

REPORT

Thunder Basin Collaborative Learning Workshops

Discussions around Prairie Dog Colony Management
and Other Issues



Photo Joe Riis/USFS

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By Jessica M. Western, PhD

Ruckelshaus Institute, Haub School of Environment and Natural Resources, University of Wyoming

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Executive Summary

In 2015, the United States Forest Service (USFS) commissioned the Ruckelshaus Institute to complete a situation assessment of the issues around black-tailed prairie dog colony management on the Thunder Basin National Grassland (TBNG) and the potential for using collaborative approaches to address conflict surrounding the topic. Prairie dog colonies are on the one hand seen as a competitor with livestock for forage, and on the other hand as a keystone grassland species that creates habitat for other species in the ecosystem. The diverse stakeholders interviewed as part of the situation assessment held a wide variety of concerns regarding prairie dog colony management, the processes used in the past to resolve conflict, and the relationships among stakeholders. The assessment also indicated a preference by the majority of stakeholders to use collaborative approaches to find resolution. The situation assessment final report is available on the Ruckelshaus Institute website at <http://bit.ly/thunder-basin>.

Based on these findings, the USFS then asked the Ruckelshaus Institute to convene public workshops for all stakeholders. Because the level of conflict and complexity was high, the Ruckelshaus Institute took a collaborative learning approach. The distrust between stakeholders was too high to ask them to engage in decision making around recommendations to the USFS. A collaborative learning process (re)established communication lines, improved understanding of interests and issues involved, and enabled participants to find new ways to work together again.

Three workshops took place in 2016: the first was in Douglas, Wyoming, in January, the second was in Newcastle, Wyoming, in March, and the last was in Gillette, Wyoming, in May. This report consists of summaries of the three workshops, which were all well attended and considered productive by the participants. The full notes and meeting evaluations are appended to this report. The meetings resulted in an increased understanding among the participants, including the USFS, regarding the history of the TBNG, the wide array and deeply felt values that diverse stakeholders attach to the TBNG, the present conditions on the TBNG, research being conducted, issues that need to be tackled, and future desired conditions. In each workshop the participants were divided into break-out groups of diverse stakeholders. This report discusses in particular the large amount of commonality that resulted from each meeting's break-out groups.

We note the impressive and consistent participation in this process, and the adjustments stakeholders made to engage in it. We also noted the high degree of support from all stakeholders to continue a collaborative process and to build on the increased trust that the USFS and its constituents have helped to create in this process. To allow all conversations to continue, and for cross-pollination between conversations to happen, we recommend that the USFS continue the collaborative learning process, which now has a good chance of resulting in recommendations to the USFS, and re-engage with public land management cooperators on these issues.

Introduction

Prior to the 2016 collaborative learning workshops, the Ruckelshaus Institute completed a situation assessment in 2015 for the United States Forest Service (USFS) to explore the issues surrounding black-tailed prairie dog colony management on the Thunder Basin National Grassland (TBNG), and to find whether there was enough capacity for a collaborative process. The results showed the issues were very diverse and contentious, the level of trust among stakeholders was low, and that if some type of collaborative problem-solving process were not undertaken, the risk of the issues getting mired in legal proceedings was high. Most stakeholders were willing to engage in a collaborative process and provided information regarding what process could lead to positive results and the stakeholder types who would need to participate.

Based on this information, the USFS asked the Ruckelshaus Institute to convene a collaborative process. Part of the reason for the request was that the Medicine Bow-Routt National Forests and the Thunder Basin National Grassland, as a USFS administrative unit, had gained a new Forest Supervisor and District Ranger for the area that includes the TBNG. It provided these officers with a means to learn from all constituents and build relationships.

The Ruckelshaus Institute used a collaborative-learning approach based on the suggestion provided by interviewees in the situation assessment. In cases where conflict is high and the issues are integrated and complex, asking stakeholders to immediately go into a decision-making process may demand too much. The characteristics surrounding prairie dog colony management and related issues fit that description perfectly. The Ruckelshaus Institute therefore designed a process wherein participants would be able to (re)establish communication lines with complete transparency, share learning and knowledge, and gain insights into each other's interests and values. A collaborative learning process asks participants to learn together first. If solutions emerge that participants think can meet as many interests as possible, a decision-making approach can then move forward based on a more solid foundation of communication and understanding.

The process consisted of three workshops in three different locations. The first workshop concentrated on the history of and values participants have in relation to the TBNG. The objectives of this workshop were to create common understanding regarding the regulatory, social, economic, and ecological history of the TBNG, as well as to understand the values diverse participants associate with the TBNG. Exploring both history and values is important to stakeholders understanding the complexity and intensity of the connections that individuals have to a place.

The second workshop concentrated on the present. Presentations focused on research exploring current conditions on the TBNG, and participants focused on gaps in knowledge that need to be addressed. Here too the objectives were for participants to learn about the array of issues important to stakeholders with different values, and to discover common interests among stakeholders.

The last workshop focused on the future, asking participants to think ahead and help the USFS understand what desired conditions they envision.

As facilitators, there are a few points that we would like to note regarding this process:

- The consistent attendance by stakeholder groups was impressive and indicates the importance of these subjects to a wide array of interests. Participants made their opinions and experiences clear, which allowed for increased understanding and learning. Generally, all meetings were congenial and productive, with some moments of tension. These moments indicate the intensity of stakeholder values and are important learning tools in such a process.
- Conservation group stakeholders did not attend the first two meetings. The Ruckelshaus Institute conducted a separate interview process to explore the reasons for this and to ensure their thoughts regarding the past and the present were included in this report. We discovered there were misperceptions regarding this process. The interviews and related conversations helped clarify procedural matters, and almost all conservation groups joined the last workshop. Although the non-attendance of the first two meetings could be interpreted as a lack of commitment to solutions, we suggest the misperceptions were evidence of the need for trust-building among stakeholders to reduce negative assumptions based on past experience. During the last meeting, a representative with a conservation group apologized to all other stakeholders for non-attendance, which other conservation organizations appeared to support.
- This process has made great strides toward improving trust among stakeholders, which in turn may create a path for solutions that meet as many interests as possible.
- Although the main focus of these workshops was on the TBNG, the USFS was interested in discussing prairie dog colony issues in a more holistic context, for example in association with livestock, vegetation, and other wildlife issues. The USFS was also interested in discussions that expanded beyond the TBNG to take a broader geographic approach.

This report provides the reader with summaries of the three workshops and concluding remarks. Appendices provide all notes, including flipchart notes, from each meeting, and evaluations of the second and third workshops (evaluation of the first workshop was not possible due to lack of time). To see the presentations from the workshops, please go to <http://bit.ly/thunder-basin>.

Workshop Summaries and Results

Three workshops took place in 2016: the first was in Douglas, Wyoming, in January, the second was in Newcastle, Wyoming, in March, and the last was in Gillette, Wyoming, in May. To solicit participation, we sent out invitations to a list of attendees of previous meetings regarding the TBNG, which the USFS provided. The meetings were open to the public. We posted notifications on the Ruckelshaus Institute and USFS websites. The USFS sent out press releases, and the Douglas District Ranger and his staff informed constituents about the workshops on various occasions. Participation ranged from 31 to 43 attendees.

Workshop 1: History and Values

The first workshop focused on the history of and values that participants attach to the TBNG. It was held in Douglas on January 28 and was attended by 31 participants. Bob Mountain, Range Manager with the Medicine-Bow National Forest, provided a photographic overview and historical narrative of the area. Jewel Reed, rancher, and others provided their personal experiences on the TBNG to help participants understand the hardships and pleasures related to making a living in the area over the years.

Observations were also made regarding the area’s importance to a number of American Indian tribes. Participants shared their experiences and observations ranging from the time when whites first settled in the area to the present day. Following the historical discussion, participants used the list of values in Table 1 to discuss the importance each person attached to the TBNG. This list of values has been used in Wyoming human dimensions in natural resource research to explore what aspects are important to residents about a natural resource, such as forests (see Clement, J. and A. Cheng, 2011, “Using analyses of public value orientations, attitudes and preferences to inform national forest planning in Colorado and Wyoming,” *Applied Geography*, 31 (2), 393-400). Here, the natural resource in question is the TBNG.

Table 1: Values associated with the Thunder Basin National Grassland

Value	Description
Aesthetic	I value the Thunder Basin because I enjoy the scenery, sights, sounds, smells, etc.
Biological diversity	I value the Thunder Basin because it provides a variety of fish, wildlife, plant life, etc.
Cultural	I value the Thunder Basin because it is a place for me to continue and pass down the wisdom and knowledge, traditions, and way of life of my ancestors.
Economic	I value the Thunder Basin because it provides grazing, fisheries, minerals, and/or tourism opportunities such as outfitting and guiding.
Future	I value the Thunder Basin because it allows future generations to know

and experience sagebrush areas as they are now.

Historic	I value the Thunder Basin because it has places and things of natural and human history that matter to me, others, or the nation.
Intrinsic	I value the Thunder Basin in and of itself, whether people are present or not.
Learning	I value the Thunder Basin because we can learn about the environment through scientific observation or experimentation.
Life sustaining	I value the Thunder Basin because it helps produce, preserve, clean, and renew air, soil, and water.
Recreation	I value the Thunder Basin because it provides a place for my favorite outdoor recreation activities.
Spiritual	I value the Thunder Basin because it is a sacred, religious, or spiritually special place to me or because I feel reverence and respect for nature there.
Subsistence	I value the Thunder Basin because it provides necessary food and supplies to sustain my life.
Therapeutic	I value the Thunder Basin because it makes me feel better, physically and/or mentally.

The results of the six break-out groups are in Table 2 below. Each group deliberated the values and provided notes on which values the groups felt were relevant to the Thunder Basin, which values were the most important to members in the group and the reasons why. Participants found all 13 values relevant in relation to the TBNG, with the aesthetic, biological diversity, economic, and historical values appearing most important.

Conservation members who had not attended and who were interviewed later were posed the same questions. The result of these interviews showed that they too felt the TBNG was important for a wide array of reasons. Most important to this group were the biological diversity, economic, intrinsic, and life-sustaining values. One conservation representative gave an explanation of the economic value of the TBNG as: "I have an appreciation for the land that sustains us, the crops we produce, as well as wildlife, cows, minerals. We are all interested in preserving that." On economic value another conservation representative said it was important: "...out of respect for the people who live there. It provides jobs for people who live on the TBNG." Life-sustaining value was described by one of this group as: "Grasslands provide clean water, air, soil, and maintain ecosystem function." Another described the biological diversity and future values of the basin as: "A lot of intact native grassland, and a management that recognizes non-commodity values, it gives it a high future value. A place where we can go in the future and have a flavor of what a natural grassland looks like."

Table 2: Comments on values (roman type responses are from breakout groups at the workshop and italicized responses are from separate interviews with conservation representatives)

Value	Thunder Basin National Grassland stakeholder comments
Aesthetic	<p>Visual value, peaceful, aesthetic value is self-explanatory, it is who I am, it's a view shed.</p> <p>Unlike other areas of Campbell County. It is unique. A hidden gem.</p> <p>Solitude. Open space (clear air). Sky – horizon to horizon. Pristine.</p> <p>Diverse topography and vegetation, the colors.</p> <p><i>A beautiful place.</i></p>
Biological Diversity	<p>Evidenced by tracks in the snow, large numbers, astounded at the diversity.</p> <p>Preservation of open space. Spring Creek area is a healthy system. More diversity than most places in Wyoming. Wildlife abundance. Rich in resources.</p> <p>The wildlife on the TBNG was important, but there were pros and cons to wildlife issues.</p> <p>Maintaining good biodiversity is important to sustain multiple use activities.</p> <p>Maintain healthy wildlife diversity and rangeland health to perpetuate proper land use into the future.</p> <p><i>Important for maintaining intact habitats for grassland species.</i></p> <p><i>The TBNG is the largest remaining prairie dog colony in public lands in the West. The more prairie dogs, the more diversity you have. Not only that, the grassland ecosystem is in a bad way in the world. The TBNG is beautiful and important down to the invertebrate level.</i></p> <p><i>Analysis of Northern Great Plains, a GIS based analysis of most important ecosystems showed that the TBNG is in the top ten.</i></p> <p><i>Grasslands are one of most endangered ecosystems, important for biodiversity. The TBNG is important as one of the few places where there are prairie dogs, which is therefore good for burrowing owls and raptors.</i></p>
Cultural	<p>Not sure what to say, things change but need learned skills, presentation of history, history of how people lived, community connections.</p> <p>Related to historic value. Small communities. Activities for gathering. Influence on the land.</p> <p>Location where participants were born and raised.</p> <p><i>Critical for people who relate to the grassland.</i></p> <p><i>Preserving the outdoors, respecting nature, make sure it's there for the next generation. Hunting and fishing were important to my family, take care of it and pass it on.</i></p> <p><i>I am concerned about humans, keeping people on the land and provide conservation strategies at the same time.</i></p>
Economic	<p>Self-explanatory, provides a living, wants to live on a ranch, supports</p>

everything else (foundation), supports Wyoming (important statewide).

Everything here relates to the Wyoming economy. Mining, agriculture, tourism, recreation. There is a dollar multiplier.

Livelihood. Diversity of income types related to surface, minerals and vegetation types.

Access for multiple users.

Multiple use is most important to sustain agriculture, mineral development, recreation, which will perpetuate proper management into the future.

Multiple use benefits everybody, both locally on a county-wide basis, statewide, and nationally.

Sustain livelihood of local ranches for grazing.

It provides jobs for people who live on the grassland.

I have an appreciation that the land sustains us, the crops we produce, and wildlife, cows, minerals. We are all interested in preserving that.

Future

It is not as it was, it needs a future, tied to history (continuation), acknowledged that everyone came here from somewhere but worries about change from influx.

Obligation to share way of life with next generation and the land itself – leave it better than the way I found it.

Uniqueness is important to pass on. This is home and there is intrinsic knowledge and important ties.

Balance.

A lot of intact native grassland, and a management that recognizes non-commodity values, it gives it a high future value. A place where we can go in the future and have a flavor of what a natural grassland looks like.

Historical

These are things we value, landmarks, different for each group (settlers and Native Americans), humanistic connections, connections to the past.

Fascinating stories. People here make it a living history.

The story is important. Includes lessons learned and a history of working together. There is also important natural history.

More to it than participants realized.

Multi-generational local ranch families want to preserve family history and perpetuate it.

Important that we learn from history so we do not repeat failures and are better prepared for the future.

Intrinsic

Is a problem – represents views without presence, didn't like the statement "people or not." Tied to non-locals.

Like to see it stay open as open space.

Participants appreciate knowing it's there.

I think we need open spaces, natural intact ecosystems to have air, water and

environment to sustain life on the planet.

Based on the scarcity of these kinds of landscapes, for its own sake we should strive to maintain the ecosystem values that seem to operate without a lot of management input.

Important habitat for other animals, including prairie dogs.

Learning	<p>Very much, many things learned that parents didn't know (shows evolution of practical knowledge), academic importance (e.g. dinosaurs, fossils etc.).</p> <p>So much here to learn and share with next generation. Perfect outdoor classroom.</p> <p>Mattered to participants but was also a source of controversy – conflict of goals and outcomes.</p> <p><i>All the research going on there is highly valuable, pretty unique. The more we know, the more we can conserve the grassland. Learning is crucial to the survival of the human race.</i></p>
Life sustaining	<p>Open spaces, well managed, critical to water, water doesn't renew in urban areas, air not as clean as once was (coal mining), need space to renew resources like air and water. Wyoming is a headwaters state so others depend on our stewardship.</p> <p>Contribute to welfare of the nation – food and fiber. We depend directly on the land and clean water. Closely connected to subsistence value.</p> <p>Because we live here. There are valuable resources, e.g. carbon sequestration and grasslands.</p> <p>The value of having a working ecosystem.</p> <p><i>Grasslands do provide clean water, air, soil, maintain ecosystem function.</i></p> <p><i>Grasslands provide a variety of ecosystem services, carbon sink, replenish watershed, like to think those processes continue on Thunder Basin.</i></p> <p><i>We know how important grasslands are to systems around the world, and we know how threatened they are and yet how important in terms of ecosystem functions such as carbon storage.</i></p>
Recreation	<p>Has personal impacts, a priority, take walks, dollar value to local economies, friendship and social connections.</p> <p>Good place to get away. Still good place to go to large block of land that public can enjoy.</p> <p>Wildlife and scenery.</p> <p><i>The TBNG is good for wildlife, hiking, bird watching.</i></p>
Spiritual	<p>Good feelings, definitely there, hard to explain.</p> <p>Connected to therapeutic value. Peace found here.</p> <p>A place where one is surrounded by nature, one can get a way, it is peaceful.</p> <p><i>These dwindling places are important for my emotional well-being and that of many other people as well.</i></p>

Subsistence	<p>Same as economic value, have to have to continue to exist.</p> <p>We live here and work here. See economic value.</p> <p>Multiple uses support many people.</p> <p><i>That goes back to economics. There is something on the grassland we are fighting for. Most of those things point back to our livelihoods or parts of our livelihoods.</i></p>
Therapeutic	<p>Same as spiritual values.</p> <p>Ties to recreation value. Wide open spaces. Can see forever. Think about times past. Find peace there.</p> <p><i>It's just gorgeous, I feel better when I am out there. If I know the prairie dog colony is protected, that the antelope and her young will survive without too many pressures like poisons and guns, it's really meaningful to who I am, to how I feel. It's reassuring, meaningful in a good way, we need those experiences to feel good.</i></p>

After a general discussion of these results, participants asked TBNG Supervisor Dennis Jaeger and District Ranger Shane Walker questions regarding current prairie dog colony management strategy and whether there was room for change. Walker responded there was, within certain sideboards. Participants asked the USFS to explain the sideboards at the next meeting. The next meeting was then discussed. Participants asked to hear from knowledgeable locals and requested information on biological conditions including prairie dogs, biomass, vegetation, birds, and fire. They also requested clarification regarding the USFS sideboards within which changes to management can be considered.

Workshop 2: Current Conditions and Knowledge Gaps

The second workshop was held in Newcastle on March 16, 2016, and was attended by 43 participants. Supervisor Dennis Jaeger and District Ranger Shane Walker opened the meeting and made introductions. Lauren Porensky, ecologist with the USDA Agricultural Research Service, presented research being conducted on the Thunder Basin (<http://bit.ly/thunder-basin>). This was followed by a short presentation by David Pellatz, Executive Director of the Thunder Basin Grasslands Prairie Ecosystem Association, regarding current research in relation to sagebrush steppe and shortgrass prairie communities. Porensky and Pellatz invited participants to provide ideas for other research that could be done to benefit the Thunder Basin and its residents.

Participants were then divided into groups to explore two questions:

- 1) What issues should a working group focus on regarding the TBNG?
- 2) What are the gaps in knowledge regarding conditions in the TBNG?

Key points from those explorations are summarized below, and issues raised in each group are in the minutes in Appendix A.

Table 3. Key issues a working group should focus on (roman type responses are from breakout groups at the workshop and italicized responses are from separate interviews with conservation representatives)

Topic	Key Points
Prairie dogs	<ul style="list-style-type: none"> • Prairie dog control methods, control areas, and boundaries • Economic factors • Will black footed ferrets be reintroduced? (Based on that answer, continue discourse regarding prairie dog colony management) • Methods for revegetating prairie dog mounds and towns • <i>Decrease hostility between stakeholders and prevent conflict</i> • <i>Cattle, pasture and range management</i> • <i>Use multiple species approach</i> • <i>Incentives for landowners</i> • <i>Black footed ferrets</i>
Regulations, rules, policies, and laws	<ul style="list-style-type: none"> • USFS rules, regulations, and “hard lines” regarding prairie dog colony management • USFS staffing decisions regarding prairie dog colony management • Consistency of decision making among staff members
Sage grouse	<ul style="list-style-type: none"> • Grazing patterns and usage possible • Recreational use • Sage grouse life cycle areas • Consequences of sage grouse core designation (private property rights) • Sage grouse and predation dynamics • <i>Relationship with fire</i> • <i>Sage brush</i> • <i>Timing of fires</i>
Energy	<ul style="list-style-type: none"> • Federal moratorium • Socio-economic impacts • Reclamation • Gaps in bonding • Sage grouse and split estate
Grasslands	<ul style="list-style-type: none"> • How to maintain, improve and reduce fragmentation • Emphasize riparian areas • Focus on the cottonwood region • Determine existing range and grazing communities • How to improve conditions on the grasslands?
Recreation	<ul style="list-style-type: none"> • Maintain hunting opportunities • Off-road damage from ATV's
<i>Economy</i>	<ul style="list-style-type: none"> • <i>Goods and services provided for local and national economy</i> • <i>Coal, oil and gas, other energy production</i> • <i>Wildlife based-tourism and recreation</i>
<i>Ecosystem</i>	<ul style="list-style-type: none"> • <i>Healthy grasslands for all species</i>

The groups raised a number of subjects in response to the second question about knowledge gaps, summarized below and listed more fully in the meeting notes in Appendix A. Table 4 below shows the knowledge gaps that participants identified in relation to specific topics which would need to be addressed in future public participation events and/or research.

Table 4. Knowledge gaps (roman type responses are from breakout groups at the workshop and italicized responses are from separate interviews with conservation representatives)

Topic	Knowledge Gaps
Prairie dogs	<ul style="list-style-type: none"> • Economic impact of prairie dog populations • Determine the prairie dog overpopulation trigger and other population dynamics aspects • Determine the number of prairie dogs on the grassland and their population density • Determine the prairie dog colony structures • Predator populations and distribution • Conditions that attract colonization • Interaction of prairie dogs and sagebrush • Effects of prairie dog dusting on plovers and other wildlife • Accurate mapping of colonies and private lands
Reclamation	<ul style="list-style-type: none"> • Access data and technology from mines, DEQ, state and federal institutions • Comparison of reclaimed versus undisturbed areas • <i>Coal mine restoration approaches might benefit prairie dog town restoration efforts</i>
Grassland	<ul style="list-style-type: none"> • Economic contribution of the grassland in terms of grazing, recreation, mining, oil and gas, etc. • Determine the uses on the grassland • The purpose of the grassland
Predation	<ul style="list-style-type: none"> • Raptor seasons • Economic impacts and structure of predator/prey dynamics (for example, coyotes and sheep)
Communications	<ul style="list-style-type: none"> • Gap in communication between landowners and others based on differences in knowledge and experiences • Better sharing of knowledge and information • Media accuracy
<i>Mapping</i>	<ul style="list-style-type: none"> • <i>An up to date ownership map with the categories and most up to date colony layers: important for resolving conflicts</i>
<i>Conservation</i>	<ul style="list-style-type: none"> • <i>WGFD conservation strategy as reference: provides vegetation conditions and other ecological information</i>
<i>Economy</i>	<ul style="list-style-type: none"> • <i>Economic importance of uses on the TBNG including recreation</i>

Workshop 3: Future Desired Conditions

The third workshop was held in Gillette on May 19, 2016, and was attended by 40 participants. This workshop had the greatest stakeholder diversity with the attendance of representatives from conservation groups and energy companies. Jessica Western started by presenting summary findings from interviews conducted by the Ruckelshaus Institute with representatives of conservation groups (see Meetings 1 and 2). This was followed by a presentation by Jack Butler of the USDA Forest Service, Rocky Mountain Research Station, Forest and Grassland Research Laboratory in Rapid City, South Dakota, regarding ungulate/prairie dog interactions. The presentation elicited a discussion which indicated more time is needed in the future to explore Butler’s and others’ research on the subject of prairie dog browsing behavior in combination or separate from ungulate behavior and the effects on vegetation and other factors.

Following these presentations, participants were divided into break-out groups to discuss desired conditions on the TBNG. Again, there were a wide array of suggestions from each group and a number of common themes resulted from all groups:

Table 5. Desired conditions on the Thunder Basin National Grassland

Topic	Breakout group stakeholder comments
Incentive programs	Participants felt there was potential to create or take advantage of incentive-based programs such as Candidate Conservation Agreements with Assurances (CCAA) with the U.S. Fish and Wildlife Service and other programs that reimburse or pay landowners to allow prairie dogs on their property.
Collaborative solutions	A number of groups noted that there was more potential for collaborative solutions that could involve agencies, conservation group stakeholders, and landowners to mitigate impacts, enhance habitat, and improve watershed and range conditions for livestock and other species.
Laws and regulations	All groups desired to discuss and gain clarity regarding the purpose of the TBNG, the authorities involved, the regulatory constraints and opportunities, the role of agencies, and other subjects.
Multiple use	There was a strong desire to see multiple uses continue or perhaps be enhanced on the TBNG. Uses that were mentioned included recreation (especially hunting), wildlife habitat, livestock grazing, and energy and mineral production. A number of groups combined this with a desire for qualifications, that is agreed upon thresholds of use, including for prairie habitat.
Prairie dog colonies	There was a desire to see the grassland managed “to a level that is not destructive.” It was acknowledged that this was a subjective threshold and participants therefore also desired to learn about and find agreement on what “not destructive” would mean. This would include looking at the density of prairie dogs, their locations, range conditions, forage production, and other subjects to determine what a practicable threshold would be. A related subject would be methods to decrease populations when the threshold was exceeded.
Watersheds	All groups also wanted to see collaborative watershed protection in the future.

Subjects that were mentioned were “enhance water quality on the Thunder Basin, i.e. reduce erosion,” “Maintain existing watersheds,” “Water rights,” “More water,” and “Future learning topic.” The importance of water in the context of recreation was also mentioned.

Invasive plants and noxious weeds

Many groups also mentioned the importance of decreasing invasive species. Species mentioned were cheat grass, bulbous blue grass, and cactus.

Ecosystem health

Participants in all groups generally wanted to see a healthy ecosystem in the future, rich in wildlife diversity and numbers, healthy range conditions for livestock and other species, healthy watersheds, and possibilities for multiple uses.

Relationships with USFS

One group desired “Ecosystem level management – treat public and private lands holistically recognizing private land rights.” This was to include “better relationships” and working from “a bigger context.” There was a desire to see the agency put an emphasis on relationships and also that trust had been broken by all sides. Participants hoped to see more of a joint decision-making process whereby problems and solutions are identified together, in order to become management partners. Groups expressed a desire to see property rights protected, local concerns taken into consideration, less conflict, less confusion regarding prairie dog management boundaries, an increase in communication and more respect between all parties.

Black-footed ferret

For many, an important question that needs to be resolved is whether black-footed ferrets will be (re)introduced to the TBNG. The answer to that question would in many participants’ minds influence the number and location of prairie dogs.

Conclusion

This collaborative learning process was relatively new for most stakeholders. It was new in some respects for the USFS at this administrative unit (Medicine Bow-Routt National Forests and TBNG), but also for private landowners, conservation groups, and other stakeholders. For example, some stakeholders initially assumed that collaborative learning sessions were the same as “listening sessions” which they equated with stakeholders talking and a non-responsive agency listening, which they felt was a waste of time.

As mentioned in the introduction, the intention of a collaborative-learning process is to use the interest that stakeholders have in a perhaps contentious issue to allow communication lines to be (re)built, for learning to take place and to allow for solutions to emerge based on increased levels of trust. This workshop series helped stakeholders, including the USFS, to rebuild communication lines, and learning did take place, judging from the evaluations. The next step would be to implement a multiple-stakeholder process to allow implementable and long-term solutions to emerge and for trust to continue to increase. The Forest Service has created the possibility for this to happen because they convened and invested in this process.

The progress that has been made is also the result of investment on the part of all the participants and organizations that took the time, money, and effort to engage in this process. Landowners, residents, county commissioners, county staff, state government staff, legislative representatives, members of conservation groups and other stakeholders were all full participants in this effort, which allowed progress to be made both in terms of communication enhancement and learning. An organization facilitating these meetings may be helpful but it won't help if stakeholders are not willing to engage. In this case, the engagement by all is testimony to the importance of the issues to them.

Both the results from break-out groups and the evaluations indicate a clear desire for a continuation of collaborative efforts. This workshop series was a way to connect people to each other and the issues, and to explore whether further collaboration could lead to agreements. The results indicate agreements are possible. Further collaboration would have to be designed to allow stakeholders to explore options and trade-offs in order to find agreed solutions. This could take place by continuing open, collaborative workshops where all stakeholders continue to learn, explore the problems, and find solutions to recommend to the USFS. The Ruckelshaus Institute recommends this takes place, but in tandem with cooperator meetings. The desire of stakeholders to create clarity in terms of laws and regulations was evident, and this may mean the need for one type of conversation for some stakeholders and a different type of conversation for governmental representatives. To allow all problems to be deliberated and all solutions to emerge in a transparent manner accessible to all stakeholders and all authorities, we recommend the USFS consider doing both. Shared learning and ideas between both groups would benefit both the USFS's understanding and that of all its constituents, retain transparency, and provide the best chance for solutions to be found in relation to the ten desired conditions that the participants identified.

Appendix A

Minutes from Workshop 1

Participants:

Name	Organization
Frank Eathorne	Thunder Basin Grasslands Prairie Ecosystem Association
Denis Langley	Member, Rochelle Community for Working Sustainability
David Pellatz	Thunder Basin Grasslands Prairie Ecosystem Association
Bob and Jean Harshbarger	4 W Ranch
Gary and Cheryl Jacobson	Member, Rochelle Community for Working Sustainability
Justin Binfet	Wyoming Game and Fish Department
Amanda Withroder	Wyoming Game and Fish Department
Jewel and Tom Reed	Member, Thunder Basin Grazing Association
Donley Darnell	Weston County Weed and Pest
Jennifer Hinkhouse	District Manager, Campbell County Conservation District
Rusty Bell	Campbell County Commissioner
Tony Lehner	Converse County Commissioner
Rick Grant	Converse County Commissioner
Brad Rogers	US Fish and Wildlife Service
Aaron Voos	US Forest Service
Jay Francis	
Shannon Anderson	
Cheryl Schwartzkopf	Converse County Weed and Pest District
Quade Schmelzle	Campbell County Weed and Pest District
Shane Walker	US Forest Service
Bob Mountain	US Forest Service
Jess Butler	Converse County Weed and Pest District
Dennis Jaeger	US Forest Service
Gail Mahnke	Niobrara County Weed and Pest
Jackie King	Congresswoman Lummis's office
Representative	Senator Barrasso's office
Representative	Senator Enzi's office
Representative	Campbell County Weed and Pest District
Representative	Weston County Weed and Pest District

Jessica Western (formerly Clement), Senior Research Scientist in Human Dimensions of Natural Resources with the Ruckelshaus Institute at the Haub School of Environment and Natural Resources, University of Wyoming, welcomed participants.

Forest Supervisor Dennis Jaeger welcomed participants and outlined the purpose of the Collaborative Learning Workshops and thanked participants for coming.

Jessica Western then discussed the process that will be used in the Collaborative Learning Workshops and that the ultimate purpose of these workshops is to provide meaningful community input to a multi-stakeholder collaborative process that will provide recommendations to the US Forest Service regarding prairie dog colony management and other wildlife issues, grazing, recreation and other subjects. Her powerpoint can be seen at the Ruckelshaus Institute TBNG website: <http://bit.ly/thunder-basin>.

Rancher Jewel Reed then provided an account of her relationship with the TBNG. Her parents homesteaded in 1917-1918, then got married. Most people at that time came out as farmers. There were many more people in the area then. As those who remained could afford, they bought more land. There have been many changes over the years. For example in the marketing of livestock, now they are trailed to railheads. Now there are video auctions – there is immediate knowledge of markets. Now there are improved transportation systems, in the past trails and roads lead through deep creeks where there are now bridges. There was a lot of Works Progress Administration work in the 1930's, they built lots of small reservoirs which has reduced flooding events. Fences have gone from 2 to 3 wires to 4 and 5 wires for sheep grazing. There are sheep herder monuments the purpose of which is unknown, perhaps out of boredom. Schools consisted of one room, and children would go to high school in Douglas. In 1929 there was some consolidation and bus routes. The Bill Post Office was started in 1918 and the reason why the town received its name was because there were many Williams who lived in the area. Jewel was born in 1930 and her father raised corn, oats, and rye. Jewel remarked how transportation has changed a great deal. She also mentioned how sage chickens would visit residents' gardens. She ended by remarking that she felt government is fairer now. There are more regulations and more is governed by local people.

Bob Mountain, Range Manager with the Medicine-Bow National Forest, provided a photographic presentation regarding the USFS history related to the TBNG (see <http://bit.ly/thunder-basin>). In 1897 The Organic Act was passed that identified the two main objectives of what is now the USDA Forest Service: conserve timber and conserve water. The first National Forest was established in 1905. Nearly all grasslands have some remnant timber. Some are rugged and not very well watered. They tended to be the last areas to be homesteaded. Many homesteaders came as farmers and brought with their practices with them, e.g. from the East and from Iowa. However precipitation differences made this difficult. The 1910's and 1920's saw them successfully making a living but the Dust Bowl of the 1930's brought this to an end for many. In 1937 the dust clouds got the attention of Washington, DC, and many lands were bought back for back taxes – the Bankhead Jones Act. The management of these lands was delegated to the Soil Conservation Service, later the Natural Resource Conservation Service, and in 1954 to the Forest Service. In 1960 they were officially designated National Grasslands, of which there are now 20.

National Grassland lands are intermingled with private lands, and many of the Grasslands pay tribute to those who came before by carrying the names of American Indian tribe names. The Forest Service tries to pay tribute to the many values that people have in relation to Grasslands, including factors such as water delivery systems, which still provide a challenge.

Jessica Western facilitated a discussion regarding the history of the TBNG. **Jean Harshbarger** related some of her memories of experience in the Thunder Basin including trailing yearlings to South Dakota in the late 1930's and the challenges of schooling in those days. **Bob Harshbarger** and others provided information regarding the 4W and Fiddleback ranches and how they were homesteaded. **Dave Pellatz** remarked that the Native American tribes were present in the TBNG before the homesteaders and that water determined in many cases where the ranchers could be established and how they were managed. **Justin Binfet** said that his agency served conservation, agriculture and wildlife interests and so the TBNG as a contiguous landscape was important to WGFD. The conversation shifted to the role of coal in the TBNG and the initial finding and use of coal deposits by homesteader. This resulted in split-estate issues for surface owners and the entrance of the railroads. Jessica asked participants where the name "Thunder Basin" comes from. Participants informed her that thunder and lightning form a significant and often spectacular presence in the area.

The participants were then split into break-out groups. A list of values that could be used, but could also be added on to or changed, was handed out. Participants discussed which of these values were important to them and why. See comments in Table 2 of this report.

Minutes from Workshop 2

Participants:

Name	Organization
Nancy McFarland	McFarland land and livestock
Jewell Reed	TBGPEA
Hans Hunt	WY Legislature
Jay Francis	Campbell County Weed and Pest
Wanda Burget	TBGPEA
Dave Pellatz	TBGPEA
DeAnna Kay	Sen. Enzi
Tracy Pinter	US Bureau of Land Management (BLM)
Dennis Jaeger	US Forest Service
Aaron Voos	US Forest Service
Tom Wright	Rancher
Rusty Bell	Campbell County
Matthew Jones	Congressman Lummis
Holly Kennedy	Wyoming Farm Bureau
Carolyn and Vern Johnson	
Jackie King	Congressman Lummis
Riata Little	Sen. Barrasso
Jim Darlington	Inyan Kara Grazing Association (IKGA)
Randy Oleson	IKGA
Marline Geier	IKGA
Frank Eathorne	TBGA
Tom Reed	Rancher
Jenelle Garber	Senator Enzi's Office
Donley Dornell	Weston County Weed and Pest
Hale Redding	Weston County Weed and Pest
Todd Bennington	News Letter Journal
Scott Sewell	Rancher
Todd Caltrider	Wyoming Game and Fish Department
Barbara Crow	Interested member of the Public
Matt Avery	Campbell County Commissioner
Jean Harshbarger	4W Ranch

Robert Harshbarger	4W Ranch
Jaime Jakes	Wyoming DEQ-LQD
Debra Hepp	Campbell County Conservation District
Christi Haswell	SWCA
Cheryl Schwartzkopf	Converse County W&P
Jackie Ott	South Dakota State University
Steve Smutko	University of Wyoming
Brad Rogers	US Fish and Wildlife Service
George Ewins	Elk Mtn. sheep station
Lauren Porensky	USDA Agricultural Research Service
Greg Stark	Niobrara County
Shane Walker	US Forest Service

1:00 pm Introductions

1:15 Welcome, **Dennis Jaeger, USFS Medicine Bow-Routt National Forest and TBNG, Supervisor**

Dennis introduced himself and discussed the purpose of the workshop series, the role of the Ruckelshaus Institute and the decision to create a working group which he will charge with a task. The Ruckelshaus Institute will consult with stakeholder groups on candidates for the working group.

1:20 Purpose and Overview of Workshop Series

Jessica Western explained the outcomes of the situation assessment, which resulted in this collaborative learning workshop series. Its purpose is to provide meaningful input to the working group which will be established during the spring and summer of 2016 and will be convened in the fall of the same year.

Purpose and Overview of this workshop: to explore current conditions related to the TBNG.

1:30 **Lauren Porensky, Ecologist, USDA Agricultural Research Service**: Presentation regarding USDA Research on the TBNG.

2:00 **David Pellatz, Thunder Basin Grassland Prairie Ecosystem Association**: Current Grassland Research Efforts.

See powerpoints for Jessica Clement and Lauren Porensky on the Ruckelshaus Institute website at <http://bit.ly/thunder-basin>.

2:10 Discussion regarding current issues on the TBNG

The group discussed additional information needs:

- To what extent and where are hairy woodland brome, prairie 3-AWH, bulbous bluegrass, and medusahead present on TBNG?
- How do oil and gas and coal reclamation lands compare with undisturbed lands as far as biomass production, etc.?
- Need denuded ground for plovers?
- Is more information available via aerial photography?

In response to a question regarding the situation assessment, Jessica explained that the answers reported in the assessment are those of participants, not the Ruckelshaus Institute. The Ruckelshaus Institute attempted to ensure complete transparency and reflected all opinions. Readers may disagree with those opinions but they will have had an opportunity to become acquainted with all viewpoints.

2:30 Breakout groups discussions:

1. What issues should the working group focus on regarding the TBNG?
2. What are the gaps in knowledge regarding conditions on the TBNG?

Flipchart notes recorded for all breakout groups:

Group 1 Issues working group should focus on	Knowledge gaps
Prairie dogs <ul style="list-style-type: none"> • Control-areas • Methods <ul style="list-style-type: none"> ○ 22 gmt across public/private boundaries • Payment • Private property rights within TBNG boundary <ul style="list-style-type: none"> ○ Reclamation of old towns • Economic link to grazing • Diverse methods/tools for control 	Reclamation research <ul style="list-style-type: none"> • Technology transfer • Data sharing (DEQ, mines, state, and federal)
Black-footed ferrets <ul style="list-style-type: none"> • Cost to state/counties associated w-reintroductio • Restriction/10j 	USFS <ul style="list-style-type: none"> • “Hard lines” • Rules and regulations
Grazing <ul style="list-style-type: none"> • Lifestyle protection • Economic link with prairie dogs 	Climate factors <ul style="list-style-type: none"> • Research wet versus dry years
Energy development <ul style="list-style-type: none"> • Federal moratorium (Local input/info on impacts) • Socioeconomic impacts • Reclamation <ul style="list-style-type: none"> ○ Pipelines and prairie dogs • Obtaining data from mines technology and knowledge 	Black-footed ferrets <ul style="list-style-type: none"> • Transparency—what is true? • What are the plans?
	Land manager communication <ul style="list-style-type: none"> • Within Wyoming Game and Fish Department control • St. weed/pest in model
	Landowner objectives <ul style="list-style-type: none"> • Multiple landowners have multiple objectives • Conservation groups • Weight of local input

Public access

- Maintaining hunting opportunities
- Roads

Wildlife habitat

- Maintain
- Improve
- Emphasis on riparian areas (cottonwood region)
- Reduce fragmentation

USFS

- Limitations
- Flexibility
- Hard lines
- Rules and regulations
- Consistency with staff decisions
- Communication
- Split estate

Overall cost sharing

- Fire
- Wildlife
- Other
- Land trades
- Multiple ownership within TBNG
- Make process easier relative to federal restrictions
- Outside group involvement, such as Rocky Mountain Elk Foundation

Group 2

Issues working group should focus on

Knowledge gaps

Prairie dogs

- Control and boundaries
- Overpopulation and damage to private and public surface
- Range condition ignored on prairie dog towns

- Discussion around density measurements that are economical
- What is the economic impact of prairie dog overpopulation
- What is the overpopulation trigger?
- Sage grouse life cycle areas (not enough info)
- Are there gaps in bonding?
- Potential for severe invasive infestations such as cheatgrass

Split estate

- How split estate interacts with sage grouse management

Reclamation

- Ongoing issues with current market

Grazing

- Impacts to sage grouse
 - State and legislative involvement (need more)
 - Grazing patterns and usage (approximately 100 permittees)
-

- Recreational conflicts with multiple use, state lands, and permittees
- Transparency with the USFS (for example, changing category boundaries)

Group 3

Issues working group should focus on

Economic impacts of the TBNG

- Prairie dogs (forage loss)
- Mineral development
- Range/grazing (communities) (related to point about holistic big picture below)
- Recreation: Who pays? And the impacts
- Trickle down economic impacts on the whole communities

Take/keep a holistic or big picture of all resources and how they interact (don't forget this)

What are the gaps in knowledge regarding conditions on the TBNG

Knowledge gaps

- How many prairie dogs are on the TBNG (population density)?
- Prairie dog colony structures
- Prairie dog populations dynamics
- Real economic impacts to agricultural community, industry and state, international
- Predator populations and distribution (raptors, fox, ravens, coyote)
- Predator (raptor) seasons: Are there more here in the winter? (Yes)
- Economic impacts and structure of predator/prey dynamics (such as coyote vs. sheep)
- Transference of economic risk (costs primarily)
- Recreationist contributions

Group 4

Issues working group should focus on

- Sage grouse, in depth, need data on sage grouse predator effects on populations
- Revenue lost to prairie dogs
- Length of time for vegetation recovery on old prairie dog mounds
- Off-road damage from public use, recreation such as ATVs (research)
- USFS directives: Who follows?
- Inter-seeding for forage on grassland
- How can we improve the grasslands?
- What is the purpose of the TBNG?

Knowledge gaps

- Sage grouse predators
 - Effect on sage grouse populations
 - Change in predator populations
- Loss of revenue due to prairie dogs
- Length of time for vegetation recovery on prairie dog towns
- Comparison of reclamation land to undisturbed areas
- Effect of disturbance and going back to arid (mechanical, fire, spray, etc) on vegetation
- Interaction of prairie dogs and sagebrush
- Effects of prairie dog dusting on plovers and other wildlife
- Incidence of swift fox on grasslands

Group 5

Issues working group should focus on

- Realistic Principles of on-site Conditions (Bare ground in towns)
- Defined methods of control and data of effectiveness (Prairie dog)
- Ability to impact ESA rules and rulings and economic consequences of listing
- Accountability of management decisions, actions

Knowledge gaps

- Public knowledge of diverse uses of TBNG
- Gap in communication between landowners and others based on differences in knowledge and experiences
- Sharing of Knowledge and information
- Ecological site description (vs 7" stable height) Baseline research

-
- and Non-actions
 - Consequences of SG core designation (private property rights)
 - Future species in addition to sage grouse
 - Prioritization of interests (livelihoods vs species)
 - Better mapping and representation of private lands w/in TBNG
 - Education and Outreach
 - Healthy rangelands and ecosystems
 - What makes/maintains
 - Consistency w/in agencies
 - Transfer of knowledge
 - Personal bias
 - Synthesizing research done in relation to sagebrush and SB ecosystems
-

- Accurate mapping of colonies and rate of expansion and conditions that attract colonization

Group 6

Issues working group should focus on

Knowledge gaps

-
- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • Prairie dog control • Please bring more rain! • Better productive communication • The general public likes to focus on prairie dogs being good, but grazing is not—educate folks, it's the opposite • The USFS and the WGFD, USFWS need to make the decision about black-footed ferret re-introduction—yes or no—then move on • TBNG economic benefits need to be stressed, especially with downturn of coal and oil and gas, and railroading as well • Roads, schools, tax base all effected. Time to tighten our belts. • Funding can't always be the reason on why we can't get things done • Respect private property rights, especially for prairie dog control • Coordination is a key focus issue of coordination and cooperation • How does the Wyoming trespass statute affect the "3 Cs" and data collection • Use sound science in decision-making • Is there going to be more emphasis on LEXs and funding in the future? • Resolve location and solutions of "shooting signs" | <ul style="list-style-type: none"> • Those who live here and those who read about it or study it have different knowledge and opinions • Do we have study evidence of prairie dogs - <ul style="list-style-type: none"> ○ Densities per acre on TBNG ○ At what age do they breed? ○ How and when and why do they disperse? How far? • Interpretation <ul style="list-style-type: none"> ○ Translation ○ Sharing information ○ Media accuracy ○ All essential for the working group to get solutions |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
-

Minutes from Workshop 3

Participants:

Name	Organization
Dave Pellatz	TBGEA
Tom Reed	TBGEA
Cheryl Schwartzkopf	CC Weed and Pest
Harle Redding	Weston Co Weed and Pest
Donley Darnell	Weston Weed and Pest
Tom Wright	D&W LS WCSO #1
Megan Taylor	PRBRC
Kristy Bly	WWF
Jenelle Garber	Senator Enzi Staff
DeAnna Kay	Sen. Mike Enzi
Jennifer Hinkhouse	CC Conservation District
Holly Kennedy	Wyoming Farm Bureau
Lindsey Sterling Krank	Prairie Dog Coalition / Humane Society
Travis McNiven	Sen Barrasso
Robert Maul	CCCD / Land Owner
Riatta Little	Sen Barrasso
Jewell Reed	TBGPEA
Frank Eathorne	TBGA
Robert Harshbarger	4W Ranch
Jean Harshbarger	4W Ranch
Christi Haswell	SWCA
Oaklee Anderson	Sen. Barrasso
Matthew Jones	Congressman Lummis
Jackie King	Congressman Lummis
Heather Herr	Commissioner Candidate
Steve Forrest	Defenders of Wildlife
Matt Avery	Campbell Co Com
Will Schilt	Arch Coal
Erika Peckham	Wyoming Game and Fish Department
Micky Shober	Campbell County Commissioner
Quade Schmelzle	Campbell County Weed and Pest

Virginia Moore	The Content Lab LLC
Denise Langley	RCOWS / TBG member
Shane Walker	US Forest Service
Dennis Jaeger	US Forest Service
Aaron Voos	US Forest Service

Flipchart notes recorded for all breakout groups:

Group 1: Desired conditions on the TBNG

- More mitigation potential: Habitat enhancement, with buy-in from adjacent private landowners (potentially mountain plovers, raptors, etc.)
 - Potential for incentive-based programs
 - Excellent range conditions with healthy ranch economy
 - Continued access for recreation
 - Continued potential for natural resource development (oil, gas, coal)
 - Regulatory alignment between USFS and BLM
 - Potential for land exchanges to block USFS land (make contiguous) to consolidate ownership
 - Use EPA and label recommended applications of rodenticides; full list of EPA approved rodenticides to maintain effectiveness
 - Enhance water quality on TBNG and reduce erosion
 - Maintain a healthy native ecosystem, including plants and wildlife, with emphasis on multi-species and not single species management
 - Maintain multiple use
 - Cactus control
-

Group 2: Desired conditions on the TBNG

- Multiple uses (recreation, energy, economically, wildlife, grazing, mining, etc.)
 - Whatever conditions support multiple uses
 - Approaches need to be sustainable (budget, man-power, etc.) and balanced and workable with people's work schedules
 - Managing prairie dogs to a level that is not destructive (very subjective definition)
 - Keep invasive species (cheatgrass, threeawn) out
 - Viable grazing program. Establish a threshold of range management and production
 - Productive ranches
 - Coal production and continue great reclamation of the land
 - Oil/gas industry improve reclamation to the level coal mines have been doing
 - Difference in sampling methods, need to look at:
 - Consumption
 - Includes clipping?
 - Suppression of vegetation
 - Economic comparison of poisoning in relation to forage loss
 - Look less at where prairie dogs are and more than density
 - Look more at range conditions and forage production, than prairie dogs density; find threshold beginning management regarding the number of prairie dogs
 - Put links and resources on website
 - Send e-mail with questions and resources
-

-
- Need more info about laws and regulations
 - Break down how to meet goals in future meeting
 - Report back USFS response to meetings
-

Group 3: Desired conditions on the TBNG

- Developed sense of history to help facilitate decision making (consistency, efficiency)
 - Multiple use (all uses)
 - Recognition of cooperation from private federal landowners Mix
 - Continued Rec. use (hunting- wildlife value, quality experience)
 - Find/define metrics for success
 - Prairie Dog Mobility- need more info. – from session 2 info gap
 - Protection of Property Grazing/rights./Boundary management and impacts
 - Diversity in terms of multiple use
 - Long term planning
 - A sustainable population of prairie dogs that also sustaining multiple use. Ex. P. Dog population in draught
 - Agreed upon metrics for range health
 - Collaborative Solutions ex. CBM and Stock grazing and water range improvements
 - Prickly Pear management
 - Explore solutions using fire management as a tool to improve range conditions
 - Acknowledge-micro Ecosystems w/in TBG
 - Black-footed Ferrets
-

Group 4: Desired conditions on the TBNG

- Control erosion
 - Produce more forage
 - Ensure economic stability for residents
 - USFS is responsive to local concerns as required by law
 - Multiple use objectives are fulfilled w/ qualifications
 - Invasive species Are under control
 - Cactus
 - Cheatgrass
 - Bulbous bluegrass
 - Etc....
 - Ag pests
 - Federal gov't recognizes and abides by state law
 - Successful reclamation and restoration of abandoned O&G wells, mines, prairie dog colonies
 - Federal lands managed for the purpose which they were originally reserved (U.S. v N.M.)
 - Balanced Ecosystem
 - Greater Sage Grouse is not on the Endangered Species List
 - We're taking a common sense approach to land management
 - Citizens' health and welfare is protected
 - Responsible energy development is part of our economic mix
 - General right of livestock grazing will continue into the future
-

Group 5: Desired conditions on the TBNG

Invasive Species

- Disturbed areas
- Give natives a chance
- Using monitoring
- NO CHEATGRASS
- Mechanical removal (grading cactus)
- Less chemicals, more biocontrol

Minerals

- Need for community funding
- Reclamation
- Healthy rangelands/ecosystems

Recreation

- Shooting anywhere there are prairie dogs
- Closures maintained (all game)
- Study on shooting (on TBNG)
- Season? For prairie dogs
- Improve big game hunting
- OHV opportunities
- Non-motorized
- Diverse opportunities
- More water

Water

- More
- Maintain existing watersheds
- Water rights w-state/private
- Water rights w-federal Maybe future learning topic?

Community

- Less conflict

Wildlife

- Healthy ecosystems
- More sage grouse (plans should address predators)
- All options for management considered (lethal and non conflict prevention)
- Reintroduce black-footed ferrets, as long as prairie dogs can be managed

Lands

- Reduce/prevent boundary confusions
- Reduce conflict land exchange and technology
- Address costs associated with exchanges/ surveys/ etc

Economics

- Reduce loss of \$ from prairie dogs
 - Incentives for landowners (prairie dogs)
 - Reduce red tape/streamline
-

Group 6: Desired conditions on the TBNG

- If Prairie Dogs, there is grass (density controlled)
 - Private land management-respect for rights and for federal-different desired conditions
 - Pipelines may go on federal lands
 - Refocus on land management for much use and sustainable yield
 - Maintain (...unreadable) reclamation for ranch and wildlife
 - Increase communication, respect for and between parties
 - USFS Streamline process with respect to permits, drilling (also BLM)
 - R/R as in Congress etc.
 - Private and State rights protected
 - Including state agencies duties- weed and pest, G&F
 - Manage for wildlife - Fed and Private lands in sync - water best on private -> do it cooperatively
 - Hunting important for visitors – revenue into local community
 - Desired benefit is incentivized not a penalty imposed
 - Multi Benefit between Forest service, private landowners, etc.
 - Ecosystem level management- treat public and private land holistically recognizing private land rights
 - Better relationships
 - Bigger context
 - Public agency emphasis on relationships
 - Increase in trust-has been broken-mutual
 - Consensus process
 - ID problems together and solutions
 - Process to remove bias /personal decisions
 - More towards joint decisions
 - Partnership in management
-

Appendix B

Evaluations of Workshop 2

Do you feel this workshop provided you with new information? If so what? If not, what was missing?

- Yes, we learned things about TBNG management and constraints
- Ongoing research on prairie dog habitat and effects
- Different ideas to think about
- Yes, the big picture of the entire situation
- Yes, every group has some different info
- Yes, prairie dog information, I knew there were a lot but did not understand their correlation with black footed ferret
- Yes
- Yes
- I enjoyed the effort. I think the discussions were productive
- Yes, what focus of group should be
- Yes, generally some view of this process, also research data that is being done. Some info on cheat grass-soils-fire interaction was new to me.
- Yes, discussion groups are open and informative
- Yes, enjoyed USDA presentation and research
- Each workshop has provided new information, very helpful in talking about TBNG
- Not only new information, but personal contact for future
- I don't think I really learned anything new. What was missing as usual, were NGOs (Prairie Dogs Unlimited folks) and the US Fish and Wildlife Service people who have final say on ferrets
- Yes, better sense of issues facing local community members, data gaps where research would be helpful
- Yes, a lot of questions were answered
- Yes, a much better feel for what research is happening. Also info on how the USFS is reaching out to identify problems
- I felt it was a good workshop. First time to concern of energy on how they will be affected
- Good, new perspective on some things
- The info on wildlife info was informative
- The main new information I gained was that something is being done, or at least contemplated

Do you feel your participation in this workshop will provide the future working group with constructive guidance?

- I think so, but I have participated in other workshops that did not improve guidance
- I hope so
- As a whole, yes
- Yes

- Yes
- Hopefully, I would love to participate more as an individual instead of as a representative of my government organization
- Yes
- Yes
- I believe so. Several ideas overlapped across the breakout groups so I believe several of the issues need addressed
- Yes, the lack of NGO participation shows lack of true interest in the issues and should void their representation on working group
- I hope so. This is a moderately long journey. We are only started. Our table discussion was valuable. The summaries should provide some guidance
- I hope so, but what is the legal ramification of this group? Will the group have any influence on USFS decision?
- Yes
- I hope so, I hope some of the individuals that have been helping with the sessions will be included in the working group
- It will be a huge job, but I am confident this group will come up with some excellent input
- Only if they are wise enough to listen
- Unsure
- I hope so
- Yes
- Yes
- I hope so
- Yes
- Yes! The groups had constructive comments and ideas and they were composed of people with knowledge of the issues.

Do you feel Jessica creates a positive environment that allows participants to work together on Thunder Basin Issues? If so, why? If no, why not?

- Yes, it is good to get so many opinions and questions from so many individuals
- Yes, very clear with objectives to form working group and making progressive and positive change
- Yes, she explains at start, keeps meeting moving
- Yes, very direct and to the point
- Yes
- Yes, I hope to come to next one
- Yes
- Yes
- Yes, she was very supportive of all ideas proposed and encouraged the group to listen to each other
- Yes, everyone has a voice
- Yes, good time management and control of the group- good questions to clarify statement
- Definitely, very professional, a joy to work with
- Yes

- Very positive, not afraid to address the tough questions and provide atmosphere to calmly discuss the issues
- A lot of ownership on her task ahead
- She does a fine job at an impossible task; getting consensus on difficult issue. Better chance of the Shiites and Sunnis reaching consensus on the proper interpretation on Islam/Koran
- Yes, one area of improvement would be to use more “ands” and fewer “buts”
- Very professional with presentation and everyone was comfortable with expressing their thoughts and concerns
- Yes, by soliciting comments and concerns of people attending
- Yes, Jessica sets a positive tone up front. Set the tone right away there should be no name calling. She keeps things on schedule!
- Yes, tries to keep us focused, hard to do. Manages time well
- Yes
- Well moderated meeting. She kept things on track and within time schedule

Any other comments

- Best working group I've been enrolled in! Good job!
- N/A
- The working groups will have a big job, and will give a lot of good info for all of us. I wish them luck
- NGOs not present in workshops, should not be allowed special treatment (or more time to research or comment)
- N/A
- Any discussion on bison reintroduction and decrease of cattle grazing. Buffalo hooves specifically facilitate grass growth verses cattle whom trample grass. Bison also do not impede wetlands like cattle.
- N/A
- N/A
- Keep up the good work
- There needs to be representation of: grazing associations, weed and pests, state lands, governors, USFS
- Good afternoon, hopefully one step on a journey
- N/A
- I am concerned with how the working group will be selected and what weight will be given to each set of state holders and their concerns
- N/A
- Good luck
- N/A
- Very helpful workshop!
- N/A
- No NGOs!
- N/A
- Maybe more time for comments
- N/A

- One of the most important issues, I feel, is to keep a focus on the entire picture, not just individual studies on grasses but tying together all aspects of the grassland.

Evaluations of Workshop 3

Did you feel this workshop provided you with new information? If so what? If not, what was missing?

- I feel today we put more meat on the bone
- Yes, specific rules about USFS meeting regulations
- It was a start to voice people thoughts and worries
- Yes, being new to the issue, I gained a lot of public perspective
- Yes, good info on prairie dog density and consumption and forage use
- Yes, the workshop was very informative. I appreciate that the notes from previous meetings are available on the website and look forward to the summary
- Yes – some presenters were not loud enough
- Yes, there always needs to be good follow up to see what was gained
- N/A
- Yes
- Yes
- Nothing much new – time to prioritize and implement!
- Yes, lets you know what other people's priorities are
- Mostly the same but better informed
- Yes, sometimes need more time
- Good group discussion to see where we agree/disagree

Do you feel the breakout group regarding future desired conditions will provide decision makers with important information?

- Yes, it provides a bench mark, long term goals and objective
- Yes
- Yes, maybe ideas and desires rather than information
- Yes, they hear the voice of the people and help them see all the issues
- Yes, many topics were carried through
- Yes, a good process. You did well to keep us on task
- I believe the issues that rose to the surface during the breakout sessions were helpful. I hope there are more opportunities for public involvement and landowner (concerns?). I also believe that a meeting to decide upon metrics for success is essential to building/maintaining trust and that accountability metric should also be built into the process.
- Yes, many ideas, some same from most groups
- Yes, tries to look 20+ years into the future
- Yes

- Yes
- I just hope they do something with all the info developed at these three meetings
- Yes, it gives them topics to focus on and discuss
- Yes
- Hope so
- Yes

Do you feel Jessica creates a positive environment that allows participants to work together on Thunder Basin Issues? If so, why? If not, Why not?

- Yes! She's very fair and judicious
- I feel Jessica keeps the meetings in check and moving forward
- Yes, she does a good job of keeping people in constructive mode
- Yes, it was a very (good?) environment to be in. We all talked and worked together
- Yes. She did a great job keeping the group intact and mitigating upset constituents' concerns
- Yes, very so much. She maintains control of the meeting, sets parameters for behavior, and summarizes comments very well.
- Jessica was excellent and kept us on track, thanks!
- Yes, she is very patient yet keeps it moving
- Yes, she tried to control the movement of the meeting
- Yes
- Sometimes
- Yes!
- Jessica does a great job of soliciting comments and keeping the group disciplined!
- Yes, she keeps things moving, keeps everyone's tempers in check
- Yes, kept control of flow of meeting
- Yes, very good
- Yes, very good moderator to keep on task and civil

Any other comments?

- I think it needs recognized that the "conservation" groups were and had to be begged to come to the table. (And when they did come they had a chip on their shoulder.) Were agriculture, energy, sportsman etc. groups persuaded equally?
- Good job! We look forward to the summary
- Looking forward to seeing the results
- I think the FS blows a lot of smoke and the prairie dog issues will get put on the back burner as always!!!
- Thank you
- How can we be more focused? We get off the track too easily.