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Phil Detrich, Field Supervisor, U. S. Fish and Wildlife Service
Yreka Fish and Wildlife Office
1829 South Oregon Street, Yreka, California 96097.

Sent by email to: FisherSPICCAAComments@fws.gov
Sent by facsimile to: (530) 842-4517

Dear Mr. Phil Detrich:

On behalf of Defenders of Wildlife ("Defenders") and our more than 500,000 members and supporters, we are writing to comment on the Candidate Conservation Agreement with Assurances for Fisher for the Stirling Management Area between Sierra Pacific Industries (SPI) and U.S. Fish and Wildlife Service (FWS). Defenders of Wildlife is a national, nonprofit membership organization dedicated to the protection of all native animals and plants in their natural communities. We have reviewed the conservation agreement and have the following serious concerns:

1. Lack of suitable habitat

Expert opinion such as that offered by Bill Zielinski to FWS (pers. Comm, 2007) has stated that SPI has not chosen the most suitable fisher habitat in the Sierra for the reintroduction. There are many studies on the habitat needs of fisher that indicate that optimal habitat for the species is provided by late-successional forests, and that fisher prefer to use older forests over the early to mid-successional forests that result from timber harvest (Aubry and Houston 1992, Buck et al. 1994, Dark 1997, Jones and Garton 1994, Powell and Zielinski 1994, Rosenberg and Raphael 1986, Seglund 1995, Truex et al. 1998, Zielinski 1999). In particular, Powell and Zielinski (1994) conclude:

"While some recent work in northern California indicates that fishers are detected in second-growth forests and in areas with sparse overhead canopy, it is not known whether these habitats are used transiently or are the basis of stable home ranges. It is unlikely that early and mid-successional forests, especially those that have resulted from timber harvest will provide the same prey resources, rest sites and den sites as more mature forests."

While we understand that fisher migrate out of areas due to their very large range, we feel that while reintroduction is a needed process, it is also a very risky one and we should proceed in the most cautious way possible. It is true that fisher will need to survive outside of the best habitat to truly thrive in the Sierra. However, at this stage we believe that reintroduction should come from the goal of re-establishing a home range in the best possible habitat with additional desirable habitat in the vicinity. We are not aware if SPI has lands which would

be considered more ideal habitat in the view of expert opinion? Defenders of Wildlife is not aware of all the habitat quality characteristics on SPI lands. The CCAA has been arranged with a limited sample size of potential lands based on SPI's internal selection criteria. While it is in their right to do this, we would like to see a higher quality habitat to counter the anthropogenic risks mentioned in point 2.

Fisher preferentially use areas with high canopy cover for resting, denning, and other activities. "All habitats used disproportionately by fishers have high canopy closure, and fishers avoid areas with low canopy closure (Arthur et al. 1989b; Coulter 1966; Jones and Garton 1994; Kelly 1977; Powell 1977, 1978; Raphael 1984; Rosenberg and Raphael 1986)" (p. 53 in Ruggiero et al. 1994). Zielinski (1999) reports that percent canopy cover and tree size are two of the most significant variables explaining differences between rest and random sites, and that fisher forage in stands with significantly higher canopy closure than in other sites. Optimal fisher habitat is provided by large blocks of contiguous and interconnected late-successional forest with a high level of structural diversity, high canopy closure, large trees and snags, and few openings. This habitat description does not match the habitat that SPI is offering to provide for fisher. The CCAA acknowledges that the fisher is dependent on structures such as snags and downed wood, but the agreement does not demand that SPI provide snags and downed wood. The CCAA only states that SPI will adhere to their own guidelines. However, these guidelines do not require that a certain number of snags or downed wood be retained for use by fisher.

2. *Too high a degree of risk of disturbance from human activities*

Defenders of Wildlife does not think that the agreement effectively promotes conservation of the species due to guaranteed anthropogenic disturbance in the proposal area as well. The agreement states only that a certain percentage of SPI trees will be at a certain age class by the end of the 20 year agreement, yet it does not require specific areas or specific features and it does not preclude harvest as soon as the trees reach a certain age. Defenders takes this to mean that SPI is offering only to let their trees grow in accordance with current practices, which means until they reach a harvestable age.

It is known that timber harvest contributed heavily to fisher decline. Fisher range and abundance have been drastically reduced due primarily to logging of its habitat and past trapping (Powell and Zielinski 1994, Buskirk et al. 2002). Zielinski et al. (2005) hypothesized that the modern absence of fishers from the northern and central Sierra Nevada was due to timber harvest and forest management practices that reduced late-seral montane forest area from 50% of the region in 1945 to less than 5% in 1996. Ruggiero et al. (1994) state that "it is our opinion that the precarious status of the fisher population in Washington and Oregon is related to the extensive cutting of late-successional forests". The Federal Register notice for the CCAA also acknowledges the detrimental effects of timber harvest on fisher. Nevertheless, FWS and California Department of Fish and Game are moving forward with reintroduction to an area with very little

of the forest structures favorable for fisher habitat in a place where even-aged management is a primary focus.

The CCAA does not require SPI to maintain trees of a specific size or define a specific required acreage for larger trees to provide fisher habitat. It says only that SPI will follow their existing forest management policies, under which they define fisher habitat ("Lifeform 4") as including a minimum average of 9 - 20 trees per acre at least 22 inches dbh (pp. 13 CCAA). This size class is smaller than the literature values reported, with averages of 37 - 47 inches. Thus the size class of trees that SPI is willing to provide for fisher is much smaller than the size actually used by the species for resting and denning. With respect to larger patches of habitat, under SPI policy, regeneration units can be up to 40 acres in size and can be grouped together " …to provide contiguous larger habitat patches of generally the same age and structure class to benefit wildlife species" (pp. 13 CCAA). Although SPI claims that larger patches will eventually provide for wildlife value, the reality is that once larger blocks of open areas are created, they are likely to be harvested.

Neither the CCAA nor projected SPI forest management policies provide stringent enough protective measures for fisher. The CCAA mentions that it will try to avoid harm to the fisher but that certain actions will no doubt result in possible take. Activities mentioned include: felling, yarding timber, loading and landing operations, salvage of timber products, transport of timber and rock, road construction and maintenance, thinning, vegetation control, and grazing amongst others. Defenders of Wildlife does not believe from the numerous actions in the CCAA that could potentially hurt the fisher that SPI will be a sound manager, or that it has the fisher's interests as a high enough priority given the precarious state of the population in the state of California.

Page 19 of the CCAA reads, "If additional conservation measures are necessary…FWS will not require any conservation measures in addition to those provided by the CCAA…". While Defenders realizes this is a condition of the CCAA, due to the above-mentioned activities we don't have a high degree of confidence that fisher will actually thrive in this managed environment.

3. Falling short on the FWS' Policy for the Evaluation of Conservation Efforts

Because it is not in the best interest of the fisher for FWS to enter the agreement, we feel that the application should be denied. We examine the lack of actual protections afforded to fisher in the agreement, and highlight the inadequacies of the agreement in terms of the 'Policy for the Evaluation of Conservation Efforts When Making Listing Decisions':

"When we evaluate the certainty of whether the formalized conservation effort will be implemented, we will consider the following: Do we have a high level of certainty that the resources necessary to carry out the conservation effort are available? Do the parties to the conservation effort have the authority to carry it

out? Are the regulatory or procedural mechanisms in place to carry out the efforts? And is there a schedule for completing and evaluating the efforts"?

http://www.epa.gov/fedrgstr/EPA-SPECIES/2003/March/Day-28/e7364.htm

Defenders of Wildlife does not believe that the above questions can all be answered affirmatively. Moreover, page 19 of the CCAA reads that if unforeseen circumstances occur, FWS will have the burden of providing more scientific and commercial research to try to change SPI's views towards revised management. Relying on an already chronically under funded government organization to provide extensive research toward the end that it may not even be taken up by SPI's management is not practical or in the fisher's best interests. To further illustrate this point, we will describe how it fails to establishes two basic criteria: (1) The certainty that the conservation efforts will be implemented and (2) the certainty that the efforts will be effective.

1. The certainty that the conservation agreement will be implemented:

- The CCAA does not identify a staffing level, funding level, or funding source to implement the agreement.
- SPI does not agree to commit funds or staff time to the preservation of fisher on their lands. Committing resources to implement the effort would include setting aside large areas of undisturbed late-successional forest on the enrolled lands for use by fisher and agreeing not to harvest these areas.
- Although SPI is voluntarily entering into the agreement, they are not volunteering to change their forest management practices to benefit fisher conservation, and do not identify acreage that will be set aside for fisher conservation.
- Under the agreement, SPI is only agreeing to follow their current practices, not alter them: "The Stirling Management Area is currently being managed under SPI's State approved Option A forest management plan. This CCAA does not propose to alter the existing management of these forestlands beyond the commitment to the conservation measure proposed" (EAS p. 6).

2. The certainty that the conservation effort will be effective:

The agreement proposes to reduce the threat of genetic isolation by providing habitat in an area where fisher were formerly located that could potentially provide connections between other fisher populations. However:

- The proposed habitat is not optimal for fisher.
- There is no indication that it is the most suitable habitat in the Northern Sierra Nevada
- The CCAA does not describe how the agreement will reduce the threat of timber harvest, one of the biggest threats to fisher.

- Under the CCAA, timber harvest other and habitat-destroying activities are not limited.
- SPI is not agreeing to set aside any habitat for fisher and they are not agreeing to curtail any activities on their land.
- Although habitat loss is identified as a threat, SPI is not agreeing to avoid take.
- The CCAA does not set requirements for snags and downed wood or habitat retention areas, deferring instead to SPI policies, which are inadequate for fisher, voluntary, and not enforceable. Based on fisher biology, e.g., preference for closed canopy, large areas of contiguous undisturbed forest, and reluctance to cross clearcuts and open areas, merely agreeing to let trees grow older before harvest is of dubious actual benefit to the species.
- The CCAA does not include explicit incremental objectives or dates for achievement, saying only that as the forest on the enrolled lands grows older, it may provide suitable habitat for the fisher:

The agreement does not contain quantifiable scientifically-valid parameters that demonstrate achievement of objectives or standards by which progress will be measured. Instead, the agreement states: "The maintenance and growth of denning/resting habitat is expected to enhance the fisher's ability to successfully re-occupy the enrolled lands. Over the 20-year period of the agreement there will be a net increase in the amount of fisher denning/resting habitat on the enrolled lands from the current amount of approximately 23% to approximately 33% of the total enrolled acreage" (EAS p. 1).

This is inadequate for several reasons: (1) It is not consistent with almost all of the peer-reviewed science on fisher habitat requirements; (2) It is unclear that SPI's definition of habitat is valid and thus that they will meet their goal of increasing habitat by 10 percent; (3) Although the CCAA acknowledges that resting and denning structures are key to habitat suitability, ***the agreement does not propose to measure or quantify their distribution across the landscape***. Rather, SPI says they are providing resting and denning structure simply by increasing the distribution of stands predominated by trees over 22" dbh. Given that resting and denning trees are generally considerably larger than 22" and have deformities that take substantial time to develop, this provides little guarantee that habitat will actually be suitable; (4) The CCAA fails to provide any measure of fisher use of or survival in the area, which would be the obvious test for the success of the CCAA.

Monitoring

Under the CCAA SPI agrees to submit an annual report and a five, ten, and fifteen-year report. They agree to report the changes in acreage of fisher habitat every five years and to monitor for colonizing fisher every five years. The CCAA does not include details of the pending reintroduction of fisher onto SPI land so it is difficult to comment on the adequacy of reintroduction monitoring since it is not included in the agreement. The draft reintroduction plan (not part of the

CCAA) calls for fisher to be placed onto SPI lands on an annual basis. If this were to be the case, then monitoring on a five year basis would not be adequate.

4. Source populations

While we have heard that fisher experts have concluded that the effect on source populations will not be negative, Defenders of Wildlife would like to see some monitoring on source populations take place if the CCAA and reintroduction were to go through, or a more explicit rationale as to why it is not.

5. The urgency of a federal listing

The CCAA, if implemented, should not preclude the federal listing of fisher under the Endangered Species Act. There is a high degree of uncertainty for the implementation and effectiveness of the agreement, given its current provisions. The agreement contains few actual protections for fisher, and most importantly it does not prohibit any activities in fisher habitat. We think it is therefore unlikely to effectively contribute to the conservation of the species. Moreover, the CCAA encompasses only a small portion of the fisher's historical range. Even if the enrolled properties were capable of supporting fisher, the species would still qualify as threatened or endangered throughout a significant portion of its former range. We want to emphasize that any signing of the CCAA agreement should not preclude the species' federal listing.

6. Climate change exacerbating known stressors

While Zielenski and Safford (2007) have stated that precise predictions of climate change impacts on the fisher are impossible, this does not preclude taking precautionary measures for likely impacts. In the Forest Service's 2007 white paper by Hugh Safford, it mentions that "Fire is predicted to become more frequent and in some cases more intense, across much of the fisher's range. Greater activity of fire may negatively impact some of the structural habitat features that are key to fisher occurrence, such as large tree densities and high canopy cover". Zielinski mentions that "the relatively strict reliance of fisher on dense canopy forest and complex vegetation structure and its preference for biologically productive landscapes…has led to increasing conflicts with human habitat use and management (Zielinski, 2005). Defenders of Wildlife worries that climate change could further reduce areas with high canopy cover and large tree densities. Seeing as these features are already lacking on SPI lands, we believe climate change can further worsen probabilities for fisher to thrive in and around SPI land.

In conclusion, reintroduction in the Sierra Nevada should be based on a habitat assessment of all of the potential lands. There is no evidence that SPI lands are the most suitable site for a Sierra Nevada reintroduction, or even that the lands selected are the best within SPI's own holdings. There is also no historical evidence that SPI lands are capable of supporting fisher, especially without enforceable habitat protection for fisher on SPI lands. Given (1) the unsuitability of habitat on SPI land for fisher, (2) that no activities on this land are prohibited in the CCAA, and (3) that there is a guaranteed level of human disturbance due to timber harvest and other forest management activities, it would be

irresponsible to relocate fisher onto SPI property. Defenders of Wildlife therefore opposes this CCAA. The CCAA itself acknowledges the risk involved in reintroduction onto SPI land. Defenders of Wildlife would also express our agreement with the detailed points made by the Center for Biological Diversity. The points expressed above reflect our most important concerns with the agreement as it stands. We look forward to continued engagement in this process and hope to review the feasibility study for the reintroduction when it is made available to us.

Thank you for your consideration of our comments.

Sincerely,

Mike Skuja
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