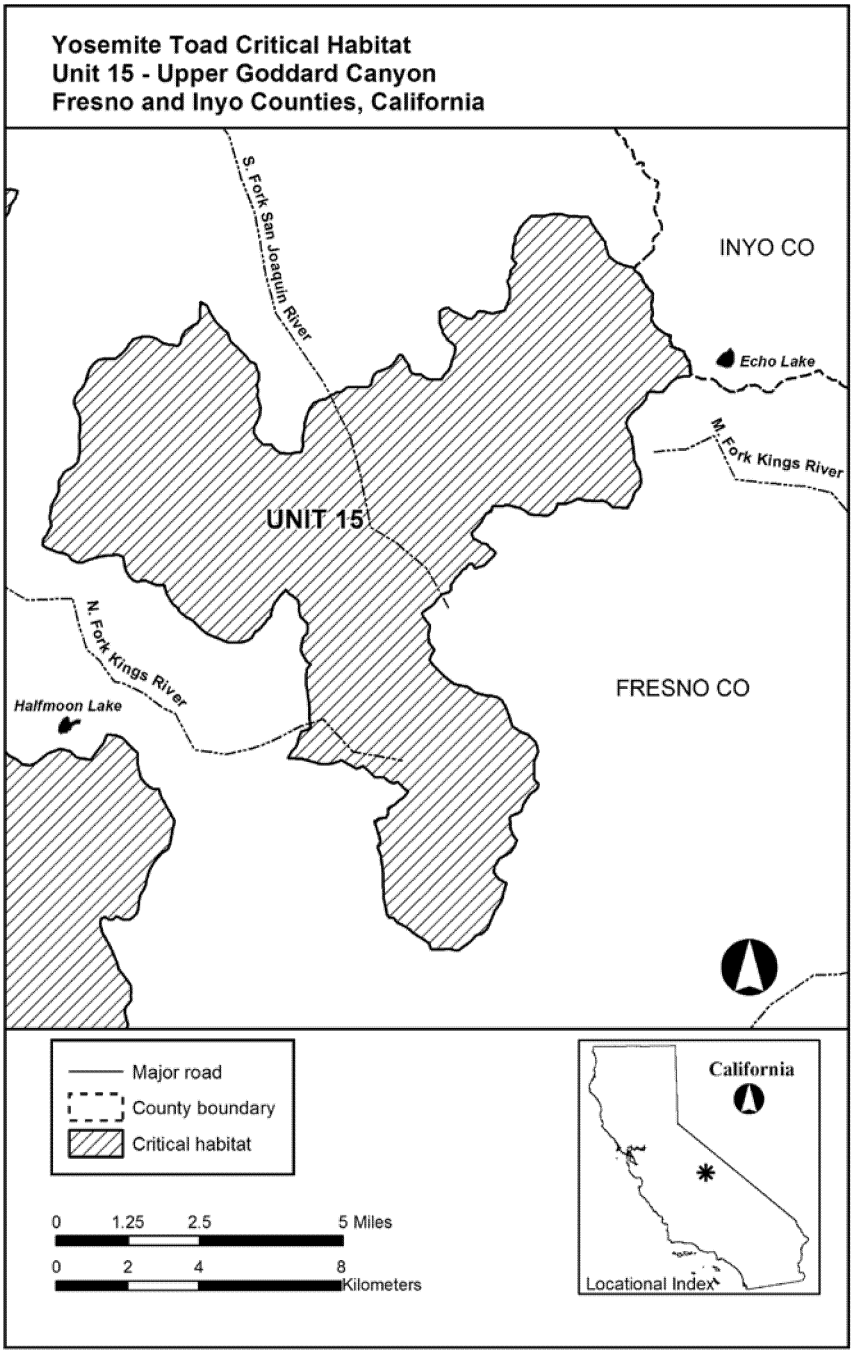
(18) Unit 13: Humphrys Basin/Seven Gables, Fresno and Inyo Counties, California. Map follows:



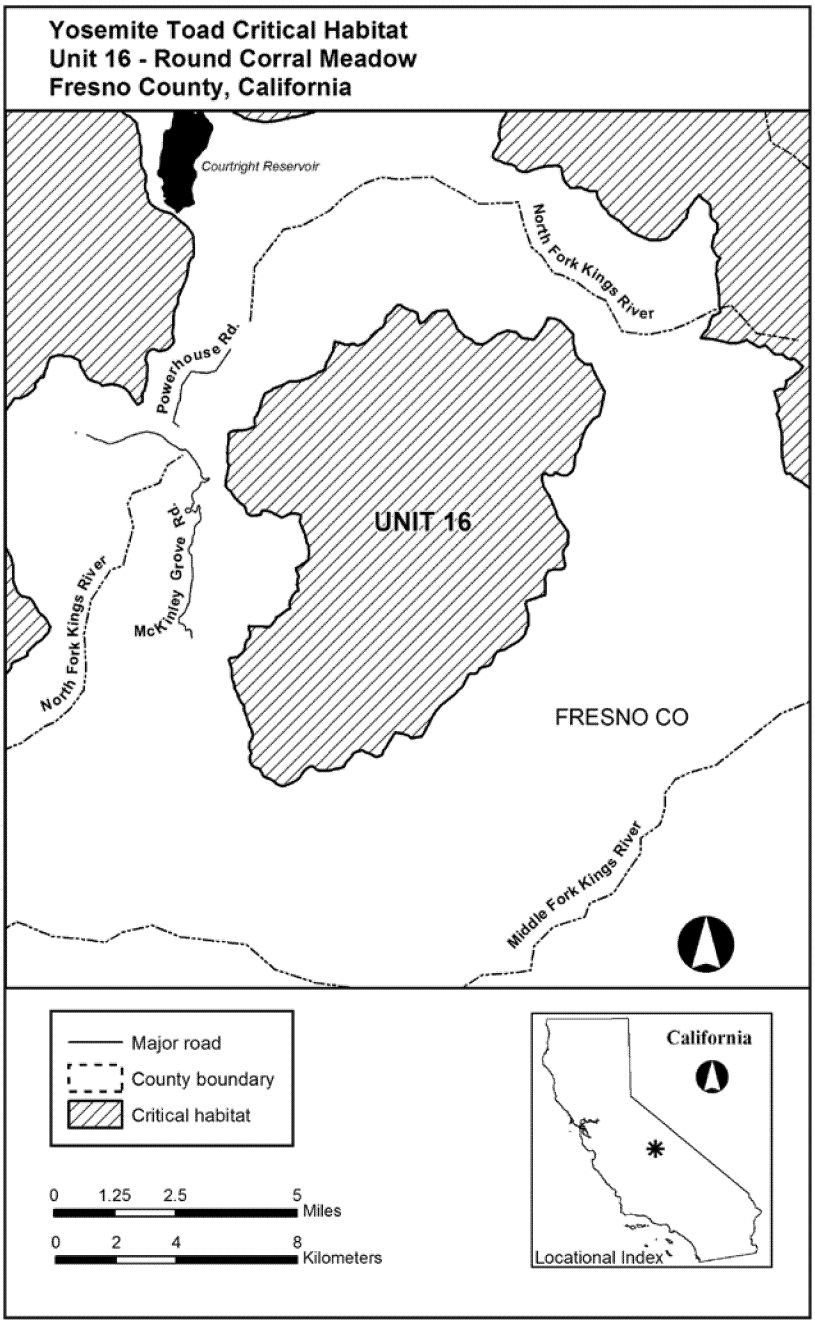
(19) Unit 14: Kaiser/Dusy, Fresno County, California. Map follows:



(20) Unit 15: Upper Goddard Canyon, Fresno and Inyo Counties, California. Map follows:



(21) Unit 16: Round Corral Meadow, Fresno County, California. Map follows:



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Dated: August 16, 2016.

Karen Hyun,

Acting Principal Deputy Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2016–20352 Filed 8–25–16; 8:45 am]

BILLING CODE 4333–15–C