



S A G E
Associates

AGRICULTURAL AND ENVIRONMENTAL CONSULTANTS

February 9, 2021

Mono County Board of Supervisors
P.O. Box 556
Bridgeport, CA 93517

RE: Additional Comments on Proposed Cattle Grazing Lease for Conway Ranch

Honorable Board of Supervisors:

At the request of the Eastern Sierra Land Trust and Mono County, I am writing to supplement my letter dated June 1, 2020, regarding the proposed lease for cattle grazing on Conway Ranch which is on your agenda for consideration today.

Specifically, I have been asked to provide an opinion regarding the differing impacts between grazing by sheep and grazing by cattle under the proposed lease. Based on my review of the lease and its accompanying documents, as well as my understanding of the property and its history, it is my assessment that when managed according to the lease language, the difference between sheep and cattle grazing is discernible, but negligible in terms of overall environmental impact.

1. Soil compaction

Both cattle and sheep may have compaction impacts on watering areas but, sheep will have compaction impacts in bedding areas more than cattle. Because streams and springs on Conway Ranch are fenced and will not be accessed by cattle under the proposed lease, the compaction impacts will be limited to artificially-created watering areas for both cattle and sheep. Sheep could be watered by water trucks and troughs, however, soil compaction could still occur. On balance the compaction differences are probably greater due to the larger numbers of sheep, and the sheep confinement areas. Comparable animal unit months would result in four or five more sheep for every cow animal unit, which equates to about 1,000 pounds of grazing animal.

2. Fencing

Cattle require fencing where sheep are herded, however sheep may require confinement fencing in night bedding areas. There is existing fencing on the property, and any additional fencing will be temporary in nature and let down outside of the grazing season. All fencing will be marked to avoid sage grouse collision. Fencing will keep cattle out of sensitive areas while sheep, if not properly herded, may find their way into these areas. Accordingly, the impacts associated with containment of cattle through fencing are expected to be similar to or less than those associated with historic sheep grazing.



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3. Grazing Management Plan

The proposed lease references and requires compliance with a grazing management plan and measurable performance standards as prepared by the National Resources Conservation Service. The plan provides monitoring methods, rotational grazing, and other measures to ensure conservation benefits. The County's prior sheep grazing operations lacked such management plans and it is therefore expected that implementation of the new lease will result in improved habitat through implementation of appropriate management strategies.

4. Sage Grouse Benefits

The benefits to sage grouse are discussed more extensively in my June 1, 2020 letter. Both cattle and sheep will graze down broad leaf plants, forbs, and grasses with minimal shrub browsing (dependent on sheep herding practices). This will result in benefits to the sage grouse. Historic sheep grazing included the entire Conway property while the proposed cattle grazing lease eliminates the 'fringe areas' of the meadow which will enhance brooding areas for sage grouse.

5. Water Quality Impacts

As discussed, fencing will prevent access to waterways and springs on the property. All irrigation ditches and (fenced) springs within the grazing areas on Conway/Mattly infiltrate and terminate into the soil. There is no surface confluence with a larger body of water downstream, and therefore, negligible impacts to turbidity and nutrient loading in those waterways (i.e, Wilson Creek). In addition, cattle with rotational grazing will be well-distributed thus reducing soil compaction and water quality impacts. On the other hand, sheep are moved as a band and have concentrated bedding areas that can often result in bare ground, manure concentrations, trailing, and accelerated runoff.

It is possible that during extreme runoff events (torrential downpours) some water would make it from Conway into Wilson Creek and carry associated impacts into Wilson Creek, but under the normal circumstances this would not occur.

Sincerely:

Orrin Sage, PhD

Sage Associates

Mammoth Lakes and Grass Valley, California