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PROTECTING NATURAL RESOURCES

December 15, 2018 **Sent by email to: comments-pacificsouthwest-sequoia@fs.fed.us**

cc: Teresa Benson
Ara Marderosian
Stephen Montgomery
Alison Sheehey

Nina Hemphill (nhemphill@fs.fed.us)
Forest Fisheries Biologist
Sequoia National Forest

Subject: Comments regarding the Prioritized Ten Meadows Restoration Project Draft EA

Sequoia ForestKeeper (SFK) and the Kern-Kaweah Chapter of the Sierra Club (SC) thank you for preparing a draft EA for the project. SFK and SC have participated in several meadow restoration efforts; including Big Meadows, Long Meadow, Osa Meadow Restoration Projects, and Dry Meadows Restoration Project.

On August 17, 2017, we submitted scoping comments for this project. In summary, our comments urged you to consider the following:

1. Develop alternative designs for each meadow, where applicable, similar to a Halstead or Osa Meadow-type project, without floodplain ponds (or adjacent plugs).
2. The end-goal of restoration should be to restore sheet flow to the meadow.
3. Remove Cows from restoration areas, and keep them permanently out of the meadow.
4. Specific meadow concerns:
    a. Last Chance Meadow – Clarify use of fill material from forested areas
    b. Jackass Meadow – Concerns about activities within the adjacent inventoried roadless area
5. Prepare an EA and consider alternatives
6. The need for Clean Water Act and State Stream Alteration Permits

by preparing an EA, the Forest Service can consider alternatives to the proposed actions to mitigate environmental effects and improve options that could result in a better outcome over the long run.

<u>Comments regarding Draft EA</u>

A. <u>Last Chance and Jackass Meadow dropped, but the analysis should also address fencing cattle out of these meadows</u>

Thank you for dropping these two meadows from the proposal based on concerns expressed in scoping comments. This makes sense, and we support further analysis and designs that favor meadow restoration in these meadows that is less intrusive. At the same time, we suggest that the project address issues relating to protecting these meadows from degradation from cattle grazing by fencing cattle out of the meadows.

B. The response to our concerns about continued grazing was insufficient and contrary to what is needed to restore meadows and resolve continued meadow degradation

In our scoping comments we stated:

> We were pleased to see the scoping notice state that, "[w]here necessary to protect fens and other sensitive riparian areas, fencing is proposed. If resting of the area is found necessary, this will be proposed." Scoping Notice, p. 1 (referring to grazing)….
>
> Although the scoping notice does not otherwise mention current or future grazing impacts on the meadow, we believe that the Forest Service's ability to restore the meadow to full function requires the permanent removal of livestock from these meadows.
>
> Continued grazing in the meadow is incompatible with either natural or man-made restoration of these meadows and will continue to have significant impacts on meadow resources. Therefore, livestock grazing must be addressed as a part of the project analysis and design. The design must fence out cattle from the entire restoration area both during restoration and then permanently after restoration.

SFK/SC Scoping Comments, pp. 2-3. We also cited and included a study done in Sequoia NF (Nusslé et al. 2017 – *Patterns and dynamics of vegetation recovery following grazing cessation in the California golden trout habitat*), which is relevant to this project:

> The Nusslé study "found that cattle exclusion is effective at favoring riparian vegetation growth, but that vegetation recovery from grazing could take several decades in these sensitive habitats as some 'rested' areas have yet to recover to full vegetation height, even after 25 yr of rest." *Id.*, p. 1.
>
> Given the proximity of the study's location, just north of the project area in the Golden Trout Wilderness, the findings in the Nusslé study are directly applicable and must be considered by the Sequoia National Forest. They counsel that cattle grazing along streams and meadows must cease for a long time (perhaps permanently) before meadows and riparian areas can properly recover, which should be considered as a part of the project designs.

Id., p. 3.

The proposed alternatives and design features do not properly respond to these concerns.

Contrary to the comments we submitted, the project analysis focuses more on the effects from implementation of the project rather than the original causes of meadow degradation, which the proposal would potentially allow to continue: cattle grazing in the meadows. Rather than include specific measures into the design of the project to fence out cattle, rest the meadows, or

permanently remove cattle grazing from the meadows, the project analysis only suggests "considering options such as a change in numbers or the season of use, fencing, complete rest from grazing for approximately two years (or until stabilizing vegetation has recovered) …." EA, p. 37.

In fact, the entire analysis in the EA and responses to concerns regarding the potential negative effects from cattle grazing to restoration include the following statements:

Issue 2. Potential negative impacts of cattle grazing to restored meadows.	
Alternative 1 Proposed Action	Placement of woody debris to discourage cattle trailing, as it is available, and no acres of hand-thinning. Continued monitoring of cattle grazing impacts per grazing allotment management plans.
Alternative 2 Plus Thinning Action	Placement of woody debris to discourage cattle trailing, as it is available, and 29.52 acres of hand-thinning around four meadows to encourage upland trailing, rather than trailing in the meadows. Continued monitoring of cattle grazing impacts per grazing allotment management plans.
Alternative 3 No Action	No placement of woody debris, no hand-thinning on uplands. Continued monitoring of cattle grazing impacts plans.

Figure 1 - Portion of Table 6, EA, p. 33.

Effects Relative to Issues Identified Through Scoping

* * *

Issue #2: Based on internal scoping, the effect of continued cattle grazing on the restored sheet-flow was raised as a concern. The concern was that straight-line cattle trailing that parallels the flow drainage direction can create channels that capture sheet-flow, resulting in concentrated flow that, in turn, can cause soil erosion, leading to a vicious circle of a deepening trail-channel that captures more flow and enlarges over time. This was identified as a concern because many of the eroded channels appeared to have formed via this mechanism.

* * *

Alternative 1 and 2 (Proposed Action and Plus Thinning Action)
Range Management Design Criteria for both action alternatives include considering options such as a change in numbers or the season of use, fencing, complete rest from grazing for approximately two years (or until stabilizing vegetation has recovered), offsite watering, mineral supplement placement. The Plus Thinning Alternative hand thinning small (< 10-inch diameter) conifers would also take place (after resource surveys). This alternative would address Issue #2 by opening forested upland areas for easier cattle movement, which is expected to reduce cattle trailing in the meadow.

EA, pp. 34, 37.

These measures are insufficient as a protection measure during restoration because the "change in numbers or the season of use, fencing, complete rest from grazing for approximately two years" are only considered "options" and not firm design requirements, leaving managers or permittees too much leeway to allow harmful grazing activities that are inconsistent with long-term restoration of these meadows.

Instead, proposed Alternatives 1 and 2 should include specific measures to fence cattle out of the meadows until they are sufficiently restored without definite time-frames, or the EA should include another alternative that implements these requirements, and perhaps includes a permanent retirement of grazing in these meadows, so that future degradation is permanently avoided.

C. <u>The proposal should include requirements for fencing cattle out of all meadows, or a separate alternative that permanently removes cattle from these meadows.</u>

As acknowledged during a recent phone call with Nina Hemphill, the Forest Service already has the authority to rest meadows to improve or halt the degradation of range conditions, and some of the Sequoia National Forest's permittees also do so voluntarily. This includes fencing cattle out of the lower meadows during most or all of the growing season. The EA also acknowledges this authority:

> Grazing impacts to the newly restored meadows would be monitored. Where necessary to protect fens and other sensitive riparian areas, grazing management options would be considered by the Forest Service, in consultation with the permittee. Options may include: a change in numbers or the season of use, fencing, complete rest from grazing for approximately two years (or until stabilizing vegetation has recovered), off-site watering, mineral supplement placement, or additional selective tree thinning around meadow margins.

EA, p. 24.

We urge that the design criteria be changed to mandate fencing cattle out of these meadows and rest these meadows from grazing until all restoration goals have been met.

It was encouraging to hear that the grazing permittee in the lower meadows has already fenced cattle out of the meadows on his allotment, and only rotates his cattle into the meadow for no more than a week at the end of the season before he removes the cattle from the allotment. While this is better than full seasonal grazing, it clearly has not solved the problem, and so complete rest from grazing should occur until the meadows meet specific goals of restoration.

Fencing out cattle in the upper elevation meadows and resting those meadows from grazing until restoration goals have been met should also be designed into the project.

<u>Proposed Alternative 4</u> – Because meadow restoration takes so long (25 years or more – Nusslé et al. 2017) and cattle grazing will likely degrade these meadows again in the future, we would like to see the Forest Service develop an additional alternative that implements the actions in the

other action alternatives, but permanently eliminates grazing from these meadows. This type of alternative would achieve the purpose and need of the proposal—in fact, it may be the only alternative that would permanently restore these meadows, which is the ultimate goal of the project.

D. Thinning Areas and Reasons for Thinning

We are pleased to see the limitations of hand thinning and a 10-inch diameter limit placed on thinning activities. However, we find the reasons for thinning to be unsupported or misguided.

The EA states:

> The effect of this alternative could be beneficial to the meadows by permitting cattle access to the forested areas around the meadows. The addition of hand thinning in the Plus Thinning Action would benefit riparian native small trees and shrubs within the 300 foot Riparian Conservation Area around meadows.

EA, p. 37.

If the reason for thinning is to "benefit riparian native small trees and shrubs within the 300 foot Riparian Conservation Area," then cattle should not be encouraged to access those areas around meadow. In fact, to support a return of small native trees and shrubs to assist in overall meadow and riparian area restoration, these riparian areas should also be fenced out. This will prevent the cattle from eating the recovering small native trees and shrubs, such as willows, and will help speed up meadow restoration and the recovery of riparian habitats for wildlife.

Finally, we find the reasoning provided internally that thinning will help prevent straight-lining by cattle to be flawed. The issue was described as follows:

> The concern was that straight-line cattle trailing that parallels the flow drainage direction can create channels that capture sheet-flow, resulting in concentrated flow that, in turn, can cause soil erosion, leading to a vicious circle of a deepening trail-channel that captures more flow and enlarges over time. This was identified as a concern because many of the eroded channels appeared to have formed via this mechanism.

EA, p. 37.

The idea proposed is that hand-thinning conifers in upland areas would remove barriers and obstacles to cattle movement though these upland areas along meadow edges is a worthy goal, but would not work unless meadow restoration is designed so the cattle are fenced out completely and do not have the option of using the meadow. Removing barriers along meadows may actually make it easier for the cattle to walk directly into the meadow. And simply filling the meadow with debris would not prevent the cattle from accessing the meadow. The cattle will find ways around the debris and create new pathways that could potentially capture flow and

cause trail-channeling over time. Only fencing out cattle will prevent this type of degradation and thus "discourage" cattle from damaging the meadows.

In sum, while it makes sense to do some limited hand-thinning in riparian areas to help riparian vegetation re-establish, these areas should also be fenced to prevent cattle from eating the recovering riparian vegetation. But it makes little sense to thin in upland areas simply to provide an alternative pathway for cattle to access the meadows, and the only way to prevent new trail-channeling is to fence cattle out of the meadows.

For Sequoia ForestKeeper and the Kern-Kaweah Chapter of the Sierra Club,

Sincerely,

René Voss – Attorney at Law