Appendix C: Response to Comments

The Forest Service received approximately 275 comments from cooperators, involved individuals and organizations, and the public during the 90-day comment period. Here, we present the process for content analysis, commenter information, and a formal response to comments.

Contents

Content Analysis Process

A content analysis of the comments was conducted using a systematic process of reading, coding, and summarizing all the comments that were submitted. This process ensured that every comment was read, analyzed, and considered. The most helpful comments were those that were unique and specifically related to the plan amendment and analysis in the draft environmental impact statement. This appendix documents the Forest Service responses to the substantive comments, which have been addressed, as prescribed in 40 CFR 1503.4, in the following ways:

- modifying the alternatives or developing the preferred alternative;
- supplementing, improving, or modifying the analysis that the draft environmental impact statement documented;
- making factual corrections; and/or
- explaining why the comments need no further agency response.

Content analysis is a method the Forest Service commonly uses to gather information about comment letters. Each unique letter was read and substantive comments were identified and coded by major topic. Once the unique and substantially different comments had been coded, the concerns raised by different commenters on the same subject and with the same intent were grouped, capturing the essence of similar concerns. These statements are the "concerns" in the response to comments section. Thus, even though not every comment is quoted in this appendix exactly as written by each respondent, each comment was considered individually. Example comments taken directly from comment letters are provided to express concerns in the words of commenters. The interdisciplinary team prepared the responses.

In considering the comments, it is important for readers and decisionmakers to understand that this process makes no attempt to treat comments as if they were votes, and therefore, give more weight to similar comments made by many different people. Instead, the content analysis process focuses on the content of the comments and ensures that every substantive comment is considered in the decision process. Resource specialists reviewed all attachments included with comments, and relevant information was considered in the final environmental impact statement analysis and plan component development. References to literature have been reviewed by resource specialists and, where appropriate, citations to the relevant literature have been included in the final environmental impact statement and reference sections.

Commenter Information

Comments came from individuals and organizations across the country, and the greatest number of comments came from Wyoming and Colorado, as shown in Table C-1. A full list of commenters is provided in Table C-2.

Table C-1. Origination of comment letters from the 90-day comment period. Only commenters who provided address information are included in this summary.

State	Number of Commenter Letters
Arizona	10
California	9
Colorado	20
Connecticut	3
Delaware	1
Florida	1
Georgia	3
Idaho	10
Illinois	3
Indiana	1
Kansas	3
Kentucky	2
Massachusetts	1
Michigan	1
Minnesota	2
Missouri	1
Montana	7
North Carolina	2
Nebraska	2
Jew Jersey	4
New Mexico	1
Nevada	1
New York	1
Ohio	2
Oklahoma	1
Oregon	8
Pennsylvania	2
South Carolina	1
Texas	6
Utah	3
Virginia	1
Washington	7
Wisconsin	3
Wyoming	40

Table C-2. List of commenters from the 90-day comment period

Commenter Name	Organization	Letter Type
Abbott, Tyler A.	USDI Fish and Wildlife Service, Wyoming	Unique
Adkins, Collette	Center for Biological Diversity	Form Plus
Anderson, Nora		Form Plus
Anon, Annalynn		Form Plus
Archer, Lisa		Form Plus
Backus, James		Form Plus
Barich, Katherine		Form Plus
Barilone, Gino		Form Plus
Benes, Michelle		Form Plus
Birrell, Martha		Form Plus
Black, Steve		Form Plus
Black, Mitchell		Form Plus
Blackstone, Ellen		Form Plus
Blevins, Sally		Form Plus
Bodzak, Theresa		Form Plus
Bolbol, Deniz	None	Form Plus
Bordson, Jenny		Form Plus
Brabb, Mitzi		Form Plus
Brinker, Debra		Form Plus
Broadhead, Jane		Form Plus
Brown, Jim		Form Plus
Bryant, Elizabeth		Form
Budd, Joe	Office of Governor Mark Gordon	Unique
Bump, Benjamin	Wyoming Office of State Lands and	Unique
Burell, David		Form Plus
Burghart, Barbara		Form Plus
Burterfield, Rabecka		Form Plus
Buskirk, Steven	University of Wyoming	Unique
Byrnes, Thomas		Form
Carfino, Megan		Form Plus
Carson, Nancy		Form Plus
Carter, Ashli		Form Plus
Casasanto-Zimmermann,		Form Plus
Chappell, Ariana		Form Plus
Chase, Coleen		Form
Chavis, Helen		Form Plus
Checketts, Ty		Unique
Christensen, Ann		Form Plus
Christensen, Aimee		Form Plus
Christian, Christine		Form Plus
Chu, Ted		Form Plus
Ciampa, Linda		Form Plus
Clark, Susan		Form Plus

Commenter Name	Organization	Letter Type
Clark, Susan	Yale School of Forestry Environmental	Unique
Cliburn, Christine		Form Plus
Cline, Katy		Form Plus
Clough, Steve		Form
Cole, Chelsea		Form Plus
Collins, Valerie		Form Plus
Colstad, Carla		Unique
Conover,Robin		Form Plus
Corn, Mike		Form Plus
Corthell, Robin		Form Plus
Crabtree, Justin		Form Plus
Currah, Nancy		Form Plus
Cutfield, Nicole		Form Plus
daniels, joan		Form Plus
Darlington, Jim		Unique
Darlington, Lisa		Unique
Darlington, Jim	Inya Kara Grazing Association	Unique
Davidson, Ann	Colorado Natural Heritage Program	Unique
Davis, Megan		Form Plus
De Haan, Roger		Form Plus
Detling, James	Colorado State University	Unique
Dibble, Chris		Form Plus
Dollard, Nancy	Many	Form Plus
Dolnick, Cody		Form
Driessen, Kris		Form Plus
Duchardt, Courtney		Unique
Earls, Angela		Form Plus
Eathorne, Frank G	Thunder Basin Grazing Association	Unique
Eldredge, Patti		Form Plus
Emlek, Sophie		Form
Ferriman, Colin		Form Plus
Fite, Katie	WildLands Defense	Unique
Forrest, Steve	Antartic Res, Inc.	Unique
Forsling, Catherine		Form Plus
Fournier, Cody		Form Plus
Fraedrich, Pauline		Form Plus
Frank, Mitzi		Form
Frazier, Maggie		Form Plus
Froehlich, Becky		Form Plus
Gaede, Marnie		Form Plus
Gallagher, Susan		Form
Gamo, Scott		Unique
Gamsey, Kaleigh		Form Plus

Commenter Name	Organization	Letter Type
Gardner, Cynthia		Form Plus
Geiser, Kelly		Form Plus
Gill, Mark		Form
Glaccum, Ellen		Form Plus
Godbey, Jerry	US Geological Survey, retired	Unique
Gregg, K		Form
Gregory, Alan		Form Plus
Gregory, Nancy		Form Plus
Gusain, Sunny		Form
Hall, Heather		Form Plus
Halsey, A		Form Plus
Hammons-Meeks, Diane		Form Plus
Harris, Lesley		Form Plus
Harrison, Julie		Form Plus
Harshbarger, Jean		Unique
Harshbarger, Robert	4W Ranch	Unique
Harshbarger, Robert	4W Ranch	Unique
Harshbarger, Robert	4W Ranch	Unique
Harshbarger, Robert	4 W Ranch	Master Form
Hart, Sally		Form
Hart, Jennifer	Campbell County Conservation District	Unique
Henry, Haven		Form Plus
Hernandez, Angel		Form Plus
Hildebrand, Bonnie	Spoke and Leaf Farm	Form Plus
Hirshberg, Holly		Form Plus
Hirshberg, Sean		Form Plus
Hofer, Lloyd		Form
Horowitz, Christine		Form Plus
Hottes, Tami		Form Plus
Hudspeth, Rae		Form Plus
Hunter, tana		Form Plus
Hunter, Tana		Form Plus
Ifland, Jane		Form Plus
Jachowski, David		Unique
Jacobson, Gary		Unique
James, Alison		Form Plus
James, Alison		Form Plus
James, Alison		Form Plus
Jelinek, Cheryl		Form Plus
Jerome, Alma		Form Plus
Johnson, Scott		Form Plus
Jones, Taylor	Wildearth Guardians	Unique
Jordan, Kathleen		Form Plus

Commenter Name	Organization	Letter Type
Jordan, Kathleen		Form Plus
Kahler, Grace		Form Plus
Kane, Gregory		Form Plus
Kasper, Tanya		Form Plus
Kennedy, Holly	Wyoming Farm Bureau	Unique
Kenney, Joseph		Form Plus
Krupnik, Nicole		Form Plus
LaFranier, Gary		Unique
Lagergren, Ginna		Form Plus
Langley, Denise		Master Form
Lappin, Leila		Form Plus
LaSchiava, Dona		Form
Lassen, Sandra		Form Plus
LeMere, Stacy		Form Plus
Liebeskind, Aaron	Earth Love Gardens	Form Plus
Liedtke, Roy		Unique
Liedtke, Roy	Spring Creek Grazing Association	Unique
Lillegraven, Jason A.		Unique
Lish, Christopher		Form Plus
List, Rurik	Universidad Autonoma Metropolitana-Lerma	Unique
Lockhart, Mike		Unique
Loughlin, Mary		Form Plus
Luhr, Suzanne		Form Plus
MacKenzie, Michelle		Form Plus
Magagna, Jim	Wyoming Stock Growers Association	Unique
Marcus, Syd		Master Form
Martin, Linda		Form Plus
Mazzola, Lisa		Form
McCain, Lauren	Defenders of Wildlife	Unique
McClellan, Terry		Form Plus
McCurdy, Dan		Form Plus
McLaird, Jeff		Form Plus
METSINGER, PAT		Form Plus
Millbrooke, Anne		Form Plus
Miller, Christine		Form Plus
Miller, Valerie		Form Plus
Miller, Brian J.	Rio Mora Conservation Science Center	Unique
Miller, Sterling	Dunrovin Research	Unique
Mills, Teri		Form Plus
Miyamoto, Doug	Wyoming Department of Agriculture	Unique
Molvar, Erik	Western Watersheds Project	Unique
Mond, Ann		Form Plus
Monsen, Karen		Form Plus
Moore, Greg		Form Plus

Commenter Name	Organization	Letter Type
Moss, Paul		Form Plus
Mueller, Megan	Rocky Mountain Wild	Unique
Mueller, Melinda		Form Plus
Nachtman, Lona	Lone Crow Cattle Co LLC	Unique
Neal, Chuck		Form Plus
Neumiller, Joan	Sunshine Valley Ranch	Form
Nichols, Beverly		Form Plus
Nolan, Marissa		Master Form
Notz, Michael		Form Plus
Nuemiller, Joan	Sunshine Valley Ranch Owner	Form
O'Connor, Dolores		Form Plus
O're, Dan	None	Form Plus
Overgaard, Tina		Form Plus
Owens, Tonya		Form Plus
Pajot, Laura		Form Plus
Pardee, Cathy		Master Form
Patrick, Inna		Form Plus
Patt, Kathy		Form Plus
Patterson, Cynthia		Form Plus
Pedone, Chris		Form Plus
Pellatz, David	Thunder Basin Grasslands Prairie	Unique
Pierce, Nuri		Form Plus
Pigeon, Kristy		Form Plus
Pineda, Alisha	Wyoming Game and Fish Department	Unique
Poland, Barbara		Form Plus
Polefka, Shiva		Form Plus
Ponce, Myriam		Form Plus
Porensky, Lauren	USDA Agriculture Research Service	Unique
Poublieee, jean		Form Plus
Price, Kevin		Form Plus
Prothero, Toni		Form Plus
Public, Jean		Duplicate
Publieee, Jean		Form Plus
Rabuck, Falesha		Form Plus
Rambat, Karen		Form Plus
Ramsey, Kenneth		Form Plus
Rathbone, Kelly		Form Plus
Rathmann, Patricia		Form Plus
Ray, Chris	University of Colorado-Bolder	Unique
Reading, Richard	Colorado State University	Unique
Reardon, Daniel G.	Campbell County, Board of Commissioners	Unique
Reed, Barbi		Form Plus
Reed, Monte		Unique

Commenter Name	Organization	Letter Type
Reutner, Stephanie		Form Plus
Robert, Alain		Form
Roberts, Susan		Form Plus
Roche, Kathleen		Form Plus
Rod, A		Form Plus
Rodriguez, Clara		Form Plus
Roemer, Gary	New Mexico State University, Dept. of Fish,	Unique
Ronning, Carol		Form Plus
Rossignol, Joan		Form Plus
Russell, Lance	Association of National Grasslands, Inc	Unique
Ryder, Zac		Form Plus
Sarumi, Mary		Form Plus
Schenbeck, Greg		Unique
Schmelzle, Quade	Wyoming Weed and Pest Council	Unique
Seitz, Christina		Form Plus
Shields, Susan		Form Plus
Short, Robert G.	Converse County Board of Commissioners	Unique
Sidle, John	US Forest Service, retired	Unique
Sidle, John G		Unique
Sims, Kerrianne	Love your ferrets	Form Plus
Slobodchikoff, Con	Northern Arizona University	Unique
Smith, Kyle		Form Plus
Somers, Amanda		Form Plus
Sourhwell, Matgaret		Form Plus
Sowle, Ohmar		Form Plus
Spotts, Richard		Form Plus
Squires, Lynda		Form Plus
Stanger, Janice		Form Plus
Stich, Kelson		Form Plus
St-Louis, Karine		Form Plus
Stock, Patricia		Form Plus
Stout, Madison		Form Plus
Strobel, Philip	U.S. EPA Region 8	Unique
Sutz, Eileen	Save Wolves Now Network	Form
Thompson, Nicole		Form Plus
Torma, Jane		Form Plus
Toth, Tina		Form Plus
Trotta, Jodie		Form Plus
Truman, Marsha		Form Plus
Urban, DeAne		Form Plus
Vairo, Pasquale		Form Plus
Van Zee, Ali		Form Plus
Vanderbeck, James		Form Plus

Commenter Name	Organization	Letter Type
Wagoner, Ed	Weston County Board of Commissioners	Unique
Waitkus, Brian		Form Plus
Walden, Reginald		Unique
Warner, Barbara		Form Plus
Warren, Greg		Unique
Webster, Duane		Form Plus
Weil, Janet		Form Plus
Weseman, Lisa		Form Plus
Wilder, Laura		Form Plus
Williams, Marta		Master Form
Wilson, Aubrey		Form Plus
Wolcott, James		Form
Womack, Kristin		Form
Womack, Natalia		Form Plus
Worden, T.H.		Form
Wormington, Richard		Unique
Yarrow, Raymond		Form Plus
Young, Mary L		Form Plus

Concerns, Comments, and Responses

Comments are organized by themes, presented in an order similar to that of the environmental impact statement. Below each theme, comments are grouped by concern statements, then example comments are provided to express concerns in the words of commenters. Responses are provided from the Forest Service. Comments that requested specific corrections or were editorial in nature are not included here, but have been addressed in the final environmental impact statement and are included in the project record.

Purpose and Need

Concern Group 1

- Comments express that the plan amendment lacks a rationale determining a need to change the plan
- Commenters state that the purpose and need is arbitrary and ambiguous.

Example Comments

- The Forest Service must provide justification for amending the Grassland's management plan that meets the criteria established by NFMA. Although NFMA authorizes the Forest Service to amend forest plans, this authorization is accompanied by crucial limitations to prevent arbitrary amendments…In light of these limitations, an amendment without a sufficient basis in science and that relies on irrelevant factors (such as outdated information or no-longer-extant conditions) would be arbitrary.
- Given the dramatically reduced prairie dog populations on the TBNG (Table 2), we recommend the Final EIS consider whether there remains a need to change the management direction of Management Area 3.63 and expand the use of lethal control.

- Three billion birds have vanished from North America. The Grasslands must be managed to aid in restoration of native fauna, not poisoning it with rodenticides and lead. This is necessary to comply with NFMA, and to sustain a broad spectrum of sensitive species and migratory birds.
- The DEIS also fails to take a hard look at the scale of the supposed "conflicts". Documents obtained from the TBNG demonstrate that the supposed "conflicts" are either non-existent across most of the Grassland or in areas that do have prairie dogs, are insignificant.
- We also object to the stated purpose of the amendment, to "reduce resource conflicts related to prairie dog occupancy and livestock grazing." Black-tailed prairie dog effects on their native ecosystems on the TBNG are part of baseline natural conditions on these public lands, to which the livestock industry is obligated to adapt if they want to lease public lands for private livestock grazing.
- The purpose to "provide a wider array of management options to respond to changing conditions" is vague, ambiguous, arbitrary, and not supported by the DEIS.
- The need to "revise management direction in Management Area 3.63 - Black-Footed Ferret Reintroduction Habitat" is arbitrary. This stated need is misleading. The proposal is not merely intended to revise MA 3.63 management but intended to eliminate the MA 3.63 designation in the Grassland entirely. Protecting potential ferret habitat by prohibiting prairie dog poisoning and shooting year- round, as direction for MA 3.63 does, is necessary for ferret recovery.

Response

The Changed Conditions section of the final environmental impact statement describes the identification of the need to change the plan. The "changing conditions" referred to in the first bullet of the purpose and need statement are described in the preceding Changed Conditions section. Changes in the extent of prairie dog colonies, often due to drought, plague, or colony development movement and the effects of these changes on the ecological and social systems on the grassland have been the primary motivators for the proposed plan amendment.

Because total prairie dog colony area on the grassland is variable from year to year, we have considered colony area volatility and extremes in both colony growth and decline as primary contributing factors to the need to change the plan; using solely current colony area in considering whether there is a need to change the plan would ignore information about how prairie dog colonies might be expected to behave in the future. Direction regarding the purpose and need for a proposed action is located at 40 CFR 1502.13, 36 CFR 219.13(b), FSH 1909.15 Chapter 10 Section 11.21, and FSH 1909.15 Chapter 20 Section 23.3.

The Analysis of Rangeland Vegetation and Livestock Grazing in the final environmental impact statement explains the relationship between prairie dog occupancy and livestock grazing and the potential conflicts between them. The impacts of prairie dog occupancy on livestock grazing are often broad, qualitative, and dependent on myriad environmental and socioeconomic variables. The impacts cannot be measured solely by proportion of an area occupied by prairie dogs, the number of requests to the Forest Service to control prairie dogs, or stocking rates.

The Analysis of Wildlife Resources section in the final environmental impact statement discusses the impacts of the plan amendment on black-footed ferret recovery and concludes that all alternatives would provide the minimum biological requirements for reintroduction of black-footed ferrets. The action alternatives additionally intend to improve the social context for black-footed ferret reintroduction by facilitating boundary management and reducing conflicts between livestock grazing and prairie dog colony occupancy.

Concern Group 2

- Commenters emphasize that part of the purpose and need is to de-emphasize ferret reintroduction on the TBNG.

Example Comments

- The Department acknowledges the need to provide information in the DEIS pertaining to black-footed ferrets given public comments received during the scoping period. However, we would emphasize that one purpose of the proposed Land Use Plan amendment is to remove ferrets as a driver of management in the current Management Area 3.63 - Black-Footed Ferret Reintroduction Habitat. The current management is a single wildlife species-based framework, while the proposed focus for Management Area 3.67 - Rangelands with Short-Stature Vegetation Emphasis is a multi-species, habitat-based framework, which we find to be better aligned with the Forest Service mission.

Response

In each of the action alternatives, we de-emphasized reintroduction of black-footed ferret as the driver of management for management area 3.67 by renaming and renumbering the management area and amending management direction related to black-footed ferrets. Each of the alternatives meets the purpose of the plan amendment to support ecological conditions to not preclude reintroduction of black-footed ferret. The final environmental impact statement provides background information about black-footed ferrets, recovery efforts, and Forest Service obligations and contributions to recovery.

Concern Group 3

- Comments that are not supportive of boundary management.

Example Comments

- It is also completely irresponsible to initiate "boundary control" for a native wildlife species. See DEIS at 14. The Forest Service is not authorized to perform an ecological form of ethnic cleansing at its boundaries with private land, to prevent native wildlife species from exiting public land (much less killing them). There is no legal duty under NFMA or elsewhere to support this proposal. There is no "need to minimize prairie dog encroachment onto non-Federal lands," (DEIS at 14) as the EIS misleadingly states, and certainly no legal mandate; instead, black-tailed prairie dogs are a wildlife species native to private lands adjacent to the Thunder Basin National Grassland.

Response

We identified the purpose to “minimize prairie dog encroachment onto non-Federal lands” consistent with the policy of being a “good neighbor,” as identified in the 2002 Record of Decision for the Thunder Basin National Grassland Final Environmental Impact Statement and Land and Resource Management Plan Revision and in letters written by USDA Deputy Under Secretary David Tenny and Rocky Mountain Regional Forester Rick Cables in 2004.

Concern Group 4

- Purpose and need should focus on provision of unique ecosystem services of the grassland.

Example Comments

- The purpose and need section of a supplemental DEIS and FEIS should establish the unique nature and benefits of the grasslands by thoroughly describing the ecosystem services of the Thunder Basin National Grassland.
- There is a need for the plan to manage for ecological integrity, and this requires protecting prairie dogs to enable them to fulfill their ecological role as engineers of the TBNG grassland ecosystem. The management plan must maintain and restore the ecological integrity of the shortgrass prairie ecosystem as required by 36 CFR 219.8. Many scientists call the short- and mixed-grass ecosystems of the Great Plains "the prairie dog ecosystem," because prairie dogs are essential to this system (Miller et al. 1994; Mulhern and Knowles 1996; Kotliar et al. 1999; Bangert and Slobodchikoff 2006; Hanson et al. 2007; Santos-Barrera et al. 2008). Prairie dog activity (e.g., clipping vegetation and digging and maintaining burrows) is a natural disturbance process that is a driver of these grassland ecosystems, and the plan must take into account "[s]ystem drivers, including dominant ecological processes, disturbance regimes, and stressors, such as natural succession, wildland fire, invasive species, and climate change," required by 36 C.F.R. § 219.8(a)(1)(iv); and the key driver of the shortgrass prairie ecosystem is the interactive disturbance regime of prairie dogs, bison, fire, and drought (Coppock and Detling 1986; Uresk et al. 1996; Truett et al. 2001), with periodic occurrences of extreme drought conditions like that which occurred in 2017 (Wang et al. 2019). Extensive poisoning removes prairie dogs from the equation and likely has significant effects that upset these natural processes.

Response

The Background and Analysis of Socioeconomic Resources sections of the final environmental impact statement describe the ecosystem services provided by the Thunder Basin National Grassland, including recreation, livestock forage, water filtration and storage, nutrient cycling, carbon storage, scenic value, and biodiversity. The rationale for the purpose and need for the plan amendment takes into account these ecosystem services. The role of native disturbances is described in the Framing the Analysis section of chapter 3 of the environmental impact statement. Amended plan components in each of the action alternatives meet the requirements for multiple use under 36 CFR 219.10. The analysis process considered ecosystem integrity, unique ecosystem services, and drivers and processes; however, these did not constitute the purpose and need for the plan amendment. A summary of how the plan amendment complies with the procedural and substantive requirements of the planning rule is included in the draft record of decision.

Keystone Species

Concern Group 1

- Comments express that they do not support the plan amendment due to the role of prairie dogs as a keystone species.

Example Comments

- I understand that the U.S. Forest Service is considering a proposal that would allow prairie dogs to be shot and poisoned in the Thunder Basin National Grassland in Wyoming. The prairie dog is a keystone species. These inquisitive, family-oriented animals create a distinctive environment that offers sustenance and shelter to at least 158 other species, including the endangered black-footed ferret and the swift fox. Furthermore, no animal, regardless of species or circumstance, should be forced to endure a cruel death under the misnomer of ecosystem

"management." Prairie dogs occupy only a tiny percentage of their historic range. Please scrap the misguided plan to kill them!

- Our members value the ecological importance of the prairie dog and recognize that it must be protected and recovered in order to foster biological diversity and ecosystem health in the grassland biome.
- The fossil record of prairie dogs in western North America is confidently known to extend in time back through the Pleistocene, and possibly into the latest Pliocene. That means they have existed within our landscape (in the absence of human management) minimally for hundreds of thousand years-and probably well beyond a million years.

Response

We recognize that black-tailed prairie dogs are a keystone species. We evaluated different approaches to managing the grassland in order that a healthy prairie dog colony ecosystem exists and provides ecological conditions necessary for the survival of associated species. We describe the process and rationale used to select 10,000 acres as the objective for prairie dog colony area in the proposed action and preferred alternative in the Framing the Analysis section of the final environmental impact statement. The Findings Required by Laws and Regulations section of the draft record of decision explains that the purpose and need for action justifies our deviation from the natural range of variation for prairie dog colonies.

Alternatives

Concern Group 1

- Many commenters expressed their support for certain alternatives over others, and some specified elements of the alternatives that they consider to be most important to management

Example Comments

- The current management scenario in TBNG of Management Area 3.63 (MA), the Black-footed Ferret Reintroduction Habitat, is both untenable and unsustainable. We support components of both Alternative 2 and 3. We do not and cannot support Alternatives 1 or 4.
- The family has provided valuable stewardship to all of the lands within the Ranch Unit for over 95 years. It is only in the last two decades or so that Forest Service policies have hindered the positive environmental stewardship previously provided by family ranching operations on federal lands and thus have eroded the forage production and the value of our grazing allotments.
- Modify the no-action alternative to include: 1. Retain the MA 3.63 as Black-footed Ferret Reintroduction Habitat. 2. Maintain the existing 1-mile buffer zone around residences and establish a ¼ mile buffer zone within MA 3.63 adjacent to private land. 3. Restore, maintain, and protect from lethal control (except in the buffer zone) a minimum of 18,000 acres of active prairie dog colonies within MA 3.63 with the goal of increasing these acres for the reintroduction of black-footed ferrets…4. Create a sylvatic plague mitigation Standard for annual plague mitigation to occur on prairie dog colonies within MA 3.63.

Response

In developing the preferred alternative, we considered all public comments expressing support for or concern about the alternatives presented in the draft environmental impact statement. We analyzed all

issues raised in public comments during scoping or about the draft environmental impact statement, or we eliminated them from detailed study, as explained in chapter 2 of the final environmental impact statement.

Concern Group 2

- Comments requested analysis of specific elements of alternatives or fully developed alternatives.

Example Comments

- THE EIS FAILS TO CONSIDER AN ALTERNATIVE REDUCING OR ELIMINATING LIVESTOCK GRAZING AND/OR RESTORING WILD BISON THROUGHOUT THE TBNG Under each alternative, the Forest Service plans to authorize an identical 120,800 AUMs of livestock grazing. The Forest Service states that "resource conflicts" between prairie dogs and private livestock is the primary driving need for the proposed action yet the Forest Service arbitrarily restricts the action alternatives to reducing a native Sensitive Species, while leaving the non-native invasive species, livestock untouched. This is arbitrary.
- If the livestock industry cannot coexist with native wildlife on the Thunder Basin, all livestock must be removed, and replaced with free-roaming bison.
- Many grazing allotments in the Thunder Basin have private and State lands interspersed within the allotment and are a part of said allotment, these lands will have also have Prairie Dog infestations along with the infestation that is on the federal lands. These PD's must also be counted in the scheme of things. No one grazing allotment should be carrying more than 15 % PD infested acres within the total acreage of any individual allotment to meet the 10,000 acre to 15,000 acres of prairie dog colonies that are in the alternatives of the 2020 DEIS.
- The use of poisons on the Grasslands is entirely unacceptable. A new range of alternatives based applying non-lethal methods must be examined in a Supplemental EIS.
- Many of the concerns that are addressed in the DEIS are focused on conflicts between prairie dogs and commercial livestock grazing on the national grasslands. However, none of the alternatives decrease permitted AUMs to the benefit of watersheds and wildlife. A reasonable alternative to be developed that is within the scope of the EIS is to modify the MA 3.67 plan components to benefit grassland wildlife species, while only allowing for commercial livestock grazing where such use is beneficial to preserving natural resources and protecting fish and wildlife. Multiple use range resource values for the grasslands should provide a clearer focus on providing for healthy ecosystems and providing habitat for native species of wildlife.
- ANG believes that the failure of the TBNG FEIS to adopt an Alternative consisting of less than the half-mile and one-mile boundary management components contained in the current Buffalo Gap National Grassland LRMP without fully analyzing the effects and successes of the NNF LRMP is a flagrant violation of NEPA that cannot be ignored. Buffalo Gap National Grassland units are less than fifteen (15) miles from the Thunder Basin National Grassland and are comprised of very similar, if not identical, habitat, species and climatic conditions. Failure to fully analyze the Buffalo Gap LRMP effects, including the decade of accumulated monitoring data, cannot stand.

Response

Federal laws, regulations, and policies mandate the Forest Service manage national grasslands for multiple uses and values, including wildlife habitat and livestock grazing.

In the Alternatives Considered but Eliminated from Detailed Study in the final environmental impact statement, we reply to each suggestion for elements of alternatives or full alternatives. For example, we have analyzed using prairie dog colonies on private and state lands to count as available habitat toward viability of populations of at-risk species on the grassland. We determined that we must provide for viability of at-risk species within the inherent capability of the plan area and that private and State lands cannot be relied upon in large proportion to provide the necessary ecological conditions to ensure viability of at-risk species in the plan area. We also analyzed limiting prairie dog occupation to 2 and 20 percent of allotments, but eliminated this concept from detailed study. We determined that attempting to distribute prairie dog colonies in this manner would be unreasonably difficult and likely not have the desired level of connectivity among colonies to support at-risk species.

We have not fully analyzed the Nebraska National Forests and Grasslands revised land and resource management plan because of differences in conditions between those units and the Thunder Basin National Grassland, including the presence of black-footed ferret, the landownership patterns, ecological context, and social context, among others. For example, we did not analyze colony area target ranges for each geographic area because the geographic areas on the Thunder Basin National Grassland are contiguous and variable in their suitability to provide habitat for black-tailed prairie dogs. We also did not analyze in detail the monitoring of similarity index to manage prairie dog colony density when colony area objectives have not been met. We have, however, analyzed some key components of the Nebraska National Forests and Grasslands revised land and resource management plan, as they would relate to the Thunder Basin National Grassland's prairie dog management context. For example, we analyzed the concept of allowing poisoning of prairie dogs when colony area exceeds acreage objectives as part of each of the action alternatives.

Concern Group 3

- Some commenters expressed the opinion that none of the action alternatives were acceptable, and that any plan amendment should focus on native species conservation and recovery of threatened and endangered species and should not expand prairie dog control activities.

Example Comments

- We oppose poisoning or otherwise killing or controlling any native wildlife to benefit for private profit livestock grazing. Such activities can never be justified on national public land. All prairie dog colonies are black-footed ferret habitat regardless whether there are black-footed ferrets occupying them at the moment. Prairie dogs are also a valuable prey species for a host of other native predators and scavengers. Prairie dogs are systematically killed on private land. That's enough. They should be allowed sanctuary on public land.
- All of the Forest Service's alternatives for a plan amendment are designed to strip vital protections on which vulnerable native species depend in this last protected area, effectively placing private ranching interests over public wildlife conservation.
- The DEIS did not provide an action alternative that would enable the TBNG to support a ferret population with 100 breeding adults. In our scoping comments, we emphasized that any amendment would need to provide the ecological conditions to support 100 breeding adult ferrets. None of the action alternatives do this.

Response

Prairie dogs are native wildlife that are mobile and move to and from adjoining lands and to and from Federal lands. One of the purposes of this plan amendment is to reduce encroachment from the national

grassland onto adjoining lands. Federal laws, regulations, and policies mandate the Forest Service manage national grasslands for multiple uses and values, including wildlife habitat and livestock grazing.

The second revision to the U.S. Fish and Wildlife Service Recovery Plan for the Black-footed Ferret indicates that 15,000 acres of black-tailed prairie dog colonies in colony complexes would provide habitat for 100 breeding ferrets. The target for the Category 1 area in the prairie dog emphasis alternative would provide habitat for at least 100 breeding ferrets. Commenters provided additional information based on prairie dog and ferret monitoring in Conata Basin from 2013 to 2018. The commenters assert that 20,495 to 47,931 acres of black-tailed prairie dog colonies is necessary to sustainably support 100 black-footed ferrets. The final environmental impact statement explains that we did not analyze managing toward a target of greater than 33,000 acres of prairie dog colonies because increasing the prairie dog colony area objective would not meet the purpose and need for the plan amendment.

Multiple Use Balance

Concern Group 1

- Commenters suggest that a multiple use balance should focus more on permitted grazing activities than on prairie dog conservation; other commenters suggest that a multiple use balance should focus more on provision on native habitat than on permitted grazing activities.

Example Comments

- Grazing cattle and wildlife are important to a healthy grassland. To graze, they must have grass. Ultimately, this complicated plan could be that simple. Take steps to ensure each ranch has ample grass for their allotments, which we pay for.
- First of all we believe that the Forest Service should be complying with Laws of the state of Wyoming. The prairie dog is considered a pest in this State, and should not be promoted in any way. The Wyoming Game and Fish Black Footed Ferret Recovery Plan says that there must be support from affected stakeholders prior to consideration of any reintroduction, therefore we don't believe any further effort should be expended promoting this idea, until such support has been achieved.
- Any purported benefits to wildlife grazing are very much outweighed by the impact on black-tailed prairie dogs, which will in turn result in negative effects on the many species that rely on black-tailed prairie dogs for food, shelter, or grazing conditions, including the endangered black-footed ferret, the burrowing owl, and the mountain plover.
- It is difficult to see how the Forest Service is not providing for multiple uses under the current plan. The Final Environmental Impact Statement (at 3-89) for the 2002 LRMP reported that 532,060 acres, or 96%, of the TBNG is suitable for livestock grazing. Under the current plan, Category 1 and 2 areas that provide protections for prairie dogs make up 12% of the TBNG.
- If livestock producers that enjoy the privilege of conducting their business on public lands cannot do so in a manner that coexists with the native wildlife that belong to all Americans that inhabit Thunder Basin National Grassland, their cattle are the animals that should be removed from the lands, not the native wildlife.

Response

Federal laws, regulations, and policies mandate the Forest Service manage national grasslands for multiple uses and values, including wildlife habitat and livestock grazing. This does not imply that every

acre of national grassland has to accommodate each multiple use or value. Direction in the Land and Resource Management Plans identifies a mix of priorities for the Thunder Basin National Grassland. While the State of Wyoming designates the prairie dog as a pest, the Forest Service must manage for the recovery of threatened and endangered species and the ecosystems upon which they depend (36 CFR 219.9). The purpose and need for action for the plan amendment takes into consideration all Forest Service multiple use policies and obligations.

The Forest Service recognizes the importance and significance of multiple uses on the grassland. Congress has mandated that the Forest Service manage for multiple uses, and in some cases, this results in the need to make adjustments in some uses to accommodate others. The Chief of the Forest Service is authorized to issue permits for livestock grazing and other use by livestock of the National Forest System and on other lands under Forest Service control (36 CFR 222.3).

Removal of Management Area 3.63

Concern Group 1

- Comments do not support changing management area 3.63 to management area 3.67

Example Comments

- The Forest Service claims in its DEIS that it must change management direction in MA 3.63, the "Black-footed Ferret Reintroduction Habitat" area…The Forest Service is proposing to shrink and re-designate MA 3.63, calling it MA 3.67 "Rangelands with Short-Stature Vegetation Emphasis," which prioritizes livestock grazing in the management area over wildlife conservation. The change in purpose and change in management will likely result in conditions incompatible with ferret reintroduction and recovery.
- The amendment will enable the Forest Service to poison and allow the shooting of prairie dogs in the only area on this public Grassland where the species is protected from these threats: MA 3.63, Black-footed Ferret Reintroduction Habitat.

Response

In the preferred alternative, management area 3.67 is named “Short-Stature Vegetation Emphasis.” The removal of the word “Rangelands” from the management area name is intended to demonstrate the multiple-use emphasis in the area, which includes provision of short-stature vegetation as both wildlife habitat and grazing land. Changing the designation of the management area is consistent with the purpose and need for the project.

The Analysis of Wildlife Resources section in the final environmental impact statement discusses the impacts of the plan amendment on the ability of the Thunder Basin National Grassland to meet the requirements for a black-footed ferret reintroduction site. All alternatives would provide the minimum biological requirements for reintroducing black-footed ferrets. The action alternatives additionally intend to improve the social context for black-footed ferret reintroduction by facilitating boundary management and reducing conflicts between livestock grazing and prairie dog colony occupancy. The draft record of decision indicates that the responsible official has determined that these measures are the plan amendment's contribution to recovery as required in the 2012 Planning Rule and Endangered Species Act (36 CFR 219.9(b); 16 U.S.C. 1536(a)).

Management Area 3.67 Boundary

Concern Group 1

- Commenters provided many ideas to improve the delineation of MA 3.67. Some commenters suggest increasing the area of MA 3.67 from the proposed action to allow more management flexibility, and others suggest maintaining or decreasing the size of MA 3.67 from the proposed action due to limited resources available for management. Several commenters provided maps and specific locations to include or not include in MA 3.67 to provide local expertise on what might be the best MA delineation.

Example Comments

- The boundary identified in the Modified Proposed Action as MA 3.67 should be reassessed and possibly expanded. With a boundary adjustment beyond the proposed 35,000 acres, it could create more flexibility for grazing allottees within MA 3.67 and allow for a more practical management approach in meeting objectives. Any boundary adjustments must be thoughtful and account for prairie dog habitat areas that can realistically be managed and prioritized for treatment by the FS.
- I believe the Prairie Dog management area was too large and the Forest Service didn't or couldn't manage the expansion.
- Adjust the current MA 3.63 boundary. Make slight alterations to the current MA 3.63 boundary based on naturally occurring geographic features to reduce prairie dog expansion from the 3.63 area to nearby private lands. Specifically, move the MA 3.63 boundary * Along Frog Creek; * Along a portion of the Cheyenne River; * Into the MA 3.63 adjacent to the Sears residence; and * To exclude all lands within the private residence 1-mile buffer. This is a 15 percent reduction in MA 3.63 size but addresses main areas of boundary conflict and improves boundary management. Addressing boundary management conflicts will likely improve social tolerance of prairie dogs in the MA 3.63.

Response

The purpose and need statement in the final environmental impact statement states that this plan amendment is needed to adjust the boundaries of management area 3.63 to be more conducive to prairie dog management. In the environmental impact statement, we analyzed the existing management area boundaries and three alternative boundary delineations. The Decision Rationale section of the draft record of decision explains that the three alternative delineations of management area 3.67 presented in the preferred alternative, the proposed action, and the grassland-wide alternative are each based on where boundary management zones would be most effective, resolving areas of persistent conflict, historical and expected future locations of prairie dog colony occupation, allotment and pasture boundaries, and natural hydrologic and topographic barriers to prairie dog colonization. By delineating the management area based on these geographic factors, we intend to reduce impacts of colony occupation on any single permitted ranching operation and facilitate managing toward the objective for colony area, enforcement of shooting restrictions, and colony mapping and monitoring. The preferred alternative includes a larger management area 3.67 than the proposed action and the grassland-wide alternative to meet our intention to reduce impacts of colony occupation on any single permitted ranching operation and to facilitate managing toward the 10,000-acre colony area objective in that alternative. We have also adjusted the boundary for the Cheyenne River Zoological Special Interest Area, which currently overlaps management area 3.63. In the preferred alternative, proposed action, and grassland-wide alternative, we delineated the special interest area so that it would more closely follow the riparian area and would no longer overlap

management area 3.67. Amended plan direction for the special interest area would focus on the conservation and restoration of riparian biotic communities. The rationale for specific changes to the management area boundaries for the preferred action are provided in chapter 2 of the final environmental impact statement.

Cheyenne River Zoological Special Interest Area

Concern Group 1

- Commenters described preferences for the focus and delineation of a revised Cheyenne River SIA
- Commenters express concern for the ecological integrity of riparian areas in the planning area.

Example Comments

- The Department supports reconfiguring the Cheyenne River Special Interest Area (SIA) as is suggested in Alternative 3. Additionally, we support the change in management emphasis to reflect riparian habitat values. The Department supports the inclusion of Antelope Creek in the SIA, as this area contains some of the best cottonwood galleries on the TBNG. If Antelope Creek is not included in the SIA, we recommend it is excluded from management area 3.67 in some other manner as it should not be managed for short-stature vegetation
- The Council recommends that The Cheyenne River Zoological Special Interest Area (SIA) be incorporated into Management Area 3.67 (MA 3.67). Prairie dogs already exist in the SIA and therefore would help the TBNG in meeting the 10,000 acre objective
- Again, the amendment fails to implement standards and guidelines to restore the ecological integrity of the Cheyenne River corridor or other riparian areas in the planning area.

Response

A need for the proposed plan amendment was to adjust the boundaries of management area 3.63 to be more conducive to prairie dog management. With the proposed adjusted boundaries of management area 3.67 in the proposed action, grassland-wide alternative, and preferred alternative, we realigned the boundary of the Cheyenne River Zoological Special Interest Area so the riparian corridor could be managed explicitly for riparian vegetation and habitat and act as a natural hydrologic and vegetative deterrent to prairie dog colonization. With this realignment, we changed the focus, desired conditions, standards, and guidelines in the newly modified special interest area. The proposed action, grassland-wide alternative, and preferred alternative all describe managing for a diverse biotic riparian community with tree galleries along the riparian corridor. All alternatives direct to manage livestock grazing to promote development of mature cottonwood willow riparian areas and other desired habitat conditions in the special interest area. In addition, several standards and guidelines addressing riparian management in chapter 1, section B of the plan are not proposed to be changed as part of this plan amendment. While prairie dogs may occur in the special interest area, we would not manage for prairie dog occupation in the riparian corridor under any alternative. The proposed action, grassland-wide alternative, and preferred alternative have adjusted the boundaries of the special interest area to more closely follow the edges of the riparian corridor; as a result, we would not manage for prairie dog occupancy in any part of the special interest area under any of these three alternatives. The portion of the Cheyenne River Zoological Special Interest Area that prairie dogs typically occupy would be incorporated into management area 3.67 under these three alternatives. Both the preferred alternative and the grassland-wide alternative extend the special interest area along and through management area 3.67 on the Cheyenne River and Antelope Creek.

Concern Group 2

- Commenters are concerned that the Cheyenne River SIA will not serve as an adequate barrier to prairie dog encroachment and does not replace an active BMZ.

Example Comments

- The SIA management area along the Cheyenne River and also proposed along Antelope Creek is unmanageable. The p/d will not be kept out of this area and the vegetation will not be a dense enough VOR (due to the arid climate) to restrict their movement so instead the Forest Service should just manage for density of p/d which will supply forage throughout and allow for less p/d migration outside of ``conserved'' areas.

Response

The revised Cheyenne River-Antelope Creek Zoological Special Interest Area in the preferred alternative would be managed for riparian vegetation and habitat. The riparian corridor is expected to act as a natural hydrologic and vegetative deterrent to prairie dog colonization; however, it is not expected that the riparian corridor will prevent prairie dog movement across the river or repel all colonization. We intend that shifting the boundaries and management emphasis in the special interest area would allow the riparian corridor to aid in management of prairie dog colonies in management area 3.67. In the preferred alternative, plan components that apply to prairie dog management in management areas other than management area 3.67 also apply to the special interest area. For example, if prairie dogs were to colonize the special interest area, the Forest Service could poison them if within 1 mile of a residence, endangering infrastructure, encroaching, or upon any other request as long as the presence of breeding, nesting, and denning habitat for associated species has been considered.

Boundary Management Zones

Concern Group 1

- Many commenters expressed their support for the general concept and elements of boundary management.

Example Comments

- We encourage the Forest Service to incorporate multiple tools for use including buffers, boundary control, boundary adjustments, the use of geographic features and land exchanges into the development of a plan amendment to avoid and minimize expansion of prairie dog towns onto adjacent private lands where prairie dogs are not wanted.

Response

Each action alternative would establish boundary management zones in some portion of the plan area. In boundary management zones, control of prairie dog colonies using rodenticides would be allowed, regardless of surrounding conditions, including total colony area. Each action alternative would also allow use of rodenticides to address encroachment in portions of the plan area that would not have boundary management zones. The district ranger is the responsible official for decisions regarding when and where boundary management will occur. A management approach in appendix B of the final environmental impact statement indicates that we would prioritize use of resources for prairie dog control in boundary management zones above all other locations except 1-mile buffers around residences and in cases where colonies are threatening the integrity of infrastructure. Specifics regarding boundary management, including allowable control methods, timing of control methods, and temporary expansion of the boundary management zone in certain circumstances are included in chapter 2 of the final

environmental impact statement under the description of each alternative, and in the plan components in appendix A.

Concern Group 2

- Comments express that boundary management can best be accomplished with concurrent treatment by adjacent landowners.

Example Comments

- [We] also support the condition that states "For control on National Forest System lands to proceed within a boundary management zone, the landowner or lessee will need to engage in concurrent control on adjacent private or state lands." However, in unique situations where multiple landowners or absentee landowners exist in adjacent private lands and a landowner refuses to apply controls or treatment on private lands, the FS should find it sufficient to prioritize treatment if the majority of landowners or lessees in the area are engaging in concurrent control on adjacent private lands.

Response

To address the issue of concurrent control, we have included the following language as a guideline that applies across the grassland in the preferred alternative:

> "Before implementing prairie dog control the responsible official should consider whether adjacent landowners are engaging in concurrent control efforts to ensure effective treatments. Guideline"

This new language would allow the responsible official to prioritize locations for prairie dog control in the boundary management zones or elsewhere based on whether landowners are controlling prairie dogs on adjacent non-Federal lands. The direction that the responsible official "should consider" adjacent control would not prohibit control where one or more adjacent landowners are not controlling prairie dogs on adjacent non-Federal lands.

Concern Group 3

- Comments expressed concern that a 1/4 mile boundary management zone would not effectively minimize impacts from encroachment; others question the possible expansion of the boundary management zone.

Example Comments

- ANG believes that the failure of the TBNG FEIS to adopt an Alternative consisting of less than the half-mile and one-mile boundary management components contained in the current Buffalo Gap National Grassland LRMP without fully analyzing the effects and successes of the NNF LRMP is a flagrant violation of NEPA that cannot be ignored
- The Council does not support the concept of boundary control to control expansion. Boundary management in some cases may delay expansion, but without colony density control, boundary management will be expensive and time consuming. Additionally, limiting rodenticides allowed under the plan will likely influence overall boundary control success.
- P. A-54: "Where persistent or imminent prairie dog colony encroachment occurs, a temporary [Delete "3/4", add "1"] mile Boundary Management zone may be used. Please see comment for p. A-10 above.

- The terms "persistent or imminent" are not defined by the DEIS and no scientific basis is provided regarding the appropriateness or effectiveness of a ¾ mile boundary management zone in such circumstances. Management actions based on this direction therefore would be arbitrary and capricious. This direction does not conserve potential essential black-footed ferret habitat and must be deleted.

Response

As explained in the Alternatives Considered but Eliminated from Detailed Study in the final environmental impact statement, we considered but eliminated from detailed study the use of permanent boundary management zones greater than ¼ mile because of the limitations imposed by landownership patterns on the Thunder Basin National Grassland. The intermingling of State and private lands with National Forest System lands in the Thunder Basin National Grassland results in few large, continuous areas of National Forest System lands interior to boundary management zones. Permanent boundary management zones wider than ¼ mile would reduce the flexibility for and practicality of managing toward prairie dog colony conservation objectives. In the grassland-wide alternative, we analyzed in detail an option to temporarily extend boundary management zones to 1 mile in areas to address site-specific persistent or imminent encroachment. In the proposed action and preferred alternative, we analyzed in detail an option to temporarily extend boundary management zones to ¾ mile. The smaller maximum width of the extended boundary management zones may address issues related to the flexibility for and practicality of managing toward prairie dog colony conservation objectives.

In the preferred alternative, we have revised direction associated with the option to temporarily expand the boundary management zones to ¾ mile in management area 3.67 as follows: “A temporary (i.e., 1 to 3 year) ¾-mile boundary management zone that includes the standard ¼-mile boundary management zone may be used at specific locations within management area 3.67 to address persistent or imminent prairie dog encroachment if (a) the Forest Service determines that prairie dogs on Federal land are moving toward the boundary management zone and are a potential boundary problem or (b) control efforts within ¼-mile of private or state property using appropriate tools for 3 consecutive years have not been successful. Before expanding a boundary management zone, the responsible official should consider the total area of prairie dog colonies relative to the 10,000-acre objective for prairie dog colonies, impacts to species associated with prairie dog colonies, compliance with other plan components, site-specific information, and concurrent treatment by the adjacent landowner. Guideline”

The use of the permanent ¼-mile width and an additional ½-mile extension as standards for boundary management zones is partially derived from prairie dog management direction from other national grasslands including the Little Missouri National Grassland, the Buffalo Gap National Grassland, the Fort Pierre National Grassland, and the Oglala National Grassland. These national grasslands have ¼- and ½-mile boundary management zones, and the Buffalo Gap, Fort Pierre, and Oglala National Grasslands each allow for an extension of the existing boundary management zone to 1 mile for areas experiencing persistent or imminent encroachment. The proposed boundary management zone widths for the Thunder Basin National Grassland were also based on recommendations from the 2018 collaborative working group effort convened by the Wyoming Department of Agriculture, which suggested considering boundary management zone widths in increments of ¼ mile between a minimum of ¼ mile and a maximum of 1 mile.

Colony Acreage Objectives/Targets

Concern Group 1

- Commenters provide a range of opinions regarding the prairie dog colony acreage objectives, including support for the proposed 10,000 acre objective and concern that the objective is too high or too low.

Example Comments

- Prairie dog colonies should be managed between 7,500-10,000 acres, maximum. After they reach 10,000 acres grassland wide, prairie dogs need to be controlled. I also believe that any prairie dog town that meets the goals of the 200 acres (grassland wide) for the associated species habitat should be counted towards the 10,000 acres.
- We support managing for a set acreage of short-stature vegetation within 3.67 however, 10,000 acres is wholly inappropriate. Additionally, as shown by trend data (as detailed on page 6 of this DEIS), it is unachievable in most years. We feel 3,000 acres within 3.67 is a more appropriate goal. Furthermore, we feel that grasslands wide the goal should contain a maximum acreage if it is going to contain a minimum. We feel that 10,000 acres should be the maximum number of acres grassland wide.
- Ranges would be easier to manage, rather than targets
- For black-footed ferret recovery, the most recent science suggests 20,495 to 47,931 acres of active prairie dog colonies are needed to host 100 breeding adults. These prairie dog acres may be distributed in several subcomplexes that each follow the 1.5-km rule.

Response

We analyzed several alternative concepts for managing prairie dog colonies toward a target or objective for total areal extent of colonies. The grassland-wide alternative allows management toward a range for total colony area. The prairie dog emphasis alternative proposes management toward hard minimum objectives for total colony area, above which rodenticide use is allowed to reduce total colony area to the objectives. The preferred alternative and proposed action also include hard minimum thresholds for rodenticide use, but have an acreage objective that is greater than that minimum threshold. As explained in the Decision Rationale section of the draft record of decision, the concept of a hard minimum threshold with a greater target allows flexibility in management with assurances for management toward a fixed objective over the life of the plan.

We also compared the concepts of setting the acreage objective grassland-wide versus in management area 3.67 or in Categories 1 and 2. As explained in the Decision Rationale section of the draft record of decision, setting a target in a defined smaller location such as management area 3.67 would promote efficiency with use of prairie dog management resources. In addition, limiting the target to management area 3.67 would increase the predictability of management of colonies in specific locations on the grassland. We also analyzed a range of values for the colony area target. As explained in the Framing the Analysis section of the final environmental impact statement, the biological evaluation of animal species (appendix E) indicated that 10,000 acres of prairie dog colonies approximates the minimum size of a prairie dog ecosystem that would allow the Forest Service to meet legal obligations for sensitive species and a preliminary list of potential species of conservation concern. Conversely, we used the colony area targets in the no-action alternative as the upper limit because of the difficulty of managing colonies when they reach that extent. As explained in the Decision Rationale section of the draft record of decision,

managing for 10,000 acres of prairie dog colonies in management area 3.67 best meets the purpose and need for the plan amendment and addresses the breadth of issues raised by public commenters.

Designation of Prairie Dog Complexes

Concern Group 1

- Some commenters do not think that prairie dog colonies in MA 3.67 should be managed as complexes for black-footed ferret reintroduction; others would like to see explicit language stating that prairie dog colonies in MA 3.67 would be managed as complexes for black-footed ferret reintroduction.

Example Comments

- The Department does not support including explicit complex management targets that are tied to the reintroduction of black-footed ferrets as described in Alternatives 3 and 4. One goal of this amendment process is to remove black-footed ferrets as a driver of management in Management Area 3.63. Notably, prairie dog colonies at ferret reintroduction sites in Wyoming have not been managed in this manner, and given that there are no reintroduction sites planned on the TBNG, this type of intensive management would likely unnecessarily divert resources needed for successful boundary management activities.
- I recommend supplementing direction for the proposed action by adding, "Large prairie dog colony complexes are established and maintained as suitable habitat for black-footed ferret reintroductions. Land uses and resource management activities are conducted in a manner that is compatible with maintaining suitable ferret habitat."
- The idea is to have a large "7-km complex" that contains multiple "1.5-km subcomplexes" to form a metapopulation to enable frequent exchange of ferrets within a subcomplex and regular exchange of ferrets between subcomplexes. None of the action alternatives include plan components that would manage prairie dog colonies to assure a sufficient complex configuration. Lethal and non-lethal prairie dog density control enabled by each action alternative could fragment and isolate colonies too far from each other to facilitate frequent and regular ferret movements.

Response

The preferred alternative does not include management direction that would require or guide the designation of a prairie dog colony complex. The grassland-wide and prairie dog emphasis alternatives require management of prairie dog colonies so that complexes of different sizes exist in management area 3.67, but none of the alternatives include management direction regarding how a complex would be designated or maintained. None of the alternatives precludes complex management. In addition, we expect that managing for at least 10,000 acres of colonies in management area 3.67 would result in the formation of complexes regardless of explicit direction for complex management because of the size of the management area and patterns of historical colony occupation. The effects analysis section of the biological evaluation of animal species (appendix E) shows that each alternative meets the minimum requirement of 1,500 acres of active prairie dog colonies for reintroduction of black-footed ferret.

Individual Prairie Dog Colony Area

Concern Group 1

- Comments express support or opposition to management for specific colony sizes.

Example Comments

- We support managing for areas of short-stature vegetation that are 200 - 500 acres in size. We feel this meets habitat goals for several species while reducing negative impacts to the landscape. Attention should still be given to density and the availability of forage and composition of plant species within these colonies.
- While the Department supports managing for a suite of species associated with prairie dog colonies, we are concerned that this level of intensive colony management may be economically prohibitive, and may take needed resources away from boundary management zones. Unbalanced, single-species management is one reason the Forest Service is undertaking a Land Use Plan amendment at this time. We recommend instead focusing on a highly functioning and dynamic ecosystem, with healthy rangelands and balanced resource uses.

Response

We have not included in the preferred alternative the guideline stating that individual prairie dog colonies should be managed to vary in size up to approximately 1,000 acres with an emphasis on colonies of 200 to 500 acres. We have excluded this plan component because it reduces management flexibility and adds complexity to the prioritization of prairie dog control resources. We also intend that management of prairie dog colonies is an ecosystem-based habitat management approach, as directed by 36 CFR 219.9. We have retained, however, existing direction to manage for individual colonies larger than 80 acres to optimize habitat for burrowing owl. This existing guideline is not overly prescriptive and supports the desired condition for management area 3.67 in the preferred alternative, which states, "Prairie dog colonies ... vary in size and density."

Concern Group 2

- Comments support identifying specific colonies to maintain over time.

Example Comments

- Additionally, though the action alternatives prescribe target prairie dog colony acreages, plan components do not require maintaining the same colonies over time. As long as the target area is met, the management system would allow for the manipulation of colonies so they "move" around the landscape. The result could also be a skewed ratio of more "new" colonies, that tend to have less bare ground than older colonies. The Forest Service must assess the impacts of artificial colony manipulation of the structure, configuration, and distribution of prairie dog colonies.

Response

The desired condition for management area 3.67 in the preferred alternative states, "Prairie dog colonies are present and vary in size and density. Colonies provide habitat and landscape-scale connectivity for species associated with prairie dog colonies such as mountain plover, burrowing owl, other grassland birds, and swift fox. Plant community composition varies over time on colonies, and colonies may exhibit characteristics of short-stature vegetation and bare ground communities." This desired condition indicates that prairie dog colonies will vary in age so that they are able to provide habitat conditions suitable for species associated with colonies. In support of this desired condition, we have revised geographic area direction to emphasize use of ecological site descriptions rather than seral stages to manage vegetation. The desired condition for each geographic area states, "Vegetation communities will exist in a variety of states or plant community phases designed to meet multiple desired conditions across management areas. A mosaic of habitats and forage conditions will exist on the landscape as a result of planned vegetation

management and natural disturbances." Under this direction, different prairie dog colonies could have different desired vegetation conditions, based on ecological site descriptions.

Satellite Colonies

Concern Group 1

- Commenters express support for and opposition to the satellite colony concept introduced in the proposed action.

Example Comments

- The Department supports the concept of satellite colonies as a means to managing prairie dog colonies across the grasslands, and as a means to securing additional habitat for prairie dog colony associated species outside of management area 3.67. We support the designation of satellite colonies, as a component of the Proposed Action, in order to recognize (i.e., count) acres associated with colonies that persist on the landscape in a manner that meets multiple use needs. We recommend adequate management flexibility is built into this concept, including a mechanism for un-designating satellite colonies where appropriate, in order to avoid managing them in the same manner as the current "category" areas.
- While the intent of establishing satellite colonies to offset population targets outside of MA 3.67 seemed logical, it is now clear that management of satellite colonies is wrought with challenges that make its application cumbersome, uncertain and controversial as it could eventually put restrictions on grazing permittees and landowners outside of MA 3.67 that are currently unforeseen. Therefore, we support removing satellite colonies from consideration as a management strategy and recommend that the FS incorporate some components in the Grassland Wide Alternative that is outlined below in these comments.
- Delete satellite colony provision. Unnecessarily complicates prairie dog management and increases expenses with little benefit to the prairie dog.

Response

The preferred alternative does not include the use of satellite colonies. We have not included the satellite colony concept in the preferred alternative because of the uncertainty regarding colony conservation that the concept would present for livestock grazing permittees across the grassland. We also anticipate that the complexity involved in satellite colony designation, monitoring, and removal of the designation would make satellite colonies an unwieldy and impractical tool. Appendix B of the final environmental impact statement retains the satellite colony management approach because the proposed action remains intact as an alternative. Please see appendix B for a description of satellite colony designation as it would apply under the proposed action.

Manage Short-Stature Vegetation, Not Prairie Dog Colonies

Concern Group 1

- Comments express support for managing habitat consistent with ecological sites and plant communities.
- Comments express that the Forest Service should focus management on habitat availability rather than acreage objectives that reflect single-species management.

Example Comments

- In order to properly implement this plan, emphasis should focus on the vegetation present in the TBNG. The CCCD appreciated the incorporation of ecological site description within this amendment. This method will provide the USFS with a realistic idea of what the various ecological sites across the grasslands are capable of producing. This knowledge will allow the USFS to establish thresholds for acceptable levels of vegetation and create triggers for control of prairie dogs, both lethal and density.
- We are concerned that through this process the FS has shifted away from the highly supported "rangelands with short stature vegetation" emphasis back toward a focus that attempts to manage a species that is not federally listed. This rangeland focus better aligns with fulfilling the Forest Service's mission of managing lands; not species. All management goal references to "prairie dog colonies" or "acres of prairie dogs" should be changed to "acres of short stature vegetation" or similar habitat focused language. Acreages counted toward this goal should be based off of landscape and vegetative composition, not solely presence of prairie dogs. This supports a landscape scale approach that benefits multiple species and the landscape as a whole.

Response

While managing vegetation in prairie dog colonies using ecological site descriptions will help us to meet objectives related to forage availability, biotic integrity, soil and site stability, and hydrologic function, managing for area of prairie dog colonies will help us to meet other objectives related to animal and plant community composition and at-risk species conservation. While we can replicate many vegetation characteristics of prairie dog colonies through management actions other than conservation of colonies, prairie dogs are a keystone species. Colonies are a unique ecosystem that requires the presence of prairie dogs to provide ecological conditions necessary for the survival of several at-risk animal species associated with prairie dog colonies in the region.

Colony Management Outside Management Area 3.67

Concern Group 1

Some commenters are concerned that prairie dog colonies outside of MA 3.67 will be unmanaged and will have detrimental impacts to adjacent landowners and permittees. Others are concerned that prairie dog colonies outside of MA 3.67 will be unmanaged or eradicated, which will further reduce habitat availability for at-risk species.

Example Comments

- After new plan is in effect apply aggressive control on all prairie dogs outside of 3.67 from the get go of the new plan. It may take 4 or 5 years for prairie dog population in 3.67 to reach target population and acres but they will reach it naturally. If we don't control outside of 3.67 while it is growing to target plan by the time it reaches target the population and acreage outside of 3.67 will have reached a point that they will be unmanageable and we are well on our way to 180,000 infested acres.
- The removal of colonies of pd is effective if: there is not another active colony connected to the planned colony for removal ; if there is not another active colony within a short migration distance away from the colony planned for eradication, if the neighboring landowner controls the p/d at the same time for eradication and both parties continue the treatments, as needed thru annual monitoring.

- There are no minimum acreage targets for colony area outside of the proposed MA 3.67. There are no plan components that protect colonies outside of MA 3.67 unless satellite colonies are designated, which is not required. All colonies outside MA 3.67 are vulnerable to extermination. Technically, the Alternative direction could result in only 7,500 acres of prairie dog colony area across the entire Grassland, and fewer if plague mitigation is not regularly conducted.

Response

Each of the action alternatives provides plan direction regarding the use of rodenticides and other types of prairie dog control across the grassland. It is not the intent of the Forest Service that all prairie dog colonies outside of management area 3.67 would be eradicated under any of the alternatives. Elimination of large areas of prairie dog colonies would not meet the purpose and need of the proposed plan amendment. The purpose statement includes ensuring continued conservation of at-risk species and supporting ecological conditions that do not preclude the reintroduction of black-footed ferret. The proposed plan amendment must balance meeting these purposes with meeting the purpose to minimize prairie dog encroachment onto non-Federal lands.

In the preferred alternative, we have not included the satellite colony concept or prairie dog management categories. In the preferred alternative, prairie dogs could be controlled outside of management area 3.67 in 1-mile buffers around residences, to protect infrastructure, to address encroachment, and in other site-specific situations as deemed warranted by the responsible official after consideration of the impacts of control on nesting, breeding, and denning habitat for species associated with prairie dog colonies. Importantly, prairie dogs could migrate from inside of management area 3.67 to surrounding management areas, or vice versa; under all the action alternatives, management direction for a colony would be based on where the colony is located, and not based on the location from which prairie dogs in the colony may have migrated.

We acknowledge that managing to eradicate prairie dog colonies in certain locations such as boundary management zones and 1-mile buffers around residences and colonies in excess of colony area targets may entail substantial use of funding because neighboring or connected colonies may quickly recolonize an area. To address this possibility, in the proposed action, grassland-wide alternative, and preferred alternative, we included the ability to temporarily extend a boundary management zone to encompass a neighboring, interior colony that is contributing to an encroachment issue. In addition, we included plan components in each action alternative that allow the responsible official to prioritize treatments based on whether neighboring landowners are implementing concurrent treatments. All colonies outside of 1-mile buffers around residences, boundary management zones, or temporarily expanded boundary management zones will be managed according to the applicable plan components in grassland-wide or management area direction.

Residence Buffer

Concern Group 1

- Comments support an actively managed 1-mile residence buffer

Example Comments

- After all, if the Forest Service were truly concerned about the health and safety of the residents then there would be no question all homes would be treated as needed. This has not been the case in the past: as costs went up the # of resident treatments went down and after the 3rd year

of treatment the Forest Service did not continue rodenticide treatments due to using only one type of rodenticide.

- All areas around homes 1-mile radius and all colonies feeding into that 1-mile radius must be removed.
- I strongly support, and respectfully ask for, a one-mile barrier around our residence for the health and safety of my family.
- The direction should recognize that effective barriers may exist that reduce the need for a 1-mile buffer zone.

Response

Each action alternative includes a component in chapter 1 explicitly stating that control of prairie dogs within 1 mile of residences would be the highest priority for use of prairie dog control resources. In the 1-mile buffers surrounding residences, the action alternatives would authorize control notwithstanding surrounding conditions or existing natural barriers. In addition, the preferred alternative and the grassland-wide alternative would allow for the use of fumigants after the use of zinc phosphide for 2 (preferred alternative) or 3 (grassland-wide alternative) years; the grassland-wide alternative would allow the use of anticoagulants similarly to fumigants. The cost to treat all prairie dog colonies inside of 1-mile buffers around residences in any year will depend on the population of prairie dogs within the 1-mile buffers and the control tools used. The Analysis of Socioeconomic Resources section in chapter 3 of the final environmental impact statement contains estimates of the costs, including for the use of rodenticides within 1 mile of residences, of each alternative.

Control Tools – General

Concern Group 1

- Comments express support for a wider array of management and control tools to be available.

Example Comments

- The Forest Service must be given more tools and funding for said tools if this Plan Amendment is to successfully change on ground conditions. We support additional methods of lethal control being made available for use. We can only support non-lethal control methods being used if FS funds and personnel are not used to implement or maintain them. We want to be clear that our support is only for the allowance of these nonlethal projects to occur. Additionally, we do not support any kind of shooting ban or restriction.

Response

The purpose and need statement in the final environmental impact statement states that this plan amendment is needed to increase the availability of lethal prairie dog control tools. Each of the action alternatives increases the availability of rodenticide use to varying degrees. Nonlethal prairie dog control tools are available under each alternative if requested. We analyzed the inclusion of no shooting restrictions under the grassland-wide alternative.

Rodenticide Use

Concern Group 1

- Commenters express support or opposition to use of rodenticides or specific types of rodenticides for prairie dog control.
- Commenters suggest specific management approaches for rodenticide application.

Example Comments

- With the limited resources available to the USFS for management, it is important that other options are included so that treatments can be realistically implemented in a reasonable time frame. Land managers across the TBNG have seen first-hand how quickly prairie dog populations can escalate. [We] encourage the USFS to re-examine the use of anticoagulants as an option should other options be unsuccessful.
- Additionally, label restrictions such as calendar use and limitations on retreatments will regulate the ability for zinc phosphide to assist with management needs. Without the approval of anticoagulants and fumigants within any of the Alternatives, the FS will not meet the purpose of the amendment. Anticoagulants have been approved by the Environmental Protection Agency (EPA), the Wyoming Department of Agriculture (WDA) and have been properly vetted through the USFS Pesticide Use - Risk Assessment.
- The FS must not obligate future FS supervisors from utilizing control treatments such as Rozol and Kaput. As conditions change over time and new policies and directives are issued by new administrations, each FS supervisor should have the decision-making space to issue their own guidance regarding the use and implementation of effective control methods such as anticoagulants, fumigants, or any other lethal control methods available.
- The Forest Service needs to drop all restrictions on lethal control products that are registered for use in Wyoming.
- The fumigants could be used as a cleanup in areas set for eradication if no burrowing owls are present.
- When the possibility of rodenticides arises, we find it disconcerting. The usage of poisons to maintain a population could have a subsequent effect on endangered species like the black footed ferret. In the 2011 article "Intoxication of Nontarget Wildlife with Rodenticides in Northwestern Kansas" published in The Journal of Wildlife Diseases, Ruder et al identify instances of nontarget intoxication in both avian and mammalian species when rodenticides were used to control black-tailed prairie dog populations. Although this is but one study, one is enough. Avoiding poisoning our lands is essential.
- The Service recognizes the need for, and supports, prairie dog control on the TBNG, and recognizes the challenges and importance of prairie dog control in the boundary management zone in particular. However, as stated in our letter of February 8, 2019, and three previous letters of 2017, 2014, and 2013 (enclosed, including references), the Service has substantial concerns regarding the use of anticoagulant rodenticides for prairie dog control including, but not limited to, brand names Rozol and Kaput, and their potential impacts to migratory birds and ferrets. To briefly summarize, of particular concern is secondary poisoning of nontarget species protected by the Endangered Species Act, Migratory Bird Treaty Act, and Bald and Golden Eagle Protection Act that continues to occur where anticoagulant rodenticides are used for prairie dog control. Although approved for use by the Environmental Protection Agency and

some State government entities, the Service has observed that secondary poisoning of non-target species of conservation concern occurs and is largely due to a lack of compliance with label instructions in practice.

- Rozol and other anticoagulants cause a more prolonged period of distress for the target animal than zinc phosphide, the traditional choice for prairie dog control. During that time, the poisoned prairie dogs move between their burrows and the surface and often exhibit disorientation, weakness, and behavioral modifications, making them easier targets for predators and scavengers.
- Prior to treatment of prairie dogs with any rodenticide (zinc phosphide or any others), the Forest Service should develop a written protocol for all applicators to follow to ensure that a consistent approach is taken toward achieving management objectives described in #1 above. Further, all applicators should be required to document their use and application of all rodenticides in the field and provide these notes to the Forest Service after each application. Doing so will ensure that a consistent and effective approach to treatment is occurring, and that product labels are being followed closely, so that achievement of management objectives and "effectiveness" may readily be evaluated and definitively determined

Response

To effectively respond to encroachment and reduce conflicts related to prairie dog occupancy and livestock grazing, each of the action alternatives increases the availability of different types of rodenticides. However, the Forest Service remains aware of and responsive to the possible effects of rodenticide use on non-target species and recognizes that lethal animal damage control methods are controversial. An analysis of the effects of rodenticides on at-risk species appears in the biological evaluation of animal species (appendix E), and we present detailed information about the risks of rodenticides to human health in the final environmental impact statement. Under any alternative, the Forest Service will closely monitor rodenticide application to ensure label compliance. Anyone applying zinc phosphide (EPA# 13808-6, EPA # 12455-102: WY SLN #: WY-18-0002, EPA # 61282-14: WY SLN #: WY-020003), phostoxin tablets or pellets (EPA# 72959-4: EPA# 72959-5), or gas cartridges (EPA# 56228-02) will follow label and SDS requirements and plan standards and guidelines. Plan standards and guidelines impose seasonal and location-based restrictions on rodenticide use to avoid compromising the viability of black-tailed prairie dog in the plan area and minimize risk of non-target poisoning of species associated with prairie dog colonies. Plan standards and guidelines are more restrictive than product labels to address plan area-specific concerns regarding the potential for non-target poisoning of migratory birds and other at-risk species. The preferred alternative does not allow the use of anticoagulant rodenticides because of the risk of secondary poisoning of non-target species. The use of fumigants is limited to boundary management zones after two consecutive uses of zinc phosphide in the preferred alternative because of the risk of poisoning of non-target species. As documented in the biological evaluation of animal species (appendix E), secondary poisoning risks associated with zinc phosphide are minimal compared to anticoagulants because zinc phosphide residues do not bioaccumulate in muscle tissue. Plan components address direct non-target poisoning risks from zinc phosphide through seasonal restrictions on rodenticide use.

We corrected the environmental impact statement by removing indications that use of burrow fumigants and anticoagulant rodenticides under the grassland-wide alternative would be dependent on a determination that use of zinc phosphide had been "ineffective" after 3 consecutive years. The phrasing in the environmental impact statement now matches the plan component as listed in appendix A, which reads: "Fumigants and anticoagulant rodenticides may be used only in boundary management zones and only after three consecutive applications of zinc phosphide." The plan component implies that the

availability of fumigants and anticoagulant rodenticides would be independent of the objectives of the prior three treatments.

Concern Group 2

- Comments express concern that bait shyness will limit the effectiveness of rodenticide treatments

Example Comments

- The use of all rodenticides including: zinc phosphide; both anti-coagulants, Rozol and Kaput; and the fumigant, aluminum phosphide should be available for use in any area. This is because the zinc phosphide bait used for p/d causes the rodent to get instantly ill so if they have not eaten enough to kill them the rodent will become bait shy. The Rozol anticoagulant does not cause instant sickness so they do not relate the rodenticide bait with their illness. Also, the Rozol can be used in the same area again during the same treatment window for clean-up after the initial rodenticide use. Zinc phosphide can only be used one time in each area per treatment window or season.
- If rodenticide is used without alternate rodenticides then what happens the 4th, 5th, and 6th years? A management policy of no treatment will effectively negate any previous positive impacts that were accomplished. The types of rodenticides must be rotated in order for effective management.
- Allow use of fumigants and anticoagulants after 2 years, not 3 years. Presuming ineffectiveness is due to bait shyness, retreatment for a third year is a waste of resources.
- Allow more lethal control options to avoid bait shyness, to take advantage of any new innovations and don't allow acreage growth to occur because of what we are currently using isn't controlling the problem and allowing things to get out of control again.

Response

Under each action alternative, boundary management would involve the use of one to three consecutive annual applications of the rodenticide zinc phosphide. The preferred alternative and the grassland-wide alternative would further allow for the use of fumigants after having used zinc phosphide for 2 (preferred alternative) or 3 (grassland-wide alternative) consecutive years; the grassland-wide alternative would allow the use of anticoagulants similarly to fumigants. The purpose of allowing the use of rodenticides other than zinc phosphide after several consecutive uses of zinc phosphide is to address the potential for bait shyness. Rodenticides approved for use by the U.S. Environmental Protection Agency and the Wyoming Department of Agriculture in the future may be subject to a National Environmental Policy Act "Section 18" review or a supplemental information report to determine whether use of the tool requires additional analysis or a new decision (Forest Service Handbook 1909.15, chapter 10, section 18.1). If no new analysis is required and use of the tool is within the scope of the decision document for this plan amendment, then the tool may be used, subject to general restrictions on rodenticide use in the plan components. If the tool does require additional analysis or a new decision, the analysis can be streamlined by tiering to the final environmental impact statement for this plan amendment. All action alternatives would also allow for the use of nonlethal control methods in boundary management zones at any time. If encroachment continued to be a problem after multiple treatments, the proposed action alternative, grassland-wide alternative, and preferred alternative would allow for temporary expansion of a boundary management zone to address site-specific "feeder" colonies or colonies perceived to be rapidly approaching the boundary.

Concern Group 3

- Comments that request permittees be able to poison prairie dogs on their allotments.

Example Comments

- Permittees should have permission to control prairie dogs on their allotments outside of MA 3.67 without having to gain permission from the forest service.
- Remove the rule that only commercial applicators can control prairie dogs on Forest Service administered lands. It is my opinion that grazing permit owners would gladly control prairie dogs on their private, state and allotment acres in 2020 and 2021 while numbers are down. If we wait too long and numbers grow this huge opportunity will be missed and costs will grow greatly. None of us can afford to wait, especially the resource we are charged with managing. I have no doubt the county weed & pest would administer and supervise this undertaking or help FS in this regard.

Response

The Forest Service may authorize application of approved rodenticides by permittees on their allotments. The Forest Service must ensure that any use of prairie dog management tools on National Forest System land is in compliance with all laws, regulations, and policies. Also, the Forest Service must track where prairie dog control occurs, date of application, and product and amounts applied.

Nonlethal Control Tools

Concern Group 1

- Some commenters do not support use of lethal control.
- Other commenters expressed concern about the effectiveness of non-lethal control tools.

Example Comments

- I strongly oppose the proposal to poison prairie dogs. There are many other tried and true non-lethal management strategies available. I know because I live in prairie dog country and have worked with local conservation groups that relocate prairie dogs where feasible and educate people as to effective non-lethal management strategies where relocation is not. In addition, poison is an indiscriminate tool that too often impacts other species and the broader ecosystem.
- Fencing out portions of allotments for vegetation protection has not worked in the TBNG because it is an arid region so lush dense forage is an exception, prairie dogs continue to infest fenced out areas. Therefore, any proposed fencing for vegetative barriers will only fence out the livestock and will be breached by the p/d.
- Visual barriers may work in South Dakota, but do not work in northeast Wyoming. On the Spring Creek grasslands, we have seen prairie dogs encroach into tall dense stands of big sagebrush and on deeded land have seen them encroach into alfalfa fields.

Response

The purpose and need for the project includes providing a wider array of management options to respond to changing conditions. These options include use of both lethal and nonlethal tools to work toward acreage objectives for prairie dog colony extent in each alternative. The amended plan will provide constraints on certain prairie dog conservation and control activities, but determination of the best tool to use in each management situation will be site specific.

Concern Group 2

- Comments encourage the use of translocation as a control tool.
- Comments note certain conditions that must be met to conduct translocations.

Example Comments

- At various times in the past, NGOs have conducted translocations of prairie dogs from areas proximate to private property to areas well inside the Black-footed Ferret Management Area, as an alternative to lethal use of rodenticides…It is important to note that the Forest Service, and only the Forest Service, has the authority to grant or deny permits for activities such as these on National Grassland lands. The State of Wyoming is entitled to zero deference in this regard. The Forest Service must consider in detail at least one alternative that authorizes nonlethal translocation of prairie dogs to the MA 3.63 area as an alternative to lethal control in all cases.
- Area landowners must be notified in advance of translocation and their mention should be included here. In previous translocations, not all conditions in local permits were observed (in some cases).

Response

Translocation of prairie dogs remains available as a control and conservation tool in all action alternatives. The Forest Service would intend to work in coordination with all appropriate stakeholders in any instance of translocation under any of the action alternatives. We would intend that all translocation would occur consistent with State and local law and policy. The plan components for the preferred alternative demonstrate the Forest Service's intent to coordinate with all stakeholders, stating in a guideline, "To ensure use of best practices and comply with applicable Federal and State law and policy, translocation of prairie dogs in selected areas may occur only after coordination with appropriate Federal and State wildlife agencies, county officials, grazing associations, and non-governmental organizations." Data regarding of the use and costs of translocation on the grassland since 2010 appears in the Analysis of Socioeconomic Resources in the final environmental impact statement.

Priorities for Control

Concern Group 1

- Comments provide suggestions for how prairie dog colony control activities should be prioritized.

Example Comments

- The removal of p/d colonies should be prioritized: 1-those areas that constantly repopulate the 1-mile residence buffer; 2-those areas that constantly infest neighboring lands; 3-those colonies that are within grouse core area habitat and encroaching upon grouse habitat and leks and infesting big game habitat.
- We support the establishment of the ¼ mile boundary management zone around private and state lands within MA 3.67 as a priority for the FS to apply treatment and control measures to prevent prairie dog encroachment.
- Priority: Manage prairie dogs within 1-mile of identified residences adjacent to MA 3.63. Using the maximum extent of prairie dog occupancy on the Grassland, this would total a maximum of 1,873 acres of prairie dog colonies on federal land (Table 1). * Second priority: Manage prairie dogs inside the proposed MA 3.63 within ¼ mile of private land; this would total a maximum of 2,366 acres of prairie dog colonies on federal land (Table 1). * Third priority: Manage prairie

dogs inside a 1-mile buffer around the outside of the proposed MA 3.63; excluding 1-mile residence buffers, this would total a maximum of 5,175 acres of prairie dog colonies on federal land (Table 1). Note: If prairie dogs are removed annually, reoccupancy would not approach the maximum acres occupied in the past. A reasonable estimate of annual reoccupancy could be estimated at 10% of these maximum numbers.

Response

We considered all cooperator, partner, and public input in developing priorities for the preferred alternative. Each action alternative explicitly prioritizes 1-mile buffers around residences as the highest priority for use of prairie dog control resources. For the preferred alternative, we developed a management approach that prioritizes use of prairie dog control resources for other locations outside of the 1-mile residence buffers (see appendix B of the final environmental impact statement). After the 1-mile buffers, protection of infrastructure would be the second priority for control resources, boundary management zones in management area 3.67 would be the third priority, and requests for control outside of management area 3.67 or in the interior of management area 3.67 (outside of boundary management zones) would be the fourth priority.

Density Control

Concern Group 1

- Commenters suggest ways to learn more about the impacts of density control before including as a management tool in the plan amendment.
- Comments express that density control is necessary to maintain vegetation condition and forage availability.
- Comments express concern with the density control proposal because it will not be effective enough in reducing prairie dog impacts.
- Comments express concern with the density control proposal due to potential impacts on habitat characteristics and potential impacts on prairie dog behavior.

Example Comments

- The Department appreciates the challenges associated with exploring new methods to adaptively manage prairie dogs on the grasslands. We recommend the Forest Service work with the Thunder Basin Collaborative Stakeholder group to implement one or more density control pilot projects on varying vegetation sites to develop more knowledge about this type of management technique. The Forest Service may consider delineating areas that are undesirable for prairie dog expansion to establish sideboards for where density control may be used effectively and appropriately. Control sites that are exposed to nearly identical outside variables should be established. In addition to vegetation objectives, we recommend evaluating changes in distribution/productivity of prairie dog colony associated species.
- There is no scientific evidence that justifies using "density control" within a prairie dog colony as a means of reducing the incidence of plague. This speculative concept has no basis in science and makes no sense in light of the natural behavior of prairie dogs and the social organization within their colonies. Density control should be removed from the proposed action and any alternative analyzed in detail.

- One of the best ways to mitigate resource conflicts between p/d occupancy and livestock grazing is to maintain a forage base via controlling the density of p/d to levels less than 10 burrows per acre and even a bigger decrease in p/d populations during drought years.
- The Council strongly supports the inclusion of density control within the finalized TBNG strategy. Density control is not the eradication of colonies. Density control allows for program managers to reduce the potential for an overcrowded colony to expand or encroach into unwanted areas. Density control will assist the FS in managing for a diverse plant community.
- Control density to 3 prairie dogs per acre on the 10 to 15 thousand occupied acres.
- There is no defined density threshold beyond which density control may be applied. The concern here is that if densities are reduced past a certain point, the basic ecological services of prairie dogs may no longer be available, and the controlled area may no longer be considered as a "colony" in the ecological sense. The unique ecosystem services of black-tailed prairie dogs (in contrast to some other species of prairie dogs) is directly related to higher densities and larger colony sizes (Hoogland Table 2.2). As such, reducing densities of black-tailed prairie dogs below a certain point may reduce or eliminate the value of those colonies for mountain plover.
- Each action alternative includes plan components that allow lethal "density control" of prairie dogs when prairie dog colony area has reached target caps. Reducing prairie dog densities using poisoning and shooting, or even non-lethal methods, is not supported by the best available science as a mechanism that will sustain viable populations of species associated with prairie dogs. Mountain plovers, burrowing owls, and ferrets all require habitat with high densities of prairie dogs.

Response

The preferred alternative, proposed action, and grassland-wide alternative contain direction for the implementation of prairie dog density control. We do not propose to implement density control using a trigger based on density of burrows or density of prairie dogs in a colony. We intend that the use of density control would occur in response to specific requests for density control. Site-specific evaluation of the objectives of the treatment would occur, and a monitoring protocol would be developed. The objectives of density control could be related to vegetation management, prairie dog dispersal and colony movement, or forage availability. We have not included mitigation of transmission of sylvatic plague as a potential objective of density control. If scientific information were to become available indicating that density control mitigates transmission of sylvatic plague, such an objective would not be precluded from motivating future density control projects.

Based on currently available information, we do not know the effectiveness of density control for meeting any of these objectives. While site-specific objectives and a monitoring protocol would have to be developed for density control under certain conditions, as described in the proposed plan direction, we would note that in colonies where non-density control types of prairie dog control would be already authorized, constraints on the spatial pattern of rodenticide application would not apply, and density control objectives and monitoring protocols would not be required to be able to poison portions of a colony. Under the preferred alternative, density control would be exploratory to gain more information on its effects until scientific information became available that indicated that density control could achieve site-specific objectives and maintain habitat required for species associated with prairie dog colonies. If such information became available, density control would be allowed in management area 3.67 if total colony area was less than 7,500 acres. Until more information regarding density control became available, we would partner with researchers and use an experimental design where possible to explore the effects of

density control, and density control would not occur on sites occupied by species associated with prairie dog colonies. Occupation by associated species would be based on the previous survey effort; surveys for and incidental observations of associated species occur annually across most of the grassland. Throughout implementation of the preferred alternative, no more than 50 percent of the area of any colony would be treated during an application of density control, and density control would occur no more frequently than every other year. Pre- and post-treatment monitoring of vegetation and prairie dog activity would be a critical element in every application of density control. For additional information, see the density control management approach in appendix B of the final environmental impact statement.

Management During Drought

Concern Group 1

- Commenters expressed that impacts during drought conditions were inadequately analyzed.
- Comments support a temporary lower prairie dog colony acreage objective during drought conditions.
- Request for more information on management during drought conditions.

Example Comments

- The DEIS and BE failed to assess the effects of proposed management direction on prairie dogs under conditions of drought. Severe and multi-year droughts periodically hit the Northern Great Plains. Given the dramatic loss of prairie dogs since the advent of mass extermination campaigns and plague and continued human threats to prairie dogs, the species is less resilient to this stressor. The presence of confined livestock in prairie dog habitat likely exacerbates stress to prairie dog colonies during drought; colonies tend to expand but without corresponding increases in prairie dog abundance. It is unrealistic to conduct prairie dog population counts over large areas, yet assuming prairie dog populations (numbers of individuals) necessarily increase as colonies expand is misguided.
- During drought and other conditions that diminish forage availability, poisoning and shooting would reduce a prairie dog population that is probably already depressed. Overgrazing and drought can both encourage prairie dog expansion by either decreasing vegetation height, which enables easier expansion, or decreasing forage availability, which influences prairie dog expansion to secure sufficient nutrients. The Forest Service has conflated prairie dog areal extent with population size in the DEIS and BE.
- The Counties continue to support the more aggressive management and control treatments during drought situations to control the excessive expansion of prairie dog populations and mitigate toward the lower end of the target range (10,000 acres) across the Thunder Basin National Grasslands.
- Drought Plan. The Council supports the plans flexibility on target numbers based on drought conditions.

Response

The preferred alternative contains a drought plan similar to the proposed action, and we added a drought plan management approach in appendix B of the final environmental impact statement. The guideline in the preferred alternative states, "During drought, to mitigate prairie dog colony expansion, the total colony acreage in the management area may be managed toward a temporary alternate objective of 7,500 acres. Drought is defined as any year or sequence of years when annual precipitation amounts are

less than 75 percent of normal, based on local climate data and in consultation with the United States Drought Monitor." This guideline expands upon the definition of drought contained in the plan glossary by adding that a determination by the responsible official that a drought is occurring will be made based on local climate data and in consultation with the United States Drought Monitor. The drought management approach adds that this plan component would be triggered by 2 consecutive years of precipitation less than 75 percent of normal and that annual precipitation would be calculated at the end of the spring growing season.

Plague Management

Concern Group 1

- Commenters provided information on the occurrence and effects of sylvatic plague, on the conditions under which it most commonly occurs, and on the tools that have been most successful at mitigating impacts.
- Comments expressed that plague mitigation should be required.
- Comments expressed that plague management should be done to protect human health.
- Commenters suggested that a strategic plague management plan be established for the grassland.

Example Comments

- Drought conditions likely lead to lowered forage availability and quality, which in turn can lead to lowered body condition and behavioral allocations can shift; thus, creating a cumulatively lowered immunological response and potentially a heightened risk to sylvatic plague epizootic outbreaks.
- Another tool that has arisen is the sylvatic plague vaccine (SPV) distributed in the form of a palatable bait, which has been in laboratory and field-testing research. Currently, it is not available for commercial purchase.
- Prairie dog shooting and poisoning can reduce prairie dog abundance and change prairie dog distribution in an area, with each posing a threat to prairie dog viability and the persistence of associated species. However, sylvatic plague is the least manageable threat among these three major threats. Unfortunately, using insecticides to kill plague-carrying fleas and vaccinating animals is a necessity to prevent mass prairie dog die-offs. Plague can quickly kill 100% of the prairie dogs in a colony. Mandating the use of such tools to mitigate plague in order to maintain prairie dog populations on the Grassland is not required under any action alternative, but must be a standard in the management plan.
- The proposed amendment alternatives put black-tailed prairie dog viability at risk. Without a plan standard that requires plague prevention and mitigation, none of the action alternative will likely be able to manage plague outbreaks in a way that will sustain a viable prairie dog population.
- The Council does not oppose the implementation of plague management through the use of deltamethrin. When deemed appropriate to protect human health and safety by the FS and neighboring landowners, plague management should be utilized.
- The Department supports the development of a plague management strategy for the TBNG. Plague is an inevitable part of prairie dog colony dynamics across Wyoming and, as noted in the DEIS, its outbreak and movement across the landscape is not well understood. In order to

use plague control tools effectively, the Department recommends the development of a management area of landscape-focused strategy that helps to determine when, where, and how to apply plague control across the TBNG.

Response

We would consider the use of all approved and available plague mitigation tools under all alternatives. All plague mitigation tools developed and approved in the future would also be considered for use, as described in the Framing the Analysis section in chapter 3 of the final environmental impact statement. We have included a standard in the preferred alternative that would mandate the use of an integrated approach to plague management in management area 3.67 annually. We have not set a minimum number of acres that would be required to receive treatment because of uncertainty in the availability of resources for treatment and the potential for changes in the effectiveness of plague mitigation tools with continual use, such as flea resistance to the negative effects of deltamethrin. In the preferred alternative, we intend that prairie dog colony area would be managed toward 10,000 acres in management area 3.67, and we intend to avoid colony area collapse in plague epizootics through the regular use of plague mitigation tools. We have included an objective to develop a plague management plan within 3 years of the approval of this plan amendment in the plan components for management area 3.67. Also in the preferred alternative, all plague mitigation tools would remain available for use in colonies outside of management area 3.67. A purpose of the plan amendment is to ensure continued conservation of all populations of at-risk species on the Thunder Basin National Grassland, and we recognize that plague mitigation is a critical component of maintaining the viability of prairie dogs and at-risk animal species associated with prairie dog colonies. We have taken all information about sylvatic plague provided in comments on the draft environmental impact statement into account in our effects analyses for the final environmental impact statement. Please see the biological evaluation of animal species and potential animal species of conservation concern report (appendix E) for our analysis of the effects of proposed plan direction and existing conditions regarding plague and plague mitigation on at-risk species.

While plague mitigation may also serve the purpose of protecting human health and safety, we intend that the use of prairie dog control always be the first response to situations in which human health and safety may be at risk because of disease transmission from prairie dogs colonies. This is reflected in our inclusion of standards for each of the action alternatives mandating that 1-mile buffers around residences receive the highest priority for use of prairie dog control resources. In general, however, we do not enumerate how we would prioritize plague mitigation versus prairie dog control under any of the action alternatives. The process of prioritizing prairie dog management funding for different activities (e.g., plague mitigation, prairie dog control, monitoring, and mapping) will occur subsequent to and independent of the plan amendment planning process. We intend that the collaborative stakeholder group provide recommendations regarding prioritization of resources and activities, but the Forest Service will retain full decision making authority.

We have corrected an error on page B-2 of appendix B of the draft environmental impact statement that incorrectly listed the plague management component for the prairie dog emphasis alternative as identical to the proposed action and grassland-wide alternative.

We have included additional information in the Changed Conditions section of the final environmental impact statement regarding the decision to not use plague mitigation tools during the epizootic that occurred in 2017. The inclusion of a standard requiring implementation of an integrated plague management strategy in management area 3.67 in the preferred alternative in combination with development of a plague management plan would change future decisionmaking on use of plague mitigation tools.

Regarding resistance to plague in prairie dogs, please see our review of the literature in the effects analysis section for black-tailed prairie dog in the biological evaluation of animal species (appendix E). We have added some review of recent literature about prairie dog resistance to plague in this section. The available information regarding genetic resistance to plague in prairie dogs does not indicate that mortality rates during epizootics will significantly decrease in the future. If such a change were to occur, however, it would be considered in an integrated approach to plague management, as would be required in management area 3.67 under the preferred alternative.

Regarding the relationship between the transmission of sylvatic plague an the spatial configuration of prairie dog colonies, please see our review of the literature in the effects analysis section for black-tailed prairie dog in the biological evaluation of animal species (appendix E). None of our action alternatives presumes to reduce the connectivity of prairie dog colonies for the purpose of slowing the transmission of sylvatic plague.

Recreational Shooting

Concern Group 1

- Commenters expressed support for varying levels of shooting restrictions, including no restrictions, seasonal restrictions, and year-round prohibitions.
- Comments provided information on the effects of recreational shooting on prairie dogs.

Example Comments

- Recommend that recreational shooting be allowed year-round as the cost and time to enforce a recreational shooing ban on specific areas with irregular shaped boundaries would be prohibitive. Why have a ban you cannot enforce? Also, the effect of shooting is minor on the population.
- The Council believes recreational shooting should be allowed year round. Prairie dogs are a state designated pest and we believe any wildlife shooting restrictions or hunting seasons on public lands should only be determined by the state, and not the federal agencies. We do not believe recreational shooting is an effective tool at managing prairie dog colonies. We also believe recreational shooting of prairie dogs has economical value to the local communities. Out-of-state hunters traveling to the TBNG for recreational shooting provide local communities and businesses additional commerce that is not often recognized.
- I believe the prairie dogs should be made available for hunting. Maybe with a season to protect the young ones.
- I have always heard from the old-timers that you can't have good prairie without prairie dogs. I work in a local motel and every year, I meet hunters from out of state who come with their guns and an arsenal of ammunition to kill prairie dogs…They drive here from places like Kentucky and stay for a week (at great expense) so they can kill something. I think it is sick and I tell them so.
- Shooting of prairie dogs should not be permitted anywhere on the Thunder Basin National Grassland. There is no alternative that prohibits shooting and poisoning of prairie dogs, a Forest Service Sensitive Species, throughout the TBNG
- The prairie dogs on a colony that experiences shooting pressure can suffer from behavioral changes, loss of reproductive capacity, diminished body condition, and higher stress levels. Colony-level effects include higher levels of emigration, changes in population structure,

increased predation, unpredictable and colony-specific effects, decreased population density, decreased colony expansion rates, and habitat fragmentation.

- In areas where shooting would be permitted, the Forest Service must analyze the impact of lead shot on other species preying on or scavenging injured or killed prairie dogs, and the concomitant impact to the viability of populations of raptors, reintroduced ferrets, and other terrestrial and avian predators and scavengers, including (but not limited to) swift fox, golden eagle, ferruginous hawk, and burrowing owl.
- (ii) Trigger for plague positive feedback cycles A study by Eads and Biggins (2019) demonstrated signs that shooting may trigger flea-plague positive feedback positive feedback cycles by causing flea carriers to migrate to the decreased number of live prairie dogs (see also Pauli 2005) and by affecting prairie dog body condition, making the surviving animals more susceptible to plague. During favorable weather conditions for the spread of plague, shooting may be even more likely to trigger a plague epizootic.

Response

We have analyzed several alternative structures for shooting restrictions, including no shooting restrictions in the grassland-wide alternative, seasonal shooting restrictions on portions of the grassland in all of the action alternatives except for the grassland-wide alternative, and year-round shooting restrictions on portions of the grassland in the prairie dog emphasis and no-action alternatives. The preferred alternative includes a shooting restriction between February 1 and August 15 in management area 3.67 and no shooting restrictions elsewhere on the grassland. Several factors contributed to the selection of this type of shooting restriction, including implementability, minimizing risk of secondary lead poisoning and non-target shooting to species associated with prairie dog colonies, and allowing for recreational opportunities and economic benefits provided by prairie dog shooting. Regarding implementability, we matched the boundaries of the shooting restricted area with the boundaries of management area 3.67 because the boundaries of management area 3.67 generally align with fences, roads, or other distinguishable natural features. This alignment will ease signage, enforcement, and compliance. Other options, such as allowing shooting in boundary management zones, would be impractical because the perimeter of the shooting restricted area would not align with any distinguishable features on the landscape. The primary purpose of the restriction is to minimize risks to species associated with prairie dog colonies. The biological evaluation of animal species (appendix E) provides a detailed analysis of the effects of prairie dog shooting on at-risk species. Risks to associated species include being intentionally or unintentionally shot and, for predators, ingestion of lead ammunition in prairie dogs or other prey species that have been shot. The shooting restriction aligns with seasonal restrictions on other activities that protect migratory birds on the grassland. The shooting restriction also encompasses the breeding and whelping season for black-tailed prairie dogs to prevent shooting from interfering with colony growth. The primary purpose of allowing shooting year-round outside of management area 3.67 and inside of management area 3.67 between August 16 and January 31 is to provide recreational opportunities and their associated local economic benefits. An analysis of the effects of shooting restrictions on recreation and local economies appears in the Analysis of Socioeconomic Resources section in the final environmental impact statement.

Third-Party Collaborative Stakeholder Group

Concern Group 1

- Comments express support for or opposition to working with a third-party collaborative stakeholder group to help inform Forest Service management decision.

Example Comments

- We appreciated the inclusion of a collaborative stakeholder group and support the use of such a group moving forward. If this group is well constructed it will aid in the affective implementation of this plan for years to come. However it is imperative that the structure and interaction with this collaborative stakeholder group be well thought out and articulated in this document.
- The Collaborative Stakeholder Group should be continued. The affected landowners in the Thunder Basin National Grasslands are the most knowledgeable about the conditions on the ground and have much to contribute to such a committee. They also have the most to lose, or gain, from actions recommended by this group, hence their preferences should be given additional weight.
- The "Thunder Basin Working Group" has no legitimacy in our estimation, beyond its ability to submit comments to the Forest Service like any other commenter, and its agreements should have no greater influence on agency decision-making than the comment of any other member of the public. This collaborative group appears to be made up of 3 conservation groups, and at least 32 of the 36 other members of the group represent either the livestock industry or their allies in industry or politics. This ratio is not representative of the fact that the TBNG belongs to all Americans, equally, and that an overwhelming majority of Americans support wildlife conservation over commercial uses of our public lands.

Response

We intend to work with the collaborative stakeholder group throughout planning and implementation of the proposed plan amendment. The Forest Service will not convene or facilitate the collaborative stakeholder group and will depend on partners, stakeholders, and third-parties to ensure the continuation of the group. The Forest Service will not determine the group's organizational structure, the membership of the group, or the frequency with which it meets. However, we hope that the group is able to meet frequently enough to provide timely recommendations for decisions regarding prairie dog management. Because the Forest Service will not determine the membership of the collaborative stakeholder group, we cannot estimate the expected time and travel requirements for participation. In addition, the Forest Service will not compensate any member of the collaborative stakeholder group for travel costs associated with participation in the group. Throughout the planning process, comments from members of the collaborative stakeholder group will be considered equally with comments from the general public. Throughout planning and implementation, the Forest Service will consider whether the group is representative of the full range of stakeholders and interests when receiving recommendations from the group. The Forest Service will also consider information provided by the collaborative group and provide relevant information to the collaborative group. The Forest Service retains full responsibility for management of the Thunder Basin National Grassland during planning and implementation of the plan amendment. We have described our general expectations for the collaborative stakeholder group in appendix B of the final environmental impact statement.

We have edited appendix B of the final environmental impact statement in accordance with this comment.

Prairie Dog Conservation Assessment and Management Strategy

Concern Group 1

- Commenters express support for or opposition to eliminating the black-tailed prairie dog management strategy and integrate necessary plan components into the grassland plan.

Example Comments

- The Counties continue to support the elimination of the 2015 Black-tailed Prairie Dog Conservation Assessment and Management Strategy referred to in this document.
- As in alternative 1 ('No Action') of the DEIS, I suggest that no changes are needed from existing management strategies, management-area names, or associated plan directions. The system ain't broke, and it don't need no fixin'.
- USFS has already amended and modified their prairie dog management direction twice, once in 2009 and again in 2015, each time indicating the changes would resolve issues related to unwanted encroachment. As a result of what I've read and heard, it appears the Purpose and Need for this proposed amendment may be more an implementation issue and less of ineffective management direction in the form of current objectives, standards, and guidelines.
- The purpose to "minimize prairie dog encroachment onto non-Federal lands" is sufficiently met in the current plan. This direction provides the Forest Service a significant amount of discretion regarding how to judge when lethal control can be employed. It is difficult to see how this is prohibiting the Forest Service from conducting "boundary management" to limit prairie dog colony encroachment onto private lands.

Response

The Purpose and Need section of the final environmental impact statement identifies the need to change the grassland plan. The need to change is based primarily on inflexibility and contradictions in the plan and the failure of the plan to address prairie dog colony encroachment onto non-Federal lands. Existing management direction is contradictory regarding the availability of tools to address encroachment. In addition, the initial use of nonlethal methods to control prairie dogs has been unsuccessful. We have added a table summarizing use of rodenticides, deltamethrin, prescribed fire, and translocation over the past decade to the Analysis of Socioeconomic Resources in the final environmental impact statement. Under the 2015 Black-tailed Prairie Dog Conservation Assessment and Management Strategy for the Thunder Basin National Grassland ("Strategy"), the use of rodenticides within ½ mile of non-Federal lands in the Category 1 area is contingent on the cumulative area of prairie dog colonies within that area having exceeded 18,000 acres. Boundary management is not discussed specifically for the Category 2 areas, but prairie dog control is not permitted in those areas until the cumulative area of prairie dog colonies within those areas has exceeded 9,000 acres. In the Category 3 areas, boundary management is not permitted on existing colonies until the cumulative area of prairie dog colonies within those areas has exceeded 6,000 acres. However, new colonies not occurring in the Category 1 or 2 areas would not necessarily be designated as part of Category 3 if they were to have the potential to cause unwanted encroachment. This management direction fails to meet the purpose of minimizing prairie dog encroachment because it does not allow for the use of rodenticides to treat colonies encroaching on non-Federal land when cumulative colony area is less than targets. Nonlethal control methods such as translocation and vegetation barriers have been impractical to prevent encroachment on sufficient scales because they are inefficient and costly. If cumulative colony area were to exceed targets under current management direction, many colonies would likely already be encroaching, meaning we would not be meeting the purpose of minimizing encroachment even though we would then be able to use rodenticides within ½ mile of non-Federal lands. However, this management direction in the Strategy contradicts management direction contained in appendix A of the Strategy, called Decision Screens for the Thunder Basin Prairie Dog Strategy. These decision screens provide direction for managing prairie dog colonies based on answers to a series of questions regarding the status of the prairie dog colony and the motivation for management. The decision screens, as updated in both 2015 and 2017, would allow use of rodenticides to address encroachment when species associated with prairie dog colonies are not present,

even when colony area is lower than targets for categories. Despite the allowance of the use of rodenticides to address encroachment under the decision screens, contradictory direction in the Strategy and the restrictions based on presence of associated species have prevented the Forest Service from adequately addressing encroachment issues. Each of the action alternatives would allow rodenticide use in boundary management zones regardless of surrounding conditions, including total colony area, and would allow use of rodenticides to address encroachment in portions of the plan area that would not have boundary management zones.

The Analysis of Socioeconomic Resources section of the final environmental impact statement summarizes quantitatively past amounts of different types of prairie dog management and the number of requests received by the Douglas Ranger District for prairie dog control on the grassland. Under the existing plan, the Douglas Ranger District has a process in place to prioritize and monitor requests for prairie dog control. District staff ask private landowners, livestock grazing permittees, or others interested parties to submit any prairie dog expansion or private land encroachment issues to the district office. The requests have to include colony location and past and present treatments carried out in the colony, including treatments on private land. In 2015, the district received 17 requests for prairie dog control, and in 2016, the district received 21 requests. The decision screens adopted under the Black-tailed Prairie Dog Conservation Assessment and Management Strategy are used to determine what types of tools are available and to prioritize each request. In 2017, meetings with landowners, grazing associations, county weed and pest districts, and other interested parties were held to prioritize areas for prairie dog control for the fall of 2017. Those areas that were identified were also used for prioritization of areas for control in 2018 and 2019.

Prairie Dog Colony Mapping

Concern Group 1

- Comments express the importance of inventory and mapping to fully understand prairie dog extent and impacts.

Example Comments

- The Draft EIS states that the Forest Service will have mapping and monitoring done on those areas where they are actively conserving p/d. What about the rest of the Grassland? With the proposed #2 alterative: the outlying colonies residing outside of 3.67 will be mapped and monitored until they reach the number of satellite colonies the Forest Service needs for a baseline population. All other areas of the Grassland will not be monitored and mapped for p/d infestation. What kind of a business manager only studies part of the business? Could you run your business only managing a small part of it and ignoring the rest? The Forest Service is tasked with the job of managing the Thunder Basin National Grassland with all its various entities. It is a very large job but how will the Forest Service know where potential problems may lie and how can they proactively manage to prevent issues from occurring if they have no idea what is in the next allotment? The Forest Service should not have to monitor and map all areas every year but they must have a baseline to work from that is newer than a decade old. Things change rapidly and to ignore large areas of management is not effective.
- It is imperative that consistent and annual monitoring and mapping of prairie dog colonies continues as it enables the FS to identify priorities and apply the most appropriate treatments. It is expected that all information would continue to be shared with the Thunder Basin Working Group and that the stakeholders have a forum to participate and remain engaged with the agency in the current and future decision-making process. All parties will need to be committed

to contributing the funding necessary to achieve the goal of conducting annual monitoring and mapping efforts but the FS needs to provide assurances that funding will be allocated on an annual basis specifically for mapping and monitoring efforts.

- We encourage landowner or grazing permittees to assist in monitoring and reporting active prairie dog colonies throughout the grassland.

Response

We have developed an inventory, monitoring, and mapping management approach that describes that prairie dog colonies in management area 3.67 would be mapped annually, while areas outside of management area 3.67 would be mapped at least every 5 years (see appendix B of the final environmental impact statement). We would also encourage livestock grazing permittees to report colony location and movement to assist in the monitoring of areas outside of management area 3.67. Across the grassland in all alternatives, prairie dog control and plague mitigation treatments would be mapped and documented annually. As explained in the background section of chapter 1 in the final environmental impact statement, while past mapping efforts did not cover the entire Thunder Basin National Grassland annually, mapping of colonies in management area 3.63 has been reasonably consistent since 2001. Mapping efforts between 2016 and 2018 focused on portions of management area 3.63 and adjacent National Forest System land and non-Federal lands adjacent to and southeast of management area 3.63.

Forest and Grassland Plan Monitoring

Concern Group 1

- Comments express that monitoring reports from past years should be available to the public and to inform the plan amendment.

Example Comments

- The Draft EIS and the supporting documents found on the USFS project website do not include the monitoring reports completed to support the 2015 Strategy, and the Medicine Bow-Routt National Forests' website does not include monitoring reports for the 2009 Plan after the year 2011.
- Recent prairie dog population declines along with the reduced protection measures in the Proposed Action compared to 2015 management direction appear to strengthen to case for monitoring the results of this Plan. We recommend the Final EIS include more specific monitoring and reporting components to assess the sustainability and productivity of grassland and prairie ecosystem components including, prairie dog populations, associated sensitive species and vegetation.
- We recommend the Final EIS more specifically identify the scientific basis for the changed conditions cited in the proposed amendment. It would be useful to include the monitoring reports and data showing the consistent implementation of the 2009 Plan and 2015 Strategy management tools and their relative effectiveness to determine the scientific basis of the proposed plan.

Response

The plan amendment will not include any monitoring questions additional to those contained in the 2016 forest monitoring plan, which was completed to meet the requirements of the 2012 Planning Rule. The Other Related Efforts section of the final environmental impact statement lists questions contained in the

forest monitoring plan that are relevant to the plan amendment. The first biennial monitoring report under the forest monitoring program is in progress. Monitoring reports will show data collected relevant to prairie dog management on the grassland, and the information will be used to inform future decisions about prairie dog management. In lieu of the biennial monitoring report, we have provided amounts and costs of prairie dog management activities since 2010 in the Analysis of Socioeconomic Resources in the final environmental impact statement. The biological evaluation of animal species (appendix E) describes available monitoring data for at-risk species.

The Forest Service is currently developing monitoring reports required by the 2012 Planning Rule.

Wildlife Surveys

Concern Group 1

- Comments state that surveys are needed for more accurate baseline information to inform management.

Example Comments

- If the Forest Service will start looking for plover outside of p/d colonies they will find they do not NEED 10,000 acres of p/d for viable populations of plover. They and the other species are currently found over the entire Grasslands in their habitat areas that are not always upon p/d colonies.
- Also, it is very important to realize not all the Grassland has been mapped and monitored for plover, p/d and other associated species. It seems very logical there are many more p/d in existence than what is shown as well as other species. Plover are not just nesting upon p/d colonies but are actually found throughout the Grassland as are burrowing owls and other short grass prairie species. There are and always have been large areas with short-grass ecosystems without p/d colonization due to the soil and forage composition within the TBNG.
- Full and detailed site-specific baseline inventories must be conducted for all species that inhabit and/or migrate through the Grasslands, and the magnitude of effects of this outright poisoning with rodenticides, and lead poisoning from shooting, must be fully assessed.

Response

While not every prairie dog colony on the grassland is mapped every year, colonies seldom go more than 1-3 years without detection. Grazing permittees regularly visit each pasture during each year in preparation for and during livestock use. If a prairie dog colony is found, it is generally reported to the grazing association, which then notifies the Forest Service. In addition, most of the grassland is visited by Forest Service resource specialists including wildlife biologists, botanists, rangeland management specialists, land and minerals specialists, archeologists, fire and fuels specialists, and recreation specialists. All of these Forest Service employees report incidental prairie dog observations. Also, all proposed projects on the grassland undergo a systematic field review of existing wildlife conditions within generally 1 mile of the project area. In addition, in recent years, much of the National Grassland was subject to a systematic, grid survey to locate active prairie dog colonies. Current estimates are that approximately 95-98% of all active or historical prairie dog colonies have been mapped.
Regarding mountain plover nesting habitat, not all mountain plover nest on prairie dog colonies on the Thunder Basin National Grassland. However, wildlife survey teams (both Forest Service and non-Forest Service) conduct a variety of wildlife surveys across most portions of the Grasslands annually. These surveys cover most habitat types at one time or another and have included sagebrush habitat surveys,

wetland surveys, range condition surveys, post-fire surveys, and song-bird and mountain plover-specific surveys. At the onset of their surveys, most teams are asked to specifically watch for mountain plover, as well as serval other at-risk species. The overwhelming majority of reported sightings of mountain plover on the grassland have been on or adjacent to prairie dog colonies. A limited number of mountain plover observations have been on hard pan clay soils with very limited vegetation. The biological evaluation of animal species (appendix E) provides further analysis and supporting information about mountain plover habitat on the grassland.

Regarding burrowing owl habitat, burrowing owls can be sometimes be found in habitat types other than prairie dog colonies on the grassland. However, burrowing owls that breed on the grassland require existing burrows for nesting habitat because they do not excavate their own nest burrows. They also prefer areas in close proximity to other burrowing owls. As for mountain plover, the Forest Service typically requests that wildlife survey teams, project proposals, and habitat monitoring efforts report any burrowing owl observations. Over the years, this observation data has shown that very few burrowing owl nests occur outside of prairie dog colonies on the grassland. The biological evaluation of animal species (appendix E) provides further analysis and supporting information about burrowing owl habitat on the grassland.

Available data about at-risk species distribution and abundance is presented in the biological evaluation. Full grassland inventories are not conducted every year because of limits in resources available for surveying. However, wildlife surveys and incidental observations provide occurrence data for at-risk species for much of the grassland annually. The effects of the use of all approved rodenticides on wildlife species has been studied as part of the product development and labeling process through the U.S. Environmental Protection Agency.

The approval of the use of each product and its applications only occur after the impacts to wildlife species have been considered and addressed. The Forest Service also conducted a risk assessment before approving any rodenticide for use on National Forest System land. For this amendment, the biological evaluation of animal species (appendix E) analyzes the effects of rodenticides on at-risk wildlife species. Lead poisoning impacts on wildlife through recreational shooting were also addressed in the biological evaluation of animal species.

Implementation

Concern Group 1

- Commenters express support for an implementable plan that can show success

Example Comments

- A plan for controlling Prairie dogs that is both feasible and implementable is absolutely necessary for effective control across the unique land ownership pattern of the TBNG. It is my sincere desire that this plan amendment puts all stakeholders on the TBNG in the best possible position to avoid the uncontrollable, high-density Prairie dog population explosions that have been so detrimental to agricultural producers in the past.
- The Counties appreciate the work that has gone into this DEIS. To be clear, the Counties will continue to promote a preferred alternative that is pragmatic, effective and can be realistically implemented by the FS. Management concepts that cannot be practically administered will put the agency and the stakeholders in a position that fails to meet management goals.

Response

All action alternatives meet the purpose and need for the plan amendment. The feasibility of implementation is a consideration in the selection of any alternative, as described in the Decision Rationale section of the draft record of decision.

Concern Group 2

- Comments express concern that the Forest Service will not have adequate funding to fully implement any of the alternatives

Example Comments

- The removal of large areas of p/d will free up more budget for better conservation management under a new alternative. Without large areas of p/d eradicated, actual time and costs would be too large for anyone to manage-you fail before you even start.
- The success of this plan amendment is dependent on funding sufficient enough to apply timely controls and treatments in prioritization areas. There is grave concern that the Forest Service will be unable to commit to the funding necessary to control prairie dogs both now and into the future. We must exercise fill of our options to secure funding to control prairie dog densities, implement treatments and initiate restoration projects.
- Another problem that crops up and is not covered in the 2020 DEIS is who is responsible and going to pay for the control of the PD populations that infest and graze on the Federal lands adjacent to the boundary of MA 3.67?

Response

Under any alternative, the Forest Service will request budgets that would provide the needed funding to implement the proposed plan amendment. While the amount we request is not always equal to what we receive, we have many partners and cooperators involved in the management of prairie dogs, including mapping, monitoring, plague mitigation, and prairie dog control, that will continue to contribute monetarily and in kind. The Good Neighbor Authority is an available tool to aid in management across jurisdictional boundaries on the grassland. Agreements with county weed and pest districts and county conservation districts are also in place with authorities that allow funding to be used across jurisdictional boundaries. We anticipate that these partnerships will continue into the future and that possible new opportunities for partnerships may become available to contribute to the cost of the proposed plan amendment. Past budget requests for prairie dog management were based on mapping of colonies from the previous year and anticipated requests for control from livestock grazing permittees and landowners. The amount of funding we have received in the past has generally been approximately equal to our budget requests. When the population expanded rapidly in the several years leading up to 2017, our requests were not in line with requests for control. Also, costs per acre for control were higher than anticipated during those years. The analysis of socioeconomic resources in the final environmental impact statement summarizes past costs for prairie dog management.

Natural Range of Variation

Concern Group 1

- Commenters describe dominant ecological processes and emphasize that prairie dog disturbance and herbivory is part of the natural range of variation on the grassland.

- Commenters express that a plan amendment should focus on restoring native ecosystems and disturbance processes.

Example Comments

- In developing plan components to restore or maintain ecological integrity, the Forest Service must take into account system drivers, including dominant ecological processes, disturbance regimes, and stressors, such as natural succession, wildland fire, invasive species, and climate change; and the ability of terrestrial and aquatic ecosystems on the plan area to adapt to change. (36 CFR 219.8(a)(1)(iv)). For the TBNG, this means the management plan must acknowledge the essential role of prairie dog activity as a natural disturbance process and grassland ecosystem driver; not doing so would ignore best available science. Prairie dog presence and activity must be included as part of the NRV for the Grassland.
- The proposed amendment does not reflect that the Forest Service fully appreciates the importance of prairie dogs to grassland ecology. Instead of offering alternatives that sufficiently protect prairie dogs and associated species, all action alternatives include plan components the limit the ability for prairie dogs to perform their role as ecosystem engineers. Some of these harmful plan components include caps on prairie dog colony area, density control, and allowances for prairie dog poisoning and shooting across the entire grassland.
- The Forest Service has an obligation to maintain the ecological function of the Thunder Basin National Grassland by protecting and restoring prairie dogs and associated species back to their natural populations and extent.

Response

System drivers and the role of native disturbances, including prairie dog activities, are described in the Framing the Analysis section of chapter 3 of the environmental impact statement and carried through environmental impact analysis. The analysis process considered ecosystem integrity, unique ecosystem services, and drivers and processes; however, these did not constitute the purpose and need for the plan amendment. A summary of how the plan amendment complies with the procedural and substantive requirements of the planning rule is included in the draft record of decision.

Climate Change

Concern Group 1

- Comments that request that the DEIS show the effects of climate change.

Example Comments

- The impacts of altered climatic conditions affecting the native vegetation and wildlife must be incorporated as a consideration in the purpose and need for this proposed action.
- There is a need to modify the National Grassland management plan in a way that is responsive to the ongoing and projected future impacts of climate change.
- Increased site drying and desertification, more extreme weather, less natural ecological resiliency are all predicted with climate change, and grazing aggravates this. Livestock grazing spreads exotic species and alters native ecosystems.

Response

General information regarding the effects of climate change on wildlife, plants, livestock grazing, grassland vegetation, and other resources in the northern Great Plains is described in the Framing the Analysis section at the beginning of chapter 3 in the final environmental impact statement. We used this information to document the effects of climate change in cumulative effects analyses in the final environmental impact statement and the biological evaluations of plant and animal species.

Local information about the effects of climate change on resources on the grassland remains unavailable, and we did not document climate change as a changed condition contributing to the need to change the plan.

Rare Plants

Concern Group 1

- Comments express concern about the analysis of Barr's milkvetch in the draft environmental impact statement.

Example Comments

- Apparently, it escapes the Forest Service that during late Spring and Summer months when control of prairie dogs is largely prohibited on the National Grasslands, Barr's milkvetch is in its growth and flowering stages, making the vegetation potentially enticing. As alluded to in the Affidavit of Mark Tubbs, prairie dog stripping of all vegetation, sometimes to bare ground, eliminates many of the Species of Management Concern mentioned in the afore-mentioned report from prairie dog colonies. Ignoring the fact that prairie dogs may strip nearly all vegetation, including the numerous Species of Conservation Concern in the Biological Evaluation and Appendix thereto, appears to be nothing more than wishful thinking, and certainly not the hard look required by NEPA
- The affirmative duties of preventing the environmental damages that have occurred to other species may not be segmented because the Forest Service did not take affirmative steps to address these issues in the years leading to this continually delayed and segmented decision-making process.

Response

Managing management area 3.63/3.67 for short stature vegetation to support prairie dogs and associated species is not expected to adversely impact Barr's milkvetch (*Astragalus barrii)* or cause the species to be petitioned for listing under the Endangered Species Act. At current levels, grazing and trampling by native wildlife or livestock does not appear to substantially threaten any of the known populations of Barr's milkvetch. Little evidence of grazing on this species has been observed, except for light grazing by horses on one Montana population. This could be due exclusively to the dense matt-like growth habit, but may also be a result of noxious substances in the tissues, such as selenium or aliphatic nitro-compounds. No studies have been done on the chemical content of Barr's milkvetch plants, but these compounds are found in closely related species. Since Barr's milkvetch occurs patchily throughout management area 3.63 and prairie dogs are known to forage on perennial forbs for some part of their diet, it might be assumed that prairie dogs would graze on Barr's milkvetch. However, researchers in Badlands National Park have reported that natural expansion of prairie dog towns did not substantially impact the persistence of established Barr's milkvetch populations. They concluded that this is because the two species occupy different areas with different soil types and topographic positions. The deep, loamy substrates and gentle slopes that are attractive to prairie dogs generally are not occupied by Barr's milkvetch, which is found on

calcareous soil outcrops, badlands, semi-barren slopes, rocky ridges, road cuts, and knolls. There have been no focused studies on the Thunder Basin, but observational evidence from the plan area supports these findings. No prairie dogs or burrows have been found co-occurring with Barr's milkvetch populations. It appears that, though these two species share part of their distributional range, specific and differing habitat selection criteria creates mutually exclusive discontinuous distributions of both species and minimizes or eliminates the opportunity or necessity for prairie dogs to graze or clip this species. In addition, many known populations of Barr's milkvetch exist and persist under current management direction, which promotes prairie dog occupancy and short stature vegetation on large expanses of management area 3.63. The action alternatives propose either to maintain or reduce the acreage of prairie dog colonies and short-stature vegetation in the management area. If prairie dogs and their habitat maintenance activities were a threat to Barr's milkvetch (and there is no scientific evidence that they are), none of the proposed alternatives would constitute increased jeopardy for this species.

While Barr's milkvetch is a long-lived perennial forb, the majority of the other plant species on the preliminary list of potential plant species of conservation concern in this analysis are annual or biennial grasses and forbs with very different life history strategies. Most of these species are short-lived, opportunistic colonizers of bare ground with an intermediate to high tolerance for disturbance. Annual abundance of each species can vary widely based on environmental conditions such as climate, precipitation, and availability of suitable sites for colonization. Research suggests that black-tailed prairie dog presence creates a vegetation state characterized by increased bare ground exposure and increased dominance of annual forbs. Due to these factors, it could be theorized that some or many of these species might benefit from the disturbance caused by prairie dog clipping, grazing, or burrowing behaviors. However, there has been very little research done on most species in this analysis and there is no scientific evidence that any of these species directly benefit from or are harmed by prairie dog colonization. Due to a lack of scientific studies and evidence, it is not possible to draw any conclusions on this issue. In addition, the species that could be considered for the list of potential plant species of conservation concern are found in various locations across the grassland, including areas that are not and historically have not been occupied by prairie dogs. These populations have also been assessed as part of the evaluation process and many have been found to be secure and not threatened by any activities or conditions on the ground. The number and security of populations outside of management area 3.63 were considered when making conclusions as to the viability of each species on the Thunder Basin National Grassland.

Cottonwoods

Concern Group 1

- Comments request information regarding the current condition and future management of cottonwood galleries in the Cheyenne River Zoological Special Interest Area.

Example Comments

- Draft EIS, page 65, Why not so many cottonwood trees? …The creeks used to flood across the flats and roll the sand and complete trees. The creek bottom was mostly white quicksand and impossible to pass except in small trails with a few trees and willows. We do not get the rains as we used to decades ago with at least 2-3 floods per summer. Since I was raised out in the TBNG I can honestly say lack of water is NOT DUE to agriculture use but an arid climate. The mines pumping water out of their pits has also had a negative impact on the water aquifers. Trees need rainwater and a higher water aquifer. That said I think it is nice to see there are

many willows and small cottonwood trees in the creek, a variety of forage and a way to get across! Much different than decades ago!

- The Forest Service cites livestock grazing as one of the factors "widely recognized as a primary driver of cottonwood decline in most systems" based on a number of cited studies, yet argues that "it is unlikely a reduction in livestock grazing would result in increased cottonwood recruitment due to ongoing land uses that have altered the hydrogeomorphic condition of the riparian systems and resulted in dewatering and salinification" without citing a single scientific study.

Response

As stated in the draft environmental impact statement, there haven't been any scientific studies on plains cottonwood recruitment in the Cheyenne River, so no specific research can be cited on the drivers of poor recruitment and decline in this system. However, similar patterns in cottonwood galleries can be seen in riparian systems across the western United States. Some of these systems have be the subject of focused studies which have shown that hydrogeomorphic changes caused by human activities are the primary driver of decline in those areas. A common activity that has been shown to result in hydrogeomorphic changes and that is known to be occurring in the Cheyenne River watershed is groundwater pumping. Groundwater is typically pumped for mining, agricultural use, and municipal use, including private wells. Livestock grazing is recognized as a common contributing factor to this complex issue, but is not cited as a primary driver in the environmental impact statement or any peer-reviewed scientific literature used in the preparing this document. Pumping water directly from stream channels is not listed as a possible driver of cottonwood decline in the Cheyenne River system, but this activity could be occurring on private lands under existing water rights and may have some effect on the water table. Decreases in precipitation on the grassland over the last 50 to 100 years are not thought to be significant enough to account for changes seen on the ground, but climate change is cited as a contributing factor. Language changes have been made to the section of the final environmental impact statement on cottonwood galleries to better reflect the role of climate change, which is widely thought to be exacerbating the human-caused drivers of decline, and to better explain the differences between primary and secondary factors contributing to the lack of cottonwood recruitment seen across the West.

Cheatgrass

Concern Group 1

- Comments express concern that management could lead to increased cheatgrass infestations

Example Comments

- Let the land revert to native wildlife and processes or we will have nothing but cheatgrass.
- Furthermore, the agency makes no attempt to analyze the impact of current levels of livestock grazing on rangeland health and the spread of cheatgrass (*Bromus tectorum*) and Japanese brome (*Bromus japonicus*). While there is abundant science showing that livestock spread and exacerbate cheatgrass infestations, there is little scientific evidence that prairie dogs do.

Response

As described in the final environmental impact statement in the Analysis of Rangeland Vegetation and Livestock Grazing, livestock and associated management activities are known vectors for noxious weed spread; weeds can accidentally become established in new sites through livestock management activities that bring seeds or plant parts into previously uninfested areas and the livestock themselves can be vectors

for new infestations. Removing grazing from the project area would remove that vector. However, the infestations that are already established are expected to continue to expand, with or without the influence of livestock grazing. Furthermore, the removal of livestock grazing for an extended period (10 years or more) has been shown to result in plant communities with excessive litter levels that tend to be invaded by nonnative grasses such as Kentucky bluegrass, crested wheatgrass, and smooth brome. On the Thunder Basin National Grassland, some areas have become invaded typically by cheatgrass with extended periods of nonuse or light use.

Noxious weeds in the project area are treated as described in the Invasive Plant Management Final Environmental Impact Statement and Record of Decision for the Medicine Bow – Routt National Forests and Thunder Basin National Grassland. Treatment of noxious weeds will continue regardless of this project. However, with no grazing, cooperation with the grazing association would cease to exist, likely resulting in a reduced number of acres being monitored and treated annually, and ultimately, in an increase in the size of noxious weed infestations.

Soils

Concern Group 1

- Comments emphasize the importance of protecting the soil resource and minimizing erosion from prairie dog colonies.

Example Comments

- The Forest Service in preparing the 2020 Plan EIS in order to fulfill its statutory and administrative duties to protect the soil and vegetative cover of the entire area must discuss and specify what mitigation measures will be taken to move towards desired vegetative cover, topsoil protection, and undesirable plant reduction.
- Large p/d colonies with high density populations will deplete the soil, water retention and forage. Organic matter is very important to soil health and productivity. Depleting the soil requirements for productivity and not causing impairment to the productivity of the land is a major priority for the land health. Where is this addressed?
- The erosion from prairie dog towns severely affects the soil, water, and ecological site resources in the study area. The management plans and environmental impact statements prepared by the Forest Service have not analyzed the effects of erosion on the soil, water, and rangeland resources that they administer. Nor, have they taken a serious look at the environmental and economic impacts that result from soil erosion on prairie dog towns.

Response

As stated in the Soils section of the final environmental impact statement, we found no published or peer-reviewed scientific articles demonstrating that black-tailed prairie dogs are a significant contributor to soil erosion, increased runoff, or sedimentation. Although Nielsen's unpublished report entitled Cheyenne River Basin Prairie Dog Erosion Study (2005; see list of references in the final environmental impact statement) claimed erosion increased 9.5 times as a result of prairie dog colony occupation in the Cheyenne River Basin, it contradicts peer-reviewed and published scientific literature. Korford's (1958; see list of references in the final environmental impact statement) foundational study found that we do not know enough about these interactions to adequately assess the comparative effects of prairie dog colonization on soil development and erosion rates. Korford (1958) also noted, "to judge the influence of a burrowing rodent on erosion, one must know the previous condition of the exact spots where new holes

started." In another Wyoming study, Clark (1970; see list of references in the final environmental impact statement) found no evidence of increased erosion on prairie dog colonies and noted that the benefits from the addition of organic matter, soil mixing, and increased air and water penetration from prairie dog activities may more than offset any impacts to soil health and productivity.

More contemporary studies have also found that prairie dogs, no matter the density or population size, increase soil productivity and soil carbon storage through ecosystem services such as mixing of topsoils with deeper soil layers (Whicker and Detling 1988, Miller et al. 1994, Martinez-Estevez et al. 2013; see list of references in the final environmental impact statement). Over time, burrowing activities bring subsoils up to the surface colony site while cycling the topsoil downward, leading to increases in the variation of soil texture, addition of nutrients, and increases in water holding capacity and infiltration (Carlson and White 1988; see list of references in the final environmental impact statement). Through these processes, prairie dog activities have been found to mitigate any adverse effects to soil resources, benefit native vegetation, and improve soil characteristics when compared to a bare ground state (Forrest 2005, Miller et al. 2007; see list of references in the final environmental impact statement).

Based on published scientific studies and other best available scientific information, we did not identify black-tailed prairie dogs as significant agents of soil erosion, decreased soil health, or impaired productivity. Because of these findings, soil health was not identified as a driving issue in the plan amendment, and we presented a summary rather than a detailed analysis of effects to soil resources in the final environmental impact statement.

Concern Group 2

- Comments that state 'short stature vegetation' is another term for poor range condition.

Example Comments

- The LRMP "low structure" prescription on prairie dog towns is inconsistent with the Organic Acts affirmative duties stated above. "In the administration of the National Grasslands the 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. (36 C.F .R. Section 213.1 d.) Low structure is a euphemism for what NRCS defines as "poor range condition." The only rational explanation for how two agencies of the same department can come to such conclusions is one is driven by actual science and one is driven by political science.

Response

As described in the Framing the Analysis section at the beginning of chapter 3 in the final environmental impact statements, short-stature vegetation is vegetation that typically reaches heights of less than 6 inches (15 centimeters), either due to species composition or due to natural or managed disturbance of taller vegetation. Forest Service personnel expect some short-stature vegetation would be achieved in management area 3.67 or 3.63 by managing for plant species and communities that naturally are short in stature, such as those included in the proposed desired condition statement: grasses such as blue grama, buffalograss, western wheatgrass, sand dropseed, sixweeks fescue, and marsh muhly; sedges; forbs such as scarlet globemallow and woolly plantain; and prostrate shrub species such as birdfoot sagebrush and plains pricklypear.

Short-stature vegetation may also be achieved through natural or managed disturbance of taller vegetation through activities such as livestock grazing, prairie dog colonization, mowing, and wildfire or prescribed

fire. Short-stature vegetation and bare ground are emphasized in management area 3.67 or 3.63 due to the suitability of soils and existing plant communities and the historic occupation by prairie dogs.

Concern Group 1

- Comments describe the varying benefits and impacts of prescribed fire.

Example Comments

- The Planning Rule requires standards and guidelines that maintain or restore "fire adapted systems," and fire is a natural disturbance process of the short- and mid-grass prairie ecosystems. The DEIS states that the removal of the standard "would not eliminate or reduce applicability of prescribed fire as a tool for management." With the loss of the prescribed fire standard and the indication that the TBNG will incorporate input from a local stakeholder group, we believe prescribed fire is unlikely to occur on the Grassland. We are doubtful that, without a plan standard, prescribed fire or the allowance of natural wildfires to burn will be used as tools to maintain and restore mountain plover habitat.
- Prescribed fires are still going to be allowed within sage grouse core habitat if it overlaps with the lines drawn for p/d management areas.
- Why is the Forest Service encouraging prescribed burns within grouse habitat to further the short grass prairie ecosystem and encourage the rapid destruction of grouse habitat by burning? The Forest Service should have buffers around grouse habitat and not overlap grouse habitat with prairie dog colonization. The prairie dog habitat and its spread of colonization has always been more important to the Forest Service than the protection of threatened grouse habitat by considering past and present management actions.

Response

In each of the action alternatives except the prairie dog emphasis alternative, we have removed the standard that states, "Prescribe burn selected large flats (a section or more in size) to evaluate the effectiveness of burns in attracting and inventorying mountain plover," because it is overly prescriptive, failing to allow situational, flexible management. In addition, plan direction restricting the use of prescribed fire in sagebrush habitat in the greater sage-grouse land and resource management plan amendments for Wyoming applies across nearly the entirety of the Thunder Basin National Grassland. However, the preferred alternative contains plan components that state, "Vegetation management techniques that enhance short-stature vegetation communities should be considered for use in projects that occur in identified mountain plover habitat," and, "During project-level planning for prescribed burning, schedule prescribed fire activities at intervals designed to improve or maintain habitats of desired plant and animal species." Prescribed fire will continue to be available as a management tool in the plan area, as governed by all relevant plan components in the grassland plan.

Oil and Gas Stipulations

Concern Group 1

- Commenters are concerned that alternatives remove protections for future reintroduced ferrets by changing oil and gas stipulations.

Example Comments

- I am strongly opposed to shifting from the protection of black-footed ferret habitat to only protecting known occupied habitat, including weakening oil and gas resource protection

stipulations. This alternative fails to protect potential essential habitat as described in FSM 2670.3 and FSM 2670.45.

Response

Removing "or thought to be occupied" and similar wording from several plan components reduces ambiguity in plan direction. Removing restrictions on unoccupied suitable black-footed ferret habitat increases flexibility and availability of prairie dog control tools, meeting the purpose and need for the plan amendment. Prairie dog colony area objectives in each of the alternatives will provide sufficient ecological conditions to not preclude the reintroduction of black-footed ferret, meeting the purpose and need for the plan amendment. The plan amendment also may increase the grassland's ability to meet the requirements for a black-footed ferret reintroduction site by facilitating boundary control and community and landowner support for reintroduction. These are among the impacts of the plan amendment on black-footed ferrets and their recovery, including suitable black-footed ferret habitat; the biological evaluation of animal species (appendix E), the final environmental impact statement, and the draft record of decision evaluate these impacts per FSM 2670.3. Regarding the requirements in FSM 2670.45, the draft record of decision describes how the plan meets legal and regulatory obligations under the Endangered Species Act, the 2012 Planning Rule, including the responsible official's decision about how the plan area will contribute to the recovery of black-footed ferret.

Concern Group 2

- Comments suggest that a no surface occupancy stipulation should be added to MA 3.67

Example Comments

- A MA 3.67 NSO stipulation plan component is clearly within the scope (40 CFR 1508.25) of this plan amendment EIS. An NSO stipulation would result in avoiding or mitigating (40 CFR 1508.20) resource development impacts to potential essential black-footed ferret habitat and protect other grasslands wildlife resources.

Response

We have not revised the final environmental impact statement or the plan components in accordance with this comment. According to the 2012 Planning Rule, "the responsible official has the discretion to determine whether and how to amend the plan and to determine the scope and scale of any amendment" (36 CFR 219.13(a)). The responsible official has determined that changes to oil and gas development stipulations are outside the scope of this plan amendment. Any cumulative effects to animal species resulting from oil and gas development are mentioned in the biological evaluation of animal species and the potential animal species of conservation concern report (appendix E).

Rangeland Vegetation and Livestock Grazing Analysis

Concern Group 1: Use of Ecological Site Descriptions

- Comments do not support management using ecological site descriptions.

Example Comments

- Additionally, each alternative includes desired conditions for using "ecological site descriptions" developed by the Natural Resource Conservation Service (NRCS) to "portray ecological processes and dynamics." It is not clear what this means. The Forest Service also proposed in the DEIS using ecological site descriptions for monitoring grassland conditions. We believe a management and monitoring framework, that appears to only improve and

increase forage for livestock, rather than balance multiple uses, is inappropriate for a national grassland that is required to restore and maintain ecological integrity provide and protect wildlife habitat.

- P. A-14: Note from page 49 of the DEIS: "Ecological Site Descriptions are in the development stage for the Major Land Resource Area 51B" (which contains Thunder Basin National Grasslands). (Emphasis added). Reliance on ESD's at this time should be tempered with caution.
- Desired conditions for each action alternative include the following, "Ecological site descriptions are used to portray ecological processes and dynamics" (A-30, A-50, A-70). Ecological Site Descriptions (ESDs) are a tool for range not ecosystem management, with a need for managing for heterogeneity. They were developed by the Natural Resources Conservation Service, which has the mission of, "to provide resources to farmers and landowners to aid them with conservation." Twidwell et al. (2014) assessed ESDs and found them highly subjective, prone to bias, overemphasize livestock grazing as an ecosystem driver over other drivers, and unable to project climate change impacts.

Response

Ecological site descriptions include state-and transition diagrams that illustrate the current understanding of how rangeland plant communities on the Thunder Basin National Grassland respond to various natural and human-caused disturbances. The state-and transition diagrams, along with the ecological dynamics narratives, identify and describe the different plant community states, phases, thresholds, transitional pathways, and drivers that may occur on a site. Understanding these dynamics help managers predict how a plant community will respond to changes in management and understand dynamics of wildlife habitats across landscapes or home ranges. Recent research emphasizes the importance of heterogeneity on grassland landscapes and the importance of managing for heterogeneity to build resiliency in grassland ecosystems. Use of ecological site descriptions as a tool for management promotes the concepts of ecological heterogeneity more so than the current grassland plan focus on seral and structural stages. Recent reviews of ecological site descriptions have found that grazing is overused as a driver of ecological degradation and restoration, that ecological site descriptions are not currently suitable tools for projecting climate change impacts in rangelands, and that heterogeneity is not yet adequately incorporated into state-and transition models. However, ecological site descriptions can be updated and improved when users identify new information, and are the most comprehensive, up-to-date, standard resource available for rangeland vegetation and wildlife habitat management.

More information on the effects of using ecological site descriptions is included in the Environmental Consequences section of the Rangeland Vegetation and Livestock Grazing section of the final environmental impact statement. Proposed plan components for the preferred alternative that include references to ecological site descriptions have been revised to be responsive to comments.

Concern Group 2: Prairie Dogs in Reference State

- Comments express that rangeland analysis does not portray prairie dogs and prairie dog disturbance as part of the reference state for the Thunder Basin.

Example Comments

- The EIS provides a table listing reference values for forage production by soil type (DEIS at 84), but then fails to analyze how many acres of each soil type are currently meeting that reference value, and if not, whether the reduction in forage production is due to livestock

herbivory, prairie dog herbivory, other species herbivory, or some proportion. The agency goes to great lengths to determine how many AUMs of cattle forage might be reduced by maximum prairie dog expansion under each alternative (DEIS at Tables 11, 12. 13, and 14), but makes no effort to measure the effect of current livestock herbivory, soil compaction, and other impacts on the productivity of forage vegetation.

- This statement indicates that the "bare ground state" is not considered part of the "reference state." Prairie dogs can create areas of sparse vegetation and bare ground. We emphasize that these conditions are within the natural range of variation of the grassland ecosystem. Prairie dog colonies can occur in a given area for thousands of years (White 1985); thus, the colony is within the natural range of grassland variation.
- As native species, by definition, prairie dogs and their activities must be treated as essential components of the natural range of variation for Thunder Basin's grassland ecosystem. Prairie dog disturbance does not lead to departure from reference conditions.
- The state-and-transition modeling the DEIS uses to assess the impacts of prairie dogs on rangeland vegetation and livestock grazing is an inappropriate analytical tool for a natural ecosystem that is, at least in part, meant to be managed for biodiversity (36 CFR 219.8). Fuhlendorf et al. (2012 at 579), state, "The full suite of ecosystem services valued by society will only benefit by management for heterogeneity, which implies that there is no one goal for management and that landscape-level planning is crucial.

Response

The Analysis of Rangeland Vegetation and Livestock Grazing section in the final environmental impact statement acknowledges but does not analyze the effects of variables other than prairie dog occupation on herbage production. The plan amendment will not change factors such as authorized animal unit months, and thus, no differences would occur among alternatives. A full inventory of the grassland vegetation states does not exist. The analysis hypothetically applied prairie dog occupancy to a range of states for the sole purpose of quantifying differences in herbage production among alternatives. The analysis does not reflect the true proportion of each ecological site in any specific state.

The reference state in ecological site descriptions served as an analytical tool in the Analysis of Rangeland Vegetation and Livestock Grazing section in the final environmental impact statement. We used information obtained from the ecological site descriptions and state-and-transition models to analyze differences in expected herbage production across alternatives with varying levels of prairie dog occupancy. We used changes in plant community composition resulting from transitions from one state to another to estimate differences in plant production on each ecological site. We then used these values to compare herbage production consistently among alternatives. These comparisons represent differences between absence and presence of prairie dog colonies, despite the fact that prairie dog colony occupation is a common historical disturbance encompassed within the natural range of variation for the grassland. Though the reference state contains the reference community, which is the plant community best adapted to a local combination of unique environmental factors associated with an ecological site, the reference state is not equivalent to the natural range of variation. The reference states for ecological site descriptions applicable to the Thunder Basin National Grassland do not describe plant communities associated with prairie dog colonies. A more detailed description of the relationship between prairie dog colony occupation and the reference state appears in the Analysis of Rangeland Vegetation and Livestock Grazing in the final environmental impact statement.

Concern Group 3: Competition

- Comments request further analysis of competition between wildlife and livestock.

Example Comments

- The DEIS should attempt to define the ecological term, competition. Competition in nature can be very complex involving numerous parameters. In one's vegetable garden different vegetable species co-exist because there are enough soil nutrients and water to go around. In a given area on TBNG where prairie dogs and livestock occur, prairie dogs eat grasses and forbs and livestock eat grasses and forbs. However, eating the same thing does not mean that competition is occurring.

Response

We updated chapter 3 of the final environmental impact statement to include a definition of competition. Competition is a phenomenon that results when sharing of resources by two species adversely affects one or both species. Competition is difficult to study under natural conditions, but commonly occurs between livestock and prairie dogs (Hoogland 2006; see list of references in final environmental impact statement).

Concern Group 4: Impacts to Forage Quality

- Comments offer information on the benefits of prairie dog colonies on forage quality.

Example Comments

- Prairie dogs clip low-hanging vegetation around their burrows, and plants respond according to the functional equilibrium model by allocating energy resources to producing new shoots which contain a higher amount of nitrogen (Coppock et al. 1983). The new shoots high in nitrogen provide significantly more nutrients for other grazers like bison or pronghorns (Coppock et al. 1983). Bison have been shown to prefer grazing within active prairie dog colonies as compared to uncolonized areas (Coppock et al. 1983). The bison who graze within the prairie dog colonies gain more weight than bison who graze outside of the prairie dog colonies (Coppock et al. 1983). This is an important strategy for the bison as they utilize the least amount of energy possible to obtain the greatest amount of resources prior to the winter.

Response

Information about the benefits of prairie dog colonies on forage quality is included in the Analysis of Rangeland Vegetation and Livestock Grazing in the final environmental impact statement, under Effects Common to All Alternatives.

Concern Group 5: Impacts to Forage Production

- Comments support the analysis of impacts to forage production.

Example Comments

- I also appreciate the USFS analysis of prairie dogs potential impacts to forage and vegetation dynamics and believe it demonstrates the differences in potential impacts across alternatives. While I recognize this is very difficult to predict and manage, acknowledging the competition between prairie dogs and other grazers, including wildlife, is key to formulating a sound and sustainable management strategy for the future. However, additional information may be worthwhile when describing anticipated management based on vegetation dynamics.

Response

Information about impacts of prairie dog colonies on forage production is included in the Analysis of Rangeland Vegetation and Livestock Grazing in the final environmental impact statement, under Environmental Consequences.

Concern Group 6: Impairment of Land

- Comments state that most permittees do not overgraze and that bare ground results from prairie dogs.
- General comments about impaired land related to prairie dogs.

Example Comments

- How does the Forest Service determine they do not substantially and permanently impair the productivity of the land?
- Ongoing monitoring should have an end point and a decision made of impairment before the soil is eroded, forage is lost and ground is mostly bare. In the past this topic has been ignored in vast areas of the Grasslands because a short grass ecosystem was the Forest Service's desire at all costs.
- Erosion and poor forage are still found in large areas where p/d were colonized and allowed to expand without proper management. What is going to change this time-how is the Forest Service going to determine impairment before the threshold for substantial harm is crossed and does density control over 50% of a detrimental pd colony give a positive long-lasting solution?
- I have been completely embarrassed to take visitors to tour my ranch, due to a lack of forage. It appears to friends, neighbors, and guests that I am a poor steward of the land. The National "grassland" should never look like the surface of the moon. There should be grass, wildlife, and a healthy, thriving ecosystem.
- Most landowners will move out early, not put as many head in an allotment as permitted, graze an allotment at a different time, even not use an allotment at all for a year in order to protect the allotment acreage from expansion of bare ground. The above statement from the Draft EIS must include the reality that prairie dog colonization does expand, enhance and perpetuate the formation of bare ground. And the statement should also include the reality that the Forest Service encourages the formation of bare ground for prairie dog expansion.
- Most bare ground within the TBNG is due to p/d expansion and over-utilization without proper rodenticide use, the bare ground is not due to over-grazing by livestock as the statement tries to present to the public.

Response

We modified the desired conditions for each of the geographic areas to indicate that "vegetation communities will exist in a variety of states or plant community phases designed to meet multiple desired conditions across management areas" and "a mosaic of habitats and forage conditions will exist on the landscape as a result of planned vegetation management and natural disturbances." We modified the desired conditions for management area 3.67 to state, "Vegetation communities are managed to provide for a mosaic of native plant communities, with an emphasis on short-stature herbaceous communities." Under amended plan direction, the Forest Service will use ecological site descriptions to facilitate management toward the variety of desired vegetation conditions across the grassland. Monitoring of range

condition is ongoing. The existing monitoring plan for the grassland includes questions about changes in major vegetation types and soil properties

Frequent and severe defoliation is terminology used in the ecological site descriptions for Major Land Resource Area 58B and is one of the drivers that can shift plant communities from one state or plant community phase to another. The Analysis of Rangeland Resources and Livestock Grazing section in the final environmental impact statement presents a quantitative analysis of the effects of prairie dog colony occupancy on herbage production on the grassland. The analysis explicitly discusses prairie dogs as ecosystem engineers that cause vegetation state shifts at ecological sites over time, which makes colonies a contributing factor to changes in range condition, notwithstanding rangeland management practices by grazing association members.

Concern Group 7: Use of AUMs

- Comments offer information or request information about impacts to AUMs.
- Comments provide estimates of prairie dog equivalents to AUMs and request inclusion of these estimates in the FEIS.
- Commenters suggest that decreasing AUMs should be considered as a management tool.

Example Comments

- The large amount of AUMs not utilized within the TBNG during the time period listed was due to extensive drought and expanding p/d colonization.
- The p/d is a stressor that can and does cause reduction in AUM in on the ground utilization.
- The only areas with a boundary will be around 3.67 and any chosen satellite colonies as needed. The rest of the prairie dog colonies will be ignored and allowed to expand at will which will dramatically reduce the available AUMS throughout the Grassland. The figures the table gives are estimated loss of AUMS for basically one landowner or the 3.67 area and does not include the rest of the 523,000 acres of Grassland. The loss of AUMS for all landowners will cause severe economic hardship to those in the ranching community.
- Since 2001, when the plan came into effect, what has been the effect of expanding prairie dog colonies on permitted livestock AUMs and actual AUM use? Please present data on authorized AUMs and actual AUMs on the TBNG.
- The Forest Service must address what will be the "carrying capacity of the prairie dog in AUM's" in order to determine what the economic loss will be to each holder of a grazing allotment within or adjacent to the MA 3.67. We need to know what the maximum number of prairie dogs in AUM's that may be allowed to occupy the MA 3.67 along with the already lawful allotted number of livestock AUM's before prairie dog numbers start to adversely impact the economic viability of the Ranch Units by damaging the forage resource to the rangeland. It is the actual number of PD's that matters, not acres of prairie dog colonies. Remember prairie dogs are present in any given allotment all year long consuming valuable forage and committing rangeland depredation every day of the year.
- Despite these major ecological problems caused by livestock, the Forest Service doesn't even list reducing or eliminating livestock on TBNG lands as one of its "Tools for Livestock Management."

Response

The Analysis of Rangeland Vegetation and Livestock Grazing in the final environmental impact statement explains the relationship between prairie dog occupancy and livestock grazing and the potential conflicts between them. The impacts of prairie dog occupancy on livestock grazing are often broad, qualitative, and dependent on myriad environmental and socioeconomic variables. The analysis quantifies impacts, however, by equating prairie dog colony occupancy to a range of states described by ecological site descriptions and state-and-transition models and comparing herbage production among different levels of prairie dog occupation equating to colony area objectives in the action alternatives. The analysis in the final environmental impact statement has been updated and clarified to explain the analysis process more clearly and include a broader analysis of impacts to different plant communities. Actual impacts to forage availability will vary widely based on ecological site and other environmental variables, and prairie dog occupation outside of management area 3.67 beyond objectives (except in the grassland-wide alternative) will cause additional impacts not quantified in the analysis.

The plan amendment will not affect the grazing permitting process or the number of animal unit months (AUMs) authorized on the grassland through grazing agreements. The analysis includes a description of authorized and actual use animal unit months permitted on the grassland and what has caused differences between the two. The analysis also clarifies that the Forest Service has authority to reduce AUMs and a plan amendment is not needed to do so.

Concern Group 8: Impacts to Permittees

- Comments describing impacts to permittees from vegetation changes or deferment of pasture utilization due to prairie dogs.

Example Comments

- Pg 82: "Continued long-term occupation by prairie dogs will result in a transition to the blue-grama sod or blue-grama sod/plains prickly pear/bare ground state. Significant economic inputs, management, and time may be required to move these plant communities toward a more productive stable plant community." This will occur also on the private lands encroached/invaded by neighboring forest service administered lands. Where isn’t there any mitigation or compensation to help private landowners with restoring their native mixed grass prairie lands the prairie dogs have destroyed?
- With prescribed grazing thru the Forest Service's management bare ground increases and forage dramatically decreases. The other side of prescribed grazing to allow for vegetative increase calls for a decrease in the utilization of the pasture by livestock which is another way of saying cutting AUMS or very short-term utilization of the area. Which leaves the landowner asking where do I go for forage if I cannot utilize the allotment I paid for? Deferment of pasture utilization must also involve deferment of the pasture by rodent colonization in order to actually rest the pasture.
- The adaptive management process described in allotment plans needs to be transparent here-if an allotment has a large loss of forage due to over-colonization of p/d then in the past the Forest Service would ask the lessee to graze less livestock, graze a shorter period of time, or not graze in the allotment while at the same time the Forest Service management encouraged the further expansion of colonization and increased the loss of forage in allotments in order to increase the amount of bare ground. Even during drought when the lessee was forced to cut their herds due to lack of forage the Forest Service never expanded rodenticide use to decrease the p/d colonization within those allotments.

Response

We recognize that there may be times when prairie dog occupation, drought, or other conditions affect forage availability for livestock in certain pastures or allotments. When grazing association members pay fees for the occupancy and use of those allotments, they may request credits on their bills. Each of the action alternatives reduces the acreage objective for prairie dog colony area across the grassland to reduce resource conflicts related to prairie dog occupancy and livestock grazing. The preferred alternative includes an objective to manage toward 10,000 acres of prairie dog colonies in management area 3.67. We have also included flexibilities to allow poisoning of colonies down to 7,500 acres in management area 3.67 and poisoning outside of management area 3.67 to address resource conflicts in some situations. The preferred alternative also allows for the use of density control under certain conditions.

Concern Group 9: Impacts of Domestic Livestock

- Comments suggest that livestock should be removed from the area.
- Comments that the plan should take into account the adverse impacts of continued domestic livestock grazing.

Example Comments

- Livestock use should be reduced or removed from the area. Livestock change the character of the land, introduces plants that are not naturally present, and reduces the natural flora of the area, and consequently the ability of the wildlife historically present in that area to be reduced or caused to go extinct. Our public lands should be kept as they once were, for wild creatures, and citizens' ability to enjoy those public lands. Our public lands should not be leased by private individuals or companies for their use.
- We believe the USFS must go back to the drawing board and develop a plan that adequately takes into account the adverse impacts of continued domestic livestock grazing across all USFS lands, and accurately details the serious adverse ecological impacts of continued grazing.

Response

The Forest Service recognizes the importance and significance of multiple uses including livestock grazing on the national grasslands and forests. The Forest Services is mandated by Congress to manage for multiple uses, and in some cases, this results in the need to make adjustments in some uses to accommodate others. 36 CFR 222.3 also states that the Chief of the Forest Service is authorized to issue permits for livestock grazing and other use by livestock of the National Forest System and on other lands under Forest Service control. The Forest Service is responsible for administering permits with grazing associations on the national grassland. When conditions are poor for grazing, the Forest Service may require a decrease in use or early removal from pastures; permittees may voluntarily remove livestock early. The Forest Service may also reduce AUMs without an amendment to the grassland plan; thus, a change in permitted grazing is outside the scope of this project. Interactions between livestock and prairie dogs are described in the Analysis of Rangeland Vegetation and Livestock Grazing in the final environmental impact statement.

Concern Group 10: Range Improvements and Outcome-Based Grazing

- Commenters suggested improvements to grazing management as a tool for prairie dog management, specifically with regard to pasture size and range improvements.
- Comments suggest that outcome-based grazing be applied to support prairie dog management.

Example Comments

- Ranchers should have the ability to cross fence large pastures to maximize forage growth. It is supported by sound scientific studies that rotational grazing is an effective tool for healthy grasslands.
- We question if the focus on increasing pasture sizes perhaps shifts decisions in a direction that places scenic values over utilizing best management practices to ensure optimum rangeland management.
- Fence management should be explored. A 50-acre prairie dog colony on a 100-acre pasture may affect livestock weight gain but if removal of a fence creates a 200-acre pasture, the effect of the colony on livestock weight gain is likely negligible.
- We believe the ability to utilize livestock timing, density, etc. to enhance desired conditions on the ground may currently be underutilized. FS should work with the grazing associations and landowners to identify potential opportunities. We believe an approach similar to the Bureau of Land Management's Outcome Based Grazing might be well suited to this scenario. We wholeheartedly support using rangeland health to drive management decisions.

Response

Range management will continue to be discussed each year when Forest Service and grazing association personnel work cooperatively to develop annual operating instructions and allotment worksheets. The ability to cross fence and incorporate stock tanks was authorized in the Thunder Basin Analysis Area Vegetation Management Final Environmental Impact Statement. Geographic area direction regarding fences in chapter 2 of the plan would be revised under the preferred alternative and other action alternatives to provide further clarity about the ability to implement infrastructure such as fences and water developments. Use of grazing management as a tool for prairie dog management is described in the Analysis of Rangeland Vegetation and Livestock Grazing under Livestock Grazing Management.

Concern Group 11: Similarity Index

- Commenters request that the concept of similarity index be integrated into the plan amendment as a trigger for prairie dog control

Example Comments

- ANG respectfully requests that a Grassland-wide Similarity Index be evaluated in an Alternative for the TBNG FEIS. A Similarity Index has been implemented for the past decade on both the Buffalo Gap and Oglala National Grasslands.
- The failure to fully consider the Buffalo Gap and Oglala National Grassland LRMP similarity index implementation and monitoring over the past decade is clearly unreasonable when the Forest Service makes the broad and unsubstantiated conclusion that: "Experience using similarity index as a management trigger for other purposes and in other locations has demonstrated that it would be inappropriate to apply it exclusively to guide prairie dog management."

Response

The Alternatives Considered but Eliminated from Detailed Study section and Analysis of Rangeland Resources and Livestock Grazing section of the final environmental impact statement address using a similarity index to manage vegetation, including on prairie dog colonies. We dismissed use of a similarity index from detailed analysis because the data collection and analysis process required in implementation

of a similarity index would not be responsive to prairie dog management needs in a timely manner. To calculate similarity index, a detailed species composition list, including pounds per acre by species, needs to be developed for any desired states or plant communities. Species composition lists outside of the reference community are unavailable for the plan area at this time. Other considerations and potential data collection and analysis needs when calculating similarity index include percent grazed, percent growth for cool-season and warm-season grasses, and percent of normal production by reviewing precipitation data. In addition, similarity index triggers to guide prairie dog management in the preferred alternative are unnecessary because they would be more restrictive on prairie dog control outside of management area 3.67 than the proposed plan components.

Socioeconomic Analysis

Concern Group 1

- Comments express concerns or request more information related to the socio-economic analysis, including safety concerns, economic impacts, and impacts to local culture and custom.
- Comments that state or request more information in the DEIS regarding the economic impacts to ranchers.

Example Comments

- How does this plan actually contribute to social and economic stability of the area as well as the custom and culture of local communities?
- In 2015 it was estimated that there were 2,400 acres infested with PD's, which is 75% of the pasture. Monitoring data gathered in August 2015 estimated a PD population of 24,000 PD's. That equates or equals 246 PD AUM's and a dollar production loss to the 4W Ranch of a minus $54,227.69. We had to move the 200 head Frog Creek Herd out of the pasture on the first of August 2015 due to loss of forage because of the prairie dog. That was a loss of 46 days of grazing that we had already paid grazing fees for.
- We make our living, we raise our kids, we care for our cattle, and we build memories on this land. We are very grateful to live the life we do. It is made possible through the use of the grass allotted to us by the forest service and grazing association. We have been severely impacted in multiple ways, by prairie dogs. The prairie dogs have eaten our grass- intended for our cows. Due to their mayhem, we have had to buy extra hay and protein supplements. More impactful, however, are the lower weaning weights, lower pregnancy rates, and having to run fewer cows than our permits allow.
- Economic impacts are glossed over in the 2020 DEIS as they were in the 2001 LRMP. They are not specific to the Rochelle Community, the local locale, as required by Sec 1508.21 of the Environmental Quality Council Regulations. The local locale in this case is located in portions of Southeast Campbell, Northeast Converse and Southwest Weston Counties of Northeast Wyoming. The 30,000 plus acres MA 3.67 of the 2020 Plan falls under the site-specific action, of Sec. 1508.21(a). Without question, the MA 3.67 is "site-specific" within the 553,000 Federal acres of the Thunder Basin National Grasslands. NEPA requires a site-specific economic impact statement be made for this area.
- Economic impacts must be addressed. The ranches in this area have many expenses. Most of these, such as repairs, groceries, feed, medical services all add to local and state income, both directly to suppliers and also by taxes. Children go to local schools. These may not mean much in large cities, but our small towns depend on these revenues.

- p. 91, Table 17 demonstrates that even under alternative 2, the proposed alternative, which provides for 10,000 acres of prairie dogs, there remains a loss of 5300 AUM's that are consumed by the prairie dogs. At the current National Grasslands grazing fee of $1.35/AUM, that amounts to lost income of $7,155.00, mostly to the Thunder Basin Grazing Association. That amount may seem small, but it would help replace the AUM's lost to mining.

Response

The Analysis of Socioeconomic Resources in the final environmental impact statement analyzes the effects of the plan amendment on culture and economies. The analysis shows that the alternatives have variable effects on different social values and that the values of stakeholders on the grassland are not always mutually exclusive. The action alternatives aim to meet and balance the different values of stakeholders in different ways, including by working with a third-party collaborative stakeholder group throughout implementation of the plan amendment, as described in a management approach in appendix B of the final environmental impact statement. The analysis also shows that local economies would be affected slightly differently by each of the alternatives. For example, the local livestock grazing industry would generally benefit from reduced prairied dog colony area objectives in the action alternatives. Recreational shooting interests and associated local service industries would generally benefit from lessened restrictions on prairie dog shooting in several of the action alternatives. Wildlife viewing interests and associated local service industries would generally benefit from higher prairie dog colony area objectives in the no-action and prairie dog emphasis alternatives.

The Analysis of Socioeconomic Resources section of the final environmental impact statement presents the analysis of the impacts of the plan amendment on local economies. The analysis uses the best available economic information. Based on the available data, the highest resolution at which this analysis could occur was the county level. The plan amendment would not affect authorized animal unit months on the grassland, and the analysis focuses on possible changes to actual use animal unit months. Because changes to actual use are affected by myriad variables, the analysis is unable to quantify the effects of the plan amendment on actual use. As a result, the analysis is unable to quantify the effects of the plan amendment on individual ranching operations. However, the Analysis of Rangeland Vegetation and Livestock Grazing section discusses qualitatively the impacts of prairie dog colony occupation on individual ranching operations, presents quantitatively the impacts on herbage production at the scale of the plan area, and equates differences in herbage production among alternatives to possible impacts to animal unit months.

As described in the analysis of rangeland vegetation and livestock grazing, "... increases or decreases in forage availability for livestock on the national grasslands may cause adjustments in ranch operations. When availability of forage on Federal allotments is inadequate for permitted cattle, often due to a combination of events such as drought and herbivory, grazing association members may need to change grazing management. These management decisions vary among individual ranch operations and may include reducing herd size, grazing for longer periods on private properties, weaning calves earlier, culling less productive cows, removing yearlings earlier, finding and securing other private pasture and rangeland leases, using targeted grazing, or purchasing hay and grains to supplement forage."

The analysis of socioeconomic resources in the final environmental impact statement analyzes the effects of the plan amendment on public health and safety. The analysis acknowledges that the risk of injury to livestock and humans because of stepping in or tripping on prairie dog burrows or contracting plague is very low. The analysis states that the Douglas Ranger District has received complaints, though few in number, of safety issues related to burrows. Insufficient information is available to quantify safety issues in the analysis.

Concern Group 2

- Comments express concerns or request more information related to the socio-economic analysis, including past implementation.
- Comments express concern regarding the costs of management activities including prairie dog control, inventory and mapping, and plague mitigation.

Example Comments

- To better understand this issue, I recommend that annual implementation records be summarized and presented in the forthcoming FEIS for the years 2009 to present
- Plague management should not take budgetary priority over management of prairie dog encroachment when the request is not related to human health and safety. The implementation of plague management for management goals not related to human health and safety should require approval of the collaborative stakeholder group regardless of who is paying for the treatments.
- The cost of grasslands wide monitoring may take up a significant portion of the FS management budget. Additionally, comprehensive grasslands wide mapping could potentially delay FS management decisions in critical areas. However, spreading the acreage objective over a large area may reduce the pressure on MA 3.67.
- The Forest Service should have a breakdown of approximate costs associated with each plan.
- The DEIS fails to take a hard look at both the costs of implementing the proposed amendment including costs to implement the livestock grazing program, alongside the income generated from continuing to authorize the source of the problem, private livestock grazing. No cost benefit analysis to the taxpayer is provided.

Response

The Analysis of Socioeconomic Resources section of the final environmental impact statement provides information on prairie dog conservation and control work since 2009, as well as a quantitative comparison of the costs of each alternative. The costs of prairie dog management would vary among alternatives based on the total extent of prairie dog colonies compared to colony area objectives, the location of colony area objectives, and the extent of boundary management zones. The analysis compares costs among alternatives using two scenarios. The two scenarios assume prairie dog colony occupation equal to the 2012 and 2019 colony inventory and mapping data. The analysis calculates the costs of prairie dog control, plague mitigation, and inventory and mapping for the two scenarios based on plan direction for each alternative. The analysis describes several assumptions about what tools would be used and the amount of each management activity that would occur under each alternative.

The Analysis of Socioeconomic Resources section of the final environmental impact statement provides a quantitative comparison of the costs of each alternative. The plan amendment would not change the range management direction on the grassland, and the costs of implementing the range management program on the grassland are outside the scope of the analysis for this plan amendment. Changes to range management will continue to be discussed each year when Forest Service and grazing association personnel work cooperatively to develop annual operating instructions and allotment worksheets.

Wildlife Analysis

Concern Group 1

- Comments express concern about adverse impacts to plant and animal species, including Regional Foresters Sensitive Species.
- Comments express that ecological conditions resulting from the action alternatives would not support viable populations of prairie dogs and associated species.
- Comments express concern that the plan amendment will not meet requirements of Forest Service Manual 2620.
- Comments express the need for clear rationale and documentation for effects determinations for at-risk species.

Example Comments

- Worldwide, species face the increasing threat of extinction. Action is required to prevent our valuable flora and fauna from disappearing from the earth. As an administrator of our public lands, the U. S. Forest Service has a duty to protect species and habitats on these Federal lands from this threat. Unfortunately, this proposal directly contradicts the bureau's mandate. Please ensure the protection of our native wildlife for future generations. Thank you for making endangered and native species conservation a priority in land management decisions.
- The proposed amendment removes management practices put in place to ensure that Sensitive Species do not become threatened or endangered. The amendment completely fails to maintain viable populations distributed throughout their geographic range. In fact, its admitted purpose is to reduce the area occupied by these Sensitive Species. The amendment also fails to develop and implement objectives for populations and habitats and does away with the meager 2015 plan.
- Additionally, the alternatives include plan components that hinder maintaining or restoring ecological integrity of the TBNG's grassland ecosystems and do not comply with 36 CFR 219.8(a)). In particular the DEIS does not reflect that the Forest Service fully understands the importance of prairie dog activity as a natural and essential disturbance process—a key characteristic of the system—that promotes ecological integrity of the short- and mixed-grass prairie ecosystems found on TBNG... The result of implementing any of the action alternatives will preclude the recovery of ferrets and put at risk long-term viability of the mountain plover and burrowing owl, both at-risk prairie dog associated species, and possibly even the prairie dog.
- The Proposed Action and all of the proposed action alternatives (collectively, the “Actions”) shift this balance in a way that threatens not only black-tailed prairie dog viability, but the viability of multiple species and, indeed, the entire grassland ecosystem at TBNG.
- FSM 2620 requires: 2620.44 - Forest Supervisor. Each Forest Supervisor has the authority and responsibility to: 3. Coordinate conservation strategies and habitat planning for species limited in distribution to the forest with the States, other Federal agencies, and others. 4. Evaluate the cumulative effects of proposed management on habitat capability for wildlife and fish, including endangered, threatened, and sensitive animal and plant species. 2620.45 - District Ranger. Each District Ranger has the authority and responsibility to: 2. Implement management direction and ensure that standards and objectives for wildlife and fish, including endangered,

threatened, and sensitive animal and plant species are met. Again, these requirements have been ignored in the DEIS.

- The proposed amendment not only fails to implement plan components to restore the ecological integrity of the planning area, it actually removes the few components that were in the plan from 2001, 2009 and 2015 for the recovery of prairie dogs, the ecological services they provide and the species that are dependent on that habitat. The determinations in the DEIS, BA and Sensitive Species report are specious and unsupportable.
- Cumulative localized impacts could put at risk the viability of the mountain plover on TBNG. Our re- assessment demonstrates that adverse impacts to the prairie dog from the alternatives, especially Alternatives 2 and 3, are likely to be sufficiently significant to jeopardize the species' viability on the Grassland.
- How many (population) of each species for the short grass prairie ecosystem is a viable species: # of burrowing owls, # of ferruginous hawks, # of swift fox, # of plover, # of black tailed prairie dog? You must have these figures specified to actually determine if any alternative will maintain a viable population of a certain species.
- The DEIS fails to describe the Past, Present, and Reasonably Foreseeable Activities and Stressors Relevant to Cumulative Effects Analysis for wildlife resources. A supplemental DEIS must disclose the cumulative effects of oil, gas, and coal development; commercial livestock grazing; recreational shooting; and boundary management zone actions on wildlife populations and habitats.

Response

The biological evaluation for animal species and report on a preliminary list of potential species of conservation concern (appendix E) provides analysis of impacts to at-risk species and effects determinations. These analyses have been updated and improved for the final environmental impact statement. The analysis for each species includes range-wide information on distribution and abundance, life history and habitat, population trends and threats, species status in the plan area, environmental consequences of the alternatives (including cumulative impacts), and effects determinations with rationale.

The 2012 Planning Rule defines a “viable population” as “[a] population of a species that continues to persist over the long term with sufficient distribution to be resilient and adaptable to stressors and likely future environments.” There is no requirement to provide an exact number of each species to show viability. Instead, the Planning Rule states that “sufficient distribution” of a species should be considered in the context of the species’ natural history and historical distribution and on the potential distribution of the habitat within the plan area. Recognize that habitat and population distribution are dynamic over time. Sufficient distribution also implies a distribution that permits individuals to interact within the plan area within the constraints of the species’ natural history. Sufficient distribution implies that ecological conditions are provided to support redundancy in numbers such that losing one or some without replacement will still support a viable population. It should not be expected that management of National Forest System lands would provide broadly or evenly distributed habitat throughout a plan area for all species. Furthermore, as long as there is enough habitat in the plan area to maintain a viable population, there is no requirement that habitat to maintain all known individuals or the maximum possible number of individuals of a species must be available in the plan area (FSH 1909.12, section 23.13c(1)(d)).”

Concern Group 2

- Commenters suggest that the relationship between the species evaluations conducted to support the plan amendment and the potential species of conservation concern analysis be clarified.

Example Comments

- The Potential Species of Conservation Concern Species Evaluations (September 2019) concludes that 27 animal species and six plant species "could be subject to substantial adverse impacts or substantially lessened protections as a result of the plan amendment." We recommend the Final EIS identify which mitigation measures recommended in the USFS Report are carried forward into the proposed plan amendment. For those mitigation measures specified by the Report that are not carried forward, we recommend more clearly explaining the scientific basis for those decisions, describing the expected impacts to species of conservation concern, and whether those impacts are consistent with TBNG desired conditions, goals and objectives.
- Our review noted instances where the Report identifies species that could experience "substantial adverse impacts or substantially lessened protections as a result of the plan amendment," while the BE arrives at the opposite conclusion. Where there are apparent inconsistencies between the conclusions of the Report and the BE, we recommend the Final EIS include additional scientific support for the BE's conclusions.

Response

Section 8 of each species evaluation in the Potential Species of Conservation Concern Species Evaluations provides general recommendations about management actions that may support the ecological conditions on which each species relies. Though some recommendations in section 8 for each species may be generally related to management direction proposed under the plan amendment, we intended section 8 to be a broad overview of how management actions could be related to ecological conditions, including management actions outside of the scope of the proposed plan amendment. The determinations made in the biological evaluations and reports on preliminary lists of potential species of conservation concern for the proposed plan amendment are unrelated to the management recommendations provided in section 8 of the species evaluations. The biological evaluations and potential species of conservation concern reports provide detailed environmental effects analyses of any management activities described in section 8 of the species evaluations that are also proposed in any alternatives in the environmental impact statement.

The conclusion in the Potential Species of Conservation Concern Species Evaluations that the proposed plan amendment had the potential to cause substantial adverse impacts to or substantially lessen protections for a species is unrelated to the determinations in the biological evaluations and potential species of conservation reports. We prepared the species evaluations as a tool to preliminarily gather the best available scientific information. This information helped to determine whether there was a potential for substantial adverse impacts to or substantially lessened protections for any species as a result of the proposed plan amendment. For the species for which this potential existed, we conducted further detailed analysis in the biological evaluations and reports on preliminary lists of potential species of conservation to determine whether any of the alternatives in the environmental impact statement would in fact cause substantial adverse impacts or substantially lessen protections for any species (i.e., lead to a loss of viability in the planning area). We determined that the alternatives as proposed would not cause substantial adverse impacts or substantially lessen protections for any species. If we had determined that the proposed amendment would cause substantial adverse impacts or substantially lessen protections for a

species, we would have applied the requirements of 36 CFR 219.9(b) to that species as if it had been officially chosen by the regional forester as a species of conservation concern (36 CFR 219.13(b)(6)).

Concern Group 3

- Comments that the Prairie Dog should be made a species of conservation concern.

Example Comments

- The black-tailed prairie dog must be designated as a species of conservation concern. Due to the importance of the black-tailed prairie dog as a keystone species, and its vulnerability to various human-caused forms of habitat loss and mortality, the black-tailed prairie dog should be designated as a Species of Conservation Concern through this Plan Amendment, an action which is well within the scope of the EIS per the 2012 Forest Planning regulations.

Response

The proposed plan amendment will not result in an official designation of species of conservation concern for the Thunder Basin National Grassland by the Rocky Mountain Region Regional Forester. The plan will continue to be guided by the older planning rule under which it was originally written. The Regional Forester's Sensitive Species list will remain in place, and environmental analysis of the proposed plan amendment will analyze effects to sensitive species. At the same time, the 2012 Planning Rule requires the consideration of effects to species that are potential species of conservation concern when amending a plan. If environmental analysis reveals that a proposed plan amendment will result in "substantial adverse impacts to a specific species, or the proposal would substantially lessen protections for a specific species," and the species meets minimum requirements for consideration as a potential species of conservation concern, then the responsible official must treat that species as if it were an species of conservation concern during the plan amendment process (36 CFR 219.13(b)(6)). In other words, the plan amendment must contain plan components to ensure the viability of all potential species of conservation concern that would otherwise be substantially adversely impacted or have substantially lessened protections as a result of the plan amendment, as determined by the responsible official. In the biological evaluation of animal species and report on preliminary list of potential animal species of conservation concern (appendix E), we have analyzed black-tailed prairie dog as both a sensitive species and a potential species of conservation concern. However, the regional forester will not officially designate black-tailed prairie dog or any other species as a species of conservation of concern on the Thunder Basin National Grassland during this plan amendment process.

Concern Group 4

- Comment suggests information to be included in the ROD

Example Comments

- It would also be helpful if a discussion is included in the ROD of how the proposed action aligns with the latest version of the "Wyoming State Wildlife Action Plan" that is also authored by the Wyoming Game and Fish Department. If not already done, I recommend that these three plans be entered into the administrative record because of their relevance.

Response

The plan amendment is consistent with the strategies for wildlife and habitat conservation presented in the Wyoming State Wildlife Action Plan, the Plan for Bird and Mammal Species of Greatest Conservation Need in Eastern Wyoming Grasslands, and the Western Grasslands Initiative Plan for Conserving Grassland Habitat and Wildlife. These strategies include interagency cooperation, collaboration with

stakeholders, grassland vegetation restoration, restoration of disturbance regimes, and support of range management techniques to improve wildlife habitat. In addition, we included all Species of Greatest Conservation Need listed in the Wyoming State Wildlife Action Plan when compiling and evaluating species that could be considered for identification as potential species of conservation concern.

Black-Footed Ferret Reintroduction and Recovery

Concern Group 1

- Commenters emphasize that part of the purpose and need is to de-emphasize ferret reintroduction on the TBNG.

Example Comments

- The Counties strongly support the recommendation to remove references regarding the Black-footed Ferret as a priority species under the current 2001 TBNG Land Use Plan and its amendments. It is also appropriate that any future consideration of a reintroduction of the Black-footed Ferret must follow the Wyoming Game and Fish Department management plan, which requires stakeholder support and guides conservation and management of the species in the state.
- Wyoming Game & Fish Black Footed Ferret Recovery Plan requires a need for, "Stakeholder support of reintroduction activities, with particular emphasis on local communities and landowners, including adjacent landowners and permittees / lessees." We believe that unless, and until, you can demonstrate such support, the whole BFF Recovery area idea should be put on hold, or done away with completely.

Response

In each of the action alternatives, we have de-emphasized reintroduction of black-footed ferret as the driver of management for management area 3.67 by renaming and renumbering the management area and amending management direction related to black-footed ferrets. Each of the alternatives meets the purpose of the plan amendment to support ecological conditions to not preclude reintroduction of black-footed ferret. The final environmental impact statement provides background information about black-footed ferrets, recovery efforts, and Forest Service obligations and contributions to recovery.

Concern Group 2

- Commenters are concerned that this plan amendment will hinder the recovery of the endangered black-footed ferret, will not provide the ecological conditions necessary for black-footed ferret reintroduction, or will not contribute to recovery of BFF consistent with the 2012 Planning Rule and the Endangered Species Act. Others expressed confidence that ecological conditions have existed in the past and will continue with implementation of the proposed action.

Example Comments

- Though there are no ferrets on TBNG today, the U.S. Fish and Wildlife Service and scientists have long considered TBNG one of the most important areas to reintroduce and recover ferrets. In fact, TBNG is among only a handful of places that has the capacity to support 100 breeding adult ferrets. Establishing 10 sites for 100 breeding adults is a key recovery requirement. MA 3.63 was set up to host a viable ferret population, but the amendment will likely prevent this and jeopardize the species' recovery.

- Yes, there has been a significant change on the ground with the recent plague epizootic. However, given the recent and substantial losses in prairie dog populations on TBNG but with the new 10(j) provisions and a clear threatened and endangered species recovery mandate, we should have expected, now more than ever, USFS to come forward with a proposal that kept black-footed ferrets and their recovery on the table and in clear view.
- The BFF Recovery Plan imparted a sense of urgency regarding the need to release ferrets into the wild: Timely establishment of wild black-footed ferret populations is critical to minimize deleterious effects resulting from too many generations of captive breeding.
- These proposed action alternatives effectively reduce the prairie dog acreage needed to sustain a viable population of black-footed ferrets on this grassland. Black-footed ferret recovery relies on the restoration and conservation of large, connected prairie dog populations and Thunder Basin National Grassland has the biological potential to substantially advance recovery of this endangered species.
- The DEIS accurately describes the multi-faceted social barriers to black-footed ferret reintroduction on the Thunder Basin National Grasslands (TBNG). From an ecological standpoint, the TBNG historically has and likely will continue to provide adequate habitat for a suite of grassland obligate, sagebrush obligate, and prairie dog colony associated species. As long as plan components contained in the alternatives continue to allow for the dynamics of the ecosystem to occur while balancing other uses, there should be little concern that the TBNG will not provide the ecological conditions necessary for all associated species.

Response

Black-footed ferrets are not known or expected to inhabit the Thunder Basin National Grassland. Neither wild ferrets, nor any individuals from a non-essential experimental population are present. In addition, no critical habitat is designated. Implementation of the plan amendment would not change any potential effects to the black-footed ferret that may result from current or projected future non-Federal actions. Because it has been determined by the USFWS (USFWS 2013) that the likelihood of identifying wild ferrets in Wyoming outside of those resulting from reintroductions is minimal, implementation of the Thunder Basin National Grassland 2020 Plan Amendment, would have no effect on the extirpated, non-experimental populations of black-footed ferret. The biological evaluation and biological assessment analyze effects to black-footed ferrets and the final environmental impact statement compares the responsiveness of each alternative to the requirements for black-footed ferret reintroduction established by the Wyoming Game and Fish Department. The preferred alternative, proposed action, and prairie dog emphasis alternatives do not include any management components that would preclude reintroduction. The no-action alternative does not meet the requirement for having resources in place to conduct boundary control efforts. The grassland-wide alternative includes the use of anticoagulant rodenticides in the boundary management zone, which may make the site a low priority for allocation of ferrets and may need to cease before officially designating the area as a reintroduction site.

In regard to species recovery, recovery plans are not regulatory documents, but are instead intended to provide guidance to the U.S. Fish and Wildlife Service, other Federal agencies, States, tribes and other partners on methods of minimizing threats to listed species and on criteria that may be used to determine when recovery is achieved. The recovery of a species may be achieved without all criteria being fully met. The proposed Thunder Basin National Grassland 2020 Plan Amendment was developed intentionally to provide plan components and management approaches that could create ecological conditions necessary for the reintroduction of black-footed ferrets. Within the 42,000 acre management area of the preferred alternative (alternative 5), prairie dog colony acreage would be managed toward an acreage

objective of 10,000 acres. The 10,000 acres of prairie dog colonies provided for in this decision will meet the Forest Service obligations under the National Forest Management Act and the Endangered Species Act. Other changes to plan direction, such as designation of boundary management zones and allowance for control outside of management area 3.67 are intended to meet minimum requirements for reintroduction in Wyoming as described in the Wyoming Game and Fish Department black-footed ferret site prioritization matrix. In addition, the new requirement to implement an integrated approach to plague management in management area 3.67 is intended to reduce impacts from sylvatic plague and decrease the likelihood of major plague events that could affect available habitat in the future.

Concern Group 3

- Commenters suggest that key pieces of information related to black-footed ferret reintroduction are missing from the analysis.

Example Comments

- Because it was an issue identified during scoping, I recommend that effects analyses and alternative comparisons in the forthcoming FEIS include "black-footed ferret habitat and recovery" as a specific and separate issue and that the effects under each alternative be described and disclosed based on the area of ferret reintroduction habitat expected to be available under each alternative.

Response

The final environmental impact statement compares acres of prairie dog colonies available as reintroduction habitat as well as other requirements for black-footed ferret reintroduction for each alternative. This information is presented in the Wildlife Analysis in chapter 3 and is now summarized in the comparison of alternatives tables in chapter 2.

Concern Group 4

- Commenters suggest that the record of decision commit to management of reintroduction habitat and possible future reintroduction.

Example Comments

- I recommend that a commitment be made in the ROD that USFS commit funding, to the extent possible, and also actively pursue partnerships and diverse funding sources to support ongoing management of potential ferret reintroduction habitat and possible future ferret reintroduction on TBNG.

Response

Under any alternative, the Forest Service will request budgets that would provide the needed funding to implement the proposed plan amendment. While the amount we request is not always equal to what we receive, we have many partners and cooperators involved in the management of prairie dogs, including mapping, monitoring, plague mitigation, and prairie dog control, that will continue to contribute monetarily and in kind. The Good Neighbor Authority is an available tool to aid in management across jurisdictional boundaries on the grassland. Agreements with county weed and pest districts and county conservation districts are also in place with authorities that allow funding to be used across jurisdictional boundaries. We anticipate that these partnerships will continue into the future and that possible new opportunities for partnerships may become available to contribute to the cost of the proposed plan amendment. The draft record of decision states, “The Forest Service will pursue implementation of the

amended plan in collaboration with partners through continued use of agreements including the Good Neighbor Authority."

Concern Group 5

- Commenters request that the selected alternative include management direction for when an adjacent landowner elects to participate in ferret reintroduction.

Example Comments

- The purpose of the 10(j) Rule was to help facilitate reintroductions of the species onto non-federal lands while providing regulatory assurances that will encourage greater private landowner participation in black-footed ferret recovery. Furthermore, it would allow implementation of recovery efforts on non-federal lands to proceed more quickly. The proposed action fails to provide appropriate management direction that would be applicable when an adjacent private landowner elects to participate in ferret recovery efforts. This should be added to the proposed action and alternatives.

Response

In chapter 1 of the grassland plan, under the preferred alternative, existing plan components restricting activities in prairie dog colonies occupied by black-footed ferrets remain in place. The Forest Service would coordinate any needed management adjustments with the U.S. Fish and Wildlife Service and the Wyoming Game and Fish Department if black-footed ferret were to be introduced on State or private lands adjacent to Federal land on the grassland.

Concern Group 6

- Commenters suggest that the 10(j) rule and nonessential experimental status for BFF does not provide adequate protection for black-footed ferret.

Example Comments

- We, like Lockhart et al. (2006), recommend that policymakers revisit use of Section 10j for black-footed ferrets. Compromise with agricultural interests may have helped locate some release sites, but in most cases, it has not helped establish black-footed ferret populations because conservationists have done most of the compromising (Lockhart et al. 2006). As a result, black-footed ferrets released into the wild enjoy little habitat protection.

Response

The implementation and evaluation of the rule to establish a nonessential experimental population of black-footed ferrets in Wyoming under section 10(j) of the Endangered Species Act is outside the scope of this plan amendment.

Black-Tailed Prairie Dog

Concern Group 1

- Comments describe the ecological conditions necessary to maintain prairie dog populations and threats to prairie dogs populations.

Example Comments

- In summary, the persistence of the black-tailed prairie dog population on the TBNG is dependent to a large degree on anthropogenic management and the occurrence of plague, and the plan amendment has the potential to cause substantial adverse impacts to or substantially lessen protections for the species because of its influence over levels of rodenticide use and plague prevention activity in the plan area.
- Black-tailed prairie dogs reproduce slowly…Quick or any recovery from plague is not assured; recovery is dependent on post-plague prairie dog survivorship, in-migration from nearby colonies, and habitat conditions, which can vary.
- The ecological conditions most required to maintain BTPD viability include plague mitigation and protection from poisoning and shooting. Poisoning and shooting will increase under all action alternatives and the current poisoning and shooting prohibitions in MA 3.63 will be lost under all action alternatives with the transition to the proposed MA 3.67. Without mandatory plague mitigation, TBNG colonies will continue to experience wild population fluctuations, with the possibility of not being able to recover to former sizes.

Response

Federal and State agencies have a role to manage for prairie dogs. Federal agencies, including the Forest Service (USFS), the Bureau of Land Management (BLM), the National Park Service (NPS), and the US Fish and Wildlife Service (USFWS) have managed for prairie dogs in varying degrees over the past century. The Forest Service, specifically, manages land under the Multiple-Use-Sustained Yield Act of 1960 [MUSY, 16 United States Code (U.S.C.) 528 et seq.] and the National Forest Management Act (NFMA, 16 U.S.C. 1600 et seq.) for the primary uses of timber production, grazing, watershed preservation, and fish and wildlife habitat (Roemer and Forrest 1996). National grasslands are included under the National Forest System [16 U.S.C. 1609 (a)] and must apply all rules and regulations pertaining to the National Forest System as well [36 Code of Federal Regulations (CFR) 213.3]. In addition, the Forest Service animal damage management policy is to conduct animal damage management activities when necessary to accomplish multiple-use objectives. Wildlife is controlled when it is considered that (1) The animal threatens public health or safety and (2) causes or threatens to cause damage to threatened or endangered animals or plants, other wildlife, permitted livestock, or other resources, on National Forest System lands or private property (USFS 1991).

However, there is a balance to managing for multiple resources, specifically wildlife and fish habitat. Under the National Forest Management Act regulations, it is the responsibility of the Forest Service to manage for habitat to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. The 2012 Planning Rule further outlines the responsibility to do so. Plan components for this amendment reflect the need to balance resources and are intended to support the management of multiple resources and objectives. Cooperative engagement, public comments and literature provided were also considered throughout the planning process. Ultimately, control methods would be site-specific and include influencing colony growth and dispersal, preventing undesirable vegetation state changes and promoting forage availability, along with maintaining viability of wildlife species that rely on prairie dog habitat. Control methods are also intended to limit the expansion of a prairie dog colony from National Forest System lands onto non-National Forest System lands. Limiting the duration and intensity of activities on Federal lands has been a method to ensure that resources are maintained or conserved. In addition, by limiting such actions, the risk of impacting wildlife species or their habitat can be reduced or eliminated. Plan components for this amendment incorporate protection measures that are intended to reduce the impact to wildlife species. Some of the activities that would be

limited include prairie dog density control, the use of anticoagulants, recreational shooting and plague mitigation tools.

To balance multiple resource needs, an acreage objective of 10,000 acres of prairie dog colonies in management area 3.67 was determined to best represent the needs of at-risk wildlife species. In addition, the new requirement to implement an integrated approach to plague management in management area 3.67 is intended to reduce impacts from sylvatic plague and decrease the likelihood of major plague events that could affect available habitat in the future.

Thus, the Forest Service has taken reasonable measures to ensure that proposed management actions would retain adequate habitat, are implementable, and can be achieved with limited conflicts with other resource and management objectives. In addition, U.S. Fish and Wildlife Service decisions to not list black-tailed prairie dogs under the Endangered Species Act were largely based on the ability of prairie dogs to reproduce prolifically and rebound rapidly after plague events. Based on historical evidence, an acreage objective of 10,000 acres for prairie dog colony extent would support a viable long-term population. Since 2001, total prairie dog colony extent on the Thunder Basin National Grassland has varied from less than 1,000 acres to over 50,000 acres, and black-tailed prairie dogs continue to persist, especially in and around management area 3.63. Adjacent private and State lands are expected to continue to have numerous prairie dog colonies. These colonies provide support and resiliency to those that occur on National Forest System lands, especially considering the pattern of mixed ownership across the grassland. The intent of this plan is to provide stable acreage objectives of prairie dog colonies to keep prairie dogs abundant on the landscape, maintain viability of prairie dogs and those species that rely on the habitat that they provide, to foster social support, and to minimize conflict between competing uses.

Mountain Plover

Concern Group 1

- Comments express support for prairie dog colony acreage objectives related to mountain plover.
- Commenters express concern that too much emphasis is placed on mountain plover viability, including that 10,000 acres of prairie dog colonies in MA 3.67 is not necessary to support viability of mountain plover.
- Comments express concern about impacts to mountain plover viability.
- Comments express concern about the impacts of deltamethrin on insects as a food source for mountain plover.
- Comments express concern about impacts of density control to mountain plover and suggest design features for density control activities.

Example Comments

- The prairie dog habitat targets identified within MA 3.67 in the Modified Proposed Alternative should remain at a 7,500 acre minimum and a 10,000 acre maximum. This sufficiently allows for adequate management of prairie dogs while meeting requirements for persistence and viability of the mountain plover and associated species.
- With regard to the Mountain Plover, it is likely that much more than 10,000 acres of MPLO nesting habitat is available on TBNG outside prairie dog colonies, but simply has not been inventoried. Casual observation of the soils in the area reveal a high percentage of bare ground.

Range transects support this finding. Research is needed to document this statement, which would then lessen the need for 10,000 acres of prairie dogs to provide this habitat.

- Plover are found throughout the Grassland so p/d colonization is not required for each plover that exists out there. If you do not seek outside the colonies you have no idea what is viable and where they live. Any statement declaring a proposal will not support a viable population of species; whether it be swift fox, burrowing owl, plover, etc., must have data to back up what is a viable population, giving numbers, acres, head counts, etc., to support such a statement; otherwise it is just an opinion piece
- The proposed amendment alternatives will likely result in the loss of mountain plover viability on the Grassland…Mountain plovers require short vegetation and bare ground conditions that prairie dogs can create by eating and clipping down vegetation. These conditions help the birds see potential predators and find insects they feed on. Yet, the prairie dog density control prescribed in each action alternative is intended to keep grasses longer for the sake of livestock. The prairie dog area caps, particularly in the Proposed Alternative and Alternative 3, very likely do not provide enough colony area to support a viable population of mountain plovers. Additionally, without a prescription that requires plague mitigation, it is likely that the TBNG will not be able to maintain sufficient numbers of prairie dogs
- Despite what the Forest Service contends in the DEIS and BE, the information used in these documents demonstrates the Proposed Action has set the prairie dog colony area too low to assure long-term mountain plover persistence.
- This appears to be a rehash of a 2013 State of Wyoming proposal. According to the Forest Service's own analysis, "Based on the current population of black-tailed prairie dogs (BTPDs) and associated species on Thunder Basin National Grassland (TBNG), it is believed that this State's current proposal will not allow for the FS to manage viable populations of burrowing owls and mountain plover or reintroduce black-footed ferrets."1 This and other analyses conducted by the Forest Service since 2000 demonstrate that the proposed action will result in significant harm to both ESA listed and Sensitive Species.
- The Forest Service has misinterpreted Lehmkuhl (1984) who found that short-term conservation, not long-term persistence, of a species requires an "effective population size"4 of at least 50 individuals. This translates into the need for a real population of 150 birds for short-term conservation. Conservation biology concepts are clear that to hope to support the long-term viability of species, 10 x 150 individuals, meaning at least 1,500 mountain plovers, are required to meet the minimum population threshold based on Lehmkuhl (1984). In another point regarding the DEIS excerpt above, it is true that Oyler-McCance et al. (2008) postulated that gene flow among plovers may be facilitated at plover wintering areas. However, the species does demonstrate strong breeding ground fidelity (Oyler-McCance et al. 2008). While the DEIS implies the study was conducted at TBNG, no Wyoming plover populations were included the research.
- Given the paucity of mountain plover sightings in the greater Powder River Basin in recent years, it is imperative to maximize the acreage of active prairie dog colonies to maintain and enhance habitat for the Forest Service Sensitive Species.
- We disagree with the Forest Service's inference in the DEIS excerpt above that mountain plover persistence is assured even in the face of regular plague outbreaks. Plague can kill 100% of the prairie dogs in a colony during an epizootic (see Cully et al. 2010). We recognize the Forest Service faces a dilemma and difficult challenge in preventing widespread plague epizootics in

prairie dog colonies that can reduce mountain plover abundance. Plague management must be a mandated aspect of the TBNG management plan to maintain sufficient prairie dog colony areal extent to support a viable population of mountain plovers. Yet, mountain plovers are sensitive to one of the most comment tools to contain plague: deltamethrin "dusting" (Dinsmore 2013), and the BE points this out (BE at 147, 148, 149, 151). However, plague mitigation, including the use of deltamethrin (at least in the near-term), must be part of a holistic plague management program in the TBNG management plan. While there are tradeoffs, the risk of not preventing plague epizootics in prairie dogs is the loss of an entire ecosystem, not just mountain plovers.

- Deltamethrin use: This insecticide has been proven to cause plover nest failure and probably has a negative impact on other avian species where it is used because the ``delta dust'' kills all insects the birds need for food and has a negative effect for long periods of time. How can the Forest Service state they want to conserve plovers, burrowing owls and other bird species and at the same time place insecticide in those areas that have a large detrimental effect on those and other avian species?
- P. A6: Deltamethrin should not be used in the National Grasslands because of its detrimental effect on the food source (insects) of the Mountain Plover. Per USFS study in Montana.
- As far as we know, there is no research examining the effect of "density control" on associated wildlife species including the mountain plover. However, the stated goal of reducing forb cover and bare ground is in direct conflict with the habitat requirements of mountain plover (Knopf and Miller 1994, Knopf and Wunder 2006, Duchardt et al. in press). Research in the Thunder Basin has indicated that bare ground and forb cover not only correlate with higher mountain plover densities, but areas with greater forb cover are more likely to be selected as nest sites (Duchardt et al. in press).

Response

The biological evaluation of animal species (appendix E) and the Framing the Analysis section of the final environmental impact statement describe the analysis of the effects of the 10,000-acre objective on mountain plover in the plan area. This analysis shows that we are meeting planning rule regulations and Forest Service policy for diversity of animal communities and viability of sensitive species (36 CFR 219.9, FSM 2670). The environmental impact statement explains that we have taken an ecosystem-based approach to maintaining the diversity of the prairie dog ecosystem through a variety of plan components including prairie dog colony area objectives. The smallest colony area objective among the alternatives is 10,000 acres, which appears in the preferred alternative and proposed action. The 10,000-acre objective was discussed initially by the Wyoming Department of Agriculture collaborative stakeholder group as a possible metric for a healthy prairie dog ecosystem. The effects analysis in the biological evaluation confirmed that 10,000 acres approximates the minimum colony extent necessary to provide ecological conditions for animal species associated with prairie dog colonies. In particular, because mountain plover is the species on the grassland most susceptible to changes in total colony area and occurs at lower densities than other species, the effects analysis shows that 10,000 acres approximates the lower limit likely to adequately provide for the persistence of mountain plover in the plan area. In the effects analysis we relied partially on quantitative evidence because the 10,000-acre objective is numerically specific. We gathered all available information regarding plover occurrence on the grassland, but this data was insufficient to determine exact population numbers or longer-term trends. Population trend information was available only for a portion of the grassland for the years 2015–2018 (Duchardt et al. 2019; see list of references in biological evaluation of animal species). Instead, we used mountain plover density data collected on the grassland since 2015 for a general sense of how many breeding plover we might expect on 10,000 acres of prairie dog colonies (Duchardt et al. 2020; see list of references in biological

evaluation of animal species). We compared these numbers against generic population size thresholds for genetic drift presented in Lehmkuhl (1984; see list of references in environmental impact statement). In the final environmental impact statement, we acknowledged the limitations of using population genetics thresholds from Lehmkuhl (1984) to determine population thresholds for mountain plover, including lack of information about genetics and breeding habits specific to the plan area. In addition, Oyler-McCance et al. (2008; see list of references in environmental impact statement) showed that gene flow resulting from pair bonds created when mountain plovers form mixed flocks on wintering grounds prevents declines in genetic diversity at specific breeding locales, despite breeding site fidelity. As a result, expected population numbers provided only partial and general evidence toward our analysis of the effects of the 10,000 acre target on mountain plover. We also relied on qualitative evidence including a plan component requiring the use of an integrated approach to plague mitigation in management area 3.67; plan components requiring that the responsible official consider habitat for associated species before authorizing rodenticide use; the expectation that colonies will exist on Federal and non-Federal lands surrounding management area 3.67; and the past persistence of mountain plover despite sylvatic plague epizootics, rodenticide use, and prairie dog colony extent regularly less than 10,000 acres on the grassland.

The biological evaluation of animal species (appendix E) analyzes the effects of plague mitigation tools, including deltamethrin and fipronil, on insectivorous, at-risk avian species. The analysis shows that the use of plague mitigation tools will not impact the viability of any at-risk species in the plan area. Under the preferred alternative, plague mitigation will occur using an integrated approach to plague management. In the glossary, we define an integrated approach to plague management as a program of pest management that occurs in an ecologically acceptable manner. The Forest Service will consider potential effects and secondary effects on non-target species including avian species prior to any application of deltamethrin. In addition, an existing guideline in the grassland plan directs the Forest Service to "restrict pesticide use where it would have adverse effects on species at risk." Finally, the proposed approach to density control as described in appendix B is intended to ensure habitat availability for mountain plover and other at-risk species.

Swift Fox

Concern Group 1

- Comments express concern about impacts to swift fox.

Example Comments

- The Forest Service needs to undertake a detailed science-based analysis of swift fox population numbers and trends on the Thunder Basin, and thoroughly analyze the impact of the proposed plan amendment's various alternatives on swift fox population viability.

Response

Limiting the duration and intensity of activities on Federal lands has been a method to ensure that resources are maintained or conserved. In addition, by limiting such actions, the risk of impacting wildlife species or their habitat can be reduced or eliminated. Plan components for this amendment incorporate protection measures that are intended to reduce the impact to wildlife species. Some of the activities that would be limited include prairie dog density control, the use of anticoagulants, recreational shooting, and plague mitigation tools. Recreational shooting of prairie dogs is allowed across most of the Thunder Basin National Grassland under all alternatives, but limits to recreational shooting exist in specific locations. In addition, seasonal restrictions are proposed to limit and reduce potential impacts to species that use prairie

dog habitat. To balance multiple resource needs, an acreage objective of 10,000 acres of prairie dog colonies in management area 3.67 was determined to best represent wildlife species needs specifically as they occur on the Thunder Basin National Grassland. Species-specific plan components for swift fox from the 2002 plan will also remain in place.

Burrowing Owl

Concern Group 1

- Comments express concern about impacts to burrowing owl.

Example Comments

- The Forest Service's conclusion that poisoning of prairie dogs will have "no substantive effect" on burrowing owls is arbitrary and capricious, unscientific, and without merit.
- While most nesting is completed by August, migrants from habitats as far north as Canada may continue to flow through Wyoming prairie dog colonies, using existing prairie dog colonies along their path as they migrate south. Thus, there is a likelihood that burrowing owls could be killed using fumigants through September.
- On the Great Plains, burrowing owls use prairie dog burrows for their homes. They prefer colonies with a high burrow density. The density control standards included in each action alternative will harm burrowing owls.

Response

Limiting the duration and intensity of activities on Federal lands has been a method to ensure that resources are maintained or conserved. In addition, by limiting such actions, the risk of impacting wildlife species or their habitat can be reduced or eliminated. Plan components for this amendment incorporate protection measures that are intended to reduce the impact to wildlife species. Plan components specify the 10,000-acre objective for prairie dog colonies in management area 3.67, that colonies would be maintained at larger than 80 acres to provide burrowing owl habitat, that burrows would not be collapsed when burrowing owls are present, and that grasshoppers would not be sprayed within 0.25 mile of known burrowing owl nests. Seasonal restrictions on rodenticide use and recreational shooting are also intended to protect burrowing owls. The biological evaluation of animal species (appendix E) provides a complete analysis of effects to burrowing owl.

Ferruginous Hawk, Golden Eagle, and Other Raptors and Predators

Concern Group 1

- Comments express concern about impacts to ferruginous hawk.
- Comments express concern about impacts to golden eagle.
- Comments express concern about impacts to raptors and other prairie dog predators.

Example Comments

- The Forest Service should undertake a detailed analysis of ferruginous hawk population numbers and trends on the Thunder Basin, and thoroughly analyze the impact of the proposed plan amendment's various alternatives on ferruginous hawk population viability.

- The prairie dog is an important prey item to many raptors, including ferruginous hawks (*Buteo regalis*). Control of prey species such as the prairie dog, through use of rodenticides can result in localized food shortages for ferruginous hawks (Cook et al. 2003). Ferruginous hawks have also been closely associated with prairie dogs for raising their young. Prairie dogs can have a significant effect on their nest site selection, as well as the abundance in nesting pairs and overall productivity of ferruginous hawks in arid grasslands of the American West (Cook et al. 2003). The importance of black-tailed prairie dogs to ferruginous hawks particularly in the winter, compounded with the ferruginous hawk preference for easy to capture prey, suggests a potentially greater risk of secondary poisoning for ferruginous hawks if the prey vulnerability has resulted from poisoning (U.S. Geological Survey, USGS, 2017).
- Golden eagle protection is linked with the maintenance and recovery of prairie dog colonies. The Forest Service should undertake a detailed science-based analysis of golden eagle population numbers and trends on the Thunder Basin, and thoroughly analyze the impact of the proposed plan amendment's various alternatives on golden eagle population viability.
- The Forest Service is obligated to protect prairie dogs, as a key food source for raptors, and to prevent prairie dog shooting, which poses a lead poisoning threat to birds of prey and other scavenger species.

Response

The biological evaluation and report on a preliminary list of potential species of conservation concern (appendix E) provides a full analysis of impacts to ferruginous hawk (sensitive species and meets requirements as a potential species of conservation concern) and golden eagle (meets requirements as a potential species of conservation concern). Plan components for this amendment incorporate protection measures that are intended to reduce the impact to wildlife species. Seasonal restrictions on rodenticide use and recreational shooting are intended to protect ferruginous hawk, golden eagle, and other raptors from secondary poisoning and accidental shooting in areas of high prairie dog concentrations for most of the year. Other species-specific plan components, including timing and distance requirements for certain activities, will remain in place from the 2002 plan.

Greater Sage-Grouse

Concern Group 1

- Comments express concern that proposed prairie dog management will conflict with greater sage-grouse management or degrade sage-grouse habitat.

Example Comments

- All areas of p/d within sage and prairie grouse habitat as well as those colonies expanding into the core area and within 1 mile, at a minimum, from all leks must be removed.
- Prairie dogs on the Spring Creek area have shown that as the prairie dog populations increase, they will encroach into sagebrush areas. While a prairie dog population can decrease rapidly due to the plague and then recover rapidly due to prairie dog reproductive capabilities, the sagebrush habitat is much slower to recover. Recommend some prairie dog control be implemented in sage-grouse core areas near leks.
- The FS should include a more robust analysis in the preferred alternative FEIS regarding the impacts to Greater Sage-grouse and provide management guidance as to how they will manage for competing resources between Sage-grouse Priority Habitat and prairie dog encroachment.

Response

Although management area 3.67 overlaps with a greater sage-grouse priority habitat management area, the Forest Service expects conflicts to be minimal and flexibility in plan direction to allow appropriate management in specific locations and situations. Proposed activities would indirectly benefit greater sage-grouse by limiting the expansion of prairie dog colonies, especially near sagebrush. Consistent with the greater sage-grouse land and resource management plan amendments for Wyoming, plan direction for management area 3.67 supersedes plan direction for prescribed fire and livestock grazing in general habitat management areas. Management area 3.67 overlaps with one priority habitat management area, which the Wyoming Executive Order for Greater Sage-Grouse Core Area Protection delineated as the Thunder Basin Core Area (Order 2019-3). The Thunder Basin Core Area is approximately 847,000 acres in total size, and the portion of this core area within management area 3.67 is approximately 14,900 acres for the preferred alternative, 12,700 acres for the proposed action and grassland-wide alternatives, and 19,000 acres for the no-action and prairie dog emphasis alternatives. As a result, approximately 1.5 to 2.2 percent of the core area that overlaps the proposed 3.67 management area boundaries is potentially affected by the plan amendment. The plan amendment proposes no activities in any alternatives that remove sagebrush. In the preferred alternative, we have explicitly clarified in the desired conditions for management area 3.67 that where greater sage-grouse habitat exists in priority habitat management areas, the desired conditions for priority habitat management areas in the greater sage-grouse plan amendments apply.

Big Game

Concern Group 1

- Comments that request any Plan on the Thunder Basin Grasslands address removal of prairie dogs where they have encroached into Big Game Management areas.

Example Comments

- The Forest Service continually decreases the Big Game management areas in favor of short grass prairie ecosystem. There used to be many deer, antelope and elk seen throughout the Miller Hills, Rochelle Hills, Red Hills and in the various management areas split up by the Forest Service. One of the main reasons the big game has decreased in the area is the lack of forage available due to the prairie dog infestation. The Big Game management areas should be restored to previous levels and the future fragmentation and destruction of Big Game habitat by the encroaching prairie dog must be stopped.

Response

Each of the action alternatives includes a different delineation of management area 3.67. In the preferred alternative, a new area of management area 3.67 in the northwest portion of the polygon is included, which will remove a portion of a big game management area to provide better prairie dog management adjacent to private land. Although the management prescription in this area will change, management prescriptions do not preclude use by big game or other wildlife.

Anecdotally, the Wyoming Game and Fish Department saw redistributions in big game species during the most recent prairie dog expansion; however, data are not available to show loss of habitat or redistribution of wildlife. Weather is the biggest driver of big game population performance, but redistribution could affect hunter success/opportunity, particularly on public lands if public lands are disproportionately impacted by forage loss. These are considered natural dynamics that influence wildlife populations on the grasslands and are not in conflict with game management.

Planning Rule Requirements

Concern Group 1: Multiple Use

- Commenters are concerned that alternatives do not meet multiple use requirements of the National Forest Management Act.

Example Comments

- A review of the DEIS does not indicate that the proposed action and alternatives provide for integrated resource management within the proposed MA 3.67, since plan components to address many uses and activities are not present. The proposed action must clearly identify and address the Thunder Basin Grasslands as a statutorily designated area addressing the requirements of FSH 1909.12 part 24.2. Where multiple designated or special areas overlap in the same land area, the plan must provide compatible direction to meet the needs of all of the designations. This is often done with wording to state that the designated area with the most restrictive plan components must be followed in the management of the land area.

Response

The Findings Required by Laws and Regulations section of the draft record of decision describes how the plan amendment meets the substantive requirement for multiple use (36 CFR 219.10). Within the scope and scale of the plan amendment, new and amended plan components address ecosystem services, wildlife species, forage, grazing and rangelands, habitat and habitat connectivity, recreation opportunities, riparian areas, soil, and vegetation. In addition, all plan components not addressed in appendix A of the final environmental impact statement remain unchanged from the 2002 grassland plan, as amended.

Regarding FSH 1909.12, chapter 20, part 24.2, the Thunder Basin is not a statutorily designated area, as defined at 36 CFR 219.19. The 2002 plan revision identified several designated areas within the Thunder Basin National Grassland, including special interest areas and research natural areas. Among the designated areas on the grassland, the 2020 plan amendment modifies management direction and boundaries for only the Cheyenne River Zoological Special Interest Area. Each of the action alternatives except the prairie dog emphasis alternative would remove overlap between this special interest area and any other management areas. The regional forester is authorized to approve the changes that we have recommended for this special interest area. Though not designated areas, where greater sage-grouse priority habitat management areas overlap with management area 3.67 in the preferred alternative, we have explicitly clarified in the desired conditions for management area 3.67 that desired conditions for priority habitat management areas found in the greater sage-grouse land management plan amendments for Wyoming would apply where greater sage-grouse habitat exists.

Concern Group 2: Substantive Requirements

- Comments express concern that the plan amendment would not meet the substantive requirements of the planning rule.

Example Comments

- The Forest Service determined 219.8 and 219.9 are directly relevant to the TBNG amendment process. We agree, however, we believe that none of the action alternatives for the amendment fulfill all of these requirements. The Proposed Action, other action alternatives, and Draft Environment Impact Statement (DEIS) are likely violating requirements in the National Environmental Policy Act (NEPA; 42 U.S.C. §§ 4321 et seq.), and Endangered Species Act (ESA; 16 U.S.C. §§ 1531 et seq.), and other laws and their associated regulations.

- The Forest Service has determined that 36 CFR 219.9 is applicable to the amendment and must therefore meet the section's substantive requirements. The amendment decision document must include a rationale for how those requirements were applied.

Response

The Findings Required by Laws and Regulations section of the draft record of decision describes in detail how the plan amendment meets the substantive requirements of the Planning Rule, the National Environmental Policy Act, and the Endangered Species Act.

Concern Group 3: Distinct Roles and Contributions

- Comments express that the plan amendment should state and reflect the distinctive roles and contributions of the TBNG.

Example Comments

- The TBNG management plan must reflect the distinctive roles and contributions of the Grassland. The Responsible Official should note those roles and contributions that are most relevant to the unit's land and resource management. This description is important because it provides a foundation for desired conditions and objectives. (FSH 1909.12, ch. 20, 22.32) The distinctive roles and contributions of a Forest System Lands unit can certainly include grassland uses as part of the Forest Service's multiple use mandate under NFMA and under the Multiple-use Sustained-Yield Act of 1960 (FSH 1909.12, ch. 20, 22.32(2)). However, the essential roles of TBNG in restoring and maintaining prairie dog complexes and the recovery of black- footed ferrets must remain central elements of the management plan. Additionally, federal public lands in the Great Plains are rare, and the national grasslands play a distinctive role as islands within an ocean of private land that have a legal mandate to protect wildlife and enable input into management by the larger public.

Response

The direction contained in FSH 1909.12, chapter 20, section 22.32 applies to new or revised plans, rather than plan amendments (36 CFR 219.7). However, the Background section of the final environmental impact statement describes relevant unique attributes of the plan area, including its ecological suitability as black-footed ferret habitat. The Findings Required by Laws and Regulations section of the draft record of decision describes how the plan amendment meets the procedural and substantive requirements of the Planning Rule.

Concern Group 4: Ecological Integrity

- Comments point out that plan components should be included to maintain or restore ecological integrity.

Example Comments

- In order to comply with the 2012 Planning Rule, the Forest Service must include ecosystem plan components that maintain or restore the ecological integrity and diversity of ecosystems. 36 CFR § 219.9. Because prairie dog colonies are integral to the health of grassland communities on the TBNG, the Forest Service must provide for prairie-dog restoration and maintenance throughout the TBNG. None of the present alternatives achieve this benchmark throughout the TBNG.

Response

Each of the action alternatives includes ecosystem plan components to maintain or restore ecological integrity and diversity of ecosystems, including plan components for prairie dog colony acreage objectives and seasonal restrictions on certain activities. The Findings Required by Laws and Regulations section of the draft record of decision describes how the plan amendment meets the procedural and substantive requirements of the Planning Rule.

Concern Group 5: Contribution to Recovery of Endangered Species

- Commenters are concerned that this plan amendment will hinder the recovery of the endangered black-footed ferret, will not provide the ecological conditions necessary for black-footed ferret reintroduction, or will not contribute to recovery of BFF consistent with the 2012 Planning Rule and ESA. Others expressed confidence that ecological conditions have existed in the past and will continue with implementation of the proposed action.
- Commenters are concerned that the DEIS does not meet requirements of FS policy, including those for a biological evaluation, objectives for federally listed species, and recovery tasks (FSM 2670, 2672, 2623).

Example Comments

- Though there are no ferrets on TBNG today, the U.S. Fish and Wildlife Service and scientists have long considered TBNG one of the most important areas to reintroduce and recover ferrets. In fact, TBNG is among only a handful of places that has the capacity to support 100 breeding adult ferrets. Establishing 10 sites for 100 breeding adults is a key recovery requirement. MA 3.63 was set up to host a viable ferret population, but the amendment will likely prevent this and jeopardize the species' recovery.
- Yes, there has been a significant change on the ground with the recent plague epizootic. However, given the recent and substantial losses in prairie dog populations on TBNG but with the new 10(j) provisions and a clear threatened and endangered species recovery mandate, we should have expected, now more than ever, USFS to come forward with a proposal that kept black-footed ferrets and their recovery on the table and in clear view.
- The BFF Recovery Plan imparted a sense of urgency regarding the need to release ferrets into the wild: Timely establishment of wild black-footed ferret populations is critical to minimize deleterious effects resulting from too many generations of captive breeding.
- These proposed action alternatives effectively reduce the prairie dog acreage needed to sustain a viable population of black-footed ferrets on this grassland. Black-footed ferret recovery relies on the restoration and conservation of large, connected prairie dog populations and Thunder Basin National Grassland has the biological potential to substantially advance recovery of this endangered species.
- The DEIS accurately describes the multi-faceted social barriers to black-footed ferret reintroduction on the Thunder Basin National Grasslands (TBNG). From an ecological standpoint, the TBNG historically has and likely will continue to provide adequate habitat for a suite of grassland obligate, sagebrush obligate, and prairie dog colony associated species. As long as plan components contained in the alternatives continue to allow for the dynamics of the ecosystem to occur while balancing other uses, there should be little concern that the TBNG will not provide the ecological conditions necessary for all associated species.

Response

Black-footed ferrets are not known or expected to inhabit the Thunder Basin National Grassland. Neither wild ferrets, nor any individuals from a non-essential experimental population are present. In addition, no critical habitat is designated. Implementation of the plan amendment would not change any potential effects to the black-footed ferret that may result from current or projected future non-Federal actions. Because it has been determined by the USFWS (USFWS 2013) that the likelihood of identifying wild ferrets in Wyoming outside of those resulting from reintroductions is minimal, implementation of the Thunder Basin National Grassland 2020 Plan Amendment, would have no effect on the extirpated, non-experimental populations of black-footed ferret. The biological evaluation and biological assessment analyze effects to black-footed ferrets and the final environmental impact statement compares the responsiveness of each alternative to the requirements for black-footed ferret reintroduction established by the Wyoming Game and Fish Department. The preferred alternative, proposed action, and prairie dog emphasis alternatives do not include any management components that would preclude reintroduction. The no-action alternative does not meet the requirement for having resources in place to conduct boundary control efforts. The grassland-wide alternative includes the use of anticoagulant rodenticides in the boundary management zone, which may make the site a low priority for allocation of ferrets and may need to cease before officially designating the area as a reintroduction site.

In regard to species recovery, recovery plans are not regulatory documents, but are instead intended to provide guidance to the U.S. Fish and Wildlife Service, other Federal agencies, States, tribes and other partners on methods of minimizing threats to listed species and on criteria that may be used to determine when recovery is achieved. The recovery of a species may be achieved without all criteria being fully met. The proposed Thunder Basin National Grassland 2020 Plan Amendment was developed intentionally to provide plan components and management approaches that could create ecological conditions necessary for reintroducing black-footed ferrets. Within the 42,000-acre management area of the preferred alternative (alternative 5), prairie dog colony acreage would be managed toward an acreage objective of 10,000 acres. The 10,000 acres of prairie dog colonies provided for in this decision will meet the Forest Service obligations under the National Forest Management Act and the Endangered Species Act. Other changes to plan direction, such as designation of boundary management zones and allowance for control outside of management area 3.67 are intended to meet minimum requirements for reintroduction in Wyoming as described in the Wyoming Game and Fish Department black-footed ferret site prioritization matrix. In addition, the new requirement to implement an integrated approach to plague management in management area 3.67 is intended to reduce impacts from sylvatic plague and decrease the likelihood of major plague events that could affect available habitat in the future.

Concern Group 6: Best Available Scientific Information

- Commenters are concerned that the alternatives are not based on the best available scientific information.

Example Comments

- The actions proposed in the amendment such as colony size and areas, population 'density control', viability determinations and other aspects of the plan fail to utilize the best available science.
- The deference by the Forest Service towards the collaborative stakeholder group also violate the requirement to use the best available science as the basis of decision-making.

Response

We conducted all analyses for the plan amendment using the best available scientific information. All literature referenced in the final environmental impact statement and the biological evaluations of plant and animal species is listed in those documents. A description of how we used the best available scientific information, including references suggested by commenters, appears in chapter 1 of the final environmental impact statement under Planning Regulations for Plan Amendments and in the Findings Required by Law and Regulations section of the draft record of the decision.

In the preferred alternative, density control would be authorized outside of management area 3.67 or in management area 3.67 when prairie dog colony acres are above the minimum required for rodenticide use (7,500 acres). However, density control would not be authorized in management area 3.67 when prairie dog colonies are below the minimum required for rodenticide use unless scientific information becomes available to demonstrate that objectives for density control would be met and habitat for at-risk species would be conserved. The third-party collaborative stakeholder group would contribute recommendations only to the Forest Service to contribute to decision-making processes. Working with a third-party collaborative group is consistent with best available scientific information for collaboration and decision-making.

Concern Group 7: Revision or Amendment

- Comments that support full plan revision rather than plan amendment.

Example Comments

- There are many changed conditions on the grasslands that should be addressed through revision processes and not through an amendment to the plan. The Thunder Basin Plan is over 15 years old and is ripe for revision (16 U.S.C. 1604(f)(5)). The proposed amendment is clearly attempting to limit the scope of the proposed actions, but by doing so is limiting reasonable multiple use alternatives that address changed conditions, including climate change. Instead of amending the plan, it should be revised following the planning rule revision procedures.
- Target acres for prairie dog colonies for the Thunder Basin National Grasslands should be addressed through revision processes and not through this amendment that is focused on modifying the MA 3.63 direction.
- The Thunder Basin National Grasslands plan should be revised to address the role of the Grasslands in conserving and recovering black-footed ferrets. Revision should address such issues as: • Recovery of the black-footed ferret, a species listed as endangered on March 11, 1967, more than 50 years ago, is proceeding at a vastly slower pace than was expected; • The U.S. Fish and Wildlife Service (USFWS) finalized a 10(j) rule that designates the state of Wyoming as a special area for ferret reintroductions on October 30, 2015; • Rapid and extensive fragmentation of prairie dog habitat has occurred/is occurring as a result of energy development across the state of Wyoming and across the range of the black-tailed prairie dog.

Response

According to the 2012 Planning Rule, "Plan amendments may be broad or narrow, depending on the need for change, and should be used to keep plans current and help units adapt to new information or changing conditions. The responsible official has the discretion to determine whether and how to amend the plan and to determine the scope and scale of any amendment" (36 CFR 219.13(a)). The responsible official has determined that the changed conditions on the grassland warrant a plan amendment rather than a plan revision at this time.

Concern Group 8: Recreation and Scenery

- Comments suggest that the plan should be amended/revised to be consistent with sustainable recreation direction in the Planning Rule.

Example Comments

- The following is one example of where the plan direction should be modified to be consistent with the 2012 planning regulations and directives. The existing plan and proposed amendment in many locations inappropriately describe that, "Primitive conditions with minimal facility development will be emphasized. Mineral developments, such as oil and gas wells and pipelines, will be present but visually subordinate to the landscape in the mid and background. Pastures will be large." Oil and gas wells and pipelines are not compatible with Primitive ROS class settings. Amended and revised plan direction should be modified to be consistent with the direction in FSH 1909.12 part 23.23a - Sustainable Recreation and part 23.23f - Scenery. Further direction is found in FSM 2300.

Response

The Findings Required by Laws and Regulations section of the draft record of decisions identifies the substantive requirements of the 2012 Planning Rule that the responsible official determined were related to this plan amendment. The 2012 Planning Rule states, "The responsible official is not required to apply any substantive requirements within §§ 219.8 through 219.11 that are not directly related to the amendment" (36 CFR 219.13(b)(5)). The responsible official determined that the substantive requirements in 36 CFR 219.10(b), regarding requirements for new plan components for a new plan or plan revision, including sustainable recreation and scenery, were not related to this plan amendment.

Concern Group 9: Consistency with State and Local Plans

- Comments state that the plan amendment must be developed in cooperation with local governments and a consistency review with county land use plans must be completed.

Example Comments

- County Use Plans Moving on, the 2020 DEIS does not mention or discuss Weston County's Land Use Plan or pertinent resolutions, or the Campbell County's Land Use Plan or pertinent resolutions, or the Converse County's Land Use Plan or pertinent resolutions as required by federal law. The 2001 Thunder Basin National Grasslands Land and Resource Management Plan (LRMP) nor the 2009 Amendment #3 to the 2001 LRMP had any discussion or coordination between the LRMP with the three Counties land Plans as required by law. Specifically there was a failure by the U.S. Forest Service to involve the Weston County Commissioners in the planning process of 2001 LRMP and the 2009 Amendment #3, thus making these plans by law invalid. All facets of the laws must be followed in the planning process.
- As a part of our county's custom and culture, the protection of private property rights is the cornerstone of our local natural resource plans. We must promote being a good neighbor with our landowners and prevent undue degradation from occurring. As consistent with our county plans, federal land management agencies must provide for sufficient livestock forage where grazing allotments exist and a balance must be achieved with competing wildlife habitat. The FS must demonstrate that they considered local county natural resource plans and are consistent with local plans to the greatest extent allowed by law and that analysis must be included in the FEIS.

- Pursuant to the National Environmental Policy Act (NEPA) and the National Forest Management Act (NFMA), the Forest Service must coordinate with local governments when preparing land use plans-a requirement which includes addressing inconsistencies between Forest Service plans and local government plans.

Response

Pursuant to the National Environmental Policy Act and the National Forest Management Act, we coordinated with local governments and the State of Wyoming governor's office and agencies early and often, including through meetings with cooperating agencies, through the third-party collaborative stakeholder group, and through State and county representatives on the interdisciplinary team. We also reviewed county land use plans for Campbell, Converse, Crook, Niobrara, and Weston Counties (see appendix F of the final environmental impact statement). Where they did not conflict with Federal law or Forest Service purview, we made every effort to harmonize the preferred alternative with local laws and plans and discuss any inconsistencies between the preferred alternative and State and local plans.

Bankhead Jones Farm Tenant Act and Organic Act

Concern Group 1

- Comments suggest that Federal lands on the Thunder Basin National Grassland are not part of the National Forest System or should not be managed in the same manner as the rest of the National Forest System.
- Comments express concern that conservation of prairie dog colonies is inconsistent with the Organic Act.

Example Comments

- All management must be practical and consistent with the Bankhead-Jones Farm Tenant Act and must "promote development of grassland agriculture and sustained-yield management …. And must be managed to maintain and improve soil and vegetative cover, and to demonstrate sound and practical principles of land use…"
- The land in the Thunder Basin National Grassland was acquired for Wyoming (LUP) Land Utilization Projects which is a different reason than the accumulative National Forest System Lands. The Grasslands were designated for specific uses; other projects cannot supersede those uses if they are not in agreement with the Bankhead-Jones Farm Tenant Act and not in agreement with the purpose of acquiring the lands thru the LUP. The primary purpose of the Northeastern Wyoming Land Utilization and Land Conservation Project WY - LU - 1, was for "grassland agriculture," prevention of erosion, and the stability of productive rangeland.
- The history of the now federal managed lands within the 4W Ranch Unit and Fiddleback Ranch Unit were never a part of any Forest Reserve, never a part of the National Forest System until 1963. They were managed prior to 1963 under the various laws of the United States Congress and the Territorial Laws of Wyoming and when Wyoming became a sovereign state, then under the laws of the State of Wyoming.
- Finally, federal law requires the FS 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. 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. Due to

the fact that grazing was a primary purpose for acquiring the Thunder Basin National Grassland, grazing must be preserved in the Land Use Plan.

- Creating public nuisances and allowing the destruction of the range and soil resource is repugnant to the Bankhead-Jones Farm Tenant Act and the Organic Act of the Forest Service to prevent against depredations. Rounds v. US Forest Service, 301 F. Supp. 2d 1287 (D. Wyo. 2004).

Response

Federal laws, regulations, and policies mandate the Forest Service manage national grasslands for multiple uses and values, including wildlife and livestock grazing. The Findings Required by Laws and Regulations section of the draft record of decision explains that multiple use management of National Forest System lands on the national grasslands is consistent with the Bankhead Jones Farm Tenant Act of 1973. Land utilization projects designated under the Bankhead Jones Farm Tenant Act are now national grasslands and part of the National Forest System. 36 CFR 213(b) states, "the National Grasslands shall be a part of the National Forest system and permanently held by the Department of Agriculture for administration under the provisions and purposes of title III of the Bankhead-Jones Farm Tenant Act." Title III of the Bankhead Jones Farm Tenant Act has been amended several times by Congress since 1937. In 1962, Congress added "protecting fish and wildlife" to the act, and the original language of the act refers to a need to "preserve natural resources." Because prairie dogs are native fauna on the grassland, their conservation is required. The Forest Service must conserve and manage prairie dogs and associated species while meeting the intent of the other provisions in the act and the other laws and regulations that apply to national grasslands. The draft record of decision explains how the plan amendment meets the intent of the Bankhead Jones Farm Tenant Act and other laws and regulations through principles of multiple use management.

While most of the nation prospered during the 1920s, farm prices were falling, causing hardship on the Northern Great Plains. Many ranches and homesteads failed and by the early 1930s, environmental and economic devastation led to Federal action. Lands identified as less than marginal for cultivation were purchased through the Agricultural Adjustment Administration under the authority of the National Industrial Recovery Act of 1935. The Federal Government purchased about 11 million acres and relocated 24,000 families. These purchased lands were collectively called Land Utilization Projects. Congress passed the Bankhead-Jones Farm Tenant Act in 1937, which gave permanent status and management direction for the land utilization projects. In 1938, the Soil Conservation Service began administering the Title III lands named in the Bankhead-Jones Farm Tenant Act. Cooperating grazing associations such as the Thunder Basin, Inyan Kara, and Spring Creek Grazing Associations were also forming. The associations were instrumental in grassland recovery and still administer grazing agreements today. In 1953, the USDA Forest Service was assigned management of about 7 million acres of Land Utilization Projects. In 1960, 19 land utilization projects were dedicated as national grasslands under authority of the USDA Forest Service. The Secretary's Administrative Order of June 23, 1960, named the land utilization projects as national grasslands. In 1974, the Forest and Rangelands Renewable Resource Planning Act defined the national grasslands as part of the National Forest System.

Concern Group 2

- Comments suggest that ranch operations are commercial enterprises not consistent with the Bankhead-Jones Farm Tenant Act.

Example Comment

- The grazing association is the "permittee", and the association is issued a grazing permit to graze livestock on NFS land. The association, in turn, issues 10-year permits to its members to graze their livestock on one or more of the grazing allotments" (DEIS page 75). These associations are commercial enterprises that are currently permitted to graze livestock and construct ranged improvements, which includes in part the Thunder Basin Grazing Association, which expended $950,000 to lay 25 miles of pipelines and develop 16 water wells between 2007 and 2010.

Response

The Forest Service's Grazing Permit Administration Handbook (FSM 2209.13 - Chapter 40) and in 36 CFR 222.1 and 36 CFR 222.9 authorizes structural improvements to achieve desired resource conditions as described in the land resource management plans and project decisions.

National Environmental Policy Act

Concern Group 1

- Commenters emphasize that the custom, cultural, and historic aspects of an impacted community be considered.

Example Comments

- NEPA and the NEPA Process requires that the custom, cultural and historic aspects of an impacted community or local area be protected by the federal agency (i.e. the local Rochelle Community of the Thunder Basin). This is not happening in this DEIS, nor was it addressed in the 2001 Thunder Basin Land and Resource Management Plan as required by law and court decisions. Valid Existing Rights are completely ignored in these documents.

Response

Chapter 3 of the final environmental impact statement provides an analysis of the effects of the plan amendment on socioeconomic resources, including culture and social values. Consistency with Federal, State, and local laws, regulations, and policies is addressed in the final environmental impact statement and draft record of decision. The draft record of decision also states that "…grazing permits with the three grazing associations on the Thunder Basin National Grassland will not be modified. Any existing permits that are found to require modification will be modified subject to valid existing rights."

Concern Group 2

- Commenters emphasize the importance of analyzing impacts to the human environment

Example Comments

- In the 2020 DEIS, the "Human Environment" is essentially ignored in favor of the Black-tailed Prairie Dog and the Mountain Plover.

Response

The Council on Environmental Quality has defined the human environment as including "the natural and physical environment and the relationship of people with that environment" (40 CFR 1508.14). The final environmental impact statement analyzes the effects of the plan amendment on the natural and physical environment and socioeconomic resources.

Concern Group 3

- Comments express that reasonably foreseeable activities need to be analyzed in the EIS.

Example Comments

- NEPA imposes an "affirmative obligation" on the Forest Service to acquire information concerning the consequences of their actions. State of Alaska v. Andrus, 580 F.2d 465,473-74 (D.C. Cir. 1978). The Forest Service must provide "some information on and analysis of the subject rather than postpone the matter for consideration." Fund for Animals v. Norton, 365 F. Supp. 394, 433 (D.N.Y. 2005). The affirmative duties of preventing the environmental damages that have occurred may not be segmented because the Forest Service did not take affirmative steps to address these issues in the years leading to this continually delayed and segmented decision making, process. For the Forest Service to now act as if this was not reasonably foreseeable and remedied, is a violation of the Forest Service's responsibility of "reasonable forecasting" to predict the environmental effects of proposed actions before they are fully known. That duty is implicit in NEP A. Scientists' Institute for Public Information, Inc. v. Atomic Energy Commission, 481 F.2d 1079 (D.C. Cir. 1973).

Response

The Purpose and Need section of the final environmental impact statement identifies the need to change the grassland plan based on available information about the ecological and socioeconomic resources on the grassland. Cumulative effects to resources because of past Forest Service actions on the grassland are addressed in the cumulative effects analyses presented in the final environmental impact statement and the biological evaluations.

Concern Group 4

- Comments suggest that mitigating measures for adverse impacts from prairie dogs be included in the EIS.

Example Comments

- Council on Environmental Quality Regulation 40 C.F.R. 1508.20 defines the mitigation required by the National Environmental Act and includes avoiding or minimizing environmental impacts, rectifying the impact by repairing, restoring or rehabilitating the affected environment, reducing or eliminating the impact over time through preservation, and compensating for the impact by providing substitute resources. The United States Supreme Court has found that an "omission of a reasonably complete discussion of possible mitigation measures would undermine the' action forcing' function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352, 371 (1989). See also, Northwest Indian Cemetery Prot. Assn. v. Peterson, 565 F. Supp. 586 (N.D. Cal. 1983) (holding that an impact statement for a road through a national forest was inadequate because it did not discuss mitigation measures for water quality and fish habitat). Neighbors of Cuddy Mountain v. United States Forest Service, 137 F.3d 1372 (9th Cir.1998)(holding that the Forest Service provided only perfunctory mitigation measures to offset the damage to stream habitat that would be done by sedimentation for a timber sale).

Response

The Council on Environmental Quality regulations for the National Environmental Policy Act require that environmental impact statements "include appropriate mitigation measures not already included in the

proposed action or alternatives" (40 CFR 1502.14(f)). We have designed all action alternatives for the plan amendment so that inclusion of additional mitigation measures is not necessary. For example, each action alternative contains an objective for prairie dog colony area in management area 3.67 or grassland-wide that would provide ecological conditions required for the persistence of at-risk species associated with prairie dog colonies in the plan area. In addition, new and changed plan components continue to provide protections to at-risk species from non-target poisoning or shooting. Regarding livestock grazing, each of the action alternatives intends to lessen the impacts of prairie dog colony occupation on forage availability by reducing the area target for prairie dog colonies.

Endangered Species Act

Concern Group 1

- Commenters believe that the alternatives will not contribute to recovery of BFF consistent with ESA
- Commenters suggest use of 10(j) rule as a way of encouraging BFF reintroduction on the TBNG.

Example Comments

- Federal lands within the Thunder Basin National Grassland (TBNG) are essential to recovery of the black-footed ferret. As stated by the U.S. Fish and Wildlife Service, "it is one of the few grassland properties in North America capable of sustaining a black-footed ferret population that could significantly advance the species' recovery." Consequently, the MA 3.63 should be maintained to the maximum extent possible to foster recovery and uphold the U.S. Forest Service's obligations under section 7(a)(1) of the ESA (16 U.S.C. §§ 1536(a)(1) et seq.) and the National Forest Management Act of 1976, as amended (16 U.S.C. § § 1600 et seq.). Provisions must be made in black-tailed prairie dog management plans to include large prairie dog complexes to support self-sustaining black-footed ferret populations.
- Forest Service may be unlawfully ceding its authority over wildlife management to the State of Wyoming by committing to follow the Wyoming Game and Fish Department's Black-footed Ferret Management Plan and allowing Wyoming to lead any ferret reintroduction actions on TBNG (see page 9 of the DEIS). Because of the Wyoming Black-footed Ferret Management Plan requirements for ferret reintroduction, this management arrangement may make it nearly impossible to recover ferrets on the Grassland.
- It's hard to believe this isn't in violation of the Endangered Species Act as it directly hinders the success of a critically endangered species. This is not the time to side with legislation and management practices that support further threatening biodiversity.
- The stated purpose of the Amendment is, in part, "support ecological conditions that do not preclude reintroduction of the black-footed ferret." We have two concerns with the framing of this "purpose:" (1) It is not enough to comply with ESA mandates for the Forest Service to support conditions that "do not preclude" ferret reintroduction; instead the agency must provide for ecological conditions that support and enhance reintroduction opportunities and recovery of the species. (2) The actions described in the DEIS fail to even meet this unacceptably weak stated purpose, and instead actively undermine and preclude black-footed ferret reintroduction efforts.
- No quantifiable objectives were developed to ensure the recovery of ESA listed species and in fact the amendment does away with even the pretense of supporting the recovery of the black-footed ferret.

- I recommend that any plan amendment make full use of the 10(j) rule so that a black-footed ferret reintroduction site can be established at TBNG. The 10(j) rule states that Recovery of the species is a dynamic process that requires adaptive management.

Response

Black-footed ferrets are not known or expected to inhabit the Thunder Basin National Grassland. Neither wild ferrets, nor any individuals from a non-essential experimental population are present. In addition, no critical habitat is designated. Implementation of the plan amendment would not change any potential effects to the black-footed ferret that may result from current or projected future non-Federal actions. Because it has been determined by the USFWS (USFWS 2013) that the likelihood of identifying wild ferrets in Wyoming outside of those resulting from reintroductions is minimal, implementation of the Thunder Basin National Grassland 2020 Plan Amendment, would have no effect on the extirpated, non-experimental populations of black-footed ferret. The biological evaluation and biological assessment analyze effects to black-footed ferrets and the final environmental impact statement compares the responsiveness of each alternative to the requirements for black-footed ferret reintroduction established by the Wyoming Game and Fish Department. The preferred alternative, proposed action, and prairie dog emphasis alternatives include no management components that would preclude reintroduction. The no-action alternative does not meet the requirement for having resources in place to conduct boundary control efforts. The grassland-wide alternative includes the use of anticoagulant rodenticides in the boundary management zone, which may make the site a low priority for allocation of ferrets and may need to cease before officially designating the area as a reintroduction site.

In regard to species recovery, recovery plans are not regulatory documents, but are instead intended to provide guidance to the U.S. Fish and Wildlife Service, other Federal agencies, States, tribes and other partners on methods of minimizing threats to listed species and on criteria that may be used to determine when recovery is achieved. The recovery of a species may be achieved without all criteria being fully met. The proposed Thunder Basin National Grassland 2020 Plan Amendment was developed intentionally to provide plan components and management approaches that could create ecological conditions necessary for the reintroduction of black-footed ferrets. Within the 42,000-acre management area of the preferred alternative (alternative 5), prairie dog colony acreage would be managed toward an acreage objective of 10,000 acres. The 10,000 acres of prairie dog colonies provided for in this decision will meet the Forest Service obligations under the National Forest Management Act and the Endangered Species Act. Other changes to plan direction, such as designation of boundary management zones and allowance for control outside of management area 3.67 are intended to meet minimum requirements for reintroduction in Wyoming as described in the Wyoming Game and Fish Department black-footed ferret site prioritization matrix. In addition, the new requirement to implement an integrated approach to plague management in management area 3.67 is intended to reduce impacts from sylvatic plague and decrease the likelihood of major plague events that could affect available habitat in the future.

Valid Existing Rights

Concern Group 1

- Comments expressed concern that previous and valid existing rights are not appropriately considered.

Example Comments

- One must also remember that the laws which determine how these lands will be used all say "subject to all previous/valid existing rights. The ranches here were established before any such

acts were passed and all had RIGHTS to grazing and water. Most of the ranches here were running livestock before Wyoming was a state. WE HAVE PREEXISTING RIGHTS.

- The Revised Land and Resource Management Plan was prepared with the understanding by the Forest Service that individuals and entities may have established valid rights, unknown to the Forest Service at this time, to occupy and use National Forest System lands under laws and authorities established by Congress. See Sierra Club v. Hodel, 848 F 2d.1068 (10th Circuit, 1988).
- By law, we are entitled to have adequate forage available for our allotted AUM's to graze upon throughout the year. The value of our grazing permits cannot be reduced by reducing the number AUM's within our Grazing allotments as long as they are used for collateral for a bona fide loan. Allowing The Black-tailed Prairie Dog, a third party and a grazing rodent, to populate to high numbers and in turn destroy the grazing resource within any given allotment is an unlawful exercise that must be satisfactory addressed. It is not fully addressed in the 2020 DEIS.
- Buford v. Houtz in 1890: Livestock grazing is a legitimate right that existed prior to the forest preserves as attested to in the U.S. Supreme Court Opinion Buford v. Houtz in 1890. The grazing permit system developed by the Bureau of Forestry was a tacit recognition of the preexisting grazing and water rights of permanent settlers, while official Forest Service Policy was to deny that any preexisting rights existed. [Emphasis Added]
- This phrase defines the grazing unit as property consisting of two parts; fee land and the appurtenant public domain grazing allotment. The "value of the grazing unit" therefore is the joint value of the fee land and the grazing allotment and this joint value cannot be diminished if offered for collateral security on a loan. the term "collateral security" as defined in Black's Law Dictionary (6th ed. 1991) is "[p]roperty which has been pledged or mortgaged to secure a loan or sale" and therefore the grazing allotment is valued property. [Emphasis Added]
- Additionally, the FS must recognize and honor valid existing rights and pre-existing rights in the TBNG Plan Amendment including, but not limited to, private property rights, grazing rights and mineral rights. These are the foundation of the economic engines that support our counties and protecting their historic interest ensures our long-term viability.

Response

The alternatives in the final environmental impact statement do not restrict or remove private property, mineral rights, or grazing privileges by private individuals. Per the Thunder Basin Grazing Association bylaws - membership in the association is “any person, firm or corporation entitled to grazing privileges....” The distribution of grazing privileges to members and other qualified applicants by the grazing association is based upon the minimum base property requirements and dependency. Pursuant to the National Environmental Policy Act and the National Forest Management Act, we coordinated with local and State government. As part of that effort, a consistency review with county land use plans was completed to harmonize the preferred alternative with local laws and plans and discuss any inconsistencies between the preferred alternative and State and local plans.

None of the alternatives for the plan amendment alter grazing agreements with the grazing associations on the Thunder Basin National Grassland. None of the alternatives will change the number of head months or animal unit months permitted on the grassland. Authorized use will continue to be discussed each year when Forest Service and grazing association personnel work cooperatively to develop annual operating instructions or allotment worksheets. Any substantial modification to livestock grazing management will

be addressed through the adaptive management process described in allotment management plans and not through this plan amendment. This plan amendment does not affect processes for renewal and acquisition of grazing permits. Term grazing permits are issued to persons or other private entities that have met the eligibility and qualification requirements. Qualifications include the ownership of livestock to be grazed and qualified base property. A term permit holder has first priority for receipt of a new permit at the end of the term period so as long as the permittee is in good standing. An individual may obtain preferred applicant status by purchasing qualified base property or permitted livestock, and the permit holder submits a waiver of term grazing permit in favor of the purchaser. Once the purchaser applies and is determined to meet the eligibility and qualification requirements, a permit may then be issued to that new owner. In some instances, there is not a preferred applicant. The grant process is then used to determine to whom the term grazing permit should be issued. Grants may be made to existing term grazing permit holders or to new applicants. Normally preference will be given to existing term permit holders, especially where doing so may help to resolve other resource concerns. The grazing associations use similar approaches when issuing grazing permits to their members. The exact approach varies by association and many consider the dependency on grazing opportunities of the various association members in their process. Analysis of the effects of the plan amendment on forage availability for livestock appears in chapter 2 of the final environmental impact statement.

Chapter 3 of the final environmental impact statement provides an analysis of the effects of the plan amendment on socioeconomic resources, including culture and social values. Consistency with Federal, State, and local laws, regulations, and policies is addressed in the final environmental impact statement and draft record of decision. The draft record of decision also states that "…grazing permits with the three grazing associations on the Thunder Basin National Grassland will not be modified. Any existing permits that are found to require modification will be modified subject to valid existing rights."