Case Study

Collaborative groups related to sustainable grazing on public lands

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Abstract: Grazing by domestic livestock is a predominant land-use of public land in the western United States. Livestock grazing is a significant component of the multiple-use doctrine of public lands. However, in recent years, the use of public lands for livestock grazing has come under increased public scrutiny, resulting in increased litigation. Resolution of disputes regarding the management of public land, particularly the use of these lands for livestock grazing, will require unique and innovative approaches that are tailored to each situation. This article describes 3 dynamic collaborations focused on sustainable grazing issues, for which the author served as facilitator/mediator. The article draws conclusions about what worked well in those collaborations, along with lessons learned: the process of striving for consensus supports a problem-solving conversation; collaboration takes time; a shared love of place helps participants find common ground; and an early commitment to an ongoing working relationship enables joint monitoring and adaptive management to address uncertainties.

Key words: adaptive management, collaboration, local knowledge, monitoring, negotiation, stakeholders, sustainable grazing, Utah

THE UNITED STATES GOVERNMENT OWNS 47% of all land in the West. Public lands in the western United States are managed under the multipleuse doctrine (Cawley and Freemuth 1997). The Bureau of Land Management (BLM) and the U.S. Forest Service (USFS) manage 64% of Utah's land base (Stambro et al. 2014). The BLM and USFS implement integrated management of public lands in the western United States to support successful multiple uses, such as livestock production, timber harvesting, and recreation, while also maintaining wildlife species and healthy landscapes.

The BLM and USFS manage a system to allocate livestock grazing on public lands using grazing permits tied to specific landscapes (Banner et al. 2009). The allotment system evolved as a tool to balance grazing with other public land uses (Cawley and Freemuth 1997, Holechek et al. 2010). The ranchers who operate on public allotments are called permittees (BLM 2015).

This article describes 3 dynamic collaborations focused on sustainable public land grazing issues and draws conclusions about what worked well in those collaborations, along with lessons learned. The case studies highlight the importance of each participant in a collaboration being open to a problem-solving approach that integrates all perspectives; the value of local knowledge and mutual education; and the connection between successful collaboration, constructive long-term working relationships, and effective adaptive management.

Tushar Allotments Collaboration

The Tushar Allotments Collaboration (Tushar) was created in settlement of a National Environmental Policy Act (NEPA) legal challenge to the decision of USFS to reauthorize grazing on 8 allotments in the Tushar Mountains, located in southwest Utah and managed by the Beaver Ranger District of the Fishlake National Forest. Co-convened in 2007 by the Utah Farm Bureau Federation and the Grand Canyon Trust, the Tushar collaboration focused on 2 of the 8 grazing allotments. The 2 allotments were selected by the co-conveners as representative of the issues raised in the NEPA challenge. They included 1 allotment on the east side of the Tushar Mountains and 1 allotment on the west side to encompass a diversity of habitats, including different elevation levels, riparian areas, and aspen (Populus tremuloides) and mountain

Figure 1. Participants in a Tushar Allotment Collaboration field trip (photo courtesy of M. Straube).

mahogany (*Cercocarpus montanus*) groves. The 2 allotments selected also demonstrated the most degraded landscape conditions found on the original 8 allotments, such as eroded streambeds, denuded riparian areas, lack of native vegetation, and failing aspen and mountain mahogany. Tushar collaboration participants included representatives from 6 conservation groups (the appellants in the NEPA lawsuit), 5 grazing permittees, the Utah Farm Bureau, the Utah Division of Wildlife Resources, and a county commissioner. A USFS representative served as a resource expert.

The 2-year goal of the collaboration was to document existing landscape conditions, develop desired landscape conditions, and identify grazing management practices that would move from existing to desired conditions on the 2 allotments. Additional goals included developing a plan for reestablishment of suitable habitat to reintroduce beaver (*Castor canadensis*) into at least 1 stream of 1 of the allotments, and focusing on aspen and mountain mahogany recruitment on both allotments.

The group met for 2 years, with the first year self-facilitated and the second year facilitated by the author. During the summer of both years, the group went on multiple field trips to conduct joint monitoring and look at conditions on the ground (Figure 1). The Final Report and Consensus Recommendations of the Tushar Allotments Collaboration was issued in April 2009 (Tushar Grazing Allotments Collaboration 2009). The recommendations were far-reaching, including detailed descriptions of current and desired landscape conditions, and specific

grazing management actions intended to move the landscape on each of the 2 allotments from current to desired conditions. Recommendations, among others, included pasture rest and partial non-use, utilization caps, and prioritized infrastructure projects.

These changes in grazing management practices were perceived by the collaboration participants as a significant adjustment of their core values. Resting a pasture for a full year, agreeing to partial non-use of a pasture, and agreeing to <50% utilization in specific pastures were a radical departure from the ranchers' historical use of the allotments and represented a leap of faith that these actions would result in measurable benefits. Similarly, agreeing to increased infrastructure on public land contradicted the long-standing public positions of conservation interests. The recommendations also addressed continued collaborative activities. such as annual meetings and joint monitoring; an administrative process related to expanded public involvement in the NEPA process and monitoring; reintroduction of beaver; plans to restore aspen recruitment; and specific recommended monitoring methods.

The story of the collaboration began with strong disagreement-in some cases, denialabout the nature and significance of the problems, and ended with a mutual understanding that conditions on the ground were less than optimal and needed improvement. Along the way, there were arguments and reconciliation, laughter and tears, personal conversations, and an increased understanding of each other's knowledge and experiences. The collaboration's story demonstrates the power of dialogue, the transformative potential of being in the field together and collaborative monitoring, and the creative problem-solving that is possible when those who have different connections to public lands reach a common understanding of particular problems (Tushar Grazing Allotments Collaboration 2009).

Collaborative group on sustainable grazing for 3 national forests in southern Utah

The Tushar collaboration experience motivated some of the stakeholders to extend that success into a broader policy-level approach to sustainable grazing in the 3 national forests in



southern Utah (i.e., USFS Dixie, Fishlake, and Manti-LaSal Forests; hereafter, Three Forests). Co-convened by the Utah Department of Agriculture and Food's Grazing Improvement Program and the Utah Department of Natural Resources, the Three Forests collaboration set the goal of developing consensus agreement on grazing management principles and practices that: 1) provided for ecological sustainability, 2) were socially acceptable, and 3) were economically viable. Collaboration participants included 4 representatives from ranching and local government, 4 conservation group members, 3 state government agency staff, and 2 academics. A USFS representative again served as a resource expert.

Focusing more on policy than site-specific conditions, the Three Forests participants did most of their work in small work groups, bringing recommendations to the full collaboration for discussion and decisionmaking. They participated in a 2-day field trip to see a variety of real-life conditions (Figure 2) and participated in a 1-day virtual field trip (slide show) to witness innovative riparian grazing management practices promoted by the BLM in Nevada.

The Three Forests Final Report and Consensus Recommendations was issued on December 31, 2012 (USFS Lands in Southern Utah 2012). The group recommended 3 grazing management principles supported by the academic stakeholders: time (i.e., the duration or length of time that cattle graze in a given area); timing (i.e., what season or time of year an area gets grazed); and intensity (i.e., how much vegetation gets eaten by livestock while they are in a given area). The recommendations included a menu of possible grazing management practices to implement the 3 grazing management principles. The final report also outlined ecological, social, and economic indicators that would help agencies, permittees, and the public to understand the health and sustainability of a grazing system, and it identified specific monitoring methods that the group found to be reliable and repeatable.

At the end of the collaborative process, the facilitator asked participants to reflect on the collaborative process by anonymously sharing their lessons learned. One participant described the Three Forests collaboration as follows:

(photo courtesy of M. Straube).

on-site, real-life conditions during a 2-day field trip

"Anytime a large group representing many diverse interests, backgrounds, training, and experience comes together, the process will be (almost by definition) long and laborious. There always seems to be a period of time at the beginning where each participant is guarded in their participation, skeptical of the outcome, and with little or no trust of their fellow members. However, with skilled, patient facilitation, the group will come together, find ways to build trust and bond into a cohesive unit that gains speed as the process continues. Just about the time that such a group is hitting its productive stride, the mission has been accomplished and it is time to disband. It is my experience that the relationships last far into the future, and working friendships and partnering continue to occur" (USFS Lands in Southern Utah 2012).

La Sal Sustainability Collaboration

The La Sal Sustainability Collaboration (LSSC) represented an opportunity to apply the recommendations of the Three Forests collaboration to a 115,335-ha landscape in the southern La Sal Mountains, operated year-round by 1 ranching family and encompassing both public and private lands. Co-convened by the Grazing Improvement Program and the Grand Canyon Trust, the LSSC aspired to co-create an approach to management of the area where federal, state, and private rangelands could be operated as an integrated, sustainable





Figure 3. Site visits by La Sal Sustainability Collaboration participants facilitated group work (*photo courtesy of M. Straube*).

system. Grazing management approaches would provide for ecological resilience, sustain economic viability, promote cultural preservation, be socially acceptable, and be legally defensible. Collaboration participants included 2 permittees (the original rancher and his brother-in-law), 1 local and 2 state government representatives, and 3 conservation groups. The public land managers (USFS, BLM, and Utah School and Institutional Trust Lands Administration) as well as other government entities served as resource experts.

The group met on an almost monthly basis for the first year, then broke into sub-groups to work on the details of recommendations brought to the full collaboration for discussion decision-making. Innumerable field and trips helped to inform the work of the group (Figure 3). The LSSC issued its Final Report and Consensus Recommendations on February 8, 2017 (including Sierra Club letter in lieu of signature; LSSC Collaboration 2017). There are 3 broad categories of recommendations: 1) management actions, including livestock grazing practices, native fish conservation, beaver reintroduction, restoration of upland forest health, the role of wildland fire, limiting soil erosion, protection of high value areas, and mitigation of social conflicts; 2) administrative actions, such as determining the regulatory status of cutthroat trout (Oncorhynchus clarkii); and 3) actions to assess progress and promote accountability, which include a suite of desired conditions/indicators, monitoring plan, adaptive management strategy, drought management

plan, and performance incentives. The group also recommended that the LSSC have an ongoing role in the evaluation, refinement, and implementation of the recommendations, resulting in an ongoing assessment and improved management of the LSSC landscape.

Selected lessons learned of LSSC participants provide a sense of what they valued about the collaborative effort:

"Who is at the table makes all the difference in the world. Having the right interests represented is important, but the success we enjoyed had everything to do with the characteristics of the participants themselvesboth members and agency advisors. Critical personal characteristics include: transparency (candid sharing of perspectives and underlying values/rationale); integrity (to their underlying values); commitment (to a shared vision and the process and work); compassion (rather than condemnation of personal shortcomings); and curiosity and openness (to understand and learn from the perspectives and experience of others). Bumps along the way to consensus recommendations were tied to limited instances where these personal characteristics weren't demonstrated" (LSSC Collaboration 2017).

"The field trips that we took as a group were critical to keeping the group moving forward, both in terms of forming recommendations based on the landscape, but also in terms of developing and improving relationships with each other. It seems to be much easier to get to know someone when you are sitting next to them in the sun on the grass, rather than around a table in a meeting room" (LSSC Collaboration 2017).

What worked, and lessons learned

The conclusions in this section are derived from the author's personal experience and professional judgment in the 3 case studies and in other collaborations. Many of the conclusions are also reflected in the lessons learned that participants in each collaboration were asked to share at the end of each process (Tushar Grazing Allotments Collaboration 2009, USFS Lands in Southern Utah 2012, LSSC Collaboration 2017). Since negotiations in collaborative processes are confidential, and the author has an ethical responsibility to maintain those confidences, there are only a few case study-specific facts included in the following conclusions.

Striving for consensus

Each of the 3 case study collaborations agreed to strive for consensus at the outset of the group's work. The operating protocols for the LSSC (Tushar Grazing Allotments Collaboration 2009, USFS Lands in Southern Utah 2012, LSSC Collaboration 2017), for example, stated:

"Decisions will be made by consensus whenever possible....

Consensus has been reached when everyone agrees to accept whatever is proposed after every effort has been made to meet the interests of all participants. Participants have the right to expect that no one will ask them to undermine their interests and share the responsibility to propose solutions that meet everyone else's interests as well as their own. If consensus cannot be reached, the group will consider the following steps:

- An additional site-tour to gain a better understanding of the issues;
- Individual(s) not in consensus will be given the opportunity to develop analternative designed to meet everyone's interests; and
- Individual(s) not in consensus will be given the opportunity to educate or bring in additional informational resources.

As a last resort, the LSSC members can vote to move on and avoid holding up the process. This inability to reach consensus, along with the various alternatives under consideration, will be noted in writing and included in the recommendations sent to the agencies."

The process of striving for consensus can be viewed very differently by collaboration participants. When used as a noun, consensus is the end product of a successful collaboration. It is both the goal and the measure of success. When used as a verb, as in striving for consensus, consensus is the process of getting to consensus, the noun. Striving for consensus requires all participants to listen actively and ask questions as needed to fully understand the perspective of everyone else, and to think creatively about what possible solutions might address the various perspectives represented. No individual participant (or group of

participants) has veto power. If someone disagrees with an option put on the table (respectful disagreement is encouraged), they should explain the underlying basis for their disagreement, and then make a suggestion of a different or revised option that might solve their own concern while also meeting the expressed needs of the other participants. This process of explaining a disagreement, then suggesting or revising options, continues until all participants ultimately agree that the option under current discussion is the best they can co-create and is an option everyone feels will be successful and each participant is willing to implement. Striving for consensus in this way changes the collaborative conversation to a problem-solving one that seeks to maximize mutual gain. Stakeholders have told the author that striving for consensus becomes a way of being. After being involved in a successful consensus-based collaboration, they approach all disagreements in their personal and professional lives from a place of curiosity, mutual understanding, and problem-solving. A future collaboration that included only individuals who had the capacity to strive for consensus as their way of being would have a high likelihood of success.

Striving for consensus is a radically different approach to negotiation for many. Rather than moving from extreme positions to some middle compromise, or giving titfor-tat concessions (I'll agree to X if you give me Y), the process of striving for consensus has all participants sharing responsibility to understand the real needs of all participants, not only their own, and invent possible solutions that they believe will meet all the identified needs, not only their own (see more about the interest-based negotiation process in Fisher et al. 2011). The collaborative group acceptance of a joint problem, to which they will find a mutually acceptable solution, changes the dynamic of the discussion and tends to bring forth more creative and enduring solutions. In the 3 case studies, this was evident when participants presented new suggestions in a way that overtly recognized needs other than their own-a conservation representative suggesting a fence alignment because that would help change the cows' habitual behavior, or a rancher suggesting an

area to be left ungrazed because that would protect a particular diverse area of vegetation.

Collaboration takes time

The Tushar collaboration gave itself a 2-year timeline to reach consensus recommendations, and it accomplished that goal. The Three Forests collaboration gave itself a 1-year timeline and took 3–4 months longer. The LSSC assumed that its work could be done in 1 year, but due to issue complexity and personnel turnover during the collaboration period, it did not sign its consensus recommendations until 2.5 years after the first meeting. All 3 groups met relatively regularly as a full group (often monthly) and had many sub-group meetings or conference calls in between.

What could possibly take so much time? Many of the collaboration participants, while hopeful about the possibility of reaching consensus and changing "the way we do business," came into the collaborative process with heartfelt anger and distrust about some or more of the other participants and the interests they represented. These are examples of statements that were heard multiple times at the beginning of the case study collaborations: "I hate the federal government," "I don't trust any ranchers," and "It figures that's what you [insert name of stakeholder interest] would think." The participants need time to vent their anger and to learn that their assumptions about others may not reflect reality.

The collaborative process-learning how to strive for consensus, listen actively, problemsolve rather than blame-takes time to learn. A short training at the beginning of a collaboration, or an introduction to the concepts of collaborative problem-solving, can be helpful. But changes in behavior come slowly, especially at the beginning of a process with stakeholders who have not participated in consensus-building before and when trust is negligible. In the author's experience, it takes about 6 months before the participants really internalize the skills of striving for consensus. When participants in the 3 case studies made statements such as, "I think I understand the challenge you're describing ... would this idea help?" or appreciated each other's suggestions (e.g., "That's a good idea; I never would have thought of that"), or changed their perspective

(e.g., a rancher saying "If the range is not improving over time, that's bad for the cow business"), the group had reached the point in the process where things could move much more quickly. Once a group strives for consensus without constant reminder, and responds to thoughtless statements with laughter, rather than "There you go again!" or "That's typical," the real work begins.

At that point, discussions will be more productive, and emotions will take up less of the meeting time, but many other factors can still eat up negotiation time. A lack of agreed-upon facts can result in acrimonious disagreement, or it can create the opportunity for joint factfinding. In each of the 3 case studies, field trips to witness current conditions were eveopening for the participants. Conservation interests saw areas in good ecological condition that were also regularly grazed, and ranchers were shown areas where grazing had resulted in unacceptable degradation. In the Tushar collaboration, disputes over aspen habitat and monitoring methodologies were ultimately resolved by joint monitoring over 1 summereach interest using their preferred monitoring method in the same location—only to discover that the results were surprisingly consistent.

The complexity of the issues and uncertainty surrounding the future-especially long-term impacts of drought or changing climate-are both difficult to communicate and understand, and not subject to easy resolution. Different participants will want certainty on specific issues where others prefer flexibility (e.g., conservation interests will want to know exactly what will be done in every worst-case scenario, while the rancher will be reluctant to commit future expenditures unless and until the worst-case situation arises, and will want flexibility to decide in the moment what the best approach is). Likewise, ranchers will want a recognition that moving cattle (*Bos* spp.) is not a perfect activity (e.g., a few cows may remain behind), which may differ from the land management agency and conservation interests in predictable levels of forage use. Finally, some of the grazing management practices suggested by various stakeholder interests may be new and untried, creating initial resistance and the need for lengthy discussions about adequate monitoring and accountability measures. While

these types of conversations are very productive in terms of mutual education, problem-solving, and relationship-building, they do take time.

Turnover in personnel for any collaboration participant can be problematic, as that new individual needs to be brought up to speed on the substance of the group discussions to date and also needs to learn the negotiation customs of the group (striving for consensus). In 1 case study collaboration, there was regular turnover in personnel among the federal agency representatives, as well as turnover in personnel for the co-conveners. Depending on experience of consensus-building processes of the new representatives, assumptions about or previous experiences with the other collaboration participants, and amount of time outside of meetings that can be spent introducing the new person to the institutional history of the group, an introduction of a new person in the group can take the process close to the beginning again due to learning curve and productive conversations. In today's world, turnover in personnel is a constant reality, which can disrupt or change the direction of any ongoing process. A case in litigation can settle when a new, more collaborative decision-maker or party enters the picture, just as a collaboration can be rattled when a new, more contentious stakeholder joins the group. The key to addressing the challenge presented by personnel turnover is to deal with it directly, educating the new participant in the collaborative norms of the group, rather than assuming or hoping that collaborative behavior is the way of being for any given individual.

While collaboration takes time, it also has the potential to eat up all the time it is given and never reach a conclusion. Conveners and process managers for a collaborative process should balance the need for time for a group to reach a comfort with working together and to fully explore workable solutions, with the positive effect that reasonable deadlines have in motivating people to make hard decisions. That balance will be different for each group.

Love of place

All 3 collaborations included participants who knew the landscape well. For place-based collaborations, the love of place can serve as a fundamental basis of finding common ground (pun intended). On field trips, all stakeholders are looking at the same thing, at the same time, with different eyes. Their reflections on what they see often differ, but each individual's love and respect for the landscape is evident and recognized. In the Tushar collaboration, toward the tipping point constructive conversations came after the participants were asked to describe their feelings about what they saw after a particular field trip. Each individual described it differently: conservation interests said that the landscape was barren and lacked diversity in vegetation; agency representatives described a violation of their regulations or permit requirements; and ranchers bemoaned that there was not enough forage to support their operation. Each description implied a different possible solution to the problem, but each person also acknowledged that there was indeed a problem to be solved—an "aha" moment that made all participants recognize that they loved that landscape and wanted to be part of making it better.

The LSSC group was able to brainstorm creative solutions because virtually all the participants knew the physical area intimately. Their need to use maps as a reference was limited primarily to the fact that everyone had different names for the specific landscape features or pastures. (The consensus recommendations indicated which name should be the official name from now on.) If a suggestion for fence placement or monitoring, for example, did not receive immediate agreement, other individuals could suggest alternative locations off the top of their head, along with a rationale for why the alternative location achieved the same (or better) result. The biggest smiles were seen when someone suggested, "let's go out in the field tomorrow to double-check that," as each participant cherished their time in the collaboration geography.

Each of the 3 case study collaborations, however, also included representatives who were focused more on ideology and setting (or preventing) precedent, in addition to doing what was best for the particular place. This presents a different collaboration challenge, as the love of place must be balanced with a pragmatic analysis of what each stakeholder might be able to accomplish through means other than collaboration (e.g., litigation; see more about Best Alternative to a Negotiation Agreement [BATNA] concept in Fisher et al. 2011).

Commitment to a future together

Collaboration is not necessarily over when the ink dries on a final report. Any consensus recommendations need to be implemented, which often requires an ongoing working relationship between at least some of the parties. The 2 allotment-specific case study grazing collaborations (Tushar and LSSC) anticipated joint monitoring as well as regular meetings to review monitoring results and to discuss any needed adaptive management measures. The Three Forests collaboration included joint implementation, monitoring, and adaptive management in the recommendations for effective grazing management practices and institutional measures. The parties in each of the site-specific collaborations embraced their future working relationship with differing levels of enthusiasm, which may also influence the long-term success of these collaborative efforts.

The Tushar collaboration participants included a recommendation for at least 2 annual meetings to review monitoring results and determine whether the landscape was moving toward desired conditions. Several annual meetings did occur. As time went on, however, agency personnel turnover, outside realities (e.g., perceptions and assumptions about actions taken by single stakeholders in other situations), and actions taken on the allotments (e.g., grazing inside an exclosure area) served to destroy the delicate trust that had been built during the 2-year collaboration period. The last the author has heard, some parties are once again contemplating litigation.

The LSSC collaboration agreed from the beginning that it was a joint effort. They argued vigorously about monitoring protocols, but ultimately reached agreement. They jointly selected the monitoring sites, and different entities accepted responsibility to conduct the monitoring. They agreed on the key questions they would ask to guide adaptive management. Finally, the group very intentionally built regular meetings for adaptive management purposes into their recommendations, with the additional commitment that all parties would keep each other informed of significant changes in operations, conditions, or key personnel as they occur. It is the common purpose of the group to continue working on the LSSC landscape as a team, with surprise and gamesmanship to be kept to a minimum. The first semi-annual LSSC meeting was scheduled for June 2017, at which monitoring results were to be reviewed and any needed changes in grazing management discussed.

The author recognizes that it currently requires a substantial time commitment for successful collaboration on grazing issues, joint implementation of the consensus agreement, and joint adaptive management. This can limit how many collaborative efforts any given agency staff person or other interested stakeholder can take on, and may even be considered a disincentive to participation in collaborative groups. To the extent that first-time collaborative efforts, such as those described in the 3 case studies, can help striving for consensus become a way of being for the stakeholders involved, their future collaborative interactions should no longer take as much time. Collaborative problem-solving is a new habit to be learned, and practice should make the effort more successful with each new opportunity to collaborate.

Conclusion

Not every issue needs to be resolved through collaboration, and not every collaboration will be successful. The 3 case studies described give some indication of what to think about in deciding whether and when collaboration is an appropriate process. Successful collaboration is personal to the individuals involved and their willingness to make a conscious choice to behave collaboratively. A combination of local knowledge about the place at issue, along with other scientific and technical knowledge, provides the substantive building blocks for problem-solving. The commitment of participants to work through difficulties together, during the collaboration and through the implementation phase, brings on-theground results. The on-the-ground results in turn provide the source material for continued mutual learning and adaptive management. If any of these ingredients is missing or cannot be created over time, a collaboration's success

will be fleeting.

Recipe for collaboration success

Take 8–15 very different personalities holding strong views and assumptions about each other, and put them in a room monthly to learn together about the landscape they love. Mix in a sprinkle of negotiating and collaborative problem-solving support as needed. Add field trips to witness conditions on-the-ground, in person, whenever discussions get stuck. Separate out the critical issues into work groups containing a cross-section of perspectives and expertise. Cook in work groups until the issues are boiled down and consensus recommendations emerge. Reintroduce work group consensus recommendations to full group slowly, allowing time for discussion (stirring the pot) and viewpoints to meld. Combine all consensus recommendations in a draft report, continuing to discuss as necessary for viewpoints to coalesce. If at any point the collaboration starts bubbling over, reduce heat and redo previous steps of the recipe until done. The test of being done is when group energy shifts from double-checking each ingredient of the consensus recommendations to creating the menu for a celebratory meal together.

Acknowledgments

This article was based on a talk given at the Local Knowledge – Local Solutions: Science, Management, and Policy Symposium on February 1, 2017, held as part of the 2017 Society for Range Management Annual Meeting. Comments provided by 2 anonymous reviewers and A. Clark, associate editor, greatly improved the manuscript.

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