

BEFORE THE SECRETARY OF THE DEPARTMENT OF AGRICULTURE

Rochelle Community Organization Working for Sustainability,

Petitioners:

4W Ranch: Bob and Jean Harshbarger

Irwin Livestock Company, Inc.

Sunshine Valley Ranch

Gary and Cheryl Jacobson

To the:

Chief, U.S. Forest Service

Regional Forester, Rocky Mountain Region, U.S. Forest Service

Supervisor, Medicine Bow-Routt National Forest

Petition for Rulemaking to Revise the Thunder Basin National Grassland Land and
Resource Management Plan and Amend the Thunder Basin National Grassland Prairie
Dog Management Strategy

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	BACKGROUND	3
A.	The Thunder Basin National Grassland Land and Resource Management Plan.....	3
B.	Black-Tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland.....	4
C.	The Legal Background Surrounding Management of the Thunder Basin National Grassland	6
III.	THE PRIMARY PURPOSE OF THE THUNDER BASIN NATIONAL GRASSLAND IS TO SUPPORT AGRICULTURE	8
A.	The origins of the Land Utilization Project came from the Dust Bowl and a need to revitalize the land.	9
B.	Purpose of the Land Utilization Program was to create healthy, sustainable and organized agricultural communities in the West.....	10
C.	The Land Utilization Programs created the modern Thunder Basin National Grassland and continued the original purpose of the Land Utilization Program.....	12
IV.	MISMANAGEMENT OF THE BLACK-TAILED PRAIRIE DOG HAS CAUSED WIDESPREAD AND SEVERE DAMAGE AND FAILS TO MEET THE REQUIREMENTS OF THE LUP AND BJFTA.....	14
A.	The current Prairie Dog Management Plan harms landowners in the region and undermines the purpose of the Thunder Basin National Grassland to support grassland agriculture.	14
i.	The destruction of grassland vegetation by prairie dogs is costly both in the short-term and long-term for local agricultural operations.	15
ii.	The annual cost to repel constant prairie dog invasions is unsustainable.	22
B.	Prairie dog expansion is hazardous to both humans and livestock in the Thunder Basin.....	24
i.	Prairie dog colonies are a leading source of the plague.	24
ii.	Prairie dog burrows are a hazard to livestock and local infrastructure.....	25
C.	Prairie dog expansion harms the local environment in the Thunder Basin National Grassland.....	26
i.	Prairie dog expansion is drastically increasing and expanding soil erosion in the Thunder Basin National Grassland.	26
ii.	The naturally occurring mixed grass prairie landscape is being radically changed into a short grass prairie ecosystem by the expansion of the prairie dog colonies.	29
iii.	The Forest Service's management to encourage the expansion of the black-tailed prairie dog has caused harm to other wildlife species in the Grassland.	30

D.	The Forest Service has utilized translocation to move prairie dogs from one area to another causing conflicts between landowners.	35
V.	THE FOREST SERVICE IS LEGALLY OBLIGATED TO MANAGE THE PRAIRIE DOG INFESTATION.....	36
A.	The Forest Service’s Mismanagement of Prairie Dogs is a Violation of the Bankhead-Jones Farm Tenant Act.	36
B.	The Forest Service has violated its own Regulations by Failing to Adequately Manage Black-Tailed Prairie Dogs on the Thunder Basin National Grassland	37
C.	The Forest Service has ignored the State of Wyoming’s designation of the black-tailed prairie dog as an agricultural pest violating the requirements set forth in NEPA.	38
D.	The black-tailed prairie dog does not meet the definition of a sensitive species, “species of conservation concern” or focal species.	39
VI.	PROPOSED RULE AMENDMENTS	40
A.	The size of colonies and the density of the prairie dogs must be reduced in the management areas in the Thunder Basin National Grasslands.	41
B.	Creating wider buffer zones between prairie dogs, other affected species and private landowners would help prevent future conflicts.....	42
C.	Removal of all prairie dogs from within sage grouse core area habitat would better serve the Forest Service’s mission to protect sage grouse.....	42
D.	A change in management techniques will allow for greater efficiency in prairie dog management and will protect other interests in the Basin.	43
i.	The Forest Service should allow for the use of Rozol and other anticoagulants on portions of the Thunder Basin National Grassland.	43
ii.	Deltamethrin should not be applied in prairie dog colonies that are also occupied by mountain plover and other avian species.....	45
iii.	The Forest Service should no longer conduct prescribed burns to encourage prairie dog colony expansion in the Thunder Basin National Grassland.	45
iv.	Translocation should occur only within limited parameters and not between lessee allotments or into or next to buffer areas.....	46
E.	The Forest Service should work and fund conservation efforts to reclaim lands devastated by the black-tailed prairie dog infestation.	47
F.	The Forest Service should better utilize land exchanges as a means to limit conflicts between prairie dogs and affected landowners.....	47
G.	The Thunder Basin National Grasslands is not a good home for future Black-Footed Ferret introduction.....	48
H.	Any working group established for the Thunder Basin should have some authority and local involvement.	49
VII.	CONCLUSION	50

TABLE OF FIGURES

<u>Figure 1:</u> Area of Un-grazed Pasture without Prairie Dogs.....	18
<u>Figure 2:</u> Same Un-grazed Pasture, Same Day, Location with Prairie Dogs	18
<u>Figure 3:</u> Un-grazed Federal Pasture 1 st Example.....	19
<u>Figure 4:</u> Un-grazed Federal Pasture 2nd Example.....	19
<u>Figure 5:</u> Un-grazed Private Land (same day)	20
<u>Figure 6:</u> Federal allotment with destroyed forage base due to prairie dog colonization..	21
<u>Figure 7:</u> Windy Day Prairie Dog Area	28
<u>Figure 8:</u> Soil Erosion Caused by Prairie Dogs	28
<u>Figure 9:</u> Destroyed Sage Grouse Habitat.....	31
<u>Figure 10:</u> Sage Grouse Nesting Location	32
<u>Figure 11:</u> Prairie Dogs on Sage Grouse Core Area.....	32
<u>Figure 12:</u> Sage Grouse Habitat Destroyed by Prairie Dogs	33
<u>Figure 13:</u> Once Productive Pasture, Sage-Grouse Habitat.....	33
<u>Figure 14:</u> Burning Sage Grouse Core Area 2012.....	34

APPENDIX A: ACRONYMS

Acronym	Name
AUM	ANIMAL UNITS PER MONTH
BJFTA	BANKHEAD-JONES FARM TENANT ACT
ESA	ENDANGERED SPECIES ACT
LRMP	LAND AND RESOURCE MANAGEMENT PLAN
LUP	LAND UTILIZATION PROJECT
NEPA	NATIONAL ENVIRONMENTAL POLICY ACT
NFMA	NATIONAL FOREST MANAGEMENT ACT
PRAIRIE DOG PLAN	BLACK-TAILED PRAIRIE DOG CONSERVATION ASSESSMENT AND MANAGEMENT STRATEGY
RPA	FOREST AND RANGELAND RENEWABLE RESOURCES PLANNING ACT
TBNG	THUNDER BASIN NATIONAL GRASSLAND

I. INTRODUCTION

The Petitioners are past and present ranchers and landowners in the Thunder Basin National Grassland (TBNG) in eastern Wyoming. They are the current ranching operations known as the 4w Ranch owned by Bob and Jean Harshbarger; the Irwin Livestock Company, Inc. owned by Dennis and Jane Irwin and his children; with Denise Irwin Langley as a co-director; and the Sunshine Valley Ranch owned by Wayne and Joan Neumiller. The other petitioners are Gary and Cheryl Jacobson, past owners of the Fiddleback Ranch which is also located within in the TBNG. All of these ranches include private lands that were homesteaded initially around the 1880s to early 1900's and all ranches require the use of federally managed grazing allotments in the TBNG in order to keep their ranches sustainable and viable. The Petitioners have suffered severe economic hardship and destruction of their private property due to the widespread devastation caused by the infestation of black-tailed prairie dogs which relentlessly encroach from lands managed by the Forest Service onto their private properties. Additionally, the lands managed as part of the TBNG (including the allotments permitted to these ranchers) continue to suffer ecological devastation from the failure to manage the prairie dog populations.

The Petitioners respectfully request that the United States Forest Service revise the Thunder Basin National Grassland Land and Resource Management Plan (LRMP or Land and Resource Management Plan) and amend the Thunder Basin National Grassland Black-tailed Prairie Dog Conservation Assessment and Management Strategy (Prairie Dog Plan) to protect the ecological balance of the TBNG as well as the economic stability of these family ranches. Federal law requires the Forest Service to administer the national grasslands for the purposes for which they were acquired. When the federal government acquires land for a particular public purpose, only Congress has the power to change that purpose or to dispose of the acquired land.¹ Thus, federal agencies must manage and administer acquired lands according to the purpose for which the federal government acquired them, unless Congress has authorized otherwise.² The current Prairie Dog Plan adopted by the Douglas Ranger District of the Medicine Bow-Routt National Forest for the TBNG is harmful to Wyoming landowners and grazing leaseholders in the Thunder Basin and is contrary to the purpose of the Bankhead-Jones Farm Tenant Act of 1937.

Not only has the current Forest Service management of the prairie dogs in the Thunder Basin National Grasslands harmed landowners economically, it has also caused severe long-term environmental damage and has harmed many other important wildlife and protected species in the area. The accumulated damage caused by the mismanagement of the black-tailed prairie dog also violates the mandate of multiple-use and sustainable yield set forth in the National Forest Management Act (NFMA). The

¹ Reichelderfer v. Quinn, 287 U.S. 315, 318–20 (1932).

² Id.; see also United States v. Three Parcels of Land, 224 F.Supp. 873, 876 (D. Alaska 1963); United States v. 10.47 Acres of Land, 218 F.Supp. 730, 733 (D.N.H. 1962)

NFMA dictates that management systems must not produce substantial and permanent impairment of the productivity of the land.³

Under its own regulations, the Forest Service must administer the national grasslands “under sound and progressive principles of land conservation and multiple use, and to promote development of grassland agriculture and sustained-yield management of the forage....”⁴ The Forest Service must also manage national grassland resources “so as to maintain and improve soil and vegetative cover, and to demonstrate sound and practical principles of land use for the areas in which they are located.”⁵

In contrast to these statutory mandates, as of 2016-2017, prairie dog populations vastly exceeded the forage and resource capacity in areas of the TBNG. By allowing an overpopulation of prairie dogs to persist in the Thunder Basin National Grasslands, the Forest Service is not upholding its duty to manage the lands for the designated purpose of “Grassland Agriculture,” and instead is managing almost exclusively for the expansion of the black-tailed prairie dog.

It is because of the devastating harm wrought onto local grazers in the area and the sustained damage to the environment that Petitioners request that the Forest Service and Department of Agriculture take immediate action to remediate the harm caused and to prevent the damage from occurring again. These actions should include the following:

- Pro-actively work with the local grazing association boards to manage the Grasslands according to their statutory purposes;
- Manage the Thunder Basin National Grasslands for Grassland Agriculture
- *Aggressively* manage existing prairie dogs within the TBNG starting in the Fall of 2018, by doing the following:
 - a. Significantly reduce the prairie dog density and acreage in the area;
 - b. Authorize and manage effective buffer zones around prairie dog colony perimeters;
 - c. Remove all prairie dogs from within sage grouse core area habitat;
 - d. Re-authorize certain proven management strategies that are currently banned for prairie dog management; and
 - e. Amend currently ineffective prairie dog management strategies.

³ 16 C.F.R. § 1604(g)(3)(C).

⁴ 36 C.F.R. § 213.1(c).

⁵ 36 C.F.R. § 213.1(d).

- Proactively work and fund conservation efforts to reclaim land devastated by the black-tailed prairie dogs;
- *Streamline and expedite* land exchanges to improve management effectiveness; and
- *Expedite* a new Land and Resource Management Plan (LRMP) with an associated black-tailed prairie dog management plan. Any new LRMP or revision or amendment of the existing LRMP remove areas designated as MA 3.63 (Black-footed Ferret Reintroduction Habitat Area) and MA 2.1 (Cheyenne River Special Interest Area) which is adjacent to MA 3.63 and return all management to MA 5.12, General Forest and Rangelands: Range Vegetation Emphasis.

II. BACKGROUND

A. *The Thunder Basin National Grassland Land and Resource Management Plan*

The current LRMP for the Thunder Basin National Grasslands was finalized in 2001. The purpose of developing a LRMP is to lay out the goals and objectives including “[a]nnually, provide forage for livestock on suitable rangelands,” and “[i]ncrease the amount of forests and grasslands restored to or maintained in a healthy condition with reduced risk and damage from fires, insects, diseases, and invasive species.”⁶

Next, the LRMP sets forth standards and guidelines for the entire Thunder Basin National Grassland. Standards are actions that must be followed, or are required limits to activities in order to achieve Grassland objectives. Guidelines are advisable actions that should be followed to achieve Grassland or Forest goals and objectives. Chapter 1 Section H of the Land and Resource Management Plan directly discusses prairie dog management.⁷ The section restricts the use of rodenticides for reducing prairie dog populations to the following situations: when public health and safety risks occur in the immediate area, and when prairie dogs damage private and public facilities.⁸ This section does not allow the use of rodenticides from January 1 through September 30 of a calendar year.⁹

Chapter 2 of the LRMP, labeled as the Geographic Area Direction, consistently directs the Forest Service to maintain or increase prairie dog colonies in the region.¹⁰ Chapter 2 also creates a Black-Footed Ferret Reintroduction Area.¹¹ Although the LRMP sets forth conservation goals to increase prairie dog colonies in the National Grassland, there are no upper limits for that growth set forth in the Land and Resource

⁶ Thunder Basin National Grassland Land and Resource Management Plan (2001) at 1-2.

⁷ Thunder Basin National Grassland Land and Resource Management Plan (2001) at 1-23.

⁸ *Id.*

⁹ *Id.* The rodenticide labels allow for a longer treatment period than the Forest Service allows.

¹⁰ *See Id.* at 2-2, 2-5, 2-12.

¹¹ *Id.* at 2-3.

Management Plan; nor are there any directives put in place that *effectively protect* neighboring landowners from unwanted prairie dog infestations.

B. *Black-Tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland*

The current Prairie Dog Plan Record of Decision was published in 2009 and is the primary document that substantively outlines the Forest Service's prairie dog management strategy. The Prairie Dog Plan sets forth four land categories for prairie dog management.

Category 1: This is habitat that will be maintained within the planning landscape and will include a large portion of the Black-footed Ferret Reintroduction Habitat Area (MA 3.63), created by the Resource Management Plan. The objective in the Category 1 area is to provide a minimum of 18,000 acres of active colonies. The total Category 1 area is approximately 52,000 acres in size and allows for the prairie dogs to disperse and colonize throughout the region. In order to achieve this objective, the Forest Service set forth control and management criteria for Category 1 habitat. First, there will be no rodenticide control within Category 1 boundaries, unless there are over 18,000 active acres of prairie dog colonies.¹² Further, upon eclipsing 18,000 acres, the Forest Service *may choose* to control the colonies with rodenticide for colonies within a half mile from the National Grassland's boundary, and only when non-lethal options have been tried and found ineffective.¹³ Translocation is the preferred method of colony management in Category 1.¹⁴ Recreational hunting of prairie dogs is prohibited within the area designated as Category 1.¹⁵ The Category 1 area was expanded even further in 2015, by approximately 2520 acres. This additional acreage allows the prairie dogs to infest up to approximately 54, 520 acres in Category 1; not taking into consideration all of the other categories where the prairie dogs are allowed to expand. As stated in the Prairie Dog Plan: "The acreage in the Category 1 Area is not capped at 18,000 (active prairie dog) acres, but will be allowed to grow within the Category 1 and MA 3.63 boundaries."

Category 2: There are five *Category 2* habitats. The main purpose of Category 2 is to provide for viable populations of prairie dogs and associated species and to provide significant ecological diversity at the broad spatial scales.¹⁶ Category 2 is ultimately a way to ensure that there is extra protection for the prairie dog population in case there is a plague epizootic.¹⁷ The prairie dog acreage objective for Category 2 is 9,000 acres of active prairie dog colonies.¹⁸ In order to achieve the acreage objective, the Forest Service set forth similar control and management criteria to their Category 1 lands.

¹² Id.

¹³ Id.

¹⁴ Id.

¹⁵ Id.

¹⁶ Thunder Basin National Grassland Prairie Dog Management Strategy and Land and Resource Management Plan Amendment #3 Record of Decision at 5.

¹⁷ Id.

¹⁸ Id.

Management of prairie dog colonies will only occur when the prairie dog colony acreage exceeds 9,000 active acres.¹⁹ Rodenticides *may be used* to manage prairie dog populations when the active prairie dog acreage exceeds 9,000 acres.²⁰ Recreational shooting of prairie dogs was originally prohibited in the Prairie Dog Plan. The 2015 proposal to the Prairie Dog Plan allows for seasonal recreational shooting if the acreage exceeds 9,000 active prairie dog acres or within individual Category 2 areas if expansion onto private lands is an issue and non-lethal options have failed to prevent the encroachment.²¹

Category 3 & 4: The Forest Service also directed there would be several Category 3 and 4 habitats for prairie dog colonization. These colonies were to provide a source for natural dispersal to the Category 1 and 2 areas and to provide a broad geographic distribution of the rodents. Treatment with rodenticides can only be used for management when the colonies exceed 6,000 (active) acres.²² Recreational shooting is allowed on lands designated for Category 3 areas.²³ Category 3 and 4 areas were combined into a Category 3 designation in the 2015 Prairie Dog Plan submitted by the Forest Service.

It is worth noting that the US Fish and Wildlife Service and the Wyoming Game and Fish Department have repeatedly acknowledged that the TBNG is no longer being considered for reintroduction of the black-footed ferret. Despite the clear message from both agencies, the management categories in the Prairie Dog Plan still run under the premise that the black-footed ferret will be introduced. See Exhibit 1.

Although the Forest Service has little data on how many acres in each category are occupied by prairie dog colonies, it has been clearly shown that the population greatly exceeds the management goals set forth in the Prairie Dog Management Plan. The Douglas Ranger District declared that the management objective was met in Category 1 in 2015.²⁴ A partial survey of the region which was *not inclusive* of all land ownerships was completed in the fall of 2016 and spring of 2017 by the Thunder Basin Grasslands Prairie Ecosystem Association. That survey found over 75,000 acres infested by black-tailed prairie dog colonies in the region.²⁵

¹⁹ Id. at 6.

²⁰ Id.

²¹ Black-Tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland at 14.

²² Id.; see also Black-Tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland at 14.

²³ Id.

²⁴ Aaron Voos, U.S. Forest Service Announces One-Year Suspension of Black-tailed Prairie Dog Shooting Restrictions on Thunder Basin National Grassland, US Forest Service Press Release (Mar. 3, 2017) <https://www.fs.usda.gov/detail/mbr/news-events/?cid=FSEPRD534378>

²⁵ Dave Pellatz, Prairie Dog Colonies Mapped On or Near the Thunder Basin National Grassland in 2016 and 2017, Thunder Basin Grasslands Prairie Ecosystem Association (Jan. 17, 2018).

C. *The Legal Background Surrounding Management of the Thunder Basin National Grassland*

The authority to manage national grasslands such as the TBNG comes from the 1937 Bankhead-Jones Farm Tenant Act (BJFTA).²⁶ The BJFTA authorizes the Secretary of Agriculture, through the Forest Service, to:

develop a program of land conservation and land utilization, in order thereby to correct maladjustments in land use, and thus assist in controlling soil erosion, reforestation, preserving natural resources, protecting fish and wildlife, developing and protecting recreational facilities, mitigating floods, preventing impairment of dams and reservoirs, developing energy resources, conserving surface and subsurface moisture, protecting the watersheds of navigable streams, and protecting the public lands, health, safety, and welfare, but not to build industrial parks or establish private industrial or commercial enterprises.

The BJFTA was originally enacted to address agricultural problems caused and exacerbated by the Great Depression and Dust Bowl and continues to be one of the principal laws governing the Forest Service's administration of the national grasslands today. However, a number of other laws provide additional direction for grassland management.

The Granger-Thye Act of 1950²⁷ established a new direction for some aspects of National Forest System management. This Act authorized: (a) the use of grazing fee receipts for rangeland improvement; (b) the Forest Service to issue grazing permits for terms up to 10 years; (c) the Forest Service to participate in funding cooperative forestry and rangeland resource improvements; (d) the establishment of grazing advisory boards; and (e) the Forest Service to assist with work on private forestlands. Shortly after the Granger-Thye Act of 1950, the Department of Agriculture, in 1954, turned the management of the national grasslands over to the Forest Service.

The 1969 National Environmental Policy Act (NEPA)²⁸ requires federal agencies evaluate and disclose the environmental impact of "major federal actions significantly affecting the quality of the human environment." In short, NEPA is a procedural statute that generally outlines the steps a federal agency must take when planning a project, though other federal statutes specific to a particular agency or type of project may require additional procedures. NEPA specifically requires that federal agencies shall cooperate with local governments "to the fullest extent possible to reduce duplication."²⁹ NEPA also requires that all planning documents produced by federal agencies must discuss any inconsistencies between a proposed agency action and local land use

²⁶ 7 U.S.C. §§ 1010–1012.

²⁷ 16 U.S.C. § 572 et seq.

²⁸ 42 U.S.C. §§ 4321 et seq.

²⁹ 40 C.F.R. § 1506.2(b).

plans.³⁰ Where inconsistencies exist, the statement should describe the extent to which the agency would reconcile its proposed action with the local plan or law.³¹

The 1973 Endangered Species Act (ESA)³² generally requires federal agencies ensure that their actions are not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of the designated critical habitat of such species.

The Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) requires, among other things, the Forest Service develop land and resource management plans for units of the National Forest System. Congress added more specific requirements to the Forest Service planning obligations in the NFMA.³³ Specifically, the NFMA:

- requires management plans provide for multiple uses and sustained yield of the products and services obtained therefrom in accordance with the Multiple-Use Sustained-Yield Act of 1960, and, in particular, include coordination of outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness.³⁴
- requires research on and (based on continuous monitoring and assessment in the field) evaluation of the effects of each management system to the end that it will not produce substantial and permanent impairment of the productivity of the land.³⁵
- also clarifies that national grasslands are part of the National Forest System, and thus subject to the same planning requirements applicable to national forests.³⁶

The Federal Land Policy and Management Act of 1976 as amended is an Act:

To establish public land policy; to establish guidelines for its administration; to provide for the management, protection, development, and enhancement of the public lands; and for other purposes. Under this Act the Secretary (of Agriculture) shall to the extent consistent with the laws governing the administration of the public lands, *coordinate* the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the States and local governments within which the lands are located.³⁷

The Petitioners have tried without success to have the Forest Service coordinate land and prairie dog management decisions concerning the TBNG with their respective

³⁰ 40 C.F.R. § 1506.2(d).

³¹ *Id.*

³² 16 U.S.C. §§ 1531 et seq.

³³ 16 U.S.C. §§ 1600 et seq.

³⁴ 16 U.S.C. § 1604(e).

³⁵ 16 U.S.C. § 1604(g)(3)(C).

³⁶ 16 U.S.C. § 1609(a). The inclusion of national grasslands in the National Forest System also means they are subject to numerous other laws applicable to the Forest Service however, none of these additional laws are of particular relevance here.

³⁷ 43 U.S.C. § 1712

County Commissioners. The Forest Service has continually stated they will allow cooperating agency status with the Commissioners but do not have to and will not allow coordination for land management and prairie dog management for decisions within the TBNG.

Forest Service regulations governing management of the national grasslands are found at 36 C.F.R. Part 213 (the 213 Regulations). Relevant provisions of the 213 Regulations provide:

The national grasslands shall be “permanently held by the Department of Agriculture for administration under the provisions *and purposes* of Title III of the Bankhead–Jones Farm Tenant Act,” and “administered under sound and progressive principles of land conservation and multiple use, *and to promote development of grassland agriculture and sustained-yield management of the forage. . .*”³⁸

Grassland resources “shall be managed so as to maintain and improve soil and vegetative cover, and to demonstrate sound and practical principles of land use for the areas in which they are located.”³⁹ The Chief of the Forest Service also must, to the extent feasible, enact management policies that “exert a favorable influence for securing sound land conservation practices on associated private lands.”⁴⁰

Additionally, the 213 Regulations explicitly provide that other regulations applicable to national forests, including those governing livestock grazing,⁴¹ are incorporated and apply to regulate the protection, use, occupancy, and administration of the national grasslands to the extent they are not inconsistent with the provisions of the BJFTA.⁴²

III. THE PRIMARY PURPOSE OF THE THUNDER BASIN NATIONAL GRASSLAND IS TO SUPPORT AGRICULTURE

Federal law requires the Forest Service to administer the national grasslands for the purposes for which they were acquired. When the federal government acquires land for a particular public purpose, only Congress has the power to change that purpose or dispose of the acquired land.⁴³ Thus, federal agencies must manage and administer acquired lands according to the purpose for which the federal government acquired them, unless Congress has authorized otherwise.⁴⁴

As can be shown by the history of the Land Utilization Program of the 1930s and the subsequent words of those involved in the creation and planning of the Land Utilization Projects (LUPs), the clear purpose of these projects was to repurpose

³⁸ 36 C.F.R. §§ 213.1(b) and (c) (emphasis added).

³⁹ 36 C.F.R. § 213.1(d) (emphasis added).

⁴⁰ 36 C.F.R. § 213.1(d).

⁴¹ 36 C.F.R. §§ 222 et seq.

⁴² 36 C.F.R. § 213.3(a).

⁴³ *Reichelderfer v. Quinn*, 287 U.S. 315, 318–20 (1932).

⁴⁴ *Id.*; see also *United States v. Three Parcels of Land*, 224 F.Supp. 873, 876 (D. Alaska 1963); *United States v. 10.47 Acres of Land*, 218 F.Supp. 730, 733 (D.N.H. 1962)

destitute farms and transform them into rejuvenated grazing lands. Ultimately, the values created by the early LUPs carried over into the purpose for the Thunder Basin National Grassland.

A. *The origins of the Land Utilization Project came from the Dust Bowl and a need to revitalize the land.*

In order to understand why the LUPs became necessary in the 1930s, one must go back to the Homestead Act of 1862. In the latter half of the 19th Century, Congress wanted to incentivize the settlement of the West. The Homestead Act authorized the disposition of 160-acre parcels of federal land to qualified individuals. In order to receive a patent on a parcel of land, a homesteader was allowed six months to establish a residence on the land. Upon establishing a residence, actual settlement and cultivation of the land was required for five years in order to receive a patent. As has been the case countless times before; Easterners creating policy for the West failed because of their lack of knowledge of the area. First, much of the most valuable land in the West was already controlled by several entities including states, tribes, and the railroad, and was thus unavailable for homesteading.⁴⁵ Second, the 160 acres promised under the Homestead Act were too little for viable farms in most of the arid West.⁴⁶ Finally, much of the land was ill-suited for farming due to the low levels of precipitation in the area.⁴⁷

Despite these difficulties, many people came to the West seeking the promise of free land. By 1904, nearly 100 million acres of land was homesteaded by 500,000 farms in the West.⁴⁸ At the turn of the 20th Century up until around 1920, a land boom occurred in the West due to high commodity prices. The Thunder Basin experienced this same boom during the First World War years. For example, Wyoming wheat production rose from 2,250,000 bushels in 1913 to 6,600,000 in 1918.⁴⁹

During those booming years of the early 1900s heading into the 1920s, many people sought their fortune settling the West. However, after the end of World War One, demand for commodities plummeted even though supply continued to grow. This fact is shown best in Wyoming where during the years 1919-21, the commodity prices plummeted despite the highest number of homestead entries in Wyoming.⁵⁰

With the steady increase in settlement also came massive droughts throughout the entire Great Plains. The continued cultivation of unproductive farms in sub-marginal lands damaged natural soil and water resources. As a result, many operations failed in the 1920s, and these failed farms were abandoned.⁵¹ Things worsened when, during the Great Depression, an influx of new people settled in the West. The influx only

⁴⁵ Eric Olson, United States Department of Agriculture *National Grasslands Management: A Primer*, 4 (Nov., 1997).

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ *Id.* at 5.

⁴⁹ William Fischer, *Homesteading the Thunder Basin: Teckla, Wyoming* 71 ANNALS OF WYOMING 21, 22 (Winter 1999).

⁵⁰ *Id.*

⁵¹ *Id.*

exacerbated the issues facing those farmers already settled. Eric Olson of the National Forest Service summarized the situation succinctly:

Foreclosures multiplied, tax delinquencies increased, and farm incomes dwindled. To complicate matters further, the economic hardships suffered by many farmers during this time were accompanied by devastating natural events like droughts, floods, insect infestations, and erosion. In retrospect, it became apparent that thousands of farm families had been living in poverty on sub-marginal land long before the advent of the Great Depression and the Dust Bowl. These twin events made farming, already a difficult lifestyle, that much more challenging. For many, the additional challenge was simply too much.⁵²

These difficulties also manifested itself into difficulties for local governments who lost tax revenue.

Recognizing the magnitude of the sub-marginal land problem in 1931, the Secretary of Agriculture held the National Conference on Land Utilization. This Board recommended in 1934 that the Federal Government purchase and develop 75 million acres of sub-marginal lands throughout the country. The main objective of these acquisitions would be to “supplement the assistance to private forestry, and erosion control work” already underway and demonstrate how these sub-marginal lands could be used to serve the public.⁵³ Although a project as ambitious as acquiring 75 million acres of sub-marginal land was never accomplished, land utilization efforts began as early as early 1934.

B. *Purpose of the Land Utilization Program was to create healthy, sustainable and organized agricultural communities in the West*

As stated above, following the guideline of “converting the land purchased to a use beneficial to the people of the United States,” the primary purposes of the LUPs at the time were to retire sub-marginal land from agricultural use (i.e. farming) and develop it for uses to which the land was better suited.⁵⁴ When assessing how to develop sub-marginal land to better uses, there was an emphasis to address three major problems:

- 1) The damage of soil and water resources, forest, and grass cover through erosion and the improper use of land;
- 2) The waste of human resources through dependence of rural people upon land not suitable for agricultural production; and
- 3) The loss of financial resources by State and local governments through the excessive costs of public services in sub-marginal

⁵² Olson, *supra* n. 46.

⁵³ H.H. Wooten, U.S. Department of Agriculture Economic Research Services, *Land Utilization Program 1934 to 1964*, 4 (1965).

⁵⁴ *Id.* at 6.

areas where tax returns were too meager or uncertain to cover those costs.⁵⁵

For the West, the purpose of the land program was to see the semi-arid land originally used for arable farming transition to grazing.⁵⁶ There were several instances in which the purpose of the LUPs in the Western Great Plains states was made clear. The May 1935 Final Plan for ND-2 (later known as the Little Missouri National Grassland) stated, "The purpose of the project is to remove sub-marginal lands from commercial grain production and shift them to a grazing use."⁵⁷ The General Development Plan for ND-1 also reflected this sentiment stating, "The purpose of the project is to remove low grade crop lands from commercial grain production and shift them to a grazing use for which they are best fitted."⁵⁸ The Thunder Basin program reflected a similar sentiment, stating that the program sought to bolster "economic independence and stability in the area by adjusting the population to the productivity of the land."⁵⁹ To further show this intent, the planning document for the Thunder Basin Land Utilization Project stated that the purpose of WY-LU-1 was "'grassland agriculture' which is for livestock grazing and the economic stability of the local ranches."⁶⁰

Congress also acknowledged the Land Utilization Program's objective. During the conference report for the Bankhead Jones Farm Tenant Act, Congressman Coffee from Nebraska summarized Title III of the BJFTA:

Under Title III, funds are authorized for the purchase by the Government of sub-marginal land. This would be a *continuation of the present program* and in many States additional purchases are necessary to block together the purchases already made. *The objective is to retire this sub-marginal land from unprofitable crop production and to turn it back to grass and into grazing and forest areas.*⁶¹

Another purpose of the LUPs was to transition grazing in the area to a more organized function, shifting the grazing operations from "uneconomical" small operators to landowners capable of effectively raising livestock in the area. Professor Cunfer broke down this three-step process:

The first step was to purchase sub-marginal lands. This was the most decisive way to acquire control over their use, and there were plenty of willing sellers. The second step was resettlement-moving "uneconomical" small operators out of the area. Third came range rehabilitation, which encompassed revegetation of plowed land, restoration of overgrazed range through resting, delimitation of logical pasture units through rational

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ Geoff Cunfer, *The New Deal's Land Utilization Program In The Great Plains*, Great Plains Quarterly 193, 201 (Summer 2001)

⁵⁸ *Id.*

⁵⁹ Fischer, *supra* n. 50 *citing* Land Use Summary Report for Project LA-WY-I, (30 June 1937?).

⁶⁰ WY-LU-21, Douglas, Wyoming (May 25, 1943) copy located in the Douglas Ranger District Office.

⁶¹ H.R. Rep. No. 1198 at 1937 (1937) (emphasis added).

fencing, and water development. Water would be key to the success of stage four: controlled grazing by remaining middle-class stock raisers. Fewer operators would have larger, more economical ranches. The government would ensure that no more cattle were put on the grass than could be supported sustainably.⁶²

The LUPs also sought out control of the grasslands by entrusting local management to local grazing associations. At the time of inception, Grazing Associations operated as permittees of the Soil Conservation Service. The Grazing Associations, in turn, issued grazing permits to their members, who were local ranchers. The associations were controlled by boards, which were elected by the membership. This process allowed local people to administer grazing privileges in accordance with the Soil Conservation Service rules and procedures. Additionally, Grazing Associations had their own bylaws, which provided for membership qualifications, meeting dates, election of officers, and general operating policies.

The Grazing Associations helped accomplish the LUPs' ultimate goal of ensuring that the land would be utilized in a sustainable way with the land being put to use for the best purpose of transitioning the land from farming to grazing. Further, when transitioned to grazing, there needed to be a degree of sustainability that would prevent soil erosion and overgrazing on the project lands. Adding the two purposes together, the ultimate goal of the LUPs is best summarized by a statement the US Department of Agriculture's Economic Research Service:

The highest purpose of the National Grasslands is to serve as demonstration areas to show how lands classified as unsuitable for cultivation may be converted to grass for the benefit of both land and people in the areas.⁶³

C. *The Land Utilization Programs created the modern Thunder Basin National Grassland and continued the original purpose of the Land Utilization Program.*

The Thunder Basin was one of the earliest Land Utilization Projects having been created through executive order in 1936. The stated purpose of the Wyoming Land Utilization and Land Conservation Project WY-LU-1 was for "grassland agriculture," which was intended to bolster "economic independence and stability in the area by adjusting the population to the productivity of the land."⁶⁴

In 1937, the BJFTA provided more permanent status for the LUPs. The modern BJFTA⁶⁵ authorizes the Secretary of Agriculture to create a land conservation and utilization program to be used on National Forest Land in order to correct

⁶² Cunfer, *supra* n. 57 at 201-2 *citing* "Little Missouri Land Adjustment Project: Proposal for Extension to Site No. 2," 12 November 1934, LUP Papers, box 322; M. B. Johnson, "Submarginal Land Program Memorandum of Proposed Project," 28 December 1934, LUP Papers, box 322; "Final Plan".

⁶³ Wooten, *supra* n. 54 at 31.

⁶⁴ Fischer, *supra* n. 50. 1 *citing* Land Use Summary Report for Project LA-WY-I, (30 June 1937).

⁶⁵ 7 U.S.C. § 1001, *et seq.*,

“maladjustments in land use,” and ultimately assist in, among other things, controlling soil erosion, reforestation, preserving natural resources, protecting fish and wildlife, and protecting public lands health, safety and welfare.⁶⁶ The Preamble of the BJFTA states that its purpose is to:

Create the Farmers' Home Corporation, to promote more secure occupancy of farms and farm homes, to correct the economic instability resulting from some present forms of farm tenancy and for other purposes.

To carry out the program, the BJFTA allows the Secretary to regulate the use and occupancy of BJFTA land in order to conserve or utilize the land, or to “advance the purposes” of the Act.⁶⁷ The ultimate guiding principle for the Secretary in carrying out the BJFTA is to protect lands acquired under the BJFTA and to adapt them to their “most beneficial use.”⁶⁸

On January 2, 1954, the Department of Agriculture gave the authority to National Forest Service to administer the Grasslands under the BJFTA.⁶⁹ Under this regulation, the National Forest Service must:

- Administer the land with “sound and progressive principals of land conservation and multiple use;”
- “Promote development of grassland agriculture and sustain yield management” of the various uses in the area;⁷⁰ and
- Manage national grassland resources “so as to maintain and improve soil and vegetative cover, and to demonstrate sound and practical principles of land use for the areas in which they are located.”⁷¹

Although there was originally hesitation by the Forest Service to continue to run the LUPs as they were intended to be run, with an emphasis on grazing, the Secretary of Agriculture promulgated regulations that solidified the purpose of the National Grasslands in relation to the original LUPs. The regulations served to:

(1) To reaffirm the promotion of grassland agriculture and sustained-yield management of all land and water resources in the areas of which the Grasslands are a part; (2) to stress the demonstration of sound and practical principles of land use; and (3) to provide that management of

⁶⁶ 7 U.S.C § 1010.

⁶⁷ 7 U.S.C. § 1011(f).

⁶⁸ 7 U.S.C. § 1011(b).

⁶⁹ 36 C.F.R. § 213.1.

⁷⁰ *Id.* at 213.1(c).

⁷¹ *Id.* at § 213.1(d).

the Federal land exerts a favorable influence over associated other public and private lands.⁷²

In guiding its decisions, the National Forest Service must adopt regulations that protect the National Grasslands, as well as adapting them to their “most beneficial use.”⁷³ Further, through its regulations, the Forest Service adopted a multiple-use and sustainable yield approach to its management of the grasslands, but there is a preference that the land ultimately be used for grassland agriculture.⁷⁴

The clear objective in acquiring lands within the Thunder Basin was to create a sustainable forage cover that would protect the fragile soil, but at the same time keep the communities alive who had been promised use of the land during the homesteading years. The people who remained after the crisis worked hard to put the land back to a healthy condition and have relied on the promises given to them that the land would be used for its best use. Congress and officials within the Forest Service and other agencies involved in the LUPs have historically acknowledged that grazing is the best use for these lands. When the federal government acquires land for a particular public purpose, only Congress has the power to change that purpose or dispose of the acquired land.⁷⁵ Thus, when current Forest Service management principles in the Thunder Basin National Grassland serve to undermine its primary purpose, those management principles must be revised.

IV. MISMANAGEMENT OF THE BLACK-TAILED PRAIRIE DOG HAS CAUSED WIDESPREAD AND SEVERE DAMAGE AND FAILS TO MEET THE REQUIREMENTS OF THE LUP AND BJFTA.

Despite strong evidence that the primary purpose of the TBNG is for grassland agriculture, the Forest Service’s current management regime for the prairie dog undermines this purpose and further jeopardizes other uses in the area. The continued expansion of prairie dogs across the Thunder Basin National Grassland has also created negative impacts to the environment and key species in the area.

A. *The current Prairie Dog Management Plan harms landowners in the region and undermines the purpose of the Thunder Basin National Grassland to support grassland agriculture.*

The black-tailed prairie dog infestation in the Thunder Basin National Grassland is rampant. A recent partial land survey of the region conducted by the Thunder Basin Grasslands Prairie Ecosystem Association⁷⁶ (TBGPEA) found that there were over

⁷² Wooten, *supra* n. 54 at 33 citing 25 Federal Register 1960, page 5845; 28 Federal Register 1963, page 6268: 213.1.

⁷³ 7 U.S.C. § 1011(b).

⁷⁴ 36 C.F.R. 213.1(c).

⁷⁵ *Reichelderfer v. Quinn*, 287 U.S. 315, 318–20 (1932).

⁷⁶ The Thunder Basin Grasslands Prairie Ecosystem Association is a non-profit organization established to provide private landowner leadership in developing a responsible, common sense, science-based approach to long-term management on the Thunderbasin grasslands and intermingled private lands.

75,000 active prairie dog acres in the region.⁷⁷ Running agricultural operations in areas that are overrun with prairie dog infestations is untenable to most operators for several reasons. First, prairie dogs destroy all grassland vegetation in an area. Second, the annual cost to repel constant prairie dog invasions is unsustainable.

i. *The destruction of grassland vegetation by prairie dogs is costly both in the short-term and long-term for local agricultural operations.*

Perhaps the greatest harm that the prairie dog infestation has caused local agricultural operations is the destruction of local grassland vegetation. Prairie dogs change a naturally occurring mixed-grass prairie ecosystem into a short grass prairie ecosystem. “Prairie dogs alter their habitat by shifting plant species composition from a warm and cool season perennial grass-dominated rangeland to a plant community dominated by shrubs and forbs.”⁷⁸

In an arid region such as the Thunder Basin, it proves very difficult to raise livestock.⁷⁹ The difficulties are magnified when the forage that these operations have relied upon for over one hundred years suddenly becomes scarce. A study conducted by the University of Nebraska – Lincoln calculated that six acres of prairie dog colonies are equivalent to one grazing Animal Unit Month (AUM).⁸⁰ An AUM is the amount of forage that one cow and calf ingest per month during the summer.⁸¹ In Western Nebraska where the study was taken, a cow and calf consume 900 pounds of forage per month; however, in the Thunder Basin, a cow and calf consume 780 pounds of forage per month.⁸² When converting the 900 pound equivalent of six acres to 780 pounds, a total of 5.2 acres of prairie dog colonies is equivalent to one AUM.⁸³ Using the information from the partial land survey completed by the TBGPEA, the total AUMs lost in that portion of the Thunder Basin due to the prairie dog infestation is 14,589 AUMs.

When determining the value an AUM means to a rancher, one cannot look purely at the AUMs lost, but also must look at how those lost AUMs will affect the ranching operation as a whole and take away from other areas. Dr. David Taylor, a professor at the University of Wyoming Department of Agricultural and Applied Economics, calculated the economic importance of an AUM in the Thunder Basin National Grassland. When considering the change in total ranch production resulting from the change in federal grazing, which ultimately affects the optimal use of the rest of the

⁷⁷ Dave Pellatz, *Prairie Dog Colonies Mapped On or Near the Thunder Basin National Grassland in 2016 and 2017*, THUNDER BASIN GRASSLANDS PRAIRIE ECOSYSTEM ASSOCIATION (Jan. 17, 2018).

⁷⁸ Carolyn M. Johnson-Nistler et al., *Black-Tailed Prairie Dog Effects on Montana's Mixed-Grass Prairie*, 57 J. RANGE MANAGE. 641, 642 (Nov. 2004).

⁷⁹ Annual precipitation in the area as a whole is 10-14 inches. See Thunder Basin National Grassland Land and Resource Management Plan (2001) at 2-2.

⁸⁰ SCOTT E. HYGSTROM & DALLAS R. VIRCHOW, *Prairie Dogs*, in THE HANDBOOK: PREVENTION AND CONTROL OF WILDLIFE DAMAGE B-88 (1994) <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1018&context=icwdmhandbook>.

⁸¹ *Id.*

⁸² Denise Langley, presentation before Wyoming Legislature Joint Agriculture, State and Public Lands and Water Resources Interim Committee (Sept. 14, 2015).

⁸³ *Id.*

forage resources, Dr. David Taylor calculated that one AUM was worth \$98.91 annually.⁸⁴ Thus, when multiplying the worth of one AUM at \$98.91 with the total AUMs lost (14, 489) in the portion surveyed of the Thunder Basin Grasslands, *the total lost value for ranchers in that specific portion of the Basin was \$1,442,997.99 in 2016-2017 alone.*

The Forest Service predicted similar AUM losses when it conducted its final Environmental Impact Statement for the Northern Great Plains Resource Management Plan, estimating that the annual AUMs lost in the Thunder Basin National Grassland due to damage from prairie dog colonies was between 1,728 and 2,746.⁸⁵ However, those losses only take into account forage loss from the prairie dogs, and do not account for any changes in plant production that could occur.⁸⁶ One change in plant production was found in a study on the black-tailed prairie dog effects on Montana's mixed grass prairie. Researchers discovered that fringed sagewort was the dominant dwarf shrub at all sites colonized by prairie dogs.⁸⁷ Fringed sagewort is a highly unpalatable and undesirable forage for many ungulates, including cattle. Because of changes similar to the one experienced in Montana, the Environmental Impact Statement acknowledged that it could take more than nine years to increase forage production by excluding livestock and removing prairie dogs from a habitat area where a change in plant production occurs.⁸⁸

One factor not figured into the economic analysis of the cost of an AUM loss to an agricultural operation in the Thunder Basin National Grassland is the cost of having to either run an operation with less livestock, or the cost of supplementing the loss of the forage base with hay or feed supplements. Several landowners in the Basin have testified to the expense of supplementing grassland with hay and feed supplements. Irwin Livestock Company testified that over the past several years, the loss of forage due to prairie dog infestations required a three-fold increase in the amount of hay purchased for their operation to 300 tons per year.⁸⁹ In contrast, the operation normally feeds approximately 100 tons of hay with little feed supplement in one year to the young stock.⁹⁰ This has resulted in an extra cost of \$40,320 per year, or \$400 per day when compared to a normal year.⁹¹

Despite the fact that these federal lands infested with prairie dogs provide almost no forage for their livestock, landowners are forced to pay full leasing prices for those lands.⁹² Failure to lease the land will either allow other parties to acquire the preference

⁸⁴ David T. Taylor, *Economic Importance of Federal Livestock Grazing in Converse County* 2-3 (May 2011) citing David T. Taylor, *et al*, *The Economic Impact of Federal Grazing on the Economy of Park County, Wyoming* 17-18 (August 2005).

⁸⁵ Final Environmental Impact Statement for the Northern Great Plains Management Plans Revision 3-97 (May 2001).

⁸⁶ Id.

⁸⁷ Johnson, *supra* n. 76 at 646, citing Spang 1954.

⁸⁸ Id.

⁸⁹ Decl. of Denise Langley on behalf of Irwin Livestock Company ¶ 11 (2017).

⁹⁰ Id.

⁹¹ Id.

⁹² Decl. of Wayne and Joan Neumiller on behalf of Sunshine Valley Ranch ¶ 11 (Nov. 16, 2017).

rights to lease these essential pastures, or the Forest Service will reduce the total permitted AUMs in the region because of the lack of use of the currently allocated AUMs. To make matters worse for many of these landowners, there have been several occasions where the landowner decided to forego grazing some pastures to allow the forage to recover while still paying leasing fees, only to discover that his efforts were for naught because the prairie dogs consumed the recovered forage the landowner intended to save.⁹³ Further, there have even been occasions when the Forest Service translocated prairie dogs from one allotment to those allotments that have been saved for forage recovery or rest.⁹⁴

The loss of AUMs due to prairie dog infestations has already damaged landowners in the region. Several landowners have drastically reduced their livestock herd because of the loss of forage. Due to the prairie dog destruction on both their federal grazing allotments and their private land holdings, Irwin Livestock Company is running their operation with 50 head of cattle less due to lost AUMs.⁹⁵ The Sunshine Valley Ranch has been forced to cut its herd several times due to the prairie dog infestation. The ranch cut its herd by 58% in 2012, and it cut its herd another 18% in 2016, due to the prairie dog expansion across their private lands and federal grazing allotments causing the ranching operation to have insufficient forage for the herd.⁹⁶

In July, 2012 Fiddleback Ranch was so devastated by the prairie dog infestation that the owners decided it was in their best interest to sell the ranch.⁹⁷ Due to the constant loss of forage, the ranch was in constant fluctuation in its herd size, having fully stocked the allotments in 2000 and half of 2005, but then having to completely destock the herd in the remainder of 2005 and 2006.⁹⁸ Due to the extensive forage loss and the lack of relief in sight, the ranch was eventually forced to run at half capacity for an annual loss.⁹⁹ In an attempt to save the ranch and utilize lands that were not touched by the prairie dog infestation, the ranch spent nearly one million dollars installing improvements in order to supply water to those areas.¹⁰⁰ Adding further loss to the forage, the Forest Service completed several prescribed burns, on Fiddleback Ranch's permitted allotments, to encourage prairie dog expansion in the area.¹⁰¹ Due to the unsustainability of running at half capacity, the ranch chose to sell its operation in 2012.

⁹³ Id.

⁹⁴ Id. In 2011 the Forest Service translocated prairie dogs from Browner Draw in Fiddleback Allotment # 231-South Dorr into the Wheatgrass Pasture of the Rosecrans Allotment. The Forest Service also mowed the grass in the Wheatgrass Pasture to create prairie dog habitat. At the time the Wheatgrass Pasture was being leased to the Neumillers for grazing.

⁹⁵ Decl. of Denise Langle on behalf of Irwin Livestock Company ¶ 8 (2017).

⁹⁶ Decl. of Wayne and Joan Neumiller on behalf of Sunshine Valley Ranch ¶ 11 (Nov. 16, 2017).

⁹⁷ Decl. of Gary and Cheryl Jacobson on behalf of Fiddleback Ranch ¶ 1 (February 5, 2018).

⁹⁸ Id.

⁹⁹ Id. at ¶¶ 1-2.

¹⁰⁰ Id. at ¶ 3. When touring the area in 2017 those areas in which the improvements were built are now overrun by prairie dogs and the forage is completely denuded.

¹⁰¹ Id. at ¶ 4. In total, 4,429 acres were burnt, equating to about 886 AUMs lost to Fiddleback Ranch due to prescribed burnings.

The decision to sell the operation proved to be a wise one because as of December 2017, only half of the ranch, or less, is in forage producing condition.¹⁰²

Perhaps the best way to illustrate the devastation of the prairie dog infestation in the area is to show pictures of allotments without prairie dogs next to allotments that have been infested at the same time.



Figure 1: Area of Un-grazed Pasture without Prairie Dogs



Figure 2: Same Un-grazed Pasture, Same Day, Location with Prairie Dogs

Figure 1 shows a healthy un-grazed pasture that has not been touched by prairie dogs. In contrast, Figure 2 shows the same un-grazed pasture on the same day in an area devastated by the prairie dogs.

¹⁰² *Id.* at ¶ 1.



Figure 3: *Un-grazed Federal Pasture 1st Example*



Figure 4: *Un-grazed Federal Pasture 2nd Example*



Figure 5: *Un-grazed Private Land (same day)*

Figure 3, 4 and 5 were all taken the spring of 2017. Figures 3 and 4 are pictures of un-grazed federal pastures that border each other. In contrast, Figure 5 is an un-grazed private pasture where prairie dogs have been aggressively managed (picture was taken on the same day as Figure 3 and as cattle were turned out). As can be clearly seen from these pictures, prairie dog colonies drastically change the landscape and make forage for livestock and wildlife nearly impossible to find.

In addition to the lost AUMs, the infestation of prairie dogs is taking other private property as well. The LUPs and Executive Orders pertaining to the development of the public domain all acknowledge that Western ranchers can have property interests separately split from the federal lands. These interests can include water rights, rights of way, private range improvements, patented (base or commensurate) land and preference for forage on the federal lands. The stability of these rancher's livelihoods and the use of their significantly intermingled private property combined with the use of the forage allocated to them on the TBNG cannot be over stated. The landowners that use the allotments count on a forage base to be present. In its natural state the forage base will be determined by the amount of precipitation that is present during the growing season, fire, insect damage and whether the land was overgrazed in the past. Allowing prairie dogs to now dominate the landscape diminishes that value and use. The allotments are a major part of the total ranch package as the deeded acreage is not enough to sustain a working ranch.

In addition to the use of the forage to sustain a ranching operation, the Petitioners' ranches have or had reservoirs for water storage as well as ditches and water diversions so that in abundant precipitation seasons, the water will be diverted from draws and the overflow of reservoirs will allow the broad flood irrigation of large tracts of land on which they graze their livestock. These improvements of ditches and water diversions are located on both their private patented lands and on the federal grazing allotments. Some of their lands have also been reseeded for optimum forage growth and

the water diversions were put in to prevent or decrease soil and water erosion as well as to increase forage growth.

In its natural state, a large precipitation event would bring more forage base to all the areas irrigated. However, because of the Forest Service's mismanagement, these water storage and diversion improvements are no longer beneficial to the landowners or to the land. This is due to the huge infestation of the prairie dog which causes the forage to be destroyed before the livestock could utilize it. Years of drought within the arid TBNG just increase the destruction damage caused by the rodent. The ditches and reservoirs on both private and federal lands have also been weakened with burrows from the prairie dog colonization. The private lands were devastated as well with expansive and expensive loss of forage due to the overabundance of the prairie dog.

The TBNG is required to be managed for forage production. The landowners need these pasture allotments to make their ranching livelihood viable and sustainable so count on the grass being in the allotments to utilize. The landowners do understand the repercussions of drought and all the allotment permittees do decrease their AUMs during a dry year. The Forest Service through its prairie dog program has given no thought to forage production in the allotments and no consideration to the permittees upon the allotments. In the dry years, the Forest Service burned more forage to expand the prairie dog colonization which in turn caused even more lack of forage in the allotments. There was never any consideration given to decreasing the negative effects of the further expansion to the short grass prairie ecosystem and its key species: the black tailed prairie dog during drought years and the negative effects it would have on the permittees needing that forage.

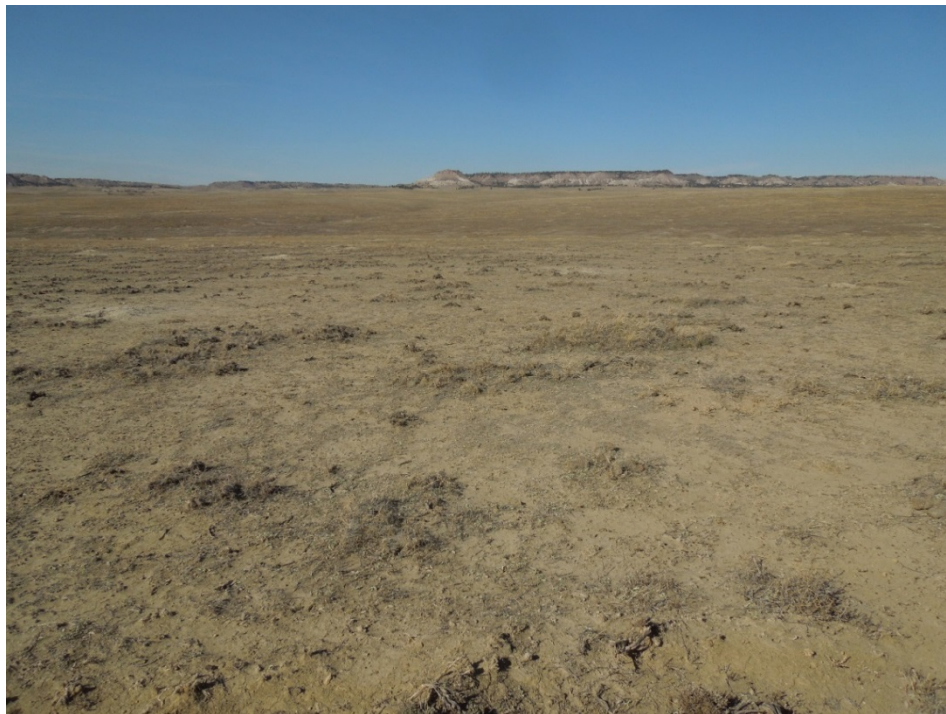


Figure 6: Federal allotment with destroyed forage base due to prairie dog colonization

ii. The annual cost to repel constant prairie dog invasions is unsustainable.

The cost of prairie dog expansion in the Thunder Basin National Grassland is not limited to the loss of AUMs in the region. There is also a continual and unsustainable cost to control prairie dog populations on private and state lands due to the prairie dog encroachment from neighboring federal lands.

One proposed way to manage prairie dog expansion onto neighboring lands is through fencing.¹⁰³ However, fencing out prairie dogs can be ineffective either due to natural damage to the fencing, or because the fence failed to block the passage of prairie dogs.¹⁰⁴ Tests have revealed that very heavy-duty, well-entrenched materials such as metal, fiberglass or chicken wire fences are the only barriers that are able to withstand the harsh elements in the Mountain West.¹⁰⁵ Although the chicken wire fence held up in harsh weather it was also the barrier most breached by prairie dogs.¹⁰⁶ Overall, the most effective barriers were those made of corrugated metal or fiberglass, or vinyl barrier fences because those barriers provided a visual barrier to prairie dogs.¹⁰⁷ However, those barriers are prohibitively costly. The material and installation cost for a vinyl barrier fence is approximately \$30 per meter.¹⁰⁸ The materials used for those barriers have a life span of about five years.¹⁰⁹ The cost for a corrugated metal or fiberglass barrier is \$60 per meter; however, those fences are more durable and require less maintenance.¹¹⁰ Despite the cost, these barriers do not permanently prevent prairie dog expansion into private land and these barriers would likely have to extend down two to three meters into the ground to effectively deter the expansion of prairie dog burrows.¹¹¹ There is currently over 42 linear miles of state and private land that have prairie dogs encroaching upon from infested public lands in the basin.¹¹² Thus, the cost to effectively fence all private and state lands from prairie dog colony expansion would be enormous. Barrier fences also greatly limit the movement of other young wildlife such as antelope, deer and elk because the young crawl under regular livestock fences to follow their mothers who jump over the fences. Prairie dog barrier fences would not allow the young wildlife to do this.

Another method to control prairie dog expansion on private land is through rodenticides. However, the cost for rodenticide treatment is significant when put in the context of annual costs. For example, one local landowner, in one year, spent approximately \$8,192.32 on just rodenticide, without calculating any application costs.

¹⁰³ Gary Witmer, et al., *Evaluation of Physical Barriers to Prevent Prairie Dog Expansion*, HUMAN – WILDLIFE CONFLICTS 2(2) 206 (Fall 2008).

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 209.

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* A study in South Dakota revealed similar sentiment, stating that the cost to effectively fence an area from prairie dog invasion is \$898.68 per 100 meters for vinyl. MARCUS B. GRAY, EVALUATION OF BARRIERS TO BLACK-TAILED PRAIRIE DOG (CYNOMYS IUDOVICIANUS) COLONY EXPANSION, BAD RIVER RANCHES, SOUTH DAKOTA vii (2009).

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² Denise Langley, RCOWS Presentation to the Wyoming Stock Growers Association (Dec. 2015).

This rodenticide expense was to treat encroaching prairie dogs on just a small portion of the prairie dog infestation on their ranch. The County Weed and Pest agency gives landowners a 20% cost share to the Weed and Pest's 80% cost share on rodenticide. The County taxpayers have a mill levy imposed on them to cover that 80% cost share basis. For this one landowner, the county's taxpayers' share of the cost was \$31,354.78.¹¹³ With many ranches infested with black-tailed prairie dogs, the costs to the landowner as well as the county taxpayers can be a severe economic burden.

Other local landowners estimated that they spent over \$15,500 to treat encroaching prairie dogs in 2014 between two ranches.¹¹⁴ Another landowner has paid over \$116,000 since 2004 to manage prairie dog invasions on their property.¹¹⁵

Poison Oats and Rozol Breakdown

	Zinc Oats	Rozol
Pre-Bait	Yes \$15/ bag	None
Rate of Application	1 tsp/hole or 4 grams/hole	¼ cup/hole or 53 grams/hole
# of Holes/ pound of poison	113 holes/pound	8.5 holes/pound
Package type	50-pound bag Cost share price \$15	25-pound bag Cost share price \$13.50
# of holes treated per package	5,650 treated burrows/ 50 pounds	212.5 treated burrows/25 pounds
# of Acres treated @ 50 active burrows per acres	113 acres C/S \$.13/acre Poison oats only	4.27 acres C/S \$3.16 /acre
# of applications	2(Pre-bait and application)	1 (But carcass searches must be done following application)

The Converse County Weed and Pest Department in Wyoming compiled the following information from twelve landowners with property adjacent to federally

¹¹³ Decl. of Denise Langley on behalf of Irwin Livestock Company ¶ 19.

¹¹⁴ Denise Langley, RCOWS Presentation to the Wyoming Stock Growers Association (Dec. 2015).

¹¹⁵ Decl. of Wayne and Joan Neumiller on behalf of Sunshine Valley Ranch ¶ 16 (Nov. 16, 2017).

managed lands in the TBNG since 2011. In total, over a 7-year timespan, 907,835 prairie dog holes were treated.¹¹⁶ These 12 landowners used the following rodenticide on their private and state lands:

- Rozol-44, 910 pounds (at 2 oz/mound for a total of 381, 735 prairie dog (PD) holes treated;
- Zinc phosphide oats-4, 200 pounds (at 1 teaspoon/mound for a total of 474, 600 PD holes treated);
- Fumitoxin-257,500 pills (at 5 pills/mound for a total of 51, 500 PD holes treated). (These are gas pills which disintegrate inside the burrow with water added and the applicator must block the burrow entrances. The soil temperature must be warm to work. Private and state land use only).

Converse County Weed and Pest has an 80/20 cost share program for the treatment of animals that are a State of Wyoming designated pest. Prairie dogs are included on this list. These products used by the 12 landowners, have cost the landowners \$36,717.31 and the remaining \$92,502.37 has been an economic burden to the Converse County taxpayers.¹¹⁷ The taxpayers have also had to pay costs for treatment and labor on state lands.

Another burden that factors into the cost of controlling prairie dog growth is the amount of labor spent annually to manage the populations. One property owner spent over 302 hours in a few months' time to treat a small portion of his infested property with rodenticide.¹¹⁸ Since the best season to manage prairie dogs also coincides with the busiest time for many of these operations, the extra time spent managing prairie dogs directly takes time away from other essential operations on the ranch such as weaning, fencing, marketing and trucking cattle. Rodenticide treatments are mainly done from October 1 to March 15 on private lands and on federally managed lands the limited time frame is usually October 1 to December 31. If the ground is snow covered or the temperatures are extremely cold, the rodenticide treatments cannot be done.

B. Prairie dog expansion is hazardous to both humans and livestock in the Thunder Basin.

Although the economic devastation that prairie dog expansion creates cannot be understated, one of the greatest reasons that prairie dog colonies must be managed is because of the health and safety hazards they can pose to both livestock and landowners.

i. Prairie dog colonies are a leading source of the plague.

The primary health and safety hazard associated with prairie dogs is the spread of the plague. Black-tailed prairie dogs are rodents and are a leading carrier of the

¹¹⁶ Letter from Cheryl Schwarzkopf, Supervisor of Converse County Weed and Pest District to Denise Langley (Jul. 14, 2018).

¹¹⁷ *Id.*

¹¹⁸ Decl. of Wayne and Joan Neumiller on behalf of Sunshine Valley Ranch ¶ 16.

bacterium, *Yersinia pestis*, which causes several forms of the plague.¹¹⁹ The three forms of the plague are the pneumonic, septicemic and bubonic and all three are responsible for a number of high-mortality epidemics.¹²⁰ Prairie dogs are especially susceptible to contracting *Yersinia pestis* because of their social structures in which the dog populations live in large colonial groups in close proximity to each other. Thus, when a prairie dog is infected with *Yersinia pestis*, the infection quickly spreads to the entire colony and other nearby colonies.¹²¹

When prairie dogs are within close contact with humans, the plague bacterium can be transmitted to humans via several different forms of transmission.¹²² Some of the most common forms of transmission to humans come from flea transmission either through close contact with the prairie dogs, or when other animals, such as pets, get into close contact with prairie dog colonies and spread fleas to humans.¹²³ Because of the possibility of transmission, prairie dogs are a leading host carrier in the region for the spread of the plague. Although the plague is treatable and can be cured if discovered early, it can prove to be fatal, especially if untreated.¹²⁴ According to the World Health Organization, the fatality rate for the plague is between 30-100% if left untreated for 18-24 hours.¹²⁵

One of the leading ways to prevent a plague outbreak into human populations is to control known sources of the plague by vector control and rodent control.¹²⁶ The plague has historically been a factor in the Western United States in which there has been an average of seven cases reported each year in the last few decades.¹²⁷ Thus, prairie dogs must be controlled and there must be an effective buffer zone to protect residents from being infected with the plague.

ii. Prairie dog burrows are a hazard to livestock and local infrastructure.

Prairie dog burrows damage local infrastructure and can cause hazards to both humans and livestock relying on those improvements. Prairie dogs sometimes burrow around fence posts causing damage to fence lines.¹²⁸ Burrows have also expanded to dirt roads, causing potholes for vehicle traffic.¹²⁹ Other infrastructure damage is caused to

¹¹⁹ David A. Hanson, et al., *High Prevalence of Yersinia Pestis in Black-tailed Prairie Dog Colonies During an Apparent Enzootic Phase of Sylvatic Plague*, SPRINGER SCIENCE + BUSINESS MEDIA B.V. (accepted 21, Sept. 2006),

¹²⁰ *Id.*

¹²¹ *Id.* at 4. Between 57% and 63% of prairie dog colonies tested positive for *Yersinia pestis* in Montana during a study of 55 colonies in the area.

¹²² Liam Stack, *Plague is Found in New Mexico. Again.*, N.Y. TIMES, June 27, 2017, <https://www.nytimes.com/2017/06/27/science/plague-is-found-in-new-mexico-again.html>.

¹²³ Donald G. McNeil Jr., *There's Plague on the Prairie, but These Dogs May Be Protected*, N.Y. TIMES, July 3, 2017, <https://www.nytimes.com/2017/07/03/health/plague-vaccine-prairie-dogs.html>.

¹²⁴ World Health Organization, *Plague*, FACT SHEET (October, 2017) <http://www.who.int/mediacentre/factsheets/fs267/en/>.

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ Centers for Disease Control and Prevention, *Plague in the United States* (last updated Jan. 4, 2018) <https://www.cdc.gov/plague/maps/index.html>.

¹²⁸ *Id.* at ¶ 17.

¹²⁹ *Id.*

earthen dams and reservoirs for water storage, irrigation projects, and wells, by the prairie dogs burrowing into and around these structures.¹³⁰

An average black-tail prairie dog colony can create between 30-50 burrow entrances per acre.¹³¹ Most burrow entrances lead to a tunnel that is 3 to 6 feet deep and about 15 feet long. Prairie dogs construct crater- and dome-shaped mounds up to 2 feet high and 10 feet in diameter.¹³² Due to the large number of burrows per acre and the size of the holes, there have been numerous reports of livestock stepping into a hole and breaking limbs.¹³³ One of the landowners in the region has had several calves trapped inside burrow entrances.¹³⁴

C. *Prairie dog expansion harms the local environment in the Thunder Basin National Grassland.*

Another irreparable harm to the Thunder Basin National Grassland is the environmental harm caused by the prairie dog expansion. The prairie dog expansion is currently causing three environmentally destructive effects. First, prairie dog colonization is drastically increasing and expanding soil erosion in the area. Second, the prairie dogs are changing a naturally occurring, more desirable mixed-grass prairie ecosystem into a short grass prairie ecosystem with less desirable forage base. Third, the expansion of prairie dog colonies is harming other key local species.

i. Prairie dog expansion is drastically increasing and expanding soil erosion in the Thunder Basin National Grassland.

Soil erosion is the leading environmental casualty of prairie dog expansion; it is also a danger to the continued economic viability of the Thunder Basin National Grassland. In order to better see the landscape to detect predators, prairie dogs clip the grass.¹³⁵ Further, prairie dogs graze earlier in the spring than cattle do, and their grazing patterns reduce the forage significantly lower than cattle.¹³⁶ Finally, prairie dog burrowing and mound building activities also significantly reduce the forage in the area.¹³⁷ Overall, prairie dog activities reduce the forage cover in an area by 18-90%.¹³⁸ The loss of forage cover drastically increases the erosion in the area because the top soil is no longer protected from the wind. A study conducted in North Dakota showed that an area with a long-time history of prairie dog occupation had over double the erosion

¹³⁰ *Id.*

¹³¹ SCOTT E. HYGSTROM *supra* n. 78 at B-87.

¹³² *Id.*

¹³³ University of Wyoming, *UW Research Finds Prairie Dogs Increase Forage Quality, Acknowledges Nuisance*, January 3, 2017, <http://www.uwyo.edu/uw/news/2017/01/uw-research-finds-prairie-dogs-increase-forage-quality,-acknowledges-nuisances.html>; Nikki Work, *Prairie Dogs are a Nuisance for Most Farmers and Ranchers*, THE FENCE POST, December 27, 2016, <https://www.thefencepost.com/news/prairie-dogs-are-a-nuisance-for-most-farmers-and-ranchers/>.

¹³⁴ Decl. of Wayne and Joan Neumiller on behalf of Sunshine Valley Ranch ¶ 19 (Nov. 16, 2017).

¹³⁵ SCOTT E. HYGSTROM *supra* n. 78 at B-87.

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.*

compared to another area in the same proximity that shared all of the same factors as the colonized area.¹³⁹

Increased soil erosion is devastating to the environment for several reasons. First, soil erosion reduces soil quality and productivity.¹⁴⁰ Water availability is affected by soil erosion because soil erosion reduces water infiltration rates.¹⁴¹ When erosion occurs, the amount of water runoff increases, so that less water enters the soil matrix and becomes available for local forage.

In addition to creating water deficiencies, soil erosion causes shortages of basic plant nutrients, such as nitrogen, phosphorus, potassium, and calcium, which are essential for a healthy rangeland.¹⁴² One ton of fertile agricultural topsoil typically contains 1 to 6 kg of nitrogen, 1 to 3 kg of phosphorus, and 2 to 30 kg of potassium, whereas a severely eroded soil may have nitrogen levels of only 0.1 to 0.5 kg per ton.¹⁴³ Erosion selectively removes the fine organic particles, leaving behind large particles and stones. Topsoil that is eroded away typically contains about three times more nutrients than the soil left behind.¹⁴⁴

The Thunder Basin is already beginning to show signs of increased erosion. There are areas within the Basin without any forage to protect the soil which has resulted in severe erosion. The following pictures best illustrate the severe erosion in the area.

¹³⁹ Tim Jahraus, *Effects of Black-tailed Prairie Dogs (Cynomys ludovicianus) on Soil Erosion*, 2009 UNIVERSITY OF NORTH DAKOTA UNDERGRADUATE THESES AND SENIOR PROJECTS 100 (2009), <https://commons.und.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1099&context=senior-projects>.

¹⁴⁰ David Pimentel, et al., *Environmental and Economic Costs of Soil Erosion and Conservation Benefits*, 267 SCIENCE No. 5201, 1117, 1118 (Feb. 24, 1995).

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ *Id.*



Figure 7: *Windy Day Prairie Dog Area*

Figure 7 shows that on a windy day it is difficult to see $\frac{1}{4}$ mile due to the topsoil blowing away. There are large hills behind this dust curtain that you cannot see due to the erosion. Figure 8 shows more wind erosion occurring and loss of topsoil nutrients due to the severe infestation of prairie dogs.



Figure 8: *Soil Erosion Caused by Prairie Dogs*

Soils form slowly; it takes between 200 and 1000 years to form one inch of topsoil under cropland conditions and even longer under pasture conditions.¹⁴⁵ Thus,

¹⁴⁵ Id. at 1119.

loss of topsoil due to erosion can permanently alter the landscape of the Thunder Basin National Grassland and create conditions similar to the Dust Bowl era.

- ii. *The naturally occurring mixed grass prairie landscape is being radically changed into a short grass prairie ecosystem by the expansion of the prairie dog colonies.*

In the Thunder Basin National Grassland, the most common changes in vegetative condition due to prairie dog expansion is a shift from a mixed grass community dominated by western wheatgrass/ blue grama or crested wheatgrass/blue grama to a low-grass community dominated by blue grama alone. Desired cool season grasses found in a mixed grass ecosystem include western wheatgrass, needle and thread, and Sandberg's bluegrass. Warm season grasses consist primarily of blue grama.

A study was conducted in Montana to determine what effects the black-tailed prairie dog had on mixed-grass prairie ecosystems.¹⁴⁶ The monitoring research concluded the following:

(a) Total standing crop biomass was more than two times greater on uncolonized rangeland when compared to prairie dog colonies.¹⁴⁷ Nearly seven times the amount of standing dead grass was present on uncolonized rangeland when compared to the colonized areas.¹⁴⁸ The increased amount of standing dead biomass that was located on the uncolonized rangeland was due to the clipping of vegetation by prairie dogs on their [own] colonies to increase visibility and facilitate movement, thereby greatly decreasing the amount of grasses that reach maturity.¹⁴⁹

(b) The prairie dog activity resulted in a replacement of cool season grasses with warm season grasses similar to the effects of heavy grazing by cattle.¹⁵⁰

(c) "Bare ground was 10% greater within the colonized interior of a prairie dog colony when compared to the adjacent uncolonized rangeland."¹⁵¹ Bare ground temperature can range from 20-25 degrees warmer than ground with sufficient cover.¹⁵² Hot soil does not encourage or allow plant survival. "The decrease in litter and increase in bare soil may result in a warmer, drier microenvironment."¹⁵³ "Reductions in live and dead plant biomass and litter could result in a decrease in the interception of precipitation by vegetation. This increase in bare soil may also lead to an increase in

¹⁴⁶ See Johnson, *supra* n. 76.

¹⁴⁷ *Id.* at 643.

¹⁴⁸ *Id.*

¹⁴⁹ *Id.* citing King (1955).

¹⁵⁰ *Id.* citing, Biondino and Manske 1996.

¹⁵¹ *Id.* at 645.

¹⁵² *Id.* citing (Archer et al 1987).

¹⁵³ *Id.*

evaporative losses. Therefore, water availability in the first few centimeters of soil will tend to be lower on heavily grazed sites, even after a precipitation event.”¹⁵⁴

(d) Cool-season grasses accounted for 41% of the total standing crude protein available off a prairie dog colony, while making up only 21% of the total standing crude protein located on a prairie dog colony.¹⁵⁵ This difference represents a 130% decrease in the total amount of crude protein available (kg/ha) from cool- season grasses on a prairie dog town when compared to uncolonized rangeland.¹⁵⁶ This decrease in standing crop crude protein of cool-season grasses may be detrimental to cattle, which have been shown to preferentially select for cool season grasses where available.¹⁵⁷

iii. *The Forest Service’s management to encourage the expansion of the black-tailed prairie dog has caused harm to other wildlife species in the Grassland.*

In addition to causing soil erosion and negatively changing the forage plant production, the prairie dog expansion is also causing harm to several key local species in the area including the greater sage grouse and mountain plover. Some of the harm occurring to these species is through habitat destruction and alteration caused by prairie dog expansion. These species are also harmed due to conservation measures the Forest Service is using specifically to protect prairie dog populations.

The expansion of prairie dog colonies in the Thunder Basin National Grassland has negatively impacted sage-grouse in the area. One of the main reasons that the greater sage grouse was considered for listing by the US Fish and Wildlife Service was because of habitat destruction and fragmentation to greater sage grouse habitat areas.¹⁵⁸ Greater sage grouse rely primarily on a sage-steppe ecosystem with high amounts of sage brush in the area and a higher grass height to provide greater sage-grouse with nesting cover to increase the likelihood of successful nests.¹⁵⁹ Prairie dog colonization expansion directly destroys sage-steppe ecosystems. Further, the percentage of bare ground typically increases with long-term prairie dog occupancy because prairie dogs specifically trim forage to a very low stubble in order to scan the area for predators, in direct contradiction to what greater sage grouse need which is cover to hide their nests from predators.¹⁶⁰ Prairie dogs actively remove sagebrush until entire stands have been destroyed. Removal of sagebrush tends to create a more xeric site, making it extremely difficult for sagebrush to reestablish.¹⁶¹

Prairie dogs actively eliminate and destroy sagebrush during their colonization process. Long-term productivity of these sites may be diminished because of this loss of

¹⁵⁴ Id. citing Whicker and Detling 1988.

¹⁵⁵ Id.

¹⁵⁶ Id.

¹⁵⁷ Id. citing Uresk 1986

¹⁵⁸ 79 Fed. Reg. 72464 (proposed December 5, 2014).

¹⁵⁹ Fish and Wildlife Service, Greater Sage Grouse Record of Decision for Northwest Colorado and Wyoming 30 (September, 2015).

¹⁶⁰ SCOTT E. HYGNSTROM *supra* n. 78 at B-87.

¹⁶¹ Johnson, *supra* n. 76 at 644, citing (Lusby 1979).

sagebrush. Sagebrush creates a microclimate, which allows other plants to grow, and retains moisture in the soil, which can be taken up by other plants.¹⁶² Sagebrush may take up to 50 years to recover after stand removal due to fire.¹⁶³ The removal of sagebrush by prairie dogs, however, is quite different from that by fire. Immediately after fire has swept through an area, organic matter is deposited directly back into the soil.¹⁶⁴ The seedstock and rootstock persist below ground.¹⁶⁵ After the prairie dogs remove the sagebrush, the seed and rootstock have been depleted, which may make sagebrush recovery difficult.¹⁶⁶

Thus, sage grouse habitat and prairie dog habitat are in direct conflict with each other. This is demonstrated by the fact that the Forest Service submitted a request to the Sage Grouse Working Group to remove 6,904 acres from the proposed greater sage-grouse core habitat area because there was no longer suitable habitat in the area.¹⁶⁷ A large portion of the area requested to be removed from the sage grouse core area habitat had been manipulated by the Forest Service for several years before the proposal to remove the parcel. Land in the proposed removal area had been mowed, burned and had prairie dogs translocated into nearby areas to encourage the prairie dog colony expansion into what had been an active feeding and nesting area for sage grouse.

Landowners have also collected photographic evidence of prairie dog destruction of core greater sage grouse habitat:



Figure 9: *Destroyed Sage Grouse Habitat*

¹⁶² *Id.* at 645 *citing* (Peterson 1995).

¹⁶³ *Id.*, *citing* (Blaisdell et al 1982; Bunting et al 1987).

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

¹⁶⁶ *Id.* at 646.

¹⁶⁷ See Tim Byer, Thunder Basin NG Core Area Adjustment Recommendations (2015); *see also* Core Area Boundary Revisions – Northeast LWG Mtg (March 16, 2015).



Figure 10: *Sage Grouse Nesting Location*

Figure 10 was once a sagebrush-covered hillside that had nesting sage grouse in the spring.



Figure 11: *Prairie Dogs on Sage Grouse Core Area*

Figure 11 is just west of the Forest Service proposed removal area and within a 2-mile radius of a greater sage-grouse lek.



Figure 12: *Sage Grouse Habitat Destroyed by Prairie Dogs*



Figure 13: *Once Productive Pasture, Sage-Grouse Habitat*

Figure 12 and Figure 13 were once productive pastures for livestock and are in the protected greater sage-grouse core habitat area.

The Forest Service has done several prescribed burns within the Thunder Basin National Grassland to encourage prairie dog expansion. Some of these prescribed burns were conducted in greater sage-grouse habitat.¹⁶⁸ Figure 14 shows the Forest Service burning sage brush in protected sage grouse core area in 2012, in order to encourage black-tailed prairie dog expansion. Such burnings are in direct conflict with US Fish and Wildlife Service recommendation which states that fires are one of the main causes of

¹⁶⁸ Letter from Misty A. Hays, Deputy District Ranger of Medicine Bow – Routt National Forests and Thunder Basin National Grassland to Frank Eathorne, President of Thunder Basin National Grassland (Feb. 23, 2011); .

greater sage grouse habitat fragmentation and destruction and that even prescribed fires should be limited.¹⁶⁹



Figure 14: Burning Sage Grouse Core Area 2012

Another example of the Forest Service managing for the benefit of prairie dogs to the detriment of other key species is the Forest Service's uses deltamethrin, an insecticide, on prairie dog colonies to reduce sylvatic plague outbreaks. This insecticide has been shown to harm the mountain plover by strongly decreasing nest survival in areas that have been treated with the deltamethrin. According to Dr. Stephen J. Dinsmore, a professor of ecology at Iowa State University, the strong correlation between decreased nest survival and deltamethrin treatment on prairie dog colonies most likely occurred because of the decrease in insect availability for the plover, and this in turn lowered nest survival because adults spent more time off nests or switched to less desirable insect prey.¹⁷⁰ Thus, although mountain plover prefer nesting within prairie dog colonies, deltamethrin treatments can counteract the positive correlation between prairie dog expansion and mountain plover survival. Although the study only included the mountain plover, it is reasonable to assume the burrowing owl and other avian species are also negatively affected by the use of deltamethrin due to the fact that deltamethrin would also kill the insects those species eat as well.

Further, Zinc phosphide, the rodenticide that the Forest Service uses to control prairie dog populations, is very toxic to greater sage-grouse and other ground birds in

¹⁶⁹ Fish and Wildlife Service, Greater Sage Grouse Record of Decision for Northwest Colorado and Wyoming 28.

¹⁷⁰ Stephen J. Dinsmore, *Mountain Plover Responses to Deltamethrin Treatments on Prairie Dog Colonies in Montana*, 22 ECOTOXICOLOGY 415-24 (March, 2013).

the area. This rodenticide must be placed above ground in front of the burrow openings and takes less than 0.1 ounce to be toxic to a ¼ pound bird.¹⁷¹

Finally, the loss of forage due to prairie dog colony growth also affects elk, deer and antelope who traditionally do not have feed in the densely populated prairie dog colonies either. In several instances, all that remain in the colonies for forage are dirt covered cacti plants and noxious weeds like the cocklebur and thistle plants which are not palatable to elk, deer, or antelope.

D. The Forest Service has utilized translocation to move prairie dogs from one area to another causing conflicts between landowners.

One of the most controversial prairie dog management methods the Forest Service utilizes in the Thunder Basin National Grassland is translocating prairie dogs. One of the main issues caused by translocation is that the Forest Service will translocate prairie dogs from one grazing allotment leased by a resident in the area onto another lessee's grazing allotment.¹⁷²

The first translocation occurrence in the Thunder Basin National Grassland was in 2010. The 4W Ranch requested the Forest Service do something to remove the prairie dog colonies within a mile of a landowner's residence. The Forest Service responded by translocating 550 prairie dogs from around the residence into an area within the Rosecrans Community Pasture complex. The Rosecrans allotment is a series of pastures that members of the Thunder Basin Grazing Association may apply for to use for a short term in order to rest one of their pastures or in case of fire, grasshopper or prairie dog damage. At the time Fiddleback Ranch was using the Rosecrans allotment because of the prairie dog devastation.¹⁷³ The arrival of prairie dogs in that allotment caused further damage to Fiddleback Ranch's operation and contributed to the Ranch's eventual sale.

The Douglas Ranger District has acknowledged that Wyoming state law requires that all translocation of prairie dogs within the state be approved by the Wyoming Game and Fish Department, and the Thunder Basin National Grassland claims an intent to follow that process.¹⁷⁴ However, the Forest Service has had a history of violating terms set within the permit given by the Wyoming Game and Fish Department, even to the point that the Wyoming Game and Fish Department revoked the Forest Service's translocation permit in 2011.¹⁷⁵ One of the main reasons the Wyoming Game and Fish Department revoked the translocation permit from the Forest Service is due to failure to communicate with affected parties regarding the translocation and the fact there was no effective contingency plan for managing prairie dog dispersal.

¹⁷¹ Rozol Prairie Dog Bait Safety Label.

¹⁷² Decl. of Wayne and Joan Neumiller on behalf of Sunshine Valley Ranch ¶ 26 (Nov. 16, 2017).

¹⁷³ Decl. of Gary and Cheryl Jacobson on behalf of Fiddleback Ranch ¶ 5 (February 5, 2018).

¹⁷⁴ Black-Tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland at 10.

¹⁷⁵ Letter from Phil Cruz, US Forest Service Forest Supervisor, Medicine Bow – Routt National Forests and Thunder Basin National Grassland to Scott Talbot, Director, Wyoming Game and Fish Department (Oct. 17, 2011).

V. THE FOREST SERVICE IS LEGALLY OBLIGATED TO MANAGE THE PRAIRIE DOG INFESTATION.

The Forest Service is legally obligated to manage the prairie dog infestation. Under the current Prairie Dog Plan, the Forest Service has violated both the BJFTA and its own regulations. The Forest Service also ignores the Wyoming state-wide designation of the Black-tailed Prairie dog as an agricultural pest.

A. The Forest Service's Mismanagement of Prairie Dogs is a Violation of the Bankhead-Jones Farm Tenant Act.

The preamble to the Bankhead-Jones Farm Tenant Act states that its purpose was “to create the Farmers' Home Corporation, to promote more secure occupancy of farms and farm homes, to correct the economic instability resulting from some present forms of farm tenancy and for other purposes.” Although the preamble of a statute is not actually considered part of the statute,¹⁷⁶ it does provide some insight to determine what Congress intended and suggests that the Forest Service's management of prairie dogs significantly harms the productivity of grasslands in the area and is inconsistent with the purpose of the Thunder Basin National Grassland.

Further, the “program of land conservation and land utilization” established by the BJFTA was aimed at, among other things “correct[ing] maladjustments in land use, and thus assist[ing] in controlling soil erosion, reforestation, preserving natural resources . . . and protecting the public lands, health, safety, and welfare.”¹⁷⁷ The statute was also enacted to provide rural counties in which the national grasslands are located with a source of revenue to fund school and road projects.¹⁷⁸ Thus, ultimately, the original purposes for which Congress acquired lands under the BJFTA were focused on restoring deteriorated range conditions and helping restore and improve the country's agricultural industry.

Congress has added additional purposes for National Grasslands. Some of the purposes of the National Grasslands are to reduce soil erosion, promote reforestation, preserve natural resources, protect fish and wildlife, and protect the public lands health, safety, and welfare.¹⁷⁹

Federal law requires the Forest Service to administer the national grasslands for the purposes for which they were acquired. When the federal government acquires land for a particular public purpose, only Congress has the power to change that purpose or dispose of the acquired land.¹⁸⁰ Thus, federal agencies must manage and administer

¹⁷⁶ See, Jurgensen v. Fairfax County, Virginia, 745 F.2d 868, 885 (4th Cir. 1984).

¹⁷⁷ 7 U.S.C. § 1010.

¹⁷⁸ 7 U.S.C. § 1012.

¹⁷⁹ 7 U.S.C. § 1010.

¹⁸⁰ Reichelderfer v. Quinn, 287 U.S. 315, 318–20 (1932).

acquired lands according to the purpose for which the federal government acquired them, unless Congress has authorized otherwise.¹⁸¹

The current prairie dog management scheme fails to fulfill the original purpose of the National Grasslands because the prairie dog expansion is causing deteriorating rangelands conditions, and it is also destabilizing the local ranching economy in the region. Additionally, the current management scheme also fails to fulfill many of the modern purposes of the National Grasslands. First, the prairie dog expansion is the main cause of soil erosion and loss of forage base in the area. Second, prairie dog expansion is damaging rather than preserving other natural resources in the Basin. Finally, although the Forest Service is protecting prairie dogs as a wildlife resource in the region, they are doing so to the detriment of many of the other essential wildlife in the area, thus failing to fully protect wildlife in the National Grassland.

B. The Forest Service has violated its own Regulations by Failing to Adequately Manage Black-Tailed Prairie Dogs on the Thunder Basin National Grassland

As stated above, Forest Service regulations governing management of the national grasslands are found at 36 C.F.R. Part 213 (“the 213 Regulations”). Relevant provisions of the 213 Regulations provide:

The national grasslands shall be “permanently held by the Department of Agriculture for administration under the provisions and purposes of Title III of the Bankhead–Jones Farm Tenant Act,” and “administered under sound and progressive principles of land conservation and multiple use, and to promote development of grassland agriculture and sustained-yield management of the forage. . . .”¹⁸²

Grassland resources “shall be managed so as to maintain and improve soil and vegetative cover, and to demonstrate sound and practical principles of land use for the areas in which they are located.”¹⁸³ The Chief of the Forest Service also must, to the extent feasible, enact management policies that “exert a favorable influence for securing sound land conservation practices on associated private lands.”¹⁸⁴

Additionally, the 213 Regulations explicitly provide that other regulations applicable to national forests, including those governing livestock grazing,¹⁸⁵ are incorporated and apply to regulate the protection, use, occupancy, and administration of the national grasslands to the extent *they are not inconsistent with the provisions of the BJFTA*.¹⁸⁶

¹⁸¹ *Id.*; see also *United States v. Three Parcels of Land*, 224 F.Supp. 873, 876 (D. Alaska 1963); *United States v. 10.47 Acres of Land*, 218 F.Supp. 730, 733 (D.N.H. 1962)

¹⁸² 36 C.F.R. §§ 213.1(b) and (c).

¹⁸³ 36 C.F.R. § 213.1(d).

¹⁸⁴ 36 C.F.R. § 213.1(d).

¹⁸⁵ 36 C.F.R. §§ 222 *et seq.*

¹⁸⁶ 36 C.F.R. § 213.3(a).

The prairie dog populations vastly exceed the forage and resource capacity of the Thunder Basin National Grassland. The Forest Service is not promoting “grassland agriculture and sustained-yield management of the forage” and the federal agency is not “exert(ing) a favorable influence for securing sound land conservation practices on associated private lands” but instead is causing severe destruction on neighboring private and state lands.

Forest Service regulations require it to “maintain and improve soil and vegetative cover” and employ “sound and practical principles of land use.”¹⁸⁷ The current overpopulation of prairie dogs on the Thunder Basin National Grassland is responsible for deteriorated range conditions; therefore the Forest Service is failing to manage the Thunder Basin National Grassland to maintain soil and vegetative cover and is responsible for severe erosion occurring on densely populated areas of black-tailed prairie dog colonies.

The Forest Service must also provide for a diversity of plant and animal species on the lands it administers. Thus, the Forest Service is precluded from engaging in a single ecosystem management preference. The Thunder Basin National Grassland is home to many wildlife species. Some of those species carry a “protective status” and depend on the same forage and resources as do the prairie dogs. By allowing prairie dog populations to grow to levels that exceed the forage and resource capacity of the grassland, and further, by sometimes harming other species conservation in order to promote prairie dog expansion, the Forest Service is failing to uphold its obligation to manage for a “diversity” of species.

C. The Forest Service has ignored the State of Wyoming’s designation of the black-tailed prairie dog as an agricultural pest violating the requirements set forth in NEPA.

Due to the forage and soil destruction the black-tailed prairie dog causes to the rangeland, the State of Wyoming has designated the rodent as an agricultural pest. NEPA specifically requires that federal agencies shall cooperate with State and local governments “to the fullest extent possible to reduce duplication.”¹⁸⁸ NEPA also requires that all planning documents produced by federal agencies must discuss any inconsistencies between a proposed agency action and state and local land use plans.¹⁸⁹ Where inconsistencies exist, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.¹⁹⁰ Because the Forest Service fails to address the contradiction between the principles set forth in the Prairie Dog Plan and Wyoming’s designation of the prairie dog as an agricultural pest, the Forest Service violates NEPA and must address and reconcile the contradiction.

¹⁸⁷ *Id.*

¹⁸⁸ 40 C.F.R. § 1506.2(b).

¹⁸⁹ 40 C.F.R. § 1506.2(d).

¹⁹⁰ *Id.*

D. *The black-tailed prairie dog does not meet the definition of a sensitive species, “species of conservation concern” or focal species.*

According to the 2012 Planning Rule for the Forest Service, a “species of conservation concern” (SCC) is one for which the agency has a concern that it will “not remain on a landscape for a long time.” SCC lists are created considering essentially the same factors as the sensitive species list. The goal for the Forest Service in placing a species on the SCC list or the sensitive species list is to prevent the species from being included on the threatened or endangered species list under the ESA. The risk factors for a SCC or sensitive species generally include consideration of whether the species has a broad geographic distribution or whether the species is present in only a few locations (including the ability of the species to disperse); abundance of the species; population trend (specifically noting that all species have variability in population therefore short-term declines should be interpreted cautiously); habitat trend in quality or quantity; habitat vulnerability; and life history and demographic characteristics of the species.¹⁹¹

Focal species under the 2012 Planning Rule are species that are used to evaluate effectiveness in maintaining or restoring ecological conditions, including conditions deemed important to providing for plant and animal diversity. The focal species approach seeks to streamline an assessment of ecological conditions by monitoring the status and trend of a “focal species” to provide insights to the integrity of the larger ecological system to which it belongs. Focal species serve as an umbrella function in terms of encompassing habitat needed for other species, are sensitive to the changes that occur in the area or otherwise serve as an indicator of ecological sustainability.¹⁹²

Given these requirements, black tailed prairie dogs do not fit the criteria for SCCs or focal species. Prairie dogs have a broad geographic representation and as of 2007, black-tailed prairie dogs occur across most areas of their historic range, excluding Arizona;¹⁹³ the population is also abundant limited only by the plague which is a natural phenomenon that is not impacted by the land management. Additionally, there has always been an abundant population of prairie dogs although short-term population declines are noted again due to plague. Managing the TBNG for multiple use and to protect the ecosystem benefits the habitat for the species as well as the numerous other species dependent on this ecosystem. It is the current Forest Service management that places prairie dog populations above protection of the ecosystem, the ranchers’ ability to use their private lands and grazing allotments and species such as the sage grouse, piping plover and others is limiting the stability of the habitat, not benefitting it. The black-tailed prairie dog does not meet the requirements for a SCC or a focal species and should not be designated as such.

¹⁹¹ FSM R2 Amendment, 2672.11 – Exhibit 02.

¹⁹² Lamback 1997, Noss et al. 1997, COS 1999, Andelman et al. 2001.

¹⁹³ Johnsgard, Paul A. 2005. Prairie dog empire: A saga of the shortgrass prairie. Lincoln, NE: University of Nebraska Press

VI. PROPOSED RULE AMENDMENTS

There are several management solutions that will both curtail further damage caused by the rapid prairie dog expansion, and also help repair much of the destruction caused to the Grasslands. As explained more fully below, these include:

- 1) One of the most effective solutions the Forest Service could implement is reducing the size of the prairie dog colonies and the density of the prairie dogs in each colony within the Thunder Basin National Grassland.
- 2) The Forest Service should create larger more effective buffer zones between prairie dog colonies and State and private lands.
- 3) All prairie dogs should be removed from sage grouse core area habitat on federally managed lands and prevented from future colonization in those areas.
- 4) The Forest Service should adopt management strategies that are proven effective to control unwanted expansion prairie dogs and protect other interests in the TBNG including:
 - a. Use more types of rodenticide and expand the treatment time frame.
 - b. Do not allow the use of deltamethrin and other similar insecticides that might harm threatened species like the burrowing owl, plover and sage grouse.
 - c. Do not burn grasslands to encourage the expansion of prairie dogs, or within the sage grouse core habitat.
 - d. Do not translocate prairie dogs between allotment permittees, and next to or into buffer areas.
- 5) The Forest Service should revise the 2001 TBNG land use plan, including Amendment #3 dated March 23, 2010 to remove areas designated as MA 3.63 (Black-footed Ferret Reintroduction Habitat Area) and MA 2.1 (Cheyenne River Special Interest Area) which is adjacent to MA 3.63 and return all management to MA 5.12, General Forest and Rangelands: Range Vegetation Emphasis.
- 6) The Forest Service should work and fund conservation efforts to reclaim land devastated by the black tailed prairie dogs.
- 7) The Forest Service should streamline and expedite land exchanges to improve management effectiveness.
- 8) Because the Black Footed Ferret will not be introduced within the TBNG, the management of the Grasslands must change to acknowledge the legal

directives put in place for forage production and the populations of the prairie dogs must be drastically reduced and fiscally and responsibly managed.

- 9) The Forest Service should remove the proposed working group for the Grasslands management and accept requests for cooperating and coordinating agencies.

A. *The size of colonies and the density of the prairie dogs must be reduced in the management areas in the Thunder Basin National Grasslands.*

The most effective management strategy the Forest Service could implement is by reducing the size of the prairie dog colonies and the density of the prairie dogs within the colonies in current prairie dog management areas. This will help curtail the prairie dog expansion and allow for more efficient management of grassland resources.

The Forest Service is in a unique situation where immediate management has a greater likelihood of success due to the decreased population from the plague event in 2017. However, the Forest Service must take action quickly because prairie dogs will repopulate. In 2001, the Forest Service had documented 21,456 active acres of prairie dogs. That same year the population was reduced due to another plague epizootic and in 2002, the Forest Service documented 4,324 active acres of prairie dogs on portions of their federally managed lands. By 2005, the Forest Service had documented 15,531 active acres of prairie dogs on part of the lands they manage. Because there were over 75,000 documented active acres of prairie dogs in 2016-2017, the recovery of the prairie dog will have more acres of re-colonization. Therefore, the Forest Service should immediately begin to reduce the size of the current prairie dog colonization areas, reduce the density of the rodents and manage the prairie dog colonies into smaller, non-contiguous areas. The lower density (less than 10 burrows per acre) slows down the migration of the rodent and allows for more forage base.

Additionally, the prairie dog category classifications should be deleted. The current prairie dog management plan has three management categories. In all three management categories, the current sizes are impossible to manage effectively. Further, the large sizes do not promote soil conservation and production of a forage base for grassland agriculture. Finally, the current management strategy is based on the false premise that black-footed ferret will be introduced onto the TBNG. Due to these facts, instead of continuing to follow the ineffective management plan the Forest Service currently has in place, the Forest Service should reduce the entire prairie dog population to a level that they could manage both logistically and financially and then evenly manage that population within the TBNG.

The Forest Service consistently allocates approximately \$20,000.00 for prairie dog management along the National Grassland's boundary. The Forest Service acknowledged within the existing Prairie Dog Plan that they had insufficient funding and personnel to manage the Plan as written. Yet the Forest Service signed and implemented the plan with the results being a catastrophic failure. The lands have been

devastated, including neighboring private and state lands as well as the federally-managed allotments. Associated species have been harmed with management implementation. The Forest Service never had the funding or other requirements to implement such a broad plan. The 2012 Forest Service planning regulations states that all new amendments and plans must be fiscally responsible. One way that a plan must be fiscally responsible is that the Forest Service must annually be able to pay for what they plan. Thus, unless the Forest Service allocates more funds to prairie dog management, the Forest Service should reduce the prairie dog population to a level that can be managed by \$20,000.00.

B. Creating wider buffer zones between prairie dogs, other affected species and private landowners would help prevent future conflicts

Creating effective buffer zones will drastically reduce conflicts between private landowners and federal agencies and will allow the Forest Service to better comply with the BJFTA and its own regulations. As was reflected in Section V, prairie dog colonies harm both landowners and other key species in the area. Although the Forest Service currently has implemented a ½ mile buffer between the Thunder Basin National Grassland boundary and non-federal lands, the buffer zone is ineffective. Prairie dogs migrate twice a year when the juveniles leave their homes to colonize elsewhere. Those juveniles normally travel 3-6 miles for migration (documented via radio collars) and have been known to go as far as 10 miles. Thus, a ½ mile buffer is well within the colonization distance of a prairie dog. Instead, a buffer of at least six miles should be implemented for all black-tailed prairie dog colony perimeters with all non-federal land and core sage-grouse habitat in the Thunder Basin National Grassland to ensure that these lands can be better managed against unwanted prairie dog infestation. However, in expanding the buffer zone, the Forest Service must not reduce the size of the grazing allotments associated with the expansion.

C. Removal of all prairie dogs from within sage grouse core area habitat would better serve the Forest Service's mission to protect sage grouse.

The main reason the sage grouse were proposed for listing was because of their habitat fragmentation and destruction. As shown in the pictures, the prairie dogs destroy all of the sagebrush environment and kill the sagebrush roots and seedstock. The rodents facilitate the fragmentation of the sage grouse habitat therefore, the black-tailed prairie dog is detrimental to sage grouse core area habitat and population viability. The prairie dogs should be removed from sage grouse core area habitat, and a wide buffer zone placed around the sage grouse core area. The buffer zone should be monitored and aggressively managed to prevent movement of the rodents into sage grouse core area. The rodents should be pro-actively managed on private, state and federally managed lands to prevent infestation of sage grouse core area habitat and the Forest Service should encourage treatments to prevent any migratory re-infestation.

D. *A change in management techniques will allow for greater efficiency in prairie dog management and will protect other interests in the Basin.*

Along with decreasing the overall prairie dog acreage in the Thunder Basin and also setting up wider buffer zones between conflicting lands, the Forest Service should also implement prairie dog management techniques that will allow for greater efficiency and protect other wildlife in the area. First, the Forest Service should authorize the use of additional, more effective, rodenticides. Second, the Forest Service should stop applying deltamethrin due to its negative effects on the avian species. Third, the Forest Service should not initiate prescribed burns in locations that would harm local landowners and other key wildlife species. The momentum behind this petition exists because extreme damage has occurred to both public and private lands with large prairie dog populations. Rodenticides can and have safely been used to manage prairie dog populations. Prairie dogs reproduce so quickly with litter sizes of four pups on average and a gestation period of just 34 days that they spread on a level where they can rapidly overpopulate an area. This causes them to create dirt fields from fertile grasslands and essentially destroy the entire habitat area for deer, cattle, horses, birds, and elk and many other species.

i. The Forest Service should allow for the use of Rozol and other anticoagulants on portions of the Thunder Basin National Grassland.

Currently, zinc phosphide is the only rodenticide used by the Forest Service to manage prairie dogs.¹⁹⁴ Although the application of zinc phosphide as a rodenticide can be an effective method to manage prairie dogs, it is not the most efficient and there are several disadvantages to its application compared to Chlorophacinone (Rozol). First, zinc phosphide can have a harmful effect on granivorous birds in the region. Zinc phosphide must be placed above ground in front of the burrow openings and takes less than 0.1 ounce to be toxic to a ¼ pound bird, thus there is a high probability that where zinc phosphide is applied, granivorous birds, including sage grouse, or mountain plovers could be harmed.¹⁹⁵ In contrast, Rozol must be placed six inches inside the burrows, reducing the possibility of exposure to granivorous birds.¹⁹⁶

Second, zinc phosphide is known to cause bait shyness and can only be applied in the same area on a 2-3 year basis.¹⁹⁷ Due to bait shyness, zinc phosphide generally has a lower success rate compared to Rozol.¹⁹⁸ In contrast, Rozol has a very high success rate and can be re-applied as a follow-up treatment in the same area during the same year.

Finally, zinc phosphide costs much more to apply than Rozol. Zinc phosphide comes in oat form. Each burrow must be pre-baited with (untreated rolled) oats. If the pre-bait is eaten within three days after application, the treated oats will then be placed

¹⁹⁴ *Id.* at 34.

¹⁹⁵ Rozol Prairie Dog Bait Safety Label.

¹⁹⁶ *Id.*

¹⁹⁷ Black-Tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland at 34.

¹⁹⁸ *Id.*

on the mound or near the opening of each burrow. Both treated and non-treated oats cost \$15 for a 50 pound bag. A teaspoon of both types of oats is used per placement. One 50-pound bag will treat approximately 113 acres of prairie dog mounds, depending upon the density of prairie dogs. For calculations the figure of 113 acres per bag was used. Labor is \$60/hr. x 2, to account for the labor cost of pre-baiting. Because the placement of the poison is not as precise (near the mound or burrow opening, not down the burrow) it was calculated one person could do 12 acres/hr. In contrast, Rozol is a small wheat pellet that is placed 6 inches down the burrow opening. The application rate for Rozol is 2 oz. per mound. Each bucket of Rozol costs \$ 13.50 (to the landowner) with a cost share program implemented by Converse County Weed and Pest. One bucket treats 3.67 acres. Calculations used the figures of 50 prairie dog mounds per acre and 3.67 acres per bucket of Rozol. Labor costs are estimated at \$60.00 per hour. It was estimated one person could do 9.5 acres per hour due to the precise placement of the poison. As can be shown by the charts below, zinc phosphide costs more than Rozol to apply per acre.

Cost per acre:

Rozol: \$3.16	Zinc phosphide - Pre-bait & treated oats: \$0.26
Labor: \$6.31	Labor: \$10.00
Total: \$9.47	Total: \$10.26

One of the major drawbacks from Rozol treatment is the chance of secondary exposure from scavengers or predators consuming treated prairie dogs.¹⁹⁹ Unlike zinc phosphide, which has a low probability of secondary exposure, Rozol remains in a treated black-tailed prairie dog's system at high enough levels to harm predators or scavengers that consume a treated prairie dog.²⁰⁰ Because of the danger of secondary exposure, the US Fish and Wildlife Service and the EPA banned the use of Rozol at all black footed ferret reintroduction sites.²⁰¹ However, the Forest Service and the Wyoming Game and Fish have stated that the TBNG is no longer a proposed site for ferret introduction. Thus, the possibility of black footed ferret introduction should not factor into any decision on whether to use Rozol.

Looking at the benefits of Rozol treatment compared to zinc phosphide, and also acknowledging the possibility of secondary exposure, the Petitioners request that Rozol and other anticoagulants be used to manage prairie dog colonies in conjunction with zinc phosphide for all buffer zones between non-federal lands and the National Grassland. For the buffer areas by sage grouse core areas, Rozol would be the rodenticide of choice due to its lower toxicity to the avian species.

¹⁹⁹ Letter from R. Mark Sattelberg, US Fish and Wildlife Service Field Supervisor, Wyoming Field Office to Phil Cruz, US Forest Service Forest Supervisor, Medicine Bow – Routt National Forests and Thunder Basin National Grassland (Aug. 9, 2013) (on file with Petitioner).

²⁰⁰ Id.

²⁰¹ Id.

- ii. *Deltamethrin should not be applied in prairie dog colonies that are also occupied by mountain plover and other avian species.*

As explained in Section IV(C)(3), deltamethrin harms the mountain plover and possibly the burrowing owl as well as other avian species. Deltamethrin, the insecticide the Forest Service uses to reduce sylvatic plague outbreaks within prairie dog colonies, harms the mountain plover by strongly decreasing nest survival in areas that have been treated with the insecticide. The strong correlation between decreased nest survival and deltamethrin treatment on prairie dog colonies most likely occurs because of the decrease in insect availability for the plover, and this in turn lowers nest survival because adults spend more time off nests or switch to less desirable insect prey.²⁰² Thus, although mountain plover prefer nesting within prairie dog colonies, deltamethrin treatments can counteract the positive correlation between prairie dog expansion and mountain plover survival. The Forest Service therefore should not use any deltamethrin treatment in prairie dog colonies that are occupied by mountain plover and burrowing owls. Furthermore the plague event of 2016-2017 proves that deltamethrin is no longer effective.

- iii. *The Forest Service should no longer conduct prescribed burns to encourage prairie dog colony expansion in the Thunder Basin National Grassland.*

Prescribed burnings to encourage prairie dog colony growth is currently one of the leading management methods in the Thunder Basin National Grassland. Although the prescribed burns can be used as a tool to encourage directional movement for future prairie dog colonization, the Forest Service has historically misapplied prescribed burns in a way that harms both local landowners in the Basin and other key species. Some of these prescribed burns were conducted in greater sage grouse habitat within the area that the Forest Service requested to have removed from core sage grouse habitat.²⁰³ Such burnings are in direct conflict with the US Fish and Wildlife Service's recommendations which state that fires are one of the main causes of greater sage grouse habitat fragmentation and destruction and that even prescribed fires should be limited.²⁰⁴ The Forest Service has also used prescribed burns on acreage previously allotted for grazing. In doing so, many landowners in the area often have to rely either on hay or decrease their cattle count to make up for the lost AUMs.²⁰⁵ The Fiddleback Ranch alone lost a total of approximately 3,000 acres between 2009 and 2012.²⁰⁶ The Fiddleback Ranch was still required to pay (approximately \$17,706.00) for the AUMs that were burned and had to find feed or grazing elsewhere to maintain herd numbers.

²⁰² Stephen J. Dinsmore, *Mountain Plover Responses to Deltamethrin Treatments on Prairie Dog Colonies in Montana*, 22 ECOTOXICOLOGY 415-24 (March, 2013).

²⁰³ Letter from Misty A. Hays, Deputy District Ranger of Medicine Bow – Routt National Forests and Thunder Basin National Grassland to Frank Eathorne, President of Thunder Basin National Grassland (Feb. 23, 2011).

²⁰⁴ Fish and Wildlife Service, Greater Sage Grouse Record of Decision for Northwest Colorado and Wyoming 28.

²⁰⁵ See Decl. of Gary and Cheryl Jacobson on behalf of Fiddleback Ranch ¶ 4 (February 5, 2018).

²⁰⁶ *Id.*

The March, 2011 burn occurred while cows still grazed in the burning pasture.²⁰⁷ The landowners in the Basin are required by Forest Service to annually submit a grazing plan every March.²⁰⁸ However, landowners are rarely notified in advance of a burn in order to allow them to adjust grazing plans accordingly.²⁰⁹ Further, no effort has ever been made by the Forest Service to reduce AUM costs or replace lost AUMs elsewhere in the Grasslands to compensate for AUMs consumed by fire.

There are several ways the Forest Service can adjust their prescribed burning program to cause less damage to the both sage grouse habitat and landowners relying on those allotments. First, the Forest Service must prohibit prescribed burns on all sage-grouse core habitat. Second, the Forest Service should have a policy of not allowing prescribed burns on allotments that are already allocated for grazing. When prescribed burnings are necessary in grazing allotments, the Forest Service must provide notice prior to the deadline when landowners must submit grazing plans. Third, landowners should receive credit for grazing fees for those allotments burned or should be allocated replacement AUM forage elsewhere to replace the burned forage AUMs.

iv. *Translocation should occur only within limited parameters and not between lessee allotments or into or next to buffer areas.*

One of the main issues caused by translocation is that the Forest Service will translocate prairie dogs from one grazing allotment leased by a resident in the area and would relocate them onto another lessee's grazing allotment.²¹⁰ These translocations have the potential of causing conflicts between ranchers because the Forest Service essentially benefits one landowner and grazing permittee by harming another landowner and permittee.

Because of the history of the Forest Service violating the Wyoming Game and Fish Department's translocation permit, the Thunder Basin National Grassland should adopt in its Prairie Dog Management Plan the policies set forth in the Wyoming Game and Fish Commission's Guidelines for Translocation of Prairie Dogs in Wyoming (Guidelines).²¹¹ The Guidelines requires a permittee(in this case the Forest Service) to create a contingency plan for managing prairie dog dispersal in reestablished colonies.²¹² The Guidelines also require a permittee to attempt to meet with and secure a written response from all potentially affected private landowners and livestock grazing permittees within 5 miles of the release site in order to resolve potential issues, and minimize conflicts with other land uses as a result of translocation.²¹³ Finally, the Guidelines discourage translocation of prairie dogs from one county into another. If the Forest Service met with affected landowners and livestock grazing permittees to establish a viable translocation plan, as well as create a contingency plan for prairie dog

²⁰⁷ Id.

²⁰⁸ Id.

²⁰⁹ Id.

²¹⁰ Decl. of Wayne and Joan Neumiller on behalf of Sunshine Valley Ranch ¶ 26 (Nov. 16, 2017).

²¹¹ Wyoming Game and Fish Commission, *Translocation of Prairie Dogs in Wyoming* (Jan. 26, 2012).

²¹² Id. at ¶ 1.

²¹³ Id. at ¶ 5.

dispersal before translocating prairie dogs, translocation could be an option landowners would be more receptive to.

E. *The Forest Service should work and fund conservation efforts to reclaim lands devastated by the black-tailed prairie dog infestation.*

Along with better managing the prairie dogs in the TBNG, the Forest Service should repair the damage wrought by years of mismanaging prairie dogs. Large tracts of land will need to be reseeded, reclaimed, sprayed for cacti and noxious weeds, have something placed on it for ground cover to stop the soil erosion and refurbish the lands. Where the prairie dogs have been, the forage that might come up will be downy brome or unwanted cheatgrass and noxious weeds. Land and forage treatments will help the land recover more quickly.

The Granger-Thye Act of 1950 authorizes the Forest Service to enter into cooperative agreements to assist in projects on private and state lands in which the improvements will be within the public interest.²¹⁴ Since repairing state and private lands that have been harmed by the mismanagement of the prairie dogs on federal land would protect the entire region from the detrimental effects of prairie dog infestation, it would be within the public interest to expand all reclamation projects conducted by the Forest Service to include both state and private lands in the Basin.

F. *The Forest Service should better utilize land exchanges as a means to limit conflicts between prairie dogs and affected landowners.*

One of the main tools that the Forest Service can use to reduce the harm to local landowners is to utilize land exchanges that will allow landowners affected by prairie dog encroachment to replace those lands with other lands less affected by prairie dog expansion. Land exchanges within the National Grasslands are authorized by Title III of the BJFTA.²¹⁵ In order to effectuate the purposes for which Title III lands were acquired, the Forest Service may exchange Title III lands with private owners, subdivisions, or agencies of a State government if the exchange does not conflict with the purposes of the BJFTA and the value of the property received in exchange is substantially equal to that of the property conveyed.²¹⁶

Title III exchanges involving private owners and public agencies, including State entities, may be completed without a "public purpose" reversionary clause if the Forest Service documents through a determination of consistency that the exchange does not conflict with the purposes of the BJFTA.²¹⁷

Therefore, land exchanges are authorized in the Thunder Basin National Grassland so long as the exchange does not conflict with the purposes of the Bank-Jones Farm Tenant Act. The current Black-Tailed Prairie Dog Management Plan proposes that land exchanges for like-valued land parcels can occur to create large blocks of National

²¹⁴ 16 U.S.C. § 572.

²¹⁵ 7 U.S.C. § 1011.

²¹⁶ *Id.*

²¹⁷ Forest Service Handbook 5409.13-2004-1 Land Acquisition Handbook § 31.17 (Feb. 19, 2004).

Forest Service lands and reduce the amount of resource management conflicts attributed to intermingled private lands and shared boundaries.²¹⁸ Land exchanges to reduce resource management conflicts are mentioned in the Black-Tailed Prairie Dog Management Plan. Land exchanges have rarely been used and the administrative delay for certain proposed exchanges have lasted over a decade.

One barrier to land exchanges in the Thunder Basin National Grassland is that Forest Service officials for the Thunder Basin National Grassland have stated they cannot exchange lands to private parties that were previously acquired from other private parties. There is no statutory or regulatory prohibition on exchanging land that was previously acquired from a private owner. Further, the limit on exchanges is not articulated in the Resource Management Plan or any other substantive documents for the Thunder Basin National Grassland. Therefore, the Douglas Ranger District managing the Thunder Basin National Grassland should change its internal policy to allow for exchanges of lands that were previously acquired from private owners.

Perhaps the greatest barrier to land exchanges in the Thunder Basin National Grassland is the length of time it has taken to successfully complete a land exchange. An example of this is the current Inyan Kara Land Exchange Package which has been in process since 2003. The reason that the Inyan Kara Land Exchange Package has taken well over a decade to complete is because the Forest Service has refused to perform small land exchanges and instead continues to combine all land exchanges into one package. The result is that there is a perpetual land exchange project that continues to increase in size without ever being completed because of the heavy regulatory requirements to perform a land exchange. In order to streamline land exchanges in the area, the Forest Service should begin accepting smaller land exchanges that will require less capital and resources to complete compared to massive land exchanges like the Inyan Kara Land Exchange Package.

G. The Thunder Basin National Grasslands is not a good home for future Black-Footed Ferret introduction.

The US Fish and Wildlife Service and the Wyoming Game and Fish have all agreed the Black-Footed Ferret will not be introduced within the TBNG at this time. The population of the black-tailed prairie dog has exploded beyond possibility of physical control with rodenticide and has destroyed thousands of acres of land surface both private, state and federally managed lands. The buffer zones were ineffective and the plague organism continues to exist which is very problematic for ferret introduction. The checkerboard land ownership and landowners' strong vocal support against ferret introduction have all played a role in the decision to not allow ferrets to be introduced.

There are several studies that show the plague organism can protect itself within soil and water amoeba. This allows the *Yersinia Pestis*, which causes plague, to lie dormant for many years before it is released back into the environment. The Black-footed ferret is highly susceptible to the plague organism and therefore the ferret would

²¹⁸ Black-Tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland at 32.

not survive within the TBNG when the plague re-establishes itself. According to one study, “the plague bacteria were alive and possibly replicating. To confirm this, we selectively cracked open the infected amoebae at different time points to compare the number of bacteria inside. Our results are the first to demonstrate that plague bacteria are able to survive and replicate inside amoebae.” “Part of an amoeba’s life cycle includes transforming into a cyst – a form in which it can lie dormant for up to 20 years before it reanimates and resumes eating and multiplying. This enables it to survive during adverse environmental conditions, such as extreme temperatures or drought. If plague bacteria can survive inside dormant amoebae cysts for many years, this could explain how and where they persist between outbreaks.”²¹⁹

H. *Any working group established for the Thunder Basin should have some authority and local involvement.*

Instead of creating a powerless program in a Cooperative Work Group, the Forest Service should give power back to local authorities. One such authority group would be the grazing districts. The grazing associations in the Thunder Basin have historically and traditionally been involved in the policy and management of the resources in the region since before the inception of the National Grasslands when the Thunder Basin National Grassland was originally a Land Utilization Project. The grazing associations have also traditionally represented landowner interests and are often a liaison between the Forest Service and landowners in the area.

Local governments should also have a significant say in prairie dog management. Therefore, the Forest Service should also grant coordination with those local government authorities seeking it, such as the local counties and the Wyoming Department of Agriculture. NEPA specifically requires that federal agencies shall cooperate with local governments “to the fullest extent possible to reduce duplication.”²²⁰ NEPA also requires that all planning documents produced by federal agencies must discuss any inconsistencies between a proposed agency action and local land use plans.²²¹ Where inconsistencies exist, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.²²² NFMA also requires that the Forest Service “development, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System, coordinated with the land and resource management processes of State and local governments and other Federal agencies.”²²³ Thus, with the requirements under NFMA, the Forest Service should interact with those agencies seeking coordination on a regular basis, sharing planning information early, and engaging in a good faith effort to harmonize plans when possible.

²¹⁹ <https://source.colostate.edu/plague-bacteria-may-hiding-common-soil-water-microbes-waiting-emerge/> February 2018.

²²⁰ 40 C.F.R. § 1506.2(b).

²²¹ 40 C.F.R. § 1506.2(d).

²²² *Id.*

²²³ 16 U.S.C. § 1604(a).

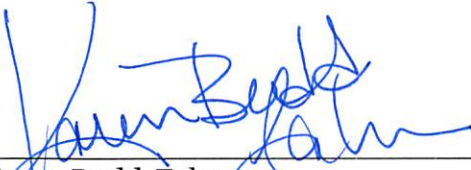
VII. CONCLUSION

As a matter of law and sound policy, the Secretary should immediately and expeditiously revise the Thunder Basin National Grassland Land and Resource Management Plan and the Black-Tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland in order to better protect local interests and the environment.

The current Prairie Dog Plan adopted by the Douglas Ranger District is harmful to local landowners and grazing leaseholders in the Thunder Basin and is contrary to the purpose of the BJFTA of 1937. Not only has the current management of the prairie dog in the Thunder Basin National Grassland harmed landowners, but it has also threatened irreparable environmental damage to the Thunder Basin and has harmed many other important species in the area.

Petitioners request that any of the Forest Service's revised and amended plans reduce the prairie dog acreage in the area to more manageable sizes, authorize proven management strategies that are currently banned, and amend currently ineffective management strategies to better cater to all uses supported by the Thunder Basin National Grassland. As has been shown by the photographs shared in this petition, and the fact that alterations to the land could irreversibly alter the landscape, time is of the essence and actions must be taken immediately stop and reverse the damage caused by years of mismanagement.

Respectfully submitted this 4th day of September, 2018:



Karen Budd-Falen
Conner Nicklas
Budd-Falen Law Offices L.L.C.
300 East 18th Street
P.O. Box 346
Cheyenne, WY 82003-0346
Phone: (307) 632-5105
Email: Karen@buddfalen.com
Email: conner@buddfalen.com

4W RANCH

By: Robert F. Harshbarger
Bob Harshbarger

By: Joan Harshbarger
Joan Harshbarger

SUNSHINE VALLEY RANCH

By: Wayne Neumiller
Wayne Neumiller

By: Joan Neumiller
Joan Neumiller

IRWIN LIVESTOCK COMPANY, INC.

By: Dennis L. Irwin
Dennis L. Irwin

Gary R. Jacobson
Gary Jacobson

Cheryl Jacobson
Cheryl Jacobson