Laurie Rule (ISB # 6863)
Elizabeth Hunter Potter (OSB # 105482), *pro hac vice*
ADVOCATES FOR THE WEST
P.O. Box 1612
Boise, Idaho 83701
(208) 342-7024
(208) 342-8286 (fax)
lrule@advocateswest.org
epotter@advocateswest.org

Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF IDAHO

WESTERN WATERSHEDS PROJECT, and WILDEARTH GUARDIANS,

Plaintiffs,

v.

U.S. FOREST SERVICE,

Defendant.

CASE NO. 1:17-CV-00434-CWD

SECOND DECLARATION OF TOM RINKES

I, Tom Rinkes, declare as follows:

1. I have personal knowledge of the facts set forth below and if called as a witness I would and could truthfully testify to these facts.

2. I was asked by the Plaintiffs to respond to the Forest Service's declarations and briefing submitted in this matter.

South Beaverhead Bighorn Population

3. I disagree with Mr. Yorgason's opinion that the South Beaverhead population is currently healthy and disease free. *See* Yorgason Decl. ¶ 21. He relies on disease testing done by IDFG between 2011 and 2015 and an increasing population size of 13 in 2000 to 36 sheep in 2016 to claim that disease transmission during this time was unlikely. However, he is overstating the disease data, which shows only that the sampled animals, not the population as a whole, are disease free. Disease presence among individuals can vary due to individual immunities, intermittent disease-shedding individuals in the bighorn population, and contact rates in host populations. Based on my experience with other depressed bighorn populations, I expect that further testing of additional individuals in the population would likely reveal some ewes or rams in the herd have been previously exposed or host pneumonia causing pathogens.

4. Mr. Yorgason reveals his limited experience with bighorn populations and disease transmission by stating it is unlikely the population would have grown if disease transmission occurred during this time. Yorgason Decl. ¶ 21. This is incorrect. Between the 2000 and 2016 population data that he cites, the South Beaverhead population repeatedly fluctuated up and down between 13 and 36 individuals; these low numbers and swings are not indicative of a healthy or disease-free population. Indeed, research conducted by Cassirer *et al*. (2013) (attached as Exhibit 4) reported that in the Hells Canyon meta-populations of bighorn sheep

within Idaho, Oregon, and Washington, secondary all-age die-off events occurred even though the populations were previously exposed to disease, had lower rates of pneumonia-induced mortality in adults, and periodically had healthy years with lamb recruitment and population increases. This study also reported, "pneumonia persisted within bighorn populations (or was periodically reintroduced) consistently longer than previous" studies had found; this was likely due to greater sampling intensity, duration, and spatial scale in that study. As I explained in my first declaration at ¶ 19, the low population numbers and fluctuations indicate the population has likely been exposed to diseases from domestic sheep, which has caused and continues to cause depressed recruitment.

5. As Mr. Yorgason admits, habitat is not a limiting factor for this population. Yorgason Decl. ¶ 24. He claims there are many other factors that could be depressing this population, relying on a 1990 study by Cook *et al*. *Id*. ¶¶ 23-24. I am familiar with this study that John Cook conducted to acquire his Ph.D because at the time, I was the BLM wildlife biologist responsible for managing the two bighorn sheep populations (Douglas Creek and Encampment bighorn sheep herds) that were the subject of the study and for representing the agency in the study. I can attest that when the study was conducted in the mid-to-late 1980's, the sampling techniques used to determine the presence of pneumonic bacteria and their etiology were not consistently conducted or well understood. Within the past few years, state wildlife agencies have begun to standardize methodologies to determine the presence of pneumonia causing bacteria in bighorn sheep due to variability in testing results and interpretation from different laboratories. *See* Exhibit 5 (WAFWA Wildlife Health Committee 2014). One of the major organisms (*Mycoplasma ovipneumoniae*) that plays a role in disease outbreaks of pneumonia in bighorn sheep was not identified as a causative agent until after 2000 and therefore

probably not sampled for by Dr. Cook. Besser *et al*. (2013) (attached as Exhibit 6) provides a synopsis of the lack of clarity surrounding pathogens associated with bighorn pneumonia since its discovery in the early 1900's. Thus, the Cook study may not account for the much larger role that disease plays in depressing bighorn populations when compared to other factors. Mr. Yorgason also suggests another potential cause of the depressed populations was lungworm in the translocated bighorn sheep from the 1970s and 1980s. Yorgason Decl. ¶ 24. However, a recent study de-bunked the hypothesis that lungworm is a likely cause of pneumonia in bighorn sheep. *See* Exhibit 6 (Besser *et al*. 2013). For these reasons, I disagree with Mr. Yorgason's conclusions about the role non-disease factors play in depressing the South Beaverhead population.

6. I also disagree with the Forest Service's conclusion that the South Beaverhead population cannot recover from its currently low numbers. Domestic sheep on the Snakey and Kelly allotments are a major risk to, and likely a primary cause of, the depressed South Beaverhead population. Eliminating this threat would be beneficial to this population because it would reduce the current high risk of an all-age die-off or further recruitment problems, which will persist without closing the allotments. These allotments are the closest active domestic sheep allotments to the South Beaverhead population within the Forest Service's jurisdiction, so closing these allotments is the biggest benefit that the Forest Service can provide to these sheep.

Risk and consequences of contact with domestic sheep

7. Mr. Yorgason admits that there is a risk of contact between the South Beaverhead population and domestic sheep and that contact could contribute to the extirpation of the herd. Yorgason Decl. ¶ 14. However, based on my experience studying and managing bighorn sheep

populations in Idaho and other states, I believe he underestimates the risk of and significance of such contacts.

8. Mr. Yorgason interprets the telemetry data too narrowly by claiming that "bighorn sheep rarely visit the allotments" and "have not crossed over into the boundary of the Snakey-Kelly allotments, with one exception." Yorgason Decl. ¶ 26-28. The telemetry data represents only a small sample of the South Beaverhead population because only eight animals from that herd were collared and tracked during a small window of time. Thus, the data is not dispositive of where all bighorn sheep in the population are located and travel. Over a longer period of time, it is likely that other rams or ewes have visited and will visit the Snakey and Kelly allotments. Mr. Yorgason also disregards how common ram forays are during the fall breeding season and that the allotments are well within a typical foray range for the herd. Based on my experience studying and managing bighorn populations, I expect that bighorns from the South Beaverhead population have visited the allotments on more than one occasion. This means that the risk of contact between bighorn and domestic sheep is much greater than Mr. Yorgason asserts.

9. Mr. Yorgason claims that the South Beaverhead and adjacent South Lemhi bighorn sheep populations are isolated. Yorgason Decl. ¶¶ 7-8. Mr. Yorgason admits that these herds are adjacent and located approximately 10 miles apart, so it is possible for these herds to intermingle. *Id*. He states there is no evidence these herds have ever intermingled, but the subset of data upon which he relies—radio collars and genetic testing—is too limited to conclude that these herds have never intermingled. To reach such a conclusion, a longer-term study on these populations would be needed. Bighorn sheep are known to travel farther distances of 15-20 miles or even up to 100 miles, which is much greater than the distance they would need to travel to interact with the South Lemhi population. The absence of migratory barriers between the

South Lemhi and South Beaverhead areas increases the risk of contact and intermingling between these populations.

10. The Forest Service also ignores the likelihood that the South Beaverhead population could contact or intermingle with other bighorn populations. The agency completely ignores bighorn populations on the Salmon-Challis National Forest, including the North Beaverhead and North Lemhi populations, which are within a close enough distance to the South Beaverhead population that contact and intermingling could very well occur. There is contiguous bighorn sheep habitat between the North Beaverhead and South Beaverhead populations, which may facilitate easy movement between these two populations. The agency also ignores the Tendoy population that is just on the other side of the Beaverhead Mountains in Montana, just a few miles away. The primary habitat for these other herds may be located outside the Targhee National Forest, but bighorns in these or the South Beaverhead population do not stop at the forest boundaries. These herds are within the 15-20 miles that bighorns are known to foray, which makes it likely that bighorn sheep from the South Beaverhead population could contact or intermingle with these other herds. Currently, the Montana Fish, Wildlife, and Parks is working to ensure the Tendoy bighorn sheep population is disease-free in the near future.

11. If contact occurred between a bighorn sheep from the South Beaverhead population that had been exposed to disease from domestic sheep on the Snakey and Kelly allotments and a bighorn sheep from one of these other herds, the results could be catastrophic. The close proximity of these adjacent or nearby herds makes it more likely contact could occur multiple times and cause disease transmission, which would result in a catastrophic die-off affecting multiple herds.

12. The Forest Service underestimates the likelihood of bighorn contact with domestic sheep on the Snakey and Kelly allotments because it continues to irrationally rely on BMPs to prevent or reduce contact. Mr. Yorgason admits BMPs "do not ensure separation between bighorn and domestic sheep" but relies on no scientific studies or other evidence to show that BMPs of any kind are effective at even reducing the risk. Yorgason Decl. ¶ 30. Without such objective support, the agency's assertion that implementation of BMPs by ARS is superior to private ranchers and has changed due to a training in 2013 is merely conjecture. BMPs must be implemented by a herder who apparently lives on the allotment with hundreds of sheep for 24-hours a day, which in rough, winter conditions with numerous confounding factors increases the likelihood of human error.

Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury that the foregoing is true and correct.

Dated this 9th day of November 2017 in Clarkston, Washington.

Tom Rinkes

Tom Rinkes