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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA

WESTERN WATERSHEDS PROJECT Plaintiff, v. AMY LUEDERS, BLM Nevada State Director, BUREAU OF LAND MANAGEMENT, an agency of the United States, and U.S. DEPARTMENT OF INTERIOR, an agency of the United States Defendants,	No. 14-cv-00134-HDM-VPC **SEPARATE STATEMENT OF UNDISPUTED MATERIAL FACT IN SUPPORT OF MOTION FOR PARTIAL SUMMARY JUDGEMENT**

I. GREATER SAGE-GROUSE

a. Populations and Habitat

1. The Greater sage-grouse (*Centrocercus urophasianus*) – first described by Meriwether Lewis near the confluence of the Marias and Missouri rivers in Montana in 1805 – is a unique species of grouse found only in sagebrush-dominated habitats of western North America. Complaint ¶ 29 (DN 1); Answer ¶ 29 (DN 26). *See also* Connelly *et al.*, 2004 Conservation Assessment for Greater Sage Grouse and Sagebrush Habitats, p. 3-1 (hyperlinked at AR 1132) (Cons. Ass.)[1]. Greater sage-grouse were once

1 In addition to being hyperlinked in the existing Administrative Record, the Conservation Assessment was also specifically referenced and cited in BLM's Cave Valley and Lake Valley Watersheds Restoration Plan Environmental Assessment (Cave Lake EA), challenged here. AR 7541 (*citing* "Connelly et al. (2004)"). Plaintiffs have

widely distributed across the western U.S. and Canada, numbering in the millions. Complaint ¶ 29; Answer ¶ 29.

2. Sage-grouse typically inhabit large, interconnected expanses of sagebrush habitat, and thus are characterized as a landscape-scale species. Cons. Ass. at 4-15. *See also* Complaint ¶ 30; Answer ¶ 30. Historically, the distribution of sage-grouse was closely tied to the distribution of the sagebrush biome, and sage-grouse once occupied parts of 13 states within the western United States and three Canadian provinces. Cons. Ass. at pp. 1-1–1-2. *See also* Complaint, ¶ 30; Answer, ¶ 30; 75 Fed. Reg. 13910-14014, 13917 (March 23, 2010) (12-Month Finding for Petitions to List the Greater Sage-Grouse as Threatened or Endangered).

3. The sage-steppe ecosystem features sagebrush in the overstory; native grasses, forbs, and litter in the understory; and biological soil crusts filling interspaces between vegetation. Complaint ¶ 31; Answer ¶ 31. *See, generally*, AR 334-352 (Connelly *et al.,* Guidelines to Manage Sage Grouse Populations and Their Habitat).

4. In winter, Greater sage-grouse depend almost exclusively on sagebrush for food. Complaint ¶ 31; Answer ¶ 31. *See also* Cons. Ass. at 3-4. 75 Fed. Reg. at 13915-16 (discussing seasonal habitat requirements). In early March, sage-grouse move to breeding areas (or leks). *Id.* In establishing leks, sage grouse prefer sites with extensive cover of low grasses, surrounded by taller sagebrush. *Id.*

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contacted Defendants, and Defendants agree that the Conservation Assessment may be cited as part of the Administrative Record in this case. The hyperlink at AR 1132 provides immediate access to the 2004 Conservation Assessment, and Western Watersheds will make the Conservation Assessment available on a disk without delay.

5. After mating, the female moves away from the lek to establish a nest. Complaint ¶ 32; Answer ¶ 32. The nesting season lasts from early April to mid-June, with specific dates being location dependent. *Id.* The nesting season is critical because the sage-grouse has one of the lowest reproductive rates of any North American game bird, and its populations are not able to recover from low numbers as quickly as many other upland game bird species. *Id.*

6. The nest is a shallow depression on the ground, usually under sagebrush. Complaint ¶ 33; Answer ¶ 33. The nests established under sagebrush are more successful than nests under other shrub species (including rabbitbrush), because taller stands of sagebrush and grasses provide scent, visual and physical barriers to potential predators. *Id.* Without this cover, predators can more easily locate the hen and her chicks as they leave the nest to seek food. *Id.*

7. The hen and chicks require high quality forbs, which are herbaceous flowering plants, other than grasses. Complaint ¶ 34; Answer ¶ 34. The forbs provide good nutrition for the hen, increasing her chances of successfully hatching, and raising, her chicks. *Id.* Both the hen and her chicks also feed on insects and beetles. *Id.* An herbaceous understory provides greater access to insects and forbs, both by the females before breeding and by chicks after hatching. *Id.*

8. Sage-grouse gradually move away from nest sites in the sagebrush uplands to more mesic areas (upland seeps, springs and wet meadows) during the late brood-rearing season. 75 Fed. Reg. at 13916. *See also* AR 338 (Sage-Grouse Guidelines).

9. Sage-grouse migrate between seasonal home ranges, with some research indicating that sage-grouse can move over 75 miles between seasonal habitats. Cons.

Ass. 3-4–3-6. Many sage-grouse populations are migratory, while other sage-grouse populations are thought to be resident populations. *Id.*

10. Sage-grouse exhibit strong site fidelity to seasonal habitats (including breeding, nesting, brood-rearing and wintering areas), meaning sage-grouse return to a particular seasonal habitat area even when the area is no longer valuable. 75 Fed. Reg. at 13915.

11. The abundance and distribution of Greater sage-grouse have declined dramatically in North America. Cons. Ass. at 6-9, 6-15–6-16. *See also* 75 Fed. Reg. at 13920-23. This decline includes a near 25 percent decline in sage-grouse populations throughout central Nevada and Utah between 1965-2007. 75 Fed. Reg. at 13923, Table 6 (showing 24% decline in Management Zone III); *id.* at 13919, Table 1 and Figure 2 (showing location of Management Zone III).

b. Threats

12. The destruction, fragmentation, and degradation of sagebrush habitats over past decades – including through the effects of livestock grazing and grazing-related infrastructure, vegetation treatments, energy and oil and gas development and associated infrastructure, and other factors – have caused substantial declines in greater sage-grouse populations and range reduction of about 44% from their historic range. *Id.* at 6-9; 75 Fed. Reg. 13917-18 (noting that "[c]hanges in distribution are the result of sagebrush alteration and degradation"); *id.* at 13924-962.

13. Sagebrush is one of the most imperiled ecosystems in North America. 75 Fed. Reg. at 13916. Sagebrush and sage-grouse habitat is "becoming increasingly degraded and fragmented due to the impacts of multiple threats, including direct

conversion, urbanization, infrastructure such as roads and powerlines built in support of several activities, wildfire and the chance in wildfire frequency, incursion of invasive plants, grazing and nonrenewable and renewable energy development." *Id.* at 13924.

14. Habitat fragmentation is a "primary cause of the decline in sage-grouse populations," because sage-grouse requires large expanses of contiguous sagebrush. *Id.* at 13927. Fences and other rangeland developments are a leading cause of habitat fragmentation, and pose a threat to sage-grouse, because fences provide perches for raptors, and modify access and movements by humans and livestock, "thus exerting a new mosaic of disturbance and use on the landscape." Cons. Ass. at ES 3. *See also* 75 Fed. Reg. at 13929-31. The increased fragmentation by fences and other linear features promote the spread of exotic invasive species (like cheatgrass), facilitates predator movements, and isolates wildlife populations. CA at 1-2, 7-34–7-35. Of course, fences can also increase mortality directly, too, when sage-grouse fly into fences. *Id.* at 7-3.

15. Fire is also a "primary factor" associated with sage-grouse population declines, especially within the Great Basin. 75 Fed. Reg. at 13931-35 (review of fire threats); *id.* at 13934 ("[F]ire is the primary cause of recent large-scale losses of [sage-grouse] habitat within the Great Basin"). Fire results in "direct, long-term habitat loss," and even small increases in the amount of burned habitat surrounding a lek have a large influence on the probability of lek abandonment. *Id.* at 13931.

16. Prescribed fires also threaten sage-grouse populations and habitat, including by causing an immediate – and potentially long-term – loss of habitat. *Id.* at 13933. For example, sagebrush communities subjected to prescribed fire may take between 25-120 years to fully recover, and studies have documented that 25 years after a

prescribed fire, the sagebrush community had less than 5 percent of pre-fire canopy cover. *Id.* at 13934. Indeed, the Service remains skeptical of using prescribed fires to benefit sage-grouse, concluding that the "preponderance of evidence . . . suggests [that] these treatments are not beneficial to sage-grouse." *Id.* at 13933.

17. The efficacy of using vegetation treatments to enhance sage-grouse populations is similarly "questionable." *Id.* According to the Service, the one "immediate and potentially long-term result" of vegetation treatments is "the loss of habitat." *Id.* Mechanical treatments in blocks greater than 100 ha (247 ac) degrade sage-grouse habitat by altering the structure and composition of the vegetative community." *Id.* at 13940.

18. Chemical control of sagebrush has similarly resulted in declines of sage-grouse breeding populations through the loss of live sagebrush cover. *Id.* Herbicide treatment also can result in sage-grouse emigration from affected areas. *Id.* Negative effects on nesting, brood carrying capacity, and winter shrub cover essential for food and thermal cover have been documented from herbicide treatments in sage-grouse habitat. *Id.*

19. The explosion of non-native, invasive weeds across the sagebrush-steppe ecosystem is also a "serious rangewide threat" to sage-grouse populations and habitat. *Id.* at 13937. *See also* id. at 13935-37 (detailed review of impacts of non-native weeds). Cheatgrass and other non-native annual grasses have caused "extensive sagebrush loss" in the Great Basin and elsewhere. *Id.* at 13935. Cheatgrass is known to outcompete sagebrush and native grasses and forbs for water and soil nutrients, and remain free from any effective control methods. *Id.*

20. Approximately 80 percent of the land in the Great Basin is susceptible to displacement by cheatgrass within 30 years, and the invasion of non-native weeds is increasing an at annual rate of 8 to 20 percent annually. *Id.* at 13935-36. Local invasions are associated with ground disturbances, including fire, grazing, infrastructure and other activities. *Id.* at 13936.

II. Management Documents

a. Ely Field Office Fire Management Plan.

21. In September 2004, the Ely Field Office adopted the Eastern Nevada Fire Planning Unit Fire Management Plan (Ely Fire Plan) to identify and adopt fire management strategies across the BLM-managed public lands in the Ely Field Office. AR 623-1020. *See also* AR 7961 (signatures of approval).

22. BLM divided the field office into twenty-five Fire Management Units (FMUs), with each FMU defined by similar vegetation type and condition, management constraints, issues, and objectives and strategies. AR 647-48. For each FMU, BLM documented the geographic boundaries of the FMU, fire occurrence and history, vegetation, fire regime and condition class, resource values and attributes, and other specific management recommendations for each of the five fire management programs – i.e., wildland fire suppression, fuels treatment (prescribed fire and non-fire fuels), emergency stabilization and rehabilitation, and community assistance and protection. *See, e.g.*, AR 695-707 (Southern Benches –Vegetation (Veg.) FMU); AR 751-67 (Northern Valleys FMU); AR 835-47 (Southern Benches-High Value Habitat (HVH) FMU); AR 891-902 (Bullwhack FMU); 931-944 (Highlands and South Egan Range FMU).

23. The Ely Fire Plan details the precise fire history for each FMU, noting, for example, that within Southern Benches-Veg. FMU, there have been 273 fires between 1994-2003 and 427 fires between 1980-2003. AR 698. *See also, e.g.,* AR 756 (in Northern Valleys FMU: 35 fires between 1994-2003 and 92 fires between 1980-2003; AR 837 (in Southern Benches FMU: 57 fires between 1994-2003 and 100 fires between 1980-2003); AR 894 (in Bullwhack FMU: 16 fires between 1994-2003 and 33 fires between 1980-2003); and AR 933 (in Highlands and South Egan Range FMU: 246 fires between 1994-2003 and 462 fires between 1980-2003). *See also* AR 654 (tabular presentation).

24. The Ely Fire Plan also adopted a specific target by FMU for acres subject to prescribed fires on an "annual" and "decadal" basis. For example, the Ely Fire Plan calls for an annual prescribed fire target of 2,500 acres – and a decadal target of 25,000 acres - within the Bullwhack FMU. AR 900. *See also, e.g.,* AR 705 (Southern Benches-Veg. FMU) (15,000 acres annual/150,000 acres decadal); AR 764 (Northern Valleys FMU) (2,500 acres annual/10,000 acres decadal); AR 846 (Southern Benches-HVH FMU) (10,000 acres annual/100,000 acres decadal); AR 942 (Highlands and South Egan Range FMU) (25,000 acres annual/100,000 acres decadal).

b. Vegetation Treatments Using Herbicides Environmental Impact Statement and Record of Decision

25. In 2007, BLM issued its Final Programmatic Environmental Impact Statement for Vegetation Treatments Using Herbicides. AR 2139-2658 (Weeds EIS).[2]

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[2] BLM only included Volume I of the three volume Final EIS. *Compare* AR 2142-50 (Table of Contents, Vol. 1), AR 2151-56 (Table of Contents, Vol. 2), AR 2157 (Table of Contents, Vol. 3); *and* AR 2139-2658 (containing Vol. 1 only). The remainder of the Final EIS is available on-line at http://www.blm.gov/wo/st/en/prog/more/veg_eis.html (last visited September 13,

In this EIS, BLM purported to examine the ecological impacts of expanding BLM's use of herbicides – including Tebuthiuron - on BLM-managed public lands in the American West. AR 2164-65, 2199-2201 (preferred alternative).

26. Tebuthiuron is a non-selective herbicide absorbed by plant roots through the soil, and it disrupts and blocks photosynthesis. AR 2377. Direct spray and spills of Tebuthiuron pose a "high risk" to terrestrial and aquatic plants *Id*. Tebuthiuron can be injurious to many native grasses and forbs, and may promote the development of non-native, exotic species. AR 2388.

27. In proposing to expand its use of herbicides, BLM identified a series of Standard Operating Procedures (SOPs) to ensure that risks to human health and the environment from herbicide projects would be kept to a minimum. AR 2204. According to BLM, SOPs are the management controls and performance standards required for vegetation projects; and these practices are intended to protect and enhance natural resources that could be affected by future vegetation projects. *Id*. at 2204-05.

28. Among the SOPs identified in the Final EIS were measures requiring that BLM apply only EPA-approved herbicides and "follow product label directions"; maintain buffers between treatment areas and water bodies; and adopt minimum buffers between and around water bodies of not less than 100 feet for aerial application of herbicides. AR 2212-13.

2014). Citations to Vol. 1 will be directly to the Bates number in the Administrative Record, and citations to Volumes 2 and 3 will be to the page of the Final EIS.

29. BLM also identified a series of measures designed to mitigate the adverse environmental impacts on water resources of applying the herbicides, including, *inter alia*, "establish appropriate (herbicide specific) buffer zones to downstream water bodies, habitats, and species/populations of interest"; and "do not broadcast [herbicide] pellets where there is danger of contaminating water supplies." AR 2223, 2347.

30. In determining the appropriate buffer zone around water bodies for individual herbicides, BLM did not evaluate the potential contamination resulting from the aerial application of Tebuthiuron. AR 2376, Table 4.12 (noting that BLM did "N[ot] E[valuate]" aerial application). BLM noted for ground applications of Tebuthiuron, "[m]ost risks to vegetation from registered use of Tebuthiuron can be avoided by applying at the typical application rate, using buffers of more than 100 feet, and avoiding application near special status species." AR 2377.

31. In September 2007, BLM issued its Record of Decision approving the preferred action in the Final EIS. AR 2700-30. In the ROD, BLM approved its expanding use of herbicides, as well as the mitigation measures and standard operating procedures identified in the Final EIS. *Id*. *See also* AR 2709 (adopting mitigation measure requiring buffers around water bodies, habitats, and species populations of interest). *See also* Appendix B, pp. B-9 (requiring minimum of 100-foot buffer zone around wetlands and riparian areas for aerial application of Tebuthiuron); *id*. (requiring BLM to comply with the EPA's "product label").

32. BLM adopted these mitigation measures to "ensure that risks to human health and the environment from herbicide treatment actions will be kept to a

minimum. . . . These practices are intended to protect and enhance natural resources that could be affected by future vegetation treatments." *Id*. at B-1.

33. In the ROD, BLM approved three formulations for Tebuthiuron, including Spike 20P, Spike 80DF, and Sprakil S-5 Granules. AR 6428. Spike 20P is the pelletized formulation of Tebuthiuron, and Spike 80DF and Sprakil S-5 are applied either as a spray and/or granule formulations. *See* http://www.epa.gov/pesticides/chem_search/ppls/062719-00121-20061214.pdf (EPA-approved herbicide label for Spike 20P) (EPA Label) (last visited September 12, 2015).[3]

c. EPA-Approved Label for Spike 20P

34. On December 14, 2006, EPA approved the herbicide label for Spike 20P. *See* EPA Label.

35. In the Environmental Hazards section of the EPA Label, the label reads, "Do not apply Spike 20P specialty herbicide near desirable trees or other woody species. Exposure of even a small part of a plant root system to Spike 20P may cause severe plant injury or death. Do not apply directly to water, [or] to areas where surface water is present." EPA Label at 2 (6/19).

36. The EPA Label also contains a **Ground Water Advisory**, which notes that this "product is known to leach through soil into ground water under certain conditions as a result of registered (rangeland and non-crop) uses. Use of this product

[3] BLM did not include the herbicide label for Spike 20P in the Administrative Record in this case, even though its own Weeds EIS and Ely Weeds EA, *see supra* and *infra*, both require BLM to comply with the applicable herbicide label when using Tebuthiuron.

in areas where soils have rapid to very rapid permeability, particularly where the water table is shallow, may result in ground water contamination." *Id.*

37. The EPA Label specifically prohibits the application of Spike 20P "in areas where the water table is predominantly shallow (5 feet or less), such as marshy or sub irrigated areas." *Id.* at 3 (7/19). The EPA Label also includes the following precaution: "[t]he density of cool season grass stands such as fescue and crested wheatgrass may be reduced after application of Spike 20P." *Id.* at 10 (14/19).

d. Ely District Integrated Weed Management Plan & Environmental Assessment

38. In July 2010, BLM's Ely District Office issued its Ely District Integrated Weed Management Plan and Environmental Assessment. AR 6363-452 (Ely Weeds EA). BLM prepared the Ely Weeds EA to "address the introduction and spread of noxious and invasive plants, and to provide guidance for an active and aggressive District-wide integrated weed management program which would more effectively address the problem." AR 6366 (p. 1).[4]

39. In the Ely Weeds EA, BLM proposed to employ all herbicide treatments permitted under the Weeds EIS, including using Tebuthiuron on public lands throughout the Ely Field Office. Ely Weeds EA at 13. BLM's proposed action included adoption and implementation of all Standard Operating Procedures and Mitigation Measures required under the Weeds EIS. *Id.* at 21 (citing SOPs); *id.* at 22 (concluding

[4] Because the Bates number on the pages of the Ely Weeds EA are indecipherable, all future citations to the Ely Weeds EA will cite directly to the page of the EA (e.g., "Ely Weeds EA at [pg.]"), and not the Bates number.

that following the SOPs, mitigation measures, and conservation measures listed in the Weeds EIS will cause impacts to wetlands and riparian areas to be "minimal").

40. According to the SOPs and guidelines controlling BLM's use of chemicals – including Tebuthiuron – BLM is prohibited from "broadcast[ing] herbicide pellets where there is danger of contaminating water supplies," and BLM is further required to "[m]aintain buffers between the treatment area and water bodies. Buffer widths should be developed based on herbicide- and site-specific criteria to minimize impacts to water bodies." Ely Weeds EA at 73. BLM also identified a SOP that required BLM to follow the EPA-approved pesticide label for all herbicides. *Id.* at 77.

41. BLM also identified a series of mitigation measures designed to reduce the ecological impacts of BLM's planned herbicide treatments, including establishing appropriate buffer zones to downstream water bodies, habitats, and species/populations of interest. *Id.*

42. On July 14, 2010, BLM approvewd the preferred action in the EA – including adoption of the Standard Operating Procedures and mitigation measures – and simultaneously issued a Finding of No Significant Impact. AR 6453-6464.

e. Ely Resource Management Plan.

43. BLM began the process of revising the Ely RMP and released for public comment a draft EIS in July 2005. Complaint ¶ 67, Answer ¶ 67.

44. WWP participated extensively in the revised Ely RMP process, including by submitting comments on the draft EIS as well as a protest of the proposed RMP, both of which underscored BLM's obligation to candidly address the adverse impacts of livestock grazing, to evaluate meaningful alternatives, and to adopt a new land use plan

that would protect and conserve native habitats and wildlife species, including sage-grouse and pygmy rabbit. Complaint ¶ 68; Answer ¶ 68.

45. BLM issued a Final Environmental Impact Statement (FEIS) for the revised Ely RMP in November 2007, and approved a Record of Decision (ROD) adopting the final revised Ely RMP in August 2008. Complaint ¶ 69; Answer ¶ 69. AR 2898-4366 (FEIS); AR 5216-5694 (ROD). The Ely RMP is now being implemented by BLM, including through issuance of numerous grazing authorizations. Complaint ¶ 69; Answer ¶ 69.

III. CAVE VALLEY AND LAKE VALLEY

a. Overview

46. The Cave Valley and Lake Valley watersheds are located within the BLM's Ely District Office, which manages approximately 11.5 million acres of public lands within central Nevada. Complaint ¶ 64; Answer ¶ 64. The public lands managed by the Ely District Office measure approximately 230 miles (north-south) by 115 miles (east-west) in east/central Nevada. *Id.*

47. The northern two-thirds of the Ely District, which lies within the Great Basin ecological system, historically featured sagebrush-steppe, mixed conifer, pinyon-juniper woodland, and curl-leaf mountain mahogany habitats, while the southern third lies in the more arid Mojave ecological region. Complaint ¶ 65; Answer ¶ 65. *See also* AR 5776, 5885 (maps of major vegetation communities). The sagebrush habitat once supported abundant sage-grouse populations. *Id.*

48. Cave Valley and Lake Valley are adjacent watersheds located south-southeast of Ely, Nevada, with Cave Valley lying west of Lake Valley. Complaint ¶ 70;

Answer ¶ 70. *See also* AR 7495 (EA). The watersheds consist of about 583,832 acres, of which BLM administers about 96% and 4% is in private ownership. *Id.* Both watersheds are characterized by north to south trending mountains, gently to steeply sloping benches and alluvial fans, and valley bottoms characterized by alluvial flats. *Id.* Cave Valley is bordered by the South Schell Creek Mountains on the east and the South Egan Mountains on the west. *Id.* Lake Valley is flanked by the Fortification Mountains and Wilson Creek on the east and the South Schell Creek Mountains and Fairview Mountains on the west. *Id.*

49. Elevation in the watersheds varies from about 5,900 feet in the valley bottoms to 11,735 feet on the South Schell Peak in the southern end of the Schell Creek Range. Complaint ¶ 71; Answer ¶ 71. *See also* AR 7495. Annual precipitation ranges from approximately 6-12 inches on the valley bottoms, to 14-20 inches or more on top of the South Schell Creek Mountains. *Id.* Precipitation in the northern portion of Cave Valley ranges from 8-12 inches annually. *Id.* This area is experiencing a recurrent drought. *Id.*

50. The primary vegetation within the watersheds consists of sagebrush communities (62% and 70% in Lake Valley and Cave Valley, respectively) and established stands of pinyon pine and Utah juniper (21% and 22%). Complaint ¶ 72; Answer ¶ 72. *See also* AR 7495; AR 5726-81 (Cave Valley Watershed Evaluation Report); AR 5803-60 (Lake Valley Watershed Evaluation Report). In addition, there are small areas of aspen forests (1% of watersheds), mixed conifer forests (1%), ponderosa pine (<1%), limber pine (5%), and mountain mahogany woodlands (5%). *Id.*

See also AR 5776 (map of vegetation communities in Cave Valley); AR 5855 (map of vegetation communities in Lake Valley); AR 5805 (description).

51. Cave Valley and Lake Valley contain over 100 riparian resources (including seeps, springs and wet meadows), which are located throughout the watersheds. AR 6491, 6492 (maps). Many of these mesic areas play a critical role in providing late brood-rearing habitat for sage-grouse, including within BLM-defined preliminary priority habitat and preliminary general habitat. AR 334-352 (2000 Sage Grouse guidelines). *See also* Declaration of Kenneth Cole (Cole Decl.), Exhs. 3, 4 (maps of watersheds overlaid with sage-grouse habitat) (filed herewith).

52. Cave Valley and Lake Valley provide important habitat for a variety of wildlife, including Rocky Mountain elk, mule deer, pronghorn antelope, and desert bighorn sheep. Complaint ¶ 74; Answer ¶ 74. *See also* AR 7568-74. Nesting and foraging habitat for migratory birds is also located throughout the watersheds, including habitat for Brewer's sparrow, sage thrasher, sage sparrow, loggerhead shrike, gray flycatcher, and green-tailed towhee. AR 7569.

53. BLM has documented the presence or habitat for 31 BLM sensitive species within Cave Valley and Lake Valley, including bald eagle, ferruginous hawk, northern goshawk, golden eagle, pygmy rabbit, a series of bats, and many others. AR 7570-71, Table 3.3.

54. Cave Valley and Lake Valley also provide habitat for the Greater sage-grouse, including breeding, late-brood rearing, and winter habitat. AR 7571-73. There are 22 known leks within the watersheds. AR 5756 (10 known active leks in Cave Valley); AR 5834 (12 known active leks in Lake Valley); AR 7573, Map 3.1 (map of sage-

grouse habitat). *Cf.* Answer ¶ 75 (claiming only 16 known leks within both watersheds); AR 7572 (claiming 15 active leks across both watersheds); AR 7574 (map) (showing 14 active, one inactive lek). BLM considers much of the Cave Valley watershed and portions of the Lake Valley watershed as "preliminary priority habitat" and "preliminary general habitat"; and the central portion of Cave Valley is sage-grouse winter habitat. Complaint ¶ 75; Answer ¶ 75. *See also* AR 5834; Cole Decl., Exhs. 3, 4, 7 (maps). Lake Valley is important yearlong habitat for sage grouse. *Id.*

55. The Nevada Department of Wildlife similarly considers much of the sage-grouse habitat in these watersheds as "essential, irreplaceable" habitat. Cole Decl., Exh. 3 (map).

56. Cave Valley includes 94,174 acres of sage-grouse nesting/early brood-rearing habitat; 195,615 acres of late brood-rearing habitat; 84,100 acres of winter habitat; and 109,989 acres of key yearlong habitat. Complaint ¶ 76; Answer ¶ 76. AR 5756. Similarly, Lake Valley includes 156,819 acres of nesting/early brood-rearing habitat; 201,850 acres of late brood-rearing habitat; 2,215 acres of identified winter habitat; and 206,352 acres of key yearlong habitat. Complaint ¶ 76; Answer ¶ 76. AR 5834.

57. Sage-grouse inhabiting this area – including the Cave and Lake Valley watersheds, together with the adjacent watersheds to the east (i.e., Hamlin Valley and South Spring Valley) – fall within the Southern Great Basin population of sage-grouse. Complaint ¶ 77; Answer ¶ 77. Sage grouse within this population migrate between these watersheds depending on physiological and habitat needs. *Id.*

58. BLM has carved these watersheds up into 12 separate allotments to facilitate livestock grazing, including the Cattle Camp/Cave Valley allotment in the northeast of the Cave Valley watershed and Geyser Ranch allotment in the northwest portion of the Lake Valley watershed. Complaint ¶ 79; Answer ¶ 79. *See also* AR 7575, Table 3.4 (list of grazing allotments); AR 7577, Map 3.2 (allotment map). BLM has constructed an extensive array of infrastructure within the allotments, including over 400 miles of fences, 37 troughs, 40 wells, 10 spring developments, eight reservoirs, and dozens of miles of pipelines. AR 7728-32 (maps of range projects). *See also* AR 7531 (noting approximately 400 miles of fences in two watersheds).

b. Conditions Within Cave Valley and Lake Valley Watersheds

59. In August 2008, BLM issued a Cave Valley Watershed Evaluation Report, which documented the poor conditions of the uplands, riparian areas, and wildlife habitat throughout the Cave Valley watershed. AR 5726-81.

60. BLM acknowledged that the public lands in the Cave Lake watershed were violating three of the four Standards for Rangeland Health. AR 5733, 5743, 5754 (violating standards for soils, watersheds, and habitat). *See also* 10079-10094 (Determination); 604-622 (Northern Great Basin Standards and Guidelines). More specifically, BLM concluded that the lack of grasses and forbs, the lack of biological soil crusts, and the "very high percentage" of cheatgrass across the watersheds were causing violations of the standard for soils. AR 5733-42, 5737. For many of these same reasons, BLM concluded that conditions within the watershed were not meeting the standard for uplands and riparian areas, too. AR 5743-53, 5766, 5767, 5768.

61. BLM concluded that upland seeps, springs, and wet meadows were similarly degraded, with only 8 of 25 (32%) meeting the standard of proper functioning condition. AR 5749-51. Fully 44% were functioning at risk with a downward trend, and 20% were non-functional. *Id.* BLM noted that "[m]ost of the springs have been nearly or completely denuded from overgrazing as they are probably being targeted by livestock and wildlife in landscapes largely devoid of upland forage." AR 5750. *See also* AR 8192 (condition rating for 78 springs: 30 at-risk, downward (39%); 21 non-functioning (27 %); 15 properly functioning condition (19%); nine unknown (12%), and 3 at-risk, trend unapparent (4%)). *See also* AR 7809-8191 (documenting degraded conditions).

62. BLM also found that the standard for wildlife habitat was not being met, because "[m]any sagebrush habitats exhibit minimal herbaceous understory," and due to the prevalence of cheatgrass throughout the watershed. AR 5754-58.

63. In its analysis, BLM also documented 21 noxious weed infestations across the Cave Valley watershed, including bull thistle, Russian knapweed, and others. AR 5758-59, 5777 (map). BLM never monitored or inventoried for the presence of cheatgrass, but BLM is aware that cheatgrass is found across the watershed. AR 5758. *See also* AR 5734, 5744-45 (cheatgrass at 16-20 percent of all understory vegetation in pinyon-juniper woodlands); AR 5745, Table 2.1; AR 5754 (cheatgrass at 18.5 percent of all understory vegetation in mountain mahogany communities); AR 5737 (cheatgrass present in all sagebrush communities); AR 5738, Table 1.5 (noting cheatgrass compositions).

64. BLM documented similar conditions within the Lake Valley watershed. AR 5803-58 (Lake Valley Watershed Evaluation Report). In this report, BLM concluded that the standards for soils, uplands and riparian areas, and wildlife habitat were not being met. *Id.* *See also* AR 10095-10109 (Lake Valley Determination) (finding violations of rangeland health standards for soil, watersheds, and wildlife habitat). BLM again attributed these poor conditions to the lack of diverse, native herbaceous grasses and forbs, and the prevalence of cheatgrass, among other conclusions. *Id.*

65. Like in Cave Valley, BLM's assessment of the condition of upland seeps, springs and wet meadows in Lake Valley – which provide critical late brood-rearing habitat for sage-grouse – demonstrated that these areas were in poor condition. AR 5825-28. For example, only 7 of 39 (18%) assessed areas were in properly functioning condition, and fully 51% were functioning-at-risk with a downward trend and 18% were nonfunctional. AR 5825-26. *See also* AR 8192 (condition rating for 78 springs); AR 7809-8191 (documenting degraded conditions).

66. In its analysis, BLM also documented 151 weed infestations across the Lake Valley watershed, including bull thistle, Russian knapweed, and others. AR 5837-39, 5856 (map). BLM never monitored or inventoried for the presence of cheatgrass, but BLM is aware that cheatgrass is found across the watershed. AR 5828. *See also* AR 5810, 5820 (cheatgrass discovered in pinyon-juniper woodlands); 5812, 5821-22 (cheatgrass located in all sagebrush communities); 5813, Table 1.5 (identifying cheatgrass concentrations), 5815 (cheatgrass present in greasewood communities).

67. The areas within and around the Cave Valley and Lake Valley have experienced 1,114 fires between 1980-2003, and 627 between 1994-2003. *See* AR 654

(adding fires in Southern Benches-Veg FMU, Southern Benches-HVH FMU, Northern Valleys FMU, Bullwhack FMU, and Highlands and South Egan Range FMU. *See also* AR 7587, Table 3.6 (FMU table) (noting these FMUs within Cave and Lake valleys).

68. Within Cave Valley Lake Valley alone, BLM has recorded 352 fires since 1980. AR 654 (presenting data up to 2003), 7587 (EA) (noting historic fire occurrence "since 1980"). *See also* AR 1040, 1056, 1080, 1096, 1108 (maps of recent fires in FMUs in Cave and Lake Valley watersheds). In total, these fires have burned almost 20,000 acres. *Id.*

c. Cave Valley and Lake Valley Environmental Assessment

69. On April 1, 2011, BLM issued a public scoping notice alerting the public to BLM's completion of its Cave Valley and Lake Valley analysis and evaluation, and notifying the public that it has begun considering vegetation projects within Cave and Lake valleys. AR6531. Western Watersheds submitted scoping comments. AR 6537-84.

70. On August 24, 2011, Western Watersheds attended a BLM-planned site visit of the Cave Valley and Lake Valley watersheds. Complaint ¶ 88; Answer ¶ 88. AR 6718-25 (WWP Comments during site visit).

71. On November 5, 2012, BLM issued its final Cave Valley and Lake Valley Watersheds Restoration Plan Environmental Assessment (Cave Lake EA). Complaint ¶ 89; Answer ¶ 89. *See also* AR 7477-759 (Cave Lake EA). BLM's preferred alternative had two elements: a landscape-scale vegetation plan to mow, chop, burn, and poison sagebrush expanses and juniper woodlands in 21 treatment areas covering 199,000 of public lands; and a range development plan to construct or reconstruct about 400 miles

of fences, eight reservoirs, and one well, as well as develop or extend existing pipelines at 17 upland springs. AR 7511-7552. *See also* 7541 (map of treatments); Cole Decl., Exhs. 5, 6 (maps of treatments and sage-grouse habitat).

72. BLM's proposed five different types of sagebrush treatment: Dixie harrow, Roller chopper, mowing, Tebuthiuron poisoning, and prescribed fire. AR 7519-22.

73. The Dixie harrow is a large spike tooth harrow (a heavy frame set with teeth or tines) pulled cross-country by a four-wheel drive tractor. AR 7519-20. When pulled, it crushes and knocks over sagebrush plants, killing them. *Id.* The degree of sagebrush mortality can be controlled by the addition (or subtraction) of spike-toothed tines – the more tines the greater the sagebrush mortality. *Id.* The resulting crushed sagebrush is left to dry and decay on site. *Id.*

74. A Roller chopper is a large steel cylindrical drum, equipped with several blades protruding 12-14 inches along the entire width. AR 7520. It is towed behind a crawler-type tractor to crush and chop sagebrush and other mature vegetation. *Id.* The crushed and chopped sagebrush and other vegetation are left to dry and decay on site. *Id.*

75. Mowing sagebrush involves the use of a mowing deck pulled behind a tractor. AR 7520-21. BLM's plan calls for a mower to reduce target sagebrush communities to between ground level up to 12-15 inches. *Id.* The mowed vegetation is left behind to dry and decay on site. *Id.*

76. Tebuthiuron poisoning involves the aerial, broadcast application of broad-spectrum herbicide pellets across sagebrush communities. AR 7521-22. Tebuthiuron is a nonselective, soil-activated herbicide that acts by inhibiting photosynthesis. AR 2377.

77. In its EA, BLM never identified which approved Tebuthiuron formulation it intended to use in its Tebuthiuron projects. AR 7521 (noting that all "chemical treatments would be in accordance with the specifications listed on the label for the chemical being used and the Standard Operating Procedures and Project Design Features" in the Weeds EIS and ROD).

78. BLM proposed a series of Standard Operating Procedures and other mitigation measures designed to reduce the ecological impacts of its proposed Tebuthiuron applications, including prohibiting the use of Tebuthiuron in areas with surface water or an elevated groundwater level, avoiding stands of mountain mahogany, and prohibiting the use of Tebuthiuron in areas lacking a healthy understory of native vegetation. AR 7522.

79. BLM also adopted so-called "buffer zones" – i.e., areas where Tebuthiuron application is prohibited – around the project boundary, but BLM did not adopt buffer zones around water bodies (including upland seeps, springs and wet meadows) within the project area. AR 7522.

80. BLM also proposed igniting prescribed fires in sagebrush and woodland vegetation communities. *Id.* Like in its Tebuthiuron projects, BLM also adopted a series of mitigation measures designed to reduce the adverse impacts flowing from these planned fires, including burning only where there is a healthy and diverse understory of native perennial species and a lack of non-native invasive plants, and prohibiting fire in areas receiving less than 12-inches of annual precipitation. AR 7512, 7522. These mitigation measures were intended to inhibit the spread of cheatgrass and other non-native, invasive species. *Id.*

81. BLM's vegetation projects also calls for the chaining, mastication, hand-cutting, and poisoning of trees in extensive areas within Cave Valley and Lake Valley. AR 7517-19.

82. Chaining involves the dragging between two bulldozers of a Navy ship anchor chain with 40-120 pound links and an 18-inch railroad iron welded perpendicular to the chain. AR 7517-18. The bulldozers would pass once (one-way chaining) or twice (two-way chaining) across the landscape, ripping up trees, sagebrush and other vegetation, and BLM will leave the biomass on site to dry and decay on site. AR 7518.

83. Mastication involves the cutting, chopping and sometimes chipping of pinyon pine and juniper trees using a light duty skidder attached to a larger machine. AR 7518-19. Resulting downed biomass may be chipped and scattered, cut and piled, or removed from the area. *Id.*

84. BLM preferred alternative also including hand-cutting of trees, which will be lopped and scattered across the area or piled. AR 7519.

85. BLM's plans also proposed to poison trees with Tebuthiuron, at a stronger concentration than used for sagebrush poisoning. AR 7522. Following the poisoning of trees, BLM expected a near-100% mortality of sagebrush and pinyon pine. *Id.* Like in its sagebrush projects, BLM identified a series of mitigation measures designed to reduce the adverse impacts of using Tebuthiuron, including limiting the project to areas with a healthy understory of desirable grasses are established that are resilient to Tebuthiuron. *Id.*

86. In its EA, BLM proposed to employ these sagebrush and tree eradication measures across 199,000 acres of public lands in the Cave Valley and Lake Valley watersheds. AR 7542 (sagebrush treatments totaling 145,682 acres); AR 7543 (woodland treatments totaling 16,119 acres); AR 7545 (combination units totaling 18,106 acres); AR 7546 (aspen treatment totaling 19,533 acres).

87. BLM's projects include areas within sage grouse preliminary priority habitat and within "essential, irreplaceable habitat," as well as within designated Wilderness areas. Cole Decl., Exhs. 5, 6 (maps overlaying BLM projects with sage-grouse habitat).

88. In its EA, BLM's preferred alternative proposed to apply Tebuthiuron immediately over mountain mahogany, pinyon juniper woodlands, black sagebrush, low sagebrush, and mountain big sagebrush vegetation communities. *See* AR 5776 (map of vegetation communities in Cave Valley); AR 7541 (map of treatment units); AR 7637-38 (map of Treatment Unit S-1); AR 7640-41 (map of Treatment Unit S-2); AR 7643-44 (map of Treatment Unit S-3). *See also* Cole Decl., Exh. 12 (map overlaying Tebuthiuron projects with vegetation community types).

89. The EA also proposed Tebuthiuron projects directly over many water bodies – including upland springs – in the Cave Valley and Lake Valley watersheds. *See* AR 6491 (map of riparian sources in Cave Valley); AR 6492 (map of riparian sources in Lake Valley); AR 7541 (map of treatment units); AR 7637-38 (map of Treatment Unit S-1); AR 7640-41 (map of Treatment Unit S-2). *See also* Cole Decl., Exhs. 8, 9 (maps overlaying Tebuthiuron projects with Cave Valley and Lake Valley riparian sources).

90. BLM also proposed prescribed fires along the spine between Cave Valley and Lake Valley, which consists of mountain mahogany, pinyon-juniper woodlands, with some vegetation communities consisting of mountain big sagebrush and black sagebrush. *See* AR 5776 (map of major vegetation communities in Cave Valley); 5855 (map of major vegetation communities in Lake Valley); AR 7541 (map of treatment units); AR 7684-85 (map of Treatment Unit W-2); AR 7687-88 (map of Treatment Unit C-1); AR 7689-90 (Map of Treatment Unit C-2); AR 7691 (information on Treatment Unit A-1, without corresponding map of proposed alternative). *See also* Cole Decl., Exhs. 10, 11 (maps overlaying prescribed fire projects with vegetation community types).

91. BLM proposal also call for igniting prescribed fires in eight areas – or ecosites – that receive less than 12 inches of rain annually, even though BLM adopted a mitigation measure that precluded fires in areas receiving less than 12 inches of annual precipitation. AR 7512 (prohibiting prescribed fire in areas in less than 12-inch precipitation zone). Cole Decl., ¶¶ 29-30 (identifying areas subject to prescribed fires that receive less than 12 inches of annual precipitation).

92. In its EA, BLM also proposed to construct or reconstruct a series of rangeland projects, including approximately 400 miles of allotment and pasture fences within Cave Valley and Lake Valley. AR 7530-38; 7548-52. BLM does not identify the fences to be constructed or reconstructed, and notes that some unidentified fences may need to be removed, rerouted or flagged to meet sage-grouse habitat requirements. AR 7531-32.

93. BLM's EA also proposed to reconstruct eight reservoirs and one new well; redevelop 12 upland springs and construct or reconstruct associated pipelines. AR

7533-38. Some of these spring developments and pipelines are within "essential, irreplaceable" sage-grouse habitat. Compare AR 7532, Map 2.3 (map of existing fences); AR 7536, Map 2.5 (map of existing reservoirs); AR 7538, Map 2.6 (map of existing water developments); AR 7549, Map 2.8 (map of proposed pipeline extension); *with* Cole Decl., Exhs. 5, 6 (map overlaying vegetation projects and sage-grouse habitat). The Cave Lake EA included no detailed information on the conditions of the public lands in and around its proposed range developments, and failed to provide any examination or analysis of the possible impacts of the construction and reconstruction of these range developments on sage grouse populations and habitat, even though some of these projects will be constructed within essential, irreplaceable habitat – including in close proximity to an occupied sage-grouse lek. AR 7549-7552 (describing project but not conditions).

94. In its EA, BLM adopted a Cumulative Effects Study Area that includes the Cave Valley and Lake Valley watersheds, together with several surrounding watersheds (including South Steptoe Valley, White River Central Fox-Gap Mountain, Dry Lake Valley, Patterson Wash, Spring Valley South West, Hamblin Valley, and South Spring Valley). AR 7620.

95. In preparing its cumulative impacts analysis, however, BLM limited its review to only rangeland vegetation, recreation, Lands with Wilderness Characteristics, and fuels and fire management. AR 7620-23. BLM never examined the cumulative impacts on sage-grouse populations and habitat. *Id.* In fact, BLM's cumulative impacts analysis did little more than provide a list of other activities. BLM failed to provide any quantified or detailed information and analysis of the cumulative impacts of these

actions on soils, vegetation, fuels, fire, watersheds, or sage-grouse populations and habitat. *Id.*

96. On November 5, 2012, BLM issued its Finding of No Significant Impact (Cave Lake FONSI), which is the culmination of BLM's NEPA process. AR 7765-69. In its Cave Lake FONSI, BLM concluded that the mitigation measures, Standard Operating Procedures and other project design features included in the Cave Lake EA would ensure the projects would have no significant ecological impact. AR 7765-69.

97. On this same day, BLM also issued two Decision Records, one for its vegetation plan and one for its range projects plan. Complaint ¶ 109; Answer ¶ 109. AR 7770-79.

98. WWP timely appealed these decisions, and sought to stay implementation of the vegetation and range projects. Complaint ¶ 109; Answer ¶ 109. AR 10228-10286. The Department of Interior's Office of Hearings and Appeals denied these petitions, and WWP dismissed its administrative appeals. Complaint ¶ 109; Answer ¶ 109. AR 10444-460 (order); AR 10461 (notice of dismissal); AR 10465 (ordering dismissing appeal). WWP has thus exhausted all required administrative remedies. Complaint ¶ 110; Answer ¶ 110.

d. Recent Past and Proposed Sagebrush Eradication Plans

99. BLM has authorized other landscape-level vegetation projects in this area of central Nevada. For example, in 2008 BLM adopted the Lincoln County Sage Grouse Habitat Restoration Project (Lincoln County Plan), which authorized the chaining, chopping, and poisoning of sagebrush across almost 10,000 acres of sage-grouse habitat in Cave Valley, Lake Valley, and surrounding watersheds. AR 10110-67 (EA); 10168-72

(FONSI and Decision Record). *See also* Cole Decl., Exhs. 1, 2 (maps overlaying watersheds and current, prior, and planned vegetation projects). The public lands and wildlife habitat subject to the Lincoln County Plan are located within some of the same areas subject to the Cave Valley and Lake Valley actions challenged here. AR 10158-65 (maps of treatments authorized under Lincoln County Plan); AR 7541 (map of treatments in under Cave and Lake Valley EA); AR 6102 (map of prior fuels treatments in Cave and Lake Valley); AR 6467 (map of prior treatments and earlier version of current treatments). *See also* Cole Decl., Exhs. 1, 2 (map of current, prior and planned projects in Cave, Lake, South Spring and Hamlin valleys). *See also* Complaint ¶ 111; Answer ¶ 111.

100. Plaintiff employees visited the public lands subject to the Lincoln County Plan before, after and during the implementation of the vegetation treatments. *See* Cole Decl., ¶¶ 21-27, and Photographs 1-5.

101. BLM has also completed another sagebrush project in the neighboring South Spring Valley allotment, entitled the South Spring Valley Sage-Grouse Habitat Restoration Project. AR 10174-10227 (EA and FONSI). In this project, BLM applied pelletized Tebuthiuron across 3,104 acres of sage-grouse habitat. *Id.* *See also* Complaint ¶ 115; Answer ¶ 115.

102. BLM has also proposed additional sagebrush projects in the Hamlin Valley and South Spring Valley watersheds immediately adjacent and to the east of Lake Valley. Complaint ¶ 116; Answer ¶ 116. In March 2012 – i.e., nearly nine months before BLM adopted the Cave Lake EA and FONSI – BLM issued a Scoping Notice alerting the public to BLM's proposed plans to eradicate sagebrush and pinyon-juniper forests

across vast areas within the Hamlin Valley and South Spring Valley watersheds. *Id.* All of these proposed treatment areas are within the BLM's Cumulative Effects Study Area identified in the Cave Valley and Lake Valley EA. AR 7620 (identifying Cumulative Effects Study Area). *See also* Cole Decl., Exhs. 1, 2 (map overlaying treatment within Cumulative Effects Study Area).

Dated this 17th day of September, 2014.

Respectfully submitted,

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