



# United States Department of the Interior

## Pacific Southwest Region FISH AND WILDLIFE SERVICE

Reno Fish and Wildlife Office  
1340 Financial Blvd., Suite 234  
Reno, Nevada 89502  
Ph: (775) 861-6300 ~ Fax: (775) 861-6301



February 13, 2017  
File No. 2017-TA-0206

Board of Supervisors  
Mono County  
P.O. Box 715  
Bridgeport, California 93517

Subject: Management of Conway and Mattly Ranches for Grazing

Dear Honorable Mono County Board of Supervisors:

Thank you for the opportunity to provide input to the Mono County Board of Supervisors as you consider the future management of Conway and Mattly Ranches. The U.S. Fish and Wildlife Service (Service) appreciates the amount of time and consideration Mono County (County) has devoted to this effort in order to try to accommodate all needs and interests on these County-leased properties. As we have expressed in previous letters, our primary concern is the continuation of domestic sheep grazing on the Conway and Mattly Ranches and the potential for disease transmission between domestic sheep (*Ovis aries*) and the state- and federally-listed endangered Sierra Nevada bighorn sheep (Sierra bighorn; *Ovis canadensis sierrae*) (Service 2014, 2015, 2016a, 2016b).

Bighorn sheep die-offs due to contact with domestic sheep have occurred across the western United States and British Columbia (Desert Bighorn Council 1990; Cassaigne *et al.* 2010). These events can have a long-term negative effect on population recovery due to declines from initial all-age die-offs, which can be followed by years of low recruitment from high lamb mortality (Cassirer *et al.* 2013). In some instances, it can be difficult to determine the exact cause of a die-off event. However, experiments conducted by Lawrence *et al.* (2010) and Besser *et al.* (2014) demonstrate that bacteria associated with fatal pneumonia in bighorn sheep can be transferred between domestic sheep and bighorn sheep. It is the Service's opinion that research on disease transmission between domestic sheep and bighorn sheep, and bighorn sheep die-offs that have resulted from contact between these two closely-related species, provides strong evidence that disease transmission between domestic sheep and bighorn sheep can and does occur and is often, if not always, fatal.

Sierra Nevada bighorn sheep are protected by the Endangered Species Act (ESA), 16 United States Code, Sections 1531-1544. The Service's responsibilities include administering the ESA. Section 1538, also known as Section 9, prohibits the taking of any endangered species. "Take" is defined in the statute, 16 USC 1532(19), as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct."

It is our opinion that disease transmission, and a resulting disease outbreak due to contact between Sierra bighorn and domestic sheep would represent take. Disease transmission between domestic sheep and Sierra bighorn could go undetected and ultimately, Sierra bighorn could transmit disease to their respective herd units and potentially throughout the entire population. Unauthorized take of Sierra bighorn as a result of disease transmission from domestic sheep grazed on County authorized lease(s) would be a violation of the ESA. Pursuant to 16 USC 1540, criminal penalties for such violations of the ESA can result in fines up to \$100,000 per individual, \$200,000 per organization and/or up to one year in prison. Civil penalties can result in fines up to \$25,000 for each violation.

We appreciate your staff reaching out to the Service and the California Department of Fish and Wildlife (CDFW) to discuss measures to protect both Sierra bighorn as well as the Bi-State population of Greater sage-grouse (*Centrocercus urophasianus*). However, current management practices combined with protective measures will not eliminate the risk of contact between domestic sheep and Sierra bighorn. Grazing domestic sheep on these properties will inevitably result in the transmission of disease to Sierra bighorn and thus put the leasee and lessor at risk of causing take under the ESA. For these reasons, the Service and CDFW are reluctant to augment the Mt. Warren herd unit, one of the herd units located in close proximity to these County-leased properties, due to the potential for contact between Sierra bighorn and domestic sheep. Consequently, the Service believes that domestic sheep grazing on these properties is not compatible with the recovery of Sierra bighorn.

The only way to eliminate the risk of disease transmission is to maintain spatial separation (*i.e.*, distance) between domestic sheep and Sierra bighorn. The Service appreciates the opportunity to work with the County to identify alternative management strategies for Conway and Mattly Ranches that do not perpetuate the risk of disease transmission. One such strategy is to graze livestock other than domestic sheep or goats (which can also transmit disease to bighorn sheep) that will not pose a risk of disease transmission to Sierra bighorn. Another option would be to consider managing the properties as wildlife areas.

Thank you for your commitment to maintaining the conservation values of these properties. We believe that we have a robust and productive partnership with Mono County, as evidenced by of our mutual efforts to protect and conserve the Bi-State population of the Greater sage-grouse. We are hopeful that we can extend our partnership to the recovery of the Sierra bighorn, and believe that eliminating the risk of disease transmission from County-leased properties is central to that objective. We are excited by a future in which Mono County, the Service, CDFW and

Board of Supervisors

File No. 2017-TA-0206

other partners in Sierra Nevada bighorn sheep conservation are actively working together to pursue, and achieve, recovery of this species such that it no longer requires the protections of the ESA. If you have any questions regarding this letter or would like to discuss this matter further, please contact me or Shawna Theisen, Assistant Field Supervisor, at (775) 861-6300.

Sincerely,



Carolyn Swed  
Field Supervisor

Attachments: References

## References

- Besser, T.E., E. F. Cassirer, K.A. Potter, K. Lahmers, J.L. Oaks, S. Shanthalingam, S. Srikumaran, and W.J. Foreyt. 2014. Epizootic Pneumonia of bighorn sheep following experimental exposure to *Mycoplasma ovipneumoniae*. PLoS ONE 9(10): e110039.
- Cassaigne, I., R. A. Medellín, and J. A. Guasco. 2010. Mortality during epizootics in bighorn sheep: effects of initial population size and cause. *Journal of Wildlife Diseases* 46(3): 763-771.
- Cassirer, E. F., R. K. Plowright, K. R. Manlove, P. C. Cross, A.P. Dobson, K. A. Potter, and P. J. Hudson. Spatio-temporal dynamics of pneumonia in bighorn sheep. 2013. *Journal of Animal Ecology* 82: 518-528.
- Desert Bighorn Council. 1990. Guidelines for management of domestic sheep in the vicinity of desert bighorn habitat. Desert Bighorn Council 1990 Transactions. 3 pp.
- Lawrence, P.K., S. Shanthalingam, R.P. Dassanayake, R. Subramaniam, C.N. Herndon, D.P. Knowles, F.R. Rurangirwa, W.J. Foreyt, G. Wayman, A.M. Marciel, S.K. Highlander, and S. Srikumaran. 2010. Transmission of *Mannheimia haemolytica* from domestic sheep (*Ovis aries*) to bighorn sheep (*Ovis canadensis*): unequivocal demonstration with green fluorescent protein-tagged organisms. *Journal of Wildlife Disease* 46(3): 706-717.
- [Service] U.S. Fish and Wildlife Service. 2014. Letter to Mono County Board of Supervisors about the Mono County draft grant feed of conservation easement Conway and Mattly Ranches. Dated June 17, 2014. 27 pp.
- [Service] U.S. Fish and Wildlife Service. 2015. Letter to Mono County Community Development about Mono County General Plan Update and other associated documents. Dated October 16, 2015. 7 pp.
- [Service] U.S. Fish and Wildlife Service. 2016a. Letter to Mono County Board of Supervisors on the draft Conway Ranch Strategic Facility Plan. Dated June 17, 2016. 7 pp.
- [Service] U.S. Fish and Wildlife Service. 2016b. Letter to Mono County Board of Supervisors about the Conway/Mattly Ranch agenda item for the December 13, 2016 Board of Supervisors meeting. December 12, 2016.