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Working to protect and restore Western Watersheds

Western Watersheds Project

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April 4, 2011

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Re: RMP Scoping Comments

"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect. There is no other way for land to survive the impact of mechanized man, nor for us to reap from it the esthetic harvest it is capable, under science, of contributing to culture."

- Aldo Leopold

"What we do with the public lands of the United States tells a great deal about what we are, what we care for and what is to become of us as a nation."

- Senator Henry M. Jackson

"And [multiple use is] harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output."

- Federal Land Policy and Management Act 43 U.S.C. § 1702(c)

"In managing the public lands the Secretary [of the Department of the Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."

- Federal Land Policy and Management Act 43 U.S.C. § 1732(b)

Dear Lynn,

We ask that the BLM not undergo an RMP revision at this time. All RMP's written in the last10 years or more have been even worse than those written during the Reagan-Watt era and most are currently being litigated for their lack of compliance with FLPMA, NEPA and the ESA. The processes completed in the last two year have been just as bad. Further, we ask that if the BLM does proceed with RMP revision that the process not be outsourced. All of the current batch of RMP's under litigation were outsourced and internal estimates indicate costs of nearly twice that if the process had used federal employees. In addition, many BLM personnel have noted that quality of the work product was poor.

In speaking with a former Booz Allen Hamilton manager who oversaw the production of nearly a dozen RMP's, he said he was specifically instructed by the Booz Allen executive heading up the division, to "milk the contract for every cent you can".

The performance of the contractor for the Lander RMP was so poor that BLM staff had to do nearly all work for the project, with the contractor primarily doing secretarial work.

We incorporate by reference all of the comments and literature provided during this scoping by Biodiversity Conservation Alliance and the Wyoming Outdoor Council.

The first and foremost consideration must be the legal and regulatory framework within which the BLM operates. The overarching law is FLPMA. FLPMA requires that the BLM:

Section 102 (2) the national interest will be best realized if the public lands and their resources are periodically and systematically inventoried and their present and future use is projected through a land use planning process coordinated with other Federal and State planning efforts

Section 102 (8) the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will pro-vide for outdoor recreation and human occupancy and use

Section 201 (a) The Secretary <u>shall</u> prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values (including, but not limited to, outdoor recreation and scenic values), giving priority to areas of critical environmental concern. This inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values. The preparation and maintenance of such inventory or the identification of such areas shall not, of itself, change or prevent change of the management or use of public lands.(emphasis added)

Compliance with this subsection is the prerequisite of all planning and must be completed prior to initiation of the RMP revision process. Note also that the next Section B mentions funding. This indicates Section B is discretionary, whereas Section A is mandatory.

Section 202 (c) In the development and revision of land use plans, the Secretary shall–
(1) use and observe the principles of multiple use and sustained yield set forth in this and other applicable law;
(2) use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences;
(3) give priority to the designation and protection of areas of critical environmental concern;
(4) rely, to the extent it is available, on the inventory of the public lands, their resources, and other values;
(5) consider present and potential uses of the public lands;
(6) consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for realization of those values;
(7) weigh long-term benefits to the public against short-term benefits;
(8) provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans; (emphasis added)

Section 302 B In managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.

The regulations implementing the FLPMA planning requirements are at 43 CFR 1600.

43 CFR 1601.0-2 Objective.

The objective of resource management planning by the Bureau of Land Management is to maximize resource values for the public through a rational, consistently applied set of regulations and procedures which promote the concept of multiple use management and ensure participation by the public, state and local governments, Indian tribes and appropriate Federal agencies. Resource management plans are designed to guide and control future management actions and the development of subsequent, more detailed and limited scope plans for resources and uses. (emphasis added)

It is clear from the above that RMP's are required to provide specific requirements, standards and limitations that are overarching for the Field Office and that guide the site-specific decisions later. The usual RMP's written over the last decade are little more than aspirational with no requirements. This violates FLPMA.

This is made even more clear under Definition N, which states:

(n) Resource management plan means a land use plan as described by the Federal Land Policy and Management Act. The resource management plan generally establishes in a written document:

(1) Land areas for limited, restricted or exclusive use; designation, including ACEC designation; and transfer from Bureau of Land Management Administration;
(2) Allowable resource uses (either singly or in combination) and related levels of production or use to be maintained;
(3) Resource condition goals and objectives to be attained;

(4) Program constraints and general management practices needed to achieve the above items;
(5) Need for an area to be covered by more detailed and specific plans;
(6) Support action, including such measures as resource protection, access development, realty action, cadastral survey, etc., as necessary to achieve the above;
(7) General implementation sequences, where carrying out a planned action is dependent upon prior accomplishment of another planned action; and
(8) Intervals and standards for monitoring and evaluating the plan to determine the effectiveness of the plan and the need for amendment or revision.

43 CFR 1610.4-4 requires that the BLM:

The Field Manager, in collaboration with any cooperating agencies, will analyze the inventory data and other information available to determine the ability of the resource area to respond to identified issues and opportunities. The analysis of the management situation shall provide, consistent with multiple use principles, the basis for formulating reasonable alternatives, including the types of resources for development or protection. Factors to be considered may include, but are not limited to:
(a) The types of resource use and protection authorized by the Federal Land Policy and Management Act and other relevant legislation;
(b) Opportunities to meet goals and objectives defined in national and State Director guidance;
(c) Resource demand forecasts and analyses relevant to the resource area;
(d) The estimated sustained levels of the various goods, services and uses that may be attained under existing biological and physical conditions and under differing management practices and degrees of management intensity which are economically viable under benefit cost or cost effectiveness standards prescribed in national or State Director guidance;
(e) Specific requirements and constraints to achieve consistency with policies, plans and programs of other Federal agencies, State and local government agencies and Indian tribes;
(f) Opportunities to resolve public issues and management concerns;
(g) Degree of local dependence on resources from public lands;
(h) The extent of coal lands which may be further considered under provisions of §3420.23(a) of this title;
and
(i) Critical threshold levels which should be considered in the formulation of planned alternatives.

43 CFR 1610.7-2 requires:

Areas having potential for Areas of Critical Environmental Concern (ACEC) designation and protection management shall be identified and considered throughout the resource management planning process (see §§1610.4–1 through 1610.4–9).
(a) The inventory data shall be analyzed to determine whether there are areas containing resources, values, systems or processes or hazards eligible for further consideration for designation as an ACEC. In order to be a potential ACEC, both of the following criteria shall be met:
(1) Relevance. There shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard.

(2) Importance. The above described value, resource, system, process, or hazard shall have substantial significance and values. This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to human life or property.

BLM Manual 1601 Land Use Planning further describes the requirements the BLM must comply with in the development of an RMP:

Section .1 B. The land use planning process is the key tool used by the BLM, in coordination with interested publics, to protect resources and designate uses on Federal lands managed by the BLM. Planning is critical to ensuring a coordinated, consistent approach to managing these lands. This Manual and Handbook provide guidance for preparing new Resource Management Plans (RMPs), plan revisions, plan amendments, other equivalent plans (e.g., plans adopted from other agencies), and subsequent implementation-level plans. Procedures and requirements are set forth to ensure that the BLM's plans meet regulatory and statutory requirements. (emphasis added)

Section .2 .02 Objectives. These plans help ensure that the public lands are managed in accordance with FLPMA (43 USC 1701 et seq.) and other applicable laws and regulations, under the principles of multiple use and sustained yield; in a manner that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber; and in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archaeological values. Where appropriate, lands will be managed to preserve and protect certain public lands in their natural condition to provide food and habitat for fish and wildlife and domestic animals, and to provide for outdoor recreation and human occupancy and use. The BLM will encourage collaboration and public participation throughout the planning process. To accomplish the above, the BLM will:
A. Provide on a continuing basis an inventory of all public lands and their resource and other values. This inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values (FLPMA, Sec. 201 (a)).
B. Use an interdisciplinary process for evaluating resource information that considers physical, cultural, and biological resources in conjunction with social and economic factors to decide appropriate public land uses.
C. Ensure opportunities for participation by Indian tribes, State and local governments, other Federal agencies, and the public in a way that coordinates land use inventory, planning, and management activities with these other jurisdictional entities. Such participation will help ensure that land use plans for public lands are consistent with the plans and policies of these entities to the maximum extent consistent with Federal law (FLPMA, Sec. 202 (c) (9)), and that policies of approved Indian tribal land resource management programs are considered (FLPMA, Sec. 202 (b)).
D. Use collaborative and multijurisdictional approaches, to the extent possible, to encourage consistency in planning across different land ownerships and jurisdictions.
E. Provide to the public a documented record of land allocations and permissible resource uses and constraints.
F. Provide a framework to guide subsequent implementation decisions. (emphasis added)

Section .3 2. reiterates the requirements of FLPMA:

"Sec. 201 requires the Secretary of the Interior to prepare and maintain an inventory of the public lands and their resource and other values, **giving priority** to areas of critical environmental concern (ACECs), and, as funding and workforce are available, to determine the boundaries of the public lands, provide signs and maps to the public, and provide inventory data to State and local governments.

F. The Colorado River Basin Salinity Control Act, 43 U.S.C. 1593, requires a comprehensive program for minimizing salt contributions to the Colorado River from BLM lands.

Section .06 requires:

2. The BLM's mission is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. Land use plan decisions will further this mission by identifying desired outcomes and actions that restore and maintain the health of the land; preserve natural and cultural heritage; reduce threats to public health, safety, and property; and provide opportunities for environmentally responsible recreational and commercial activities.
3. When making land use plan decisions, the BLM will consider information from all available sources, including scientific data gained from resource assessments, information regarding ecosystem protection and restoration needs, the reasonably foreseeable development of consumptive and nonconsumptive uses, and social and economic information.

The Manual provides specific definitions for the requirements that a RMP must contain:

Goal: a broad statement of a desired outcome. Goals are usually not quantifiable and may not have established time frames for achievement.

Guidelines: actions or management practices that may be used to achieve desired outcomes, sometimes expressed as best management practices. Guidelines may be identified during the land use planning process, but they are not considered a land use plan decision unless the plan specifies that they are mandatory. Guidelines for grazing administration must conform to 43 CFR 4180.2.

Land Use Allocation: the identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the planning area, based on desired future conditions.

Land Use Plan Decision: establishes desired outcomes and actions needed to achieve them. Decisions are reached using the planning process in 43 CFR 1600. When they are presented to the public as proposed decisions, they can be protested to the BLM Director. They are not appealable to IBLA.

Objective: a description of a desired condition for a resource. Objectives can be quantified and measured and, where possible, have established time frames for achievement.

Planning Criteria: the standards, rules, and other factors developed by managers and

interdisciplinary teams for their use in forming judgments about decision making, analysis, and data collection during planning. Planning criteria streamline and simplify the resource management planning actions.

Resource Use Level: the level of use allowed within an area. It is based on the desired outcomes and land use allocations in the land use plan. Targets or goals for resource use levels are established on an area-wide or broad watershed level in the land use plan. Site-specific resource use levels are normally determined at the implementation level, based on site-specific resource conditions and needs as determined through resource monitoring and assessments.

Standard: a description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., land health standards).

BLM H-1601-1 Land Use Planning Handbook, likewise provides further specificity and reiteration of the requirements the BLM must follow in the development of RMP's:

Land use plans and planning decisions are the basis for every on-the-ground action the BLM undertakes.

Land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use;

Land use plans are one of the primary mechanisms for guiding BLM activities to achieve the mission and goals outlined in the Department of the Interior (DOI) Strategic Plan.

Handbook at 1A

Decisions in land use plans guide future land management actions and subsequent site-specific implementation decisions. These land use plan decisions establish goals and objectives for resource management (desired outcomes) and the measures needed to achieve these goals and objectives (management actions and allowable uses). Section 202(c) of FLPMA (43 U.S.C. 1712) requires that in developing land use plans, the BLM:

1. Use and observe the principles of multiple use and sustained yield;
2. use a systematic interdisciplinary approach to integrate physical, biological, economic, and other sciences;
3. give priority to designating and protecting areas of critical environmental concern (ACECs);
4. rely, to the extent available, on an inventory of public lands, their resources, and other values;
5. consider present and potential uses of public lands;
6. consider the relative scarcity of the values involved and the availability of alternative

means and sites for realizing those values;
7. weigh long-term benefits to the public against short-term benefits;
8. provide for compliance with applicable Tribal, Federal, and state pollution control laws, standards, and implementation plans; and
9. to the extent consistent with the laws governing the administration of public lands, coordinate the land use inventory, planning, and management activities of public lands with land use planning and management programs of other Federal departments/agencies and state/local governments, as well as the policies of approved Tribal and state land resource management programs. The BLM must, to the extent practical, assure that consideration is given to those Tribal, state, and local plans that are germane in the development of land use plans for public lands. Land use plans must be consistent with state and local plans to the maximum extent consistent with Federal law. Refer to FLPMA for the full text of Federal responsibilities detailed under Section 202(c)(9).

Handbook at IIA

Further defining the required components of an RMP, the Handbook states in Section II B:
B. Types of Land Use Plan Decisions
Land use plan decisions for public lands fall into two categories: desired outcomes (goals and objectives) and allowable (including restricted or prohibited) uses and actions anticipated to achieve desired outcomes.

1. Desired outcomes
Land use plans must identify desired outcomes expressed in terms of specific goals and objectives. Goals and objectives direct the BLM's actions in most effectively meeting legal mandates; numerous regulatory responsibilities; national policy, including the DOI Strategic Plan goals; State Director guidance (see 43 CFR 1610.0-4(b)); and other resource or social needs. Desired outcomes should be identified for and pertain to resources (such as natural, biological, and cultural), resource uses, (such as energy and livestock grazing), and other factors (such as social and economic conditions). Definitions and examples of goals and objectives are listed below:

Goals are broad statements of desired outcomes (e.g., maintain ecosystem health and productivity, promote community stability, ensure sustainable development) that usually are not quantifiable. Since the release of the original Handbook, the BLM has worked with RACs to develop Land Health Standards applicable to all ecosystems and management actions. These Land Health Standards must be expressed as goals in the land use plan. Goals can also be drawn from the Departmental and/or the DOI Strategic Plan or other sources. A sample goal for a Land Health Standard is: "Maintain healthy, productive plant and animal communities of native and other desirable species at viable population levels commensurate with the species and habitat's potential." A sample goal from the Strategic Plan is: "Sustain desired biological communities on Department of the Interior-managed and -influenced lands and waters in a manner consistent with obligations regarding the allocation and use of water." These goals, or modifications thereof, could be used in a land use plan.

Objectives identify specific desired outcomes for resources. Objectives are usually quantifiable and measurable and may have established timeframes for achievement (as appropriate). A sample objective is: "Manage vegetative communities on the upland

portion of the Clear Creek Watershed to achieve, by 2020, an average 30 to 40 percent canopy cover of sagebrush to sustain sagebrush-obligate species." When quantified, the indicators associated with Land Health Standards are one possible source of objectives.

While the BLM has been writing goals in recent RMP's, the objectives have been noticeably missing.

2. Allowable uses and management actions anticipated to achieve desired outcomes (goals and objectives)

After establishing desired outcomes, the BLM identifies allowable uses (land use allocations) and management actions for different alternatives that are anticipated to achieve the goals and objectives.

a. Allowable uses. Land use plans must identify uses, or allocations, that are allowable, restricted, or prohibited on the public lands and mineral estate. These allocations identify surface lands and/or subsurface mineral interests where uses are allowed, including any restrictions that may be needed to meet goals and objectives. Land use plans also identify lands where specific uses are excluded to protect resource values. Certain lands may be open or closed to specific uses based on legislative, regulatory, or policy requirements or criteria to protect sensitive resource values. If land use plan decisions close areas of 100,000 acres or greater in size to a principal or major use for 2 years or more, Congress must be notified of the closure upon its implementation as prescribed in 43 CFR 1610.6.

The land use plan must set the stage for identifying site-specific resource use levels. Site-specific use levels are normally identified during subsequent implementation planning or the permit authorization process. At the land use plan level, it is important to identify reasonable development scenarios for allowable uses such as mineral leasing, locatable mineral development, recreation, timber harvest, utility corridors, and livestock grazing to enable the orderly implementation of future actions. These scenarios provide a context for the land use plan's decisions and an analytical base for the NEPA analysis. The BLM may also establish criteria in the land use plan to guide the identification of site-specific use levels for activities during plan implementation.

b. Management actions. Land use plans must identify the actions anticipated to achieve desired outcomes, including actions to maintain, restore, or improve land health. These actions include proactive measures (e.g., measures that will be taken to enhance watershed function and condition), as well as measures or criteria that will be applied to guide day-to-day activities occurring on public land. Land use plans also establish administrative designations such as ACECs, recommend proposed withdrawals, land tenure zones, and recommend or make findings of suitability for congressional designations (such as components of the National Wild and Scenic River System). While protection and restoration opportunities and priorities are often related to managing specific land uses (such as commodity extraction, recreation, or rights-of-way corridors), they can be independent of these types of uses as well. In certain instances, it is insufficient to simply remove or limit a certain use, because unsatisfactory resource conditions may have developed over long periods of time that will not correct themselves without management intervention. For example, where exotic invasive species are extensive, active restoration may be necessary to allow native plants to reestablish and prosper. In these cases,

identifying restoration opportunities and setting restoration priorities are critical parts of the land use planning process.

Appendix C of the Handbook states:

The application of program-specific guidance for land use plan decisions will vary, depending on the decision category, and must be applied as follows:

I. *Natural, Biological, and Cultural Resources:* Decisions identified must be made during the land use planning process if the resource exists in the planning area.

II. *Resource Uses:* Decisions identified must be made during the land use planning process if the BLM anticipates it may authorize or allow a resource use. If uses are allowed, decisions must also be made regarding intensity and limits or restrictions.

III. *Special Designations:* Special designation decisions identified must be made during the land use planning process when the BLM anticipates it may authorize or allow uses which could disqualify inventoried resource values from designation. Special designation decisions may be made during the land use planning process when there is no threat to the inventoried resource.

IV. *Support:* Support needs and decisions may be determined through the land use planning process, based on individual planning situations.

Appendix C of the Handbook provides the heart of the planning process. Given its importance to complying with FLPMA, we are providing it, with highlights, in its entirety as Exhibit A.

The Department of the Interior Departmental Manual 516 DM1 provides important guidance for the development of DEIS:

1.2 **Policy**. It is the policy of the Department:

A. To provide leadership in protecting and enhancing those aspects of the quality of the Nation's environment which relate to or may be affected by the Department's policies, goals, programs, plans, or functions in furtherance of national environmental policy;

Section D states, in part:

(4) Shall monitor, evaluate, and control on a continuing basis their activities as needed to protect and enhance the quality of the environment. Such activities will include both those directed to controlling pollution and enhancing the environment and those designed to accomplish other program objectives which may affect the quality of the environment. They will develop programs and measures to protect and enhance environmental quality. They will assess progress in meeting the specific objectives of such activities as they affect

the quality of the environment.

Section E states, in part:

(2) Shall use information obtained in the NEPA process, including pertinent information provided by those persons or organizations that may be interested or affected, to identify reasonable alternatives to proposed actions that will avoid or minimize adverse impacts to the human environment while improving overall environmental results.

(3) Shall monitor, evaluate, and control their activities on a continuing basis to further protect and enhance the quality of the environment.

Subsection 1.19 **Methodology and Scientific Accuracy** (40 CFR 1502.24). Conclusions about environmental effects will be preceded by an analysis that supports that conclusion unless explicit reference by footnote is made to other supporting documentation that is readily available to the public. Bureaus will also follow Departmental procedures for information quality as required under Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L.106-554, 114 Stat. 2763).

The Department of the Interior Departmental Manual 520 DM1 provides important guidance for the development of RMP. We provide a highlighted version of this in full as Exhibit B.

We particularly draw your attention to the Policy statement, Section 1.7 C 4, 5 and 10 as well as 1.8.

We also provide as highlighted version of BLM Manual 1737 Riparian-Wetland Area Management as Exhibit C. Of critical importance are:

.06 Department of the Interior and BLM Policy (p9)
.11C 1 through 6 (p12) which define RMP minimum requirements
.41A (p19) grazing related RMP requirements for the protection of riparian areas
.41B (20) Wetland management requirements for RMP's
.42A 1, 2 and 3 RMP requirements for soil and water
.45A and D - RMP requirements for fish and wildlife habitat
Page 30 Salinity Control Act requirements

We also provide as highlighted version of BLM Manual 6720 Aquatic Resource Management as Exhibit D. Of critical importance are:

.04J Manager responsibilities
.06 BLM Policy
.11 and .12 Inventory requirements
.13B (p9) RMP requirements
.16 (p11) RMP requirements

We also provide as highlighted version of BLM Manual 7200 Water Resource Management as Exhibit E. Of critical importance are:

Objectives (p3)
.06C RMP requirements
.21 Planning and RMP requirements

We also provide as highlighted version of BLM Manual 6840 Sensitive Species Management as Exhibit F. Of critical importance are:

.04E5 (p5) State director responsibilities
.06 (p7) ESA and Sensitive Species requirements
Section D on p9
.12 (p14) Sensitive Species RMP requirements
.2 (p15)
.22 (p36 and on) Section A
.22D4C (p41) RMP requirements

Without question, private livestock grazing is the most important RMP topic. Livestock grazing is permitted on 99.9% of the total Field Office acres. Livestock grazing has caused and is causing the most impacts over the entire Field Office. BLM permitted livestock grazing has caused a permanent ~50% loss in the productivity over most parts of the Field Office. BLM permitted livestock grazing has destroyed most of the riparian and hydrologic function throughout the Field Office. BLM permitted livestock grazing has degraded the water storage capacity of riparian areas throughout the Field Office which has lead to reduced flows, elimination of once productive fisheries and loss of riparian habitat. BLM permitted livestock grazing has not been properly managed. Trespassing livestock and excessive utilization are the rule not the exception. The BLM has known about these violations of permit terms and conditions for decade after decade, it has also known the ecosystem degradation caused by this lack of action for decade after decade, but has failed to take any effective actions to fulfill its public trust and legal responsibilities.

The RMP will not be morally or legally defensible if this most important of issues is not addressed properly. The RMP EIS must thoroughly and defensibly review the failures of the past RMP and what actions must be taken to correct these failures.

The BLM must include in each RMP alternative and in the final selected alternative a voluntary waiver and retirement provision for all grazing permits.

Include in all RMP alternatives measurable (i.e. quantifiable) standards for livestock grazing including maximum upland and riparian utilization of 30% on any herbaceous graminoids; maximum bank or wetland trampling annually not to exceed 10% of hydric and mesic soils areas; maximum use of woody browse by all sources not to exceed 15% of new leader growth annually.

In all RMP alternatives establish reference areas without grazing by livestock. The area involved shall be no less than 15% of the RMP area and in at least one alternative be 50% of the land area. These areas would logically overlap with sage grouse and Colorado River Cutthroat trout ACEC's

Include a no-livestock grazing alternative.

All alternative shall assess the cumulative impacts of livestock along with all other impacts including global warming.

All alternatives shall include specific measurable habitat standards for all life stages of sage grouse.

Next to livestock grazing, the next most important issue is oil and gas leasing and development. While oil and gas activities only take place on a tiny fraction of the Field Office, this too has long lasting impacts to our public lands.

All other issues the RMP must address pale in comparison to these two critical issues.

NEPA requires that a true "range" of alternatives be considered in the RMP and accompanying EIS, such that it would "preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative." [Colorado Environmental Coalition v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999), citing Simmons v. United States Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997)]. Accordingly, we expect to see an adequate range of alternatives proposed and fully analyzed in the Revised RMP and EIS. In addition to analyzing current management, suitable alternatives to analyze would include eliminating livestock grazing from all sensitive areas such as Wilderness, ACEC, cultural resources, and important wildlife habitat; reducing grazing from the 99.9% of the resource area to 40% of the resource area; and a no grazing alternative along with reduced utilization rates for uplands and riparian areas.

In addressing range management in the revision the BLM should use and reference the quantitative data (including the methodologies used to collect them and the time they were collected) pertaining to the current and expected acreages which meet, or fail to meet, desired vegetative condition, and trends in vegetative condition. Using out-dated data or using methodologies which are no longer accepted, would be inappropriate. As we previously cited, the BLM's own planning handbook requires the use of the best available information. For example, the critical values of riparian areas were not well known even twenty years ago, so that most analyses at the time did not apply to riparian areas.

In many areas, winter use by wildlife follows the end of the livestock grazing period. It would be worthwhile to establish a standard and a monitoring plan for total use (by both wildlife and livestock) on an annual basis to determine if the standards for livestock use are achieving the desired objectives. In some areas, it is likely that combined use would be greater than expected for both riparian and upland total utilization and stricter standards may be necessary for livestock utilization.

It is widely recognized in the range management literature that monitoring is the key to successful range management program. The RMP revision should include standards/requirements for a range management monitoring protocol for both upland and riparian areas. Details of the stream stability monitoring protocol, including the frequency and intensity with which it will be utilized, and so forth, should be provided in the RMP revision.

The EIS should disclose the type, location, and number of the various "range improvements" (fencing, water developments, water pipelines, access roads, and so forth) that currently exist on the public lands that will be managed under the direction of the RMP revision. What cumulative impacts have these "improvements" had on vegetation, wildlife habitat, water quality, riparian areas, soils, and habitat fragmentation? What changes/impacts to upland vegetation, water quality, habitat values, and other resources near these developments have occurred as a result of these "improvements?" Have these management activities been successful at accomplishing the goals for which they were implemented? These questions must be answered.

Additionally, the EIS should document how domestic grazing activities on allotments has affected habitat for threatened, endangered, and sensitive species in the project area. How has vegetation changed as a result of a century of livestock grazing?

There are a number of streams, seeps, ponds, and other riparian areas within the lands to be managed under the revision. What is the current condition of these habitats in Field Office area? The EIS should include detailed site-specific information from this area. How has domestic livestock grazing affected these resources? How have soils and water quality been affected by grazing in the past, and what affect will this proposal have on those resources in the future? How have aquatic species, including but not limited to native fish, amphibians and non-game fish species been affected by past grazing? What impacts to these species and their habitat will occur as a result of changes in the RMP?

The EIS should consider the cumulative impacts of grazing and associated management activities on water quality, soil conservation, ecosystem integrity, and fuels load. Grazing can result in the proliferation of annual plant species more fire-prone than naturally occurring biennials and perennials—including cheatgrass. Grazing locations, number of AUMs, and rotation systems may need to be adjusted to minimize any increased effects that grazing has on fuel loads and invasive species within the project area.

Claims based on the absence of streams from 303d lists or absence of monitoring data are not sufficient to document that water quality is not impaired. Research has shown that when livestock are present, fecal coliform bacteria increase, temperature increases due to removal of shading vegetation and streams become silt-laden, destroying their native aquatic life. Other factors such as eroding stream banks, cattle defecating in streams, etc. are violations of Narrative or Anti-degradation Standards. The altering of stream flows by degraded watershed conditions that allow greater runoff and siltation as well as late season dewatering of streams must all be considered.

Livestock grazing should be managed in a manner that will not harm the objects or resources that are of value and concern in these landscapes. BLM should ensure grazing conforms to the "Standards and Guidelines for Grazing Administration" by placing a

priority on assessing areas to see if they are in compliance. If the areas are not in compliance, immediate action should be taken to rectify the grazing management.

BLM should address how it will handle the buy-out of grazing permits by conservation and other organizations, and should identify how it will retire such permits through the planning process. BLM should work with permittees to identify those who are interested in retiring their permits or being relocated to prevent resource damage.

Grazing permits should require public access easements across private land. If permittees refuse to grant access to public lands, then all permits should be cancelled.

It is imperative that BLM, in its RMPs, recognize the value of ungrazed watersheds both from an economic and environmental point of view. Not all areas should be grazed by livestock. This should be based on a determination of suitability for livestock grazing considering alternative uses and their benefits as well as the current condition of the land. In addition, sensitive soils must be protected. This includes soils which occur on steep slopes, are susceptible to severe wind and water erosion or have been degraded from their potential by removal of ground covering vegetation and cryptogrammic crusts. It also means that in areas of weed infestations, generally caused as a result of livestock grazing, livestock should be eliminated to allow recovery. Unsuitable areas should be mapped and allotments in those areas phased out to provide necessary protections. Those areas that are to continue being grazed by livestock must be stocked and managed in accordance with the condition of the land and its vegetation.

In areas to be grazed by livestock, the amount of forage produced must be determined and allocations of forage to watershed protection (50%), wildlife (25%) and livestock (25%) be made as recommended by Holechek et al (1998)[1]. Field data collection will be necessary to accomplish this.

To summarize key components that the RMP must address:

- Drought – The RMP must lay out a clear and effective drought policy
- PFC – The BLM initiated in 1991, a program called Riparian-Wetland Initiative for the 1990's, Among other things, this initiative called for management improvements to insure that at least 75% of the BLM stream miles reached the minimum of PFC by 1997. The BLM has failed miserably in meeting this goal. The RMP must commit to and provide the direction necessary to maintain all streams in the FO at a minimum of PFC
- Fundamentals of Rangeland Health – Implementing the 4180 regulations within the FO has been spotty at best and in those areas that compliance with Standards and Guidelines have been reviewed, the actions proposed have either never been implemented or been proven to be ineffective. The RMP must correct this deficiency and implement a schedule and regular feedback loops to complete the processes required under 4180. It also must prioritize reviews based on the need for change, such as I Category allotments first
- The EIS and RMP must address the fact that livestock sizes, and thus forage consumption, have increased dramatically since the AUM was defined. Failure to

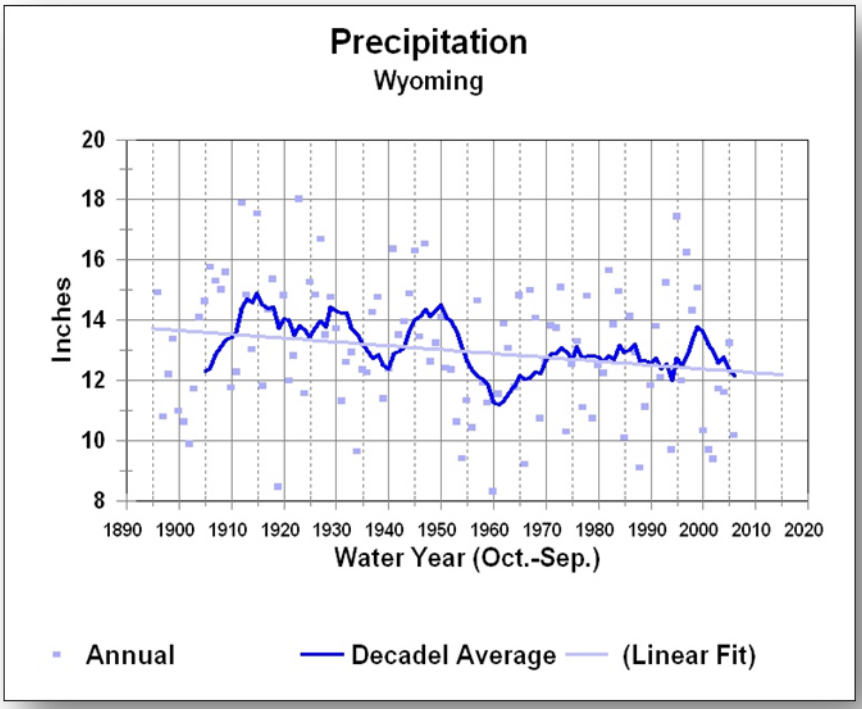
[1] Holechek, Jerry L., Rex D. Piper and Carlton H. Herbel. 1998. Range Management Principles and Practices. 542 pp. Prentice-Hall, New Jersey.

address this critical issue will lead to legal vulnerability under NEPA, APA and the False Claims Act.

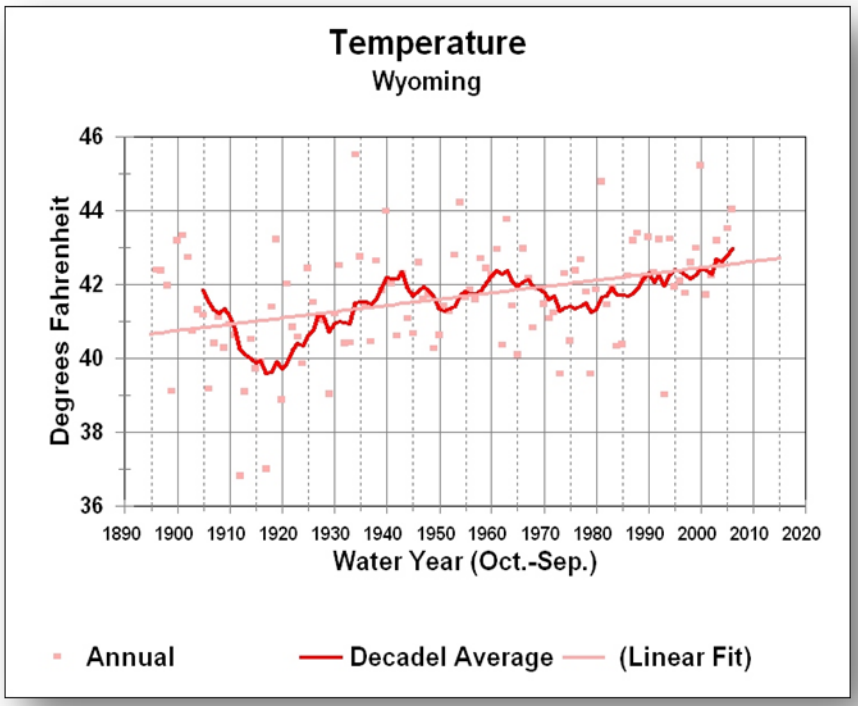
- To comply with FLMPA, TGA, PRIA, NEPA and the APA, the EIS and RMP must only approve livestock grazing within the limits of current productivity and suitability, not capacities determined many decades ago. Current data shows that productivity on BLM lands has declined significantly over the last 20-40 years.
- The EIS and RMP must analyze the successes and failures of the current RMP and analyze the validity of the assumptions and accuracy of the analysis of the EIS conducted to develop the current RMP. Such analyses are critical to learning from the mistakes of the past as well as to comply with NEPA
- The RMP must provide clear management direction for the protection of ESA listed and BLM Sensitive Species

DROUGHT

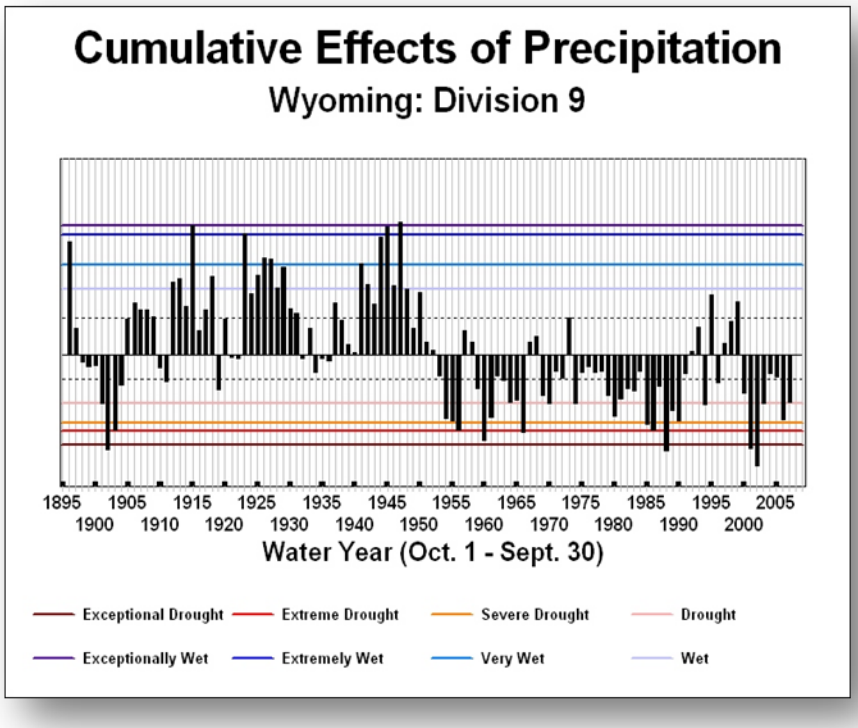
Drought is a common and persistent occurrence in Wyoming and data suggests that it is becoming more common and more severe. The following graph shows precipitation in Wyoming from 1895 to present with a significant downward trend.

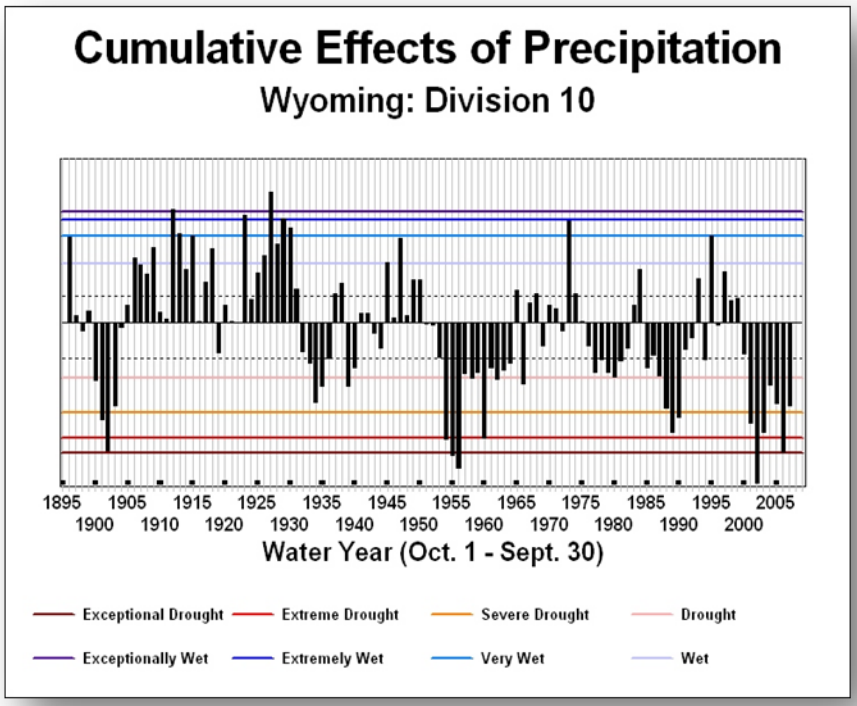


Combined with reduced precipitation, Wyoming is experiencing significant increases in average temperature, which, of course, increase evaporation and sublimation. This exacerbates drought.



For the two zones which cover the Field Office, the drought picture is rather bleak. These two charts show drought conditions in the Field Office from 1986 to present. As you can see, drought is the rule not the exception and without proper management before, during and after drought, severe, long lasting impacts occur.





We are providing various drought research papers, management guidelines and drought policies from other agencies for your review. We recommend a drought policy similar to the Tonto National Forest's which we are providing copies of. This policy should be tailored to fit the differing climate patterns which would mean adjusting the SPI from -0.70 to something more applicable to Wyoming such as -0.85.

The RMP must specify that the drought policy will come into effect in the ROD and that permit terms and conditions will be updated to reflect the drought policy.

"The Role of Drought in Range Management" is an excellent review of the current problem with agencies current drought responses and must be incorporated into this planning process.

In a review of drought effects and management, a Prescott National Forest biologist has shown the need for de-stocking and rest to maintain plant communities during dry and drought conditions and the irreversible loss of soil that can occur[2,3]. Without specification of grazing regimes to allow for below normal and drought conditions, sensitive species of native grass such as Idaho fescue, bluebunch wheatgrass and others can lose vigor, productivity and be lost over time unless proper stocking and rest are employed to maintain these plants. Failure to do so is in violation of the impairment provision of FLPMA.

We request the RMP team to review all of drought information we are providing, including citations. We request that a drought policy similar to the Tonto National Forest's be

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[2] Staab, Cara. 1996. Effects of Drought on Rangelands. Prescott National Forest Publication.
[3] Thurow, Thomas and Charles A. Taylor, Jr. 1999. Viewpoint: The Role of Drought in Range Management. Journal of Range Management 52:413-419.

incorporated into the RMP. If the BLM does not feel this information is applicable to the RMP, we request that the EIS provide reasoning to support that claim. Without such review and analysis, the requirements of NEPA will not have been satisfied.

PFC

In 1991 the BLM initiated a program called "Riparian-Wetland Initiative for the 1990's" (See BLM/WO/GI-91/001+4340). This initiative called for achievement of four overarching goals:

- Restore and maintain riparian-wetland areas so that 75% or more are in proper functioning condition by 1997
- Protect riparian-wetland areas and associated uplands through proper management and to avoid or mitigate negative impacts
- Ensure an aggressive riparian-wetland information and outreach program
- Improve partnerships and cooperative restoration

Strategies to implement these goals include:

- Inventory and Classification to determine current status and potential
- Land Use and Activity Planning revisions describing actions needed to meet these objectives
- Monitoring to determine if management actions are meeting goals and objectives
- Avoiding or mitigating impacts on riparian-wetland areas

Little progress has been made in the 20 years since.

The RMP must address this poor performance and lay out an action plan to achieve the goals laid out in the BLM's "Riparian-Wetland Initiative for the 1990's".

We would like the reader to note that attaining PFC is only the lowest acceptable level. PFC is not a goal but the basis on which other resource goals are met. We request the BLM review its own manual, TR 1737-15, for a more complete description of what PFC is and is not. We especially direct the BLM's attention to page 16 of this manual for a very clear description of the fact that PFC is only the lowest basis on which all other values are built upon. As such, the RMP must delineate management objects that go far beyond PCF to include watershed health values, fisheries values, water quality values and wildlife values.

FUNDAMENTALS OF RANGELAND HEALTH

The RMP must include timelines and priorities for the completion and review of progress of the Fundamentals of Rangeland Health Standards and Guidelines assessments and determinations as required under the 4180 regulations.

We request that the BLM review the BLM Wyoming Office's January 1998 Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management - Implementation Plan. This Plan must be clearly incorporated into the RMP.

For further details on the implementation of the 4180 regulations, we request that the BLM review its 1/19/01 Manual Transmittal Sheet for H-4180-1 Rangeland Health Standards. We specifically bring the BLM's attention to its duties to make "significant progress" towards meeting Standards and Guidelines. The RMP must provide direction to achieve the Fundamentals of Rangeland Health and the Standards and Guidelines, and in those situations, of which there are many, where these are not being met, the RMP must provide sufficient direction that results in the required "significant progress".

The RMP must also provide feedback loops so that once Standards and Guidelines (S&G) evaluations are completed, that the BLM requires regular reviews to insure "significant progress" is being made. Currently, nearly all the S&G assessments in the Lander FO were done a decade ago, yet even the BLM itself admits there has been no "significant progress".

Correcting this situation is critical and fundamental to everything the BLM does.

LIVESTOCK SIZES, FORAGE CONSUMPTION AND THE AUM

The BLM can not just assume that an AUM is 800 lbs of forage consumption per month. The RMP/EIS must analyze the current and potentially available forage to satisfy the forage consumption by the number of livestock it currently permits or proposes to permit. It can not assume that the forage capacity determined 20-40 years ago is applicable today.

The Society for Range Management (SRM) in 1974 defined an Animal Unit *"to be one mature (1000 lb.) cow or the equivalent based upon average daily forage consumption of 26 lbs. dry matter per day."*[4]. SRM also defined an Animal Unit Month as *"The amount of feed or forage required by an animal-unit for one month."* NRCS defined the forage demand for a 1,000 pound cow as 26 pounds of oven-dry weight or 30 pounds air-dry weight of forage per day[5]. It is important to ensure that forage consumption rates by livestock are based on the size of animals present on the allotment and a reasoned estimate of their daily consumption rates. The following analysis provides some background and justifies a more current forage consumption rate for cow/calf pairs. It is BLM's obligation to ensure this forage is accurately accounted for as this is its fiduciary duty to the American People. Undercounting forage consumption by livestock results in undercharging for that forage. This is potentially defrauding the American public under the False Claims Act[6]

The University of Nevada Agricultural Experiment Station published a report on cattle production in 1943[7] (Brennan and Harris, 1943). That report analyzed 14 years of ranch operation for eleven ranches in northeastern Nevada. At that time, a mature cow was considered one unit and a branded calf or weaner as ½ cow unit, for a combined total of 1.5 cow units per cow/calf pair. Bulls were considered 1.5 cow units. For the period 1938 – 1940, the average turnoff weight (when they left the range) of mature cows was 959 pounds, calves were 381 pounds and bulls were 1222 pounds. This means that in the 1930's, a cow/calf pair was 1340 pounds. With breeding, supplements and hormones,

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[4] Society for Range Management. 1974. Glossary of terms used in range management.
[5] USDA. 1997. National Range and Pasture Handbook.
[6] Title 18 USC Section 1001.
[7] Brennan, C.A. and Fred B. Harris. 1943. Fourteen Years Cattle Production and Ranch Earning Power in Northeastern Nevada 1928 to 1941. University of Nevada Agricultural Experiment Station, Reno, Nevada.

weights have increased over time, for example, Anderson et al (ca 2000) calculated a 35% increase in dressed weights per animal between 1975 and 1995[8].

USDA market statistics[9] give the average weights of slaughter cattle for the week ending August 14, 2004 as 1251 pounds. The estimate for the same week in 2005 for slaughter cattle average weight was 1260 pounds. The USDA National Agricultural Statistics Service data for average live weight of cattle slaughtered in 2004 was 1242 pounds compared to 1187 pounds in 1995, or an increase of nearly 8.5% in those 10 years[10]. The Livestock Monitor is a newsletter produced by the North Dakota State University Extension Service Livestock Marketing Information Center in cooperation with USDA State Extension Services[11]. The Livestock Monitor shows for the week ending August 6, 2005, live weights of slaughter cattle averaged 1258 pounds.

The potential weights of mature cows can be even larger than these numbers. For example, NRCS in its National Range and Pasture Handbook, referenced above, defines body condition scores. A body condition score of 6 which is described as *"Good, smooth appearance throughout. Some fat deposits in brisket and over the tailhead. Ribs covered and back appears rounded."* This body condition score relates to a pregnancy percentage of 88%, which is important as a goal for cow/calf operations as dry cows are usually culled and replaced and the weight gain of calves is important for income. According to Dr. Larry W. Olson, Extension Animal Scientist at Clemson University, a medium frame cow in body condition score 6 could easily weigh 1300 – 1400 pounds[12].

Holechek et al (2001) summarized the weaning weights of calves grazed on various types of rangelands at different stocking rates[13]. The data for the period since 1990 produced an average weaning weight of 430 pounds and a range of 382 – 475 pounds. Ray et al (2004) gave a weaning weight of 480 pounds for calves. Using the current market statistics for slaughter cattle at about 1250 pounds and assuming a calf weight of 300 pounds to allow for weight gain during the grazing season, an estimate for the average weight of a cow/calf pair during the grazing season of 1,500 pounds seems reasonable.

As pointed out above, the NRCS used 26 lbs/day of oven dry weight for a 1,000 pound cow and stated this was equivalent to 30 pounds per day air-dry weight. The NRCS Range and Pasture Handbook value of 30 pounds air-dry weight would be 3% of body weight for a 1,000 pound cow. Applying this to the estimate of a current weight of 1,500 pounds for a cow/calf pair, the daily forage consumption would be 45 lbs of air-dry forage per day, or for a month (30.4 days), 1368 pounds of forage per AUM.

The forage needs for domestic sheep must also be determined. Based on current USDA published weights for ewes and lambs, adult domestic sheep weigh from 165 to 440 pounds,[14] and lambs about 129 pounds.[15] A low-end estimate of the weights of a sheep and

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[8] http://agecon.uwyo.edu/RiskMgt/marketrisk/TheCattleCycle.pdf
[9] http://www.ams.usda.gov/mnreports/SJ_LS712.txt
[10] http://www.usda.gov/nass/pubs/agr05/acro05.htm
[11] http://www.ag.ndsu.nodak.edu/aginfo/lsmkt/monitor.htm
[12] Email correspondence with Dr. Olson dated 8/18/05.
[13] Holechek, Jerry L., Rex D. Pieper and Carlton H. Herbel. 2001.Range Management: Principles and Practices, Fourth Edition. Prentice-Hall, New Jersey. 587p
[14] http://www.wildlifeprairiestatepark.org/animalpages/domestic_sheep.htm
[15] http://www.usda.gov/nass/pubs/agr04/04_ch7.pdf

two lambs grazing on these allotments would be 400 pounds (200 pounds for the ewe and 100 pounds each for two lambs). The forage consumption rate for sheep given in the 1964 R4 Range Analysis Handbook cited above was 3.3% of body weight per day consumed as air dry forage weight. Using these estimated weights of mature sheep (ewes) and lambs with two lambs per ewe and a total weight of 400 pounds would result in forage consumption of 13.2 pounds per day for each mature sheep with two lambs, or 6.6 pounds per day for a mature ewe weighing 200 pounds.

Forage consumption rates must be calculated based on the current weights and consumption rates of livestock in order to provide the forage needed for wildlife, plant community sustainability and watershed protection and to ensure the public trust is not violated by undercharging for the actual weights of cattle and calves grazed.

The current RMP authorizes a certain number of AUM's. However, that is based on an AUM equivalent to 800 lbs of forage per month. The most current information, reviewed above shows that number to be 1368 lbs/month per AUM. Therefore, if sufficient forage were available to satisfy all needs, the numbers of livestock grazed should be reduced to account for the increases in weight and correct the erroneous assumption that 800 lbs/month is an accurate consumption figure. Using the ratio between the current RMP's forage amount per AUM divided by the correct figure above, gives a needed reduction in permitted numbers and/or seasons of use of 42% to account for the RMP's understated forage consumption, without accounting for wildlife, plant and watershed needs.

CAPABILITY AND SUITABILITY ANALYSIS

The EIS can not just move forward allotment condition and use information from the current RMP to satisfy its NEPA, FLPMA, PRIA and APA requirements.

BLM RMP Planning Handbook Appendix C requires that lands available or not available for livestock grazing be determined by considering: other uses for the land; terrain characteristics; soil, vegetation and watershed characteristics; the presence of undesirable vegetation, including significant invasive weed infestations; and the presence of other resources that may require special management or protection, such as special status species, special recreation management areas (SRMAs), or ACECs.

Sec. 201. [43 U.S.C. 1711] states:

(c) In the development and revision of land use plans, the Secretary shall–

(1) use and observe the principles of multiple use and sustained yield set forth in this and other applicable law;

(2) use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences;

(3) give priority to the designation and protection of areas of critical environmental concern;

(4) rely, to the extent it is available, on the inventory of the public lands, their resources, and other values;

(5) consider present and potential uses of the public lands;

> (6) consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for realization of those values;
>
> (7) weigh long-term benefits to the public against short-term benefits;
>
> (8) provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans; …

Therefore, BLM must give priority to ACECs and the inventory must be current and reflect changes in conditions and identify new and emerging resources and other values. The revised RMP and the DEIS must show that the BLM identified the emerging issues of the public's increasing desire for wilderness values, unspoiled wildlife habitat, protected resources, and the value of public lands.

The BLM should approach ACECs in new ways. It is likely that the amount of up to date information available on the unique resources within the planning area is lacking. The public lacks the appropriate amount of information to make defensible ACEC nominations across the RMP area. Just over the past decade many issues have arisen that could and should call for designation of ACECs and appropriate management standards within them. The most logical method to approach ACECs is for BLM to develop the critical information in a draft RMP first, and then request ACEC nominations (after adequate information/data is developed).

There are also many new and changed circumstances related to key resources and uses of the land that were not even issues when the above documents were completed. It is clear that these new issues and increasingly rare biological and cultural resources would merit ACEC consideration, if the information upon which to base an ACEC existed.

With the sage grouse now warranted for listing under the ESA and with sage grouse populations suffering dramatic declines throughout North America, with breeding populations of this species declining by 17-47% throughout most of its range (Connelly et al. 2000; Connelly and Braun 1997), specific sage grouse ACEC's where conflicting uses are removed is an obvious path.

Since the entire Field Office area is currently grazed by domestic livestock, including any potential sage grouse ACEC, livestock suitability is one of the key factors that must be addressed and changed under the ACEC designation. We believe a sage grouse ACEC's that excludes cattle is appropriate for the Field Office area.

The goal of BLM's land management and its impacts to wildlife should be to achieve and maintain natural populations, population dynamics and population distributions. Management actions should be taken to protect and preserve the biodiversity, integrity and population viability of wildlife. BLM actions should preserve the integrity of wildlife corridors, migration routes, and access to key forage.

BLM should define specifically what, if any, animal damage control or predator control activities will be allowed and in what manner. The WWP opposes all animal damage control, predator control and wildlife services proposals made to date. The majority, if not all, of these types of activities are not appropriate and should not be allowed on public lands.

The status and distribution of wildlife populations and habitats should be defined and updated using the variety of data resources available. Management tools should include seasonal and visitor restrictions to prevent impacts to wildlife populations from increased use and recreation. BLM should develop a wildlife specific monitoring plan to monitor the status of wildlife populations and their habitat.

The BLM should establish goals, objectives, standards and limitations to ensure the protection of and recovery of threatened, endangered, sensitive and special status species. BLM should designate critical habitat for every endangered, sensitive, threatened and special status species. These habitat areas should be managed with the species survival and recovery as the highest and most valuable use. The BLM should look at all options for protecting activity centers through special status land designations, including, but not limited to, Areas of Critical Environmental Concern, Research Natural Areas, Outstanding Natural Areas, Wilderness Study Areas, Suitable Wild, Scenic and Recreational River miles, or other administrative designations.

Data is available on exact species occurrences and designating special management areas would help recover these rapidly declining species populations. BLM should also identify conflicts with species recovery and manage visitation and use by limiting activities and closing certain areas to prevent impacts to sensitive species.

The revision should insure protection of streams supporting native fish by including strong standards that mitigate and correct negative impacts. These standards must be more than stubble height requirements, utilization standards, and desired vegetative conditions. In this section, we would expect to find specific direction for maintaining biodiversity, restoring riparian functions, especially streams which are at an “at risk” or “non-functioning” condition, standards for specific species known to be rare or affected by past management practices, additional direction for management indicators, and more. These standards should prevent streambank trampling and shearing, and improve water quality from livestock sedimentation. On streams that are “at risk” or “non-functional,” there should be no livestock grazing at all. An additional standard for riparian areas should pertain to amphibians. We suggest the following:

- Avoid use of pesticides or herbicides that may affect breeding sites and occupied aquatic habitat.
- Avoid placing trails and roads in or adjacent to seeps, marshes and shallow-water areas.
- Prohibit stocking of non-native fish in areas that are suitable for amphibian breeding.
- Restrict dispersed recreational camping and livestock grazing and trailing on, or through, seasonally wet meadows.
- Prohibit livestock trailing through known amphibian breeding areas, particularly those few areas where the western toad is known to exist. The movement of domestic sheep can cause high mortality of recently metamorphosed toads.
- Protect known amphibian breeding sites by prohibiting harvest activities, road construction or livestock concentrated use and trailing within or directly adjacent to these areas.
- Avoid road construction or other management activities that will separate ponds, vernal pools, or marshes from permanent streams.

The BLM should develop a strategy to ensure that the appropriate quality and quantity of water resources are available for protection of resources through management of uses. A monitoring program should be developed and implemented, and BLM should pursue options for assuring water availability. Water developments should only be allowed here it is the only method to protect resources. New and additional water developments and diversions should be very limited. Existing water developments and diversions should be assessed for their overall impact on resources and should not be allowed to dewater springs, seeps or streams. BLM should remove or relocate water developments where they are causing harm and developments should not be allowed for the purpose of increasing livestock numbers.

One of the thorniest issues that the BLM has to consider is water quality of streams flowing through the lands it manages. The revision should provide a comprehensive plan for watershed analysis, restoration, monitoring, and adaptive management; particularly where livestock impact water quality; and to inventory, monitor and develop site-specific plans for riparian management, tailored to watershed needs as identified through these processes.

The RMP revision and EIS should list all the streams within its boundaries and provide a narrative on their current condition. It is likely that much of the data to do this does not exist. Absent relevant and representative data, even best management practices (BMPs) are suspect, because without understanding water quality it is difficult if not impossible to know whether or not BMPs will adequately protect water quality. Moreover, BMPs, where and when they do work, simply maintain water quality. BMPs do not improve water quality. The BLM should insure that the RMP revision promotes water and watershed improvement, and improves water quality.

No BLM action or plan would be complete without considering TMDL listing, status, and planning. Therefore state data and information are incorporated by reference with the specific request that the BLM insure that TMDL goals are met and water quality is not further degraded. Furthermore, the revision should include details of the actions the BLM intends to take relative to state listed Water Quality Limited Stream Segments. The EIS needs to include a thorough discussion of how the BLM intends to meet its legal obligations under the federal Clean Water Act, State Water Quality Standards and FLPMA requirements in managing water quality limited segments (WQLSs).

The BLM should also develop an expanded monitoring plan. Many activities on BLM lands degrade water quality but the BLM may not have a clear grasp on its waters' quality. This RMP revision and EIS must expand on other agencies' and individuals' monitoring efforts, to insure that no data-gaps exist on BLM lands.

Overall, the BLM must comply with the Clean Water Act. To this end, the BLM should look to required CWA reporting, such as 305(b) reports, the 303(d) list, and triennial reviews, and consider how high quality waters can be protected and how degraded waters can be improved. Additionally, the BLM should specially insure that anti-degradation provisions are met, and that principles of anti-degradation are applied to all facets of the RMP.

The RMP/EIS can not present livestock grazing as a given with little difference in AUM's between alternatives. This would not be a reasonable range of alternatives.

With current GIS technology, availability of soil surveys, and vegetation type information, developing a capability analysis is a relatively simple task.

Without balancing the currently available livestock AUM's with the physical and biological limitation of the land, the BLM avoids the most basic scientific principles which are aimed at providing for sustainable use without impairment. As a result of having no capability determination, combined with a realistic forage capacity determination, BLM cannot assure that sufficient forage exists to support the proposed livestock numbers and ignores the forage and habitat needs of wildlife and the need for nutrient cycling and soil protection provided by retaining plant matter to hold the soil and add nutrients.

A review of range science studies which we include as Appendix A, shows that forage for livestock should be allocated at conservative levels of about 25 - 30% utilization. This is necessary so that overgrazing does not place palatable, or preferred native species at risk of decline, prevents over grazing in dry years and provides forage and habitat for wildlife and watershed protection. As can be seen throughout the Lander FO, failure to adjust for topographic, soil and other limitation and apply conservative use principles has lead to severely degraded conditions including soil erosion, loss of native forage species and infestations of noxious weeds and invasives.

Grazing and rest requirements for key species of grass can be critical. Native cool-season perennial bunchgrasses can be very sensitive to defoliation and growing season use. For example, Anderson (1991)[16] stated in regards to bluebunch wheatgrass, *"Effects of growing season defoliation injury are well documented: basal area, stem numbers and both root and forage yields are reduced and mortality can be high. … Defoliation to very short stubble heights during the boot stage has been reported to essentially eliminate plants within as few as three years. … Vigor recovery has been found to require most of a decade, even with complete protection from grazing."* The author went on to describe experiments in which a single clipping of the grass during the growing season produced 43% less herbage and 95% fewer flower stalks the following year than unclipped plants. Under a deferred system in eastern Oregon, it was reported that bluebunch wheatgrass could not be maintained at 30 – 40% use in the boot stage (early June). A one time removal of 50% of the shoot system during active growth may require six years' rest even in an area with 17" precipitation.[17] Anderson (1991) also makes the point regarding bluebunch wheatgrass that, *"The belief that range improvement will occur after one or two years of rest following a single season of more than 'light' use during the growing season is erroneous."* Mueggler (1975) also determined that Idaho fescue of moderately low vigor required 3 years of rest for recovery and that plants of bluebunch wheatgrass and Idaho fescue in very low vigor may require 8 years and 6 years of rest, respectively for recovery. BLM failed to consider the recovery, growth and maintenance requirements for these sensitive native grasses.

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[16] Anderson, Loren D. 1991. Bluebunch wheatgrass defoliation, effects and recovery – A Review. BLM Technical Bulletin 91-2, Bureau of Land Management, Idaho State Office.
[17] Mueggler, W.F. 1975. Rate and pattern of vigor recovery in Idaho fescue and Bluebunch wheatgrass. Journal of Range Management 28(3):198-204.

A failure by the BLM in its RMP to analyze utilization, stocking rates and precipitation would be a failure to meet NEPA requirements for analysis. The failure to provide sustainable utilization rates for upland and riparian area herbaceous vegetation, aspen suckers and riparian shrubs and incorporate those into grazing permits as terms and conditions leaves management uncontrolled and subject to bias, violating FLPMA.

We provide in C_Grazing Capacity Info Proposed Outline, a scientifically and legally defensible methodology for determining capability and suitability of BLM lands for livestock grazing. We request the BLM incorporate this process into the RMP as well as the EIS alternatives.

SPECIAL STATUS SPECIES

The RMP must provide scientifically defensible and clear direction for the recovery and management ESA listed and BLM Sensitive Species. We provide a literature review on just a few of these species below.

BLM must ensure full compliance with BLM Manual MS-6840.06.E (Special Status Species Management). BLM Manual MS-6840.06.E requires that "protection provided by the policy for candidate species shall be used as the minimum level of protection for BLM sensitive species"—that is:

Consistent with existing laws, the BLM shall implement management plans that conserve candidate species and their habitats and shall ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for the species to become listed. BLM Manual MS-6840.06.C & .06.E. See BLM Manual MS-6840.06.C (1&3) (discussing BLM's responsibility to confer with U.S. Fish & Wildlife Service regarding individual species' needs).

BLM Manual MS-6840.06.C.2 imposes a series of additional substantive obligations on the BLM regarding candidate [and therefore sensitive] species management:

2. For candidate species [and sensitive species] where lands administered by the BLM or BLM authorized actions have a significant effect on their status, [the BLM shall] manage the habitat to conserve the species by:

    - Ensuring candidate [and BLM sensitive species] are appropriately considered in land use plans (BLM 1610 Planning Manual and Handbook, Appendix C).
    - Developing, cooperating with, and implementing range-wide or site-specific management plans, conservation strategies and assessments for candidate [and sensitive] species that include specific habitat and population management objectives designed for conservation, as well as management strategies necessary to meet those objectives.
    - Ensuring that BLM activities affecting the habitat of candidate [and sensitive] species are carried out in a manner that is consistent with the objectives for managing those species.
    - Monitoring populations and habitats of candidate [and sensitive] species to determine whether management objectives are being met.

Additionally, BLM must ensure compliance with BLM Manual MS¬6840.22. Provisions here require BLM to take a broad and proactive approach to special status species management, and in the context of planning require that, "Land use plans shall be sufficiently detailed to identify and resolve significant land use conflicts with special status species without deferring conflict resolution to implementation-level planning."

Sage Grouse Habitat Requirements: Several authors have reviewed and documented the biology and habitat requirements for sage grouse during their various life stages. These life stages include leks or breeding, nesting, brood-rearing and wintering.

Braun et al (1977)[18] in their review found that leks or breeding sites were generally open areas surrounded by sagebrush and that nesting areas appeared to occur within a few kilometers of the lek sites. The maximum distance between leks and nesting sites reported was 12.9 km, with 59% being within 3.2 km. Successful nest sites had significantly greater sagebrush canopy cover (27%) as opposed to unsuccessful sites at 20%. An important component of the nesting sites is also the cover provided by herbaceous vegetation, particularly grasses. Connelly et al (2000)[19] reported a range of grass height at nest sites between 14 – 34 inches and a mean of 20 inches with canopy cover of grasses ranging from 4 to 51% with a mean of 16%. During brood-rearing, grouse with chicks preferred more open sagebrush uplands at about 10% - 14% canopy, while loafing of adults occurred in stands with 30% canopy. Beginning in June and during mid-late summer, broods moved to more mesic sites such as meadows. Hockett (2002) stressed the importance of riparian and wet meadow sites during summer and fall. Wintering sites were reported to have greater than 20% sagebrush canopy cover.

Connelly et al (2000) summarized some general characteristics of sage grouse habitat in the following table

	Breeding		Brood-rearing		Winter[e]	
	Height (cm)	Canopy (%)	Height (cm)	Canopy (%)	Height (cm)	Canopy (%)
Mesic sites[a]						
Sagebrush	40–80	15–25	40–80	10–25	25–35	10–30
Grass–forb	>18[c]	≥25[d]	variable	>15	N/A	N/A
Arid sites[a]						
Sagebrush	30–80	15–25	40–80	10–25	25–35	10–30
Grass/forb	>18[c]	≥15	variable	>15	N/A	N/A
Area[b]	>80		>40		>80	

The sagebrush canopy characteristic for breeding habitats is reported as a broad range, but it is important to remember that successful nests occur in areas with canopy cover at the high end of the range or higher as cited above, so to set criteria in the RMP for ranges of sagebrush, grass or forb canopy less than optimum to justify vegetation treatments in order

[18] Braun, Clait E., Tim Britt and Richard O. Wallestad. 1977. Guidelines for maintenance of sage grouse habitats. Wildlife Society Bulletin 5(3):99-105.
[19] Connelly, John W., Michael A. Schroeder, Alan R. Sands, and Clait Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wildlife Society Bulletin 28(4):967-985.

to increase access to livestock forage while degrading sage grouse habitat is in opposition to the objective of maintaining or improving habitat for special status species.

Diets of sage grouse vary through the year and by age. Sage grouse depend entirely on sagebrush from October through April. In May, they shift to a forb-dominated diet (20 – 60%) with the remainder being mostly sagebrush. They shift back to sagebrush during September. Chicks begin life depending heavily on insects at about 60%, then shift to a forb dominated diet with about 15% sagebrush during the second month.

Braun et al (1977), Welch et al (1990)[20], Connelly et al (2000) report that spraying, burning and mechanical treatments of sagebrush resulted in declines of sage grouse. Other activities such as construction of roads, power lines, fences, reservoirs, ranches, farms and housing developments have resulted in sage grouse habitat fragmentation and loss. Structures such as fences and power lines provide perch sites for raptors that prey on sage grouse and also result in injury or death when grouse collide with these. RMP proposals for massive vegetation treatments, power lines, land disposals and other habitat fragmenting activities across most of the Pocatello Resource Area must be recognized in their outcomes which are counter to the objective of maintaining and improving habitat for sage grouse. Also ignored is the research showing that sage grouse have high seasonal fidelity to seasonal ranges and females return to the same area to nest each year[21].

Beck and Mitchell (2000) and Hockett (2002) reviewed the effects of livestock grazing on sage grouse. Livestock, by consuming herbaceous vegetation and reducing grass cover needed to conceal grouse nests from predation, reduce grouse production. Ground squirrels favored by high levels of grazing, combined with drought conditions account for significant nest predation. The depletion of forbs and loss of associated insects can directly impact chick survival [28,22]. Mattise (1995)[23] noted that *"we have poor strategies for protecting important brood rearing habitat during severe drought conditions. Riparian areas, springs and seeps are not being managed to provide vegetative recovery and enhancement."*

Rich (1985)[24] reviewed historical studies of sage grouse populations from 32 years of monitoring in southern Idaho and northwestern Utah. He concluded that sage grouse experience cyclic population patterns with 10 year highs. Mitchell and Maxfield (2001) analyzed results of lek counts in Utah from 1967 through 2000. They found a decreasing trend in numbers of males per lek site, and their data clearly shows a 10 year cycle of peaks and valleys[25]. The last valley was found in 1996 with an uptrend through 2000. It is important to reflect on these possible trends when analyzing results for short periods. Rich (1985)[31] states, *"evaluations of grouse population responses to habitat changes are*

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[20] Welch, Bruce L., Fred J. Wagstaff and Richard L. Williams. 1990. Sage grouse status and recovery plan for Strawberry Valley, Utah. USDA Forest Service Intermountain Research Station Research Paper INT-430

[21] Hockett, Glenn A. 2002. Livestock impacts on the herbaceous components of sage grouse habitat: a review. Intermountain Journal of Science 8(2):105-114.

[22] Beck, Jeffrey L. and Dean L. Mitchell. 2000. Influences of livestock grazing on sage grouse habitat. Wildlife Society Bulletin 28(4):993-1002.

[23] Mattise, Samuel N. 1995. Sage grouse in Idaho: Forum '94. Idaho BLM Technical Bulletin 95-15. 10p.

[24] Rich, Terrell. 1985. Sage grouse population fluctuations: evidence for a 10-year cycle. Idaho BLM Technical Bulletin 85-1. 20p.

[25] Maxfield, Brian D. and Dean L. Mitchell. 2001. Sage grouse in Utah. Utah Division of Wildlife Resources. 10p.

critically dependent on understanding the long-term population dynamics of the species, especially where such evaluations may be done over a period of a few years." He concludes that *"Ten years data may be required to even begin an adequate definition of just the breeding habitat of a population."*

The following bullet points are extracted from the publications by Braun, Connelly and Welch cited above:

- Sagebrush eradication should not be practiced. Treatments can be used to thin dense sagebrush stands to a range of sagebrush cover from 15% to 25%. Burns should be avoided in xeric Wyoming big sagebrush habitats). Only small burns to create mosaics in mountain big sagebrush should be contemplated and these are considered experimental.
- Rehabilitation following wildfire or other disturbances should focus on re-establishing sagebrush and native herbaceous plants. Annual grass establishment following fire is detrimental. Grazing should not be allowed on seeded areas until plant recruitment has occurred.
- Range seedings should focus on establishing forbs, native grasses and sagebrush. Monoculture seedings of crested wheatgrass and other non-natives are discouraged.
- Applying insecticides to summer habitat is not recommended.
- Livestock use around water sources and wet meadows in brood rearing areas should be regulated through fencing or other management to restrict overuse.
- Grazing practices should be adjusted to maintain residual grass growth essential for nest concealment and then delay grazing the same areas until after nesting.
- Plot sage grouse use areas including leks, nesting areas, wintering sites, meadows and summer range or brooding areas on maps.
- No sagebrush will be treated or removed until a comprehensive plan has been formulated for management of the area.
- Sagebrush control projects will include provisions for long-term quantitative measurement of vegetation before and after to determine effects on habitat and whether objectives were met.
- No sagebrush control projects will be done on areas where live cover is less than 20%, on steep slopes or upper slopes with skeletal soils where big sagebrush is less than 30 cm.
- No sagebrush control should occur along streams, meadows or intermittent drainages. A 100 meter strip of live sagebrush should be left on each edge of meadows and drainages.
- When sagebrush control is found to be unavoidable, treatment measures should be applied in irregular patterns using topography and other ecological considerations. Widths of treated and untreated areas can vary except treated areas will not be wider than 30 meters and untreated areas will be at least as wide.
- Manage breeding habitats to support 15 – 25% canopy cover of big sagebrush, perennial herbaceous cover ≥18 cm in height with ≥ 15% canopy cover of grasses and ≥ 10% canopy cover of forbs.
- Most recently, Braun, Connelly and Shroeder (2005)[26] have published more specific information defining seasonal habitat needs of sage grouse and Clait Braun

[26] Braun, Clait E., John W. Connelly, and Michael A. Shroeder. 2005. Seasonal Habitat Requirements for Sage Grouse, Summer, Fall and Winter. USDA RMRS-P-38.

has published detailed management recommendations including livestock grazing utilization levels and management[27].

Partners in Flight (Paige and Ritter, 1999)[28] provide management recommendations for sage grouse and migratory birds obligate to sagebrush-steppe. These include:

- Identify and protect those habitats that still have a thriving community of native understory and sagebrush plants.
- Maintain large, continuous blocks of unfragmented habitat
- Maintain seeps, springs, wet meadows and riparian vegetation in a healthy state
- Avoid practices that convert sagebrush to non-native grassland or farm land.
- Maintain stands of sagebrush for a balance between shrub and perennial grass cover.
- In large disturbed areas, sagebrush and perennial grasses may need to be reseeded to shorten recovery time.
- To maintain bluebunch wheatgrass vigor, avoid grazing during the growing season until plants begin to cure. Bluebunch wheatgrass is especially sensitive to heavy grazing during the growing season. Recovery of these plants following heavy grazing during a single spring can require 8 years under the best management and environmental conditions.
- Grazing plans will depend on the current condition and plant composition of the area. Defer grazing until after crucial growth periods. Note that in the presence of cheatgrass, deferred grazing can favor the cheatgrass.
- For sage grouse maintain average grass height of at least 18 cm in May and early June. Sharp-tailed grouse require 20 cm.
- Consider livestock exclusion from heavily damaged areas, particularly wet sites.
- Livestock concentrations around water developments can increase cowbird parasitism.
- Use fences with smooth top and bottom wires for exclosures around wet sites.

Miller and Eddleman (2000)[29] also provide an excellent review of sage grouse ecology, habitat and management. They emphasize that sage grouse habitat management plans must take into account landscape heterogeneity, site potential, site condition and habitat needs of sage grouse during different parts of their life cycle (breeding, nesting, brood rearing, wintering). They also stress the importance of accurate resource inventories and assessments before making management decisions as to when and how each community across the landscape should be managed. Grazing management plans must identify potential conflicts between sage grouse and livestock.

Migratory Birds: Woodyard et al (2003) conducted bird censuses along an elevational gradient in east-central Nevada. These censuses were conducted in study plots monitored in 1981 and 1982 by Dean E. Medin and found fewer species and total numbers of birds

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[27] Braun, Clait E. 2006. A Blueprint for Sage Grouse Conservation and Recovery. Grouse, Inc. May, 2006.
[28] Page, Christine and Sharon A. Ritter. 1999. Birds in a Sagebrush Sea: Managing Sagebrush Habitats for Bird Communities. Partners in Flight, Western Working Group. 47p.

[29] Miller, Richard F. and Lee L. Eddleman. 2000. Spatial and Temporal Changes of Sage Grouse Habitat in the Sagebrush Biome. Oregon State University Agricultural Experiment Station Technical Bulletin 151. 35p

(62% less)[30]. Parrish et al (2002)[31] also describe the declines in these birds due to a variety of factors relating to habitat. They provide descriptions of the birds in Utah most in need of conservation and describe their habitat requirements, threats and management considerations. They discuss habitats most in need of conservation. Habitats such as shrub-steppe occurring in the Pocatello Resource Area are described as in need of protection. Medin et al (2000) provide a discussion of bird-habitat relationships for the Great Basin that provide insight into the habitats that occur in the Pocatello Resource Area and their relationships to these birds. Many of these birds are dependent on riparian areas[32].

Paige and Ritter (1999) cite population declines of 63% and 70% in shrub dependent and grassland bird species during the last 30 years across the U.S. In the Intermountain West, more than 50% of shrub- and grassland species show downward trends with sagebrush steppe as the highest priority for conservation based on trends for habitat and bird populations[35]. They provide detailed descriptions of the history, characteristics and management of these systems with management recommendations. They note that cattle grazing in sagebrush steppe first select grasses and forbs and avoid browsing on sagebrush. In addition, even light grazing can put pressure on the herbaceous plants favored by livestock and intensive spring grazing prevents bunchgrasses from reproducing, eventually eliminating the palatable native bunchgrasses. They also discuss the response time for recovery of these systems and parasitism by cowbirds, a significant factor in decline of songbirds in some areas.

Taylor (1986) evaluated the effects of cattle grazing on birds nesting in riparian habitats[33]. He found that increased grazing resulted in decreases shrub volume and density and decreased bird abundance. *"The longer the time since a transect was last grazed correlated significantly with increases in bird abundance, shrub volume and shrub height"*. Bird species decreased with increased grazing, bird counts were 5 to 7 times higher on an area ungrazed since 1940 than on 2 areas grazed annually until 1980 and 11 to 13 times higher on a transect that was severely disturbed.

Krueper et al (2003) studied the changes in vegetation and breeding birds in the San Pedro River, Arizona following removal of cattle in 1987[34]. Birds were monitored for five years. Mean numbers detected along riparian transects increased by 23% per year or from 103/km in 1986 to 221/km in 1992. Earnst et al (2004) compared songbird abundance in 2000-2001 to that in 1991-1993, following cattle removal from the Sheldon National Wildlife

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[30] Woodyard, John, Melissa Renfro, Bruce L. Welch and Kristina Heister. 2003. A 20-year recount of bird populations along a Great Basin elevational gradient. USDA Forest Service Rocky Mountain Research Station Research Paper RMRS-RP-43.

[31] Parrish, Jimmie R., Frank Howe and Russell Norvell. 2002. Utah Partners in Flight Avian Conservation Strategy Version 2.0. Utah Division of Wildlife Publication No. 02-27. 305p.

[32] Medin, Dean E., Bruce L. Welch and Warren P. Clary. 2000. Bird habitat relationships along a Great Basin elevational gradient. USDA Forest Service Rocky Mountain Research Station Research Paper RMRS-RP-23. 22p.

[33] Taylor, Daniel M. 1986. Effects of cattle grazing on passerine birds nesting in riparian habitat. Journal of Range Management 39(3):254-258.

[34] Krueper, David, Jonathan Bart and Terrell D. Rich. 2003. Response of vegetation and breeding birds to the removal of cattle on the San Pedro River, Arizona (U.S.A.). Conservation Biology 17(2):607-615.

Refuge in 1990[35]. Of 51 species for which abundances were sufficient to calculate changes, 71% exhibited a positive trend. Detections of ground/low cup and high cup nesting species, ground/understory foraging species, aerial and overstory foraging species increased significantly.

Rich (2002) evaluated the ability of riparian PFC assessments as employed by BLM and noted that they lacked the ability to incorporate assessment of land breeding bird communities[36]. He constructed a list of riparian-obligate birds that should occur on the site during the breeding season and used that to score the site based on the percent of those occurring there.

The RMP/EIS must review the habitat requirements for migrant birds, the effects of livestock grazing at the permitted numbers in combination with all other habitat altering management proposed and provide prescriptions that will assure migrant birds and their habitat improve.

Pygmy Rabbits: While acknowledging the pygmy rabbit is in decline throughout the West, the BLM must describe current populations or the habitats required by pygmy rabbits. The RMP/EIS must described past management actions that have resulted in this decline and offered corrective actions to restore pygmy rabbits.

Welch (2004, in press)[37] reports his research in which he walked 300 miles in pygmy rabbit habitat, covering areas where pygmy rabbits were previously reported. In 37 stands of big sagebrush in northern Utah, he found 11 pygmy rabbits, with 8 occurring in a single stand of sagebrush. Out of 11 sites previously reported as supporting pygmy rabbits, he found no signs of occupancy with only four sites now having suitable habitat.

Suitable habitat consisted of big sagebrush with ≥ 20% canopy cover and ≥ 22 inches in height. He reported on significant deterioration and loss of habitat for pygmy rabbits through conversion of sagebrush stands to agriculture and treatments designed to improve forage conditions for livestock by reducing sagebrush cover. In his literature review, he provides some additional parameters describing wintering habitat for pygmy rabbits. The research showed the areas of highest winter use were in basin big sagebrush with canopy cover of 51%, compared to areas with moderate use having 42.7% canopy and low use in 38.6% canopy. Diets consist of 99% sagebrush in winter and 51% during summer with the remainder being herbaceous vegetation. DOI (2001)[38] summarizes additional diet characteristics for pygmy rabbits. In particular, they were reported to rely on 39% grasses such as native Agropyron species and 10% forbs. Other characteristics described in both

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[35] Earnst, Susan L., Jennifer A. Ballard, and David S. Dobkin. 2004. Riparian songbird abundance a decade after cattle removal on Hart Mountain and Sheldon National Wildlife Refuges. USDA Forest Service PSW-GTR-191.

[36] Rich, Terrell D. 2002. Using breeding land birds in the assessment of western riparian systems. Wildlife Society Bulletin 30(4):1128-1139.

[37] Welch, Bruce L. 2004. A Three Hundred Mile Search Afoot for Pygmy Rabbits. USDA Forest Service Rocky Mountain Research Station Research Paper in draft.

[38] DOI. 2001. Endangered and Threatened Wildlife and Plants; Emergency Rule to List the Columbia Basin Distinct Population Segment of the Pygmy Rabbit (Brachylagus idahoensis) as Endangered. Federal Register 66(231):59734-59749.

references include descriptions of soil conditions amenable to burrowing, such as deep soils.

The RMP must research pygmy rabbit habitat requirements and map potential pygmy rabbit habitat, describe its current condition and the causes of that condition. Then, the RMP must provide numeric criteria describing desired conditions of this habitat and place it off limits to surface disturbing activities or surface occupancy and limit livestock grazing by setting conservative utilization levels, providing rest to restore grasses and forbs needed to provide the necessary herbaceous forage during spring, summer and fall, and not impose the minimal sagebrush cover guidelines it has cited for sage grouse.

CURRENT RMP PERFORMANCE AND ACCOMPLISHMENTS

In order to comply with NEPA and the APA, the BLM must conduct a thorough review of the performance and accomplishments of the current RMP as well as the validity and accuracy of the current RMP's NEPA documents. Further, the BLM must analyze how effectively the RMP and ROD have been implemented, what goals and objective have been met and why aspects of the RMP and ROD were not implemented or not implemented effectively.

Such analyses must form the foundation for any RMP revision. Such analyses are fundamental not only compliance with the law by basic management principles.

ECONOMIC ANALYSIS

The RMP/EIS must adequately and honestly analyze the economic impacts of livestock grazing on BLM lands. The BLM has pandered to "lifestyles" for ranchers while ignoring the actual contribution of the livestock grazed to the local and regional economy or the economic impacts of the land degradation that takes place from livestock grazing. The Fish and Wildlife Service publishes reports on the value of wildlife-associated recreation that shows values of hundreds of millions of dollars to billions of dollars of revenue related to hunting, fishing and wildlife watching in each western state[39]. In addition, the cost of polluted water, loss of watershed storage due to soil compaction and loss of herbaceous cover are not counted in the costs of livestock grazing. As the reference below shows, in actuality, rural communities as well as livestock permittees depend on other sources of income. Laws require that public lands be administered in the long-term interests of the American people and not a handful of stockmen, who are permittees, on the public lands.

Livestock permittees are a small minority of livestock producers in the eleven western states and are insignificant in their numbers or their economic contribution to the States, their local and regional economies. Their numbers and contribution pale in comparison to the natural values of our public lands. Dr. Thomas Power, Chairman of the University of Montana's Economics Department, in Wuerthner and Matteson (2002)[40] points out the

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[39] U.S. Department of Interior, U.S. Fish and Wildlife Service, U.S. Department of Commerce and U. S. Census Bureau. 2002. 2001 National Survey of Fishing, Hunting and Wildlife-Watching Associated Recreation. 170 p.

[40] Wuerthner, George and Mollie Matteson. 2002. Welfare ranching: the subsidized destruction of the west. Island Press.

minimal economic contribution of federal public lands livestock grazing to local, state and regional economies in the West. That reference can be found on-line at:

http://www.publiclandsranching.org/htmlres/PDF/wr_TAKING_STOCK.pdf

Dr. Power also points out that the majority of public lands livestock producers depend on non-agricultural sectors of these local, state and regional economies for employment, not livestock production. It is not in the public's interest to blindly continue livestock grazing at unsustainable stocking levels in order to provide a short-term benefit to this small minority, while ignoring the values displaced by livestock grazing.

Dr. Power shows that *"Livestock grazing on federal lands is generally unimportant to local economies and even less so to state and regional economies. In terms of income and numbers of jobs provided, the contribution of federal lands grazing is less than 0.1% across the West. Farm and ranch operations are increasingly reliant on non-farm income sources to be financially feasible, while livestock grazing competes with other uses of public lands – such as clean water, recreation, wildlife habitat – that contribute to the ongoing vitality of western economies."*

In his analysis of the economies of individual rural counties, Dr. Power showed that federal lands grazing does not contribute significantly to those economies across the west. In fact, given the high percentage of ranching families that have jobs, either full or part time outside the ranch (60 – 70%), it is ranchers that depend on the other economic sectors for their ability to persist, not federal grazing. Dr. Power states, *"It is not that towns depend on agriculture, but that agriculture increasingly depends on the vitality of urban and nonagricultural rural economies to provide the nonfarm income that keeps farm operations alive."*

Dr. Power states that claims about the relative importance of federal grazing to the economies of western states can be analyzed by answering these questions:

1. "What portion of the value produced by cattle and sheep operations is associated with feed used?
2. What portion of the feed for those cattle and sheep operations comes from grazing on federal lands?
3. What portion of the total agricultural activity involves raising cattle and sheep?
4. What part of the total economy is represented by agriculture?"

The RMP Economic analyses should include consideration of this information and the following:

- costs of administration
- costs of installation and maintenance of range improvements borne by the BLM and/or funded by county range improvement funds
- grazing fees collected and their distribution to various entities
- grazing fees collected and net return to the Forest Service and the American people, and separate out the dollars returned to grazing permittees and local counties.

- value of livestock grazing gross revenue to the permittee at current market rates
- value of wildlife-associated recreation (DOI 2002)
- loss in value of wildlife associated recreation to livestock grazing by using equivalent AUMS consumed by livestock as applied to wildlife needs (AUMs) and economic benefits
- cost of soil erosion and loss of groundwater recharge and streamflow
- cost of water pollution
- the net contribution of the individual livestock operations under consideration to the county and regional economy
- compare the individual livestock operation in dollars and jobs to the local, state and regional economy and report what percentage this allotment comprises of this total
- compare these various economic values with other economic and employment sectors at those local, state and regional levels.

BEDROCK ISSUES

The RMP and EIS must consider the bedrock management principles that direct all activities on BLM lands. FLPMA is one of these key bedrock laws. FLMPA requires the BLM to manage public lands under the principle of multiple use and sustained yield.

The definition of multiple use in FLPMA is long, but key provisions include the following:

- Public lands and their resource values must be managed so that they "best meet the present and future needs of the American people;"
- It is appropriate that some land be used "for less than all of the resources;"
- There must be harmonious and coordinated resource management that is done "without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or greatest unit output."

  43 U.S.C. § 1702(c)

Sustained yield as defined in FLPMA can be achieved either by "high-level annual" or "regular periodic" output of resources, so long as this is accomplished in a way that can be maintained in perpetuity and is consistent with the definition of multiple use. 43 U.S.C. §1702(h).

These definitions give substance to the requirement that land use plans and resulting management actions are to use and observe multiple use and sustained yield principles. The purpose of this planning process must be to produce a plan that "best" meets the present and future needs of the American people. The RMP cannot adequately meet these needs, or generally meet these needs, or largely meet these needs, it must "best" meet them. FLPMA explicitly requires that what is "best" must be viewed from the perspective of the present and the future and all alternatives, including the proposed action, must be designed to satisfy this requirement. What is best now may not meet future needs, and since future needs may be unknown in some respects, the only way to "best" insure that future needs are met is to develop and select alternatives that have a large built in margin of safety. To

achieve a large built in margin of safety the plan should emphasize resource and ecosystem protection, which will best ensure that future options are retained.

Furthermore, what is "best" must be determined with reference to the needs of the American people as a whole, not a small subset of the American people. FLPMA explicitly provides that the plan that is developed need not accommodate all resource uses on all lands. This provision has special significance relative to grazing, oil and gas leasing, exploration, and development because too often essentially all lands are made available by the BLM for oil and gas extraction. By this legally required measure, rare, unique, and sensitive native species have a relative value far in excess of more common or easily replaced public land resources, or resources that can be provided from other lands. The same is true of many other resources, such as cultural and wilderness resources. Accordingly, the alternative plans that are developed, and particularly the preferred alternative, must give special emphasis to protecting and providing for relatively rare resources.

The FLPMA Section 1702(c) permanent impairment and Section 1732(b) prevention of unnecessary or undue degradation provisions are extremely important. They must inform and be the basis of all RMP direction.

The BLM must base its management decisions upon inventories of the resources that occur on the public lands. The BLM must structure a comprehensive inventory program to inform the RMP process. This is a crucial and frequently overlooked aspect of the planning process.

The EIS and RMP must also address CWA compliance, including monitoring, anti-degradation and Class I waters issues. We are attaching a letter by Raymond Corning discussing some of these issues.

ECONOMICS

The Revised RMP should also contain a complete and unbiased economic analysis of livestock grazing, including the income to the federal government and counties of permitting grazing on allotments within the planning area and an accurate and thorough breakdown of costs of administering livestock grazing in the planning area. Costs should include restoration of habitats, monitoring, fence maintenance, and administrative and planning expenses. The costs of livestock grazing in terms of loss in ecological services should be analyzed. Ecological services compromised by livestock grazing include watershed function as a result of reduced ground cover, soil compaction and loss of infiltration capacity and water storage, soil erosion, loss of forage and habitat for native species. The forage consumed by livestock must be valued in terms of the value of deer and other wildlife species displaced, the loss of hunting and wildlife watching opportunities Further, in terms of the value of livestock grazing itself, Dr. Thomas Power (Power 2002) has developed questions that allow a determination of the significance of forage used on public lands to the economy as a whole. These are:

5. "What portion of the value produced by cattle and sheep operations is associated with feed used?

6. What portion of the feed for those cattle and sheep operations comes from grazing on federal lands?
7. What portion of the total agricultural activity involves raising cattle and sheep?
8. What part of the total economy is represented by agriculture."

The following references provide insight into non-market or ecosystem service valuations of natural resources: (1) Daily, Gretchen C and Katherine Ellison. 2002. The New Economy of Nature; (2) Committee on Assessing and Valuing the Services of Aquatic and Related Terrestrial Ecosystems, National Research Council. 2004.*Valuing Ecosystem Services: Toward Better Environmental Decisionmaking.* Washington DC: National Academies Press; (3) Loomis, John., Paula Kent, Liz Strange, Kurt Fausch, and Alan Covich. Measuring the Total Economic Value of Restoring Ecosystem Services in an Impaired River Basin: Results from a Contingent Valuation Survey. *Ecological Economics.* 33, pp. 103-117. 2000. (4) Loomis, John. Environmental Valuation Techniques in Water Resource Decision Making. *Journal of Water Resources Planning and Management,* Vol. 126, No. 6, pp. 339-344. November/December 2000.

RESOURCES

Attached we provide a range of information we request the BLM to review and provide analysis of in the EIS and move into management direction in the RMP. If the BLM feels that any of the information supplied is not applicable to the RMP planning process, we request the BLM to supply rationale in the EIS to justify that decision. Without such justification the BLM will not be complying with NEPA and the APA.

We also request the BLM to review its own analyses, management and monitoring direction contained in:

BLM Application of Environmental Laws, September 1995

BLM TR 1734-6 Interpreting Indicators of Rangeland Health

BLM TR 1737-20 Grazing Management Processes and Strategies for Riparian-Wetland Areas

BLM TR 1737-17 A Guide to Managing, Restoring and Conserving Springs in the Western United States

USDA FS RMRS-GTR-160 Survey Responses From the Intermountain West: Are we Achieving the Public's Objectives for Forests and Rangelands

US EPA Managing Change – Livestock Grazing on Western Riparian Areas, 1993

USDA FS Research Paper INT-RP-492 Response of a Depleted Sagebrush Steppe Riparian System to Grazing Control and Woody Plantings, 1996

USDA FS Research Paper INT-425 Bird and Small Mammal Populations in a Grazed and Ungrazed Riparian Habitat in Idaho, 1990

Montana BLM Riparian Technical Bulletin #3 Effective Cattle Management in Riparian Zones – A Field Survey and Literature Review

Montana BLM Riparian Technical Bulletin #4 Successful Strategies for Grazing Cattle in Riparian Zones, 1998

BLM TR 1737-14 Grazing Management for Riparian Wetland Areas, 1997

BLM TR 1730-2 Biological Soil Crusts: Ecology and Management, 2001

BLM TR 1737-3 Inventory and Monitoring of Riparian Areas, 1989

USDA FS PNW-GTR-361 Role of Nonmarket Economic Values in Benefit-Cost Analysis of Public Forest Management, 1996

USDA FS RMRS-GTR-47 Monitoring the Vegetation Resources in Riparian Areas

USDA FS RMRS-GTR-121 Guide to Effective Monitoring of Aquatic and Riparian Resources

USDA FS RMRS-RP-40 Counter Misinformation Concerning Big Sagebrush, 2003

USDA FS RMRS-GTR-141 Big Sagebrush: A Sea Fragmented into Lakes, Ponds and Puddles, 2005

We incorporate by reference all of the above and request that the BLM analyze each of them and add these to the administrative record.

CONCLUSION:

The current RMP revision must eschew BLM's traditional faith-based, politics-based management in order to fulfill the BLM's mandate for accelerated restoration, sustainable management and protection of values and resources. Recent reports by the Interior Departments' Inspector General regarding Endangered Species Act listings show political manipulation and abandonment of objective science. Similarly, during the recent preparation of BLM's revised grazing regulations, BLM scientists spoke out about their science being suppressed or altered to change the meaning of their conclusions. BLM must restore integrity to the process and demonstrate an ability to enforce, monitor and manage uses, otherwise those activities that can't be monitored or managed must be ended.

Prior to embarking on this RMP revision, the BLM should review the Standards of Ethical Conduct for Federal Employees[41] that are based on Executive Order 12674, as amended by Executive Order 12731. In particular, three of the broad principles I believe apply here are:

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[41] http://www.usdoj.gov/jmd/ethics/generalf.htm

"(1) Public service is a public trust, requiring employees to place loyalty to the Constitution, the laws and ethical principles above private gain.

(5) Employees shall put forth honest effort in the performance of their duties.

(8) Employees shall act impartially and not give preferential treatment to any private organization or individual."

Just because the BLM will be outsourcing much of this process does not mean it has any less legal or ethical responsibilities to the American people. I bring this up because, after years of working on livestock grazing and other issues on public lands and, with other WWP staff, having reviewed EAs and EISs on hundreds of grazing allotments and other projects, it is my belief that these documents are used to justify decisions that are already made and basically constitute a "shell game" in which evident degradation by livestock is explained away in every case due to some other cause even though livestock grazing is widely recognized in the scientific literature as a cause of degradation to riparian areas, water quality, plant communities, soils and wildlife. I cannot recall a single instance in all these cases, no matter how serious the environmental degradation, when the agency (Forest Service or BLM) performed an objective, science-based monitoring and analysis process directed at making an objective and logical decision concerning livestock grazing. Invariably, the decisions arrived at through these NEPA documents have amounted to a continuation of the status quo with at best, cosmetic changes that make little or no difference on the ground. It is time for BLM to demonstrate to the public that it will engage in an honest, objective process in order to restore the public trust.

We would like to schedule a meeting with you and your staff once they have had a chance to review our input, so that we can discuss details and how this information will be incorporated into the EIS and RMP. Please let me know when would be a good time.

Sincerely yours,

Jonathan B Ratner
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