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UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

PENDLETON DIVISION

**WESTERN WATERSHEDS PROJECT,
CENTER FOR BIOLOGICAL
DIVERSITY, and WILDEARTH
GUARDIANS,**

Case No.: 2:19-CV-750-SI

DECLARATION OF LINDSAY DAVIES

Plaintiffs,

v.

DAVID BERNHARDT, Secretary of the
Interior, **JEFFERY A. ROSE**, District
Manager, Burns District, Bureau of Land
Management, and **BUREAU OF LAND
MANAGEMENT**,

Defendants.

I, Lindsay Davies, pursuant to 28 U.S.C. § 1746, hereby declare and state:

1. My name is Lindsay Davies. I am the District Planning and Environmental Coordinator
in the United States Department of the Interior, Bureau of Land Management (BLM), for

the Burns District (District) in Hines, Oregon. I have been in this position since May of 2018. Prior to this position, I was a Fish Biologist in the District from November of 2004 to May of 2018. In these positions, I have analyzed and become familiar with the best available data regarding riparian conditions and fish habitat within the four allotments (Hammond, Hammond FFR, Mud Creek, and Hardie Summer) that Hammond Ranches, Incorporated (HRI) has grazed pursuant to a series of permits (HRI Permit Allotments).

2. My experience includes:

- Coastal Carolina University, Bachelor of Science in Marine Science, with a Minor in Environmental Science, 2001
- 2018-Current: District Planning and Environmental Coordinator, Burns District BLM
- 2004-2018: Fish Biologist, Three Rivers Resource Area, Burns District BLM
- 2003 – 2004: Fish Biologist, Contract Employee for Burns District BLM

3. In my nearly 15 years as a Fish Biologist for BLM, I was responsible for developing, planning, implementing and interpreting data using a variety of well-established analytical and scientific protocols, including: Water Quality Monitoring, Multiple Indicator Monitoring of Stream Channels and Streamside Vegetation, Greenline Vegetation Monitoring, Proper Functioning Condition Assessments, Aquatic Habitat Surveys, Fish Sampling, Photo Monitoring and Streamside Shade Measurements. For example, I utilized this data to assess conditions to determine if grazing management was in compliance with Standards for Healthy Rangelands & Guidelines for Livestock Grazing Management in relation to water quality, riparian, and aquatic Special Status Species. I was also responsible for evaluating water quality, riparian habitat, and

fisheries, aquatic T&E/Special Status Species for grazing allotment management plans and evaluations and for recommending management changes or prescriptions to ensure aquatic objectives were met.

4. During my time as a BLM Fish Biologist, I was also a member of the Oregon Cadre of the National Riparian Service Team. This team provided training in assessment and monitoring for grazing management relative to riparian-wetland resources.
5. Also during my time as a BLM Fish Biologist, I was a member of the technical team for the Draft Malheur Lakes Redband Trout Conservation Plan. The technical team was comprised of Oregon Department of Fish and Wildlife (ODFW) and co-managers familiar with redband trout and their habitats in the Malheur Lakes area. The technical team was responsible for reviewing the viability criteria and identifying the limiting factors for the redband trout populations in the Malheur Lakes area.
6. I have reviewed documents in BLM's files that are prepared relevant to fish and aquatic resources in the HRI Permit Allotments, including land health assessments, Proper Functioning Condition Assessments, riparian monitoring data, water temperature data, past Allotment Evaluations and data or reports from outside agencies including Oregon Department of Fish and Wildlife (ODFW) and Oregon Department of Environmental Quality (DEQ). As time and conditions allow, I also intend to make a site visit to one or more of the HRI Permit Allotments in the near future to evaluate the latest on-the-ground conditions.
7. The perennial streams, and their associated headwater tributaries, that at least partially run through one or more of the HRI Permit Allotments on BLM-managed land are Mud

Creek, Bridge Creek, and Krumbo Creek. These three streams are all fish-bearing, although presence of fish has not been verified in all of the headwater tributaries.

8. For the most part, livestock are excluded from these streams by a combination of topographical and geographic features and fencing, with the exception of the portions of the streams within the Hardie Summer Allotment, which contain the headwater tributaries of Mud Creek and Bridge Creek. These headwater tributaries are primarily intermittent (streams that do not flow during dry periods), with the exception of Little Fir Creek and Big Fir Creek, both of which flow into Mud Creek. Approximately 2.69 miles of Little Fir Creek is within the Hardie Summer Allotment. Of this, 1.3 miles flows across public (BLM-administered) land and 1.39 miles are on private land. Approximately 3.14 miles of Big Fir Creek is within the Hardie Summer Allotment. Of this, 1.76 miles flows across public (BLM-administered) lands and 1.38 miles flows across private land.
9. Little Fir Creek, Big Fir Creek, Lake Creek, and Fish Creek are known to provide habitat for redband trout (*Oncorhynchus mykiss spp.*), a BLM special-status species (Attachment 13). Big Bridge Creek, an intermittent headwater tributary of Bridge Creek, potentially provides seasonal habitat for redband trout. However, fish presence in Big Bridge Creek has not been verified. Redband trout are the only fish species known to inhabit any of the streams as they flow through the Hardie Summer Allotment (Attachment 13).
10. Malheur mottled sculpin (*Cottus bairdii*), a BLM-sensitive species, are found in the lower reaches of Mud Creek and Bridge Creek, where grazing is excluded on BLM administered lands (Attachment 13). Similar to redband trout, Malheur mottled sculpin require colder water with high dissolved oxygen and low turbidity. Consequently, the

likely effects from land management practices on Malheur mottled sculpin populations and habitat would be essentially the same as those for redband trout.

11. Redband trout in the HRI Permit Allotments are part of what ODFW has deemed the Blitzen Population of the Malheur Lakes Basin Species Management Unit (SMU). The streams in this SMU flow into a closed basin and have no hydrological connection to other water bodies outside the basin. The Blitzen Population is independent from other fish populations and is considered a core population by ODFW within the Malheur Lakes Basin. ODFW defines core populations as those which are historically larger, more resilient, and a likely source of colonizers into other population areas (Attachment 1 at 14).
12. ODFW assessed the current status of redband trout populations across the entire Malheur Lakes SMU (which includes the Blitzen Population) in their 2018 Draft Malheur Lakes Redband Trout Conservation Plan¹ (Attachment 1- ODFW Draft Conservation Plan). The ODFW Draft Conservation Plan includes a population risk assessment that determined the Blitzen population to be at a low risk of extinction (Attachment 1 at 27). Fish abundance and productivity data were scored as high. The 2008 population estimate exceeded the abundance viability benchmark by two orders of magnitude. Population data indicated high intrinsic productivity and long term survival (Attachment 1 at 112). The ODFW Draft Conservation Plan states that the Blitzen Population is the most robust in the Oregon portion of the Great Basin (Attachment 1 at 59). ODFW also describes the headwater streams of the Blitzen population to be “close to pristine and capable of

¹ This draft plan was withdrawn by ODFW in 2018 in order to work through stakeholder concerns (Attachment 14). However, the population data referenced in the plan remains valid.

supporting a healthy population of redband trout” (Attachment 1 at 52). The ODFW Draft Conservation Plan notes that historic heavy grazing practices followed in the decades starting in the late 1800s and associated infrastructure developments and activities impacted most of the streams throughout the basin, but goes on to state that recent grazing restrictions have allowed many riparian habitats to recover (Attachment 1 at 52). While the ODFW Draft Conservation Plan does identify “grazing, timber, or riparian management practices” as a limiting factor or potential threat to the Blitzen population, it specifies that these threats are outside of the HRI Permit Allotments and are specific to irrigation and agricultural practices (Attachment 1 at 52). It further clarifies what it means in this context by stating that legacy effects of historic grazing practices are the primary concern for the Blitzen population and that recent practices are “much improved” in an appendix. (Attachment 1 at 174.) The appendix also specifies six stream segments where riparian areas are an issue of concern for the Blitzen population, none of which are locations where BLM has authorized grazing. Thus, the most recent and best available population data summarized in the ODFW Draft Conservation Plan indicates that recent livestock grazing, such as that authorized by BLM for the current 2019 season in the HRI Permit Allotments, allows for a robust viability of the Blitzen population of redband trout.

13. Riparian and aquatic conditions in the Hardie Summer Allotment have been assessed a number of times over the years. Assessments were conducted both during periods of grazing use and also while it has been rested. Riparian vegetation and channel characteristics of streams within the Hardie Summer Allotment were found to be in good condition during both rest periods and grazed periods. Proper Functioning Condition

Assessments were conducted in this allotment in 1999 on Little Fir Creek and 2006 on Big Fir Creek when grazing was actively occurring in the allotment in a similar manner and to a similar extent BLM has authorized for the current 2019 grazing season. A stream is considered to be in PFC or “functioning properly” when adequate vegetation, landform, or woody material is present to dissipate stream energy (thereby reducing erosion and improving water quality), capture sediment and aid in floodplain development, improve floodwater retention, develop root masses that stabilize streambanks against erosion, and maintain channel characteristics (Attachment 2). If a stream is in Proper Functioning Condition, the processes are in place to create and maintain values associated with the potential of the reach, such as quality habitat and clean water (Attachment 2).

14. On August 10, 2006, a PFC Assessment was conducted on Big Fir Creek by a BLM interdisciplinary team (IDT). The IDT determined that the stream was in Proper Functioning Condition (PFC) (Attachment 3). During the assessment, various photographs were taken to document riparian and aquatic conditions. At least in the areas where the photos were taken, they depict a highly functioning and robust riparian community, with little to no visible influence of livestock grazing (Attachment 4). The assessment noted a diverse composition of deep rooted, stabilizing riparian vegetation such as willow, aspen, sedges, rushes and fowl mannagrass. The assessment indicated that the stream was ranked at the high end of PFC.
15. Formal riparian monitoring was again conducted on Big Fir Creek on August 30, 2018 (photos from monitoring visit included as Attachment 5). Riparian vegetation along the creek was still, some 12 years later, dominated by a diversity of stabilizing riparian

woody vegetation. While this stream is usually perennial, during the 2018 visit, it was intermittent. The only water present was found in a few pools. This was due to drought conditions in 2017 and 2018. Despite the dry channel, the photos still depict vigorous woody and herbaceous riparian vegetation.

16. Little Fir Creek was assessed by a BLM interdisciplinary team and found to be in PFC on July 19, 1999 (Attachment 6). The assessment documented that the stream was well armored (from erosion) because of the diverse age classes of willows and aspen and quantity and size of rocks/boulders. Photos were also taken during this assessment. At least in the areas where the photos were taken, they depict a stream heavily covered by woody riparian vegetation (Attachment 7). Riparian monitoring was again conducted on Little Fir Creek in the summer of 2018. During this site visit conducted some 19 years later, the riparian specialist noted that riparian vegetation showed great vigor and was still dominated by stabilizing riparian woody species (Attachment 8).
17. BLM also monitors water quality to assess whether the quality of the water resources are adequate for fish, recreation, drinking, agriculture, as well as other uses. Pursuant to the federal Clean Water Act, DEQ has established the water quality standards for the State that are designed to protect the most sensitive of these multiple uses. In this case, Redband Trout, a BLM special-status species, is designated as the most sensitive use for these streams upon which the standards are therefore based.
18. Krumbo Creek and Bridge Creek are included on the DEQ 303(d) list for exceedance of the 68-degree F water temperature standard for salmonid-bearing streams. Mud and Fish

Creek² are listed for exceeding the summer rearing temperature standard of 64-degree F. Krumbo Creek is excluded from grazing in the Hammond Allotment, which is the only HRI Permit Allotment it flows through. There would therefore be no effect to water temperature in Krumbo Creek from the livestock grazing BLM has authorized in the Hammond Allotment.

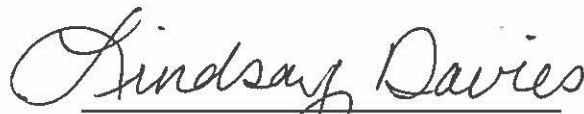
19. For Mud Creek, DEQ's 303(d) listing for exceeding the water-quality temperature standard of 64 degree F is from the creek's mouth at river mile 0.0 to river mile 4.8, which is downstream of the Hardie Summer Allotment (Attachment 9), and is also a segment excluded from livestock grazing. The headwaters and associated tributaries of Mud Creek (Big Fir Creek and Little Fir Creek) are within the Hardie Summer Allotment. BLM has not collected stream temperature data in these headwater streams, as they have shown to go dry during consecutive years of drought, but as noted above, assessments conducted on them in 1999 and 2006 found them to at the upper end of PFC. In addition, riparian vegetation on both streams was found to be vigorous and diverse. Riparian vegetation affects water quality and in particular, water temperature, through a variety of interrelated processes (Klapproth 2000, Attachment 15). It is therefore likely and a reasonable inference that recent livestock grazing in this allotment was not contributing to the downstream exceedance of the stream temperature water-quality standard in the portion of Mud Creek listed pursuant to Section 303(d).

² Fish Creek is also listed from its mouth through its headwaters for exceeding the 64 degree rearing standard. Approximately .52 miles of Fish Creek is in the Hardie Summer Allotment. It does not flow through any other HRI allotments. The entire .52 mile segment is on private land. BLM does not collect data on private land but given that the private land in this allotment has been managed in a similar fashion to the public land, it is reasonable to infer that its riparian conditions are comparable to those which exist along the other creeks in the allotment.

20. Bridge Creek is listed from its mouth through the headwaters of Little Bridge Creek in Hardie Summer Allotment based on the year-round standard (68 degrees). The data used for this listing was collected at river mile 2.4, which is approximately 2.4 miles upstream from its mouth. This site falls within the Malheur National Wildlife Refuge (Refuge), downstream of BLM-managed land. The data indicated that at that particular site, the average maximum daily temperature was above 68 degrees for 43 days. All other sites above and below this site were meeting the temperature standard, however (Attachment 10). In addition, after the original 303(d) listing of Bridge Creek, BLM collected stream temperature data in the creek from 2002 through 2005 at the downstream boundary of BLM-managed lands with the Refuge boundary, at river mile 3.1 (monitoring point BR_21.8). Every year, stream temperatures were below the 68-degree F temperature standard. (Attachment 11). This data was collected during periods when livestock use was authorized on the allotments. This indicates that BLM management upstream of this point was allowing for the temperature standard to be met, even when livestock grazing was actively occurring. Temperature data was collected again on Bridge Creek at two sites from May of 2017 thru August of 2018. One temperature monitoring site was again at the BLM/Refuge boundary (monitoring point BR_21.8), and the other site was at the upper limit of perennial flow (monitoring point BR_24.2). Once more, stream temperatures met the 68 degree F standard at both sites (Attachment 12).
21. In summary, livestock grazing is, for the most part, excluded from most of the streams in the HRI permit allotments. Therefore, in those areas where grazing is excluded, it almost goes without saying that grazing is having no (or at most an immeasurable or infinitesimal) impact to the aquatic or riparian resources. In addition, even where

livestock grazing has occurred and not been totally excluded from stream segments or riparian habitat within these allotments, the data and assessments referenced above indicate that grazing management has been properly managed to adequately control the timing, utilization, and duration of use. This management has in turn allowed for robust, healthy fish populations, achievement of proper functioning condition of streams and associated riparian areas, and water quality standards to be met for those stream segments to which livestock have access on public land within the allotments based on DEQ's most recent listing under the CWA and/or actual recent monitoring and measurements.

Executed this 11th day of June 2019.

A handwritten signature in cursive script that reads "Lindsay Davies". The signature is written in black ink and is positioned above a horizontal line.

LINDSAY DAVIES

Burns District Planning and Environmental Specialist
Bureau of Land Management