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Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF IDAHO

WESTERN WATERSHEDS PROJECT,
et al.,

Plaintiffs,

v.

DAVID BERNHARDT, et al.,

Defendants.

Case No. 1:16-cv-00083-BLW

**DECLARATION OF STEVEN
HERMAN**

** Official Defendant automatically substituted
per Fed. R. Civ. P. 25(d)*

I, Steven Herman, declare as follows:

1. The following facts are personally known to me, and if called as a witness

I would and could truthfully testify to these facts.

2. I presently reside in Yelm, Washington, where I have lived for 13 years.

3. I am an active member of Western Watersheds Project and rely on it to

represent my personal and professional interests in maintaining, protecting, and restoring

the public lands and resources of the sage-steppe ecosystem, including the greater sage-grouse.

4. I hold a PhD in Zoology from the University of California, Davis, a B.S. in Zoology from the University of California, Davis, and an A.A. in Biology from Contra Costa College.

5. Presently I am an Emeritus Member of the Faculty at The Evergreen State College in Olympia, Washington. Beginning in 1971, I taught programs that most often focused on aspects of wildlife biology. Subjects included ornithology, mammalogy, animal behavior, and comprehensive natural history. In particular, I focused on taking students on extended field trips in the field in the United States, Mexico, and throughout Central and South America.

6. My published research concerns pesticide-wildlife relationships, endangered species (such as the Peregrine Falcon and Snowy Plover), the population dynamics of insects and birds, and the environmental effects of public lands grazing. My book, The Field Naturalist's Journal: A Manual of Instruction Based on a System Established by Joseph Grinnell has remained the primary source of information on this critical activity since its publication in 1981 (Herman 1981). My invited paper in the *Journal of Wildlife Management* (Herman 2002) has proven to be seminal and is widely used in courses, seminars, and elsewhere in academia. My most recent publication, in 2012, was a book chapter: Sage-Grouse and the disconnect between research and management on Public Lands in the American West. Chapter 10, pp. 129-149, in *Wildlife Science: Connecting Research with Management*. CRC Press. A CV with a current list of publications is attached.

7. I love sage-grouse and the sagebrush steppe ecosystem and have longstanding scientific, recreational, and aesthetic interests in the birds and their habitat. Sage-grouse stand out to me in a field of birds that is huge, and they are among my favorites. I am especially fond of sage-grouse because they are a primary component of the shrub-steppe, along with pronghorn antelope. The shrub-steppe itself is one of my favorite landscapes. Since 1982 I have owned an 80-acre parcel of shrub-steppe in southeastern Oregon, near the Malheur National Wildlife Refuge. I have used that site frequently for teaching and research purposes, and manage it for shrub-steppe, birds, and vegetation.

8. My first exposure to sage-grouse came in 1955 in Eastern California, near Mono Lake, when I was still calling them sage-hens. At that time, sage-grouse were much more abundant and when I was walking through the sagebrush I would often be startled by a covey of them going off with the rumbling sound they make when many of them burst into flight. I have fond memories of walking through the shrub-steppe and being startled by sage-grouse.

9. Since my experience working in Eastern California, sage-grouse have been a primary focal point of my work in Oregon, Nevada, and California. I have always made it a practice to try to show my students sage-grouse and for that reason I have doggedly sought them out. I also frequently stumble upon them while out on the public lands conducting research or recreating.

10. I have spent extensive amounts of time over the last fifty years of my life exploring shrub-steppe and sagebrush habitat in southeastern Oregon, on Steens

Mountain, the Malheur National Wildlife Refuge, the Sheldon National Wildlife Refuge, and the Hart Mountain National Antelope Refuge.

11. I first visited Malheur National Wildlife Refuge in 1966 and saw sage-grouse there occasionally, even though the habitat is not ideal because it is poorly-managed by the U.S. Fish and Wildlife Service. I visited my first sage-grouse lek there in 1978, and that visit further stimulated my interest in sage-grouse. I have returned to this lek many times over the years, and it is still active and attended by birds. My sage-grouse species account for May 2, 1978 includes a detailed description of this lek, which that morning held 18 male sage-grouse and two females. A sketch shows the positions of the males on the lek.

12. From 1976-2011, I spent at least one to two weeks each summer on Hart Mountain National Antelope Refuge in Oregon. There and on Sheldon National Wildlife Refuge in Oregon, my students and I made regular and often detailed observations on various aspects of the ecology and behavior of greater sage-grouse. With employees of the U.S. Fish and Wildlife Service and the U.S. Geological Survey I have participated in radiotracking and capturing greater sage-grouse on Hart Mountain NAR.

13. I also have frequently visited Steens Mountain, which is just southeast of the Malheur National Wildlife Refuge over the years to watch birds, including sage-grouse, because it is close to my property and affords excellent bird-watching opportunities. I have a photograph of a sage-grouse on Steens Mountain from the 1970s.

14. Due to my longstanding research and teaching on Hart Mountain, I am especially familiar with sage-grouse populations there. Immediately after cattle were removed from Hart Mountain, sage-grouse presence increased and there would often be

flocks of as many as 25 birds flying over camp. I used to take a walk from camp every morning with my dog, hoping to find sage-grouse, and frequently, we did.

Unfortunately, the response of sage-grouse populations after grazing was removed on Hart Mountain was not sustained. It's hard to say what exactly the cause of sage-grouse population declines is, but it is clear that the link between population declines and grazing has not been adequately studied or acknowledged, especially considering how much of the sage-grouse habitat is grazed.

15. Sagebrush habitat degradation from livestock grazing is less severe in Sheldon, Steens, and Hart Mountain than in many places in the West because stocking levels have been reduced (or in the case of Hart Mountain, mostly eliminated) in those places. I think those places are victories, for the most part.

16. However, Sheldon, Steens, and Hart Mountain are still subject to other abuses linked to livestock grazing. For instance, agencies commonly decide to cut down juniper forests to seed grasses as forage for cattle under the guise of promoting sage-grouse persistence. This has occurred on Steens and Hart Mountain, and I understand it's planned to occur on Sheldon as well, in spite of the fact that these areas are now more or less cattle-free. Most of the areas where they remove junipers are areas like steep slopes where sage-grouse would never even dream of being, yet the projects are justified as habitat restoration. The deforestation—taking of junipers and pinyon pines—is an absolute outrage. These projects just serve the private sector—in many cases the ranchers get the money and pay workers by the tree to cut down junipers.

17. I find these projects deeply offensive and they harm my use and enjoyment of the public lands. They are offensive because they are touted as so-called

habitat-restoration, and are used to justify destroying sage-grouse habitat elsewhere, yet provide no benefit for sage-grouse. There is little scientific evidence to support the proposition that such projects benefit sage-grouse, and in many cases trees are being removed in places where sage-grouse are not even present. In truth, these projects only benefit public lands ranchers. Sacrificing intact ecosystems on public lands for the benefit of a few private citizens—especially when it occurs under a false veneer of promoting sage-grouse conservation—is infuriating.

18. Despite this type of mismanagement, the sagebrush country in southeastern Oregon has a special place in my heart and I would go back there right now if I could. I've known the area for ages. I look forward to visiting Sheldon, Hart Mountain, and Steens several more times before I die. Those places are extremely important to me and my family—my son in law has done contract bird work in Steens for years, and once found himself dodging a bullet that came from a Hammond pickup. And my late friend and his wife were roughed up (his glasses broken) by some Hammonds at a dance in the eighties. When I teach my summer ornithology course, I always take my students to Hart Mountain in August, even though we can no longer stay there for two weeks as we used to because the Refuge decided to enforce the restriction that the area is “day-use only.” I plan to visit Steens, the Malheur National Wildlife Refuge, and the surrounding area over Memorial Day weekend as I do every year with my family and my former students. I may also return to those areas, as well as Hart Mountain, in August, if I teach my field ornithology class.

19. It is my understanding that the Bureau of Land Management (BLM) has recently finalized its 2019 Amendments to the 2015 Greater Sage-Grouse Plans. The

Obama-era Plans were already inadequate to protect sage-grouse and the revisions are worse. It's heart-breaking to see public lands that belong to all of us degraded by a small number of people who are allowed virtually unfettered access to exploit them for private gain. I'm very disappointed by that and I think that the bird should clearly have been listed as an Endangered species.

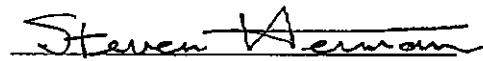
20. The 2019 BLM Plan Amendments to the 2015 sage-grouse Plans underscore the need for Endangered Species Act listing to achieve durable protections for the species. The idea that BLM's sage-grouse planning strategy would impose protections adequate to preclude the need for listing was false at its inception and its doubly false now that most of the substantive plan provisions have been removed through the 2019 Plan Amendments. Even if the 2019 Plan Amendments had contained enforceable protections, federal land management I have seen provides little evidence that they would be implemented or enforced.

21. It seems a high crime that science is not driving sage-grouse management and that the effort is instead being driven by private desires to exploit the environment. I'm deeply disturbed by the 2019 Plan Amendments' lack of enforceable protections for sage-grouse because I think the elimination of such standards has been driven by industry and other private interests. In addition, the 2019 Plan Amendments compound the 2015 Plans' error in failing to address livestock grazing as a significant cause of sage-grouse decline. My view is that the sage-grouse is already endangered and the refusal of the BLM to behave responsibly as stewards can only take the species further down the path to extinction.

22. The continued fragmentation and destruction of high-value sagebrush habitat under the 2019 Plan Amendments, and the consequent continued decline of sage-grouse that will doubtless occur, harm my interests in observing this iconic bird in its native habitat. The ecological destruction of the sagebrush ecosystem harms my longstanding interests in the scientific, recreational, and aesthetic use and enjoyment of that ecosystem and the species its supports. If the sage-grouse is lost due to this mismanagement, it will be an immeasurable loss that I will feel deeply and personally because of my investment in this species over the past 50 years of my life.

23. A ruling by the Court that BLM violated the law in adopting the 2019 Plan Amendments and enjoining those Amendments from taking effect will help ensure that BLM fully and fairly discloses the impacts of its sage-grouse management activities to the public and follows the best available science, and will prevent irreparable harm to sage-grouse and my own interests, as well as other WWP member interests, that will otherwise occur if this Administration moves forward to implement the weakened sage-grouse plans through new approvals of livestock grazing, vegetation treatments, and other actions in Oregon and other states in the sage-grouse range where I frequently visit in hopes of viewing and enjoying sage-grouse in their natural habitats.

I declare under penalty of perjury that the foregoing is true and correct. Executed this
_16th day of April, 2019, in [Yelm, Washington.


Steven Herman

STEVEN GEORGE HERMAN

Education

Ph.D. University of California, Davis, 1973, Zoology
B.S. University of California, Davis, 1967, Zoology
A.A. Contra Costa College, 1962, Biology

Employment History

Member of the Faculty (Biology), The Evergreen State College, Olympia, Washington. 1971-2005. Emeritus Member of the Faculty and Emeritus Curator of the Evergreen Museum of Natural History, 2000-present.

Faculty, Malheur Field Station, Burns, Oregon. 1974-1989.

Lecturer, Departments of Biological Science and Environmental Studies, University of California, Santa Barbara. Winter, Spring, 1970-71.

Lecturer, Department of Natural Resources, Humboldt State University, Arcata, California. Fall, 1970.

Research Associate (in Guatemala), Center for the Biology of Natural Systems, Washington University, St. Louis. Summer, 1970.

Teaching Assistant, Department of Zoology, University of California, Davis. Summer, Fall, 1969.

Laboratory Technician III, Department of Zoology, University of California, Davis. 1967-1970.

Laboratory Technician II, Department of Zoology, University of California, Davis. 1965-1967.

Laboratory Technician II, Department of Biological Control, University of California, Berkeley. 1961-1965.

U.S. Army. 1959-1961.

Laboratory Technician I, Department of Biological Control, University of California, Berkeley. 1957-1959.

Selected Publications

Herman, S.G. 2012. Sage-Grouse and the disconnect between research and management on Public Lands in the American West. Chapter 10, pp. 129-149, in *Wildlife Science: Connecting Research with Management*. CRC Press.

Anderson, C.M, and S.G. Herman. 2005. Peregrine Falcon Species account in Birds of Washington: status and distribution. Wahl, T.R., B. Tweit, and S.G. Mlodinow, editors. Oregon State University Press. Corvallis.

Herman, S.G. 2002. Wildlife Biology and Natural History: Time for a reunion. An Invited paper. *Journal of Wildlife Management* 66:933-946.

Ferguson, D.E., and S.G.Herman. 1996. Livestock grazing: Reply to Brown and McDonald. *Conservation Biology* 10: 929-930.

Selected Publications (continued)

Buchanan, J. B., L.A. Brennan, Charles T. Schick, and S.G. Herman. 1996. Body mass and lipid levels of shorebirds collected in western Washington. *Northwest Naturalist* 77: 51-54.

Buchanan, J. B., S.G. Herman, and J.B.Bulger. 1991. Observations of courtship and copulatory behavior of the Snowy Plover in the western Great Basin. *Northwestern Naturalist* 72: 72-74.

Brennan, L.A., J.B. Buchanan, C.T. Schick, and S.G. Herman. 1991. Estimating sex ratios with discriminant function analysis: the influence of probability cutpoints and sample size. *Journal of Field Ornithology* 62:357-366.

Brennan, L.A., M.A. Finger, J.B. Buchanan, C.T. Schick, and S.G. Herman. 1990. Stomach contents of Dunlins collected in western Washington. *Northwestern Naturalist* 71: 99-102.

Herman, S.G., J.B. Bulger, and J.B. Buchanan. 1988. The Snowy Plover in southeastern Oregon and western Nevada. *Journal of Field Ornithology* 59:13-21.

Buchanan, J.B., C.T. Schick, L.A. Brennan, and S.G. Herman. 1988. Merlin predation on wintering Dunlin: Hunting techniques, success rates, and escape tactics of Dunlin. *Wilson Bulletin* 100:108-118.

Schick, C.T., L.A. Brennan, J.B. Buchanan, M.A. Finger, T.M. Johnson, and S.G. Herman. 1987. Organochlorine contamination in shorebirds: The significance for wintering and spring migrant falcons in western Washington. *Environmental Monitoring and Assessment* 9:115-132.

Buchanan, J.B., S.G. Herman, and T.M. Johnson. 1986. Success rates of the Peregrine Falcon (*Falco peregrinus*) hunting Dunlin (*Calidris alpina*) during winter. *Raptor Research* 20:130-131.

Herman, S.G. 1986. *The Naturalist's Field Journal: A manual of instruction based on a system established by Joseph Grinnell*. Buteo Books. Vermillion, S.D. 200 pp.

Buchanan, J.B., L.A. Brennan, C.T. Schick, S.G. Herman and T.M. Johnson. 1986. Age and sex composition of wintering Dunlin populations in western Washington. *Wader Study Group Bulletin No.* 46:37-41.

Sullivan, S.L., W.H. Pyle, and S.G. Herman. 1986. Cassin's Finches nesting in Big Sagebrush. *The Condor* 88:378-379.

Buchanan, J.B., L.R. Brennan, C.T. Schick, M.A. Finger, T.M. Johnson, and S.G. Herman. 1985. Dunlin weight changes in relation to food habits and available prey. *Journal of Field Ornithology* 56:265-272.

Brennan, L.A., J.B. Buchanan, S.G. Herman, and T.M. Johnson. 1985. Interhabitat movements of wintering Dunlins in western Washington. *The Murrelet* 66:11-16.

Selected Publications (continued)

LaGory, K.E, M.K. LaGory, D.M. Myers, and S.G. Herman. 1984. Niche relationships in wintering mixed-species flocks in western Washington. *Wilson Bulletin* 96:108-116.

Brennan, L.A., J.B. Buchanan, C.T. Schick, S.G. Herman, and Tod M. Johnson. 1984. Sex determination of Dunlins in winter plumage. *Journal of Field Ornithology* 55:343-348.

Canning, D.J., and S.G. Herman. 1983. Gadwall breeding range expansion into western Washington. *The Murrelet* 64:27-31.

Herman, S.G., and J.B. Bulger. 1981. The distribution and abundance of shorebirds during the spring migration at Grays Harbor, Washington. Contract report DACW67-81-M0396. U.S. Army Corps of Engineers, Seattle.

Herman, S.G., and J.B. Bulger. 1979. Effects of a forest application of DDT on nontarget organisms. *Wildlife Monograph No. 69*, The Wildlife Society. 62 pp.

Rudd, R.L., S.G. Herman, and J.R. Newman. 1979. Comparative removal trapping results (small mammals) from tropical and temperate latitudes. *Wassman Journal of Biology* 37:93-102.

Calambokidis, J., J. Mowrer, M.W. Beug, and S.G. Herman. 1979. Selective retention of polychlorinated biphenyl components in the mussel, *Mytilus edulis*. *Archives of Environmental Contamination and Toxicology* 8:299-308.

Herman, S.G., and J.B. Bulger. 1979. Impact of pesticides on terrestrial birds. pp. 50-95 in Vol. 3, Report on environmental assessment of pesticide regulatory programs. California Department of Food and Agriculture, Sacramento.

Peters, C.F., K.O. Richter, D.A. Manuwal, and S.G. Herman. 1978. Colonial nesting sea and wading bird use of estuarine islands in the Pacific Northwest. Dredged Material Research Program Technical Report D-78-17, 180 pp., U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Mowrer, J., Calambokidis, J., Musgrove, N., Drager, B., M.W. Beug, and S.G. Herman. 1977. Polychlorinated biphenyls in cottids, mussels, and sediment in southern Puget Sound, Washington. *Bulletin of Environmental Contamination and Toxicology* 18:588-594.

Craighead, J.J., S.G. Herman, and M.W. Nelson. 1976. Peregrines in the northwestern United States. pp. 265-266 in Fyfe, R.W., S.A. Temple and T.J. Cade, 1976. The 1975 North American Peregrine Falcon survey. *Canadian Field Naturalist* 90:228-273.

Rudd, R.L., and S.G. Herman. 1972. Toxic effects of pesticide residues on wildlife. pp. 471-485 in *Environmental Toxicology of Pesticides*. Academic Press.

Herman, S.G. 1971. The Peregrine Falcon decline in California-II: Breeding status in 1970. *American Birds* 25:818-821.

Selected Publications (continued)

Herman, S.G. 1971. The functional and numerical responses of the Cassin Finch, *Carpodacus cassinii*, to epidemic numbers of the Lodgepole Needleminer, *Coleotechnites milleri*. *The Wassman Journal of Biology* 29:71-80.

Herman, S.G. 1971. A review of Peregrine Falcon populations: their biology and decline. J.J. Hickey, Editor. *Journal of Wildlife Management* 35:580-583.

Herman, S.G., M.N. Kirven, and R.W. Risebrough. 1970. The Peregrine Falcon decline in California-I: A preliminary review. *Audubon Field Notes* 24:609-613.

Herman, S.G., R.L. Garrett, and R.L. Rudd. 1969. Pesticides and the Western Grebe: A study of pesticide survival and trophic concentration at Clear Lake, Lake Co., California. pp. 24-53 in *Chemical Fallout*, M.W. Miller and G.C. Berg, Editors. Charles Thomas. Springfield.

Risebrough, R.W., D.B. Peakall, S.G. Herman, M.N. Kirven, and P. Reiche. 1968. Polychlorinated biphenyls in the global ecosystem. *Nature (London)* 220:1098-1102.

Dahlsten, D.L., and S.G. Herman. 1965. Birds as predators of destructive forest insects. *California Agriculture* 19:8-10.

Huffaker, C.B., K.P. Shea, and S.G. Herman. 1963. Experimental studies on predation: Complex dispersion and levels of food in a predator-prey interaction. *Hilgardia* 35:305-330.

Manuscripts in Preparation

Herman, S.G. The Upland Sandpiper in Oregon. (reports on research spanning the years 1978-87, on this disjunct population of only 75 individuals.)

Herman, S.G. Densities of Shrubsteppe birds in southeastern Oregon, 1976-1990.

Herman, S.G. Spring-migrating shorebird use of Willapa Bay and Grays Harbor, Washington.

Grants and Contracts

National Science Foundation
 California Department of Fish and Game
 Washington Department of Game
 California Department of Food and Agriculture
 U.S. Army Corps of Engineers
 U.S. Environmental Protection Agency
 U.S. Fish and Wildlife Service
 U.S. Forest Service
 U.S. National Marine Fisheries Service
 U.S. National Park Service

U.S. Bureau of Land Management

Professional Affiliations (not all current)

American Ornithologists' Union
Cooper Ornithological Society
Northwest Scientific Association
Ottawa Field Naturalists Club
Society for Northwestern Vertebrate Biology
Raptor Research Foundation
Society for Biological Conservation
Society of American Mammalogists
Wader Study Group
Western Bird Banding Association
Western Field Ornithologists
Wilson Ornithological Society

Board Positions, Committee Responsibilities, and Editorships

Associate Editor, Northwest Naturalist, 2016-present

Society for Northwest Vertebrate Biology, Member, Board of Directors, 2004-2009.

Institute for Wildlife Protection: Member, Board of Directors, 2001- present.

Western Watersheds: Member, Advisory Board, 1995-present

Oregon Natural Desert Association: Member, Advisory Board, 1996- present.

Oregon Birds: Assistant Editor, 1990 - 1998.

Washington Birds, Assistant Editor, 1997- 1999.

Puget Sound Water Quality Authority: Member, Subcommittee on Wetlands and Development, Scientific Advisory Committee, Issue Advisory Committee. 1984-1986.

Malheur Field Station Board of Directors: Member, 1985-1987. President, Malheur Field Station Consortium, 1984-85.

Great Basin Society Board of Directors: Member, 1987-1990.

California Condor Advisory Committee (advisory to California Department of Fish and Game, California Fish and Game Commission): Chairman, 1980-1984.

Biological Field Studies Association: Board Member, 1967-1970.

Rachel Carson Trust: Board Member, 1975-1978.

Chihuahuan Desert Research Institute: Member, Board of Scientists, 1976-1980.

The Nature Conservancy, Western Washington Chairman, 1972-1975

Malheur Bird Observatory, Princeton, Oregon. Founder, Owner, and Director

The Evergreen State College Museum of Natural History. Founder, Director, and Curator, 1972-2006.

Invited Addresses:

Raptor Research Foundation, October 2016.

Wildlife Society, Oregon Chapter: February 2004

Wildlife Society, Washington Chapter: April 2003

Point Reyes Bird Observatory Annual Meeting: June 2003

Society for Northwestern Vertebrate Biology 75th Anniversary Meeting

Honors:

Conservationist of the Year, 1995. Seattle Audubon.

Environmental Scientist of the Year, 1984. Washington Environmental Council.

Chancellor's Patent Award, 1969. University of California, Davis.

Personal Data

Born 23 February 1936
two daughters