

Data Submitted (UTC 11): 1/10/2020 3:51:50 AM

First name: Jason A.

Last name: Lillegraven

Organization:

Title:

Comments: First, I wish to express my appreciation to the team of writers for the quality of presentation through the length of this DRAFT Environmental Impact Statement (DEIS). It provides an enormous amount of relevant information about the project itself along with the general setting in which it all takes place. Thank you for your care and thoroughness.

Second, I believe I should provide a brief summary of my qualifications to comment on this DEIS. I have been a resident of southeastern Wyoming since 1975, and I had served as Professor of Geology/Geophysics and Zoology/Physiology at the University of Wyoming until retirement (as 'College of Arts and Sciences Distinguished Emeritus Professor') in 2004. Most of my research, teaching, and service background focused on multiple basins and basin margins of the Rocky Mountains (especially Wyoming) and High Plains (western Dakotas). The work was interdisciplinary and dominated by: (1) diverse aspects of Mesozoic and Cenozoic evolution of the landscape and associated vertebrate life forms, especially mammals; and (2) comparative evolution of mammalian early stages of reproduction. Although I have not published work in the Thunder Basin National Grassland (TBNC) per se, my field efforts in nearby Converse County, Wyoming and the Big Badlands area of South Dakota have provided good parallel experience with issues now at hand. In almost all of my research and teaching, the elements of extended time (i.e., geologic time) and benefits of seemingly endless available area are tied into the origin and specific characteristics seen in today's geologic setting and surviving modern biota.

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. I make that point to emphasize that prairie dogs are hardy little beasts that in all probability even now could continue their solid existence in the utter absence of 'population management.' Although the fossil record of probable associates (e.g., eagles, hawks, and black-footed ferrets) through that interval of time is very weak, almost certainly prairie dog population size has long been controlled by such creatures in addition to effects of sylvatic plague, fleas, and a whole host of parasitic organisms.

In all probability, carnivorous black-footed ferrets co-adaptively evolved with prairie dogs. With that in mind, I view it as strongly shortsighted to be confronted by lack of cooperation from local landowners in regard to reintroduction of ferrets. Prairie dogs as local species 'grew up' phylogenetically within our local setting, in which the chemistry of soils, diversity of vegetation, and overall climate have been, and continues to be, nearly ideal for prairie dog existence. Natural control of prairie dog colonies would be stronger and closer to being cost-free if black-footed ferrets were reintroduced into the 3.63 management area. 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'.

Yes, I emphatically favor the 'No Action' alternative. Additional to what I presented above, the fact that the geographically measurable areas of the 3.63 complex, the Special Interest Area, and lands encompassed within the three categories have not been reduced is central within my thinking. The whole concept of stability in available geographic area for a keystone species should be inviolate. Encouragement of such stability helps colonies persist following inevitable 'catastrophes' of severe weather, flooding, burning, human developmental projects, asteroid impacts, or whatever. Reductions of available area, in contrast, would always reduce efficacy of the umbrellas of natural insurance policies.

The following also is important to my thinking (excerpted from the DEIS, page 26): "The category 1 area . . . was drawn based on the historic distribution of prairie dogs across the planning landscape and on including the most

potential and suitable prairie dog habitat and the largest block of continuous public lands on the Thunder Basin National Grassland." The area also is especially ". . . intended to provide habitat to support the reintroduction of black-footed ferrets and to support the variety of species associated with [keystone] prairie dog colonies." Also, ". . . colonies may continue to grow after [population growth] targets are reached." Such allowed growth adds to the genetic variability and long-term strength of the entire colony. Although boundary-management zones do not exist within alternative 1, there exists no sensible reason to preclude their definition if specific needs should actually come into being. Furthermore, the limited use of rodenticides in the No Action alternative, although invariably ghastly in application, is the most sensible compared to the four alternatives.

I am especially buoyed by the thought of generally prohibiting 'recreational' shooting within management area 3.63, the category 1 area, most of the category 2 area, and within any category 3 landscape set inside boundaries of the greater 3.63 area. Having personally watched the invariably camouflage-bedecked, usually pot-bellied, prairie-dog-exploders bizarrely striking heroic poses on public lands makes me gag. As for a drought plan, the absence of attempts at such mitigation would lead to exactly how prairie dogs naturally behave under inordinately dry conditions. They are tough animals, and often enough, members of the colony would survive periods of the aridity. Finally, a continued option for application of deltamethrine for plague control seems to be appropriate as used along boundary conditions. I generally agree, however, that for control of prairie dog population density across the extended range of a colony, lethal controls should be abandoned in favor of natural selection.

The above is a summary of why I favor alternative 1, the 'No Action' alternative within the DEIS. I will forego the boredom of specifying in detail why I consider alternatives 2, 3, and 4 to be less acceptable or even unacceptable. Those considerations should be obvious from what I've said above. Most of the three remaining alternatives, however, functionally reduce the geographic area dedicated to protection of prairie dogs. The total area of protection, even within alternative 1, in my opinion, already is only marginally acceptable.

As discussed in the DEIS (page 8), the TBNG ". . . was one of three planning units host to black-tailed prairie dogs that was large enough to support reintroduction of black-footed ferret." Also, the TBNG claims that all other edaphic and vegetative characteristics exist that would support coexistence of prairie dogs and ferrets, just as existed prior to encroachment of the area by non-Native immigrants. Also, management area 3.63 was established by the USFS in 2000 specifically as 'Black-Footed Ferret Reintroduction Habitat.' The DEIS thus states (page 8): "Since then, prairie dog management on the Thunder Basin National Grassland has focused on expanding prairie dog colonies to provide habitat and to promote reintroduction of black-footed ferrets. However, black-footed ferrets have not been introduced."

Relevant to responsiveness to requirements for implementation of the 'No Action' alternative, the DEIS (pages 114-115) states: "Requirement 3, support of landowners within reintroduction site: One purpose of the plan amendment is to reduce conflicts related to prairie dog occupancy and livestock grazing. Current conditions do not indicate local landowner support." More broadly, no active alternative (i.e., nos. 2, 3, or 4) presently affirms local landowner openness to ferret reintroduction. Especially interestingly, the DEIS states in a section titled 'Alternatives Considered but Eliminated from Detailed Study' (page 49): "Remove all black-footed ferret references. While reintroduction of black-footed ferret is deemphasized in all action alternatives, Forest Service personnel did not consider removing all references to the ferret because of the Forest Service's responsibilities under the Endangered Species Act."

Clearly, lack of support for ferret reintroduction by local landowners is a central, and major, problem. The result is that the U.S. Forest Service itself is now in a politically most unsatisfactory situation, and thus it has not applied existing federal law (e.g., the Endangered Species Act) to fulfill a needed bio-political action. If success in reintroduction is actually sought, it must somehow be forced into open public awareness. In my opinion as an American citizen, the landowners have taken an inappropriate stance, and thus they are missing a golden opportunity to restore a healthy prairie ecosystem through non-cooperation with an otherwise legally authorized

federal agency. The landowners would benefit by recalling that ferrets do eat prairie dogs-but ferrets do not eat cows.

To illustrate how deeply some of these bio-political schisms penetrate, the DEIS points out (page 5): "Despite the ecological significance of prairie dogs, the presence of prairie dog colonies can cause problems for people who depend on the lands that prairie dogs occupy. In Wyoming, prairie dogs are classified as an agricultural pest (W.S. 11-5-102(a)(xii))." Personally, I find that perspective to be absurd. Rather, I favor a scientific approach that considers the prairie dog/ferret combination as defining the keystone relationship within North American prairie ecosystems. I suspect that many dedicated workers within the U.S. Forest Service also would prefer to openly endorse such a perspective. Do we, as knowledgeable members of modern human species, have the right to threaten efficacy of keystone species or any of the associated beneficiary species?