

United States Department of the Interior

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May 16, 2013

## ORDER

WESTERN WATERSHEDS	) UT-020-09-01
PROJECT AND WILD UTAH	)
PROJECT,	) Appeal and Petition for Stay
	) from Acting Assistant Field
Appellants	) Manager's Final Decision dated
	) September 12, 2008, involving
V.	) the Duck Creek Allotment, Salt
	) Lake Field Office, Utah
BUREAU OF LAND	)
MANAGEMENT,	)
	)
Respondent	)
	)
LINDA WILLIS, TERRY WILLIS,	)
DAN PEART, WILLIAM	)
KENNEDY, B. REED GROLL and	)
CLARK WILLIS	)
Intervenors	

## **DECISION**

## PROCEDURAL AND HISTORIC BACKGROUND

This matter came onto hearing on June 8, 2009, and, after a lengthy series of hearing blocks, was concluded on July 28, 2011. The hearing transcript is composed of 15,639 pages, making this the most lengthy and

extensive Taylor Grazing Act case in the history of the Departmental Cases Hearings Division. Briefing in this matter was completed on March 14, 2013, with the submission of BLM's Post-Hearing Sur-Reply Brief. The post-hearing briefs, having been submitted by each of the parties, this appeal is now ripe for decision. Without further attribution, this decision incorporates portions of the briefs of the parties in setting forth both the facts and the law. To the extent proposed findings or conclusions are consistent with those entered herein, they are accepted; to the extent that they are not so consistent or may be immaterial, they are rejected.

Appellant, Western Watersheds Project ("WWP") is a non-profit environmental organization, whose goal is to protect and restore western watersheds and wildlife through education, public policy initiatives, and litigation. Appellant, Wild Utah Project ("WUP") is a non-profit environmental organization which works on large scale ecoregional issues and designs plans to protect habitat and address climate change.

The subject Duck Creek Allotment is located in Rich County in northern Utah and includes some 22,731 acres, of which 13,090 acres are BLM public land, 8,585 acres are private land, and 1,056 acres are state land. Ex. B-2, Bates 9311. The allotment, and its BLM management regime, have been the subject of protracted adjudicatory and judicial litigation over a period of years.

The allotment is within the Wyoming Basin, ranges from 6,300 to 7,282 feet in elevation, is within a semi-desert climatic region, and, according to the EA, averages 8-14 inches of precipitation per year. Ex. B-2, Bates 9311. The EA confirms that portions of the allotment constitute an important spring strutting and nesting area for sage grouse, and the sage grouse is a BLM and State of Utah sensitive species. Ex. B-2, Bates 9281. The pygmy rabbit, also a BLM and Utah sensitive species, inhabits the eastern portion of the allotment. Ex. W-6, Appendix A. By way of historical background affecting the allotment, in 1979, BLM issued the Final Randolph Planning Unit Grazing Management Environmental Statement, which assessed alternatives for grazing management for some 140,000 acres of public land in Rich County, Utah, including the Duck Creek Allotment. Ex. B-5. This statement was incorporated into the Randolph Management Framework Plan ("Randolph MFP"), which was issued on June 17, 1980. Ex. B-6. The MFP covers livestock grazing on BLM lands in Rich County.

In August 2001, BLM issued an EA, Finding of No Significant Impact ("FONSI") and Proposed and Final Decisions amending grazing permits on five allotments in Rich County, including Duck Creek. Exs. B-2, Bates 9275, B-8, B-9. WWP appealed those decisions. Ex. B-2, Bates 9275. Both adjudicatory and judicial litigation ensued, and the Rich County Commission formed the so-called Rich County CRM, a grass roots group of interested persons, in order to provide planning for community-based land management recommendations and proposals. Tr., 11843-844; Ex. W-6, p. 1.

Funding for the CRM was provided by the State of Utah Division of Wildlife Resources. Tr., 11846. BLM's Salt Lake Field Office was a full member of the CRM. Tr., 11843-844; Ex. W-6, p. 1. BLM began attending CRM monthly meetings on August 19, 2002. Tr., 11848-49; Ex. B-88. In its EA, BLM described itself as an active participant in the CRM. Ex. B-2, Bates 9277.

Shortly thereafter, the Utah Foundation for Quality Resource Management ("QRM") became affiliated with the Rich County CRM to assist the permittees on the Duck Creek Allotment. Ex. B-2, Bates 9277. The QRM, CRM, BLM and the permittees developed a grazing plan for Duck Creek and executed a Memorandum of Understanding ("MOU") in which the "QRM agrees to assist with the design, implementation and long-term management of the Duck Creek Allotment. ... All parties signing this MOU agree that the project to be implemented is aimed at achieving the goals specifically outlined in the Duck Creek Grazing Plan." Exs. W-6, Appendix A, B-2, Bates 9277. This Duck Creek Grazing Plan became the proposed action in BLM's 2004 EA, which accompanied BLM's 2004 Final Decision to modify the grazing permits on Duck Creek. Exs. B-2, Bates 9276, W-6, p. 1, Appendix A. WWP appealed BLM's October 26, 2004 Final Decision covering Duck Creek, and a hearing was conducted in Salt Lake City chaired by the undersigned. Following considerable testimony, BLM moved to vacate and remand the 2004 Decision, and on May 24, 2005, I granted that motion. This outcome was premised, in part, upon BLM's agreement to collect monitoring data on the Duck Creek Allotment.

In July, 2007, BLM issued the Draft EA for the issuance of new tenyear grazing permits on the allotment, as well as an Allotment Management Plan. Ex. B-4. Appellants filed separate comments on the draft EA. Exs. W-4, W-5. BLM's Notice of Proposed Decision was issued on May 29, 2008. Ex. B-3. WWP and WUP both protested the Proposed Decision. Exs. W-2, W-219. The Final Decision and accompanying EA on appeal herein were issued on September 12, 2008, and the Appellants' ensuing appeals followed thereon. Exs. B-1, B-2.

### **JURISDICTIONAL ISSUE**

As a preliminary procedural issue, I wish to briefly reprise an interlocutory issue which arose during the course of the protracted public hearing in this matter, which resulted in the undersigned staying these proceedings on an interlocutory basis pursuant to my Order of October 22, 2010. I raise this issue again, in part, because it tangentially resurfaces in the BLM's Post-Hearing Response Brief ("Response Brief"). Therein, counsel for the government states the following, "Moreover, <u>as the result of the</u> settlement in WWP v. Carpenter (Ex. B7) and subsequent commitments made pursuant to it, BLM identified the DCA as its top priority for data collection to commence in fiscal year 2005, and this caused BLM to work as quickly as possible in 2005. See e.g. 31:8738-39; 44:11984-87; 53:14962-65.... BLM's interaction with Appellants must be considered against this backdrop. As the record reflects, there was obvious tension between Appellants' witnesses and BLM personnel that seemed to increase as BLM neared its decision, <u>exacerbated by BLM's time constraints imposed by the</u> WWP v. Carpenter settlement." Response Brief, p. 39; Emphasis added.

Here is the problem: the referenced settlement specifically covered, among others, the Duck Creek Allotment. Relatedly, the Federal District Court for the District of Utah, in its Order approving the referenced Settlement Agreement covering the Duck Creek Allotment stated the following, "Following execution of this Agreement, the parties will submit a proposed Order Approving Joint Stipulation and Settlement Agreement to the Court, for its review and approval, to incorporate the terms of this Agreement. Upon approval of said Order, the parties agree that this case will be dismissed without prejudice, with the Court retaining jurisdiction to enforce the terms of this Agreement pursuant to Kokkonen v. Guardian Life Ins. Co. of America, 511 U.S. 375 (1994)." Ex. B7 (Order of the United States District for the District of Utah, No. 2:02 CV 0352 PGC, April 15, 2005), pp. 1-2, Para. 2; Emphasis added. The references to the transcript, cited above in the quoted portion of BLM's Response Brief, bracket and delineate the underlying concern set out in my Stay Order of October 22, 2010, namely that the parties and the associated record were moving dangerously close to asking the undersigned to enforce the terms of the Federal District Court's <u>Carpenter</u> settlement agreement. In particular, in that Stay Order, I stated the following, "During recent sessions of the public hearing in this docket, increasingly frequent references have been made to the so-called 'Carpenter Settlement,' which settlement implicates both the Appellant, Western Watersheds Project, and the Respondent, Bureau of Land Management, and which settlement was previously approved by the Federal District Court

For The District Of Utah. ... Having reviewed Exhibit B-7 ... I have come to the reluctant conclusion that said Settlement Agreement implicates a number of issues currently on appeal in the instant adjudicatory docket. While the Appellants could subsequently elect to waive the option of returning to federal court, it is none-the-less the case that, from a jurisdictional perspective, they must be afforded that procedural option at this time." October 22, 2010, Stay Order, pp. 1-2.

On November 8, 2010, Appellants filed their Motion To Lift Stay, in which Appellants averred that they would not "... seek enforcement/interpretation in the Federal District Court for the District of Utah ... " Appellants' Motion To Lift Stay, p.1. In turn, on November 8, 2010, BLM filed its Response To Appellants' Motion To Lift Stay. That Response speaks for itself, but, in context, it sets out several objections to the adequacy of the scope of Appellants' jurisdictional disavowal, briefly quoted above. In turn, on November 15, 2010, Appellants filed their Reply To Respondent's Response To Appellants' Motion To Lift Stay. Therein, the following is stated, "In its response, Respondent indicates that in order for this Tribunal to retain jurisdiction over the current appeal Appellants should waive any and all rights they may have to seek enforcement of the Settlement Agreement as it pertains to the Duck Creek Allotment now and in any future decision that is not at issue in this docket. Appellants do not believe that such a broad waiver is necessary or required for this Tribunal to retain jurisdiction over the current appeal." Appellants' Reply To Respondent's Response To Appellants' Motion To Lift Stay, pp. 1-2. Appellants posited a more limited waiver, as follows, "As Appellants stated in their Motion to Lift Stay, they will not pursue any legal claims related to the Settlement Agreement and waive the option of returning to Federal Court to seek enforcement/interpretation of the Settlement Agreement as it relates to the decision at issue in this docket. This means exactly what it says. Appellants do not waive their right to return to Federal Court to seek enforcement/interpretation of the Settlement Agreement as it relates to any

future decision BLM might make on the Duck Creek Allotment, and such a broad waiver is not necessary for this Tribunal to retain jurisdiction over the instant appeal." Appellants' Reply To Respondent's Response To Appellants' Motion To Lift Stay, pp. 2-3; Emphasis in original.

My Order of November 23, 2010, Lifted the Stay and Rescheduled the public hearing, thereby affirming the scope of the waiver as delineated in the above-quoted provisions of the Appellants' Reply To Respondent's Response To Appellants' Motion To Lift Stay. My November 23, 2010, Order, therefore, determined that I enjoyed continuing jurisdiction over all of the issues on appeal in the instant docket. Because I continue to believe that reasonable minds could, indeed, differ with respect to that jurisdictional determination, particularly as it included all issues on appeal herein, and, also because BLM's referenced Response To Appellants' Motion To Lift Stay, in fact, does disagree with the scope my ultimate jurisdictional determination, I hereby respectfully commend to the Interior Board of Land Appeals ("IBLA"), this jurisdictional issue as its first procedural priority when this decision is subsequently appealed thereto. This is based upon two considerations: (1) jurisdiction is always ripe for review, and (2) as numerous IBLA decisions confirm, the Board retains de <u>novo</u> jurisdiction to review all legal and factual determinations of a subordinate ALJ.

# DOUMENTARY EVIDENCE NOT PROVIDED TO BLM BEFORE DECISION

In its Response Brief, BLM moves to strike all exhibits implicating material not submitted to BLM prior to the issuance of its Decision. Response Brief, p. 7. During the hearing, Mr. Gates testified regarding certain documents that were not submitted to the SLFO prior to the issuance of his Final Decision. Tr., 12377-379. BLM submitted a Motion in

Limine prior to the hearing. The undersigned denied said motion by Order dated May 27, 2009, which speaks for itself. Early in the hearing process, BLM renewed the substance of its motion, and the undersigned recommended a procedural compromise that would exclude post-decisional documents but would allow pre-decisional documents to be proffered, subject to objection on an exhibit-by-exhibit basis for relevance and the like. See, e.g., Tr., 15, 34-35, 38-39, 40-44. Both parties agreed to this compromise in an obvious effort to move the proceedings along. BLM agreed that it would not generically object to documents that BLM may not have considered prior to its Final Decision, and, in turn, Appellants agreed not to proffer documents post-dating the decision. Tr., 52. After renewing BLM's objection to this mutual agreement, which the parties and the undersigned continued to observe for the remainder of the hearing blocks, BLM states the following in its Response Brief, "Notwithstanding this position, BLM will continue to respect the compromise discussed above." Response Brief, p. 9.

The referenced evidentiary compromise was agreed to on-the-record by both parties and the undersigned in an effort to expedite the hearing proceedings. The compromise was observed throughout the balance of the hearings and, in my opinion, did not serve to prejudice either of the parties. I decline to further review the referenced compromise, and also incorporate by reference the content of my May 27, 2009, Order, which denied the BLM's Motion in Limine.

## **BURDEN OF PROOF IN TAYLOR GRAZING ACT APPEALS**

Appellants in a Taylor Grazing Act appeal confront a very heavy burden of proof. The typical evidentiary profile in these grazing appeals is that the Appellants critique and challenge a broad range of data, documents and related evidence, which derives from the files of the BLM itself. Stated

more directly, in the typical grazing appeal, the Appellants rarely have independent monitoring data that they have generated themselves, and they typically critique the purported accuracy of BLM's data and documents in order to attempt to prove their case. In most cases, this approach fails to meet the high burden of proof that has been set in numerous precedential decisions of IBLA.

The Department's grazing regulations provide for reversal of a BLM grazing decision if said decision is not reasonable or is not in compliance with pertinent regulations. 43 C.F.R. 4.480(b). Reversal is appropriate where the hearing shows that BLM made a clear error of law or fact; failed to consider important environmental aspects; or its decision is not grounded upon technical expertise of staff competent in their field. <u>Committee for</u> Idaho's High Desert, 137 IBLA 92 (1996). Challenges to an EA and accompanying FONSI must demonstrate that the decision was based upon a clear error of law or a demonstrable error of fact, or that BLM's environmental analysis failed to consider substantial environmental issues of material significance. <u>Klamath Siskiyou Wildlands Center</u>, 157 IBLA 322, 328 (2002). While it is well established that BLM is legally entitled to rely upon its own staff experts, its final decision must also be based upon a hard look at all relevant environmental factors and other material facts. West Cow Creek Permittees v. BLM, 142 IBLA 224 (1998). Generally speaking, in this case Appellants' repeated efforts to integrate their monitoring data with BLM's and to collaborate in distilling an integrated final decision, based upon integrated data, were affirmatively rebuffed by the BLM, often within the hostile forum of the CRM meetings.

In the instant appeal, Appellants were on the ground monitoring on the Duck Creek Allotment for years. Relatedly, the two main witnesses for the Appellants, Drs. Carter and Catlin, both having Ph. D.'s, spent significant amounts of time on-the-ground in the Duck Creek Allotment. As the overall record reflects, Appellants have spent significant time monitoring on the ground and are very familiar with the relevant details of the Duck Creek Allotment.

In this case the Appellants have proffered their own, independently derived and detailed documentary monitoring data; they have proffered very extensive testimony and accompanying exhibits; they have proffered academic and scholarly supportive exhibits; and, consequently, they have demonstrated first-hand, on-the-ground, knowledge about the Duck Creek Allotment.

Relatedly, this case reflects another important, general issue. BLM has limited resources. As counsel for the BLM confirmed in his Response Brief, the administrative burdens falling upon the Salt Lake Field Office are extensive, as follows:

"The DCA is only one of 153 allotments, spread over 2.4 million acres, managed by the SLFO. See 43:11703. For these allotments, the SLFO administers over 200 grazing permits, and attempts to collect monitoring data on 15 to 20 allotments per year. See 34:11705-06. Since Gates began working at the SLFO in 2002, the SLFO has typically had a range staff of two to three people, who are expected not only to administer the SLFO range program, but who are asked to devote approximately 25% of their time to non-range 'collateral duties.' See 43:11707-09."

BLM Response Brief, p. 34, fn 18.

These observations imply no individual fault on the part of BLM's witnesses; they are all dedicated public servants; however, it is the case that BLM has limited personnel and budgetary resources, while at the same time being responsible for managing millions of acres of public land. The

general issue here, which ripples through the whole hearing transcript in this case, is the following: What should be the appropriate administrative default option for a regulatory agency, such as, BLM, where it may not have the personnel or budgetary resources to generate adequate, contemporary range monitoring data? Is the proper administrative and regulatory default option always to renew the subject grazing permit with the same, unchanged livestock stocking level, under circumstances where, through no individual fault of BLM personnel, BLM may not have enjoyed sufficient budgetary and institutional resources to generate sufficient current data and information to knowledgeably do so? In my opinion, this case implicates this global enforcement issue, because in this case the Appellants have extensive evidence and data that admittedly conflicts with BLM's data; Appellants have extensive on the ground experience on the allotment; and, during the hearing, Appellants proffered extensive testimony supported by equally extensive exhibits. One default option could have been to reduce the stocking level, particularly where there is a large body of scientific evidence and testimony proffered by the Appellants that would commend that result. However, BLM did not analyze a reduced stocking rate alternative in its EA. Ex. B-2. I believe that in a case of this magnitude, BLM should have done so, as I discuss in greater detail below.

# **CCC AND PROCEDURAL DUE PROCESS ISSUES**

On October 4, 2006, the CRM's Sage Grouse Subcommittee completed the Rich County Coordinated Resource Management Greater Sage Grouse Conservation Plan. The proposed action in the EA on appeal herein substantially "... reflects the BLM, CRM and permittees modifications ... ." Ex. B-2, Bates 9277-78. In 2005, as a direct result of the <u>Carpenter</u> settlement, referenced above, BLM conducted an Ecological Site Inventory ("ESI") and rangeland and riparian health surveys on the Duck Creek Allotment, the results of which were used to "... identify issues and to analyze the management alternatives" that are set out in the Final EA on appeal herein. Ex. B-2, Bates 9278. In terms of its scope, BLM's 2005 monitoring effort was a one-time, atypical event driven by litigation, and the agency's monitoring efforts in prior and subsequent years have been much less extensive.

BLM presented the results of their Ecological Site Inventory, monitoring and data collection, including a comparison to Appellants' 2005 monitoring data, at a June 2, 2006, CRM meeting, which BLM witnesses testified constituted a public scoping meeting under the auspices of NEPA. Tr., 11939-940, 12450; Exs. B-45, W-46. The June 2, 2006, CRM meeting became a singular focus of the public hearing for both parties. That meeting was not chaired by BLM; the meeting was chaired by CRM; the meeting was conducted at a CRM meeting site; nor, was that meeting publicly noticed in advance in the Federal Register or similar medium. BLM takes the position, in context, that the June 2, 2006, meeting constituted a legally sufficient NEPA scoping meeting. The Department's NEPA regulations provide that, with respect to an Environmental Assessment, "Although scoping is not required, the bureau may apply a scoping process to an Environmental Assessment." 43 C.F.R. 46.305(a)(2). Although BLM is not required to afford a scoping process for a proposed EA, once it does so, that process must comply with other minimum procedural due process requirements. For example, "When practicing consensus-based management in the NEPA process, bureaus must comply with all applicable laws, including any applicable provisions of the Federal Advisory Committee Act (FACA)." 43 C.F.R. 46.110(e).

In its Response Brief, BLM states the following, "BLM acknowledges that it did use the CRM meeting for purposes of 'scoping,' or identifying issues that were considered by BLM in its NEPA and decision-making process." Response Brief, p. 41. Mr. Steiger confirmed on the record that the CRM was not chartered or recognized under the auspices of the Federal Advisory Committee Act; Mr. Steiger confirmed on the record that the CRM

was not a federal government contractor or sub-contractor. Tr., 9639. Further, in this context, Mr. Steiger confirmed on the record the following: "Well, I agree that the issue of whether the CRM had some undue influence is on the table." Tr., 9642. The June 2, 2006, meeting was under the exclusive procedural control of CRM, not the BLM. It was not a neutral setting, and it was not an open meeting; the agenda, including the recognition and ordering of speakers and presenters was under the exclusive control of CRM. BLM's scoping protocol, that is, having a purported federal regulatory agency scoping meeting at CRM facilities, with CRM chairing and controlling the meeting agenda, created an overtly hostile environment both for the Appellants, and for potentially other interested publics. This constituted a deprivation of procedural due process for at least the Appellants, because BLM failed to provide a neutral scoping environment that was under BLM's own administrative control. BLM thereby ceded its management and supervisory responsibilities to the CRM, which was not a federal regulatory entity, not a contractor, and not a FACA recognized entity. The result was an antagonistic and hostile meeting environment, and that result was assured, because the meeting was chaired and controlled by CRM, not by the jurisdictional federal regulatory agency, the BLM. See: e.g., Tr., 10724-726, 11910-911.

In my opinion, because the CRM venue constituted a hostile environment for the Appellants, this process constituted a deprivation of basic procedural process for WWP and WUP, and the June 2, 2006, CRM meeting, therefore, did not constitute a legally sufficient federal government scoping meeting, because the CRM format did not allow for the expression of contrary public opinions. For example, with respect to consensus based management and consultation under the Department's NEPA regulations, the following is required, "For purposes of this part, consensus-based management involves outreach to persons, organizations or communities who may be interested in or affected by a proposed action <u>with an</u> assurance that their input will be given consideration by the Responsible

Official in selecting a course of action." Emphasis added; 43 C.F.R. 46.110(a). The record is clear that the BLM never afforded such "consideration" to the Appellants in the June 2, 2006, CRM meeting, because BLM was not in charge nor did it chair at any time that purported federal scoping meeting. In my opinion, with respect to that scoping meeting BLM was procedurally obliged to do one of two things: (1) chair that portion of the CRM meeting which BLM contends on the record was a federal scoping meeting, or (2) conduct the Duck Creek Allotment scoping portion of that meeting at a separate, neutral meeting site.

This issue arises in the context of NEPA compliance law. The basic issue is whether the delegation of important procedural responsibilities to the CRM raises both illegal delegation and conflict of interest issues, where it is clear on the record that CRM was never a BLM contractor or advisory committee. Because both the permittees and the CRM had an interest in securing BLM's approval of their NEPA related proposals for the Duck Creek Allotment, the entire scoping protocol was improperly skewed to serve those interests, and to procedurally exclude the admittedly contrary interests of the Appellants. See, e.g.: Greene County Planning Bd. v. Federal Power Commission, 455 F. 2d 412 (2nd Cir. 1972). Relatedly, while BLM may elicit relevant environmental analyses prepared by others, BLM must independently review those analyses. Sierra Club, Inc., et al., 92 IBLA 290, 303 (June 1986). This requirement is also set out in the Department's NEPA regulations. 43 C.F.R. 46.320. Appellants' counsel asked Dr. Carter on direct, "So does it appear to you that ... the BLM accepted the permittees' and the CRM's proposals and rolled them into the EA?" Tr., 9715. Dr. Carter replied, "That's correct." Id.

As an initial matter, this case is distinguished by the fact that Appellants conducted on-the-ground monitoring of uplands and riparian areas on the allotment from 2005 through 2008. In plain terms, IBLA precedent suggests that, generally speaking, Appellants in Taylor Grazing

Act appeals cannot meet their heavy burden of proof by simply critiquing BLM's data base, but Appellants desirably should conduct their own range studies, thereby developing their own, independent data base. In the instant case, however, BLM contends that the extensive monitoring conducted by the Appellants is not worthy of reliance because it is contended that, among other alleged deficiencies, Appellants' modified paired plot methodology failed to properly measure utilization on the allotment.

By its own testimony, BLM used the CRM meetings as NEPA public scoping meetings for the Duck Creek EA, as well as to comply with the regulatory requirement for consultation, cooperation and coordination ("CCC") under the auspices of the Federal Land Policy Management Act ("FLPMA"). BLM did not provide any kind of general public notice of these meetings, and, in my opinion, improperly delegated its scoping responsibilities to the CRM, which chaired and completely controlled those meetings. While BLM is not obliged under the regulations to conduct scoping sessions for the preparation of an EA, once it decides to do so, it must observe minimum procedural due process requirements, which include retaining administrative control over its own scoping sessions. As a procedural matter, BLM deferred completely to the CRM, and, in my opinion, this constituted an illegal delegation of BLM's supervisory responsibilities to an entity that enjoyed no federal legal status whatsoever. Dr. Carter confirmed this procedural result in his testimony, when, in response to a question from Appellants' counsel, he confirmed that BLM accepted the permittees' and the CRM's proposals and rolled them into the EA. Tr., 9715.

Dr. Carter testified as to his institutional experience with the CRM, as follows:

It's like a club. There's a lot of back-slapping and happy people among the permittees and BLM and so I think it's a friendly environment for permittees and BLM but not for others. If you have a position that's different, you're considered belligerent, if you state your position.

Tr., 9614-15.

BLM treated the CRM meetings as federal scoping meetings. Dr. Carter's statement proves that, at least from the perspective of WWP, these meetings did not constitute a neutral environment; they constituted a hostile environment. Indeed, Dr. Carter did not even attend the June 2, 2006, CRM meeting, because he was never properly informed in advance of its full agenda. In my opinion, BLM's delegation of the chairmanship of its scoping sessions to CRM constituted an overt abuse of its administrative discretion; if the BLM elects to conduct scoping meetings in conjunction with the preparation of an EA, the agency is obliged to provide a neutral environment and to chair the BLM-related portions of such meetings. BLM failed to perform its basic administrative duties on both procedural counts.

NEPA's policy is to "... encourage and facilitate public involvement in decisions which affect the quality of the human environment." 40 C.F.R. 1500.2(d). The CEQ regulations state that "... agencies shall: (a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures ... (b) Provide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected." 40 C.F.R. 1506.6. The CEQ regulations provide a list of ways in which Agencies may provide notice of public meetings or hearings. 40 C.F.R.

1506.6(b)(2),(3). In this case, with respect to its scoping protocol, BLM failed to comply with these provisions, deferring completely to the CRM. In this context, BLM's failure to itself properly notify potential interested publics and to thereby conduct its scoping sessions "in the sunshine" constituted administrative conduct that deprived Appellants of procedural due process.

Further, "Agencies shall hold or sponsor public hearings or public meetings whenever appropriate or in accordance with statutory requirements applicable to the agency. Criteria shall include whether there is : (1) Substantial environmental controversy concerning the proposed action or substantial interest in holding the hearing." 40 C.F.R. 1506.6(c)(1).

When issuing new grazing permits, BLM must consult, cooperate and coordinate ("CCC") with interested publics. 43 C.F.R. 4120.2(a), 4130.2(b). However, for both of the Appellants to fully and completely participate in the public process for Duck Creek, they were, in reality, obliged to attend the CRM meetings. The procedural point that needs to be clearly registered here is that it was perfectly proper for BLM to attend the CRM meetings; the attendees at the CRM meetings were also part of the interested public. Where BLM erred was requiring WWP and WUP to attend those CRM meetings in order to fully participate in BLM's scoping process. BLM should have provided the procedural option of a neutral, government-chaired environment for its scoping meetings.

Indeed, BLM testified that the June 2, 2006, CRM meeting was the main public scoping meeting for the Duck Creek EA. Tr., 11944, 12450, 12484. This was not a BLM-run meeting; BLM did not notify the public about the meeting; BLM did not take meeting notes or attendance records. Mr. Gates testified that BLM was "just part of the agenda" occurring at the end of the unrelated CRM meeting. Tr.,11947, 12452-453. Dr. Carter, in fact, did not attend the June 6, 2006, CRM meeting. Later, however, on September 12, 2007, over one year later, Mr. Gates sent an e-mail to the

CRM facilitator requesting the following post-hoc reinterpretation of the CRM's June 2, 2006, meeting:

It would be appropriate if the record could reflect that the BLM held a public meeting on June 2, 2006 (June CRM meeting) in which John Carter and all others in attendance to last week's meeting were invited to participate. This meeting was the public scoping meeting for the Duck Creek Project, we discussed the BLM data for an hour and we discussed possible alternatives to the Duck Creek Project for an hour. We would also like the minutes to reflect that I was specific in my discussion with John that I informed him that we in fact held a public meeting on Duck Creek and that he was invited but not present.

I apologize for any inconvenience this may cause in the minutes, but we would like to be consistent in our protocols for NEPA and public participation. This meeting at such a late date in the process is for the purpose of avoiding litigation, it is not the normal mode of operations.

Ex. W-46, Bates 5075.

The simple solution to this procedural dilemma would have been to conduct a proper scoping meeting at a neutral meeting site chaired by an appropriate BLM official. Mr. Gates' effort to have a CRM facilitator amend the content of CRM meeting minutes to reinterpret the purpose of the June 2, 2006, meeting over one year later, coupled with his expressed concern over the potential for litigation, proves that in June 2006 BLM was improperly using the CRM meeting venues to discourage Appellants' meaningful involvement in the Duck Creek decision-making process as required by NEPA. BLM did not provide adequate notice of the CRM

sessions, and improperly relied on CRM to do so; BLM failed to take any of their own notes or minutes. Mr. Gates' post-hoc effort to have the CRM minutes amended to suit his litigation-related concerns, one full year after the CRM meeting itself, constituted an overt abuse of his administrative discretion (i.e. tampering with records one year after-the-fact), which resulted in clear deprivation of procedural due process to WWP and WUP under both the NEPA and FLPMA regulations regarding CCC requirements, and Mr. Gates' post-hoc conduct constituted, at a minimum, reversible procedural error.

IBLA has provided some general guidance with respect to this issue. For example, IBLA has stated that, "Where BLM has engaged in some type of public process and an appellant alleges that public notice and comment procedures were inadequate, this Board will scrutinize that process on a case-by-case basis to determine its adequacy." <u>The Wilderness Workshop</u>, et al., 175 IBLA 124, 133 (2008). Similarly, in a case with analogous procedural issues, the Board concluded the following, "It is apparent that BLM did not undertake the kind of scoping process in this case which it had used in others, in particular the notification of interested parties by mail." Lynn Canal Conservation, Inc., 167 IBLA 136, 142 (2005)("Lynn Canal 1"). My conclusion is that in the instant case, BLM failed to undertake a proper scoping process because it failed to properly notify Appellants in advance of the June 2, 2006, CRM meeting, and BLM, therefore, deferred illegally to the CRM to accomplish that federal regulatory purpose. Indeed, in a sequel to Lynn Canal 1, IBLA stated the following, "In this case, BLM determined that public involvement was appropriate, ostensibly because of the highly controversial nature of helicopter-assisted recreation. However, having made that determination, its implementation of the public participation process, as set forth in our recitation of the facts in this case, left much to be desired." Lynn Canal Conservation, Inc., 169 IBLA 1, 11 (2006)("Lynn Canal 2"). The same can be said of BLM's conduct in the instant case.

Mr. Shane Green from the NRCS and other BLM officials presented the results of their 2005 monitoring on Duck Creek, including comparisons of BLM's and Appellants' data sets, during the June 2, 2006, CRM meeting, which Mr. Green attended, and which Dr. Carter did not attend. Tr., 11,939-940. The June 2, 2006, CRM meeting was, in fact, chaired by Mr. Norm Weston, a Rich County Commissioner; the portion of the meeting implicating Duck Creek was not chaired by Mr. Gates or anyone else from the BLM. Tr., 12,475-476, 12,480. A CRM facilitator not employed by BLM, Mr. Scott Pratt, was in charge of recognizing persons to speak at the June 2, 2006, meeting. Tr., 12477-478. The only minutes are the CRM meeting notes, which Mr. Gates improperly attempted to have amended one year after the fact. Ex. B-45, pp. 5021-22.

Although BLM invited him, Dr. Carter did not attend the June 2, 2006, meeting. He was not properly notified in advance that it was intended to be BLM's official, generic scoping meeting with respect to Duck Creek. BLM argues, in context, that any deprivation of procedural due process or adequate notice was subsequently cured when the Appellants were invited to an October 2, 2007, meeting that BLM attempts to construe as also constituting a scoping meeting. BLM's Response Brief, p. 44. However, the problem with this rationale is that by the time BLM invited the Appellants to the October 2, 2007, meeting, the Draft EA had already been previously issued, and the real public participation with respect to the pending BLM EA for Duck Creek had already been made; because, in truth, there were no material substantive changes made between the Draft and Final EA's; there is no material difference between the Draft and Final EA's. The October 2007 meeting was too late to receive meaningful input from the Appellants. By that time BLM had already made up its mind with respect to the content of the ensuing EA. Indeed, the June 2, 2006, CRM meeting was treated by BLM as their definitive scoping meeting for the Duck Creek Allotment, and the input of the CRM was accepted virtually in-toto; whereas, contrary voices and opinions were effectively subordinated. The government's

rationale on this issue is pretext; arguing in the Response Brief that it was a scoping meeting but it was not a federal government meeting. BLM's Response Brief, p. 42. BLM can't have it both ways, and its tortured rationalizations to try and legally construe the June 2, 2006, meeting are without merit, to wit: Mr. Gates sworn testimony confirms that BLM treated that meeting as a federal Duck Creek scoping meeting, and it is my determination that said meeting was illegally constituted for that purpose.

Beyond this, BLM utilized other CRM meetings for general scoping purposes. Tr., 11944, 11950. Mr. Staggs testified that the "... Duck Creek Allotment in general has been an item of discussion at the CRM meetings for some time, even ... prior to the first Duck Creek hearing." Tr., 14133-134. BLM did not publish notice of any of the CRM meetings used for scoping purposes. Tr., 12451. Mr. Gates testified that the CRM, not the BLM, sent out e-mail notices of pending CRM meetings, but he did not know whether such CRM e-mails included all of the persons identified by BLM as interested publics. Tr., 12471-472. BLM sent two letters to Dr. Carter with respect to the June 2, 2006, CRM meeting, but neither letter states that the meeting was intended to be a public scoping meeting under the purview of NEPA, nor do the letters state that BLM would use the meeting to solicit public comments for the purpose of identifying issues and alternatives. Tr., 12459. Mr. Gates testified, "... we just invited him to hear the presentation on the data on the Duck Creek Allotment ... it invited him to ... a meeting of the CRM to hear our monitoring and inventory data on the Duck Creek Allotment." Tr., 12459.

Mr. Gates' September 12, 2007, post-hoc E-mail to CRM (Ex. W-46, Bates 5075) is the "smoking gun" in this case, which, standing alone, demands reversal of the Decision on appeal herein, because that E-mail proves an overt deprivation of procedural due process against WWP.

### EXPERT WITNESS ISSUE

BLM devotes a considerable amount of verbiage in its Response Brief in an effort to discredit the expertise of both Drs. Catlin and Carter. However, they both experienced several years of on-the-job, on-the-ground, training conducting their extensive monitoring on the allotment, and, in my opinion, their testimony is credible with respect to the conditions on the allotment, particularly in the time frame post-2005, the year in which BLM conducted most of its monitoring. Indeed, in contrast, the testimony of both Mr. Gates and Mr. Staggs was at various times notably uninformed, inconsistent, and contradictory. See: e.g., Tr., 11729, 13903. Neither one of them has spent as much time on the Duck Creek Allotment as have both Dr. Catlin and Dr. Carter. Mr. Staggs prepared a substantial portion of the EA and Decision, and Mr. Gates was the ID Team leader for the EA. Tr., 11723-724.

Appellants appropriately described Dr. Catlin as proffering expert testimony in ecosystem planning, habitat monitoring, data collection, and the scientific validation of land management methods. Dr. Carter was described as proffering expert testimony in upland and riparian ecology, habitat monitoring, range suitability and capability, data collection, and scientific validation of land management methods. Tr., 232-236, 241-246, 7117-7131, 7142-7145, 7579-7482, 7588-7593, 10,521-10523, 10,528, 10,541-10,550, 10,559-10,561, 11,579-11581; Exs., W-12, W-13, W-142, W-144, W-145, W-153, W-154, W-155. These references, combined with the extensive onthe-ground, on-the-job, training which both Drs. Catlin and Carter experienced in the time frame 2005-2008, entitle their testimony to receive reasonable deference.

### THE COMPETING METHODOLOGIES

As an initial critical factual matter, the main difference between the BLM's monitoring methodology and Appellants' is that the BLM primarily relied on visual, ocular estimates of key forage species, except for BLM's cover data, which employed the line point method, which is quantitative. Ex. B21, p. 10. For most of their monitoring, the Appellants actually clipped and weighed at each and every one of their monitoring sites. Relatedly, Appellants conducted extensive on-the-ground monitoring over a longer period of time than did BLM. In 2005, BLM did an initial so-called "calibration" in which they would clip and weigh plants, but BLM actually clipped foliage only initially, and at the vast majority of their monitoring sites BLM eyeballed their key forage species and then noted their visual estimates on their field data sheets. To the contrary, at each and every one of their monitoring sites, both upland and riparian, the Appellants clipped and weighed the forage in both their caged, ungrazed plots, and in their grazed plots on their respective transects. Both BLM and Appellants deviated to some extent from the precise methodologies set out in the Technical Reference, and this is perfectly permissible, because the Technical Reference constitutes government guidelines and not mandatory government regulations. Both Drs. Catlin and Carter contend in their testimony, that Appellants employed an objective, scientific monitoring methodology that was based upon actual clipping and weighing, that is, actual measurements, further contending that the BLM employed a subjective ocular, visual estimation methodology that relied upon the subjective judgment of the particular BLM observer.

Appellants' data collection efforts were designed, supervised and executed by Dr. Carter and Dr. Catlin, both with Ph.Ds. In addition, Mr. Edwards, who also appeared as a witness for Appellants, is a retired BLM employee, who worked for the agency for some 30 years. With respect to their monitoring protocols on Duck Creek, Dr. Carter testified, as follows:

There weren't manuals to guide us on how to do certain things. We took our knowledge of the ecosystem and how the system functioned, what it was we wanted to show, and determined, Okay, what's the best way to sample this in an efficient manner that will give us the results that will answer our questions? And then that's what we would do.

Tr., 11598.

Just as BLM also did with respect to its methodology, Appellants adopted and modified certain methods set out in the various manuals in order to accommodate the circumstances encountered on Duck Creek. Tr., 11600-01. This approach does not automatically render the Appellants' methodology completely invalid or inapposite, as contended in context by BLM. As the pertinent TR clearly points out, any of its methods may be modified or adjusted in relation to conditions on the ground. Ex. B-17, p. 2.

Drs. Carter and Catlin began their joint monitoring on Duck Creek in 2005 with the collection of utilization, production, cover and stubble height data. Ex. W-72, pp. 1-3. Drs. Carter and Catlin, and Mr. Edwards, invested substantial time and effort on Duck Creek familiarizing themselves with the allotment and determining where to locate their monitoring sites and then conducting extensive multi-year monitoring, all of which data is in the administrative record of this case. Exs. W-20, W-28; Tr., 548-49. To measure upland utilization and production, Appellants modified the paired-plot method described in BLM's Technical Reference, Utilization Studies and Residual Measurements, Ex. B-17; Tr., 434-35. This method compares forage clipped from caged, as compared to uncaged plots, that is, plots protected from grazing against plots that were open to grazing. Tr., 435. Forage was

clipped from the Appellants' monitoring sites at the end of the grazing season and was weighed. Appellants chose this method because it was not an ocular, subjective method; but, rather, Appellants contend that it was an objective, fact based method, that relied on clipping and weighing of vegetation, rather than just ocular estimation, which is the method generally employed by BLM. Tr., 435-36. Consequently, Appellants relied upon actual measurements of foliage, rather than the generally ocular estimation method employed by BLM. Tr., 438-39.

Indeed, this very issue is addressed by Holechek in his Range Management textbook, which takes account of the qualitative, as distinguished from quantative, nature of BLM's monitoring methods, as follows:

Utilization surveys by both the (BLM) and Forest Service have involved qualitative techniques. ... The primary concern regarding these surveys has been that they are subjective and their reliability cannot be readily quantified with standard statistical procedures.

### Ex. B-20, Bates 7042; Tr., 562-63.

The allegedly subjective nature of BLM's range survey methods was of concern to both Drs. Carter and Catlin, and their reluctance to rely upon ocular survey methods is why they elected to utilize the paired-plot method on Duck Creek. Ex. W-21, p. 10; Tr., 563. Dr. Catlin contended in his testimony that BLM's key species method, which relies on ocular survey, is based on subjective terms, which cannot be scientifically validated. Tr., 987.

To the contrary, Dr. Catlin testified that the accuracy of his pairedplot method is very high, because the foliage collected is measured with a scale, and calculating the relative utilization implicates a computation of the un-grazed versus the grazed vegetation weights. Tr., 439. Appellants contend that this results in an objective, factual measure of how much forage is produced and how much is grazed, and Dr. Carter testified separately with respect to the consequences of their methodology for upland monitoring, as follows:

We used a modification of a Forest Service belt-line transect method which we had first used in the Grand Staircase National Monument and it was one which Dr. Al Winward had demonstrated to myself and others in the Logan Ranger District during an all-day field tour some time previous to that, in the 1990's which essentially involved: You place a cage at a representative location, and then you string a 100-foot tape in each of the selected directions. And we chose to use a systematic design, where we picked even increments of degrees in a 360 degree circle, so we had transects at true north, zero degrees, 72 degrees, 144 degrees, 216 degrees, and 288 degrees, so that gave us our five transects.

And then along the transect line, the tape was strung, and we clipped the plots at the 50- and 100- foot marks on the tape. So the corner of the plot frame would have been placed adjacent to the 50-foot mark on the tape. If the tape was on top of a shrub and some distance above the ground, you would try to sight down vertically and place that as close to parallel to the tape and under the 50 foot mark or the 100 foot mark as you could get. Shrubs would interfere may times, and so we built the frames so you could take them apart and put them back together around the base or thread them through shrubs so that we could try to get the plots as close to the ground as possible.

Tr. 9741-42; Exs., W-18, p. 1, W-72, p. 2.

With respect to this methodology, Dr. Carter summarized that, "It made intuitive sense because our design, 100 foot either way, we're basically sampling an area, a 200 foot radius which is nearly an acre in size. And by having the systematic design, we felt we were representing that area reasonably well." Tr., 9475.

To be sure Appellants modified the paired-plot method from BLM's Technical Reference allegedly to meet the purpose for which they were collecting the data, that is, to measure actual production and utilization to determine the capacity of the allotment to support the existing grazing level. Tr., 412-421. The Technical Reference states:

The techniques described here are guidelines for establishing and conducting utilization and residue studies. They are not standards. Utilization and residue sampling techniques and standards need to be based on management objectives. Techniques can be modified or adjusted to fit a particular resource situation or management objective as long as the principles of the technique are maintained.

Ex. B-17, Bates 1264; emphasis in original.

Dr. Catlin in his testimony explained why Appellants did not use BLM's key forage method, as follows:

It is just an estimate of how much was taken, but you don't know the relative amounts that were taken. You don't know the changes in productivity of the site at the time you're measuring it. So it will not help you identify loss of productivity of a site, which is an important thing that affects stocking level. So the key forage plant method cannot help you in adjusting stocking levels accurately because it doesn't tell you forage loss.

Tr., 900.

In particular, Appellants "... wanted to provide data that had not been provided before, which is how much forage is produced and how much is used. And that would be a new data set." Tr., 429. Appellants did not want to duplicate the monitoring efforts of BLM and of the Utah Division of Wildlife Resources, both of which were using the key forage method. Tr., 428.

BLM's Grazing Administration regulations define "utilization" to mean "... that portion of forage that has been consumed by livestock, wild horses and burros, wildlife and insects during a specified period. The term is also used to refer to the pattern of such use." 43 C.F.R. 4100.0-5. BLM's Utilization Technical Reference provides that, "Utilization measures the percentage of annual herbage production that has been removed. It is generally the percentage of available forage (weight or numbers of plants, twigs, etc.) that has been consumed or destroyed. Utilization is expressed in terms of the current year's production removed." Ex. B-17, Bates 1263. Neither of these definitions is limited on its face to key species. Rather, the referenced definitions cover all forage consumed by all grazers, including insects. Appellants contend that they sought to measure this total consumption. Tr., 413-19. Appellants modified the paired-plot method so as to measure all grasses and forbs to determine the total utilization of the total plant community. Tr., 542-43. To this end, Mr. Edwards testified that during his 30 year tenure with the BLM he used the key forage plant method, but he does not believe the key forage plant methodology provides an accurate depiction of total utilization. Tr., 13112. Mr. Edwards further testified that if BLM does not choose the key species correctly, and he contends that it frequently does not, then representative utilization data is

not obtained and, further, that Appellants' clipping method, therefore, provides better and more objective data. Tr., 13112-13.

At each monitoring location, Appellants also clipped multiple grazed plots, instead of just one plot, as recommended in the Technical Reference. Appellants set up an array of transects, which extended in five different directions, which Appellants contend insured against clipping selectivity and which they contend increased the accuracy of the comparative measurements between grazed and ungrazed plots. Tr., 439-40; Ex. B-17, Bates 1333. The Technical Reference states, "... if past experience shows that foraging is particularly uneven, leave two or more plots open for each one caged in order to average the unevenly foraged conditions." Ex. B-17, Bates 1333. However, for each upland monitoring site, the Appellants clipped ten plots in addition to the caged, ungrazed plot. Ex. W-72, p. 2. Appellants contend that the clipping of multiple ungrazed plots was intended to capture the variability in grazing across the allotment. Tr., 440.

During the hearing, the issue of the selection of representative monitoring sites was drawn in a variety of contexts by both of the parties. In particular, the issue of the extent and degree to which the monitoring results from any particular site can be applied to, or extrapolated to, the allotment as a whole, or to only a portion thereof, was raised repeatedly. See, e.g.: Tr., 389-90.

Dr. Carter had considerable on-the-ground experience on the allotment, WWP having conducted monitoring there since 2001. Among other criteria, Appellants argue that they selected their sites by researching the management history of the allotment, by doing a GIS analysis of the habitat types, by studying the Rich County Soil Survey to determine representative soil types, and by determining the number of monitoring sites which their limited institutional resources would realistically allow. Tr., 389-90. Appellants attempted to locate their upland monitoring sites in the area of BLM or DWR monitoring sites, because their intention was that their data should complement and enhance the agencies' data. Tr., 360, 10965, 11602-03; Ex. W-72, p. 2. Dr. Catlin testified that, "... we wanted to amplify that other data and tell even a deeper, richer story about the allotment." Tr., 445-46. In particular, Appellants sought to add to BLM's trend and utilization monitoring data, which does not include data on forage production. Tr., 555-56. Because Appellants were focusing on overall productivity, they selected monitoring sites in relation to soil map units that represented the majority of the areas of the allotment. Tr., 556. Dr. Catlin testified, as follows:

We were looking for sites that represented typical or average conditions at key areas, and in soil map units, and in riparian areas.

So we looked at where BLM had identified their location of the important monitoring locations, their trend sites and their utilization sites.

And then in those sites we looked at what were typical conditions. And we then placed our cages to be at a distance from theirs, so that our measurements would not interfere with their monitoring.

And so we visited those sites and did a walk-through survey to look at the overall plant communities to make certain that the site that we were actually placing our cage in was representative of the site that we wanted it to be in. And we would place the cage and then photograph its location.

Tr., 568-69.

Working together, Appellants began with ten study sites in 2005. Tr., 565, 981-82. Appellants recorded each of their monitoring sites using GPS references instead of permanent ground markers, and when they moved their cages each year, they recorded the new GPS locations. Tr., 578-79. Appellants utilized 48 by 48 inch utilization cages to surround the ungrazed plots and 36 by 36 inch frames for their plot clippings. Ex. W-72, p. 2; Tr., 10930-934. With respect to cage site selection, Dr. Carter testified that, "It's not like you just pick up the cage, walk over and toss it down somewhere. ... To me, it's an important decision and I spend a fair amount of time trying to select a site that ... represents the true average as best I can determine." Tr., 10918.

Dr. Carter explained the Appellants' clipping process, as follows:

We clipped the grasses and placed those into Ziploc plastic bags, and the forbs were also placed in Ziploc plastic bags. Now, on the upland plots at this time of the year, unless it rained, you can basically break the grasses and the forbs off, but we cut them off close to the ground with scissors, half to one inch above the ground, and so they're already air dried, generally.

But when I would take the samples back to my office, I would open up the bags and let them equilibrate. Initially I looked at: Does the weight change over time to any degree by opening the bag, weighing it periodically, and noting the weight? And essentially they came to a point where, after a couple of weeks, you had a constant weight. And so after that initial test, I just decided that we'll bring the bags back. They're already dry.

We'll just open up so everything equilibrates, and then we'll weigh them.

Tr., 9745-46.

While clipping on the Allotment, Appellants recorded data on field data sheets. Tr., 441. After it was dried and weighed, Appellants' clipping data was recorded on Excel spreadsheets. Exs. W-31, W-39, W-47, W-48; Tr., 441, 536-37. The clipped samples were air dried and weighed to the nearest 0.1 gram. Ex. 72, p. 2. Dr. Carter inspected the samples regularly and testified that he never found any fungal growth. Tr., 11619-620. Each bag was marked with the allotment name, date, and reference site, whether it was forbs or grasses, the transect degree or cage, and the distance along the transect, that is, 50 or 100 feet. Tr., 539. Appellants intentionally did not use paper bags as recommended by the manual, because, as Dr. Catlin testified, tests were conducted to determine that with the plastic bag open and the top folded back, the samples dried appropriately. Tr., 581-83.

The formula for converting grams to pounds per acre set out in Appellants' spread sheets converts grams into pounds of forage per acre. Tr., 614-15, 10934-941; Exs., W-31b, p. 7, B-17. The average grams for the outside plots were multiplied by a conversion factor to convert them from grams per square yard into pounds per acre. Tr., 616. The formula Appellants employed to calculate percent utilization is included in the Technical Reference and subtracts the average of the total weight of the unprotected plots from the weight of the protected, caged plot; it divides that number by the weight of the caged, protected plot, and then multiplies that number by 100 to obtain the percent utilization. Tr., 583-84; Ex. B-18, Bates 1334.

## SUMMARY OF APPELLANTS' EVIDENTIARY CASE-IN-CHIEF:

# APPELLANTS 2005 UPLAND UTILIZATION AND PRODUCTION MONITORING

Appellants' 2005 upland monitoring data reflects high utilization on most areas of the allotment that were grazed that year, that forage production of grasses was low and that there was considerable bare ground. Appellants' 2005 data reveals less forage production than claimed by BLM.

In 2005, Appellants installed utilization cages at the beginning of the grazing season. Ex. W-72, p. 2. Dr. Catlin introduced a map which identifies Appellants' 2005 monitoring locations and utilization data results. Tr., 588-90; Exs., W-21 (Appendix, p. 5), W-30. Appellants submitted a 2005 Monitoring Report to BLM in February 2006, which summarizes their data for 2005 and identifies their monitoring site locations relative to the soil map units and range sites set out in the Rich County Soil Survey. Tr., 10942-949; Ex. W-72, pp. 7-11. Appellants' 2005 data is also set out in their 2005 "Appeal Report" which compares their 2005 utilization data to BLM's utilization data. Tr., 587-88; Ex. W-21, p. 11, Table 1.

Appellants prepared field data sheets for each of their monitoring sites, including the date, time, identities of the people conducting monitoring, corresponding photographs by reference number, cover data, and major plant species. Ex. W-24. Appellants took photographs of both un-grazed and grazed plots at each site. Tr., 601-11; Exs. W-32, W-34, W-36, W-37. Appellants' utilization and production data was recorded on an Excel spreadsheet, which was submitted in December 2005 to the CRM monitoring committee, the Duck Creek permittees, and the BLM, and was accompanied by a report by Dr. Catlin. Tr., 585; Ex. W-18, pp. 2-3.

Appellants' monitoring site U1 was in the southwestern portion of the allotment on a KBD soil map unit and upland loam range site. Exs. W-28b, W-72, pp. 8, 15. Appellants recorded overall utilization at this site in 2005 as 53.8%. Ex. W-21, p. 11, Table 1, W-31b. Dr. Catlin testified that Appellants' photos of this site in 2005 reflect very low grass productivity. Tr., 606-08; Exs. W-34, W-37.

Appellants' monitoring site U2 was located in the center of the southern portion of the allotment on a PAD soil map unit and semidesert loam range type. Exs. W-28b, W-72, pp. 8,15. Appellants recorded grass utilization as 74.4%, forb utilization as 76.3%, and overall utilization as 75.1%. Ex. W-31b, p. 2. Appellants testified that this high utilization is also reflected in their photos. Tr., 620-21; Exs. W-24, p. 2, W-32, W-34, W-37.

Appellants' monitoring site U3 was located east of U2 and is also in a PAD soil map unit and semidesert loam range type, as derived from the pertinent soil survey. Ex. W-28b, W-72, pp. 8, 15. Appellants recorded forb utilization as 85.8 %, grass utilization as 30.5%, and total utilization as 67.6%. Ex. W-31b, pp. 2-3. Therefore, grass utilization was recorded as under BLM's 50% utilization management objective; whereas, forb utilization exceeded that objective. Ex. W-24, p. 3. Appellants 2005 photos of the site show both the grazed and the caged plots. Exs. W-32, W-34, W-37.

Appellants' monitoring site U4 was located on the southeast side of the allotment in a PAD soil map unit and semidesert loam range site. Exs. W-28b, W-72, pp. 8, 15. Appellants recorded grass utilization as 10.1%; forb utilization as 61.7%,; overall utilization as 40.3%, within BLM's 50% management objective. Exs. W-24, p. 4, W-31b, pp. 3-4. Appellants photos reflect relatively less heavy utilization at this site in 2005. Exs. W-32, W-34, W-37. Appellants' monitoring site U6 was located on the northwestern portion of the allotment above the east-west pasture fence on a KBD soil map unit and upland loam range site. Exs. W-28b, W-72, pp. 8, 15. This site provided production data from an area of the allotment which was not monitored by BLM. Exs. W-21, p. 11, W-28b, W-30. Appellants recorded grass utilization as 38.2%; forb utilization as 63.9%; overall utilization as 53.1%. Exs. W-24, p. 6, W-31b, p. 4. Dr. Catlin took the 2005 photos of this site. Tr., 644, Exs. W-36, W-37.

Appellants' monitoring site U8 was on the northwestern portion of the allotment on an FAE soil map unit and upland shallow loam range site as derived from the Soil Survey. Exs. W-28b, W-72, pp. 8, 15. Appellants recorded grass utilization as 7.7%; forb utilization as 14.4%, and overall utilization as 9.8%. Ex. W-31b, p. 5. These numbers are, of course, well within BLM's management objective of 50% utilization. What site U8 also reflects is that conditions on the Duck Creek Allotment were highly variable, exhibiting certain areas of alleged over-utilization and overgrazing, and other areas, such as U8, that were in better condition.

Appellants' monitoring site U9 was located in the north-central portion of the allotment on an FCE soil map unit and upland shallow loam range site. Exs. W-28b, W-72, pp. 8, 15. Appellants recorded grass utilization as negative 17.4%; forb utilization as 97.5%, and overall utilization as 27%. Exs. W-24, p. 9, W-31b, p. 6. Appellants accompanying 2005 photos show both the ungrazed caged and the grazed plots. Ex. W-37.

# APPELLANTS' 2006 UPLAND UTILIZATION AND PRODUCTION MONITORING

In 2006, Appellants added five upland monitoring sites, for a total of twelve upland monitoring sites. In so doing, in 2006 Appellants contend

that they monitored production and utilization on additional areas of the allotment where BLM had no monitoring sites. Tr., 570, 683, 10930-934.

In 2006 at Appellants' monitoring site U1, Appellants recorded grass utilization as 64.9%; forb utilization as 74.1%; overall utilization as 70.7%. Exs. W-21, p. 11, W-25, p. 9, W-39b, p 1. Photos were taken of the site. Ex. W-43.

In 2006 at Appellants' monitoring site U2, Appellants recorded grass utilization as 72.6%; forb utilization as 34%; overall utilization as 72.6%. Exs. W-25, p. 12, Ex. W-38, p. 1, Ex. 39b, p. 2. Photos were taken of the caged plot and each grazed plot. Ex. W-43.

In 2006 at Appellants' monitoring site U3, Appellants recorded grass utilization as 60.9 %; forb utilization as 12.7%; overall utilization as 50.5%. Exs. W-25, p. 12, W-38, p. 1, W-39, p. 2. Photos were taken of the site. Ex. W-42.

In 2006 at Appellants' monitoring site U4, Appellants recorded grass utilization as 39.6%; forb utilization as negative 111%; overall utilization as 9.6%. Ex. W-39b, p. 3. Photos were taken of the caged plot and each grazed plot. Ex. W-41. Appellants contend that the negative reading on forbs resulted from more forbs growing outside the ungrazed cage than were growing inside the cage. Tr., 729.

In 2006 at Appellants' monitoring site U6, Appellants recorded grass utilization as 71.7%; forb utilization as 49.7%; overall utilization as 65.3%. Exs. W-25, p. 7, W-39b, p. 4. Photos were taken of the site. Ex. W-40.

In 2006 at Appellants' monitoring site U8, Appellants recorded grass utilization as 75.3%; forb utilization as 60%; overall utilization as 70.7%. Exs. W-31b, p. 5, W-39b, p. 5. Two photos were taken of the site. Ex. W-40.
In 2006 at Appellants' monitoring site U9, Appellants recorded grass utilization as 16.8%; forb utilization as 91.7%; overall utilization as 19.5%. Exs. W-25, p. 6, W-31b, p. 6, W-38, p. 1. Two photos were taken of the site. W-40.

In 2006 at Appellants' monitoring site U11, Appellants recorded grass utilization as 3.7%; forb utilization as 2.3%; overall utilization as 3.2%. Ex. W-39b, p. 7. Two photos were taken of the site. Ex. W-40. Appellants pointed out that this site exhibited very little grazing use. Tr., 751-52.

Appellants' expanded 2006 monitoring site U12 was located on the northwestern portion of the allotment. Appellants recorded grass utilization as 58.9%; forb utilization as 65.6%; overall utilization as 62.1%. Ex. 39b, pp. 7-8. Photos were taken of the caged plot and grazed plot. Ex. W-40.

Appellants' expanded 2006 monitoring site U13 was located on the north-central portion of the allotment, near BLM's ESI site DC-1, on a KBD soil map unit. Ex. W-28b. Appellants recorded grass utilization as 61.7%; forb utilization as 81.9%; overall utilization as 76.2%. Ex. W-39b, p. 8. Two photos were taken. Ex. W-40.

Appellants' expanded 2006 monitoring site U14 was located on the south-west portion of the allotment. Appellants recorded grass utilization as 70%; forb utilization as 79%; overall utilization as 76.4%. Ex. W-39b, p. 9. Photos were taken of the caged plot and the grazed plots. Ex. W-43.

# APPELLANTS' 2007 UPLAND UTILIZATION AND PRODUCTION MONITORING

In 2007, Appellants experimented to determine whether there was a difference in forb and grass production between areas protected by shrubs and those in the interspaced, unprotected areas. Tr., 11021-11026. The total forbs and grasses clipped at all the sites were included in the utilization calculation, regardless of whether the area was protected by shrubs or was unprotected. Tr., 840. In 2007, Appellants did not monitor ground cover. Tr., 812.

In 2007 at Appellants' monitoring site U1, Appellants recorded grass utilization as 85.8%; forb utilization as 37.2%; overall utilization as 80.4%. Ex. W-48, p. 1. Photos were taken of the caged and uncaged plots. Ex. W-198.

In 2007 at Appellants' monitoring site U2, Appellants recorded grass utilization as 85.1%; forb utilization as negative; overall utilization as 84%. Ex. W-48, p. 1. Photos were taken of the caged and uncaged plots. Ex. W-194.

In 2007 at Appellants' monitoring site U3, Appellants recorded grass utilization as 81.4%; forb utilization as negative; overall utilization as 80.1%. Ex. W-48, p. 1. Four photos were taken of the site. Ex. W-49.

In 2007 at Appellants' monitoring site U4, Appellants recorded grass utilization as 49.3%; forb utilization as 64%; overall utilization as 54%. Ex. W-48b, p. 1. Four photos were taken of the site. Ex. W-49.

In 2007 at Appellants' monitoring site U6, Appellants recorded grass utilization as 68.3%; forb utilization as 64.7%; overall utilization as 67.4%. Ex. W-48b, p. 1. Three photos were taken. Ex. W-50. In 2007 at Appellants' monitoring site U8, Appellants recorded grass utilization as 62.9%; forb utilization as 51.8%; overall utilization as 60.8%. Ex. W-48b, p. 1. Four photos were taken at the site. Ex. W-49.

In 2007 at Appellants' monitoring site U9, Appellants recorded grass utilization as negative 6%; forb utilization as negative 517.6%; overall utilization as negative 10.5%. Ex. W-48b, p. 1. According to Appellants, the negative numbers mean that more grass grew outside the cage than inside, and there was very little grazing at this site. Tr., 855. Photos were taken of the cage and plots. Ex. W-50.

In 2007 at Appellants' monitoring site U11, Appellants recorded grass utilization as 65%, forb utilization as negative 140%; overall utilization as 63.4%. Ex. W-48b, p. 2. Three photos were taken of the site. Exs. W-41, W-50.

In 2007 at Appellants' monitoring site U12, Appellants recorded grass utilization as 77.2%; forb utilization as 84%; overall utilization as 79%. Ex. W-48b, p. 2. Three photos were taken of the site. Ex. W-50.

In 2007 at Appellants' monitoring site U13, Appellants recorded grass utilization as 10.8%; forb utilization as negative 62.4%; overall utilization as negative 1.3%. Three photos were taken of the site. Ex. W-50.

In 2007 at Appellants' monitoring site U14, Appellants recorded grass utilization as 78.2%; forb utilization as negative; overall utilization as 71.1%. Ex. 48b, p. 2. Photos were taken of the caged plot and the grazed plots. Ex. W-198.

In 2007 at Appellants' monitoring site U15, Appellants recorded grass utilization as 83.7%; forb utilization as negative; overall utilization as 78%.

Ex. W-48b, p. 2. Photos were taken of the caged plot and the grazed plots. Ex. W-198.

As reflected in the EA, BLM has construed the applicable MFP to prescribe a 50% utilization limit. Tr., 12157-175; Ex. B6 b.1161. Interestingly enough, with respect to the 50% utilization level delineated in the Final Decision, BLM acknowledges the following in its Response Brief, "One-half use is 50% utilization. Admittedly, the Holecek textbook identifies 30-40% use of key species as a 'guideline' for 'moderate grazing' in 'semidesert grass and shrubland' and 'sagebrush grassland' range types ....." BLM's Response Brief, p. 164, citing Ex. B-20, p. 235. Further, BLM concedes that, "BLM acknowledges that there is some debate in the rangeland science community as to the general application of a 50% utilization standard." BLM's Response Brief, p. 164; citing Tr. 12175-176.

### **APPELLANTS' RIPARIAN MONITORING**

Appellants measured utilization and stubble height on the riparian areas of the allotment. Appellants had two stubble height monitoring locations on the Duck Creek in addition to their various other riparian utilization sites. In 2005 stubble height was measured along the greenline, as well as in the larger riparian area, and utilization and production data was collected in the larger riparian/floodplain area, and then, in ensuing years, stubble height was measured in the greenline only. Tr., 11612-13.

Dr. Carter explained why he contended that BLM's stubble height data was in error, namely, that BLM was likely measuring inside the areas of depression made by cattle hooves, and this resulted in erroneously high stubble heights. Tr., 9676-77. Appellants measured riparian utilization in the larger riparian areas in order to document use in the floodplain areas, in addition to the greenline, because the floodplain areas receive very heavy use that Appellants contend is largely undocumented by BLM. Tr., 11040-41.

At their riparian monitoring sites, Appellants placed one cage in the riparian area and then employed two 100 foot transects, one upstream and one downstream from the cage and measured grazed plots at 50 and 100 feet from the cage, for a total of one ungrazed, caged plot and four, grazed uncaged plots. Tr., 1662; Ex. W-18, p. 1. Appellants generally used the same data collection method and calculations as they employed in their upland utilization monitoring. Tr., 1663.

Appellants contend that the so-called Nevada Blue Book recognizes Appellants' modified paired-plot methodology as valid when applied in riparian areas, as follows:

On some kinds of range, the herbage produced consists of a wide variety of species having approximately equal forage value for the kinds of grazing animals and season of use involved. Under these conditions, the significance of key forage species is reduced, and it is practical to judge degree of use on the basis of a mass of vegetation rather than on a key species. For example, safe degree-of-use of mountain meadow sites could be represented by an average use recorded on the portion of the plant community that produces the bulk of forage.

Ex. B-108, p. 7604.

Dr. Carter testified as to how he dried, weighed, and measured the Appellants' riparian monitoring samples, as follows:

On the riparian samples, they're wet, generally, and so there's a high moisture content, and you can't just open up the bags and allow them to air dry, or they will begin to decompose because of the moisture trapped inside the bag. And so what I did with those is, I have a drying oven, and I would put those in at about 100 to 120 degrees Fahrenheit and monitor them regularly every few hours until the condensation on the bag disappeared, and then we had a sample that was flexible and wet, not brittle and dry.

And then I would sit those out, and sometimes it takes like a month for those to dry in the ambient environment. And then once they become crisp and obviously the moisture content is very low, i.e., air dry, then I would weigh those. And then when I weighed the samples, I weighed them on a toe-loading electronic balance that has sensitivity of a point-a tenth of a gram. I would record those weights on my computer into a spreadsheet.

Tr., 9746-47.

The stubble height method employed by Appellants is set out in the Technical Reference for utilization. Tr., 1828; Ex. B-17, Bates 1313-14. BLM did not conduct utilization monitoring or collect production data in the riparian areas of Duck Creek. The Appellants' contended that their riparian data was intended to be a supplement to BLM's PFC assessment. Appellants contend that BLM should have taken Appellants' riparian data into account, because BLM's own technical reference covering riparian management states that BLM, "... identified the PFC method as the starting point-as the minimum level of assessment for riparian-wetland areas." Ex. B-29, p. 4. Appellants' contend that their monitoring and production data should have been added to BLM's "minimum level of assessment" by connecting stubble height and utilization, thereby demonstrating that higher stubble heights are required to protect riparian areas.

### **APPELLANTS' 2005 RIPARIAN AREA UTILIZATION MONITORING**

In 2005, Appellants monitored five riparian sites on Duck Creek, Six Mile Creek and the South Fork of Six Mile Creek, of which three sites were used to measure utilization, production and stubble height, and two sites along Duck Creek were used to measure stubble height of Nebraska Sedge and related riparian grasses. Tr., 1890, 11036-47; Ex. W-72, p. 3. Dr. Carter testified that the Appellants placed their cages in the riparian areas or floodplains at or above the greenline, and they placed their grazed plot frames in areas of similar vegetation to that in the cage so as to compare similar species. Tr., 11035-47.

Appellants' riparian monitoring site U5 was measured on October 4, 2005, and is on Duck Creek on the south side of the allotment. Tr., 1665; Exs. W-28b, W-30. Appellants recorded utilization of grass as 98.9%; utilization of forbs as 96.9%; overall utilization as 97.7%. Tr., 1670; Ex. W-31b, p. 2. Appellants photographed the site on May 17, 2005, when they placed their cage, and also took photos in June and August, 2005, when they measured stubble height. Exs. W-33, W-37.

Appellants' riparian monitoring site U7 was measured on October 5, 2005, and is on Six Mile Creek in the northern part of the allotment. Tr., 1674; Exs. W-24, p. 7, W-28b. Appellants recorded grass utilization as 25.9%; forb utilization as 26.7%; overall utilization as 26.3%. Tr., 1674-78; Exs. W-31b, p. 5, W-32, p. 7. Photos were taken of the site. Exs. W-35, W-37.

Appellants' riparian monitoring site U10 was measured on October 11, 2005, and is located on the northeast portion of the allotment. Tr., 1683; Ex. W-28b. Appellants recorded utilization as 88.7% on grass; utilization as 83.4% on forbs; overall utilization as 88.3%. Tr., 1691; Exs. W-31b, W-32, p. 8. Photos were taken of the site. Exs. W-34, W-37. Dr. Catlin testified that this area is dominated by Kentucky bluegrass, which is a non-native grass that may become dominant and may become an indicator of degraded condition. Tr., 1908.

## **APPELLANTS' 2005 RIPARIAN STUBBLE HEIGHT MONITORING**

In 2005, Dr. Carter measured stubble height on three occasions at two sites on Duck Creek, RS-1 and RS-2, measuring Nebraska sedge along the greenline, as well as, grasses in the riparian/floodplain area. Tr., 11136-39, 11145-46; Exs. W-72, pp. 2,5,7, W-80. Appellants contend that stubble heights measured along the greenline do not accurately reflect utilization, because heavier use was measured in the riparian/floodplain areas than along the greenline itself. Tr., 11139-40. Appellants recorded their measurements on field data sheets, and transferred them to an Excel spreadsheet to calculate averages. Tr., 9770-72; Exs. W-80, W-186, W-188, W-191.

Stubble height measurements collected on June 26, 2005, some six weeks after livestock turn out, averaged 4.4 inches for Nebraska sedge along the greenline and 2.9 inches for riparian grasses. Tr., 9774-76; Exs. W-72, pp. 5, 7, W-80, p. 1, W-186. On August 10, 2005, Appellants recorded Nebraska sedge stubble height which averaged 2.8 inches, and riparian area grass stubble height which averaged 1.5 inches. Exs. W-72, pp. 5, 7, W-80, W-188. Nebraska sedge averaged 23.3 inches inside an exclosure, as measured by Dr. Carter. Ex. W-80, p. 2. As measured by Appellants, grass and greenline stubble height continued to decline as the grazing season progressed. On October 5, 2005, Nebraska sedge stubble height was measured along the greenline at an average of 2 inches, and measured grass stubble height averaged 1.2 inches. Exs. W-72, pp. 5,7, W-80, W-188, W-191. Photos were taken during the Appellants' October 2005 monitoring. Tr., 9797; Exs. W-32, W-35. In October 2005, Appellants also measured stubble height of Nebraska sedge along the greenline at site U10 on the South Fork of Six Mile Creek. Exs. W-24, p. 10, W-80, p. 2. The average stubble height was recorded at 6.4 inches, which met BLM's objective of five inches. Ex. W-32, pp. 8, 10-11. However, Dr. Carter testified, as follows:

At the U10 site, where we found the 80-some-odd percent utilization, Nebraska sedge was 6.4 inches. And so, interestingly enough ... at U10, we found a 6 inch stubble height, yet we found 80-plus percent utilization.

So that indicates that, even if you specify a 6-inch stubble height, you're essentially committing to use the riparian area at close to 90 percent, and so there's no correlation between the stubble height measures that people are recommending and what's actually going on in the floodplain ....

Tr., 9772-73.

Appellants contend that this demonstrates that the height and amount of vegetation along the greenline, which is included by BLM in its PFC assessments, is not an accurate reflection of the utilization and degradation that allegedly occurs throughout the floodplain riparian area. Tr., 1914.

### **APPELLANTS' 2006 RIPARIAN UTILIZATION MONITORING**

Site U5 was measured on October 15, 2006. Tr., 1693. Appellants recorded grass utilization as 94.6%; forb utilization as 92.2%; overall utilization as 94.5%. Ex. W-39b, p. 4. Photos were taken of the site. Ex. W-41.

Site U7 on Sixmile Creek was measured on September 29, 2006. Ex. W-25, p. 11. Appellants recorded grass utilization as 87.8%; forb utilization as 77%; overall utilization as 84%. Ex. W-39b, p. 5. Photos were taken of the site. Ex. W-40.

Site U10 on the South Fork of Sixmile Creek was measured on September 30, 2006. Appellants recorded utilization on grasses as 68.7%; utilization on forbs as 83.9%; overall utilization as 72.6%. Photos were taken of the site. Ex. W-40. Dr. Catlin testified that much of the grass measured at this site was Kentucky bluegrass, a so-called increaser. Tr., 1949.

#### **APPELLANTS' 2006 RIPARIAN STUBBLE HEIGHT MONITORING**

Appellants' stubble height data for 2006 and 2007 was collected in the greenline only and not in the larger riparian/floodplain area. Tr., 11141. Stubble heights were measured along two transects on Duck Creek at site RS1 on October 15, 2006. Stubble height was recorded as averaging four inches along RS1 North and three inches along RS1 South. Exs. W-39b, pp. 10-12, W-91. Photos were taken of the RS1 site. Ex. W-41.

At site U7 on Sixmile Creek, stubble height was recorded as averaging three inches. Tr., 1769; Exs. W-39b, pp. 10-12, W-91. Appellants

testified that this low stubble height corresponds to the high utilization found by Appellants at this site. Tr., 1943-44.

At site U10 on the South Fork of Sixmile Creek, the stubble height of Nebraska sedge was recorded as averaging three inches. Tr., 1946-48.

### **APPELLANTS' 2007 RIPARIAN UTILIZATION MONITORING**

In 2007 Appellants installed an additional cage at each of their riparian monitoring sites, providing two cages at each riparian site. Tr., 1961. Appellants contend that using more than one cage provides more information on production variability, which was a significant issue on the Duck Creek Allotment. Tr., 1727-28.

Appellants' site U5 was monitored on September 30, 2007. Ex. W-77, p. 2. Appellants recorded combined utilization as 96.4%. Tr., 1728-30. Photos were taken of the site, and Dr. Catlin testified that they provide confirmation of high utilization. Tr., 9915; Ex. W-78.

Appellants' site U7 was monitored on October 1, 2007. Ex. W-26, p. 7. Appellants recorded overall utilization as 90.8%. Tr., 1737-38; Ex. W-79, p. 1. Photos were taken of the site. Ex. W-50.

Appellants' site U10 was monitored on October 3, 2007. Ex. W-26, p. 1. Appellants recorded overall utilization as 96.6%. Ex. W-79, p. 1. Photos were taken of the site. Exs., W-49, W050.

### <u>APPELLANTS' 2007 RIPARIAN STUBBLE HEIGHT MONITORING</u>

In 2007, Dr. Carter measured stubble height on Nebraska sedge in the greenline at sites RS1 and RS2 after the grazing season. Tr., 9901; Exs. W-92, W-193. Appellants recorded stubble heights averaging 3.5 inches at RS1 North, 3.6 inches at RS1 South, 1.9 inches at RS2 North, and 2.1 inches at RS2 South. <u>Ibid</u>. Photos were taken of the site. Ex. W-194.

At Appellants' site U7, inside the cage, stubble height was recorded as ranging from four to eight inches; whereas, along the greenline, stubble heights were recorded as ranging from one to six inches, with the average being recorded as some three inches. Tr., 1781-82; Exs. W-26, p. 1, W-79, p. 2.

At Appellants' site U10, stubble height was recorded as averaging 3.1 inches. Tr., 1785; Ex. W-79, p. 2.

#### <u>APPELLANTS' GROUND COVER MONITORING</u>

In 2005 and 2006 Appellants measured grass and forb basal cover, shrub canopy cover, ground cover and the amount of bare ground at their upland utilization monitoring sites. Tr., 600. Bare ground is an important indicator of rangeland health. Tr., 599-600. Basal cover monitoring measures foliage that actually touches the ground, as distinguished from canopy cover, which is above the ground. Tr., 600; Ex. B-79, Bates 5819. Basal cover is generally considered to be a more stable reference for purposes of trend comparisons. Ex. B-79, Bates 5820. Canopy cover is the percentage of ground covered by a vertical projection of the outermost perimeter of plant foliage. Ex. B-79, Bates 5926. Ground cover is defined as the "... percentage of material, other than bare ground covering the land surface. It may include live and standing dead vegetation, litter, cobble, gravel, stones, and bedrock." <u>Ibid</u>.

In 2005, Appellants recorded each plot's cover measurements on their field data sheets. Tr., 9805-06; Ex. W-24. At each of ten plots, Appellants estimated the basal cover, and the results are also included in Dr. Carter's 2005 Monitoring Report. Tr., 9805-08; Ex. W-72, p. 6, tables 2 & 3. Upland plot cover values were dominated by litter of 70.6% and bare ground of 20.2%; grass basal cover was recorded by Appellants as averaging 5.8% across all plots; and, basal cover as averaging 2.2% across all plots. Ex. W-72, p. 4.

Dr. Carter explained that the Appellants used an ocular method to estimate basal cover. Tr., 9807. It was Appellants' intention to monitor cover from the perspective of sheet erosion on the ground, rather than from the perspective of a raindrop falling on the top of foliage, which was BLM's approach. Tr., 1131-32.

In their 2006 cover monitoring, Appellants employed the same cover methodology as in 2005. Tr., 684-85; Ex. W-38. The 2006 data showed low grass basal cover, significant bare ground, and a large amount of shrubs. Tr., 9840-79.

Then in 2007, Appellants adjusted their cover monitoring methodology to a quantitative approach in order to determine if certain sage grouse guidelines for canopy cover were being met. Tr., 11593-96; Ex. W-213, pp. 967-977. In 2007, Dr. Carter combined the line intercept and step point monitoring methods and measured cover at specific intervals along a 100 foot tape. Tr., 11597; Ex. W-80, p. 9. In 2007, Appellants monitored cover at five locations. Tr., 13121-122. Appellants collected cover data at five sites in October 2007, three of which were proximate to BLM ESI sites, and two of which were at Appellants' utilization sites. Tr., 12123-24, 13150; Ex. W-22, pp. 1-3. The first 2007 site was way point 93, which was located by Mr. Edwards, and was near BLM's ESI site, DC-5, and reflected 34% shrub cover, 2% grass cover, 18% bare ground, and 42% total canopy cover. Tr., 13125-126; Ex. W-224, pp. 1, 13. Appellants' second 2007 cover site was way point 94, located near BLM's DC-7, and reflected 42% shrub cover, 6% grass cover, 15% bare ground, and 48% total canopy cover. Tr., 13136-137; Ex. W-224, pp. 2, 13. In 2007, at Appellants' site U1, Mr. Edwards, using the line-point intercept method, found 30% shrub cover, 6% grass cover, 14% bare ground, and 40% total canopy cover. Ex. W-225, pp. 1, 18. At Appellants' site U2, Mr. Edwards found 42% shrub cover, 5% grass cover, 16% bare ground, and 79% total canopy cover. Tr., 13147-148; Ex. W-225, pp. 10, 18. These percentages reflect a dominance of shrubs and low grass basal cover. Mr. Edwards compared his data to BLM's ESI data, and testified, as follows:

WWP data show 9% more shrub canopy cover and 31% less grass and forb canopy cover than BLM data on the two loamy sites (DC-7, DC-8). Appears BLM is overestimating the cover of herbaceous vegetation. WWP shows an average of 53% bare ground, litter, rock. BLM shows 30% bare ground, litter, rock. This is a difference of 23%. Overall, BLM is showing these sites to be in better condition than they are.

Tr., 13137.

Then in 2008, Appellants added yet five more cover monitoring sites, and Mr. Edwards, who conducted the cover monitoring in both 2007 and 2008, testified that he was within about 200 meters of BLM's monitoring sites, and about 95% of the time Appellants were in the same vegetative community and same ecological site as the BLM. Tr., 12123. In their 2008 cover monitoring, Appellants collected data on ten different BLM ESI sites. Tr., 13154-155. Dr. Carter compiled a spreadsheet which summarizes Appellants' 2008 cover data, including shrub, grass and forb cover, as well as the percentage of grasses and forbs that were over seven inches in height. Ex. W-216. In June 2008, Appellants began measuring grass height along the cover transects to determine compliance with the so-called Connelly Sage Grouse Guidelines, which require 15 percent or greater grass cover that is seven inches or higher. Tr., 13169; Ex. W-213, p. 977. BLM found more grass cover than did the Appellants. Ex. W-216. Appellants, however, found more forb cover than did BLM. Ex. W-216. Both grasses and forbs were typically under seven inches in height, thus not meeting the Connelly Guidelines. Tr., 13169. Mr. Edwards did not find 15% grass cover of seven inches or higher. Tr., 13168-169.

In July 2008, Mr. Edwards collected cover data on six additional sites in a different area of the allotment, namely on the northern portion of the allotment. Tr., 13173-174. Prior cover data had been collected on the southern portion. On the steeper, northern slopes, Mr. Edwards testified that there had been no apparent grazing in 2008 and that there was more grass cover as a result. Tr., 13177-179. This accords with BLM's ESI data, which reflected more grass production and more cover on steeper slopes, where cattle typically do not graze. Ex. B-23.

Appellants' cover data accords with their production data, reflecting low grass production overall on the allotment. Further, Appellants' 2008 cover data show that grasses on the allotment do not meet a seven inch grass height requirement for sage grouse, as set out in the Connelly Guideline. Ex. W-213, p. 977. Mr. Edwards' 2008 cover data generally corroborates Appellants' production data, which reflects poor overall conditions on the allotment, because grass production and ground cover is reflected as low, shrub composition and cover is reflected as high, and sage grouse habitat is contended by Appellants to be poor, with grass vigor low.

### SUMMARY OF BLM'S EVIDENTIARY CASE-IN-CHIEF:

Relying upon the established precedent that a BLM grazing decision will be reversed only if there is no rational basis for the decision or if it fails to comply with applicable grazing regulations (<u>Yardley v. BLM</u>, 123 IBLA 80, 95 (1992)), BLM also notes that IBLA had determined that "... (v)isual contrast ratings made by trained BLM employees will not be lightly set aside since they constitute professional opinion, even though they may represent subjective judgments based on established facts." <u>John Dittli</u>, 139 IBLA 68, 75 (1997).

BLM contends that the Appellants' study sites have such substantial variation in production that it must be concluded that they used too few study sites to adequately sample any particular range site or soil map unit. BLM's Response Brief, p. 82. While Appellants claim that their study sites were representative, Dr. Karl testified for BLM to the contrary, as follows, "... the standard deviations presented here in comparison to the means is very, very high" reflecting a "humongous variability" in the data, thereby allegedly rendering Appellants' data sets "almost meaningless." Tr., 15594. Dr. Karl contended that there is a tremendous amount of variability in the production of vegetation both within and among the Appellants' selected study sites and that they are not, therefore, representative of the allotment as a whole. Tr., 15597-599. Consequently, Dr. Karl concluded that the Appellants' paired plot data are not reliable for determining either utilization or production. Tr., 15599; 15610-611.

Relatedly, Mr. Staggs compiled the Appellants' paired plot data into a spreadsheet that shows the utilization of grasses and forbs for each of Appellants' frames compared to the cage at each site. Tr., 12021-022; 13316; 13915-919. Mr. Staggs's spreadsheet reflects a negative utilization for both forbs and grasses for many of the frames at several of the Appellants' monitoring sties. Ex. B-97; Tr., 13326. BLM contends that since negative

utilization is impossible in the real world, this result reflects a high degree of variability which challenges the reliability of Appellants' underlying methodology. Tr., 13326-328, 15587-598.

The government contends that the pertinent TR requires that the paired plot method be used on individual "key species" of plants, rather than lumping all of the grass species together and all of the forbs species together as practiced by the Appellants. Ex. B-17, p. 70, Ex. W-18, p. 2, Ex. 21, p. 6; Tr., 5781. Relatedly, BLM points out that Appellants' method of lumping species fails to account for the fact that different plant species grow to different sizes, such that, if the species inside the utilization cage grow to a height greater than the species sampled outside the cage, the result would show utilization, even if no actual utilization occurred outside the cage. Ex. B-21, p. 7; Tr., 13334-335. In the referenced Nevada Blue Book, it is provided that the lumping of species together may be appropriate only where such species have "… approximately equal forage value for the kinds of grazing animals and season of use involved." Ex. B-108, bates 7604.

The government notes that the pertinent TR provides that the unprotected plots outside the cage must be established at "... a minimum of 100 feet from protected plots." Ex. B-17, p. 71. The minimum 100 foot distance is specified because, "... animals are attracted to cages and may trample unprotected plots if located too near protected plots." <u>Ibid</u>. For each of Appellants' study sites, one-half of the unprotected frames were placed within 50 feet of the cage itself. Ex. W-18, p. 1, Ex. W-21, p. 6. Mr. Staggs analyzed Appellants' paired plot data to determine whether utilization at the 50 foot and 100 foot frames was materially different, and his results showed that for all years and all of Appellants' sites, both grass and forb utilization was higher in frames located at 50 feet than at frames located at 100 feet. Ex. B-97; Tr., 12021-023, 11316-318. This is an important data reliability issue from the perspective of BLM, and Mr. Gates testified that this result renders the data from the Appellants' 50 foot frames

unreliable and that Appellants' reliance upon said 50 foot data completely skewed their calculation of overall utilization at all of their study sites, thereby showing higher utilization than actually existed on the ground. Tr., 12022-023.

Consequently, although the TR provides that its methodologies may be modified or adjusted, depending upon circumstances, BLM argues that it is relatedly required that the "... principles of the technique are maintained." Ex. B-17, p. 2. In addition, the TR provides that, before a modified technique is used, "... it should be reviewed by agency monitoring coordinators, cooperators, and other qualified individuals." Ex. B-17, p. 2. BLM points out that, "... to the extent that BLM became aware of their paired plot method, BLM made it clear to Appellants since at least 2006 that the method is inadequate." BLM's Response Brief, p. 97.

BLM severely criticizes the consistency of Appellants' professed methodology. For example, BLM asserts the following:

> An examination of Appellants' photos and field sheets shows that they did not follow their own protocol in numerous ways .... At this juncture it is worth emphasizing that this is far from a trivial matter. It demonstrates that Appellants were exceedingly sloppy in their field work, further undermines Catlin's and Carter's competence as scientists, and shows that in many instances Appellants exercised a much greater degree of subjectivity in deciding where to clip their plots than they admitted.

BLM's Response Brief, p. 98.

For example, BLM points out that Dr. Catlin testified that his team members were instructed to be consistent with respect to placing frames on the right or left side of the transect tape and to record whether the frames were placed to the right or left on Appellants' field sheets. Tr., 5729-30, 5898-99. However, only one field sheet (Ex. W-25, p. 12) out of a total of 39 actually contains such procedural information. Exs.- W-24, W-25, W-26, W-77, W-197.

Similarly, with respect to the issue of the consistency of Appellants' overall methodology, BLM notes that Dr. Catlin testified that Appellants' 2005 and 2006 protocol called for their frames at upland sites to be placed parallel and immediately alongside of their transect tapes and that all of Appellants' team members were so instructed. Tr., 4450, 5727-28, 5918. However, Mr. Staggs testified that Appellants' own photos reveal that they did not follow this protocol in numerous instances. Tr., 13365-429; Ex. B-114, bates 1, 5, 11, 14, 17-19, 21-23, 34, 43, 45. As a result, the government argues that, "… the evidence shows that Appellants were not following their own protocol and underscores the fact that their plots were not located randomly." BLM's Response Brief, p. 99.

BLM makes an analogous argument with respect to Appellants' riparian stubble height data collected along the so-called green line. In its Response Brief, the government argues the following:

> This view of the greenline as a 'zone' with sporadically located plants, combined with Catlin's statements indicating that he measured SH as much as 2' away from the stream and showing little concern about the upper boundary of the greenline, strongly suggest that a number of Appellants' SH measurements were taken outside of the actual

greenline, regardless what year the measurements were taken.

## BLM's Response Brief, p. 103.

Based on this alleged irregularity, the BLM argues that in comparing Appellants' and BLM's stubble height data, Dr. Catlin admitted in testimony that if Appellants had measured in what he referred to as "the stream" or "that pockmarked area" Appellants "... would have certainly gotten higher numbers." Tr., 1784, 1950, 2041. BLM argues, therefore, that, "In sum, there is no objective evidence showing where Appellants conducted their SH measurements, or whether they were appropriately within the greenline or, for that matter, the riparian area." BLM's Response Brief, p. 103.

With respect to the cover data collected for the Appellants by Mr. Edwards, the government argues that said data reflects no error in the EA's discussion of sage grouse habitat or the impact to that habitat caused by grazing. BLM's Response Brief, p. 109. The undersigned does not concur. In my opinion, the EA's discussion of the protection of sage grouse habitat is probably the weakest and most inadequate portion of the entire EA. However, in the spirit of continuing to summarize the salient points of BLM's case-in-chief, BLM cites to Chapter 3 of the EA, "Affected Environment" and notes that, based on BLM's ESI data, the EA concludes that, "... most of the BLM lands within the (DCA) have vegetative characteristics that meet all seasonal habitat requirements for sage grouse." Ex. B-2, pp. 71-72; BLM's Response Brief, p. 109. In other sections of this Decision, I conclude that this conclusion with respect to Sage Grouse is essentially unproven, and is specifically rebutted by the testimony of Mr. Staggs himself, who admitted on the record that he had no idea where the sage-grouse were located on the allotment.

With respect to the Ecological Site Description issues, Mr. Green testified that the original Rich County Soil Survey was limited to some 100 ecological sites in Utah, and those sites were not sufficiently specific as to which Major Land Resource Area they were supposed to represent. Tr., 8669. He testified that there are two Major Land Resource Areas within the Duck Creek Allotment, 34A and 47. The process by which Mr. Green, on behalf of NRCS, determined which new ESDs best fit the Duck Creek Allotment is called "recorrelation." Tr., 8676. Mr. Green testified that he identified the fitting ESDs based on existing soil mapping from the soil survey in relation to the dominant shrub species and that the dominant species over time was Wyoming Big Sage. Tr., 8677. Two new ESDs were identified based on the presence of deep loam soils, namely loamy 7-9 and loamy 10-14. Tr., 8678-82, 8689-90. Mr. Stager later corroborated this determination when he testified that both Mr. Green and the DOI ID team determined that the soil characteristics in the Duck Creek Allotment were best matched by the two new ESDs. Tr., 14447.

Appellants argue that both the loamy 7-9 and 10-14 ESDs are wrong because the soil survey assigns a higher precipitation range to the current soil map units. However, Mr. Green testified that the loamy 7-9 covers up to 9.9 inches of precipitation and could also have been identified as loamy 7-10. Tr., 8683. Mr. Stager testified that BLM and NRCS examined the indices calculated for their various sites, which confirmed that the selected new ESD's were a fit for the Duck Creek Allotment. Tr., 14473. Furthermore, as BLM points out, the soil survey is some thirty years old and may not represent the best or most current information with respect to the relationship between precipitation and relevant soil map units. BLM's Response Brief, p. 113. With respect to the recorrelation issue, the government concludes the following:

Appellants' argument that Green should have relied on the soil survey rather than existing vegetation is unmerited. The soil survey does not identify the HCPC or the species that were 'historically' present, as they claim. The soil survey lists 'characteristic vegetation,' which is those species that 'make up most of the potential natural plant community on each soil.'

BLM's Response Brief, p. 115; Citing: Ex. B-44, p. 83.

Appellants contest BLM's determination that the allotment was in "good" or "late seral" condition, because they contend that the agency's reliance on the similarity index was substantively flawed. WWP's Opening Brief, pp. 45, 49. BLM counters by contending that the similarity index is a comparison metric that measures the degree of the difference of the existing vegetation community in relation to a reference community, and that reference community can be any of the following: HCPC, PNC, or DPC. Tr., 12219, 12644; Ex. B-18, p. 45. BLM argues, therefore, that the similarity index is an indicator, but the agency does not rely solely upon it to reach a conclusion as to ecological condition or rangeland health, which includes other evaluative criteria, such as, the professional judgment of BLM experts. Tr., 15612-614. BLM stands behind the EA which avers that 90.3% of the allotment is in late seral state or better, with a similarity index of 51% or greater. Ex. B-2, p. 57. Relatedly, some 7,886 acres of the public land on the allotment include measurable amounts of bluebunch wheatgrass with good vigor. Ex. B-2, p. 11. BLM argues the following:

> Appellants' view that bluebunch is in 'extremely low amounts' is based on what they believe should be

there according to the description in the ESDs for HCPC. However, there is nothing in the record that supports the proposition that plant vigor can be determined by comparing species production and composition to that described in an ESD for HCPC.

BLM's Response Brief, p. 119.

Relatedly, BLM concludes the following:

Appellants' views are nothing more than value-laden opinions. Appellants obviously think that 'good ecological condition' exists only when the plant community has the same composition (as well as production) as it would have at HCPC. ... They fail to explain, though, why a plant community in a different state than HCPC or one going through transition is not in 'good condition.' Rather, it seems evident that Appellants' position is driven by a desire to return rangelands to conditions that existed prior to European colonization, which presumably would require going back in time.

BLM's Response Brief, p. 120.

With respect to the issue of standards, guidelines, and BLM's rangeland health assessments, Appellants contend that BLM's assessment of rangeland health under Utah's Standards and Guidelines ("S&G") is flawed primarily because BLM did not apply each of the so-called indicators that are associated with each of the overall standards. Appellants' Opening Brief, pp. 65-104; Ex. B-48; Tr., 2067-79. BLM opposes this construction, arguing that the indicators are only guidelines and that their application

under any particular controlling standard is, in effect, discretionary and within BLM's administrative discretion. For example, Mr. Gates testified that indicators are merely tools to assess whether the applicable standards are being met. Tr., 12214. Mr. Gates also testified that in evaluating a site to determine whether a standard is being met, BLM is, in fact, not required to consider each indicator for each standard. Tr., 12215. And, if conditions fall short of a particular indicator, that does not automatically mean that the applicable standard has not been met. <u>Ibid</u>.

Appellants contend that the S&Gs require an evaluation of the ecological values inherent in the Desired Plant Community ("DPC") and that BLM should have established a DPC during their rangeland health assessment of the Duck Creek Allotment. Appellants' Opening Brief, pp. 68-70. BLM counters this by arguing that the Final Decision establishes management objectives that BLM believes are the equivalent to a DPC, that is, to manage upland areas to achieve late seral ecological site condition and/or a similarity index of 51%-75% of HCPC, exhibiting static-to-upward trend, with riparian areas achieving PFC. Tr., 12221-224; Exs. B-1, p. 8, B-2, pp. 8, 11, 31, 33. BLM concludes that, "Appellants' attempt to put a preservation gloss on the standards must be rejected." BLM's Response Brief, p. 126.

With respect to wildlife issues, BLM contends that the standards do not require BLM to designate specific wildlife and other species for purposes of assessment or evaluation. BLM's Response Brief, p. 127. In an important legal concession BLM states that, "BLM acknowledges that Standard 3, which provides that '(d)esired species' are to be 'maintained at a level appropriate for the site and species involved,' <u>applies to wildlife as</u> <u>well as vegetation</u>." Emphasis added; BLM's Response Brief, p. 127. However, BLM interprets this standard as not requiring the agency to designate what wildlife species are "desired" and, in turn, as not requiring BLM to set their "appropriate level." BLM's Response Brief, p. 127. BLM's

argument is that Standard 3 can be met if the ecosystem is functional, because if the ecosystem is functional, BLM contends that the needs of dependent wildlife will automatically be met across the entire allotment. Tr., 12232; BLM's Response Brief, p. 127. For example, Mr. Stager testified that even a site that is functioning "at risk" could be expected to provide whatever habitat is necessary for any species that would use that site. Tr., 14543-544; Ex. B-2, p. 13. I disagree. The evidence of both of the parties unequivocally proves that the Duck Creek Allotment is ecologically complex and very, very diverse, often over even short geographical distances.

Standard 3 states that, "Desired species, including native, threatened, endangered, and special-status species, are maintained at a level appropriate for the site and species involved." Emphasis added; Ex. B-48, bates 3485. BLM admits that the quoted term "species" includes wildlife species, including sensitive species, such as, the sage-grouse. For BLM to take the position that their overall allotment evaluation will automatically cover the welfare of site specific wildlife habitats, especially those of sagegrouse, is, in my opinion, both factually and legally unsupported in the administrative record. I devote separate sections of this decision to sagegrouse issues, but it should be clearly understood that my conclusions in the sage-grouse sections directly apply here to BLM's stated position with respect to Standard 3. In my opinion, BLM's above-referenced interpretation of its management obligations under Standard 3 is legally flawed under the express terms of Standard 3 itself, which is animal-species specific and site specific in its application, and BLM's conclusion that the agency is not required to designate "desired species ... to be maintained at a level appropriate for the site and species involved" constitutes reversible error, as well as an abrogation of BLM's responsibility to protect the sitespecific habitats of a BLM designated sensitive species, namely, the sagegrouse. This is because when Standard 3 refers to a "site," it is not referring

to the allotment as a whole, but to site-specific, even microscopic, habitats, especially the habitats of BLM designated sensitive species.

With respect to BLM's upland health assessments, Appellants contend that the Interpreting Indicators of Rangeland Health ("IIRH") methodology employed by BLM is inadequate to assure compliance with the Utah standards, because BLM allegedly failed to consider the existing condition of the allotment. Appellants' Opening Brief, pp. 66-70, 71-85. Mr. Gates testified that BLM's upland health assessment, IIRH, was employed to determine whether Standard 1 for uplands and Standard 3 for desired species were being achieved. Tr., 12226. BLM argues that it did not rely exclusively on the IIRH data, but it also relied on ESI, apparent trend, cover, line-point intercept, and 100-point pace cover data. Tr., 12226; BLM's Response Brief, p. 128. Based thereon, BLM concludes, as follows, "Thus, Appellants are wrong in suggesting that the BLM relied only on IIRH data for its determination that the DCA's uplands are meeting the standards, and their reliance on Catlin's claim that 'there is no link between the results of this assessment process and whether all of the Utah Standards are met or not' (App. Br. At 66) is misplaced." BLM's Response Brief, pp. 128-29.

A separate issue was raised on the record by Dr. Catlin with respect to BLM's IIRH assessments when he testified that they are "statistically impossible." Tr., 3141-44, 3165. This contention was rebutted by the testimony of Dr. Karl who stated that the data upon which Dr. Catlin based his quoted testimony cannot, in fact, be statistically analyzed in order to assess reliability. Tr., 15618. Further, Dr. Karl testified that BLM's IIRHrelated results are neither impossible nor unrealistic. <u>Ibid</u>.

BLM further notes that its IIRH assessments were made by an ID team that included Mr. Stager, and that Mr. Stager had extensive experience in that methodology, as did most of the ID team members, and they relied upon the IIRH Technical Reference. Tr., 14554-557, 14577, 14729; Ex. B-22.

Mr. Stager testified that for each site, the ID team rated each of the seventeen indicators delineated in the referenced TR. Tr., 14574-84. Based on those indicators, the ID team classified sites as functioning, functioning-at-risk, or improperly functioning. Tr., 14523-530. BLM defends this approach by stating that, "It is also important to understand that BLM's IIRH assessments relied to a large degree on the ESI, which is a quantitative method, and apparent trend. The ESI and apparent trend study provided data that the ID team used to inform its IIRH assessments, thereby increasing the accuracy of the assessments." BLM's Response Brief, pp. 134-35.

Appellants also contend that BLM's IIRH data is flawed, because BLM did not compare that data to adequate reference areas, as suggested by the pertinent TR. Mr. Stager testified that BLM did not designate specific reference areas, because they were not certain of which ecological sites were on the allotment when they began their on-site work in 2005. Tr., 14566-568. Instead, the ID team employed ESI data to establish three "reference areas" which Mr. Stager testified were analogous to an ecological reference area. Tr., 14568.

With respect to BLM's riparian area health assessments, Appellants contend that BLM's PFC methodology is inadequate for an evaluation under both Standard 2, implicating riparian issues, and Standard 3, implicating desired species. Tr., 2622-26. BLM counters by arguing that the PFC methodology is appropriate for both Standards 2 and 3. BLM's Response Brief, p. 143. Once again, Appellants argue that all of the indicators for each of the standards should be taken into consideration by BLM in its PFC assessments. Appellants' Opening Brief, pp. 87-88, 91-92.

With respect to Standard 3, as it applies to riparian areas, lentic or lotic, BLM, once again, asserts that "... a properly functioning ecosystem may be <u>reasonably assumed</u> to provide adequate habitat to meet the needs

of dependent species ....." Emphasis added; BLM's Response, p. 144. Once again, I disagree. First, the basis for BLM's determination with respect to this issue is just what it says it is, that is, a mere assumption. In my opinion, as discussed both above and below, relying on this mere assumption with respect to a BLM designated sensitive species, such as, the sage-grouse, fails to comply with both the spirit and letter of Standard 3, which requires that "desired species ... be maintained at a level appropriate for the site ...." Standard 3 obviously refers to site specific wildlife habitats, not the entire allotment or even large subareas within the allotment, such as, riparian areas; but, rather, it refers to specific sage-grouse habitat sites, as well as to the habitat sites of other sensitive species. BLM by its own admissions knew nothing about the location of sage-grouse habitat sites on the allotment, and, therefore, its quoted assumption is completely unproven. Mr. Lichthardt testified that under BLM's 4180 Handbook, and Utah State Office policy, BLM enjoys the discretion to look at a variety of scales to make its standards determinations, including the allotment scale and a sitespecific scale. Tr., 15503-505. Basically the Salt Lake Field Office evaluated lotic and lentic areas and the allotment as a whole with respect to both Standards 2 and 3. However, while this may, indeed, suffice with respect to Standard 2, contrary to BLM's noted assertions, they did not have sufficient knowledge with respect to specific wildlife species habitats to properly evaluate Standard 3, and their conclusions with respect to Standard 3 are, therefore, unproven and unreasonable.

With respect to Standard 2, BLM more logically argues that "... if a lotic or lentic area is found to be at PFC in using the methods provided in the TRs, Standard 2 is necessarily met." BLM's Response, p. 145. Also, as BLM further argues, Appendix A, the S&G Record of Decision ("ROD"), expressly provides that Standard 2 may be evaluated by the "Riparian Proper Functioning Condition Assessments, pursuant to BLM TR 1737-9 and TR 1737-11." Ex. B-48, bates 3519; Ex. B-34, bates 6053.

More generically, with respect to the PFC methodology, Mr. Leonard testified that its goal is to provide a tool that can be used to make management changes to bring lotic and lentic areas to properly functioning condition. Tr., 15358-359. He further testified that if the functional criteria of the methodology are met, then the requirements of dependent biota will also be accomplished. Tr., 15121-122. This assumption regarding Standard 2 is, in my opinion, a reasonable one, as contrasted to BLM's assumptions with respect to Standard 3, because riparian areas, both lotic and lentic, are typically not geographically large, and they are certainly not allotment-wide, usually comprising a fairly small percentage of the overall allotment. BLM's assumptions with respect to the applicability of the PFC methodology regarding Standard 2 are, therefore, much more modest and reasonable in scope than are their assumptions pertaining to Standard 3, as discussed above.

Appellants contend that BLM improperly failed to calculate a carrying capacity or stocking rate and that BLM was required to do so by the provisions of 43 C.F.R. 4130.3-1(a) and 43 C.F.R. 4100.0-5. Appellants' Opening Brief, pp. 205-219. BLM counters by arguing that they are not required to conduct a carrying capacity analysis for permit renewals. BLM's Response Brief, p. 158. BLM's argument is, as follows:

Subsection 4130.3-1(a) is one of several provisions governing grazing permits and leases "terms and conditions," which is the title of section 4130.3 under which the subsection falls. The first sentence of Subsection 4130.3-1(a) states that grazing permits and leases must specify (as a 'mandatory term and condition') 'the kind and number of livestock, the period(s) of use, the allotment(s) to be used, and the amount of use, in animal unit months.' The statement that 'authorized livestock use shall not exceed the

carrying capacity of the allotment' immediately follows this first sentence. Thus, the provision simply makes clear that the 'amount of use' specified in a permit or lease can never exceed the allotment's 'maximum stocking rate possible' – it does not mandate that BLM must undertake a carrying capacity analysis every time it issues or renews a grazing permit or lease.

#### BLM's Response Brief, p. 159.

Further, BLM points out that current national BLM policy does not require an analysis of carrying capacity during the permit issuance or renewal process; rather, BLM uses the so-called "stock and monitor" approach. BLM's Response Brief, p. 159. For example, Mr. Lichthardt testified that BLM no longer does one-point-in-time inventories, because they require analysis of numerous factors and implicate excessive budgetary commitments. Tr., 15478. Instead, BLM collects and analyzes monitoring data, including climate and wildlife data, to determine whether applicable resource management objectives, including Fundamentals of Rangeland Health standards are being met, and, if said objectives are not being met, BLM will consider a range of options to change livestock use, including potentially changing the applicable permit's stocking rate. Tr., 15478-480; Ex. B-2, pp. 13-14.

BLM argues that even though it was not legally required to do a carrying capacity analysis in order to renew the subject permits, it none-theless did estimate a maximum stocking rate for the allotment "... for analysis purposes only and to get a rough idea of the stocking rate for all the public uplands in the allotment." Ex. B-2, p. 12; BLM Response Brief, p. 160. Mr. Staggs testified that the stocking rate analysis was not for the purpose of establishing carrying capacity; rather, based upon BLM's ESI data, it was to

assess whether uplands forage production was in the "ball park" of the carrying capacity originally established in the controlling MFP. Tr., 13848, 13865. In accord with its "stock and monitor" protocol, BLM concluded that it did not need to reduce the stocking rate under the permits, because BLM contends that its monitoring data showed that such a reduction was not necessary. BLM's Response, p. 160.

Appellants' contend that Mr. Staggs' analysis did not take into account the allegedly degraded state of the allotment, based on BLM's own ESD data. Appellants' Opening Brief, p. 210. BLM counters this by pointing out that Mr. Staggs took into account the actual production in 2005, which was adjusted or normalized for precipitation. Ex. B-2, p. 12. Based thereon, BLM concludes the following:

> It is irrelevant, in estimating the current maximum stocking rate, what theoretical 'transitional state' a particular site may fall in as described in an ESD. Staggs' maximum stocking rate estimate is based on actual production data collected in the field, not what the production is supposed to be according to whatever transitional states may be assigned to the various ecological sites on the allotment.

## BLM's Response Brief, p. 162.

Appellants also challenge the 50% utilization factor for grasses and forbs employed by Mr. Staggs in his stocking rate analysis, based upon Appellants' general contention that the 50% factor is too high for arid or semi-arid topography. Appellants' Opening Brief, p. 210-11. To support their premise, Appellants' cite to Galt, <u>et al.</u>, (Ex. W-200), to Holechek's text (Ex. B-2, bates 7086-87), as well as to relevant testimony by both Drs. Catlin and Carter criticizing the 50% utilization factor as excessive. Tr., 1616-17, 10034-035. BLM counters by arguing, in context, that the Appellants' reliance on the referenced literature is not sufficiently site-specific, and that BLM is entitled to rely on the opinions of its own experts, based upon their on-site analyses. BLM's Response Brief, p. 163; citing to: <u>Escalante</u> <u>Wilderness Project v. BLM</u>, 176 IBLA 300 (2009).

BLM defends the 50% utilization factor based, in part, on its field investigation for the EA and its determination that 50% utilization is reasonable based on the 2005 and 2007 monitoring data collected by BLM, which it is contended reflects only light utilization in the uplands. BLM's Response Brief, p. 163; Ex. B-1, p. 22. Relatedly, BLM construes the MFP to prescribe the 50% utilization factor. Exs. B-2, p. 12, B-5, bates 666-668, B-6, bates 1161; Tr., 12157-175.

Similarly, Appellants attack BLM's "stock and monitor" protocol based upon the parties' conflicting monitoring results and BLM's reliance upon selected key plant species. Appellants' Opening Brief, p. 214; Tr., 10035. Obviously, BLM's monitoring methodologies rely upon designated key species; whereas, the Appellants' modified paired-plot methodology does not. Mr. Gates testified that BLM, in fact, selected some key plant species because of their importance to wildlife, one of the major concerns of the Appellants. Tr., 12621.

Appellants challenge the conclusion of the EA that there will be no measurable increase in utilization of the uplands because of distributing livestock from riparian areas through the auspices of the new upland water troughs. Ex. B-2, p. 75. BLM counters this allegation through the testimony of Mr. Leonard, who testified that the EA's conclusion is correct, even taking into account differences in forage production, because the new rotational grazing system will result in better dispersion of livestock in both riparian areas, as well as the uplands. Tr., 15301-307. Although four times as many livestock would be in any one of the four new pastures at a particular time, each pasture's grazing cycle would implicate only one-fourth of each of the prescribed grazing seasons. <u>Ibid</u>.

Relatedly, Appellants contend that the EA failed to adequately analyze the impacts of more concentrated livestock use in the areas surrounding the new water troughs. Appellants' Opening Brief, pp. 191-93. The EA states that the primary purpose of the new troughs is to distribute livestock use away from riparian sites to upland sites on which BLM's 2005 monitoring data shows "more than adequate forage available" and that this redistribution is "not expected to have any measurable effect on the uplands existing good condition." Ex. B-2, p. 89. BLM asserts that cattle will forage from 1000 feet up to a mile away from a particular trough and that, whether the area around a trough will receive heavy use, depends on the natural and learned behavior of the cattle, the sensitivity of the soils and vegetation in the area around a particular trough, and the period of recovery when the particular pasture will not be used under the new rotational grazing system. BLM's Response Brief, p. 173; Tr. 15291, 15436. BLM concludes by arguing, "Thus there is nothing in the record from which to even infer that the new trough sites will receive heavy use." BLM's Response Brief, p. 173.

With respect to the issue of range readiness for spring turn out, the Appellants argue that the May 10th turn out date specified by the Final Decision is too early, and it implicates excessive grazing impacts upon the critical spring growth period. Tr., 3792-3814, 3842. However, Dr. Karl testified that the range readiness arguments of Dr. Catlin are not applicable to a deferred rotation system, such as, the one adopted in the Final Decision. Tr., 15619-620. He further testified that the recovery period that plants will get under the Decision's rotation cycle will meet the physiological needs of plants on the allotment. Tr., 15619-621. In addition, BLM notes that under the Decision's deferred rotation grazing system, livestock will be turned out on May 10th in any one of the four designated pastures only once in every four years, and, therefore, each of the four pastures will receive no livestock use during the critical spring growing period for three years in a row after the year in which livestock are turned out thereon on May 10th. Tr., 12203; Ex. B-2, pp. 22-23.

With respect to sage-grouse impacts, Appellants contend that BLM failed to consider the sequential, periodic concentration of cattle in any one of the four pastures, as well as the alleged impacts of affording cattle access to previously less-used areas of the allotment; and, because of these impacts, Appellants argue that BLM should have determined "... the location of sage grouse nesting and brood rearing on the allotment." Appellants' Opening Brief, p. 194. BLM counters by noting that the EA concludes that BLM's 2005 ESI data confirms that most of the public land within the allotment exhibits vegetative characteristics that "... meet all seasonal habitat requirements of sage grouse ....." Ex. B-2, pp. 71-72. Mr. Danvir testified that he observed positive changes in sage-grouse and other wildlife habitat on the allotment between 2002 and 2003 and 2007 and 2008. Tr., 77-79. He also testified that he concurs with the conclusions of the EA regarding the generally good condition of both sage-grouse and pygmy rabbit habitats on the allotment. Tr., 91-92; citing: Ex. B-2, pp. 69-74, 84-93. Further, the EA determines that "... a majority of the allotment is meeting sage grouse preference conditions in cover and height of sagebrush, cover and height of perennial grass species, and cover and diversity of forb species." Ex. B-2, p. 84. As discussed at greater length in the sage-grouse portions of this decision, it is my determination, based upon my review of the entire administrative record, that the quoted conclusion of the EA is factually unproven and materially incorrect, because BLM did not know where the sage-grouse leks or nesting areas were located on the allotment, and BLM, therefore, could not know, and did not know, what the impacts of their deferred rotation grazing system would be upon sage-grouse.

### **COMPARISON OF THE PARTIES' MONITORING PROTOCOLS**

In the Duck Creek Allotment, Appellants' monitoring was more extensive over a period of several years than was that of the BLM, whose most extensive monitoring effort was restricted to 2005 entirely because of the Carpenter litigation. Appellants' monitoring was conducted over a longer, more consistent period of time. The bulk of BLM's data was collected in 2005, directly as a result of the above-referenced Federal District Court litigation; whereas, Appellants' data was routinely collected in 2005-2008. Instead of integrating at least some of Appellants' data into its overall data base, BLM, which, by its own admission suffers from inadequate budgets and insufficient personnel, rejected all of Appellants' utilization and production data. Tr., 11983. BLM explains this exclusion, as follows:

The data supplied to the BLM by WWP/WUP is not of a standard that should permit it to supplant the data collected by BLM and used in the analysis of this EA. A report of the comparative analysis has been completed and is on file at the SLFO for review.

#### Ex. B-2, Bates 9368.

The referenced comparative analysis was introduced as BLM's 2007 Comparison Report. Ex. B-21. Mr. Gates, who signed the decision on appeal herein, testified that Appellants' methodology was not in accord with BLM's Technical References, that Appellants' data was inconsistent with BLM's, and that Appellants were biased. Tr., 12055-56. Appellants testified, in context, that they never intended to entirely supplant BLM's data; rather, they intended to supplement, to enhance, and to make more robust BLM's more limited data. Tr. 445-46, 555-56, 568-69. Relatedly, Appellants' data includes areas of the allotment that BLM has never monitored. Appellants followed the general dictates of pertinent IBLA precedent and spent significant time and resources to develop their own, independent evidence, their own, independent monitoring, their own, independent data base, which they hoped to merge with BLM's data base.

In its comparative analysis, BLM compared Appellants' production data to BLM's ESI production data. Ex. B-21, Bates 5959-64. BLM's production data includes shrubs; Appellants' production data includes grasses and forbs and not shrubs. Appellants contend that this comparison is invalid because shrubs are generally not palatable to livestock, and Appellants contend that shrubs should not be included in production comparisons. Secondly, Appellants contend that BLM compared the data from Appellants' grazed, uncaged plots and did not include the data derived from Appellants' caged, ungrazed plots. Appellants contend that BLM should also have compared their production data to that from the Appellants' caged plots, because that was the data base that Appellants used to derive their production numbers. Tr., 1493-1503. Appellants also contend that BLM improperly compared data from Appellants' riparian monitoring sites to the data from BLM's overflow sites, which are two different kinds of sites with very different production potentials, resulting, according to Appellants, in another invalid comparison. Tr., 1503. Also, a number of the sites compared by BLM are in different soil map units. For example, Appellants' site U6, which is in a KBD soil map unit, was compared by BLM to their site DC5, which is in an FAE soil map unit. Exs. W-72, p. 8, B-21, Bates 5960.

Appellants collected data on different, more diverse sites than did the BLM, and in 2006 and 2007 expanded their monitoring into areas on the allotment where BLM conducted no monitoring. In 2005, BLM for its so-called calibration of the eye, clipped and weighed at only four sites on the whole allotment; at all others BLM did ocular estimates. Appellants clipped and weighed at all of their sites, providing quantitative data in comparison to BLM's qualitative estimates.
At some sites Appellants actually measured more grass and forb productivity than BLM did. At Appellants' site U4, which BLM compared to their DC-17 site, Appellants found 459 pounds per acre of forbs and grasses; whereas, BLM found 437 pounds per acre. Exs. 31b, p. 3, B-21, Bates 5960. BLM's comparison report states that "... only through the direct comparison of production by species is it possible to gain an accurate picture of the conditions of the land." Ex. B-21, Bates 5693-94.

## **ALLOTMENT MANAGEMENT PLAN ISSUE**

During the hearing, Appellants contended that the MFP requires turn out to be May 25 of each grazing year. Tr., 3784-86, 4317-23; Ex. W-21, p. 16. This was based upon language in the Range Management Decision stating that, "Turnout in the spring will be May 16 if an allotment management plan is accepted by July 31, 1980 and implemented by May 16, 1985. ... If an AMP is not accepted and implemented by the above dates, turnout will be May 25." Ex. B6, bates 1161. Generally speaking, FLPMA requires BLM to act consistently with its applicable Range Management Plan. 43 U.S.C. 1732(a). BLM acknowledges in its Response Brief the following, "BLM has been unable to locate a copy of an AMP for the DCA (except as discussed below regarding the 2001 decision)." Response Brief, p. 48. BLM further contends that "... the record establishes that an August 27, 2001 BLM decision (Ex. B9) is the functional equivalent of an AMP." Response Brief, p. 48; Ex. B2, p. 6. BLM goes even further and contends that the Final Decision on appeal herein "... is the functional equivalent of an AMP (see Ex. B1, p.2; 45:12201), so the MFP's requirement to have an AMP in place for a turnout date of earlier than May 25 is met in any event." Response Brief, p. 48.

The problem with this rationalization is that there was no adequate advance notice to interested publics that BLM intended the decision on appeal herein to be both an Allotment Management Plan amendment, as well as, a ten year permit renewal. In my opinion, an Allotment Management Plan is broader in scope than a permit renewal, and the Appellants herein were never properly notified in advance that the Final Decision was to be construed as both a permit renewal and an Allotment Management Plan amendment. This is an important procedural distinction, because Allotment Management Plans may subsume more than one allotment and more than one permit renewal cycle, and such plans usually contain generic provisions that are broader than the terms and conditions of a permit itself. BLM's effort to construe the decision on appeal herein as also constituting an Allotment Management Plan amendment, is, in my opinion, lacking in sufficient advance notice thereof, and, consequently, procedurally legally insufficient.

## NEPA COMPLIANCE ISSUES

The EA fails to provide adequate baseline information, in large part because BLM rejected totally the Appellants' very extensive and comprehensive data base. BLM ignored a significant data base developed by Appellants over several years of on-the-ground monitoring, which would have facilitated BLM in taking a more informed "hard look" at direct, indirect and cumulative impacts of the new ten year grazing permit. BLM refused to open for adequate public comment Appellants' utilization, cover, riparian and production data that Appellants had collected on the allotment since 2005, improperly relying upon the CRM meetings as their exclusive scoping venue. In context, Appellants' data challenges the BLM conclusion that the overall allotment is in good condition. Had BLM integrated Appellants' data base into their own, they may very well have established new baseline parameters from which they could have made a

sustainable grazing decision. In Half Moon Bay Fisherman's Marketing Ass'n v. Carlucci, the Ninth Circuit determined that, "... without establishing the baseline conditions ... there is simply no way to determine what effect the (action) will have on the environment, and consequently, no way to comply with NEPA." 857 F.2d 505, 510 (9th Cir. 1988). Relatedly, a NEPA document that relies on incomplete data violates NEPA. Native Ecosystems Council v. U.S. Forest Service, 418 F. 3d 953, 964-66 (9th Cir. 2005). In order to take the "hard look" at the likely impacts of a proposed project, which is mandated by NEPA, BLM was required to analyze the affected environment in relation to expostulated baseline conditions, which were never adequately specified by BLM in this case. <u>Western Watersh</u>eds Project v. BLM, 552 F. Supp.2d 1113,1126 (D. Nev. 2008); Northern Plains Resource Council v. Surface Transportation Board, 668 F.3d 1067, 1085 (9th Cir. 2011). In refusing to consider Appellants' extensive data, which shows that the current level of grazing is having a significant impact on both upland and riparian vegetation, BLM failed to adequately assess the Duck Creek Allotment's existing baseline conditions.

BLM conducted a new ecological site inventory and issued new ecological site descriptions in 2005. Appellants vigorously challenge the applicability and sufficiency of the new ecological site descriptions ("ESDs"). Tr., 1122-23; Ex. B-18, Bates 1493. ESDs contain information on soils, hydrology, and vegetation and typically contain a description of the historic climax plant community ("HCPC"). Tr., 1122-23, 1127-28; Ex. B-18, Bates 1493, 1496.

The National Resources Conservation Service ("NRCS") has jurisdiction over ESDs and assists agencies, such as, BLM in developing new ESDs and applying them on the public lands. Tr., 8663. With respect to Duck Creek, Mr. Shane Green, NRCS State Rangeland Management Specialist, superintends all ESDs for the State of Utah and determines the correct ESDs to be employed by federal land agencies. Tr., 8664-65. BLM determined to pursue new ecological site inventories ("ESIs") in consultation with Mr. Green, because they decided that the range site descriptions previously relied upon in the Rich County Soil Survey and the applicable MFP were no longer appropriate. Exs. B-21, Bates 5962, B-44, W-64, W-65, W-66, W-67. BLM conducted a so-called "re-correlation" in conjunction with Mr. Green, who testified that a re-correlation is "... something that describes taking existing soil survey information, whatever age or date that might have been created, and attempting to apply the most current ecological site descriptions that we have today to the old existing soils data, because those have changed or-well, more accurately, they've been added to over time." Tr., 8667. The new ESDs applied by BLM on Duck Creek were those recommended by Mr. Green. Tr., 8668.

The new ESDs that were applied to Duck Creek are the Loamy 10-14, which displaced the Upland Loam Wyoming Big Sagebrush range site, and the Loamy 7-9, which displaced the Semi-Desert Loam range site. Tr., 14437-440; Exs. B-2, Bates 9328, B-22, Bates 2379-91, W-64, W-65. The Loamy 10-14 includes approximately 6,511 public acres of the allotment, and the Loamy 7-9 includes approximately 4,166 public acres. Ex. B-2, Bates 9328. Appellants' criticize this new approach, because the new ESDs do not correlate to the precipitation levels on the allotment. Tr., 11478-479. The NRCS handbook states the following, "... sites having similar soils and topography may exhibit significant differences in their historic climax plant communities because of climatic differences. ... the amount of vegetation produced in areas where precipitation is 16 to 19 inches is significantly less than that produced in areas where precipitation is 20 to 23 inches. Thus two ecological sites are recognized and can be distinguished by the inclusion of the precipitation zone (PZ) in the name of the sites." Ex. B-78, Bates 66.

Dr. Catlin testified that precipitation is an important factor in distinguishing between different ESDs and that rainfall directly influences what species occupy a particular site. Tr., 1129. Mr. Green testified that the

two ecological sites from Wyoming that he chose as applicable to Duck Creek were the Loamy 10-14, with a 10-14 inch precipitation zone, and Loamy 7-9, with a 7-9 inch precipitation zone. Tr., 8682. The problem is that the Loamy 7-9 ESD is a lower precipitation zone than the Soil Survey assigns to the applicable soil map units on the Duck Creek Allotment. Mr. Green admitted the following:

And so those two ecological sites I mentioned from Wyoming that we had initially picked up on, they are numbers 222 and 122. I think 222 is given a 10-to-14 precip zone and 122 is given a 7-to-9 precip zone, and that was really the only troubling part of this, is that they're recognizing different precipitation zones in Wyoming than where we put the breaks in Utah, and so it's not going to be a perfect match with- well, especially in the Duck Creek Allotment.

Tr., 8682.

The Appellants contend that the new ESDs were the wrong ones, because they imply less precipitation than the respective areas of the allotment actually receive. By imputing less precipitation, and relatedly less production, to the majority of the allotment, BLM projects less productivity, thereby accepting a more degraded condition as the baseline condition. Relatedly, BLM relies upon this to explain reduced productivity, rather than the more likely cause, that is, excessive grazing. Tr., 1203-06. Appellants further contend that the new ESDs are wrong because they are based on existing degraded vegetative conditions, rather than upon the historic climax plant community, which is identified in the Soil Survey. Appellants contend that the Soil Survey is the best evidence of what plant communities were historically on the allotment. Mr. Green testified, as follows: Well, recognizing that it might have been different historically. I had very little else to go on, other than what was growing there at the time. The proportions might have been different historically ... and there might have been some changes in some species composition, but at some point you have to use the species that are there right now to help make the decision or educated guess about what was there historically.

#### Tr., 8692-93.

When asked if a degraded ecological state on Duck Creek could have influenced the species that are there now, Mr. Green acknowledged, "Yeah, it would influence the species that are there now." Tr., 8693. Dr. Carter testified as to why he believes that BLM erred in adopting new ESDs for the allotment, as follows:

Primary issue, in my mind, is the disagreement between the Ecological Site Descriptions and the published Soil Survey, and the presence of bluebunch wheatgrass in the Soil Survey, and the absence of bluebunch wheatgrass in the Ecological Site Descriptions.

Tr., 11394.

Further, Dr. Carter summarized what NRCS and BLM did with respect to new ESDs, as follows:

Well, in my view, this falls into the category of dumbing down the ecosystem. In other words, we've accepted for nearly 30 years that the Soil Survey was the definitive document. I think they need to do a new Soil Survey to change this. That would be what I would want to see.

Tr., 11404-405.

The Loamy 10-14 ESD identifies western wheatgrass as the major grass species that is supposed to be found at this site. Ex. B-22, Bates 2383. The Soil Survey, however, identifies bluebunch wheatgrass as the main grass species associated with an Upland Loam range site. Ex. B-44, pp. 160-62. In the Loamy 7-9 ESD, thickspike wheatgrass, Indian ricegrass, and needleandthread are identified as the major grass species, with bluebunch wheatgrass third. Ex. B-22, Bates 2405. BLM found no thickspike wheatgrass anywhere on the allotment, including none on the Loamy 7-9 ecological sites. In the Soil Survey, bluebunch wheatgrass is the dominant grass species for the Semidesert Loam range site. Ex. B-44, pp. 164, 160.

With respect to this conflict between the Soil Survey and BLM's ESDs, Dr. Carter testified, as follows:

So, it seems to me that the Soil Survey, in its thoroughness, And I went through that yesterday, in terms of they dug the deep soil pits. They have the soil profiles; all the, all the chemical and physical properties that I don't see associated with this Ecological Site Description.

And so I still think the, the burden is on the BLM to prove that, in fact, this new Ecological Site Description is the one that should be used, because, after all, when we analyzed the occurrence of bluebunch wheatgrass in their Ecological Site Inventory, approximately half the sites had bluebunch wheatgrass present. And yet in the Soil Survey, all of the sites would have bluebunch wheatgrass present, whereas with western wheatgrass, the Soil Survey had little to none, and many of the ecological sites in BLM's Ecological Site Inventory had western wheatgrass. So, it just appears to me that there is a, a willingness to toss out the Soil Survey and reinvent the plant community because it may better resemble what's there today, which, as Dr. Catlin testified, is a degraded state, based on the Ecological Site Description itself.

#### Tr., 11399-400.

The importance of the above quote from Dr. Carter is to register the change in data-reliance which was effectuated by BLM's re-correlation, which resulted in BLM relying upon ESD data, as distinguished from Soil Survey data. And the related legal import is the following: BLM did not provide adequate advance notice that they were going to make this major change, and BLM did not adequately analyze, and did not adequately discuss, the re-correlation in their draft EA. Given the importance of this purported change in data-reliance, BLM failed to take the necessary "hard look" at the consequences of this change when they failed to adequately discuss or analyze the implications of their re-correlation in both their Draft and Final EA. In my opinion, this constituted reversible error, because the implications of the re-correlation should have also been opened to full public comment prior to finalizing the EA. Once again, BLM failed to accord basic public procedural due process when effectuating a major change in its historic data-reliance. The re-correlation constituted a very important change, and the record clearly confirms that the Appellants were completely blind-sided by that change, and they were never afforded a proper opportunity to publicly comment upon the implications of that change before BLM issued its Final EA, Ex. B-2. Tr., 11399-400. Indeed, as discussed above, Dr. Carter did not even attend the 2006 CRM meeting in

which Mr. Green revealed this major change for the first time without any formal advance notice to interested parties.

BLM primarily determined the condition of the allotment's upland vegetation through its 2005 ESI, which is defined, as follows:

A resource inventory that involves the use of soils information to map ecological sites and plant communities and the collection of natural resource and vegetation attributes. The sampling data from these soil-vegetation units, referred to as site write-up areas (SWAs) become the baseline data for natural resource management planning.

Ex. B-18, Bates 1467, 1540.

BLM conducted ESIs at 28 sites on the allotment, all in 2005. As mentioned above, they actually clipped and weighed at only four sites (DC-1, DC-3, DC-4, DC-18) for so-called "calibration" purposes. Tr., 8773; Ex. B-18, Bates 1509-17. At all other sites BLM used exclusively an ocular estimation method. Ex. B-18, Bates 1518. As a part of this methodology, BLM also utilized so-called "estimation plots" and "same as plots." Tr., 8797-8828. Three of BLM's clipped plots were on the northern part of the allotment, which was rested from grazing in 2004-2005. The ESI Technical Reference states that the "... ecological site inventory method involves the use of soils information to map ecological sites and plant communities." Ex. B-18, Bates 1467, 1540. However, BLM did not map the ecological sites on the allotment, and, consequently, the Appellants were never able to access these sites in order to conduct independent monitoring. Ex. B-58.

After BLM collected its ESI data, it calculated the so-called "similarity index" to determine the seral state of each of its sites. Tr., 12592-593; Ex. B-18, Bates 1543. Mr. Gates testified that the purpose of the ESI data collection

was to measure productivity by comparing it to the HCPC described in the ESD. Tr., 12592-593. Each ESD contains a list of plants that the NRCS determined would be present on each site at HCPC and their relative amounts in pounds per acre as a percentage of the overall plant composition. Tr., 1160-61; Ex. B-2, Bates 2383, 2394, 2405, 2415, 2424, 2436; Ex. B-134. In determining the similarity index, the allowable production of a species in the existing plant community cannot exceed the production of that species in the reference plant community. Ex. B-18, Bates 1519.

Mr. Staggs testified that late seral is equivalent to good or excellent condition. Tr., 14029. Historically, BLM has described range condition in different ways: (1) poor, fair, good, excellent; (2) early, mid, or late seral; or, (3) potential natural community ("PNC"). In the instant case, BLM employed a percentage of the similarity index, and, according to Mr. Staggs, "... we've tried to crosswalk those two, and line them up a little bit." Tr., 14029-30. Poor, fair, good and excellent equate to early, mid, or late seral, and then to HCPC or PNC. Tr., 14030.

Appellants challenge BLM's similarity index methodology because the manner in which it is calculated enables one plant community, in the case of Duck Creek the shrub community, to excessively influence the overall calculation, because a very high percentage of shrubs serves to mask the low percentages of grasses and forbs. Tr., 11414. Appellants argue that just because the applicable Technical Reference provides for calculating a similarity index, it does not, at the same time, dictate that BLM should simply ignore the depleted grass community, which depletion has been demonstrated by Appellants' data. Tr., 11417; Ex. B-18, Bates 1509. Dr. Carter testified, as follows:

You can calculate the Similarity Index the way its defined in B-18, but depending on the balance between grasses, forbs, and shrubs, you could have the same number representing a whole variety of states for the individual components.

You ... could have individual species missing, or you could have grasses at near zero, with forbs and shrubs at near the maximum, to come up with an acceptable Similarities Index. Or, you could have grasses in, near this maximum, and forbs near zero, and still come up with the same number.

And so that's the point I'm ... making. It doesn't tell you about the balance of the plant community in terms of whether those individual components were similar to their state.

#### Tr., 11456-457.

With respect to the similarity index, Dr. Carter added: "I just don't think they went far enough, because that can mask some serious deficiencies in the ... community as a whole." Tr., 11459. Based on the ESI data, BLM determined that 90.3% of the allotment was in late seral stage or better, which BLM equates to good ecological condition. Tr., 14029-30; Ex. B-2, Bates 9330-31. In its December 2007 Report, BLM concludes that, "This determination means that BLM data shows that over 90 percent of the public land acres in the allotment have 51 percent or more of the species and production that is described in the ESD for HCPC." Ex. B-21, Bates 5963; Tr., 1555.

Appellants' data directly challenges these BLM percentages. In particular, Appellants contend that if the similarity index is all you look at, then you miss the overabundance of sagebrush and the substantial decline of grass species. Tr., 1296-98. Appellants contend that, even if production is above that described in the ESDs, the majority of that production on Duck Creek is from sagebrush and other shrubs and that required grass species are absent altogether, such as, bluebunch wheatgrass and Indian ricegrass. Tr., 1558-59.

BLM inventoried nine geographical sites within the Loamy 10-14 ecological site category. A representative ESD states that the potential vegetation composition at HCPC is estimated to be 75% grasses or grass-like plants, 10% forbs, and 15% woody plants. Ex. B-22, Bates 2384. In fact, no such grass percentages were ever measured on the allotment by either of the parties. Ex. B-2, Bates 0334-39; Also see: Appellants' Table 3. Grasses are significantly reduced, less than one-third of what they should be, and shrubs dominate the landscape. Ex. B-22, Red Bates 0001, 0030, 0073, 0083, 0093, 0101, 0135, 0195, 0235, 0267; Appellants' Table 3. Appellants' Table 3 also demonstrates how the ecological numerical rating used to determine the similarity index skews the data so that the similarity index does not represent a balanced vegetation composition on the ground. For example, at their site DC-1, BLM found 13% grass, 11% forbs, and 76% shrubs, reflecting excessive shrubs and lack of grasses. The ESD for Loamy 10-14 describes the HCPC plant community, as follows:

A typical plant composition for this site consists of rhizomatous wheatgrass 10-30%, bluebunch wheatgrass 5-15%, Letterman needlegrass 5-15%, needleandthread 5-10%, Canby bluegrass 5-10%, other grasses and grass-like plants 10-20%, perennial forbs 5-15%, Wyoming big sagebrush 1-20%, 5-10% other woody species.

Ex. B-22, Bates 2384.

Both BLM's and Appellants' data reveals that for most of the Loamy 10-14 ecological sites the so-called "increaser" grasses, such as, Sandberg bluegrass, muttongrass and rhizomatous wheatgrass have increased over bluebunch wheatgrass, Indian ricegrass and needleandthread grass. Tr.,

1166-67. For example, testifying with respect to BLM's site DC-1, Dr. Catlin stated the following:

But, at the same time, this says that, it says 50 percent of the production is sagebrush. ... I believe that this is in degraded state and, and that should be a consideration made when assessing the ecological conditions either in an ecological site inventory, or when assessing the rangeland health, because, you know, it's, it's not at potential.

And so accepting a degraded locale as at potential indicates to me that they haven't recognized ... the state that it's in. So, there's a disconnect between the descriptions, the evidence we have here, and BLM's interpretation of what potential is on that site.

Tr., 3294-95.

Further, with respect to the composition issue on Loamy 10-14 and Loamy 7-9 sites, as BLM acknowledged in the EA:

Loamy 10 to 14 Wyoming big sagebrush-bluebunch wheatgrass-bluegrass located primarily in the western part of the allotment and generally at elevations greater than 6,900 feet and comprising approximately 6,511 acres or 50% of the allotment;

Loamy 7 to 9 Wyoming big sagebrush-bluebunch wheatgrassbluegrass located primarily in the eastern part of the allotment and generally at elevations less than 6,900 feet and comprising approximately 4,166 acres or 32 percent of the allotment

## Ex. B-2, Bates 9327.

With respect to the Loamy 10-14 ecological sites, the so-called "increaser" grasses, including Sandberg bluegrass, muttongrass, and rhizomatous wheatgrass have increased on the allotment over bluebunch wheatgrass, Indian ricegrass, and needleandthread grass. Tr., 1166-67. As an example, regarding BLM site DC-1, Mr. Stager testified for the BLM that the site is in good condition and that the site produced some 2,226 poundsper-acre of Big Sage/Rhizomatous Wheatgrass; whereas, the ESD provides for only 800 pounds-per-acre of production. Tr., 14916-917. Appellants counter this by pointing out that the high productivity results from an incorrect ESD which reflects a too-low precipitation amount with a corresponding lower productivity assigned to the site. Tr., 14919. They further point out that bunchgrass is only a fraction of what should actually be there. Ibid. For example, Mr. Edwards testified that, with respect to site DC-17, BLM found 17 percent grass, 16 percent forbs, and 67 percent shrubs, and for this site to have been in good condition, the percentages of shrubs and grass would have to be reversed. Tr., 13128. Mr. Edwards further testified that BLM's ecological condition ratings for sites DC-5, DC-7, and DC-8, do not match the percentages of plant species that are supposed to be there. Tr., 13132-133; Ex. W-224, p. 12. The result is an overabundance of sagebrush, and the percentage of shrubs is excessive in relation to grass and forb populations. Tr., 13133-134. Interestingly, in their 2007 comparison report, BLM acknowledges that its own ESI data shows that "... grass production for many of the sites sampled on the Duck Creek Allotment are producing less grass than described by the appropriate HCPC." Ex. B-21, Bates 5963. This fact was not adequately analyzed in the EA, and, consequently, BLM failed to take the necessary "hard look" with respect to the issue of grass percentages on the allotment. Ex. B-2. In plain terms, there is a shortage of qualifying grass on the allotment, which was never adequately analyzed by BLM.

The amount of bluebunch wheatgrass on a number of BLM's sites is minimal, and is less than what should be there according to even the ESDs. On sites DC-6, DC-7, DC-8, and DC-20, bluebunch wheatgrass makes up only one percent of the total vegetation composition. Ex. B-23, Bates 1986-88, 2001. BLM does not compare the amount of bluebunch wheatgrass found at their sites to the amounts specified in their own ESDs, only referencing whether there was a measurable amount. On sites DC-6 and DC-7, which are Loamy 10-14 ecological sites, the ESD specifies 5-15% of the total plant composition for bluebunch wheatgrass; whereas, on those sites, bluebunch wheatgrass comprises only one percent of the plant composition. Exs. B-22, Bates 2383, B-23, Bates 1986-88. At site DC-19, an Upland Loam ecological site, bluebunch wheatgrass should be 10-35% of total plant composition, but was measured by Appellants at 0%. Exs. B-23, Bates 2000, B-134, p. 5. As Dr. Catlin testified:

... you can have the right species or the wrong species. So just having a high number of species doesn't necessarily mean you have the right mixture of species. And, more importantly, it doesn't mean that you have the right composition of each species, so you don't have the right amount of that species growing there.

So I would argue that the composition and richness is not good on many of these sites, simply because, for example, bluebunch wheatgrass, which should dominate Indian ricegrass, which should be an important factor, is largely missing from most of the sites we looked at.

It was replaced with, in some cases, grazing-tolerant plants that were not found to be appropriate for that ecological site, or by plants that were found on the site and now in more abundance than they should be on the sites.

Tr., 1456.

The Final Decision states that BLM measured bluebunch wheatgrass on eight of ten key areas. Ex. B-1, p. 15. This appears not to have been the case, however, because the EA states that bluebunch wheatgrass was found at four of the key areas. Ex. B-2, Bates 9332. Relatedly, the EA states that bluebunch wheatgrass was observed at BLM's site DCT-1. However, BLM's utilization monitoring report conflicts with this, stating that no bluebunch wheatgrass was observed at DCT-1. Exs. B-2, Bates 9332, B-19, Bates 2476, 2529. Dr. Catlin testified that, according to the soil survey, bluebunch wheatgrass should be the most dominant grass on the allotment. Tr., 940-41. Dr. Catlin further testified, as follows:

... when we talk about each ecological site, ... its saying that no bluebunch wheatgrass was here so they're not going to use it as a key species. ... So this habitat type (DCT-1) is upland loam. And this particular range site, the most dominant grass that should be there, if it was in good condition, is AGSP. There should be more of that than any other grass.

... it indicates that they're using other species ... and that we've lost that particular ... that important plant species from this site.

Tr., 941-42.

What this means is that BLM failed to take a sufficiently hard look in its EA at the implications of decline on the allotment, namely, the decline in the requisite percentages of bluebunch wheatgrass. BLM seems to have treated this as a non-issue. BLM failed to provide a full and fair discussion of a significant environmental impact, namely, the decline of bluebunch wheatgrass. Discussion of significant environmental issues is required by 40 C.F.R. 1502.1. A hard look must involve a discussion of negative and adverse impacts, not just a "... brush-off of negative effects." <u>Native Ecosystems Council v. U.S. Forest Service</u>, 428 F. 3d 1233, 1241 (9th Cir. 2005).

# **NEPA RELATED SAGE GROUSE ISSUES**

The issue of the Decision's impacts upon sage grouse habitat is, in my opinion, the most important impacts issue in this case. The EA states that, based on BLM's ESE data, "… most of the BLM lands within the (DCA) have vegetative characteristics that meet all seasonal habitat requirements for sage grouse." Ex. B2, p. 71. The EA contends that adequate cover for habit exists and even meets the Connelly guidelines. Ex. B2, pp. 71-72. With respect to environmental impacts, the EA concludes that, "… a majority of the allotment is meeting sage grouse preference conditions in cover and height of sagebrush, cover and height of perennial grass species, and cover and diversity of species." Ex. B2, p. 84. As discussed below, BLM did not even know where the sage grouse leks were located, and, consequently, had inadequate knowledge of what the habitat conditions were in the areas surrounding sage grouse leks on the allotment.

With respect to NEPA compliance, Appellants make some interesting comparisons between BLM's 2004 EA and its 2008 EA on appeal herein. Exs. W-6, B-2. In particular, with respect to sage grouse and pygmy rabbit, the 2004 EA paints a different picture of conditions on the allotment than does the 2008 EA. For example, in 2004, BLM's EA reported three leks on the allotment. Ex. W-6, Appendix A; Tr., 9335-37. Whereas, in the 2008 EA, only two leks were reported. Ex. B-2, Bates 9344. Yet the 2008 EA contends

that "... current conditions are providing more than adequate habitat for all seasonal requirements." Ex. B-2, Bates 9357. One concludes that this disparity was inadequately addressed in the 2008 EA, and, once again, BLM failed to take a sufficient hard look at an important issue, that is, the decline in habitat conditions for sage grouse on the allotment. The Appellants' extensive monitoring proved that conditions did not improve between 2005 and 2008 on the allotment, and, consequently, it is not credible that conditions on the allotment could have improved so dramatically as generally contended in the 2008 EA, as compared to BLM's own, prior 2004 EA, which seems to be generally more candid about the real conditions on the Duck Creek Allotment.

The real deficiency in BLM's case-in-chief and in its ensuing briefs is that the agency conflates what it should have done procedurally, and failed to do, with what it could ultimately legally have decided within its administrative discretion, if BLM had actually gone through the requisite procedural hoops of proper compliance with NEPA. BLM did not do so. NEPA is basically a procedural statute that requires the jurisdictional regulatory agency to take a hard look at material environmental issues, to discuss and analyze a reasonable range of alternatives, and to discuss and analyze adequate cumulative impacts. Indeed, NEPA "... is a procedural statute that requires the Federal agencies to assess the environmental consequences of their actions before those actions are undertaken." (Emphasis added) Klamath-Siskiyou Wildlands Center v. Bureau of Land Management, 387 F.3d 989, 993 (9th Cir. 2004). If the regulatory agency properly fulfills that procedural mandate, it legally enjoys fairly broad discretion with respect to the content of its final decision. The basic test is whether the agency made a fully informed decision after taking the requisite hard look at material environmental issues.

We will never know if BLM could have properly defended the Final Decision on appeal herein, because BLM failed to take a hard look at all of

the relevant, material environmental issues; BLM failed to discuss and analyze a reasonable range of alternatives; and, BLM failed to adequately discuss and analyze the cumulative impacts of its initially proposed decision. In my opinion, Appellants actually showed BLM the way procedurally; the Appellants extensive monitoring data reveals numerous issues, discussed herein both above and below, that should have been more fully addressed and analyzed by BLM in its Proposed and Final EAs, prior to issuing its Final Decision. Had BLM done so procedurally, then arguendo, it may have been postured to better defend its Final Decision. Had BLM done so, it would have been in a better procedural posture to contend that its Final Decision on appeal herein was based upon a fully informed judgment by Mr. Gates. However, Appellants have proven that Mr. Gates did not make a fully informed decision under the procedural purview of NEPA. In the absence of such full procedural compliance with the hurdles of NEPA, BLM's Final Decision must be reversed. It would appear from the context of the overall record that the agency was simply in too big a hurry to respond to the Federal District Court settlement agreement to fully comply with the procedural requisites of NEPA in the context of contemporary case law, in particular, the precedent of Klamath-<u>Siskiyou</u>.

For example, as a purely legal matter, BLM is, of course, not necessarily obliged to follow the Connelly Sage Grouse Guidelines; however, as Dr. Carter testified, there is no evidence in the EA, Exhibit B-2, that BLM assessed in any context the height of perennial grasses and forbs as cover for sage grouse nest sites. Tr., 10304-305; Ex. W-213, p. 971. This is particularly troubling given that Sage Grouse is a BLM sensitive species; however, the EA contains no information on the location of nest sites and no information on whether the grasses and forbs at those locations are adequate to protect those nest sites, be it under Connelly or any other potential guidelines. BLM in various utterances and publications acknowledges that protection of sage grouse is an important issue; however,

BLM in essence dismisses that very issue in its Final EA. Ex. B-2. In particular, Appellants' cover data demonstrates that the allotment does not meet the seven inch grass height requirement of the Connelly Guidelines. Tr., 11390. As mentioned above, while the agency is not legally bound by Connelly, BLM offers no alternative analysis, discussion, or standard with respect to whether sage grouse nest sites on the allotment are adequately protected. Given that the protection of sage grouse is a high BLM priority, in my opinion, this is just one example of numerous material procedural omissions in BLM's EA, which, standing by itself, renders BLM's EA legally insufficient under NEPA. Dr. Carter testified as follows with respect to sage grouse grass cover:

... if you have grasses, bunchgrasses at small percentage of potential, then their cover is also going to be at a small percentage of potential. ... And so you could use this to draw inferences in that regard that, well, if the bunchgrass communities or the grass communities, which are an important canopy cover component for sage grouse, are reduced, reduced far below potential, then you can draw that inference.

#### Tr., 11474.

BLM did not know the location of or discuss existing sage grouse nesting or brood rearing areas so that it could make an informed management decision, including collateral issues, such as, the placement of fences, the placement of water troughs, and the proper sequencing of the rotation system set out in the Final Decision in relation to sage grouse protection. Because BLM did not adequately analyze this kind of sage grouse related data in its EA, it could not have made an informed decision with respect to the impacts upon sage grouse of the grazing system set out in the Final Decision. BLM did not consider sage grouse nesting grounds when locating their monitoring sites, which is recommended by their own

Utilization Technical Reference, which states that common locations for studies include critical areas and key areas, such as, sage grouse nesting grounds. Tr., 13936; Ex. B-17, Bates 1265. Appellants' counsel asked Mr. Staggs the following question, "So, you have no idea where sage grouse nest on the allotment?" Tr., 13936-937. Mr. Staggs answered, as follows, "Not unless I come across a nest. I mean, no." Tr., 13937. If BLM by its own admission doesn't know where sage grouse are on the allotment, how can the agency possibly include permit provisions intended to adequately protect them? However, Mr. Staggs unequivocally confirmed that, "There's an active lek on the allotment." Tr., 19936. But, of course, he didn't know where it is located. Consequently, the EA provides no current information on areas of the allotment currently occupied by Sage Grouse; and, consequently, Mr. Gates rendered an uninformed Final Decision. Relatedly, the EA provides no real analysis of the impacts of the new fourpasture grazing system upon Sage Grouse habitat quality and quantity, which, in my opinion, was necessary in order to effectuate the requisite "hard look" with respect to Sage Grouse impacts of the Final Decision.

A NEPA document must "... provide full and fair discussion of significant environmental impacts." 40 C.F.R. 1502.1. This must include the direct and indirect effects, as well as, the cumulative impacts of the proposed action. 40 C.F.R. 1508.7, 1508.8. The agency's "information must be of high quality," and "accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." 40 C.F.R. 1500.1(b). Relatedly, "NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." 40 C.F.R. 1500.1(b). BLM did not adequately analyze the impacts of the proposed grazing system and water developments upon sage grouse before issuing its Final Decision.

The Final Decision retains the same stocking level for the same season of use as under the prior permit, namely, 2134 active AUMs with grazing seasons of May 10 to September 7 and September 20 to December 1. Ex. B-2, Bates 9292-96. The major change under the decision and new permit is the four pasture rotation system, which applies to cattle, sheep, and horses, and which was the subject of extensive testimony and attention during the public hearing. Tr., 13731-732. Sheep are to be in the pastures with cattle from May 10 through July 1, and sheep then return on September 20 through December 1. Tr., 13733-734. In season one of the system, all livestock would start in pasture one for thirty days and then move to pasture two for thirty days, until July 7, with sheep coming off on July 1. Then cattle and horses would progress through pastures three and four for some thirty days, and sheep would return to pasture four on September 20 for the next thirty-one days, moving to pasture three for the ensuing thirty-two days, and finishing the season in pasture two until December 1. Tr., 13731-734; Ex. B-2, Table 4. In summary, three of the four pastures would be grazed twice each year.

In relation to sage grouse, the problem with this system is that it periodically concentrates four times more cattle in each smaller pasture area than under the prior system, which allowed cattle to graze the entire allotment. As Appellants have pointed out, sage grouse nesting or brood rearing habitats will, from time-to-time, be confronted with the entire pasture-concentrated herd of cattle. Because BLM, by the admission of Mr. Staggs, did not know and did not determine the locations of sage grouse nesting and brood rearing areas on the allotment, BLM had no way of knowing, or even estimating, the impacts which the four pasture rotation system will have on sage grouse. Mr. Gates, in turn, for his Final Decision, had no factual basis in the record for knowing whether this rotation system, with its increased concentration of livestock in one of the four pastures on a periodic basis, would have a catastrophic impact, or no impact at all, upon sage grouse nesting and brood rearing areas. Indeed, the Federal District Court for the District of Idaho recently noted that livestock grazing should be restricted in Sage Grouse nesting and brood rearing habitat to "well

established" time frames necessary to avoid adversely impacting Sage Grouse. <u>WWP v. Salazar</u>, 843 F. Supp. 2d 1105, 1123 (2012). Obviously, it is impossible to take a "hard look" at this requirement, under circumstances where the BLM decision makers didn't know were the Sage Grouse nests were located on the allotment.

In my opinion, in order to issue an informed decision, and to take a "hard look" at an important issue, Mr. Gates was required to inform himself with respect to such impacts upon Sage Grouse prior to approving the four pasture rotation system. Mr. Gates and BLM did not do so and, consequently, once again, failed to perform an important procedural function under the purview of NEPA. In particular, BLM violated NEPA by failing to provide a full and fair public discussion of the potential environmental impacts of the proposed grazing system upon Sage Grouse, which, in my opinion, was in violation of the procedural mandates of 40 C.F.R. 1502.1(b).

## **NEPA RELATED WATER TROUGH ISSUES**

The Final Decision authorizes new water troughs on the uplands so as to improve riparian areas by drawing livestock from the riparian areas to the uplands. Tr., 13792-793. The EA states that there will be "... no measurable increase in use of the uplands by distributing livestock from the riparian areas. The distribution of use from less than 1 percent of the area occupied by riparian areas to the remaining usable uplands area of the allotment would be difficult to measure or quantify and is not expected to have any measurable effect on the uplands." Ex. B-2, Bates 9348.

As I expressed during the hearing, the undersigned has problems with this unmeasurable assumption, in part, because BLM's exclusive focus upon the total upland area misses the point, which is that it is not the relative size of the total area that is being grazed that is relevant; rather, it is the amount of forage consumption and the related concentrations of livestock congregated around the new water sources that implicates potential impacts, which were never adequately analyzed or discussed by BLM. Both parties' data show, not unsurprisingly, that the riparian areas produce more forage per acre than the uplands, because of the former's proximity to water. BLM didn't adequately analyze the site-specific impacts of the higher concentrations of livestock around the new upland water troughs. I do not concur that the impacts upon the uplands of the new troughs would be virtually unmeasurable, because, as Dr. Catlin pointed out in his testimony:

And the assumption is that there's going to be livestock attracted to the troughs to increase utilization of grasses in this area, and this would show that right now we're seeing both high utilization of livestock grazing and degraded habitat. So that implies that if we increase grazing use in this area, that it's very likely that the degradation will not only continue, but get worse on these sites.

## Tr., 1445-46.

Once again, because BLM concluded incorrectly that the impacts of the troughs on the uplands would be virtually unmeasurable, they have erred by failing to discuss and analyze what the site-specific impacts likely would be. While the new troughs likely could intensify grazing use over previously less grazed areas of the uplands, this issue is completely unassessed in the EA, and, therein lies the procedural problem: BLM's EA leaves completely unassessed the important issue of radiating grazing impacts from the new troughs. The procedural point is not that BLM might not have been able to rationalize those impacts; the procedural point is that BLM arbitrarily concluded that there would be no measurable impacts from

the new troughs, and completely failed to analyze and discuss such impacts with respect to the areas surrounding the troughs. The unsupported premise that you are going to move a herd from riparian areas to upland areas and that there would be no measurable impacts is, in my opinion, factually unsupported. It is a mere presumption. The quoted proviso in the. EA with respect to this issue completely fails to address in any way a potentially significant impacts issue and therefore fails to comply with the NEPA procedural requirement to take a hard look at material environmental impacts. For example, BLM contends that all of the new trough locations are in areas that are underutilized by livestock based on BLM's utilization data and that the new trough locations are sufficiently productive to accommodate increased grazing without exceeding BLM's utilization objective based on their ESE and rangeland health data. Tr., 12358-359. Appellants refuted this by comparing the new trough locations to BLM's own nearest ESI sites. Exs. W-28, W-70b. Trough one is near BLM's site DC-6. Tr., 1404. However, at that site BLM itself found that grasses comprise only 19% of the total vegetation and production was only 290 pounds per acre. Tr., 1406-08; Ex. B-23, Bates 1989. Trough two is located near BLM site DC-7. Tr., 1415; Exs. W-28, W-70. BLM found grasses to comprise only 18% of the total vegetation, and production was only 340 pounds per acre. Tr., 1416-18; Ex. B-23, Bates 1987. Trough 3 is near BLM sites DC-9 and DC-9 SA. Tr., 1422; Exs. W-28, W-70. BLM found grasses at only 20% of vegetation and production of only 353 pounds per acre. Tr., 1424-25; Ex. B-23, Bates 1989. Turning a herd loose on these referenced new trough sites would not necessarily result in unmeasurable impacts, as contended by BLM in the quoted provision from the EA. Rather, the areas around the referenced troughs themselves could, obviously, be heavily impacted, an issue which was never adequately analyzed by BLM in the EA. Relatedly, Appellants contend that their photos of the current troughs on the allotment, indeed, show very heavy utilization in the vicinity of those troughs. Ex. W-136, pp. 64, 69-74, 80-81. Indeed, Holechek also contends,

"... heavy use of vegetation around watering points is well documented ... ." Ex. B-20, Bates 7153.

BLM also relies upon the so-called "one bite theory" in order to infer that their water trough initiatives will not result in measurable grazing impacts in the uplands. See, e.g., BLM's Response Brief, pp. 169-171. However, BLM also admits that the "... EA does not contain a specific discussion about the impact of increased use in the vicinity of new troughs; it simply states in relevant part, 'There should also be no measurable increase in use of the uplands.'" BLM Response Brief, p. 172. BLM proffered no independent evidence to substantiate its "one-bite" premise. Consequently, the notion that a grazing cow, under certain circumstances, will elect to take only "one bite" of a plant, which is under that cow's scrutiny, is completely unproven in the record. Therefore, the "one bite" theory provides no evidentiary sustenance for BLM's referenced "unmeasurable" hypothesis.

Appellants also pointed out that some of the new troughs are in areas where Appellants measured utilization higher than 50%. Tr., 3737-40. Trough 3 is between Appellants' upland monitoring sites U11 and U1, and Trough 4 is near Appellants' site U1. Appellants measured these sites in a majority of their years of monitoring as having utilization in excess of 50%. Tr., 3737-40; Exs. W-28, W-123. Consequently, BLM's "unmeasurable" conclusion is rebutted by both BLM's own data and by Appellants' data, and these site-specific impacts should have been more fully analyzed in the EA for BLM to have rendered an informed decision. BLM's failure to do so constitutes reversible error.

# **REASONABLE RANGE OF ALTERNATIVES UNDER NEPA**

With respect to analyzing a reasonable range of alternatives to the proposed action, BLM fully analyzed only two, the Proposed Action and Alternative A, both of which implicate the same level of grazing use and the same season of use. Ex. B-2, Bates 9306-9310. BLM briefly considered but eliminated from analysis three other alternatives, including a no grazing alternative. Ex. B-2, Bates 9306-09. Both of the two alternatives that BLM fully analyzed implicate the same deferred rotation grazing system, the same terms and conditions, and the same management objectives. BLM never considered a reduction in stocking level alternative or a no grazing alternative. The proposed action was developed in conjunction with the CRM and the permittees, to the exclusion of the Appellants and, potentially, other members of the public. Ex. B-2, pp. 4-5.

In my opinion analysis of both a no grazing, that is no action alternative, and a reduced grazing alternative were both reasonable and obvious. With respect to appropriate alternatives, IBLA has stated:

The requirement that appropriate alternatives be studied applies to the preparation of an EA even if no EIS is found to be required. <u>Bob Marshall Alliance v. Hodel</u>, 852 F.2d 1223, 1228-29 (9th Cir. 1988), cert. denied, 489 U.S. 1066 (1989); <u>Powder River Basin Resource Council</u>, 120 IBLA 47, 55 (1991); <u>State of Wyoming Game and Fish Commission</u>, 91 IBLA 364, 369 (1986). ... Consideration of the no-action alternative through a case-by-case analysis, coupled with the careful analysis of each of the other two alternatives, clearly meets the mandate for NEPA review established in <u>Bob Marshall Alliance</u> v. Hodel, supra.

Southern Utah Wilderness Alliance, 140 IBLA 341, 348-349 (1997).

Under facts analogous to those in this case, the Federal District Court for the District of Idaho recently observed the following:

The problem with BLM's arguments is that none of them address NEPA's requirement for meaningful consideration of reasonable alternatives; rather, BLM's EA, and BLM's arguments in support of the EA, evince ... precisely (the) sort of ... uncritical 'privileging of one form of use over another that the Ninth Circuit has held violates NEPA.' <u>Ore. Natural Desert Ass'n</u>, 625 F. 3d 1092, 2010 WL 3398386, at 29 ... Moreover, <u>43</u> <u>C.F.R. Section 4130.2(a)</u>, the regulation that the EA purports to rely on for not analyzing a no grazing alternative, offers no support.

First, each of BLM's alternatives included nearly equivalent levels of grazing. Alternatives One and Two included identical grazing numbers; Alternative Three included identical grazing' numbers for three of the four allotments. ...

Most troubling is that BLM did not consider a real no action alternative. BLM's purported ... No Action Alternative involves grazing; that alternative required agency action through issuing new ten-year grazing permits. ... No action would be no action. This is a reasonable, and obvious, alternative to issuing new grazing permits. ...

The EA, citing 43 C.F.R. Section 4130.2(a), says 'the authorized officer shall issue a permit where the land use plan makes it available for grazing.' (A.R. 1908 (emphasis added).) This completely misrepresents Section 4130.2(a). The actual

language of that regulation simply explains what grazing permits are ... .

# <u>Western Watersheds Project v. Rosenkrance</u>, Case No. 4:09-cv-00298, EJL, p. 8 (D. Idaho, 2011).

In my opinion, in accord with <u>Rosenkrance</u>, BLM failed to comply with NEPA by not analyzing a no action, i.e., a no grazing alternative, in the EA. Further, in my opinion, BLM failed to comply with NEPA by not analyzing a reduction in grazing alternative in the EA. In fact, BLM's approach constituted "privileging of one form of use over another." Ibid. Once again, this does not mean that BLM would have been legally obliged to adopt a reduced grazing or a no grazing alternative in its Final Decision; however, in my opinion, in accord with <u>Rosenkrance</u>, BLM was procedurally obliged to analyze a no grazing alternative and a reduced grazing alternative in its EA in order to have a legally sufficient EA and a legally sufficient Final Decision, under which Mr. Gates' Final Decision would have been much more fully informed. In a case of this complexity, and in a case implicating an allotment with a long prior history of litigation, analyzing only two alternatives was, in my opinion, procedurally insufficient and constituted reversible error. As IBLA has stated, "Thus, BLM's failure to consider obvious alternatives in this case would require us to set aside the decision, even if we agreed that the proposal would have no significant impact." Powder River Basin Resource Council, et al., 120 IBLA 47, 56 (1991). Indeed, the analysis of a reasonable range of alternatives is intended to foster "... a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. 1502.14. BLM failed to procedurally accomplish this end. Furthermore, in this case, it is my opinion that the requirements to analyze a no grazing alternative and a reduced grazing alternative were both "reasonable alternatives" and "obvious alternatives," as specified by IBLA in the following precedent:

NEPA requires, independent of the necessity to file formal EIS's, that every agency 'study, develop and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.' Section 102(2)(E), 42 U.S.C. Section 4332(2)(E) (1982). The requirement that appropriate alternatives be studied applies to the preparation of EA which serve as a basis for a FONSI. See <u>Kelly v. Butz</u>, 404 F. Supp. 925, 934-35 (W.D. Mich. 1975). Under this requirement all reasonable alternatives must be considered (North Slope Borough v. Andrus, 486 F. Supp. 326, 330 (D.D.C. 1979) and obvious alternatives may not be ignored (California v. Bergland, 483 F. Supp. 465, 488 (E.D. Cal. 1980).

Emphasis added; <u>State of Wyoming Game And Fish Commission</u>, 91 IBLA 364, 369 (1986).

## **CUMULATIVE IMPACTS UNDER NEPA**

With respect to cumulative impacts, the Duck Creek Allotment is an admixture of both public and private land, which includes some 13,090 acres of public BLM land, some 8,585 acres of private land, and some 1,056 acres of state land. Ex. B-2, Bates 9311. Stated directly, a significant portion of the overall Allotment is not public land. BLM did not analyze the cumulative impacts of the projects sited on private and state lands which are intermixed with and surround the public land administered by BLM. Immediately surrounding projects include vegetation treatments, fencing and other water developments.

BLM is required to consider the potential cumulative impacts of a planned action together with other past, present, and reasonably foreseeable

future actions. <u>Southern Utah Wilderness Alliance</u>, 140 IBLA 341, 349 (1997); <u>San Juan Citizens' Alliance</u>, 129 IBLA 1, 11 (1994); 40 C.F.R. 1508.7 & 1508.27(b)(7). Cumulative impacts are those environmental impacts resulting from the incremental impacts of the agency's action when added to other past, present, and reasonably foreseeable future actions, including impacts resulting from individually minor but collectively significant actions over a period of time. 40 C.F.R. 1508.7.

Because various activities undertaken by the permittees on their private land are so intermixed and intertwined with the BLM administered public lands, all of which are included in the Duck Creek Allotment, it was necessary for BLM to analyze in its EA the cumulative impacts of those activities occurring on the permittees' privately owned land. Indeed, the contemporary test for a cumulative impacts analysis where land is intermixed is the following:

First, it must not only describe related projects but also enumerate the environmental effects of those projects. ... Second, it must consider the interaction of multiple activities and <u>cannot focus exclusively on the environmental impacts of</u> <u>an individual project</u>.

Emphasis added; <u>Oregon Natural Resources Council Fund v. Brong</u>, 492 F.3d 1120, 1133 (9th Cir. 2007).

The EA confirms significant activity on the private lands, as follows:

Vegetation treatment areas were completed on private land as part of a sage grouse and pygmy rabbit management and study program being initiated by CRM (of which BLM is a member) and administered by UDWR. During the fall of 2003 approximately 600 acres of private land within the Duck Creek BLM Allotment was mechanically treated and seeded. During the spring of 2004, an additional 1,350 acres of private land within the Duck Creek BLM Allotment were treated and seeded. The total acres treated on private land between 2003 and 2004 were approximately 1,950 acres. This is part of a larger management effort by CRM, UDWR, and BLM to manage special status species and their habitat to preclude any need for listing with USFWS.

Ex. B-2, Bates 9309-9310.

The Environmental Statement for the MFP, however, takes cognizance of the potential consequences that such treatments in one area may have on wildlife, sage grouse and vegetation in other, untreated areas. Tr., 9990; Ex. B-5, p. 3-52. Dr. Carter addressed the Environmental Statement in relation to some of the potential impacts which these kinds of treatments can have, as follows:

So they mention the starvation of deer, and then they talk about sage grouse. They propose vegetation treatments: 'Spraying and burning in seven allotments, (14 sage grouse areas) would remove most cover and sage grouse forage immediately upon treatment.'

And then they talk about the effects of those treatments, citing negative impacts to sage grouse populations and citing Clait Braun, a 1977 paper on guidelines for sage grouse. It says, "... sage grouse are incapable of adjusting their life processes to compensate for sagebrush treatments on their seasonal ranges. In Utah, Enyeart (1956) found that sagebrush treatments around nesting areas caused sage grouse to abandon the areas.'

... we had treatments of a couple thousand acres on private land. And I mentioned before, they had done pygmy rabbit surveys, but we never saw any accountability for that. And if sage grouse were using those areas, then we don't know what happened to them.

Tr., 9991-92.

The EA also states that private land owners built some 10.85 miles of fence on the allotment in order to restrict livestock access to the vegetation treatment areas. Ex. B-2, Bates 9310. There is no adequate accompanying analysis or discussion of the cumulative impacts which such fencing and treatment activities on the private land portions of the allotment might have had. In a case of this complexity and magnitude, BLM's failure to discuss and analyze these, and the above-referenced cumulative impacts, violated NEPA, because a much more detailed cumulative impacts analysis was required. <u>WWP v. Bennett</u>, 392 F.Supp.2d 1217, 1223 (D.Id. 2005).

#### **REQUIREMENT FOR A FULL EIS**

Appellants argue that BLM should have prepared a full Environmental Impact Statement ("EIS") because they contend that the Final Decision implicates significant environmental impacts that exceed the appropriate scope of an EA. Appellants' Opening Brief, pp. 202-203. While I have concluded that the EA exhibits several legal flaws, as discussed above, I do not concur that the Final Decision mandates the preparation of a full EIS.

Appellants posit five reasons in favor of a full EIS, to wit: (1) BLM's adoption of the new ESD's degrade the environment and have a significant negative impact, (2) Appellants' monitoring data demonstrates that grazing has had significant negative impacts, which will not be ameliorated by the new four-pasture grazing system, (3) the 50% utilization standard is incorrect and creates management uncertainty, (4) the Duck Creek Allotment is one of 10 out of some 823 allotments in the State of Utah which has not been the subject of appropriate ameliorative action under the Fundamentals of Rangeland Health regulations, and (5) BLM did not include mandatory terms and conditions in the Final Decision, which deters from making significant progress. <u>Ibid</u>.

While BLM missed the mark with respect to taking the requisite "hard look" at the likely environmental impacts discussed above, I do not concur that the five enumerated issues posited by Appellants rise to the level of requiring the preparation of a full EIS. Because Mr. Gates did not make a fully informed Final Decision does not automatically equate at the same time to a requirement for the preparation of a much more extensive and burdensome full EIS. IBLA has stated the following:

In deciding whether an EIS or EA promotes informed decisionmaking, it is well settled that a rule of reason will be employed; thus, the question becomes whether an EIS or EA contains a 'reasonably thorough discussion of the significant aspects of the probable environmental consequences' of the proposed (action). <u>State of California v. Block</u>, 690 F.2d 753, 761 (9th Cir. 1982)(quoting <u>Trout Unlimited v. Morton</u>, 509 F.2d 1276, 1283 (9th Cir. 1974).

Colorado Environmental Coalition, et al., 149 IBLA 154,157 (1999).

In this case, I conclude that BLM's determination to rely upon an EA and FONSI was itself not unreasonable; however, for the reasons set out above, BLM failed to adequately analyze a reasonable range of alternatives, failed to adequately analyze cumulative impacts, failed to adequately analyze the impacts of its Final Decision upon Sage Grouse, and failed to adequately analyze the impacts of the new water troughs upon the allotment's uplands. As IBLA has stated:

We have frequently said that the environmental analysis process under NEPA is designed to provide decisionmakers with adequate information to make a decision, not to ensure a decision that is most solicitous of environmental conservation. The issue in this case is not whether these projects are advisable but whether the decisionmaker was sufficiently advised to make a reasoned decision.

#### Friends Of The Nestucca Coast Range Association, 144 IBLA 341, 356 (1998).

In my opinion, for the reasons set out above, Mr. Gates was not "sufficiently advised" to make a reasoned decision in this case.

## ACTUAL USE REPORTS

The issue of actual use on the allotment was sharply drawn during the hearing. This became an important underlying issue, because, as presented by Appellants, it was contended that, in fact, BLM never actually knew how many cattle were grazing on the allotment. BLM never conducted any counts of the cattle actually fielded by the permittees and relied entirely on the permittees' annual actual use reports to ascertain how many cattle were turned out seasonally on the allotment. The issue was this: if BLM did not know how many cattle were actually turned out during the grazing season, how could they know what the actual utilization was, and, in turn, how could they derive an accurate stocking rate. Appellants contend that BLM failed on both counts. Appellants base their contentions in this regard upon the two aerial surveys that were conducted by Dr. Catlin and his pilot, Mr. Swanson, during which cattle on the allotment were counted. The BLM has challenged the accuracy of the methodology employed in Appellants' two aerial surveys.

Dr. Catlin and his pilot, Mr. Swanson, did over flights and conducted aerial counts of cattle on the allotment in 2006 and 2008 in an effort to determine whether BLM's records of actual use are accurate and whether those BLM records can be relied upon to determine grazing capacity. Tr., 1571. Based upon their aerial surveys, Appellants contend that BLM's actual use records cannot be relied upon. Dr. Catlin testified that it is important to look beyond the permitted use levels and to ascertain what is actually happening on the ground, because, for example, the over-reporting of actual use would result in skewed utilization calculations. Tr., 3603. Appellants contend, for example, that on June 24, 2008, when they conducted their second aerial survey, there were less than half the permitted number of 641 cattle that were actually grazing on the allotment. Tr., 3625. Appellants contend that heavy use on the allotment was actually being generated by many fewer cattle than reported in the permittees' actual use reports; that BLM calculated utilization percentages based on the permittees' actual use reports; and, hence, Appellants contend that BLM's utilization calculations were skewed in the permittees' favor, because adverse impacts attributed by BLM to a larger number of cattle were actually being generated by a substantially smaller number of cattle. Appellants, therefore, contend that the permitted use should have been reduced in the Final Decision to reflect the lesser number of cattle measured in their two aerial surveys. Tr., 1591-92. Appellants also contend that any stocking rate evaluation for the next grazing year that is based on the permittees' actual use reports will be in material error, because it will allow
for the potential of over grazing, based upon the permittees' alleged over reporting of the number of cattle actually turned out. Tr., 3625-26.

Dr. Catlin created a table comparing his aerial survey counts with the permitted livestock numbers and with the permittees' actual use reports. Ex. W-74(c). Dr. Catlin also prepared and introduced a map showing the locations and numbers of cows he counted. Ex. W-141. In 2006, Dr. Catlin counted 450 mature cows, and in 2008 he counted 304. Ex. W-74(c). The permitted number is 641. Tr., 3625. Dr. Catlin presented his aerial survey data to the BLM. Tr. 3631-32. Dr. Catlin contends that, because there are fewer cattle on the ground than reported by the permittees, BLM's monitoring and stocking rate analysis will, perforce, underestimate the impacts of livestock grazing on the allotment, and he contends that his aerial survey results cast in doubt the accuracy of the EA with respect to measuring grazing impacts. Tr., 3627-28.

While Appellants' aerial surveys may have been subject to some legitimate criticism by BLM, the critical evidentiary point here is that Appellants did prove that BLM did not know with any responsible degree of accuracy how many cattle were, in fact, grazing on the Duck Creek Allotment. Some permittees did not even submit annual actual use reports, and BLM testified that they never checked the accuracy of the permittees' actual use reports, and BLM never conducted any kind of animal census on the allotment. Tr., 12306-326.

Therefore, Appellants' two aerial surveys at the very least created a prima facie case that there were substantially fewer cattle grazing than were reported by the permittees. BLM never effectively rebutted this evidence, except to criticize the Appellants' aerial survey methodology. In fact, the record confirms that BLM did not actually know how many cattle were turned out annually on the Duck Creek Allotment, which rendered their utilization calculations highly suspect, which, in my opinion, constitutes reversible error.

# **CONDITION OF THE ALLOTMENT**

One of the most contentious factual issues between the parties was the actual condition of the Duck Creek Allotment. Appellants contend that it is seriously degraded, and their opinion is based upon several years of detailed monitoring on the ground on the allotment. On the other hand, BLM contends that, generally speaking, the allotment is in good condition. Herein arises the different monitoring results, which derive, in part, from the differing methodologies employed by the parties to measure the condition of the range. Which party's data is correct? The answer I believe is that both parties' monitoring data is useful and probative within certain parameters. In particular, Appellants' data is much more extensive and more current than BLM's, particularly in temporal terms. BLM's case is really based almost entirely upon its major monitoring effort conducted in 2005, which was directly in response to separate federal judicial litigation. Whereas, the Appellants' evidentiary case is based upon extensive monitoring conducted over several years, from 2005 through 2008.

Appellants contend that use of their data would have provided Mr. Gates with a fuller and better understanding of conditions on the Duck Creek Allotment if he taken the time to merge, to compare, and to contrast the parties' respective data sets in the EA itself. Tr., 445-46. Part of the problem here is that the topographical and ecological conditions on the allotment are very diverse; monitoring in a particular area of the allotment, employing either of the parties' selected methodologies, can result in quite different productivity results from monitoring in even an adjacent area; and, consequently, I have concluded that BLM should have opened both parties' data sets to greater public scrutiny and comment before finalizing the EA,

thereby allowing BLM to make a more fully informed final decision. Any selected monitoring methodology is going to be characterized by some margin of error, including human error from time-to-time. Appellants have contended that they did not seek to be the exclusive monitors of conditions on the allotment, but it was their hope that their monitoring data set would be utilized by BLM to complement, to enhance, to expand, and, hence, to improve the scope of the government's data set, particularly with respect to areas of the allotment that BLM never monitored and also with respect to areas that BLM only monitored in detail in 2005. Tr., 445-46.

The core issue here is one of procedure; that is, notwithstanding their disagreement with the Appellants' selected monitoring methodology, the so-called paired plot system, should BLM have provided more opportunity for public review and scrutiny of the Appellants' monitoring data, rather than just review before the CRM? In my opinion, the answer to this procedural question is yes; and, the summary fashion in which BLM internally rejected all of Appellants' monitoring data constituted, in my opinion, reversible error. The verbatim transcript reveals that Dr. Catlin and Dr. Carter spent more time on the Duck Creek Allotment than did any of BLM's own witnesses. While I note the BLM's objections to the paired plot methodology as employed by Appellants, the eye witness testimony of both Dr. Catlin and Dr. Carter, based on their many years of on-the-job training, on-the-ground, on that allotment, confirms that the overall allotment is simply not in as good or pristine a condition as generally contended by BLM's witnesses, in part because the Appellants have monitored the allotment in detail over a longer period of time, the bulk of BLM's data reliance being upon their 2005 monitoring effort, which was not replicated by BLM in as much detail in either prior or subsequent years. It should also be noted that 2005 was a particularly wet, and, therefore, atypically productive year. Dr. Catlin and Dr. Carter have both spent considerably more time on the allotment than any of BLM's witnesses, including even Mr. Staggs, who was responsible for its management, but

who by his own testimony was also responsible for overseeing numerous other BLM allotments. Consequently, the testimony of both Drs. Catlin and Carter is entitled to reasonable deference. They are very familiar with the Duck Creek Allotment, and their testimony is probative.

#### RANGELAND HEALTH STANDARDS

The Department's Fundamentals of Rangeland Health regulations ("FRH") establish standards and guidelines for grazing administration on BLM lands and require the agency to take action to ensure that specific conditions exist regarding water quality, riparian habitat, watershed conditions, and species habitat. 43 C.F.R. 4180.1, 4180.2. The Utah version of those standards was promulgated in 1997. Ex. B-28. The Utah Standards delineate conditions to be achieved on BLM administered lands in Utah and set out various Guidelines for practices intended to foster those standards. Ex. B-28, Bates 3484. Each standard is followed by certain indicators which help to measure whether a particular standard is being met. Tr., 2067. The authorized officer is mandated to take appropriate action as soon as practicable, but not later than the start of the next grazing year, in order to insure significant progress toward fulfillment of the standards. 43 C.F.R. 4180.2(c).

Appropriate action is expostulated in the provisions of 43 C.F.R. 4110, 4120, 4130, and 4160, which express in regulatory form the mandates of the Federal Land Policy And Management Act ("FLPMA"). BLM determined that the uplands on the allotment are meeting the FRH standards. Tr., 12268. Dr. Catlin challenged this conclusion in his testimony. Tr., 2924-30. Basically, Appellants contend that BLM's assessment method is inadequate to determine whether a particular indicator is being met because, Appellants argue, when assessing a survey site's plant community or plant composition, BLM only looks at relative infiltration and erosion; and,

Appellants argue that this is too narrow and that an evaluation of other ecological values of the Desired Plant Community should be undertaken. Tr., 3400-02. This is a good example of an issue-area where Appellants' data and BLM's should have been merged, or at least compared in an appropriate open, public forum, not just before the CRM. This is an issue area in which each party's experts are in direct opposition; BLM's witnesses contend that the uplands of the allotment are in good condition, and Appellants' witnesses contend, generally, just the opposite. My resolution on this is, once again, largely procedural. I believe that BLM should have more carefully, more objectively, and more publicly considered and analyzed the Appellants' independently derived data set on this and related issues. BLM was in a hurry; its overall CCC process was, in my opinion, skewed procedurally in favor of the CRM and the permittees, and, consequently, that process deprived the Appellants of procedural due process. Ventilating these issues exclusively in CRM meetings, chaired and orchestrated by CRM members other than BLM personnel, did not constitute a procedurally proper public discussion of Appellants' extensive data base.

For example, Standard 3, implicates desired species, including native, threatened, endangered, and special status species, so as to maintain such species at a level "appropriate" for the site. Ex. B-28, Bates 3485. As stated above, in its Response Brief, BLM admits the following, "BLM acknowledges that Standard 3, which provides that '(d)esired species' are to be 'maintained at a level appropriate for the site and species involved,' applies to wildlife as well as vegetation." BLM's Response Brief, p. 127. I certainly concur, and BLM's failure to properly analyze Standard 3 in its EA with respect to sage grouse, a BLM sensitive species, constitutes reversible error. BLM's assessment of Standard 3 with respect to Sage Grouse was based purely on "assumptions," as confirmed in BLM's Response Brief itself, as follows:

BLM first addresses Appellants' contention as it pertains to Standard 3, because this contention has already been addressed to some degree above in part IV.E.1.d. As discussed there, a properly functioning ecosystem may be reasonably <u>assumed</u> to provide adequate habitat to meet the needs of dependent species, and in evaluating the DCA under Standard 3, BLM relied both on its assessment of functionality and its analysis of the impact of livestock use on the wildlife species and similar biota that use the allotment.

BLM's Response Brief, p. 144; Emphasis added.

In my opinion, BLM's quoted "reasonable assumption" is, in fact, completely unreasonable and unsustainable, because BLM makes an allotment-wide "assumption" that wildlife habitat conditions in the area of sage grouse nests are in compliance with Standard 3. This is completely without any site-specific factual basis, because, as Mr. Staggs clearly testified on the record, BLM has no idea where the nests are actually located, and, consequently, cannot possibly know what the habitat conditions are in the areas surrounding the sage grouse nests themselves. Tr. 13937. Mr. Staggs, who was part of the BLM ID team for the rangeland health assessment, admitted that he did not know whether the ID team identified what wildlife species and what levels of such species are appropriate for the Duck Creek Allotment , nor did he know whether the ID team assessed wildlife at all. Tr., 8592. Therefore, plant species composition with respect to wildlife species habitat protection was inadequately analyzed in the EA, as confirmed by the testimony of Mr. Staggs:

The only mention of plant species composition specifically is relative to infiltration and runoff. So plant species composition

is being asked to be looked at relative to infiltration and runoff, and I don't think they're talking about, you know, pygmy rabbits infiltrating a stand of aspen and then running off later. I think they're talking about water or rain ... .

#### Tr., 8599.

Appellants were prepared to help with issues such as this, but BLM rejected all of their scientific and analytical efforts. BLM's assessment did not adequately address wildlife or other animal species, or the habitat requirements necessary to support them, and BLM did not determine whether Standard 3 is being met on critical habitat areas of the allotment, particularly in relation to Sage Grouse. Included in Standard 3, is the following: "(b) Habitats connected at a level to enhance species survival." Ex. B-28, Bates 3485. Based upon Mr. Staggs own referenced testimony, why is this a problem? The answer is because the real omission here pertains to the sage grouse, a BLM sensitive species. At a minimum, BLM was under an obligation, based upon its own policy emphasis upon sage grouse protection, to assess the "habitat connected" circumstances of sage grouse on the allotment under the purview of Standard 3. BLM did not do so, and failing to do so was a reversible pre-decisional error.

Practices and activities subject to the Utah Standards include the development of terms and conditions for grazing permits, range improvement activities, and water developments, the assessments for which are set out in the Technical Reference, <u>Interpreting Indicators of Rangeland Health</u>, which includes qualitative indicators which assess a site's ecological health. Ex. B-33, p. 17. At a minimum, standard 3 should have been more fully analyzed with respect to sage grouse in the EA. Ex. B-2.

Chief Judge B. Lynn Winmill of the Federal District Court for the District of Idaho has provided us with guidance with respect to these issues, as follows:

The Court recognizes that the BLM interprets the FRH regulations differently. The Court must give 'substantial deference' to the agency's interpretation. <u>Thomas Jefferson</u> <u>Univ. v. Shalala</u>, 512 U.S. 504, 512, 113 S.Ct. 2381, 129 L.Ed.2d 405 (1994). An agency's interpretation of its own regulation is 'controlling unless plainly erroneous or inconsistent with the regulations.' <u>Long Island Care at Home, Ltd. v. Coke</u>, 551 U.S. 158, 171, 127 S.Ct. 2339, 168 L.Ed.2d 54 (2007) (internal quotation marks and citation omitted). <u>However, in this case, the BLM's interpretation allows the measurable criteria it uses to evaluate whether it is making significant progress to be treated more leniently than a mandatory Term and Condition. As discussed above, this is plainly inconsistent with the FRH regulations. Hence, the Court will not give deference to the agency's interpretation.</u>

Emphasis added; <u>Western Watersheds Project v. Salazar</u>, 843 F.Supp.2d 1105, 1126 (2012).

Beyond this, Dr. Catlin compiled a spreadsheet of BLM's Indicators of Rangeland Health ratings for each site and determined that out of 476 total ratings, only 21, or four percent, were rated by BLM as "Moderate" or "Moderate to Extreme." Ex. W-102b. The undersigned made the observation during the hearing that such a low percentage would be "statistically impossible." Tr., 3143. Dr. Catlin testified in response, as follows: I believe it's statistically impossible, and agree with you that, based on the evidence we see on the site ... this number would not be statistically possible had the site been evaluated and the indicators appropriately matching it.

## Tr., 3144.

Relatedly, with respect to Indicator 4, Bare Ground, BLM determined that bare ground was "none-to-slight" at every one of their sites. Ex. W-102b. BLM's technical reference observes, "... bare ground is exposed mineral or organic soil that is susceptible to raindrop splash erosion, the initial form of most water-related erosion." Ex. B-33, p. 21. The amount of bare ground can vary seasonally depending on impacts to vegetation canopy cover from herbivore utilization, litter from trampling loss, and annually in relation to the weather patterns. Tr., 3062-63. BLM conducted its ESI and Rangeland Health monitoring during a wet year, 2005, which was also the second year of consecutive rest for the northern area of the allotment, potentially resulting in measuring less bare ground than would have been the case in a year of lesser precipitation. Once again, appellants were on the ground monitoring every year, such that they derived a fuller profile of the allotment over a period of years in relation to precipitation. Also, Dr. Catlin testified that it is better to measure at the end of the grazing season, as Appellants always did, so as to determine how grazing has affected conditions, such as, bare ground. Tr., 3068-69.

With respect to measuring bare ground in relation to ground cover, Appellants expressed concern over the fact that BLM measures bare ground in relation to canopy cover, rather than in relation to basal cover. Dr. Catlin testified that BLM's approach is to look at cover from the perspective of a rain drop falling from above; whereas, he recommends looking at soil erosion from the perspective of sheet erosion, which occurs during spring snow melt or during heavy rainfall. Tr., 1131. According to Dr. Catlin, most of the precipitation on the Duck Creek Allotment comes from snow melt, resulting in sheet erosion. Tr., 1132. Where canopy cover is used to assess the amount of bare ground, Dr. Catlin contends that this approach misses the bare ground underneath plants that may well be eroded by sheet erosion from snow melt run off. Tr., 3070-72.

BLM actually measured cover at only nine of their 28 assessment sites. Ex. B-23. BLM estimated cover at the rest of the sites, and consistently estimated cover to be higher at those sites than at those where they actually measured. Ex. B-23.

For Indicator 6, BLM recorded "none-to-slight" for all of its sites. Ex. 102b. Dr. Catlin testified that this is not accurate based upon his experience on the allotment, and that he has observed wind scour on the allotment. Tr., 3165.

For Indicator 9, Soil Surface Loss or Degradation, BLM recorded all sites as "none-to-slight." Ex. W-102b. Given the history of grazing on the allotment, and based upon his personal observations on the allotment, Dr. Catlin testified that such a good rating for all of BLM's sites was simply impossible. Tr., 3163-64.

With respect to Indicator 10, Plant Community Composition and Distribution Relative to Infiltration and Runoff, BLM rated site DC-1 "slight to moderate" even though BLM found 76% shrubs and only 23% grass, as compared to their own ESD which calls for 15% shrubs and 75% grass. Exs. B-22, Bates 2384, B-23, Bates 0001, 0007. Appellants argue that this is a significant departure from the ESD, being almost exactly the opposite of the relative percentages that should be there according to BLM's own ESD. Tr., 8521. Loamy 10-14 sites rated by BLM as "slight to moderate" include the following: site DC-6, at 67% shrubs and 18% grasses; sites DC-7 and DC-8, at 67% shrubs and 17% grasses; site DC-9, at 63% shrubs and 19% grasses; site DC-12, at 63% shrubs and 21% grasses; site DC-24, at 68% shrubs and 18% grass. Ex. B-23, Bates 0073, 0075, 0083, 0085, 0093, 0095, 0100, 0102, 0135, 0137, 0267, 0269. BLM rated site DC-3, a Loamy 10-14, as a "none-to-slight" departure from the ESD, even though BLM found only 6% grass and 56% shrubs. Exs. B-22, Bates 2437, B-23, Bates 0035. Mr. Staggs admitted that there was no analysis or explanation of these discrepancies in the EA. Tr., 8521-24. According to BLM's own ESD, these Loamy 10-14 sites should have 15% shrubs and 75% perennial grasses; none-the-less BLM's scoring of Indicator 10 with respect to infiltration and runoff was only "slight to moderate" departure from the ESD.

Indicator 12 is Functional/Structural Groups. Ex. B-33, p. 20. Mr. Staggs testified that, "We just did it into a formula to provide us a similarity index that allows us to know that we have roughly 56 percent of the amount ... the types and amounts of vegetation that should be there in an HCPC condition." Tr., 8539. BLM used their ESI calculations and similarity index to determine their ratings for Indicator 12. Tr., 8533, 8547. BLM's Technical Reference breaks grasses, forbs, and shrubs down into subgroups with respect to productivity, and BLM is to indicate whether each structural/functional group" is dominant, subdominant, or minor relative to the ESD. Ex. B-33, p. 30. According to the Technical Reference, there is an "extreme" departure from the ESD when the "relative dominance of Functional/Structural groups has been dramatically altered." Ex. B-33, p. 30. Appellants have proven that the relative dominance of Functional/Structural groups has been dramatically altered across the Duck Creek Allotment, yet BLM rated all but two of their sites as "none-to-slight" or "slight-to-moderate." Appellants have demonstrated the significant change in plant composition away from HCPC at BLM's sites. Ex. W-102b. For example, at sites DC-7 and DC-8, BLM rated the Functional/Structural Indicator as a "slight-to-moderate" departure from the ESD; however, BLM found only 17% grasses at these sites. Ex. B-23, Bates 0083-0085.

The bottom line of all of this is that there is simply less qualifying grass on the allotment than was generally contended by BLM. For example, a related example of inconsistent indicator ratings appears at DC-25 and DC-26. Exs. B-2, Bates 9338, B-23, Bates 0275-0295. At DC-25, BLM found 25% grass, 4% forbs, and 71% shrubs; at DC-26, BLM found 25% grass, 6% forbs, and 69% shrubs. As discussed above, the percentage of grass should be significantly higher in each instance.

### **CARRYING CAPACITY**

BLM never did a carrying capacity analysis or stocking rate analysis. FLPMA implementing regulations state the following: "... the authorized livestock grazing use shall not exceed the livestock carrying capacity of the allotment." 43 C.F.R. 4130.3-1(a). And, it is further required that, "... all future resource management authorizations and actions ... shall conform to the approved plan." 43 C.F.R. 1610.5-3. The 1980 Randolph MFP requires that the "Carrying capacities for each allotment will be based upon the forage production on suitable acreage in each allotment." Ex. B-6, 1.1. The carrying capacity of the allotment was determined by BLM some thirty years ago for the MFP. The carrying capacity was not updated for the EA on appeal herein. According to no less an authority than Holechek, "... selection of the correct stocking rate is the most important of all grazing management decisions from the standpoint of vegetation, livestock, wildlife, and economic return." Ex. B-20, Bates 7062. Regarding the importance of conducting a carrying capacity analysis, Dr. Catlin testified, as follows:

By most range scientists and the publications we have seen, the stocking number is the key ... the key most important single grazing decision you make. You need to get it right. Everything is less influential and in fact cannot correct a bad stocking number. And stocking number is based on how much forage is out there to support the livestock during the time they're there.

Tr., 1103.

Dr. Carter also addressed this issue by pointing out that the MFP allocates forage to cattle first, to sheep second, and to deer last, such that after consumption by cattle and sheep, there may be inadequate forage for wildlife. Tr., 11535. Further, "We also know from BLM's Ecological Site Inventory ... that the forbs are considered unpalatable, so any reasonable stocking rate analysis for cattle would not include most of the forbs." Tr., 11535. And, most important, Dr. Carter observed the following on cross-examination:

The grasses, which are the principal forage source for the cattle, are at roughly 30 or 40 percent of potential. And so no current carrying capacity analysis was done on capable and suitable areas, given BLM's Ecological Site Inventory production numbers, to determine a current carrying capacity. ...

That analysis was not done.

Tr., 11536.

Dr. Carter addressed this issue further, as follows:

... this has been almost the core thesis of the work I've tried to do in doing my own research on grazing and range science. It all seems to lead back to: You really need to know what's there on the ground, in terms of available forage, in order to have a

conservation system that preserves the land, the soils, the vegetation, and the wildlife.

... and we're basically driven to do the work on Duck Creek because of the very situation you bring up, and that is, you're always placed in a position ... of proving a negative, in other words, proving the agency is wrong. In other words, their word is taken and used as if it's true, and you have this awesome burden of proof to counter that.

Tr., 9449-50.

Mr. Staggs testified that his office did not analyze or determine a new carrying capacity because that had been done during the MFP planning process. Tr., 13848. Holochek and Galt recommend that a carrying capacity analysis be done at least every ten years. Ex. W-200. The carrying capacity determination relied upon by Mr. Staggs in the MFP is outdated, and leaves BLM with no accurate knowledge of the real, contemporary carrying capacity on the Duck Creek Allotment. According to BLM's own ESD's, in the northern Utah region where the allotment is located, the plant community is generally less diverse, less capable of meeting the seasonal needs of wildlife, and, therefore, exhibits a generally lower carrying capacity. Ex. B-22, Bates 2387, 2390. Consequently, in my opinion, relying upon an antiquated carrying capacity analysis rendered BLM's Final Decision and accompanying EA uninformed.

BLM determined that the productivity of the allotment is adequate for the current stocking rate based upon its determination that the allotment averages some 740 pounds per acre of livestock forage. Ex. W-21, p. 34. Appellants production data, collected over several years, rebuts the BLM's contention. In 2005, the same year as BLM's major monitoring effort, the Appellants, indeed, found an average of 942 pounds per acre of grasses and

forbs, because it was a high precipitation year and because nearly half of the allotment was ungrazed in 2005. However, in 2006, Appellants found only 214 pounds per acre and in 2007 only 259 pounds per acre. Tr., 3558; Ex. W-21, p. 37, Table 5. Dr. Catlin testified that it is important to base stocking rate on dry year production, and not on atypical wet year production, as was done by BLM. Tr., 3561.

Relatedly, Appellants contend that BLM's stocking rate assumptions are additionally flawed, because they fail to adequately take into account palatability, incorrectly assuming that all of the vegetation on the allotment is palatable and will be consumed. Tr.1077-79. For example, on BLM site DC-1, a Loamy 10-14 ecological site, the forbs found there, such as, phlox, groundsel, and pussytoes are unpalatable to livestock and sheep. Ex. B-22, p. 2388. However, these unpalatable species make up 158 of the 228 pounds per acre that are listed on BLM's ESI data sheet. Ex. B-63. With respect to shrubs at DC-1, BLM identified 201 pounds per acre in addition to sagebrush, including green rabbitbrush and spineless horsebrush, both of which are defined as undesirable for cattle and sheep. Exs. B-22, Bates 2388, B-23, Bates 1978, B-63, Bates 1964. Basically, Appellants contend that the allotment exhibits a depleted herbaceous plant community, excessive bare soil, and that 58% of the allotment is highly erodible. Tr., 10009. The NRCS Handbook states the following:

Forage from plant species that are undesirable, nonconsumed, or toxic to the kind and class of livestock intended to graze the area should be excluded. The air dry weight is summarized for the entire area to be grazed after any necessary adjustments are made.

Ex. B-78, Bates 305.

BLM's ecological status write-ups for their ESIs include the percent slope for each site assessed. For example, Site DC-19 has a 50-60 percent slope that occurs on 725 acres included in pastures three and four. Exs. B-23, Bates 0214, B-63, Bates 1964. BLM's stocking rate assessment considered all of the vegetation on these steep slopes in order to calculate forage capacity with no adjustment for slope or palatability. Tr., 10071-076. Dr. Carter testified that BLM's use of a 50% or higher slope criteria is not acceptable, pointing out that Holecheck and Galt, and the NRCS itself, recommend incremental slope factors, such that there would be no reduction in grazing capacity for zero to 10 percent slopes; there would be 30 percent reduction for 11 to 30 percent slopes; there would be 60 percent reduction for 31 to 60 percent slopes; and, there would be 100% reduction for slopes of over 60%. Tr., 10010-011, 10036, 10079-081; Exs. B-20, pp. 7084-85, B-78, Bates 303, W-200. BLM's assessment did not take this into account.

In their so-called Appeal Report, Appellants analyzed the stocking rate treatment set out in the EA and determined that BLM's stocking rate conclusion was in error, because of the failure to take into account steep slopes and palatability. Ex. W-21, pp. 32-34; Tr., 401, 3554-66.

#### <u>RIPARIAN AREAS</u>

The EA defines a riparian area, as follows:

... an area of land that is directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lake shores and stream banks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not exhibit the presence of vegetation dependent upon free water in the soil.

Ex. B-2, Bates 9314.

BLM employed its so-called Proper Functioning Condition ("PFC") assessment in order to determine whether the riparian areas on the allotment are meeting the Utah Standards. Exs. B-29, B-32. BLM utilized the PFC assessment to determine whether the riparian areas on the allotment are meeting Standard 2 of the Utah Standards. Tr., 12228-229. BLM did not assess whether the allotment's riparian areas are meeting Standard 3, which Appellants argue is also applicable. Tr., 2648-54. Instead of applying Standard 3, BLM applied the Upland Health Assessment to the status of the larger riparian area outside of, but adjacent to, the so-called "greenline." Tr., 14524.

Standard 2 requires that "... riparian and wetland areas are in properly functioning condition. Stream channel morphology and functions are appropriate to soil type, climate and landform." Ex. B-28, Bates 3485. Thereunder, there are three indicators denominated (a), (b), and (c). Indicators (a) and (c) cover stream bank stability and erosion. Indicator (b) applies to vegetation and animal habitat needs in the larger riparianwetland area. Indicator (b) specifies "... vegetation reflecting: Desired Plant Community, maintenance of riparian and wetland soil moisture characteristics, diverse age structure and composition, high vigor, large woody debris when site protection allows, and providing food, cover and other habitat needs for dependent animal species." Ex. B-28, Bates 3485. Appellants contend that, while BLM's PFC method is utilized to assess indicators (a) and (c), it does not assess whether indicator (b) has been met, and Appellants relatedly contend that the omission of indicator (b) is a fatal flaw in the PFC methodology. Tr., 2069. Appellants also contend that the PFC methodology is flawed, because it does not assess a riparian area's compliance with Standard 3, which applies to both upland and riparian areas. Tr., 2071-72. Standard 3 requires that "... species, including native, threatened, endangered, and special-status species, are maintained at a level appropriate for the site and species involved." Ex. B-28, Bates 3485. There

are four indicators for Standard 3 denominated (a), (b), (c), and (d), implicating, respectively, frequency and diversity, habitats, native species, and appropriate amount, type, and distribution of vegetation. Ex. B-28, Bates 3485; Tr., 2073, 2076.

Appellants contend that the PFC assessment is deficient because it does not fully assess whether a riparian area is meeting those additional Utah Standards. Tr., 2907-08. In particular, the PFC assessment does not include Standard 2(b), nor does it include any of Standard 3, with the focus of PFC being on stream bank stability and resistance to erosion. Ex. B-2, Bates 9315. Why is this a problem? Because Standard 3 largely protects wildlife habitat, which BLM essentially ignores with respect to riparian areas, as follows:

... it is the objective of the Utah BLM Riparian Policy to improve or maintain riparian areas in proper functioning condition. Riparian areas are classified in 'proper functioning condition' (PFC) when there is adequate vegetation and landform structure present to stabilize the stream banks. This results in a reduction in erosion, improvement in water quality, filtration of sediment, capturing of bedload, and aids in floodplain development ... .

Ex. B-2, Bates 9315.

Appellants contend that wildlife habitat requirements are an important aspect of riparian area ecological health, which should include both animal species and vegetative habitat requirements set out in Standard 2(b) and in Standard 3. Tr., 2088-91, 2096. Appellants conclude that the PFC assessment does not result in a finding of whether a riparian-wetland area is meeting all of the pertinent Standards, because PFC focuses only upon "stream bank stability" to the exclusion of other animal-related habitat critical criteria, especially in the case of sage-grouse. Tr., 2112.

Appellants similarly criticize BLM's lotic area checklist, as failing to take adequate account of animal species and their habitat needs. Tr., 2182-83. For example, checklist items one through five deal with hydrologic attributes and processes, and items 13-17 concern erosion and deposition aspects. Ex. B-29, pp. 25-35, 46-56. The argument is that, even though the standard for erosion may be met, the other ecological needs that are delineated in the Standards and Guidelines to protect wildlife may not be met and are not adequately analyzed by BLM in its PFC assessment. Tr., 2191. Lotic check list Item 6 provides that there is "... a diverse age-class distribution of riparian-wetland vegetation (recruitment for maintenance recovery)." Ex. B-29, p. 36. By limiting this item to maintenance recovery, Appellants contend that BLM doesn't assess Standard 2(b), which requires vegetation reflecting diverse age structure and composition and is not limited to maintenance or recovery. Tr., 2181. Appellants further contend that Item 6 fails to address "providing food, cover and other habitat needs for dependent animal species." Tr., 2182-83. Dr. Catlin testified that PFC check list Item 6 also fails to include Standard 3 and that it should include Standard 3, because there is a combination of plants necessary to support desired wildlife species. Tr., 2184-85, 2189. Dr. Catlin contends that Item 6, as employed by BLM, narrows how BLM looks at plant communities to maintenance and recovery relating to stream bank stabilization, thereby failing to address the habitat needs of desired wildlife species. Ibid. Dr. Catlin testified, as follows:

So, both areas may be adequate for protection against erosion, but the area that's demonstrated inside our cage shows that there's more there that you need for wildlife. And so even though you may meet the standard for erosion, you may not

meet the other ecological needs that are called for in Standards and Guidelines to support wildlife.

Tr., 2191.

Appellants argue that check list Item 7 is also deficient, because it fails to account for wildlife habitat needs. Tr., 2195. The maintenance and recovery formula allows for as few as two plant species to suffice for functionality, which, according to Dr. Catlin means the following:

So, in both of their examples, two species is enough for them to have a diverse composition. That, to me, means that you can have a site that has lost most of its species and just has two left, and it will still be rated as having adequate composition.

So, this again, allows degraded habitat to be scored as properly functioning, ... and it under reports degraded habitat. It underreports habitat that is in need of improvement for wildlife purposes.

#### Tr. 2202.

To better know what plant species should actually be there, Dr. Catlin created a list of both riparian and upland plants that have been found on the allotment. Exs. W-94, W-95; Tr., 2203, 2214. The list identifies some 20 obligate riparian plants and 32 facultative wetlands plants. Tr., 2215-16. Dr. Catlin contends that by allowing only two species to represent adequate diversity, the PFC assessment method fails to account for the natural diversity of plants separately documented to occur on the allotment. Tr., 2216-18. While each riparian area may not exhibit every one of the species on the list, the observed diversity should certainly be more than only two, indeed, close to a dozen. Tr., 2219. Consequently, the distinction between

"yes" and "no" in the Lotic Technical Reference is too narrowly drawn, and, as a result, does not identify areas that fail to meet the Utah Standards for biodiversity and plant community composition. Tr., 2219. Appellants also challenge aspects of the Lentic Area Checklist and the Lentic Technical Reference. The Lentic Technical Reference provides the following:

... PFC definition does not mean potential or optimal conditions for a particular species have to be achieved for an area to be rated as functioning properly. The threshold for any goal is at least PFC because any rating below this would not be sustainable. For riparian-wetland areas, PFC may occur from early seral to late seral.

#### Ex. B-32, p. 11.

Appellants argue that the PFC method does not meet the Utah Standards because it construes areas that do not support wildlife habitat to be in PFC. Tr., 2687. For example, in BLM's Lentic Checklist, Items 1-7 deal with hydrologic attributes and processes, and Items 16-20 deal with erosion and deposition attributes and processes. Ex. B-32, pp. 18, 47. None of these checklist items assess the vegetation-related habitat criteria of Utah Standard 2(b) or Standard 3. Tr., 2733-34.

After completing its checklists, BLM determines a functional rating, based exclusively upon an area's resistance to high water flows. Ex. B-29, p. 19. There are four elements: dissipation of stream energy to reduce erosion, filtering sediment to aid floodplain development, improving flood water retention, and developing root masses to stabilize streambanks. Exs. B-29, p. 19 (lotic areas), B-32, p. 13 (lentic areas). Dr. Catlin testified that the PFC definition consists of six elements, and the two elements pertaining to habitat are removed by BLM and not included in its functionality determinations. Tr., 2120, 2123, 2661, 2689, 2691. Appellants, therefore,

contend that BLM's PFC Assessment method is deficient because it does not analyze all of the arguably applicable Utah Standards, leaving out, in particular, those standards implicating animal species and their habitat needs. Appellants conclude that BLM, therefore, did not conduct a sufficient Fundamentals of Rangeland Health assessment on the riparian areas of the allotment.

Connecting the above to the EA, the EA does not adequately analyze whether the riparian areas of the allotment meet all of the arguably applicable Utah Standards. Mr. Staggs testified that a riparian area can be in functional condition, in PFC, and that may or may not equate to animal habitat requirements. Tr., 14013. Appellants, therefore, contend that BLM's PFC data sheets erroneously do not determine whether a particular riparian area meets all of the applicable Utah Rangeland Health Standards. Tr., 2095; Ex. B-2, Bates 9317-24.

Because BLM's PFC assessment determined the functionality of the riparian areas with regard to erosion and stability, but ignored the condition of riparian and wetland areas with regard to animal habitat requirements, this constituted an inadequate analysis of clear environmental impacts. In his testimony, Mr. Gates was unable to specify what plant species, other than carex and juncus, should be in the riparian and wetlands areas of the allotment, nor was he able to identify what animal species live there. Tr. 12645. Mr. Staggs acknowledged that there could be literally hundreds of animal species dependent upon the riparian and wetland areas of the allotment, but he didn't know how many actually use or repose in those areas. Tr., 14017-019. This, of course, goes to the underlying issue raised by Appellants throughout this proceeding, namely: Should a federal regulatory agency like the BLM purport to issue a new ten year federal license, when it has inadequate detailed knowledge of the conditions on the Duck Creek Allotment? In my opinion, the answer to this question is no. As the government acknowledges in its Response Brief, "As mentioned earlier, the

SLFO range staff has a tremendous workload and it is severely understaffed. ... Also, the range program does not have an adequate budget .... Moreover, as the result of the settlement in <u>WWP v. Carpenter</u> (Ex. B7) and subsequent commitments made pursuant to it, BLM identified the DCA as its top priority for data collection to commence in fiscal year 2005, and this caused BLM to work as quickly as possible in 2005 to meet those commitments." Response Brief, p. 39. BLM's monitoring effort in 2005, a direct result of the <u>Carpenter</u> Settlement Agreement, was indeed comprehensive and extensive. However, that effort was atypical because it was a direct and exclusive result of that litigation; the scope of that effort was not replicated in prior or subsequent years; and, during subsequent years, the Appellants conducted more monitoring on the allotment than did the BLM.

Related to this is both the currency and scope of BLM's data base with respect to the Duck Creek Allotment. They have a great deal of data from 2005, because of a massive monitoring effort in that year that was the direct result of the settlement agreement deriving from federal district court litigation in Utah. But, in other years, BLM's data base is much less, because they did not conduct similarly extensive monitoring either before or after 2005. Appellants, on the other hand, have conducted detailed, extensive, scientific monitoring on the allotment every year since 2004. The Appellants' overall data base is, therefore, larger, more extensive, and more detailed over a period of years than is that maintained by BLM. Appellants' witnesses know more about the environmental nuances of the Duck Creek Allotment than did BLM's witnesses. Mr. Gates signed the Final Decision on appeal herein; however, there were important portions of Mr. Gates' testimony that, in my opinion, were seriously uninformed. See, e.g.: Tr., 11729, 12645,13903. Relatedly, when asked by Appellants' counsel how BLM's monitoring takes account of the animal habitat-related conditions on riparian and wetland areas outside of the greenline, Mr. Staggs replied, "Who knows ....." Tr., 14020. With respect to how many animal species use

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the allotment's riparian areas, Mr. Staggs admitted the following, "No, I don't know how many specifically use the riparian areas in whole or in part of their habitat requirements." Tr., 14019. BLM thus violated NEPA by failing to adequately analyze the animal habitat-related impacts deriving from the condition of the riparian and adjacent riparian-wetland areas of the allotment.

Upon determining that one or more of the Rangeland Health Standards is not being met due to existing livestock grazing practices, "... the authorized officer shall take appropriate action as soon as practicable but not later than the start of the next grazing year ... " that will result in significant progress toward fulfillment of the Standards. 43 C.F.R. 4180.2(c). Appropriate action equates to taking action pursuant to the Department's implementing regulations under the purview of FLPMA, that include 43 C.F.R. 4110, 4120, 4130, & 4160, which also implicate the establishment of appropriate terms and conditions in grazing permits. <u>Idaho Watersheds</u> <u>Project v. Hahn</u>, 187 F.3d 1035 (9th Cir. 1999).

The riparian area objective for the allotment is stated in the EA, as follows:

All riparian areas would be managed to achieve or maintain proper functioning condition (PFC) with upward trend toward PFC, if it is less than PFC. Static or static to upward trend towards potential, if it is at PFC. Riparian area trend will be monitored using the method in Monitoring Stream Channels and riparian Vegetation-Multiple Indicators.

Exs. B-1, p. 11, B-2, p. 33.

Appellants argue that this PFC-based riparian community is not the functional equivalent of the Desired Plant Community as contended by Mr.

Gates in his testimony. Tr., 12222-223. Rather, as contended by Appellants, BLM's riparian area objective for the allotment does not insure compliance with, or significant progress towards, meeting all of the applicable Utah Standards for Rangeland Health. Tr., 3426-28. Meeting the Utah Rangeland Health Standards 2 and 3 requires that riparian areas support vegetation reflecting the Desired Plant Community, as an animal habitat-related indicator. Ex. B-28, Bates 3485. I concur with Appellants that BLM's reliance upon PFC exclusively with respect to stream bank integrity was insufficient to fully and properly assess the wildlife-related riparian conditions on the Duck Creek Allotment. Desired Plant Community is defined in the Rangeland Health Technical Reference as "... the several plant communities that may occupy a site, the one that has been identified through a management plan to best meet the plan's objectives for the site. It must protect the site at a minimum." Ex. B-33, p. 50. Neither the EA or the Final Decision herein identify a Desired Plant Community for the Duck Creek Allotment.

Under the terms of the Final Decision, BLM's ensuing riparian monitoring is going to be done on the South Fork, Sixmile, and Duck Creek streams, and there will be no other monitoring on other riparian sites. Tr., 14023-024. Appellants contend that this limitation will not adequately assess the condition of all of the lotic and lentic riparian areas on the allotment in order to determine whether they are meeting or making significant progress in meeting the Rangeland Health Standards. Perhaps Appellants' ongoing monitoring on the Duck Creek Allotment could be employed by BLM in that effort in the future.

# **TERMS AND CONDITIONS**

Relatedly, with respect to compliance with the Rangeland Health Standards, Appellants severely criticize the Final Decision for not including

enforceable terms and conditions. Rather, the Final Decision sets out utilization limits and upland and riparian health conditions as so-called resource management objectives, as distinguished from mandatory permit terms and conditions. Ex. B-1, pp. 8-9. The grazing permits for the Duck Creek Allotment include a term requiring conformance with the generally stated objectives set out in the EA. Ex. B-2, pp. 19-28. However, objectives are not enforceable mandatory terms and conditions. Similarly, the generally stated objectives with respect to monitoring, utilization limits and riparian and upland health conditions do not constitute immediately enforceable terms and conditions. Ex. B-1, p. 2; Ex. B-2, pp. 8, 19-28. The violation of a permit's mandatory terms and conditions is enforceable under the auspices of 43 C.F.R. 4140.1(b)(1)(ii); whereas, there is no enforcement analog with respect to resource management objectives, that are merely guidelines. Violation of such guidelines also will not necessarily provide a trigger for BLM to take any kind of "appropriate action" that will result in "significant progress" toward fulfilling the applicable Standards under the purview of 43 C.F.R. 4180.2(c). Appellants argue that to insure compliance with the Utah Standards, the Duck Creek grazing permits must include enforceable terms and conditions, rather than voluntary guidelines.

43 C.F.R. 4130.3 provides the following:

Livestock grazing permits and leases shall contain terms and conditions determined by the authorized officer to be appropriate to achieve management and resource condition objectives for the public lands and other lands administered by the Bureau of Land Management, and to ensure conformance with the provisions of subpart 4180 of this part.

The regulations identify "mandatory terms and conditions" at 43 C.F.R. 4130.3-1 and "other terms and conditions" at 43 C.F.R. 4130.3-2. The

authorized officer may include such "other terms and conditions" to assist in achieving management objectives, provide for proper range management, or to assist in the orderly administration of the public rangelands. Emphasis added; 43 C.F.R. 4130.3-2. However, that is not the end of the regulatory story. Mandatory terms and conditions require BLM to specify in the permit the kind and number of livestock, periods of use, and AUM levels, and, additionally, mandatory terms and conditions "... shall incorporate terms and conditions that ensure conformance with subpart 4180 of this part." Emphasis added; 43 C.F.R. 4130.3-1(c). Violation of mere guidelines will not provide a trigger for BLM to take "appropriate action" that will result in "significant progress" toward fulfilling the applicable Standards under the purview of 43 C.F.R. 4180.2(c). To the contrary, violation of specific terms or conditions set forth in a permit constitutes a prohibited act, subject to immediate civil and criminal penalties. 43 C.F.R. 4140.1(b)(1)(ii). That is, the authorized officer "shall incorporate terms and conditions" to ensure conformance with the Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration set out in 43 C.F.R. Subpart 4180. The term "shall" in relation to mandatory standards-related permit terms and conditions makes clear that the inclusion of mere management guidelines to accomplish this standards-related objective is legally insufficient, and such guidelines must, to the contrary, be expressed as legally enforceable terms and conditions, the violation of which may immediately, without any further Bureau action, such as, further monitoring or consultation with permittees, authorize the BLM to "... suspend the grazing use authorized under a grazing permit or lease, in whole or in part, or cancel a grazing permit or lease and grazing preference...." Emphasis added; 43 C.F.R. 4170.1-1(a). The employment of mere management guidelines, as opposed to enforceable terms and conditions, procedurally precludes BLM from imposing the quoted "Penalty for Violations" provision of the regulations. BLM's failure to include enforceable terms and conditions that ensure

conformance with subpart 4180 of the regulations constituted reversible error.

The BLM has a duty to use mandatory terms and conditions to "ensure compliance" with the duty to make significant progress. <u>WWP v.</u> <u>U.S. Dept. of Interior</u>, 2009 WL 5218020 (D. Id. 2009); 43 C.F.R. 4130.3-1. As District of Idaho Chief Judge B. Lynn Winmill further decided in a case implicating analogous facts to the instant case and in which he concluded that voluntary goals and guidelines were inadequate in a new grazing permit:

Despite widespread violations of Standards caused by grazing that directly affect sage grouse, a sensitive species, the BLM has loosened the restrictions on permit holders. At the very moment when mandatory Terms and Conditions are called for, the BLM moves in the opposite direction.

The duty to make 'significant progress' must mean something. Under the plain language of the regulation, it requires 'measurable and/or observable changes in the indicators like stubble height, stream bank stability, and plant utilization. <u>At</u> the same time, the BLM has a duty to use mandatory Terms and Conditions to 'ensure compliance' with the duty to make significant progress. 43 C.F.R. Section 4130.3-1; <u>WWP v. U.S.</u> Dept. of Interior, 2009 WL 5218020 (D.Id.2009).

Emphasis added; <u>Western Watersheds Project v. Ken Salazar, Secretary</u>, Dept. of the Interior, 843 F.Supp.2d, 1105, 1126 (2012). In my opinion, BLM in its Final Decision implements exactly the same illegal omission in the instant case, namely, the omission of enforceable terms and conditions to ensure compliance with the duty to make significant progress, and its failure to include such enforceable terms and conditions in its Final Decision constituted reversible error. In effect, the adaptive management protocol of the Final Decision leaves enforcement open-ended, with no certain actions triggered if BLM subsequently finds compliance problems. BLM is responsible for managing and administering the subject public lands, and its failure to include enforceable standardsrelated terms and conditions constituted an illegal abrogation of that responsibility, thereby failing to properly manage and supervise the regulated industry, namely, the grazing permittees.

It should also be pointed out that if the government is correct in its contention that the decision on appeal also constitutes an AMP, then pertinent regulations require that it "Include terms and conditions ....." 43 C.F.R. 4120.2(a)(1).

#### **REMEDIES ISSUE**

Appellants' request to separately brief the issue of remedies is hereby **DENIED**. Appellants' Opening Brief, pp. 3, 204, 223. I concur with the BLM's exegesis set out in its Response Brief with respect to this issue. BLM's Response Brief, p. 184. My jurisdictional authority in a Taylor Grazing Act appeal is to affirm or reverse BLM's decision, either in whole or in part. <u>Southern Utah Wilderness Alliance</u>, 172 IBLA 183-85 (2007). The Hearings Division does not exercise supervisory authority over the BLM, and, consequently, I do not enjoy the jurisdictional authority to make denovo public land use determinations, which seems to be the gravamen of Appellants' request to separately brief remedies.

# <u>CONCLUSION</u>

BLM failed to provide adequate advance notice to Appellants with respect to its June 2, 2006, scoping meeting, because BLM improperly delegated that function to the CRM, which enjoyed no federal status or standing, and CRM sited, chaired, and procedurally controlled that pivotal federal scoping meeting. BLM violated NEPA by failing to assess an adequate number of alternatives and by failing to adequately assess a sufficient range of cumulative impacts. In addition, the record proves that BLM never knew the actual number of cattle grazing on the Duck Creek Allotment, and, consequently, BLM did not have sufficient knowledge to accurately assess and analyze utilization on the allotment. BLM failed under NEPA to adequately assess the multiple impacts of its decision upon sage grouse, a BLM sensitive species; by its own testimony BLM did not even know where the sage grouse were located on the allotment; and, consequently, BLM did not issue an informed decision under NEPA with respect to potential impacts upon sage grouse of its four pasture rotation system. With respect to the condition of wildlife species habitats, BLM failed completely to observe and comply with Utah Standard 3. BLM failed to take the requisite "hard look" in the EA at the impacts of lower grass percentages than were actually called for in its own ESDs. BLM incorrectly concluded that the grazing impacts on the uplands of new water troughs would not be measurable, and, therefore, BLM did not adequately analyze such impacts in the EA. For these, as well as, the other factual, legal, and procedural reasons set out above, including BLM's failure to include enforceable additional terms and conditions in its Final Decision,

# BLM'S DECISION ON APPEAL HEREIN IS HEREBY REVERSED AND REMANDED TO BLM FOR FURTHER ACTION IN ACCORD WITH THIS DECISION.

100000 James H. Høfferhan

Administrative Law Judge

# **APPEAL INFORMATION**

Any party adversely affected by this decision has the right to appeal to the Interior Board of Land Appeals. The appeal must comply strictly with the regulations in 43 C.F.R. Part 4 (see enclosed information pertaining to appeals procedures).

See Page 140 for distribution.

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