



March 7, 2014

The Honorable Daniel M. Ashe, Director
U.S. Fish and Wildlife Service
Public Comments Processing,
Attn: FWS-R8-ES-2012-0100
Division of Policy and Directives Management
4401 N. Fairfax Drive, MS 2042-PDM
Arlington, VA 22203

RE: FWS-R8-ES-2012-0100: Proposal to Add Sierra Nevada Yellow Legged Frog, Northern DPS of the Mountain Yellow Legged Frog and Yosemite Toad to the list of Threatened and Endangered Species

Dear Mr. Ashe:

The California Cattlemen's Association, California Farm Bureau Federation, and California Wool Growers Association are writing to provide additional comments on the proposed listing of the Sierra Nevada yellow-legged frog, the northern distinct population segment of the mountain yellow-legged frog and the Yosemite toad under the Endangered Species Act. Our organizations previously submitted comments June 24, 2013 jointly with three other agricultural and rural organizations representing members impacted by the proposed listing. Our organizations are providing additional comments to alert the U.S. Fish and Wildlife Service (the Service) to a recently published peer-reviewed article studying the effects of fencing meadows inhabited by Yosemite toads to prevent grazing and to provide information regarding the economic impacts the proposed designation of critical habitat will have on our members who rely on the proposed critical habitat areas for both forage and timber production.

Best Available Science

On November 5, 2013 the third and final paper¹ from an extensive study to determine grazing impacts on the Yosemite toad was published. McIlroy's paper focuses on the effects different fencing treatments had on the Yosemite toad. The paper found that neither fencing cattle from the toad breeding area, nor from the entire meadow improved toad populations. These findings

¹ McIlroy SK, Lind AJ, Allen-Diaz BH, Roche LM, Frost WE, et al. (2013) Determining the Effects of Cattle Grazing Treatments on Yosemite Toads (*Anaxyrus [=Bufo] canorus*) in Montane Meadows. PLoS ONE 8(11): e79263.

along with the findings in the other two previously published papers^{2,3} refute the conclusions in the listing proposal that grazing is a definitive risk to the Yosemite toad.

As discussed in our June 24, 2013 comments, the Service failed to properly examine the “best scientific . . . data available,” as required by ESA § 4, in forming the basis for the Proposed Rule to List and the Proposed Rule to Designate Critical Habitat. We again address the insufficiency of this scientific analysis, both to supplement our prior comments and because the flawed scientific analysis employed by the Service formed the partial basis for the Draft Economic Analysis (DEA).⁴ We here limit our discussion to the evidence regarding the Yosemite toad, as our former comments fully address our concerns about the science examined regarding the Yellow-legged frog and the Northern DPS of the mountain Yellow-legged frog.

The Service should consider newly available evidence prior to issuing a Final Rule

Recently, a group of scientists who conducted a five-year study into the relationship between livestock grazing and Yosemite toad populations published their third peer-reviewed article analyzing the study.⁵ **McIlroy et al. (2013)** examined three fencing methods in an effort to determine the impact of livestock grazing on amphibian populations. The methods used included (1) allotments complying with existing US Forest Service annual grazing standards, (2) fencing Yosemite toad breeding areas so livestock grazing did not directly impact the Yosemite toad, and (3) fencing the whole meadow to exclude cattle, so that grazing would have no direct *or* dispositional impact on the Yosemite toad. The study found that, regardless of which fencing method was used, there was “no benefit of fencing to Yosemite toad populations.”⁶

This extensive study suggests that there are no clear direct *or* indirect impacts of livestock grazing on the population of the Yosemite toad throughout the Sierra Nevada. Indeed, the authors explicitly state that “[o]ur results do not support previous studies that found a negative impact of grazing on amphibian populations.”⁷

Additionally, we recognized in our June 24, 2013 comments that though the Service had referenced Roche *et al.* (2012a) in its Proposed Rule to Designate Critical Habitat, it had entirely omitted another source—**Roche et al. (2012b)**—from the Proposed Rule to List and the Proposed Rule to Designate Critical Habitat.

² Roche LM, Latimer AM, Eastburn DJ, Tate KW. (2012). Cattle Grazing and Conservation of a Meadow-Dependent Amphibian Species in the Sierra Nevada. PLoS ONE 7(4): e35734 [hereinafter Roche *et al.* (2012b).]

³ Roche LM, Allen-Diaz BH, Eastburn DJ, Tate KW (2012) . Cattle Grazing and Yosemite toad (*Bufo canorus* Camp) breeding habitat in Sierra Nevada meadows. Rangeland Ecol Manag 65: 56-65 [hereinafter Roche *et al.* (2012a)].

⁴ See, e.g., INDUSTRIAL ECONOMICS, INC., ECONOMIC ANALYSIS OF CRITICAL HABITAT DESIGNATION FOR THREE SIERRA NEVADA CALIFORNIA AMPHIBIANS ES-2 at ¶ 7 [hereinafter DEA].

⁵ McIlroy SK, Lind AJ, Allen-Diaz BH, Roche LM, Frost WE, et. Al. (2013) Determining the Effects of Cattle Grazing Treatments on Yosemite Toads (*Anazyrus* [=*Bufo*] *canorus*) in Montane Meadows. PLoS ONE 8(11): e79263.

⁶ McIlroy *et al.* (2013), p. 5.

⁷ *Ibid.*, p. 5.

The value of Roche *et al.* (2012b) to the Service's analysis cannot be overstated. While Roche *et al.* (2012a) dealt with the subject of fencing (addressed elsewhere in this comment), Roche *et al.* (2012b) examined a different issue entirely—the intersection between meadow hydrology, Yosemite toad prevalence, and grazing intensity. The omission of Roche *et al.* (2012b) is particularly alarming because, according to study authors (as discussed below), this publication supersedes Lind *et al.* (2011), an unpublished and non-peer-reviewed report which the Service relied on within the Proposed Rule to List. Roche *et al.* (2012b) is discussed at length in the following section of these comments, and thus will not be examined further here, but as it appears the Service has not yet examined it, it constitutes new evidence which the Service ought to investigate prior to considering any Final Rule.

The Service ought to fully incorporate the findings of Roche *et al.* (2012b) and McIlroy *et al.* (2013) into its analysis of livestock grazing and Yosemite toad populations prior to making any listing decision.

The Service's concerns regarding Allen-Diaz et al. (2010) are unfounded, and its reliance on Lind et al. (2011) is misguided

In its Proposed Rule to List, the Service cites concerns about the study methods of Allen-Diaz *et al.* (2010), while simultaneously advancing conclusions from the addendum to that publication, Lind *et al.* (2011), as evidence that livestock negatively impact Yosemite toad populations. For the reasons discussed below, the Service's concerns about Allen-Diaz *et al.* (2010) are unfounded and its use of Lind *et al.* (2011) to suggest livestock grazing negatively impacts the toad is in error. Regardless, the Service advances no scientific and/or statistical evidence to contradict the findings of Allen-Diaz *et al.* (2010), and we maintain that it and the other reports based on the USFS's five-year study⁸ represent the “best scientific . . . data available.”

One major concern the service had about Allen-Diaz *et al.* (2010) was that “the design of these studies did not include direct measurements of toad survival (for example, mark-recapture analysis of population trends).”⁹ In fact, this assertion is incorrect. Its inclusion in the Proposed Rule is particularly puzzling, as the researchers' intent to use such mark-recapture methods was specifically detailed in the Final Study Plan, available as an appendix to Allan Diaz *et al.* (2010).¹⁰ In that study plan, the researchers specifically note that “we do not expect the field methods we are using (e.g. counting, **mark/recapture**, measuring habitat) to negatively affect the . . . populations of toads.”¹¹ Moreover, “Appendix C. Yosemite Toad Populations and Habitat Detailed Field Methods”¹² within the Final Study Plan appended to Allen-Diaz *et al.* (2010) extensively documents the mark/capture/recapture methods the researchers intended to implement throughout the course of their five-year study. Specifically, the study authors noted that “[o]ver a period of at least three years, **we expect to derive survival estimates for at least**

⁸ Roche *et al.* (2012a), Roche *et al.* (2012b), and McIlroy *et al.* (2013).

⁹ Proposed Rule to List, p. 24503.

¹⁰ Allen-Diaz, B., A. Lind, S. McIlroy, K. Tate. 2007. Determining the Effects of Livestock Grazing on Yosemite Toads (*Bufo canorus*) and Their Habitat: An Adaptive Management Study, Appendix A—Study Plan, *available online at* http://www.carangeland.org/images/Tate_-_Yosemite_yellow_Toads.pdf.

¹¹ *Ibid.*, p. 24 (emphasis added).

¹² *Ibid.*, pp. 34-39.

the adult life stage.¹³ Table 2 of Lind *et al.* (2011), which the Service also cites within the Proposed Rule to List, also details the cap/recap measurement methods undertaken by the researchers.¹⁴

Furthermore, the newly-available McIlroy (2013) also directly refutes this perceived inadequacy, pointing out that “each [young of the year] was batch marked with a meadow color and year color using visible implant elastomer to avoid double counting. Annual counts of YOY for each meadow were calculated as the average of two counts spaced approximately three weeks to one month apart within each year.”¹⁵ The five-year study thus *did* directly measure toad survival, contrary to the Service’s assertion, and nevertheless concluded that there was no negative impact of grazing on Yosemite toad populations.

The Service’s Proposed Rule to List continues by stating that

“it is plausible that for longer-lived species with irregular female breeding activity over the time course of this particular study, statistical power was not sufficient to discern a treatment effect. Further, there may be a time lag between effect and discernible impacts, and significant confounding variability in known drivers such as interannual variation in climate.”¹⁶

Of particular importance here is the Service’s use of the words “**plausible**” and “**may**.” The Service also cites no scientific evidence lending credence to this concern. Consequently, it appears that the Service’s reservations about the study’s duration is based not on the “best scientific . . . data available” as required by ESA § 4, but upon mere conjecture about perceived inadequacy.

The Service next begins an analysis of Lind *et al.* (2011), an addendum to the Allen-Diaz *et al.* (2010) final report which was submitted to US Forest Service Region 5 on April 6, 2011. Specifically, the Service focuses on the “statistically significant negative (inverse) relationships for tadpole density and grazing intensity (tadpole densities decreased when percent use [of meadows for grazing] exceeded between 30 and 40 percent).”¹⁷ This assertion derives from Figure 6 and associated conclusions detailed within the Lind addendum. It is important to note that, according to study co-author Dr. Kenneth Tate, though the research team agreed with Figure 2 of the Lind addendum and associated conclusions (which were later incorporated in the peer-reviewed McIlroy *et al.* paper), “[t]he rest of the addendum is generally not signed off on by

¹³ *Ibid.*, p. 34 (emphasis added).

¹⁴ Lind, A., R. Grasso, J. Nelson, K. Vincent, C. Liang, K. Tate, L. Roche, B. Allen-Diaz, S. McIlroy. 2011. Determining the Effects of Livestock Grazing on Yosemite Toads (*Anaxyrus [Bufo] canorus*) and Their Habitat: An Adaptive Management Study. Pacific Southwest Research Station, Sierra Nevada Research Center, Davis, California, p.5 Table 2.

¹⁵ McIlroy *et al.* (2013), p. 4.

¹⁶ Proposed Rule to List at 24503. Though the Service does not cite a source for this conjecture, it appears to derive from one of the conclusions in Lind *et al.* (2011), p. 21. As discussed below, the conclusions of the Lind addendum have not been peer reviewed nor published, and these conclusions are superseded by the study authors’ analysis in Roche *et al.* (2012b).

¹⁷ Proposed Rule to List, p. 24503, citing Lind *et al.* (2011), pp. 12-14.

the rest of the research team. In particular Figure 6 and associated conclusions.”¹⁸ This is because the analytical approach applied to that data is inaccurate and doesn’t tell the full story. According to Dr. Tate, “if you analyze the data holistically, as was done in Roche [*et al.* (2012b)],¹⁹ then you can see the real relationships between hydrology, the toad, and grazing—as well as the fundamental underlying mechanisms explaining the relationship.”

The conclusion of Roche *et al.* (2012b) (which, according to study co-author Dr. Tate, *supersedes* the conclusions in the Lind addendum), is that this correlation between tadpole density and grazing intensity may be best explained by the fact that “Yosemite toads and cattle largely select for divergent meadow types based on habitat and forage values, respectively,” with Yosemite toads preferring to breed in wetter areas and cattle preferring to graze in drier areas.²⁰ Low tadpole density is thus not *caused* by higher grazing intensity—they merely correlate because the species select for different meadow preferences. The deficiency in the Lind addendum, then, is that it examines tadpole prevalence compared with livestock use and tadpole prevalence compared with hydrology separately, rather than examining all three of these data sets holistically. It is also important to note that Roche *et al.* (2012b) and the two other papers based on the five year study²¹ were published in peer-reviewed journals, while the Lind addendum has been neither peer-reviewed nor published.

Though the Service does end its discussion of Allen-Diaz *et al.* (2010) and the Lind addendum by recognizing there may be “segregation of toad and livestock use in meadow habitats, so that at least direct mortality threats may be mitigated by behavioral isolation,”²² it does so without reference to Roche *et al.* (2012b), failing to recognize the full import and weight of that peer-reviewed study. Instead, the Service seems to dismiss this important conclusion and immediately leaps into an analysis of Martin (2008),²³ which it inexplicably grants great weight.

The Service improperly relies upon Martin (2008) in concluding that livestock grazing represents a prevalent threat to the Yosemite toad and its habitat

Martin (2008) is the Service’s only citation which purports to establish a causal link between livestock grazing and decline in Yosemite toad populations. Though we extensively discussed the Service’s troubling use of Martin (2008) in our June 24, 2013 comments, it is worth further explicating those concerns here. As we noted in those comments: (1) Martin (2008) was not published in a peer-reviewed journal; (2) much of Martin’s analysis is not based upon direct measurements of toad populations, such as mark/recapture analysis, but is instead based upon personal, anecdotal observation, (3) Martin’s study duration appears to have been much shorter

¹⁸ Email from Dr. Kenneth Tate, Professor and Cooperative Extension Specialist, Department of Plant Sciences at U.C. Davis, to Kirk Wilbur, Director of Government Relations, California Cattlemen’s Association (March 4, 2014, 17:17 PST) (on file with author).

¹⁹ Telephone Interview with Dr. Kenneth Tate, Professor and Cooperative Extension Specialist, Department of Plant Sciences at U.C. Davis (March 5, 2014).

²⁰ Roche *et al.* (2012b), p. 7.

²¹ Roche *et al.* (2012a) and McIlroy *et al.* (2013).

²² Proposed Rule to List, p. 24503.

²³ Martin, D.L. 2008. Decline, Movement, and Habitat Utilization of the Yosemite Toad (*Bufo canorus*): An Endangered Anuran Endemic to the Sierra Nevada of California. Doctoral thesis. University of California, Santa Barbara.

in duration than the five-year study discussed in Allen-Diaz *et al.* (2010) and its three resulting studies (which is particularly troubling considering the Service casts doubt on Allen-Diaz for its perceived limited duration²⁴); and (4) the entirety of the Service's conclusion that grazing negatively impacts survivorship in Yosemite toads²⁵ is based on what Martin admits to be *personal observation* and *opinion*, and which he concedes he did not study as part of his experimental study.²⁶ For greater detail on these areas of concern, we direct you to our June 24, 2013 comments.

We have additional concerns regarding Martin (2008), however, which were not fully addressed in our former comments. First, the sample size in Martin's analysis of meadows was much smaller than the sample size used by the research group in Allen-Diaz *et al.* (2010) (addressed throughout the rest of this section by reference to their final published article, McIlroy *et al.* (2013)). Martin (2008) examined only three meadows,²⁷ whereas McIlroy *et al.* (2013) examined the effects of grazing on the Yosemite toad throughout 14 meadows.²⁸

Secondly, McIlroy *et al.* (2013) is also superior to Martin (2008) in the geographic range of its study area: McIlroy *et al.* (2013)'s research group sampled meadows between an elevation of 2,113 and 2,717 meters, while Martin's three meadows ranged in elevation only from 2,567 meters to 2,620 meters. Unfortunately, information on the size of meadows sampled cannot be compared—though McIlroy *et al.* (2013) specifies that “meadows ranged in size from 0.7-23.3 [hectares],”²⁹ Martin does not seem to have reported the size of the three meadows he studied.³⁰ Regardless, McIlroy (2013) examined a greater number and range (within the Yosemite toad's habitat) of meadows than Martin (2008), and its statistical analysis is thus preferable.

All of these factors combined definitively establish Allen-Diaz *et al.* (2010), Roche *et al.* (2012a), Roche *et al.* (2012b), and McIlroy *et al.* (2013) as far more reputable sources for the “best scientific . . . data available” than Martin (2008).

Conclusion regarding “best scientific . . . evidence available” on the relationship between livestock grazing and the Yosemite toad

By virtually every measure, the methods, analysis, and conclusions reached by the study group in Allen-Diaz *et al.* (2010), Roche *et al.* (2012a), Roche *et al.* (2012b), and McIlroy *et al.* (2013) are far superior to those of Martin (2008) and the Lind addendum to Allen-Diaz *et al.* (2010). Importantly, neither Martin (2008) nor the Lind addendum—which represent the only two sources invoked by the Service to establish a causal nexus between grazing and Yosemite toad decline—were published or peer-reviewed. Until and unless these reports are peer-reviewed, they simply cannot be deemed by the scientific and regulatory communities to represent the “best scientific . . . data available.”

²⁴ Proposed Rule to List, p. 24503.

²⁵ *Ibid.*, p. 24504.

²⁶ Martin (2008), p. 306.

²⁷ *Ibid.*, p. 43.

²⁸ McIlroy *et al.* (2013), p. 2.

²⁹ *Ibid.*, p. 2. This is equivalent to 1.7-57.6 acres.

³⁰ See generally Martin (2008), pp. 43-50 (describing the research area but omitting details as to the size, in area, of meadows studied).

As discussed above, the best scientific evidence available establishes that livestock grazing **does not** negatively impact toad populations. This is based on holistic analysis of toad population, hydrology, and grazing, which concluded that livestock and the Yosemite toad tend to segregate themselves from one another based on habitat and forage preferences.³¹ This conclusion is further supported by evidence recognizing that fencing techniques that limited grazing within breeding areas or entire meadows did not significantly impact toad populations.³²

Based on the foregoing, we urge the service to recognize the best scientific data available and to remove from its Proposed Rule all mention of grazing as a threat to the Yosemite toad. We likewise request that, if the Service nevertheless lists the Yosemite Toad as a threatened species, that it exclude grazing allotments from its designation of critical habitat.

We urge the Service to recognize the best available science and remove mention of grazing as a risk from its proposal. Additionally, as was requested in our previously submitted comments, it is important to recognize Dr. Knapp's peer review of the proposed rule. In his review he concluded that the Service's data used to justify a listing of the Yosemite toad "provide a relatively weak foundation for listing" and that a "'not warranted' conclusion could also be justified."

Economic Impacts of Critical Habitat Designation

We urge the Service to exercise its authority under Section 4(b)(2) of the Endangered Species Act and exclude proposed critical habitat units that include active grazing allotments and areas where timber harvest occurs. Current science does not support the Service's assertion that grazing is a significant threat to the species. 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.

Ranchers who hold federal grazing permits are required to have private property where their cattle graze for part of the year. Access to federal grazing allotments is limited to the short growing season in the Sierra Nevada Mountains and permittees must have other land the remaining nine months of the year. Lost access to summer forage places additional pressure on the private lands grazed by livestock when they are not grazing the allotments. This additional grazing pressure negatively impacts the conservation values of these rangelands in both the short and long term. Ultimately, lost access to federal grazing allotments often leads to the sale of the private ranches that used to access National Forest grazing allotments. Often these ranches are sold for conversion to other land uses, which removes the significant habitat values that private rangelands provide to California wildlife. Further as more rangeland is converted to other uses it becomes harder for ranchers to replace access to lost forage. It is estimated that in California between 10,000 and 20,000 acres of rangeland are converted to other uses every year.

It is important to recognize that the Service has acknowledged the value that private ranches provide to two other listed amphibian species, California tiger salamander (CTS) and California

³¹ Roche *et al.* (2012b), p. 7.

³² McIlroy *et al.* (2013), p. 5.

red-legged frog (CRLF) and adopted special rules to allow take incidental to routine livestock ranching activities to occur. In its final rule to list the central population of the CTS, the Service stated: “Maintaining California tiger salamander use of stock ponds on livestock ranches for breeding appears to be a critical link in the conservation and recovery of this species.”³³ In its final rule to list the CRLF, the Service similarly stated: “Maintaining California red-legged frog’s use of stock ponds on livestock ranches for breeding appears to be an important link in the conservation and recovery of this subspecies.”³⁴ Both decisions were made after a recognition that private livestock ranches provide important habitat to these amphibian species and removing regulatory burdens that could drive a livestock producer to convert their property to other uses is critical to the long term success of each species. The designation of critical habitat on federal grazing allotments could lead directly to the loss of the very ranches that the Service was trying to protect in its decision to create species rules for the CTS and CRLF.

A federal grazing permittee on the Sierra National Forest whose allotment is within the Iron Mountain unit would be forced out of business by the loss of access to the summer pasture that the allotment provides. Her allotment, the Iron Creek Allotment, is entirely within the proposed Iron Mountain critical habitat unit. This permittee would be forced to sell all of her 320 head of cattle and lose the annual income generated by these mother cows if significant restrictions are placed on her allotment. A second federal grazing permittee on the Stanislaus National Forest expects she would have to sell half of her cow herd if her allotment is reduced. She grazes the Bear Valley allotment, which has 29 percent included in a critical habitat unit for Sierra Nevada Yellow-legged frog. The permittee estimates a loss of access to nearly one third of her allotment would lead to a need to sell half of her cows and she estimates that a loss that large would likely drive her out of business.

Between the three amphibian species, the proposed critical habitat units include 1,269,098 acres of National Forest lands that are actively grazed by federal grazing permittees. This acreage includes 59 active National Forest grazing allotments. Of the active allotments, 38 have more than 50 percent of the acreage included in a proposed critical habitat unit and 34 are entirely included in proposed critical habitat units. Lost grazing opportunities on national forest lands would impact both the individual ranchers as well as the local communities, as goods and services will be used at a lower rate when grazing is reduced.

It is important to recognize that there has been a significant decline in the levels of grazing on our national forests. Since the peak in 1918, the number of cattle grazing national forests has seen a 69 percent reduction.³⁵ Since the peak in 1919, the number of sheep grazing national forests has seen a 94 percent reduction.³⁶ Grazing permittees have changed their grazing practices to limit impacts to amphibians through the revised standards and guidelines in the 2004 Sierra Nevada Forest Plan Amendment. One of the studies concluded that “cattle production and

³³Endangered and threatened wildlife and plants: determination of threatened status for the California tiger salamander; and special rule exemption for existing routine ranching activities; final rule (69 FR 47241)

³⁴ Designation of Critical Habitat for the California Red-Legged Frog, and Special Rule Exemption Associated With Final Listing for Existing Routine Ranching Activities: Final Rule (71 FR 19285)

³⁵ Kenneth W. Tate, personal communication derived from data at:
<http://www.fs.fed.us/rangelands/reports/index.shtml>

³⁶ Kenneth W. Tate, personal communication derived from data at:
<http://www.fs.fed.us/rangelands/reports/index.shtml>

amphibian conservation can be compatible goals within this working landscape.”³⁷ Studies further found that grazing pursuant to the Sierra Nevada Forest Plan Amendment Standards and Guidelines “resulted in no detectable impacts on [Yosemite] toad occupancy.”³⁸ Roche et al. (2012a) also found that: “Pool habitat conditions and toad response observed during this study do not indicate habitat impairment under standard USFS grazing management.”³⁹ Additionally, with regard to livestock grazing the DEA states that “the Service believes that additional project modifications due to the designation of critical habitat are unlikely.”⁴⁰ Because project modifications are necessary where destruction or adverse modification of critical habitat are likely,⁴¹ this conclusion that project modifications are *unlikely* serves as an implicit recognition that livestock grazing is not likely to pose a threat of destruction or adverse modification to the habitat of these three amphibian species. Thus, as the ESA suggests that a critical habitat designation ought only be made “within the geographical area occupied by the species . . . on which are found those physical or biological features . . . which may require special management considerations or protections,”⁴² and the Service’s DEA implicitly suggests that such special management considerations or protections will be *unnecessary*, inclusion of grazing allotments in the critical habitat designation is unwarranted.

There are, then, two possibilities which may result from including grazing allotments within designated critical habitat: either (1) designation of critical habitat will not result in modifications on grazing allotments, in which instance the administrative costs of additional consultations outweigh any benefit of designating grazing land as critical habitat, or (2) in fact modifications *will* be required, and, as described above, will cause significant economic hardship to grazing permittees and in some circumstances require them to cease operation entirely. In either scenario, the benefits of *excluding* grazing lands from critical habitat outweigh the benefit of including these areas within critical habitat, and thus grazing allotments should be excepted from the designation of critical habitat under § 4(b)(2) of the ESA. This analysis is strengthened by the best science available, which consistently demonstrates no risk to the habitat of the three species from grazing activities as currently practiced.

Recognizing that existing Standards and Guidelines governing grazing practices on national forest lands proposed for inclusion in critical habitat designations for three amphibian species are protective of these species is of paramount importance. Given reductions in historic grazing levels on these forests, further reductions will have significant economic impacts on the federal grazing permittees. Even if reductions were not proposed, costly monitoring or changes in timing of use will also significantly impact these permittees. Given that current practices do not impact the species, there is no need for additional restrictions and we would strongly urge the Service to accept this as it consults with the U.S. Forest Service (USFS) on its grazing program.

³⁷ Roche et al. (2012b), p. 1.

³⁸ Ibid., p. 1.

³⁹ Roche et al. (2012a), p. 64.

⁴⁰ DEA at ES 4-16.

⁴¹ After Section 7 consultations, the Secretary of the Interior must issue an opinion detailing how a proposed activity will impact a species or its critical habitat. “If . . . adverse modification is found, the Secretary **shall** suggest those reasonable and prudent alternatives which he believes would not violate subsection (a)(2).” Endangered Species Act § 7(b)(3)(A) (emphasis added).

⁴² ESA § 3(5)(a)(1).

The proposed critical habitat designation may negatively impact species currently protected under the ESA

McIlroy (2013) notes that implementing grazing restrictions in an effort to reduce the perceived threat of grazing on the Yosemite toad's habitat may negatively impact other vulnerable species, stating that "[i]mplementing any of these management strategies could affect other meadow-associated species (e.g., willow flycatchers, special status fish species)."⁴³ While the willow flycatcher as a species is not a federally listed endangered species, the Southwestern Willow Flycatcher (*Empidonax traillii extimus*) is a federally endangered subspecies.⁴⁴ There are at least two areas where proposed critical habitat designation for the Sierra Nevada yellow-legged frog and the Yosemite Toad overlap with the critical habitat of the Southwestern Willow Flycatcher: Mono Creek (subunit 3D) and Bear Creek (within subunits 1B and 1C).⁴⁵ As critical habitat designation for the amphibians may adversely impact this endangered species, we further urge against critical habitat designation for the amphibians on public lands where grazing takes place.

Impacts to Timber Harvest and Forest Management

California's national forests have had limited management for decades. This has resulted in severely overgrown forests and catastrophic wildfires. This is evidenced by last summer's Rim Fire, the third largest fire in California History. It consumed over 250,000 acres and destroyed 111 structures, costing \$127 million to fight and estimates are that it will cost an additional \$70 million for cleanup. There are numerous impacts to wildlife from this fire, including an expectation of increased sedimentation and/or peak flows downstream, which are likely to cause injury or mortality of all frog life stages, eggs masses and tadpoles, in particular.

The USFS intends to perform forest health and/or fuels reduction treatments on up to 9 million acres of national forest land over the next 15-20 years. This is at least a three to four fold increase in current intensity of activity. Recognizing this increased forest management activity is imperative to understanding the true economic impacts of the proposed critical habitat designation.

The economic analysis has not identified the likelihood that acres of proposed forest health and fuels reduction activities will be eliminated because of consultation and, thus, has not addressed the economic impact of foregone opportunities to manage the vegetation. Not managing the vegetation means lost jobs and payroll, which then leads to reduction in economic activity in the rural counties affected by the 1.8 million acre proposed critical habitat designation. Not managing the vegetation in the Sierra Nevada means that the vegetation density continues to rise, leading to ever-increasing risk of insects, disease, and eventual wildfires.

⁴³ McIlroy (2013), p. 2.

⁴⁴ Endangered and Threatened Wildlife and Plants; Final Rule Determining Endangered Status for the Southwestern Willow Flycatcher, 60 Fed. Reg. 10,694 (Feb. 27, 1995) (codified at 50 C.F.R. pt. 17).

⁴⁵ See Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Southwestern Willow Flycatcher; Final Rule, 78 Fed. Reg. 344, 363 (Jan. 3, 2013) (codified at 50 C.F.R. pt. 17) (designating Mono Creek and Bear Creek within critical habitat for the Southwestern Willow Flycatcher); DEA at ES-4, 4-14 (identifying Mono Creek and Bear Creek as areas for proposed critical habitat designation for SNYLF and YT).

The benefits of proper forest management far outweigh the potential benefits to the three amphibian species if critical habitat is designated. It is likely that critical habitat designation of unoccupied areas will lead to a reduction in thinning and timber harvest, which is likely to lead to increased forest fire risks. Catastrophic forest fires as we've seen recently significantly impact wildlife habitat. It is important that the proposed fuels reduction treatment be able to continue as proposed by the USFS.

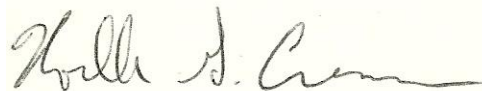
Timber harvests on private lands are also likely to be impacted by a critical habitat designation and we respectfully request that all private land be excluded from the critical habitat designation. Private forest lands in California are held to high environmental standards when conducting timber harvests. It is expected 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. This impact needs to be recognized and is reason enough to exclude private forest lands from the critical habitat designation under the Service's authority provided by Section 4(b)(2) of the Endangered Species Act.

Our organizations hope that the USFWS will meaningfully consider these comments as they relate to both the listings and proposed critical habitat. In particular, the USFWS should seriously consider the protections already being employed by the USFS. As previously stated, we believe that the science used in the proposed rule mischaracterizes real threats to both species and we implore the USFWS to further review and expand its literature review to the studies cited herein in order to modernize the record with comprehensive, relevant information.

Sincerely,



Kirk Wilbur
California Cattlemen's Association



Noelle G. Cremers
California Farm Bureau Federation



Lesla Eidman
California Wool Growers Association