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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA

COTTONWOOD ENVIRONMENTAL LAW CENTER; WESTERN WATERSHEDS PROJECT; WILDEARTH GUARDIANS; GALLATIN WILDLIFE ASSOCIATION Plaintiffs, vs. U.S. SHEEP EXPERIMENT STATION; AGRICULTURAL RESEARCH SERVICE; U.S. FISH AND WILDLIFE SERVICE; SALLY JEWELL in her official capacity as Secretary of the Interior. Defendants.	)	Case No. 9:14-CV-00192-DLC EXHIBIT 1

United States Department of Agriculture

Office of the Secretary
Washington, D.C. 20250

NOV 10 2014

The Honorable Robert B. Aderholt
Chairman
Subcommittee on Agriculture, Rural Development,
Food and Drug Administration, and Related Agencies
Committee on Appropriations
U.S. House of Representatives
2362A Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

Thank you for your letter of July 15, 2014, cosigned by Congressman Sam Farr, regarding the proposed closure of the U.S. Sheep Experiment Station in Dubois, Idaho. I apologize for the delayed response.

In your letter, you requested that the U.S. Department of Agriculture provide a detailed report of ongoing sheep research within the Agricultural Research Service. I am happy to provide the enclosed report that further details several aspects of the proposed transition as well as our sheep research program.

Again, thank you for your letter. Should you have other questions, please have a member of your staff contact Todd Batta, Assistant Secretary for Congressional Relations, at (202) 720-7095. A similar letter is being sent to Congressman Farr.

Sincerely,

Thomas J. Vilsack
Secretary

Enclosure

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE

SHEEP RESEARCH IN THE AGRICULTURAL RESEARCH SERVICE AND THE PROPOSED CLOSURE OF THE U.S. SHEEP EXPERIMENT STATION AT DUBOIS, IDAHO

PURPOSE:

On June 17, 2014, the U.S. Department of Agriculture (USDA) submitted a letter to the House and Senate Agriculture Appropriations Subcommittees, informing them of USDA's intent to close the Agricultural Research Service's (ARS) U.S. Sheep Experiment Station (USSES) in Dubois, Idaho. ARS proposed to consolidate the sheep research functions with ongoing research at the U.S. Meat Animal Research Center (MARC) in Clay Center, Nebraska. ARS also proposed to reprogram the funding associated with the Dubois station to high-priority research at other ARS locations in Idaho and reassign the permanent staff (1 scientist and 13 additional personnel) to research projects at other ARS locations. Subsequently, Chairman Robert Aderholt and Ranking Member Sam Farr of the House Agriculture Appropriations Subcommittee asked USDA to produce a report detailing the sheep research conducted by ARS. This document responds to the Committee's request.

BACKGROUND AND RATIONALE:

The proposal to close the USSES is based on two primary factors.

First, ARS' ability to conduct the innovative grazing research that traditionally served the sheep industry has been negatively impacted by changes in domestic sheep access to grazing lands. This reduction in access has resulted from changes in the areas permitted for grazing by domestic sheep to minimize contacts with expanding bighorn sheep populations in the area, and conflicts within grizzly bear habitat in the Greater Yellowstone area.

The second primary factor for closure is the lack of resources, both human and financial, at the location to conduct the desired research program. This includes costs associated with animal feed, infrastructure needs, and staff.

Impact to Research Program:

Established in 1915, the USSES headquarters is located approximately 6 miles north of Dubois, Idaho. The location contains ARS-owned land in both Idaho and Montana totaling approximately 48,000 acres. The USSES conducts sheep research designed to improve the genetics, reproductive efficiency, and nutrient use of domestically grazed sheep. In the past, the USSES cared for and managed about 3,000 mature sheep, plus young sheep of various ages. Recently, the herd was reduced to approximately 1,700 animals due to financial challenges at the station.

In addition to its own lands, sheep in ARS research in the past have also grazed four Forest Service allotments in the Caribou-Targhee National Forest and one Bureau of Land Management (BLM) allotment just north of Howe, Idaho. The BLM terminated its Bernice Allotment Memorandum of Understanding with ARS in 2012 due to the high risk of transmission between domestic sheep herds and native Bighorn Sheep using habitat adjacent to and overlapping the Bernice allotment. This significantly reduced the amount of winter grazing available for USSES sheep.

The USSES faces a number of other challenges to accessing grazing lands for its sheep research. Since 2007, various environmental groups sued ARS three times over grazing activities at the USSES.

These legal actions introduce further uncertainty in the availability of grazing lands for research, and the agency's ability to allocate resources and implement approved project plans are seriously hindered.

Financial Situation:

The USSES has experienced a prolonged period of flat or declining budgets and, coupled with the effects of sequestration and rescission, the discretionary funding per scientist has fallen below levels considered viable to continue research operations at the USSES.

The declining budgets also have meant fewer funds are available for capital improvements or extensive repairs to the location's facilities. ARS' 2012 Capital Investment Strategy Report identified the USSES as one of the worst conditioned facilities in the agency. Unfunded facility needs include corroded water lines, deteriorating building exteriors, and insufficient IT infrastructure. These repairs, estimated at between $2 million and $4 million, would need to be corrected in order to continue operating the USSES at optimal levels.

Additionally, the 2013 retirement of the research leader of the Range Sheep Production Efficiency Research Laboratory at the USSES and the transfer of another scientist to Pullman, Washington, further contribute to uncertainty surrounding the continuation of research at this location. To compensate for budgetary limitations, one of the four scientist positions has already been abolished in order to provide necessary funds for continued research operations. With that abolishment, the research program has been left with only one scientist on site (and two vacancies), and without critical research capacity and leadership. Difficulties recruiting qualified scientists to Dubois (population 677; 2010 U.S. Census) due to the remoteness of the location have compounded these issues.

In addition, despite a reduction in herd size, the location has approximately $175,000 of annual unfunded feed costs to maintain the current level of operations. Additional unfunded costs are being incurred to replace the forage formerly obtained by grazing that was permitted on the Bernice Allotment.

Rationale for the USSES Closure:

Because of the required reductions in research scope, the precarious financial position of the location, and the lack of a critical mass of scientists with expertise in sheep research, the productivity of the location is not likely to improve in the foreseeable future.

When the pressures to limit or reduce ARS' use of grazing lands at the USSES through lawsuits, injunctions, or the termination of grazing allotments are added, there exists a general atmosphere of uncertainty that makes it difficult for ARS to properly plan or implement its research activities at this location.

For research to be credible, the findings must be applied to specific, consistent conditions and be replicable in subsequent experiments to ensure that actions taken are truly having the desired effect and can provide the scientific foundation for recommendations to producers. As field sites are selected for scientific value and relevance to the research problem at hand, restrictions on the amount of and access to land for this research will reduce the value of that research, thus creating a level of uncertainty as to the effectiveness of the research activity itself.

As an example, the Bernice allotment was a location suited to studying the domestic sheep-bighorn sheep interface under range conditions. Since BLM has withdrawn the Bernice allotment, the USSES is no longer the ideal location to do this type of research. ARS has the capability to conduct animal health studies that do not require access to rangeland in which domestic sheep and bighorn sheep naturally interface at other research locations. If the Forest Service allotment that provides access to the ARS' high-altitude summer range were also to become unavailable in the future, this unique high-altitude grazing system in Dubois would no longer be an asset of the USSES.

While some of the challenges facing the Dubois location can be solved with additional funding, others cannot. For that reason, ARS believes the most prudent and fiscally responsible path is to consolidate sheep research resources to a location with sufficient expertise and resources to provide that critical scientific mass that will allow ARS to continue to respond to the sheep industry's needs.

Responsibility for the animal research program at Dubois will transfer to MARC in Clay Center, which will allow ARS to continue a viable research effort aimed at improving breeding and production management in sheep. Because MARC is ARS' largest and most comprehensive large animal research location, it is well suited to continue the sheep research important to stakeholders. Four of the remaining staff in Dubois will be transferred to Clay Center, further increasing the capacity and effectiveness of this program.

CURRENT SHEEP RESEARCH ACTIVITIES:

ARS' research portfolio includes sheep research at 16 locations across the country with a very diverse and comprehensive set of research objectives represented by the whole program. A complete listing of all locations, funding, and staff time associated with sheep research in ARS can be found in the Appendix of this document. Ongoing ARS sheep research falls into three general categories.

Improvement of American Sheep Meat and Fiber
Current research is focused on evaluating how current American sheep breeds can be used to yield more nutritious meat or premium wool. In partnership with Virginia Tech, MARC is investigating both paternal and maternal genetics to explore potential improvements in ewe lifetime productivity or end-product quality. Both genetic marker-assisted and Epstein-Barr virus (EBV)-based selection tools are developed and subsequently used to create test composites or improve breeds in targeted production types for evaluation.

Strategic Abatement of Sheep Diseases
Current research is focused on controlling transmission of diseases within and from domestic sheep flocks. ARS is identifying genetic markers associated with disease susceptibility to develop genotypes associated with reduced disease susceptibility. The program will determine the consequences of selecting for these genotypes on lifetime productivity and product yield. Additional efforts are underway to explore non-antibiotic products to minimize pathogenic enteric bacteria diseases in neonatal lambs.

Complementary Use and Management of the Natural Resource Base
Current research is focused on developing rangeland management practices that result in sustainable use of native rangelands, while complementing and promoting other non-agricultural ecosystem services. Necessary data are mined from historic USSES datasets, which include over 70 years of fire, grazing, and vegetation data and over 40 years of intermittent sage grouse population data. Currently, ARS has or is initiating partnerships to leverage scientific expertise and combine regional datasets. Specific research objectives include post-fire grazing management of sagebrush and lupines, effect of fire on sage grouse populations, and improvement of grazing lands.

Research applicable to sheep is conducted in a wide variety of research projects, including animal health, food safety, and range management. A detailed description of a few selected major sheep research projects and their research objectives follows.

Improving the Efficiency of Sheep Production in Western Rangeland Production Systems – Dubois, Idaho

- Understanding the control points of the first 24 months of a ewe's life to improve reproductive efficiency and lifetime production, and develop methods for managing critical control points to optimize production efficiencies in range sheep flocks.

- Evaluating germplasm, selection criteria, and mating systems to improve maternal and paternal genetic lines of sheep to best match western rangeland environments and industry targets for reproductive efficiency, growth, feed/forage efficiencies, and meat quality.

Note: ARS will continue to conduct research to improve reproductive efficiency and lifetime production, evaluate germplasm, and enhance genetic selection tools to improve sheep production in the United States in Clay Center, Nebraska.

New Monitoring Technologies for Improving Rangeland Management – Dubois, Idaho

- Evaluate newly developed monitoring technologies for landscape-scale assessment of the effects of rangeland management activities, including grazing and fire, on vegetation, ground cover, and herbivore selectivity.
- Develop science-based grazing management strategies and decision support systems that can be used to guide managers in maintaining or improving the ecological function of western rangelands.

Note: ARS will continue to conduct landscape-scale assessment of the effects of management activities on western rangelands and develop grazing management strategies to maintain or improve the ecological function of western rangelands in Boise, Idaho and other ARS locations.

Genetic Research to Enhance Efficient and Sustainable Production of Beef Cattle and Sheep – Clay Center, Nebraska

- Improve breeding and management decisions by characterizing current genetic variation within and between predominant beef cattle and sheep breeds and crosses using novel genomic and genetic evaluation.
- Reduce mortality and morbidity of beef cattle and sheep by identifying genetic factors affecting susceptibility to respiratory diseases and by developing effective selection programs.
- Enhance the competitiveness, profitability, and sustainability of lamb production with reduced labor inputs by developing and evaluating an easy-care maternal line of prolific hair sheep.

Pathogen Mitigation in Livestock and Red Meat Production – Clay Center, Nebraska

- Develop and validate intervention strategies that reduce or eliminate foodborne pathogens at the animal and processing levels.
- Determine and validate detection methods for foodborne pathogen colonization and contamination at various stages in the production of red meat.
- Examine host pathogen interactions with an emphasis on host-specific determinants of pathogen colonization.

Control of Ovine Respiratory Disease through Genetic and Immunologic Mitigation of Pathogen Transmission and Disease – Pullman, Washington

- Identify host genetic markers associated with reduced transmission and replication of ovine progressive pneumonia virus (OPPV), and reduced OPPV proviral replication in domestic sheep.
- Identify host genetic factors in domestic and bighorn sheep associated with reduced transmission and disease due to *Mannheimia haemolytica*.
- Develop intervention strategies to mitigate transmission of *Mannheimia haemolytica* from domestic sheep to bighorn sheep to reduce respiratory disease in domestic and bighorn sheep.

Wool and Keratin from Wool for Bio-Based, Value-Added Products – Wyndmoor, PA

- Develop commercially viable processes based on chemical or enzymatic crosslinking that increase the market value of wool.
- Develop extraction and derivatization processes for the production of commercially viable products from keratin.

STAKEHOLDER INVOLVEMENT:

ARS takes pride in being responsive to the producer and user groups that comprise its stakeholder community. Scientists and program leaders at all levels of ARS maintain constant contact with industry, university partners, and producer groups to ensure research is relevant to their needs and is producing effective results of consequence. In many cases of major programmatic changes, ARS is able to communicate plans to stakeholder groups in advance and receive their input prior to finalizing proposals.

ARS was not in a position to communicate its plans for the USSES, however, until approval processes within USDA had been completed and the proposal was submitted to Congress for its review. Further, because the proposal includes the directed reassignment of 14 employees, the agency is sensitive to the impact that this announcement would have on its staff. Holding the announcement of plans until approvals have been given minimizes the uncertainty for employees involved in the closure process.

Listening Sessions:

Following the notification of Congress regarding the proposed closure of the USSES, ARS received wide-ranging input from a large number of stakeholders both in favor of and opposed to the closure. On August 6 and 7, ARS conducted stakeholder listening sessions to further engage with interested parties, including at least two—the Greater Yellowstone Coalition and the Natural Resources Defense Council—who had previously sent letters supporting the closure. Written comments were also solicited from stakeholders. There were 133 participants in the listening sessions, with 47 providing verbal comments. Additionally, ARS received more than 14,000 e-mails in response to the listening sessions about the location closure. Comments received from the listening sessions and in writing highlight three common themes:

1. The USSES has a unique geographic landscape that provides an elevation gradient for four distinct ecosystems presenting a comprehensive suite of multifunctional management challenges across Western rangelands.

2. Continued research in the intermountain West is critical to the western sheep industry, particularly existing research on the interaction between domestic and bighorn sheep.

3. The USSES land and its associated grazing areas are corridors for wildlife migrating between the Yellowstone region and the vast wild areas of central Idaho. Grazing of domestic sheep is in direct conflict with the wildlife habitat.

ARS' response to common themes expressed during Listening Sessions:

1. *The USSES' unique geographic landscape:* A Forest Service allotment serves as a land bridge that provides access to half of ARS' own summer rangelands. If the Forest Service allotment were to become unavailable in the future, the unique high-altitude grazing system would no longer be a viable research capacity of the USSES.

2. *Support for research in intermountain West:* BLM terminated its Bernice Allotment Memorandum of Understanding with ARS in 2012, which significantly reduced the amount of winter grazing available for USSES sheep. The Bernice allotment was a location suited to studying the domestic sheep-bighorn sheep interface under range conditions. With this asset no longer available, the USSES is no longer suited to do this research.

3. *Domestic/Wildlife Conflict:* Since 2007, ARS has been sued three times over grazing activities at the USSES by various environmental groups. These legal challenges claim that land used by the USSES is a source of wildlife conflict. The legal actions require that personnel at the location spend time and resources responding to the lawsuits, reducing the time and resources available for research activities. Given the location's proximity to the greater Yellowstone ecosystem, the likelihood of continuing litigation is high.

SUMMARY:

Withdrawal of critical rangeland resources by BLM and continued challenges from environmental groups opposed to livestock grazing along a corridor that includes the USSES summer range has eroded ARS' ability to sustain a viable range sheep research program at the Dubois location. A variety of other factors, including reduced funding levels and staffing levels, inability to attract and retain a critical mass of highly skilled scientists at Dubois, and increasing costs have contributed to the unsustainability of the ongoing research program at the USSES. Under current conditions, maintaining the previous level of research is no longer a viable option. As a result, USDA has proposed the closure of the USSES and the reprogramming of its resources to high-priority research at other locations in Idaho. USDA has proposed transferring the responsibility for the USSES sheep research program to Clay Center, Nebraska. Sheep research in ARS is widely varied and spread among many locations, and the research program will remain robust and responsive to stakeholder needs despite the closure of the USSES.

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service

Appendix

Five Year History of Sheep Research

Location	FY 2010 Funcling	SYs	FTE	FY 2011 Funding	SYs	FTE	FY 2012 Funding	SYs	FTE	FY 2013 Funding	SYs	FTE	FY 2014 Funding	SYs	FTE
Booneville, AR	$ 138,600	0.2	1	$ 104,600	0.2	1	$ 196,100	0.4	1	$ 236,500	0.4	1	$ 654,800	0.6	2
Albany, CA	1,492,500	2.9	11	1,489,500	2.9	11	1,489,500	2.9	11	1,374,700	2.1	7	1,374,700	2.4	9
Ft. Collins, CO	156,100	0.4	1	155,800	0.4	1	155,800	0.4	1	71,900	0.2	1	101,900	0.2	1
Ames, IA	2,098,900	2.1	8	2,094,700	2.1	8	1,812,900	1.5	6	1,673,200	1.5	5	1,673,200	1.4	6
Dubois, ID	1,929,600	4.2	21	1,925,800	4.2	19	1,925,800	3.2	20	1,777,400	3.2	19	1,777,400	2.7	17
Peoria, IL	156,600	0.4	1	156,300	0.4	1	-	-	-	-	-	-	-	-	-
Manhattan, KS	1,098,300	1.6	6	766,100	1.6	6	766,000	1.6	6	706,900	1.6	6	806,400	1.7	7
Lexington, KY	262,500	0.5	2	262,000	0.5	2	262,000	0.5	2	241,800	0.5	2	185,300	0.3	1
Beltsville, MD	576,300	0.7	3	575,200	0.7	3	974,400	1.4	5	901,200	1.1	4	749,100	0.8	3
Beltsville (NAL)	195,600	0.2	1	195,200	0.2	1	195,200	0.2	1	180,200	0.2	1	180,200	0.2	1
Miles City, MT	189,300	0.4	2	188,900	0.4	2	188,800	0.5	2	-	-	-	-	-	-
Fargo, ND	-	-	-	-	-	-	128,400	0.2	1	118,500	0.3	1	133,500	0.3	1
Clay Center, NE	1,540,900	3.4	13	1,537,800	3.4	13	1,506,800	3.4	13	1,222,900	2.8	10	1,908,300	3.4	13
Greenport, NY	228,500	0.5	2	227,900	0.5	2	379,000	0.7	3	347,400	0.7	3	347,400	0.7	3
Wyndmoor, PA	646,900	1.5	6	645,100	1.5	6	423,000	1.0	4	368,200	1.0	4	368,200	1.0	4
Kerrville, TX	389,000	0.9	4	388,200	0.9	4	388,200	1.0	4	366,300	0.9	3	483,300	1.0	4
Logan, UT	906,600	2.5	10	904,800	2.5	10	904,600	2.2	8	675,200	1.8	6	735,200	1.8	7
Pullman, WA	3,793,000	5.6	22	3,785,400	5.6	21	3,785,400	5.5	21	3,493,700	5.5	20	3,496,400	4.9	19
Beaver, WV	678,000	1.3	5	676,100	1.3	5	-	-	-	-	-	-	-	-	-
TOTAL	$ 16,477,200	29.4	119	$ 16,079,400	29.4	116	$ 15,481,900	26.6	109	$ 13,756,000	23.8	93	$ 14,975,300	23.4	98