



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846



In Reply Refer To:
08ESMF00-2015-F-0129

FEB 17 2015

Mr. Randy Moore
U.S. Forest Service
1323 Club Drive
Vallejo, California 94592

Subject: Appendage of Projects in Seven Forest Programs in Nine National Forests in the Sierra Nevada to the Programmatic Biological Opinion for the Endangered Sierra Nevada Yellow-legged frog, Endangered Northern Distinct Population Segment of the Mountain Yellow-legged Frog, and the Threatened Yosemite Toad (FF08ESMF00-2014-F-557)

Dear Mr. Moore:

This letter responds to your June 13, 2014, request for initiation of formal consultation with the U.S. Fish and Wildlife Service (Service) on projects in seven Forest Programs on nine National Forests in the Sierra Nevada. At issue are the adverse effects on the endangered Sierra Nevada yellow-legged frog (*Rana sierrae*), endangered Northern Distinct Population Segment of the mountain yellow-legged frog (*Rana mucosa*), and the threatened Yosemite toad (*Anaxyrus canorus*). On December 19, 2014, we issued the *Programmatic Biological Opinion on Nine Forest Programs on Nine National Forests in the Sierra Nevada of California for the Endangered Sierra Nevada Yellow-legged Frog, Endangered Northern Distinct Population Segment of the Mountain Yellow-legged Frog, and Yosemite Toad* (Service file FF08ESMF00-2014-F-0557) (Programmatic Biological Opinion) to the Forest Service. We are issuing this document under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(Act).

This consultation is based on: (1) letter from the Forest Service to the Service requesting initiation of formal consultation for projects in the nine Forest Programs dated June 13, 2014; (2) *Biological Assessment (BA) for Actions that Affect the Sierra Nevada Yellow-legged Frog, N. DPS. Mountain Yellow-legged Frog, and Yosemite Toad on National Forest Lands in the Sierra Nevada* dated June 13, 2014 that was prepared by the Forest Service (BA); (3) Programmatic Biological Opinion; and (4) Forest Service projects submitted with detailed information and analysis that may affect one or more of the three listed Sierra Nevada amphibians; and (5) other information available to the Service.

Many of the published peer-reviewed papers and unpublished reports on the Sierra Nevada yellow-legged frog and the Northern Distinct Population Segment of the mountain yellow-legged frog were issued prior to the analysis and taxonomic reclassification by Vredenburg *et al.* (2007). These two species have undergone elevation of subspecies and other changes in their systematics and taxonomy; possess similar morphologies, behaviors, biologies, and ecologies; and within the appendage to the programmatic biological opinion when the information applies to both animals, they will be collectively referred to as "mountain yellow-legged frog."

According to the BA and the Programmatic Biological Opinion, the mountain yellow-legged frog and the Yosemite toad have been observed on nine National Forests in the Sierra Nevada. Based on the BA and other information available to the Service (California Department of Fish and Wildlife 2015a, 2015b), there is suitable habitat for breeding, aestivation, foraging, and movement for the three listed amphibians located throughout the action area, much of it non-contiguous.

Consultation History

June 13, 2014 The Service received the BAs for the projects from the Forest Service (See detailed consultation history in the Programmatic Biological Opinion).

December 14, 2014 The Service issued the Programmatic Biological Opinion to the Forest Service.

Description of the Proposed Action

Project Description

The Forest Service is proposing to conduct specific projects in seven Forest Programs in nine National Forests in the Sierra Nevada. The 1116 projects fall within the following Forest programs 1) timber harvest, vegetation management, fuels management, and watershed restoration; 2) rangeland management; 3) road and trail maintenance; 4) maintenance of developed recreation and administrative infrastructure; 5) special use permits; 6) rangeland management; and 7) mining.

Conservation Measures

The conservation measures described in the BA and the Programmatic Biological Opinion will be precisely implemented by the Forest Service or through the permittees, grant recipients, or contractors for each of the 1116 projects to minimize and compensate for the adverse effects of each project on the mountain yellow-legged frog and the Yosemite toad. In addition, it is important to use the definitions of suitable habitat as defined with the Project Description of the Programmatic Biological Opinion (*Occupied or Utilized, Utilization Unknown, and Unutilized Potential*).

Action Area

The 'action area' is defined as all areas to be affected directly or indirectly by the Federal action, and not merely the immediate area involved in the action (50 CFR § 402.02). For the proposed action, the action area includes all suitable habitat for the three listed amphibians, including the three utilized habitat categories as defined in the Programmatic Biological Opinion located within the Lassen National Forest, Plumas National Forest, Tahoe National Forest, El Dorado National Forest, Stanislaus National Forest, Sierra National Forest, Inyo National Forest, Sequoia National Forest, and the Lake Tahoe Basin Management Unit (LTBMU) in California.

Effects of the Proposed Action

The Programmatic Biological Opinion analyzes and describes how the seven Forest Programs will have adverse effects on the Sierra Nevada yellow-legged frog, Northern Distinct Population Segment of the mountain yellow-legged frog, and the Yosemite toad through mortality, capture, injury, harassment, and harm of all life history stages, including individual subadults and adults. The 1116 projects in the seven Forest programs included in the June 13, 2014, request for formal consultation from the Forest Service will affect 581,406.4 acres of suitable habitat for the Sierra Nevada yellow-legged frog, 23,228.4 acres of suitable habitat of the Northern Distinct Population Segment of the mountain yellow-legged frog, and 1,274,371.3 acres of suitable habitat for the Yosemite toad. 145 projects (73 on the Sierra National Forest; 53 on the Stanislaus National Forest; and 19 on

the El Dorado National Forest) adversely affect both the Sierra Nevada yellow-legged frog and the Yosemite toad. 16 projects on the Inyo National Forest affect both the Northern Distinct Population Segment of the mountain yellow-legged frog and the Yosemite toad. A number of the individual projects in the 7 Forest programs will be conducted within and affect the same locations as other appended projects. For the purposes of this analysis, the acreage of these projects is combined (added). Therefore, the authorization of incidental take for acres affected through harm and harassment is greater than the actual ("real world") acreage. The BA and the Programmatic Biological Opinion included conservation measures for the three listed species that are based on the implementation of Forest Service Best Management Practices, Standards and Guides and additional USFS measures for avoidance or minimization of adverse effects. A scientific and statistically robust monitoring plan for the three listed amphibians and their habitats will be developed and implemented by the Forest Service to evaluate the effectiveness and success of the conservation measures on or before June 12, 2015. The first report on the results and analyses of the monitoring plan will be submitted to the Service by the Forest Service on or before March 1, 2016.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

The programmatic biological opinion describes the potential effects of Global Climate Change on the three listed amphibians. As the global temperatures continue to rise, terrestrial habitats are moving northward and upward, others will be eliminated, but in the near future, range contractions or extinctions of some species are more likely than simple northward or upslope shifts. Since climate change threatens to disrupt annual weather patterns, it will result in a loss of habitats, food, or increased numbers of predators, parasites, and disease. Therefore, ongoing Global Climate Change is highly likely to imperil the Sierra Nevada yellow-legged frog, Northern Distinct Population of the mountain yellow-legged frog, Yosemite toad, and the resources, including aquatic habitat, necessary for their survival.

Programmatic Consultation Requirements

The Service has determined that it is appropriate to append the proposed projects submitted by the Forest Service to the Service on June 16, 2014, to the Programmatic Biological Opinion on Nine Forest Programs on Nine National Forests in the Sierra Nevada of California for the Endangered Sierra Nevada Yellow-legged Frog, Endangered Northern Distinct Population Segment of the Mountain Yellow-legged Frog, and Yosemite Toad and therefore, this letter represents the Service's biological opinion on the effects of the actions resulting from the 1116 projects.

Conclusion

After reviewing the current status of the Sierra Nevada yellow-legged frog, Northern Distinct Population of the mountain yellow-legged frog, and the Yosemite toad, the environmental baseline for the action area; the effects of the projects in seven Forest Programs (timber harvest, vegetation management, fuels management and watershed resources; road and trail maintenance; maintenance of developed recreation and administrative infrastructure; special use permits; rangeland management; and mining) on the nine National Forests in the Sierra Nevada, and the cumulative effects; it is the Service's biological opinion that these projects, as proposed, are not likely to jeopardize the continued existence of these three listed amphibian species. We based this determination on the following: (1) the implementation of the conservation measures, exactly as described in the biological assessment and the programmatic biological opinion; and (2) the Service-approved scientific and statistically robust monitoring plan to measure and evaluate the success of the conservation measures that will be developed and implemented by the Forest Service.

INCIDENTAL TAKE STATEMENT

Section 9(a)(1) of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species without special exemption. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as actions that create the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take Statement. The measures described below are non-discretionary, and must be implemented by the Forest Service so that they become binding conditions of any grant, contract, or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply. The Forest Service have a continuing duty to regulate the activity covered by this incidental take statement for the Service. If the Forest Service: (1) fails to adhere to the term and condition of the incidental take statement through enforceable terms that are added to the permit, contract, or grant document; and/or (2) fails to retain oversight to ensure compliance with the term and condition, the protective coverage of section 7(o)(2) may lapse.

Amount or Extent of Take

The Service anticipates that incidental take of the Sierra Nevada yellow-legged frog, Northern Distinct Population of the mountain yellow-legged frog, and the Yosemite toad will be difficult to detect because of their life histories, biologies, and ecologies. Specifically, these species are difficult to locate due to their cryptic appearance and behavior; they may be located a distance from ponds, creeks, streams, lakes or other water bodies; and the finding of an injured or dead individual is unlikely because of their relatively small body size and the possibility of the carcass being eaten by scavengers prior to discovery. Take of the Sierra Nevada yellow-legged frog, Northern Distinct Population of the mountain yellow-legged frog, and the Yosemite toad may be difficult to quantify due to seasonal fluctuations in their numbers, random environmental events, changes in water regime at their breeding ponds, streams, creeks, lakes, and other waterbodies, or other environmental disturbances. Therefore, the Service anticipates that all Sierra Nevada yellow-legged frogs inhabiting the 581,406.4 acres of suitable habitat on 965 projects located in 8 National Forests will be subject to incidental take in the form of harm, harassment, and capture as a result of the proposed projects. The Service also anticipates that no more than one (1) Sierra Nevada yellow-legged frog is likely to be killed or injured in each National Forest or a total of eight (8) individuals as a result of the proposed projects. The Service anticipates that all Northern Distinct Population Segment of the mountain yellow-legged frogs inhabiting the 25,228.4 acres of suitable habitat on 66 projects located in the Sierra and Inyo National Forests will be subject to incidental take in the form of harm, harassment, and capture as a result of the proposed projects. The Service also anticipates that no more than one (1) individual of the Northern Distinct Population Segment of mountain yellow-legged frog is likely to be killed or injured in each of these National Forests or a total of two (2) individuals as a result of the proposed projects. The Service anticipates that all Yosemite toads inhabiting the 1,274,371.3 acres of suitable habitat on 167 projects located in four National Forests will be subject to incidental take in the form of harm, harassment, and capture as a result of project. The Service also anticipates that no more than one (1) Yosemite toad is likely to be killed or injured in each National Forest or a total of four (4) individuals as a result of the proposed projects. Upon implementation of the Reasonable and Prudent Measures within this document, these levels of incidental take of the Sierra Nevada yellow-legged frog and Northern Distinct Population of the mountain yellow-legged frog, and the Yosemite toad associated with the construction and operation of the will become exempt from the prohibitions described under section 9 of the Act.

Number of Projects and Acres of Suitable Habitat for the Three Listed Sierra Nevada Amphibians
Adversely Affected by Seven Forest Programs on Nine National Forests

Sierra Nevada Yellow-legged Frog

National Forests	Vegetation. Management*	Range Management*	Road & Trail*	Recreation Management*	Special Use*	Mining*	TOTAL
Lassen	5/232	4/3297.8	7/153.2	6/12.7	0/0	0/0	22/3695.7
Plumas	58/4623	45/47464	98/95.9	91/154.1	105/76727.46	175/6383.2	572/135447.66
Tahoe	24/1654.2	25/21755.1	6/1755	0/0	28/31460.03	2/0.7	85/56625.03
LTBMU	17/3819	0/0	8/626	1/219	12/517	0/0	38/5181
El Dorado	36/2807.6	8/10286.3	8/502.9	4/118.7	11/400.7	0/0	67/14116.2
Inyo	8/283	15/10699	5/17.15	0/0	1/0.2	0/0	29/10999.35
Stanislaus	11/215.36	21/24552.2	17/40.2	3/3.59	17/69804.75	0/0	69/315584.1
Sierra	34/5442.2	17/33844.4	5/426.4	0/0	27/44.1	0/0	83/39757.1
TOTAL	193/19074.36	135/372868.8	154/3616.75	105/508.09	201/178954.24	177/6383.9	965/581406.4

* = number of projects/acres

Northern Distinct Population Segment of the Mountain Yellow-legged Frog

National Forests	Vegetation. Management*	Range Management*	Road & Trail*	Recreation Management*	Special Use*	Mining*	TOTAL
Inyo	8/283	15/10699	5/17.5	0/0	1/0.2	0/0	29/10999.7
Sequoia	10/527.5	13/11585.1	8/76.6	4/22.5	2/17	0/0	37/12228.7
TOTAL	18/810.5	28/22284.1	13/94.1	4/22.5	3/17.2	0/0	66/23228.4

* = number of projects/acres

Yosemite Toad

National Forests	Vegetation. Management*	Range Management*	Road & Trail*	Recreation Management*	Special Use*	Mining*	TOTAL
El Dorado	4/1159.2	3/129470.4	5/390.9	4/95.7	5/296.2	0/0	21/131412.4
Inyo	1/220	3/2319	4/36	0/0	0/0	0/0	8/2575
Stanislaus	6/950	19/227049.8	13/217.5	2/3	14/489379	0/0	54/717599.3
Sierra	34/23167.1	18/396610.3	5/2599.6	0/0	27/407.6	0/0	84/422784.6
TOTAL	45/25496.3	43/755449.5	27/3244	6/98.7	46/490082.8	0/0	167/1274371.3

* = number of projects/acres

Effect of the Take

In the accompanying appendage to the Programmatic Biological Opinion, the Service determined that the level of anticipated take from the seven Forest programs on nine National Forests in the Sierra Nevada is not likely to result in jeopardy to the Sierra Nevada yellow-legged frog, Northern Distinct Population of the mountain yellow-legged frog, and the Yosemite toad

Reasonable and Prudent Measure

The following reasonable and prudent measure is necessary and appropriate to minimize the effects of the proposed actions on the Sierra Nevada yellow-legged frog, Northern Distinct Population of the mountain yellow-legged frog, and the Yosemite toad:

1. Adverse effects to the Sierra Nevada yellow-legged frog, Northern Distinct Population of the mountain yellow-legged frog, Yosemite toad and their habitats shall be minimized to the maximum extent feasible.

Terms and Conditions

To be exempt from the prohibitions of section 9 of the Act, the Forest Service shall ensure compliance with the following terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are nondiscretionary.

The following Terms and Conditions implement the Reasonable and Prudent Measure:

1. The Forest Service shall include the avoidance, minimization, and reporting measures as described in the conservation measures of the Programmatic Biological Opinion as a required condition or measure in the implementation, funding, permitting, and otherwise carrying out of each of the projects as well as any additional measures described in the individual batched appendages.
2. The Forest Service shall ensure the avoidance, minimization, and reporting measures are implemented precisely as described in the conservation measures of the Programmatic Biological Opinion as well as in any additional measures described in the individual batched appendages.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities that can be implemented to further the purposes of the Act, such as preservation of endangered species habitat, implementation of recovery actions, or the development of information and databases. The Service has the following recommendations:

1. The Forest Service should submit the names and qualifications of the experts who will be developing the monitoring design and implementation for the monitoring program for the three listed Sierra Nevada amphibians on or before March 17, 2015.
2. The Forest Service should submit a draft of the monitoring design and implementation of the monitoring program to the Service on or before May 18, 2015.

REINITIATION NOTICE – CLOSING STATEMENT

The Service is tracking losses of habitat authorized under the Programmatic Biological Opinion for each of the nine National Forests in the Sierra Nevada and within the range of the Sierra Nevada yellow-legged frog, Northern Distinct Population of the mountain yellow-legged frog, and the Yosemite toad. The Service will

evaluate the effectiveness of the Programmatic Biological Opinion utilizing the annual monitoring report completed by the Forest Service and other sources of information, as appropriate, to ensure that continued implementation will not result in unacceptable effects to the listed amphibians or the ecosystems upon which they depend for their survival and recovery

This concludes formal consultation on the 1116 projects in seven Forest Programs in nine National Forests in the Sierra Nevada for the Sierra Nevada yellow-legged frog, Northern Distinct Population Segment of the Mountain Yellow-legged Frog, and the Yosemite Toad. As provided in 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been maintained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency actions that may affect listed species in a manner or to an extent not considered in the Programmatic Biological Opinion or this appendage; (3) the agency actions are subsequently modified in a manner that causes an effect to the listed species that was not considered in the Programmatic Biological Opinion or these appendages; or (4) a new species is listed that may be affected by the actions. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions concerning this appendage of the 1116 projects listed in the June 16, 2014, letter from the Forest Service in seven Forest Programs in nine National Forests in the Sierra Nevada to the Programmatic Biological Opinion for the Sierra Nevada yellow-legged frog, Northern Distinct Population Segment of the mountain yellow-legged frog, and the Yosemite toad, please contact Chris Nagano, Chief of our Endangered Species Division (Forest) via electronic mail (Chris_Nagano@fws.gov), at the letterhead address, or at telephone 916/414-6000.

Sincerely,



Cay C. Goude
Assistant Field Supervisor

cc:

Diana Craig, Diane Macfarlane, U.S. Forest Service, Vallejo, California
Laura Patterson, California Department of Fish and Wildlife, Sacramento, California
Julie Newman, Jennifer Nguyen, Sarah Mussulman, Sandra Jacks, Jennifer Garcia, Angela Calderaro, California
Department of Fish and Wildlife, Rancho Cordova, California
Sarah Boogay, California Department of Fish and Wildlife, Fresno, California
Regional Manager, California Department of Fish and Wildlife, Redding, California
Regional Manager, California Department of Fish and Wildlife, Rancho Cordova, California
Regional Manager, California Department of Fish and Wildlife, Fresno, California
Chad Mellison, US Fish and Wildlife Service, Reno, California
Erin Nordin, US Fish and Wildlife Service, Bishop, California
Don Neubacher, Yosemite National Park, Yosemite, California
Nancy Hendricks, Sequoia Kings-Canyon National Park, Three Rivers, California

Literature Cited

California Department of Fish and Wildlife. 2015a. California Natural Diversity Data Base. RAREFIND. Natural Heritage Division, Sacramento, California.

_____. 2015b. BIOSIS. Natural Heritage Division, Sacramento, California.

Vredenburg, V.T., R. Bingham, R. Knapp, J.A.T. Morgan, C. Moritz, and D. Wake. 2007. Concordant molecular and phenotypic data delineate new taxonomy and conservation priorities for the endangered mountain yellow-legged frog. *Journal of Zoology* 271: 361–374.