

**A History of The Arizona BLM Resource Advisory
Council's Role in Developing and Implementing
Standards for Rangeland Health and
Guidelines for Grazing Administration**

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March 6, 2008

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Introduction

This report, prepared by the Arizona BLM Resource Advisory Council, March 2008, summarizes the history of the Arizona Resource Advisory Council, (hereafter referred to as the "RAC") in developing and applying standards for rangeland health and guidelines for grazing administration on BLM lands in the state of Arizona. It is a synopsis of RAC activities and accomplishments since its inception in 1995. The aim of the report is to provide a historical perspective that will be relevant and useful to current RAC members, BLM staff and land managers, public officials, and citizens who volunteer to serve on Rangeland Resource Teams in Arizona.

The purpose of the standards and guidelines at Title 43 Code of Federal Regulations (CFR) § 4180 is to provide a measure (Standard) to determine land health, and methods (guidelines) to improve the health of the public rangelands. Success will be measured in concrete outcomes on BLM lands. BLM's job is to maintain the health of the land or make appropriate changes on the ground where land health standards are not being achieved. The standards are intended to help the BLM, public land users and others focus on a common understanding of acceptable resource conditions and the guidelines provide a basis for working together to achieve that vision. The standards are used to communicate current and desired resource conditions amongst various groups, and guidelines are used to describe or communicate techniques for managing activities to achieve those desired conditions.

Most of this report is a condensed version of a professional paper written and presented by Dr. E. Lamar Smith on February 15, 2007, at The Society for Range Management's annual meeting in Reno, Nevada. Dr. Smith was a charter member of the first RAC and the second chair (after Dr. Phil Ogden) of the Standards and Guidelines working group, a sub committee of the RAC. This report summarizes key points contained in Dr. Smith's more detailed professional paper. For a more comprehensive accounting of this subject, we refer interested parties to Dr. Smith's paper (available upon request). Glen Collins and Frances Werner (Charter RAC members), and Bill Coulloudon (State Range Program Leader, Arizona BLM), have made many constructive comments and additions to this document which have contributed to the document's institutional wisdom. We credit the original RAC members and the BLM State Office Renewable Resource Staff for their groundbreaking work (Appendix 1).

Background

Bureau of Land Management lands are multiple use lands and managing for rangeland health is a primary consideration. New grazing regulations were proposed by the Secretary of Interior in 1994 (aka "Range Reform"). These new regulations were aimed at making sure that the continued health of the land was a primary concern. On December 30, 1994, the Department of Interior published in the Federal Register a notice of availability of the Final Environmental Impact Statement (FEIS). The "Range Reform" regulations went into effect in 1995.

Included in the final 1995 regulations were provisions to develop state and regional standards for rangeland health (standards) and guidelines for grazing administration within 18 months. In addition, the 1995 regulations required the establishment of Resource Advisory Councils (RACs) to assist BLM with the task of developing standards and guidelines that were to be used when grazing permits came up for renewal. Soon after the regulations were finalized in 1995 it became BLM policy to complete land health assessments on all public lands and/or grazing allotments. In 1999, it became BLM policy to use the land health assessment process to augment the environmental impact analysis to meet the NEPA requirements before grazing permits came up for renewal.

Arizona RAC

State Resource Advisory Councils were set up under provisions in the new (1995) regulations which amended the grazing regulations and the regulations on cooperative relations to reflect changes in the organization of certain advisory committees. The members, appointed by the Secretary of the Interior, represent various interest groups in three broad categories, Commodity, Non-Commodity and Public Interest. The Arizona RAC, under its charter, was to "assist the State Director in identifying the geographic area for which standards and guidelines will be developed and with the development and amending of standards and guidelines as necessary".

The new grazing regulations called for state RACs to provide local input to BLM based on membership representing different public interests. District Advisory Boards¹ were replaced by state RACs for the stated purpose of providing local input. A proposal for local standards and guidelines (S&G's²) was added to the regulations after rangeland scientists were critical of the national standards and procedures that were originally proposed to evaluate rangeland health. National standards were described and listed in the new regulations as "fallback standards." The new regulations specified that RACs would work with BLM in each state or region to develop their own set of range health standards to fit local conditions and management practices for approval

¹ The Federal Advisory Committee Act Regulations amended in 1995, established and defined the composition, roles and functions of Resource Advisory Councils and sub-groups. District Grazing Advisory Boards were replaced by state RACs for the stated purpose of providing local input. District Grazing advisory boards served a useful purpose in providing the Department with valuable input from permittees regarding grazing issues. However, the statutory provision in Federal Land Policy and Management Act (FLPMA), section 403, which established District Grazing Advisory Boards expired on December 31, 1985. The function of grazing advisory boards, as defined by FLPMA, was limited to making recommendations to management concerning the development of Allotment Management Plans and the utilization of range betterment funds. Under the provision adopted for Resource Advisory Councils, permittees and lessees can participate on the broader based RACs or on any other advisory committee. Arizona does have County Advisory Boards/Livestock Associations (3) for Grazing in order to utilize range betterment funds distributed to counties. These funds are derived from the Range Improvement Fee included in the grazing fee for grazing on Public Lands under 3 and 15 of the Taylor Grazing Act (43 USC 315) as amended by FLPMA (43 USC 1751, as amended).

² "Standards" refer to measurable benchmarks necessary to sustain rangeland health. Rangeland health standards apply to all land uses and factors that influence ecological processes. "Guidelines" refer to management practices implemented to sustain or improve rangeland health for a particular kind of land use (e.g., recreation, grazing, off-road vehicle, mining). Thus, standards are the same for all BLM land uses, whereas guidelines are unique to each specific use. For livestock grazing, guidelines basically refer to the principles of grazing management (i.e., intensity, frequency, season, of use, animal distribution, kind/class of animal) which can be found in most range management textbooks.

by the Secretary of Interior. If they failed to do so within 18 months, the “fallback standards” would go into effect. It was clear that whatever “local” standards were developed they would have to address most or all of the issues in the fallback standards or they would not be approved.

The fallback standards were broadly stated because they were developed to be used nationwide regardless of site-specific differences in rangeland. The fallback standards could not provide exact levels of various indicators (e.g., ground cover, species composition, etc.) to be used in assessing standards because these obviously are different depending on soil, topography, climate and other factors. The stated purpose of having RACs develop “local” standards was to “tailor the S&G’s to fit regionally specific ecological variations and local livestock management practices that have evolved.”

S&G’s for Rangeland Health

While tailoring Arizona’s S&G’s to local conditions seemed like a laudable goal, it became apparent that the diversity of BLM lands within the state meant that Arizona’s S&G’s had to be as broad as the fallback standards. For example, BLM lands in Arizona include hot desert, cold desert, grassland, chaparral, pinyon-juniper, and other diverse vegetation types.

Arizona was fortunate in having people on the first RAC that had considerable experience with public land issues and were united in wanting to develop a constructive approach to evaluate rangeland health. Professional range managers such as Drs. Lamar Smith and Phil Ogden provided invaluable technical help. The RAC also enjoyed an excellent and cooperative relationship with the BLM staff assigned to work with it in developing Arizona’s S&G’s.

Before work on the S&Gs began the entire RAC went on a field trip to a grazing allotment north of Phoenix. Various specialists explained what was being looked at including how the soil profile influenced the kinds and amounts of vegetation produced on ecological sites. Included was a stop near Cordes Junction to look at how the riparian guidelines would be applied to a watercourse to evaluate proper functioning condition³. Written materials pertaining to the grazing permit, including rainfall data, were provided. After the field trip, the RAC established a S&G’s Working Group composed of several RAC members and BLM staff. Any interested RAC or BLM member could participate. The primary charge of the S&G’s Working Group was to develop Arizona’s S&G’s and bring them back to the entire RAC for approval.

To introduce the project, and to receive input on the proposed S&G’s, public meetings were held at the various Field Offices throughout the state. RAC members often attended. Time was set aside at a RAC meeting to receive public comment on the draft S&G’s. The process of developing Arizona’s S&G’s took almost 2 years of deliberation and involved many long discussions, some of it very heated, but with a common goal. Arizona’s S&G’s were signed by Secretary of Interior, Bruce Babbitt in 1997. In the words of one working group member: “Arizona

³TR-1737-9 Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas, 1993, Revised 1995 including Supplement 1737-11),

BLM's close coordination with the RAC on implementation of S&G's has refocused the RAC and BLM on *how* livestock grazing should occur, rather than *if* grazing should occur.”

Implementation of S&G's

The Arizona RAC recognized that developing, writing, and getting approval for the S&G's in 1997 was only the first step in the process. There remained the question of just how Arizona's S&G's would be actually implemented on the ground. The RAC decided it should maintain involvement with the process of implementation. Accordingly, the RAC obtained BLM agreement that implementation would follow these procedures:

1. Assessment of each grazing allotment would involve a BLM Interdisciplinary team of resource specialists and consultation with other technical people from other State and Federal agencies as appropriate [e.g., Arizona State Game and Fish Department, Natural Resource Conservation Service (NRCS), United States Forest Service (USFS), United States Fish and Wildlife Service (USFWS)].
2. Each standard would be individually evaluated using the criteria and indicators agreed upon under Arizona's three land health standards (1) Uplands, (2) Riparian-wetlands and (3) Desired Resource Conditions as discussed in Arizona's Standards for Rangeland Health and Guidelines for Grazing Administration, April 1997.
3. All existing data on the allotment would be analyzed as a basis for reaching conclusions on attainment of standards, progress toward attainment, and reasons for lack of attainment. These data were to include weather records, actual stocking, utilization data, range condition surveys, monitoring data, wildlife surveys, records of reseeding, brush control, fires, etc.⁴
4. The analysis of above data and any other information used in reaching a conclusion on attainment of standards and the reasons if standards were not being reached would be documented in a report.
5. The standards of rangeland health would be applied to all land uses, not just grazing.
6. The qualitative procedures for assessing range health outlined in the “Interpreting Indicators of Rangeland Health”⁵ would be used to assess allotments where BLM had no monitoring data or other information (as on some small parcels of public land embedded within other ownerships). If the qualitative procedure indicated unsatisfactory conditions, BLM would proceed to collect additional information to establish the nature and reasons for that non-attainment.

⁴ BLM 2001. 4180 Manual Release 4-107 and Handbook 4180-1 – Rangeland Health Standards

⁵ (TR)-1734-6 - Interpreting Indicators of Rangeland Health, 2000, Version 3 and 2005, Version 4.

A pilot project was set up in the eastern end of the Arizona Strip that involved 12 permits and 10 permittees. The primary objective of the pilot project was to determine how the Rangeland Resource Teams (RRTs, described below) would be involved in the land health assessment process. A series of field trips were scheduled with RAC members, specialists from the state office, the field office, other agencies, the Arizona Strip District RRT, and ranchers attending. "Problem" areas under review in the BLM permit renewal procedure were visited and the S&G's were applied. Again, there were lively discussions but the S&G process proved to be usable.

Rangeland Resource Teams (RRTs)

In Arizona, as in other states, there was a great deal of apprehension about the S&G's process. Many permittees thought this process was a way to get them off the public land. Many environmentalists were concerned that S&G's would not be honestly applied. The Arizona RAC was concerned that neither of these scenarios occur, and further, that suspicions on both sides be allayed. The RAC also wanted to insure that BLM employees followed the agreed upon procedures and that they could clearly document how they reached decisions (as described in the previous section).

The grazing regulations provided for creation of sub groups or "mini RACS" with membership representing similar interests to the RAC. The Arizona RAC created Rangeland Resource Teams (RRTs) in different BLM field offices around the state. These groups were composed of volunteers identified by BLM and appointed by the RAC. BLM was requested to involve these RRTs in the permit review process by taking them to the field and including them in the discussions of how the S&G's were being applied. In this way the RRT members would see how decisions were made in specific circumstances. The RRTs do not participate in all the field work or on every allotment, and the decisions are strictly made by BLM.

The RRTs were supposed to provide some feedback to BLM on the process and decisions reached. The RRTs also served to provide a link to local residents and others to ensure that the process was being fairly and professionally conducted. Finally, the RRTs were asked to provide feedback to the Arizona RAC about any problems they encountered in the process.

Results of Implementing the S&G's Process in Arizona*

** Data below were provided by Bill Coulloudon, State Range Program Leader, Arizona BLM*

As of 2007, 535 allotments had been evaluated out of a total of 824 in Arizona. Of these, 508 (95%) were found to be meeting standards or making significant progress towards standards. Only 27 (5%) were found not meeting or making significant progress towards standards. BLM's monitoring data indicate that most of the upland sites not meeting standards or making progress towards standards is the result of historical livestock grazing and the failure is primarily in standard 3, the Desired Plant Community (DPC) standard.

Arizona BLM has monitored upland trend for +/- 25 years on 48% of the public land in the state and these data indicate 32% in upward trend, 55% static trend, and 13% downward. In Dr. Smith's opinion, failure to meet DPC goals on uplands (probably reflected in the static trend

category) is often the result of brush increase due to historical grazing and related changes in fire frequency that cannot be corrected by changes in grazing management without brush treatment.

Arizona BLM has also assessed riparian function (Standard 2) on 881 stream miles in the state with the following results:

Riparian Monitoring Results

PFC* and/or FAR* w/Upward Trend	52%
FAR w/ Trend not apparent	23%
FAR w/ Downward trend	8%
Non-functional	2%

*PFC = Proper functioning condition; FAR = Functioning at risk

From 1999-2007, Arizona BLM has issued 482 permit decisions based on range health standards. Of these, 40 were protested and some were appealed, but most protests were resolved and appeals were settled out of court. BLM has only lost 2 decisions, i.e., decisions remanded back to the BLM for further consideration.

Benefits of the S&Gs Process

1. The Standards for Rangeland Health established specific criteria for evaluating the impacts of multiple land use and other factors (e.g., drought) on vegetation and watershed conditions of the land.
2. These Standards provide a way to document the impacts being caused by land uses other than grazing (e.g., recreation, off-road vehicle, mining). The S&G's is the only organized system within BLM for documenting and evaluating the impacts of multiple land uses.
3. The process requires that decisions be based on facts and analysis of on-the-ground conditions, rather than on opinions and emotions about livestock grazing.
4. The culture of the BLM changed with the implementation of the S&G's. The new procedures brought many new "voices" into discussions previously dominated by range conservationists and ranchers. Prior to the S&G's, the livestock grazing program of the BLM was the "territory" of range conservationists. Other resource specialists would complain about livestock grazing, but didn't have any official way to intervene. The Interdisciplinary Teams, which were created as part of the S&G's process, gave all resource specialists a voice in range management decisions.
5. The S&G's procedures give the public a role in the decision making processes, both statewide in the RAC and the local publics in the RRTs, and these procedures have significantly increased

public understanding of and greater public support for, or at least tolerance of livestock grazing on public lands.

6. The S&G's procedures focused the discussion on "how" livestock grazing could occur instead of on "if" livestock grazing should occur, and this has helped redefine the livestock grazing issue and reduce controversy throughout the West.

Continuing challenges for Arizona's RAC

1. Finding and retaining RRT members has been difficult in some areas.
2. RRT members have occasionally become involved in issues beyond their authority.
3. Communication among BLM, RAC, RRT, etc. regarding field trips has sometimes been lacking.
4. There is a critical need to keep new RAC members and BLM staff interested in the continued oversight of the "foundation S & G program" which is a primary purpose of this report. The RAC has expanded its activities and interests over the years into many other BLM programs, like land use planning, OHV, and other recreation uses.

Challenges 1-3 were addressed in a 3-part document that was approved by the RAC and signed by the Arizona BLM State Director on October 18, 2006 (see BLM Informational Bulletin No. AZ-2007-002 issued on October 18, 2006, Appendix 2). The document was distributed to all field offices. Sub-headings of the document were as follows:

- **ROLES AND RESPONSIBILITIES OF RANGELAND RESOURCE TEAMS (RRT)**
- **RESOURCE ADVISORY COUNCIL (RAC) GUIDELINES FOR APPOINTMENT AND RECRUITMENT OF RANGELAND RESOURCE TEAM (RRT) MEMBERS**
- **OPERATING GUIDELINES FOR RANGELAND RESOURCE TEAM (RRT) MEMBERS**

CONCLUSIONS

The work conducted by the RAC and BLM to develop S&G's has created a process that should allow public land managers to focus their attention on site-specific, on-the-ground range management. In addition, this effort provides a mechanism for Arizona's citizenry to become more involved in land management decisions on BLM lands across the state. The RAC will continue to assist BLM with implementation of S & G's.

APPENDIX 1

Members of the Original Arizona BLM Resource Advisory Council (RAC) and Members of the BLM State Office Renewable Resource Staff

Original RAC, 1995-1997

Carol Anderson, Chair (Commercial Recreation)
Kenneth E. Baker (Transportation and Rights-of-Way)
Stuart Bengson (Energy and Minerals)
Harrison A. Burnett (Conservation)
John Carr (Environmental)
Glendon E. Collins (Public-at-Large)
D. Mark Exline (Dispersed Recreation)
Reba Wells Grandrud (Archeology/Historical)
Cisney Havatone (Indian Tribe)
Jeff Menges (Grazing)
Phil R. Ogden (Academia)
E. Lamar Smith (Academia)
Jay W. Spehar (Energy and Minerals)
Van Houston Talley (Elected Official)
Frances Watson Werner (Dispersed Recreation)

BLM State Office Renewable Resource Staff

Ron Hooper (State Riparian Specialist)
Ken Mahoney (State Wilderness Specialist)
Clint Oke (State Rangeland Management Specialist)

APPENDIX 2

BLM Informational Bulletin No. AZ-2007-002

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Arizona State Office
One North Central Avenue, Suite 800
Phoenix, Arizona 85004-4427
www.blm.gov/az/

October 18, 2006

In Reply Refer To:
4180 (932) I

EMS TRANSMISSION 10/19/06
Information Bulletin No. AZ-2007-002
Expires: 09/30/2008

To: District Managers

From: State Director

Subject: Rangeland Resource Teams

DD:
None

Purpose: The purpose of this Information Bulletin (IB) is to clarify the roles, responsibilities, appointments, recruitment, and operating guidelines for Rangeland Resource Teams (RRT).

Background: The Arizona Resource Advisory Council (RAC) Charter (Models B & C) provides for the use of RRT for local level input into the land health assessment process.

On April 20, 2006, the RAC Standard and Guides (S&G) working group held a meeting with Field Office representatives to determine the statewide status of the RRT.

Information from the April meeting was presented to the RAC at their June 8, 2006, business meeting.

On September 6, 2006, the RAC voted and approved the roles and responsibilities of the RRT and RAC guidelines for appointment and recruitment of RRT members. In addition, operating guidelines for RRTs were also approved. Attachments 1 and 2

contain the approved roles, responsibilities, guidelines for appointments, recruitment, and operating guidelines for RRT.

Policy/Action: All District Managers are directed to follow the guidance provided in the attachments to the extent practical. The RRT guidance as covered in Arizona Instruction Memorandum 99-012, Implementation Plan for Land Health Standards and Guidelines for Grazing Administration, is also extended.

Time Frame: This IB is effective on issuance, and shall be implemented by all Field Offices and will apply through the expiration date of the IB or until revised.

Manual/Handbook Sections Affected: None

Contact: Please direct any questions regarding this policy to Bill Coulloudon, State Range Program Lead, at 602-417-9439.

Signed by:
Julie A. Decker
for Elaine Y. Zielinski

Authenticated by:
Susan Williams
Staff Assistant

2 Attachments

- 1 - Roles and Responsibilities of RRT and RAC Guidelines for Appointment and Recruitment of RRT members (1 p)
- 2 - Operating Guidelines for RRT (2 pp)

ROLES AND RESPONSIBILITIES OF RANGELAND RESOURCE TEAMS

The Resource Advisory Council (RAC) charter (Models B & C) provides for the use of Rangeland Resource Teams (RRT) to provide local level input into the land health assessment process. Assessments of land health standards are conducted by the Bureau of Land Management (BLM) Field Office Interdisciplinary Assessment Team (IAT) as part of the 10-year permit review process.

The primary role of the RRT is to provide feedback to the IAT on whether the assessment of Arizona Standards for Rangeland Health appears to be supportable from the public's perspective. The RRT members usually are not technical experts; therefore, they do not provide technical expertise as to whether specific grazing allotments are meeting the standards. Technical experts are not precluded from membership.

It is the BLM's responsibility as the land management agency to determine whether a standard is being met or not met, and to make the final determination on the causal factors contributing to the non attainment of standard.

The RRT will have opportunities to raise any matter of concern with the RAC and to provide information and options to the Standards and Guidelines working group (a RAC subcommittee) for their consideration.

If an RRT team member cannot attend a scheduled RAC meeting(s), they can send an e-mail or letter addressing their concerns to the Standards and Guidelines subcommittee Chair.

RAC GUIDELINES FOR APPOINTMENT AND RECRUITMENT OF RRT MEMBERS

RRT members are selected by the RAC based upon their knowledge of resource management and/or their familiarity with lands administrated by the BLM Field Office.

The District Manager (DM) is responsible for informing the RAC of local citizens that have applied for RRT membership to the RAC. The DM should make the application letters available to RAC members at least 2 weeks prior to the scheduled meeting. The DM may present any supporting information regarding the applicant's nomination at the RAC business meeting. Upon reviewing the applicant letter(s) and hearing the DM's presentation(s), the RAC will vote on whether to approve or not approve the applicant. RRT should not exceed ten members and should be balanced in order to represent local views in the following areas:

- environmental or wildlife groups
- sportsman groups
- grazing permittee
- archaeology/historical
- recreation

OPERATING GUIDELINES FOR RANGELAND RESOURCE TEAM MEMBERS

Recruitment

District Managers (DM) should publicize openings on the Rangeland Resource Team (RRT) to reach the widest audience. Publicity should include:

1. A description of the function of the RRT and the regulations establishing it.
2. The requirement for balanced membership in the following areas: environmental or wildlife groups, sportsman groups, grazing permittee, archaeology/historical, and recreation.
3. Expectations of a voluntary, non-reimbursed service for a 2-year time commitment and regular participation at scheduled meetings.
4. Information on how to obtain an application form.
5. Contact person for acquiring additional information.

Applications and Appointments

1. A standard application form will be used.
2. The application deadline will be 1 month prior to the quarterly Resource Advisory Committee (RAC) meeting when applications are to be considered.
3. Applications and supporting material should be forwarded to the RAC coordinator by the District Manager at least 2 weeks before the scheduled RAC public meeting. The RAC coordinator will then forward these materials to all RAC members for their review prior to the meeting where they will be considered.
4. Field Managers may provide recommendations regarding qualifications of applicants and/or other needed changes in RRT membership.
5. The RAC shall vote on prospective RRT members after considering all materials and Field Manager recommendations.
6. New members of the RRT will be sent a letter from the RAC Chair informing them of their appointment and outlining their responsibilities and relationship to the RAC.

Term of Office

1. RRT members shall be appointed for a 2-year term.
2. Appointments can be made at any RAC meeting.
3. RRT members that have provided good service should be encouraged to serve additional terms.
4. RRT members that are not active should be reported to the RAC. The RAC will then inform these members that their term will be terminated at the end of the calendar year. Alternates may be appointed if recommended by the DM and approved by the RAC. The procedures for appointment of alternates will be the same as for regular RRT members. The primary reason for appointing an alternate should be to maintain interest and involvement for people that may

- become candidates for future appointment to the RRT. Alternates should not be viewed as replacements for or facilitating irregular attendance of regular RRT members (see number 3, under “Recruitment”).
5. When members leave the RRT by completing their terms, resignation, or termination by the RAC, the RAC Chair will send them a letter of appreciation for their service. If possible, this presentation will be conducted at a RAC Meeting.

Training

RRT members must participate in training on the Standards and Guidelines for Rangeland Health as stipulated in the regulations. The training should be done by BLM personnel at a special meeting in conjunction with the training provided for RAC members. Additional training or educational materials may be provided by Field Managers as deemed appropriate.

APPENDIX 3

Definitions Provided By Bill Coulloudon (State Range Program Leader, Arizona BLM)

DEFINITIONS

Allotment: An area of land designated and managed for livestock grazing (43 CFR § 4100.0-5).

Assessment: The estimation or judgment of the status of ecosystem structures, functions, or processes, within a specified geographic area (allotment or watershed) at a specific time. An assessment is conducted by gathering, synthesizing, and interpreting information, from observations or data from inventories and monitoring. An assessment characterizes the status of resource conditions so that the status can be evaluated (see definition of evaluation) relative to land health standards. An assessment sets the stage for an evaluation. An assessment is not a decision.

Appropriate Action: (1) Action taken pursuant to Title 43 CFR § 4110, 4120, 4130, and 4160 that will result in significant progress toward fulfillment of the standards and significant progress toward conformance with the guidelines. 43 CFR § 4180.2(c). (2) Implementing and issuing a final decision pursuant to 43 CFR § 4110, 4120, 4130, and 4160 upon determining that existing grazing management needs to be modified to ensure that the Fundamentals of Rangeland Health exist (43 CFR § 4180.1).

Biological Assessment: Document prepared by an agency for the purpose of identifying any endangered species or threatened species which is likely to be affected by action proposed to be authorized, funded, or carried out by such agency (Endangered Species Act § 7(c)2, 16 U.S.C. § 1536(c)(1))

Capability: The highest ecological status a site can attain given certain social or economic constraints, which are often referred to as limiting factors. These constraints are established for public lands through the land use planning process, which provides management direction for resource uses on public land. For example, constraints might include riparian areas permanently occupied by a highway or railroad bed that prevent the stream's full access to its original flood plain. If such constraints are removed, the site might move toward its potential.

Determination: Document recording the authorized officer's finding that existing grazing management practices or levels of grazing use on public lands grazing either are or are not significant factors in failing to achieve the standards and conform with the guidelines within a specified geographic area (preferably watershed or a group of contiguous watersheds).

Ecological Reference Area: A landscape unit in which ecological processes are functioning within a normal range of variability (see definition for normal range of variability) and the plant community has adequate resistance to and resiliency from most disturbances. These areas do not need to be pristine, historically unused lands (e.g. climax plant communities or relict areas) (Pellant et al. 2000). Ecological reference areas are lands that best represent the potential of a specific ecological site in both physical function and biological health. In many instances potential ecological reference areas are identified in Ecological Site Descriptions and are referred to as "type locations". In the absence of suitable ecological reference areas, the establishment of a "baseline" for site evaluations should be made by an interdisciplinary team of experienced, trained professionals.

Evaluation: An evaluation is conducted to arrive at 2 outcomes. Firstly, an evaluation conducts an analysis and interpretation of the findings resulting from the assessment, relative to land health standards, to evaluate the degree of achievement of land health standards. Secondly, an evaluation conducts an analysis and interpretation of information--be it observations or data from inventories and monitoring--on the causal factors for not achieving a land health standard. An evaluation of the causal factors provides the foundation for a determination (see definition for determination). An evaluation goes further than an assessment because an evaluation takes what the assessment provides--which is the status of resource conditions characterized by the appropriate indicators--and evaluates them according to land health standards. Then, this leads to a prognosis of: land health standard achieved; making significant progress toward achieving a land health standard; or land health standard not achieved. If the land health standard is not achieved, the evaluation of the causal factors allows a determination to be made. In summary, an evaluation builds on the assessment, and the evaluation sets the stage for a determination.

Functioning at Risk: (1) Condition in which vegetation and soil are susceptible to losing their ability to sustain naturally functioning biotic communities. Human activities, past or present, may increase the risks. Rangeland Reform Final Environmental Impact Statement (FEIS) at 26. (2) Uplands or riparian-wetland areas that are properly functioning, but a soil, water, or vegetation attribute makes them susceptible to degradation and lessens their ability to sustain natural biotic communities. Uplands are particularly at risk if their soils are susceptible to degradation. Human activities, past or present, may increase the risks (Rangeland Reform Draft Environmental Impact Statement (DEIS) Glossary). SEE ALSO Properly Functioning Condition and Nonfunctioning Condition.

Fundamentals of Rangeland Health: Overarching principles of rangeland health, listed at 43 CFR § 4180.1, which establish the Department's policy of managing for healthy rangelands (60 Federal Register (FR) at 9954). State or regional standards and guidelines must provide for conformance with the Fundamentals of Rangeland Health (43 CFR § 4180.2(b)).

Guideline: A practice, method or technique determined to be appropriate to ensure that standards can be met or that significant progress can be made toward meeting the standard. Guidelines are tools such as grazing systems, vegetative treatments, or improvement projects that help managers and permittees achieve standards. Guidelines may be adapted or modified when monitoring or other information indicates the guideline is not effective, or a better means of achieving the applicable standard becomes appropriate.

Indicators: Components of a system whose characteristics (presence or absence, quantity, distribution) are used as an index of an attribute (e.g., rangeland health attribute) that are too difficult, inconvenient, or expensive to measure (Interagency Technical Reference 1734-8, 2000).

Interdisciplinary Team: Staff specialists representing identified skill and knowledge needs working together to resolve issues and provide recommendations to an authorized officer.

Interested Public: An individual, group or organization that has submitted a written request to the authorized officer to be provided an opportunity to be involved in the decision making process for the management of livestock grazing on specific allotments or has submitted written comments to the authorized officer regarding the management of livestock grazing on a specific allotment (43 CFR § 4100.0-5).

Inventory: Gathering of baseline information (including quantitative data, cultural knowledge, and qualitative observations) about condition of resources. Examples of inventory are Ecological Site Inventory, and Population Counts of Threatened or Endangered Species.

Land Health: Degree to which the integrity of the soil and the ecological processes of ecosystems are sustained.

Land Use Plan: A resource management plan, developed under the provisions of 43 CFR § 1600, or a management framework plan. These plans are developed through public participation in accordance with the provisions of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) and establish management direction for resource uses of public lands (43 CFR § 4100.0-5).

Monitoring: Regular collection of data to evaluate: 1) whether objectives or land health standards are being achieved; 2) effectiveness of management actions.

Native plant and animal populations and communities: Populations and communities of all species of plants and animals naturally occurring, other than as a result of an introduction, either presently or historically in an ecosystem. For further reference, see BLM Manual Section 1745 - Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife and Plants.

Nonfunctioning Condition: (1) Condition in which vegetation and ground cover are not maintaining soil conditions that can sustain natural biotic communities. FEIS at 25. (2) Riparian-wetland areas are considered to be in nonfunctioning condition when they don't provide adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, or other normal characteristics of riparian areas. The absence of a floodplain may be an indicator of nonfunctioning condition (DEIS Glossary). SEE ALSO Properly Functioning Condition and Functioning at Risk.

Normal Range of Variability: The deviation of characteristics of biotic communities and their environment that can be expected given natural variability in climate and disturbance regimes (Pellant et al. 2000).

Objective: A description of a desired future resource condition to be achieved in a specified time frame to meet land use plan goals.

Permitted Use: The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease, and is expressed in Animal Unit Months (AUMs) (43 CFR § 4100.0-5).

Potential: The highest ecological status a site can attain given no social or economic constraints.

Potential Natural Community (PNC): The stable biotic community that would become established on an ecological site if all successional stages were completed without human interference under present environmental conditions (DEIS Glossary).

Properly Functioning Condition: (1) An element of the Fundamental of Rangeland Health for watersheds, and therefore a required element of State or regional standard and guidelines under 43 CFR § 4180.2(b). (2) Condition in which vegetation and ground cover maintain soil conditions that can sustain natural biotic communities. For riparian areas, the process of determining function is described in the BLM Technical Reference TR 1737-9. FEIS at 26, 72. (3) Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve floodwater retention and groundwater recharge; develop root masses that stabilize stream banks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is influenced by geomorphic features, soil, water, and vegetation (DEIS Glossary). (4) Uplands function properly when the existing vegetation and ground cover maintain soil conditions capable of sustaining natural biotic communities. The

functioning condition of uplands is influenced by geomorphic features, soil, water, and vegetation (DEIS Glossary). SEE ALSO Nonfunctioning Condition and Functioning at Risk.

Range Improvement: An authorized physical modification or treatment which is designed to improve production of forage; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; restore, protect and improve the condition of rangeland ecosystems to benefit livestock, wild horses and burros, and fish and wildlife. The term includes, but is not limited to structures, treatment projects and use of mechanical devices or modifications achieved through mechanical means (43 CFR § 4100.0-5).

Rangeland: A kind of land on which the native vegetation, climax or natural potential consists predominantly of grasses, grasslike plants, forbs, or shrubs. Rangeland includes lands revegetated naturally or artificially to provide a non-crop plant cover that is managed like native vegetation. Rangeland may consist of natural grasslands, savannahs, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows.

Rangeland Health: The degree to which the integrity of the soil and ecological processes of rangeland ecosystems are sustained. Rangeland health exists when ecological processes are functioning properly to maintain the structure, organization and activity of the system over time (FEIS at 72).

Reference Condition: In the context of an ecological site, reference condition is the condition which meets, or comes close to meeting, all relevant land health standards. In addition, the reference condition provides a set of indicators (and their appropriate range of values) to be used for the assessment of an equivalent ecological site (which will not necessarily be in reference condition). Reference conditions are provided in published Ecological Site Descriptions or in the records of Ecological Site Inventories and Soil Surveys.

In a more general multi-scale context, a reference condition will reflect and lie within the historic range of variability for environmental conditions, processes and functions, generally considered to have operated during the 1,000 year period immediately preceding Euro-American settlement. These environmental conditions, processes, and functions can be operative at different scales, from the fine-scale (e.g. organic matter content at the site-specific scale) to the large-scale (e.g. plant community composition at the watershed or sub basin scale).

Significant Factor: Principal causal factor in the failure to achieve the land health standard(s) and conform with the guidelines. A significant factor would typically be a use that, if modified, would enable an area to achieve or make significant progress toward achieving the land health standard(s). To be a significant factor, a use may be one of several causal factors contributing to less-than-healthy conditions; it need not be the sole causal factor inhibiting progress towards the standards.

Significant Progress: Movement toward meeting standards and conforming to guidelines that is acceptable in terms of rate and magnitude. Acceptable levels of rate and magnitude must be realistic in terms of the capability of the resource, but must also be as expeditious and effective as practical.

Special Status Species: includes:

proposed species - species that have been officially proposed for listing as threatened or endangered by the Secretary of the Interior. A proposed rule has been published in the Federal Register.

listed species - species officially listed as threatened or endangered by the Secretary of the Interior under the provisions of the Endangered Species Act (ESA). A final rule for the listing has been published in the Federal Register.

endangered species - any species which is in danger of extinction throughout all or a significant portion of its range.

threatened species - any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

candidate species - species designated as candidates for listing as threatened or endangered by the Fish and Wildlife Service (FWS), and/or National Marine Fisheries Service (NMFS).

state listed species - species listed by a State in a category implying but not limited to potential endangerment or extinction. Listing is either by legislation or regulation.

sensitive species - those designated by a State Director, usually in cooperation with the State agency responsible for managing the species and State Natural Heritage programs, as sensitive. They are those species that: (1) could easily become endangered or extinct in a State, (2) are under status review by the FWS and or NMFS, (3) are undergoing significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution, (4) are undergoing significant current or predicted downward trends in population or density such that Federal listed, proposed, or candidate status may become necessary, (5) typically have small and widely dispersed populations, (6) inhabit ecological refugia or other specialized or unique habitats, (7) are State listed but which may be better conserved through application of BLM sensitive species status.

Standard: Standards of land health are expressions of levels of physical and biological condition or degree of function required for healthy lands and sustainable uses, and define minimum resource conditions that must be achieved and maintained.

Terms and Conditions: Mandatory and optional provisions of a grazing permit or lease specified by an authorized officer pursuant to 43 CFR § 4130.

Watershed: The 5th level of the hydrologic unit delineation system. A watershed is coded with 10 numerical digits, and watersheds range in size from 40,000 to 250,000 acres (Subcommittee on Spatial Water Data, 2000).