UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Colorado State Office
285O Youngfield Street
Lakewood, Colorado 80215-7093

October 13, 1998

In Reply Refer To:
1610, 1730, 4100 (CO-932) P

Instruction Memorandum No. CO-99-002
Expires 09/30/99

To: District and Area Managers

From: Deputy State Director, Resource Services

Subject: Implementation of Standards for Public Land Health

On February 3, 1997, the Bureau of Land Management (BLM), Colorado's recommendations for healthy public lands standards were approved by Secretary of the Interior Bruce Babbitt and supported by Governor Roy Romer. BLM received considerable input from the three Colorado Resource Advisory Councils (RACs) in the development of the standards, as well as individuals from ranching, environmental groups, academics, local governments, and industry. Implementation of public land health standards has been incorporated into all our existing Resource Management Plans (RMPs). The following standards were adopted:

Ensure healthy upland soils

Protect and improve riparian systems

Maintain healthy, productive plant and animal communities

Maintain or enhance special status, threatened and endangered species, and other plants and animals officially designated by BLM

Ensure water quality meets minimum Colorado standards

These standards apply to all BLM administered land in Colorado and authorized uses of those lands. They are most importantly a communication tool. They provide a clear statement and common understanding

of the minimum resource conditions and management practices expected and help focus discussion on where land health problems exist. Our first priority is to make management changes on the ground where standards are not being met. We will accomplish this through both a landscape approach that determines if standards are being met, and a permit approach that analyzes the effect the action would have on the health of the land during the National Environmental Policy Act (NEPA) process and mitigate as necessary.

More specifically:

1. Public Involvement: Public involvement will help identify and assist the BLM in prioritizing landscapes or other specific project/permit areas for assessment of health standards. Appendix A provides a format to be used by September 30, 1998, to seek public input.

2. Prioritize: Each Field Office will establish a process for working with interested and affected parties to set priorities for landscape health assessments. The list will be published by the end of calendar year 1998 and each year thereafter. The priority list will be based on issues and conflicts determined by public input, local cooperative efforts, land use plan priorities, and watershed priorities under the clean water action plan. It will also consider workload and other criteria contained in the approved standards. This will be an ongoing, long-term effort, and it will likely take more than 10 years to assess the public lands with our existing staff. Involving interested and affected parties in the identification of these priorities will help assure that the most critical areas are assessed first with our existing staff, workloads, and budgets.

3. Assess: Using an interdisciplinary approach, conduct assessments on a priority basis and determine if land conditions are meeting standards and RMP goals; or if significant and sustainable progress is being made toward meeting those standards and goals. If not, action will be taken to assure significant progress. Subsequent NEPA documents can utilize the determinations made from these assessments and benefit by knowing the management actions which will assure significant progress is made towards meeting standards. Following the initial determination, continue to assess land health periodically to ensure it is being maintained. All interested and affected parties are to be included in the process. These include RACs, user groups, environmental groups, appropriate livestock or other organizations, state and federal agencies, etc. The assessment of landscapes will be documented by the Geographic Information System.

Assessment means the analysis, syntheses, and interpretation of information, including monitoring data to characterize the health of an area. It includes professional judgement and is similar to "evaluation" as frequently used in the rangeland management program. Gathering new information in the field may be necessary as part of the assessment process. A determination of land health will be considered as completed only if: (a) the results from internal and external scoping, and a thorough review of existing data clearly shows all standards are being met, or (b) scoping indicates that portions of the landscape may not meet standards and an onground assessment is made to determine causes and identify corrective actions.

Although an overall landscape may be functioning, portions of it may not meet one or more standards, or it may be in a downward trend. A land health determination should also describe actions that need to be

taken to achieve land health through compliance with standards.

A training plan for BLM staff and interested parties will be developed. Training and hands-on exercises will help foster a common understanding of the principles of land health standards and will help improve our consistency statewide.

4. NEPA: Each authorizing or permitting action is an opportunity to apply the land health standards. Every authorizing or permitting action will be supported by an adequate NEPA analysis. The scope and complexity of the analysis will be based on review and analysis of existing data and on the results of issues and competing land uses. Significant resource impacts, conflicts, or controversies, clean water act issues, special status species concerns, riparian non-functioning condition determinations, weed infestations, and other factors will add to the complexity of the analysis and the amount of effort involved. Communication, consultation, and cooperation with users and stakeholders continues to be an important part of the process.

An environmental assessment is our normal method of analysis to evaluate site specific impacts. Once a site specific analysis has been done, an administrative determination may be appropriate for subsequent actions. The internet will be used as one of the ways to advise the public and interested parties of pending actions. Effective November 1, 1998, or sooner, the automated online NEPA process (attachment E) will also be used as our way of preparing NEPA documents.

Grazing permits should be identified sufficiently in advance to allow for public involvement and completion of the analysis prior to the expiration date of the permit. More specific guidance on addressing Comb Wash issues is being issued separately.

5. By November 1, 1998, or sooner, each NEPA document will specifically address the impact of the activity on the standards for public land health and how that impact, if any, will be mitigated. This includes determining if permits or authorizations are in conformance with the land use plan. This project level review is designed to assure that our actions are complying with the standards and do not have an adverse affect on the public lands. For example, on grazing actions the appropriate guidelines or best management practices will be employed as conditions of approval. Compliance with standards for ongoing activities that do not require a reauthorization or NEPA analysis to continue will occur through compliance inspections, or through other processes such as grazing permit reviews or landscape assessments.

6. Where livestock grazing or other land uses are determined to be a significant factor in failing to achieve the standard(s), appropriate management action will be taken to change the onground use as soon as practical; but, in the case of grazing, no later than the start of the next grazing year. Monitoring will be used to measure and document progress towards achieving compliance or for lands determined to be at risk to ensure that public land health is being maintained.

7. Consider using approaches that can help give economies of scale where actions, impacts, and/or resources are similar.

A final key component of this strategy is to involve the RACs and other interested parties in an annual discussion and evaluation on how we can improve our process. The attached information is intended to assist you with implementation of the standards. Although I expect you to continue your creative efforts to implement this policy, the attachments provide the basis for important levels of statewide consistency.

This is a large and significant undertaking and we cannot make changes overnight on all our lands. I appreciate the work you and your staff have done to continue our progress and make positive changes on the ground. Our challenge is to identify our priorities for the coming years, involve interested parties in helping implement the standards, and assure that good NEPA documents support each of our actions. This approach assures that we are taking sound actions on our approvals, so that over time we will make significant and sustainable progress toward improving and maintaining the health of the public lands.

If you have any questions, please contact Johnny Riel at (303) 239-3717.

Signed by	Authenticated by
Dave Strunk	Sharon Deuter
Acting, Deputy State Director, Resource Services	EMS Operator

Attachment(s)
A: Public Notice Format
B: Implementation excerpt from the approved Colorado Standards
C: Guidance on assessing the standards for compliance
D: Monitoring of Standards and Indicators
E: Procedures for NEPA documentation of standards
F: Minimum requirements for reporting land health status
G: Examples of NEPA actions and miscellaneous information
H: Bureau Actions - Guidance for assessments and NEPA

Colorado BLM Land Health Standards Implementation Strategy

Appendices

Appendix A

NOTICE OF PUBLIC SCOPING

Rangeland Management Program

Comment Period: Open until (date)

Contact:

BUREAU OF LAND MANAGEMENT
Resource Area:
Address:

Phone:
E-MAIL:

The Resource Area (RA) is soliciting public comments on the following two topics: First, we would like assistance in prioritizing land areas for the assessment of public land health standards for Colorado. Secondly, grazing permit\leases will expire during (year). We need to determine the level of public interest, concern, and resource conditions on each of the allotments up for renewal.

The assessment of public land health will be done on a land area basis. There are identified land areas in the RA. It is anticipated that it may take over ___ years to complete the assessment on all lands within the RA. With this notice, our target is to identify and prioritize the top three areas for assessing land health standards.

Once the RA receives the public comments, the staff will meet as an interdisciplinary team. Using the comments and all other available information, the team will establish the priority list of the land areas that will be assessed for compliance with the health standards during the (year) field season.

Following are the land areas and acreages identified in the RA:

Name	**Federal Acreage**

The RA will be also be completing the National Environmental Policy Act (NEPA) analysis and making decisions on the renewal of certain grazing permit\leases. Since the level of NEPA analysis is in part driven by the level of public interest and concern, your comments are requested relative to conditions you have observed on these allotments, and/or specific environmental concerns about the lands and/or resources found within the specific allotment. The more specific and factual your information is, the more helpful and useful it will be.

An interdisciplinary team will rank the expiring permits into high and low priority categories based on public comments and all other information available. The ranking will help determine the amount of consideration necessary and the appropriate level of NEPA documentation for reaching a decision on each grazing permit renewal. The ranking will also help to allocate resources to address concerns on a priority basis.

Permits\leases are scheduled for renewal in (year) on the following allotments:

Allotment Name	**Federal Acres**	**Permittee/Lessee**	**Land Area**

Two lists, the land area(s) identified for assessment, and the ranking of permits/leases to be renewed, will

be published in a subsequent notice no later than (month, year). Thereafter, a public scoping notice will be published annually, soliciting comment on re-prioritizing land areas for health assessment and ranking grazing permit\leases up for renewal for the following year.

If you have any information or concerns, wish to be considered as an interested party on a permit or allotment, or wish to be involved in a health of the land assessment, please contact the individual at the address above to be put on a mailing list. If you do have not specific comments at this time but have questions about the land areas or allotments listed in this notice, contact the individual at the address above.

Appendix B

Implementation Excerpt from the Document - Colorado Standards for Public Land Health and Guidelines for Livestock Grazing

The following excerpt is just one section of the complete document, other portions of the document also apply to the implementation process.

IMPLEMENTATION

Recognizing that social and economic factors must be considered in achieving healthy public lands, the authorized officer will coordinate, consult and cooperate with the local cooperators and interested publics during all phases of implementing standards and guidelines, whether it be for an allotment, group of allotments, or watershed. BLM will strive to make use of collaborative approaches involving the various interested publics within an affected allotment, group of allotments, or watershed. The Resource Advisory Council (RAC) may be requested by any party to assist in reaching agreement in resolving disputes. As greater understanding of ecosystems, including socio-economic factors, becomes available, it will be applied to our management of public lands.

The section below describes the general process for applying the Colorado standards and guidelines in the field. If mutual agreement on a course of action is reached at any point during this process, such agreement may eliminate the need for some of the process steps described.

It is unreasonable to assume that standards and guidelines will be applied to all public lands immediately upon adoption. Therefore, it is imperative that a logical system for prioritizing work be adopted. Following are some criteria that the authorized officer uses to prioritize areas such as allotments, watersheds, or other landscapes:

Are there situations where legal requirements must be met?
Is there information to indicate resources at risk, or that the severity of resource damage demands immediate attention? (monitoring results, allotment categorization, professional judgement, results of ESI or other inventory data, etc.)
Is use conflict present?

Is there public concern or interest for possible resources at risk?
What is scheduled for completion according to the RMP implementation schedule?
Where can efficiencies with limited resources be realized?
Where are the best opportunities to effect positive change toward public land health?
Are there permits or other resource use authorizations that need to be acted upon (e.g., grazing, right-of-ways, timber sales, etc.)?

The following steps describe a typical sequence for assessing public land health and trend on established priority areas. The authorized officer will:

1. Using public scoping, identify issues and values in detail; identify existing management objectives from sources such as the Resource Management Plan (RMP), and activity plans.

2. Assess public land health and if possible determine the trend relating to public land health.

3. Determine the relationship between existing land uses and the assessed health of the land.

4. If needed, establish measurable objectives or redefine/modify existing management objectives that will result in desired conditions. (Note: If significant changes to RMP decisions are needed, an amendment to the RMP will be needed.)

5. Identify which land use actions will achieve the desired objectives and resource conditions.

NOTE: This document addresses the livestock grazing guidelines; guidelines that relate to other land uses will be consulted or developed as necessary to deal with the appropriate objectives.

6. Identify specific management practices, in conformance with the guidelines, and attach as terms and conditions on grazing permits, or as stipulations on specific projects or actions.

7. Establish an evaluation schedule to determine if the standard is being achieved or if significant progress is being made.

- If the evaluation indicates that objectives are being achieved or there is movement towards the objective, continue with management practices.

- If the evaluation indicates no movement or movement away from the objectives, reassess the objectives and management actions. Determine the objectives and management actions necessary to assure significant progress toward achieving the standards. Amend plans and permits as necessary.

The authorized officer will take immediate administrative action to implement appropriate guidelines upon a determination that the following three circumstances all apply:

1. Public land health is unacceptable;

2. Existing management is not likely to produce significant progress towards public land health; and

3. The consultation process has failed to yield a negotiated resolution.

If needed, future modifications to the Standards and Guidelines may be made. Typically, a proposal for modification is presented to the local Designated Field Official (DFO). The DFO then forwards the proposal for modification to other DFOs throughout the state for consideration in consultation with the RACs. (A copy of the proposal for modification is also submitted to the State Director). The DFOs considering advise from the RACs then submit to the State Director recommendations regarding the proposal for modification. The State Director decides if the proposal for modification has merit. If so, a determination is made whether the modification is a maintenance change to the Resource Management Plans or requires a plan amendment. Maintenance changes require no action except to make a notation in the RMPs (43 CFR 1610.5-4). Actions requiring a RMP amendment will require NEPA analysis and conformance with 43 CFR 1610.5.

Appendix C

EXISTING INFORMATION SOURCES FOR ASSESSING COMPLIANCE OF THE COLORADO STANDARDS

(Adapted for use and interpretation from a table prepared by Kris Eshelman, BLM Nevada SO)

ATTRIBUTES & INDICATORS	SOIL			COVER				VEGETATION						COMMUNI-TIES (PLANT AND ANIMAL)		WATER	
EXISTING INFORMATION SOURCES																	
PHOTO'S, PICTURES, IMAGERY M - measurement, E - estimate, I - interpretation																	
PHOTO PLOTS	I	I	l	I	IM	IM	IM	I	I	I	I	I		I		I	
OBLIQUE PHOTO'S	I	I	I	I	I	I	I	I	I	I	I	1		I		I	
AERIAL PHOTO'S				I	I	I	I	I	I	I	I	I		I		I	I
SATELLITE IMAGERY				I	I	I	I	I	I	I	I	I	I	I			I
LOW LEVEL INFRARED					I	I	I	I	I	I	I	I	I	I		I	I
INVENTORY & SURVEY																	

ESI, SVIM	I	I	E	E	E	E	E	EM	M	E	E	E	E	E		E	E				
SSF					E	E	E	E	E			E		E							
RANGELAND HEALTH	I	I	I	I	I	I	I	I	I	I		I	I	I	I	I	I				
ECOLOGICAL SITE DESCRIPTIONS		I	I	E	I	E	I	E	E		I	I	I	I							
SOIL SURVEY	I	I	I	I	I	I	I	I	I	I	I	I	I	I							
WEEDS														E							
RIPARIAN PFC		I		I			I	I	I		I	I	I	I		I	I	I			
RIPARIAN LEVEL I, II, AND III		I		E	E	E	M	M	M	M	M	M	I	E	I	I	I	E			
CNH RIPARIAN CLASSIFICATION SYSTEM							I	I	I		I	I	I				I				
FUEL DISTRIBUTION DATA/MAPS							I	I	I	I	I	I					I				
MONITORING DATA																					
TREND (MEASURED AND APPARENT)			ME	ME	ME	M	ME	ME	ME	M	ME	ME	ME	M	E	E	E				
						E				E				E							
UTILIZATION								I				I					E				
ACTUAL USE																	E				
FIELD NOTES, OBSERVATIONS	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	
WILDLIFE STUDIES																					
BREEDING BIRDS SURVEY											I	I			I	I	I				
B.G. SEX RATIO'S															I	I	I				
BROWSE TRANSECT											I	I			I	I	I				
WILDLIFE SURVEYS											I	I			I	I	I	I	I		
DOW WILDLIFE CENSUS AND POPULATION											I	I			I	I	I				
T&E INVENTORY											I	I			I	I	I	I	I		
BAT SURVEYS															I	I	I				
WATERFOWL BROOD SURVEYS											I	I			I	I	I	I	I		

SPECIAL SPECIES DISTRIBUTION MAPPING										I	I			I	I	I	I	I		
FISH SAMPLING														I	IM	I	I	I		
RAPTOR NEST SITE SURVEY										I				I	I	I				
USFWS, TNC, CNH - INFORMATION	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I		
WATER QUAN/QUAL/LOCATION																				
305(b) REPORT																				E
303(d) REPORT (LIST OF IMPAIRED SEGMENTS)																				E
208 REPORT																			E	E
319 REPORT																				E

M - measurement, E - estimate, I - interpretation

BEST METHODS FOR DETERMINING COMPLIANCE WITH STANDARDS WHEN NO EXISTING INFORMATION IS AVAILABLE

STANDARD 1: *Upland soils* exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.

As indicated by:

Expression of rills, soil pedestals is minimal.

Evidence of actively-eroding gullies (incised channels) is minimal.

Canopy and ground cover are appropriate.

There is litter accumulating in place and is not sorted by normal overland water flow.

There is appropriate organic matter in soil.

There is diversity of plant species with a variety of root depths.

Upland swales have vegetation cover or density greater than that of adjacent uplands.

There are vigorous, desirable plants.

Best methods for determining compliance with standard: Rangeland health assessment, ecological site inventory with cover estimates, each method compared with applicable ecological site descriptions.

STANDARD 2: *Riparian systems* associated with both running and standing water, function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment, and provides forage, habitat and bio-diversity. Water quality is improved or maintained. Stable soils store and release water slowly.

As indicated by:
Vegetation is dominated by an appropriate mix of native or desirable introduced species.
Vigorous, desirable plants are present.
There is vegetation with diverse age class structure, appropriate vertical structure, and adequate composition, cover, and density.
Streambank vegetation is present and is comprised of species and communities that have root systems capable of withstanding high streamflow events.
Plant species present indicate maintenance of riparian moisture characteristics.
Stream is in balance with the water and sediment being supplied by the watershed (e.g., no head cutting, no excessive erosion or deposition).
Vegetation and free water indicate high water tables.
Vegetation colonizes point bars with a range of age classes and successional stages.
An active floodplain is present.
Residual floodplain vegetation is available to capture and retain sediment and dissipate flood energies.
Stream channels with size and meander pattern appropriate for the stream's position in the landscape, and parent materials.
Woody debris contributes to the character of the stream channel morphology.

Best methods for determining compliance with standard: Proper functioning condition assessment (Lotic and Lentic systems).

STANDARD 3: *Healthy, productive plant and animal communities* of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes.

As indicated by:
Noxious weeds and undesirable species are minimal in the overall plant community.
Native plant and animal communities are spatially distributed across the landscape with a density, composition, and frequency of species suitable to ensure reproductive capability and sustainability.
Plants and animals are present in mixed age classes sufficient to sustain recruitment and mortality

fluctuations.
Landscapes exhibit connectivity of habitat or presence of corridors to prevent habitat fragmentation.
Photosynthetic activity is evident throughout the growing season.
Diversity and density of plant and animal species are in balance with habitat/landscape potential and exhibit resilience to human activities.
Appropriate plant litter accumulates and is evenly distributed across the landscape.
Landscapes composed of several plant communities that may be in a variety of successional stages and patterns.

Best methods for determining compliance with standard: Rangeland health assessment, ecological site inventory, each method used in comparison with ecological site descriptions. Distribution, corridors, fragmentation, etc., interpretations made using aerial photo's and satellite imagery.

STANDARD 4: *Special status, threatened and endangered species* (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

As indicated by:
All the indicators associated with the plant and animal communities standard apply.
There are stable and increasing populations of endemic and protected species in suitable habitat.
Suitable habitat is available for recovery of endemic and protected species.

Best methods for determining compliance with standard: Utilize all available information and data including professional judgements from BLM and external sources (NFWS, TNC, CNH), supplemented with physical site inspections or other inventories if appropriate.

STANDARD 5: The *water quality* of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado. Water Quality Standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and antidegradation requirements set forth under State law as found in (5 CCR 1002-8), as required by Section 303© of the Clean Water Act.

As indicated by:
Appropriate populations of macroinvertabrates, vertebrates, and algae are present.
Surface and ground waters only contain substances (e.g. sediment, scum, floating debris, odor, heavy metal precipitates on channel substrate) attributable to humans within the amounts, concentrations, or combinations as directed by the Water Quality Standards established by the State of Colorado (5 CCR 1002-8).

Best methods for determining compliance with standard: If uncertainty persists after utilizing all available information, including the Colorado State Water Quality Reports data from USGS and EPA, collect water samples for laboratory analysis.

Appendix D

Monitoring Standards and Indicators

Monitoring and Evaluation

Monitoring to determine the success of management actions and towards meeting resource objectives is presently an integral part of BLM's analysis, interpretation, and evaluation (AIE) process. Likewise, monitoring of standards and indicators should be considered an integral part of the AIE process to determine compliance with standards or to measure progress towards achieving land health. Where existing monitoring is sufficient or can be modified to meet the need, it should continue. Where new monitoring is necessary, identify the data that needs collected and schedule the collection and evaluation of the information.

Only approved BLM methodology may be used to monitor the status of standards and indicators. BLM technical reference 4400-1 "Planning for Monitoring" continues to provide the basic guidance for the planning of rangeland monitoring including monitoring of the standards and indicators. Approved BLM methodologies are those published methodologies in which the BLM has been a primary participant. Following is a partial list of the most pertinent approved methodologies. Most commonly used in Colorado are the technical references and handbooks in the 4400 series for rangeland monitoring, technical references in the 1737 series for riparian-wetland area monitoring, Bureau Manual 6671 for stream surveys, Bureau Manual 6602 for special habitat feature inventory, Sampling Vegetation Attributes (1996) for a variety of vegetative parameters, and Inventory and Monitoring of Wildlife Habitat (Cooperrider, Boyd and Stuart September 1986) for a variety of wildlife habitat parameters. Exception's to the use of publications in which the BLM as a principle party pertains includes EPA Monitoring Protocols to Evaluate Water Quality Effects of Grazing Management on Western Rangeland Streams (EPA 910/R-93-017), and, where BLM has entered into a documented agreement to use "Holistic Resource Management" as a management practice, BLM methodology may be supplemented with methodology found in the Holistic Resource Management Workbook.

LIST OF APPROVED MANUALS AND PUBLICATIONS

Note: This list is intended to provide a quick reference to the most frequently used manuals, technical references, handbooks or other publications. It is not a complete list of all available publications that pertain to monitoring of the standards and indicators. Additional publications and technical references that become available and approved will be added to this list. It is recognized that specific monitoring techniques and processes may not exist in all situations. In these situations, new techniques and methods may need to be developed cooperatively with acedemia, other federal and state agencies, and entities with the necessary expertise.

1. Bureau Manual 4400) Rangeland Inventory, Monitoring and Evaluation
2. Bureau Manual Handbook H-4410-1 National Range Handbook
3. Technical Reference 4400-1 Rangeland Monitoring - Planning for Monitoring

4. Technical References 4400-3 Rangeland Monitoring - Utilization Studies
5. Technical References 4400-4 Rangeland Monitoring - Trend Studies
6. Technical References 4400-5 Rangeland Inventory and Monitoring - Supplemental Studies
7. Technical Reference 4400-7 Rangeland Monitoring- Analysis, Interpretation and Evaluation
8. Technical Reference 1737-9 Riparian Area Management - Process for Assessing Proper Functioning Condition
9. Technical Reference 1737-11 Riparian Area Management - Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas
10.Technical Reference 1737-12 Riparian Area Management - Using Aerial Photographs to Assess Proper Functioning Condition of Riparian-Wetland Areas
11. Bureau Manual 6600 Wildlife, Fish and Special Status Plant Resource Inventory and Monitoring
12. Bureau Manual 6602 Integrated Habitat Inventory and Classification System
13. Bureau Manual 6630 Big Game Studies
14. Bureau Manual 6671 Stream Surveys
15. Bureau Manual 6674 Water Analysis for Fisheries
16. Sampling Vegetation Attributes - Interagency Technical Reference (1996)
17. Utilization Studies and Residual Measurements - Interagency Technical Reference (1996)
18. Inventory and Monitoring of Wildlife Habitat (Cooperrider, Boyd and Stuart September 1986)
19. Bureau Manual/Handbook Rapid Assessment for Rangeland Health (Draft 1996)
20. EPA Monitoring Protocols to Evaluate Water Quality Effects of Grazing Management on Western Rangeland Streams (EPA 910/R-93-017)

Specific Approaches to Monitoring Health Standards and Indicators

STANDARD 1: *Upland soils*

Specific Approaches to Monitoring Compliance, or Progress towards Compliance: Point sampling, pace transect, line intercept, Daubenmire plots, photo plots, trend plots, community structure analysis, soil surface factor (SSF). Rangeland health assessment, ecological site inventory, and cover estimates.******

STANDARD 2: *Riparian\wetland systems*

Specific Approaches to Monitoring Compliance, or Progress towards Compliance: Greenline method, low level infrared photography, stream survey (6671 manual), Rosgen bank pins, stream channel cross sections, regional hydrologic curves, density board, photo plots, trend plots, community structure analysis. Proper functioning condition assessment, riparian level I, II, and III inventory, and ecological site inventory.**

STANDARD 3: *Healthy, productive plant and animal communities*

Specific Approaches to Monitoring Compliance, or Progress towards Compliance: Trend plots, point sampling, pace transect, line intercept, photo plots, community structure analysis, ocular inventory, aerial photography, low level photography, satellite imagery, stream surveys (6671 manual), wildlife surveys,

big game condition and trend transects (6610 manual), fish sampling, and utilizing census and population survey information and other data from DOW, FWS, Colorado Natural Heritage and TNC.

STANDARD 4: *Special status, threatened and endangered species.*

Specific Approaches to Monitoring Compliance, or Progress towards Compliance: Trend plots, point sampling, pace transect, line intercept, photo plots, community structure analysis, aerial photography, low level photography, satellite imagery, stream surveys (6671 manual), fish sampling, big game condition and trend transects (6610 manual), special habitat feature inventory (6602 manual), rare plant and animal surveys, T&E inventory, and utilizing census and population survey information and other data from DOW, FWS, Colorado Natural Heritage and TNC.

STANDARD 5: *Water quality.*

Specific Approaches to Monitoring Compliance, or Progress towards Compliance: Water sampling and laboratory analysis for chemical, physical, and biological constituents, macro-invertebrate studies, utilize Colorado Water Quality Control Division information, data, and monitoring methodologies, and reports and report updates from USGS, EPA, and the Colorado State Water Quality Control division.

****** - supported with other data

Appendix E

Procedures for NEPA Documentation

The following NEPA documents in hard copy are included in this appendix. Commentary and user help screens are installed on the electronic version of these forms that will be sent to each office, and can be viewed by clicking on the appropriate icon.

Environmental Assessment (short form)
The form to be used for "short form" environmental assessments (EA) is included as pages pages 16 - 21. This form will normally be the document used in analysis to adequately achieve site specificity requirements.

Environmental Assessment (long form)

The form to be used for "long form" environmental assessments is not included in this appendix . The long form is an extended version of the short form EA with considerably more analysis required for critical elements for each alternative.

Categorical Exclusion

The form to be used for categorical exclusions (CER) is included in this appendix as pages 22 - 24.

Administrative Decision Record

The form to be used for administrative decision records (ADR) is included in this appendix as pages 25 and 26. This form can be used only when tiering to an existing site specific NEPA document in which health standards as required by the land use plan amendment have been applyed and incorporated in the analysis.

Environmental Impact Statement

Environmental Impact Statements (EIS) are beyond the scope of this appendix, although an analysis of standards should be included in the following parts of an EIS: Introduction (Policies, Plans and Programs), affected environment, and environmental consequences for all alternatives.

ENVIRONMENTAL ASSESSMENT RECORD
(SHORT FORM)

NUMBER: CO-___-9X-__ EA

CASEFILE/PROJECT NUMBER:

PROJECT NAME:

ECOREGION/PLANNING UNIT:

LEGAL DESCRIPTION:

APPLICANT:

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

COMPARISON OF ALTERNATIVES

ACTIONS
PROPOSED
ALTERNATIVE A
ALTERNATIVE B

PLAN CONFORMANCE REVIEW: The proposed action is subject to the following plan:

Name of Plan:

Date Approved:

Page or Decision Number:

The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3).

Standards for Public Land Health: The Standards are addressed in the appropriate Affected Environment and or Environmental Consequences sections. The following Table is a summary of those two sections. Project areas have been assessed for all Standards, however, not all Standards necessarily apply to all acres in the project area. "NA" denotes where a Standard does not apply and does not influence overall land health. Depending on the action analyzed, completion of this chart may be required, optional, or not required. Also, in completion this chart, either acres or checkmarks (X's) are acceptable in the appropriate row-column depending on the action analyzed.

	Current Situation			With Proposed Action	
	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Causative Factors	Acres Achieving or Moving Towards Achieving	Acres Not Achieving
Standard 1					
Standard 2					
Standard 3					
Standard 4					
Standard 5					
Total Acres					
Total Number of acres in project area:					

NEED FOR PROPOSED ACTION:

AFFECTED ENVIRONMENT / ENVIRONMENTAL IMPACTS / MITIGATION MEASURES:

CRITICAL ELEMENTS

AIR QUALITY:

Signature of specialist:

CULTURAL RESOURCES:

Signature of specialist:

FLOODPLAINS, WETLANDS, RIPARIAN ZONES, AND ALLUVIAL VALLEYS: (this includes all information related to Standard 2)

Signature of specialist:

NATIVE AMERICAN RELIGIOUS CONCERNS:

Signature of specialist:

PRIME AND UNIQUE FARMLANDS:

Signature of specialist:

SOILS: (includes all information related to Standard 1)

Signature of specialist:

THREATENED AND ENDANGERED SPECIES: (includes all information related to Stnd 4)

Signature of specialist:

VEGETATION: (includes vegetative information related to Standard 3)

Signature of specialist:

WASTES, HAZARDOUS OR SOLID:

Signature of specialist:

WATER QUALITY, SURFACE OR GROUND: (includes all information related to Standard 5)

Signature of specialist:

WILDERNESS, AREAS OF CRITICAL ENVIRONMENTAL CONCERN, WILD AND SCENIC RIVERS:

Signature of specialist:

WILDLIFE, AQUATIC: (includes wildlife information related to Standard 3)

Signature of specialist:

WILDLIFE, TERRESTRIAL: (includes wildlife information related to Standard 3)

Signature of specialist:

NON-CRITICAL ELEMENTS

ACCESS AND TRANSPORTATION:

Signature of specialist:

CLIMATE:

Signature of specialist:

FOREST MANAGEMENT:

Signature of specialist:

GEOLOGY AND MINERALS:

Signature of specialist:

HYDROLOGY AND WATER RIGHTS:

Signature of specialist:

LAND STATUS/REALTY AUTHORIZATIONS:

Signature of specialist:

NOISE:

Signature of specialist:

RANGE MANAGEMENT:

Signature of specialist:

RECREATION:

Signature of specialist:

VISUAL RESOURCES:

Signature of specialist:

PERSONS/AGENCIES CONSULTED:

INSERTION TO ENVIRONMENTAL ANALYSIS FORMAT FOR COMPLIANCE WITH SECTION 302 OF FLPMA RELATIVE TO THE COMB WASH GRAZING DECISION

___ A review of applicable planning documents and a thoughtful consideration of new issues and new demands for the use of the public lands involved in the allotment has been made. This analysis concludes that the current multiple use allocation of resources is appropriate.

___ A review of applicable planning documents and a thoughtful consideration of new issues and new demands for the use of the public lands involved in the allotment has been made. This analysis concludes that the current multiple use allocation of resources may be inappropriate because of the following factors/ concerns and a land use plan amendment will be completed prior to renewing this grazing authorization for more than one year:

Reasons for this conclusion are:_____

_____

_____

FONSI

CO-___-9X-___ EA

The environmental assessment, analyzing the environmental effects of the proposed action, has been reviewed. The approved mitigation measures result in a finding of no significant impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION AND RATIONALE: It is my decision to _____.

MITIGATION MEASURES:

REMARKS:

COMPLIANCE PLAN:

SIGNATURE OF PREPARER:

SIGNATURE OF ENVIRONMENTAL COORDINATOR:

DATE SIGNED:

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED:

ATTACHMENTS:

CATEGORICAL EXCLUSION RECORD

NUMBER: CO-___-9X -__ CER

CASEFILE/PROJECT NUMBER:

PROJECT NAME:

LEGAL DESCRIPTION:

APPLICANT:

DESCRIPTION OF PROPOSED ACTION:

PLAN CONFORMANCE REVIEW: The proposed action is subject to the following plan:

Name of Plan:

Date Approved:

Page or Decision Number:

The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3).

CATEGORICAL EXCLUSION REVIEW: The proposed action qualifies as a categorical exclusion under 516 DM6 , Appendix 5.4, Number: __ .(__). None of the following exceptions in 516 DM2, Appendix 2,

apply. Yes No

1. Significant adverse effects on public health and safety?

2. Adverse effects to such unique geographic characteristics as historic or cultural resources, park, recreation, or refuge lands, wilderness areas, wild or scenic rivers, sole or principal drinking water aquifers, prime farmlands, wetlands, floodplains, or ecologically significant or critical areas, including those listed on the Department's National Register of Natural Landmarks?

3. Highly controversial environmental effects?

Yes No

4. Highly uncertain environmental effects or involve unique or unknown environmental effects?

5. Establishment of a precedent for future action or represent a decision about future actions with potentially significant environmental effects?

6. Individually insignificant but, when considered with other related actions, cumulatively significant environmental effects?

7. Adverse effects to properties listed or eligible for listing in theNational Register of Historic Places?

8. Adverse effects to a species (or its critical habitat) listed or proposed to be listed on the List of Threatened Species?

9. Potential violation of a Federal, State, local or tribal law orrequirements imposed for the protection of the environment or which require compliance with Executive Order (EO) 111988 (Floodplain Management), EO 11990 (Protection of Wetlands) or the Fish and Wildlife Coordination Act?

10. Adverse effects to soils, vegetation, native wildlife species, water quality, riparian areas, and species of special concern as detailed in Standards for Public Land Health in Colorado, dated November 1996.

REMARKS:

COMPLIANCE PLAN:

SIGNATURE OF PREPARER:

SIGNATURE OF ENVIRONMENTAL COORDINATOR:

DATE:

DECISION AND RATIONALE: I have reviewed this Categorical Exclusion Record and have decided to implement the proposed action.

This action is listed in the Department Manual as an action which may be categorically excluded (516 DM 6, Appendix 5). I have evaluated the action relative to the 10 criteria listed above and have determined that it does not represent an exception and is, therefore, categorically excluded from further environmental analysis.

SIGNATURE OF AUTHORIZED OFFICIAL: DATE SIGNED:

ADMINISTRATIVE DETERMINATION RECORD

NUMBER: CO-___-9X-__ ADR

CASEFILE/PROJECT NUMBER:

PROJECT NAME:

ECOREGION/PLANNING UNIT:

LEGAL DESCRIPTION:

APPLICANT:

DESCRIPTION OF PROPOSED ACTION:

EXISTING EA/EIS REVIEW: The proposed action is addressed in the following EA or EIS, and meets the seven criteria for administrative determination.

Name of Existing Document:

Date Approved:

Modification(s):

PLAN CONFORMANCE REVIEW: The proposed action is subject to the following plan:

Name of Plan:

Date Approved:

Page or Decision Number:

The proposed action has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3).

Standards for Public Land Health: The Standards are addressed in the appropriate Affected Environment and or Environmental Consequences sections of the referenced document(s).

REMARKS:

COMPLIANCE PLAN:

SIGNATURE OF PREPARER:

SIGNATURE OF ENVIRONMENTAL COORDINATOR:

DATE:

INSERTION TO ENVIRONMENTAL ANALYSIS FORMAT FOR COMPLIANCE WITH SECTION 302 OF FLPMA RELATIVE TO THE COMB WASH GRAZING DECISION

___ A review of applicable planning documents and a thoughtful consideration of new issues and new demands for the use of the public lands involved in the allotment has been made. This analysis concludes that the current multiple use allocation of resources is appropriate.

___ A review of applicable planning documents and a thoughtful consideration of new issues and new demands for the use of the public lands involved in the allotment has been made. This analysis concludes that the current multiple use allocation of resources may be inappropriate because of the following factors/ concerns and a land use plan amendment will be completed prior to renewing this grazing authorization for more than one year:

Reasons for this conclusion are:_____

_____

_____

FONSI

CO-___-9X-___ ADR

The environmental assessment, analyzing the environmental effects of the proposed action, has been

reviewed. The approved mitigation measures result in a finding of no significant impact on the human environment and land health. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION AND RATIONALE: It is my decision to _____.

MITIGATION MEASURES:

SIGNATURE OF AUTHORIZED OFFICIAL:

DATE SIGNED:

Appendix F

Minimum Requirements for Reporting Land Health Status

EXAMPLE - LAND HEALTH STATUS IMPLEMENTATION REPORT

UNCOMPAHGRE BASIN RESOURCE AREA (UBRA)

CUMULATIVE AS OF 1999

Total Public Land Acres in UBRA 919,200

Total Acres Where Public Land Health Determinations Have Been Completed . .204,175

Total Acres Found to Have Acceptable Land Health* 113,313

Total Acres Found to Have Unacceptable Land Health 90,862

Total Acres Remaining Requiring Determinations 715,025

DETERMINATIONS MADE IN 1999

Acres Where Public Land Health Determinations Were Made in 1999 108,970

Acres Found to Have Acceptable Land Health* 69,365

Acres Found to Have Unacceptable Land Health 39,605

Number of Actions Reviewed for Compliance With the Standards 71

Number of Actions Where New Stipulations or Mitigation Measures Were Applied . 59

* - Meeting or in compliance with all applicable standards.

The term "Acceptable" could be replaced with: "Satisfactory", "Achieved", "Be In Compliance with Health Standards", "Meet Land Health Standards"; and, correspondingly "Unacceptable" could be interpreted in a reverse manner.

Appendix G

Examples of NEPA Actions and Miscellaneous Information

Examples of actions not requiring an assessment of standards:

EXAMPLE 1: A categorically excluded action that has no negligible affect on land health, or may disturb a negligible area of land.

Project proposal - Replacing and raising the bottom wire on an existing fence with smooth wire to facilitate improved ingress and egress for antelope.

NEPA documentation - Use the categorical exclusion record (CER) form to provide along with other information, a description of the project (proposed action), ensuring plan conformance review, categorical exclusion review (note item #10), compliance plan and signatures of preparer and environmental coordinator.

Decision - The decision to raise and replace the bottom wire with smooth wire is documented in the CER along with the specific design specifications and other appropriate requirements for the project. The CER is signed and dated by the authorized officer (AO).

EXAMPLE 2: A project that was constructed in the past and doesn't require reauthorization or a NEPA analysis to maintain.

The project - During routine surveillance for maintenance planning, the crossing on an improved and maintained BLM road was contributing to siltation and causing accelerated streambank erosion to a creek with fishery values.

Analysis - The siltation and erosion at this single location and at this point in time may not be cause for non-compliance with standard 5, but it sure isn't helping the overall water quality in this fisheries creek. The analysis should focus on necessary corrective actions, i.e. installing a culvert or placing a bridge at the crossing, re-routing the road, etc. to correct the problem.

Decision - In planning the maintenance schedule and program for the next 3 months, an appropriate size

culvert will be installed at the crossing in conjunction with grading this road.

EXAMPLE 3: A project is proposed in an area in which a similiar project was previous assessed in a Environmental Analysis (EA) document.

Action/Project proposal - A Right-of-Way Application for a 4 inch gas pipeline crossing one mile of BLM along a gentle slope never getting closer than one-half mile to any riparian/wetland area. Existing is an EA for a similiar project (R-O-W for a 6 inch pipeline) in the same corridor, in which public land health standards were addressed and project design features and mitigating measures identified and required in the previous EA FONSI.

NEPA documentation - An administrative determination record (ADR) is used to document the EA/EIS on the similiar project which contains the analysis of the action, identify any modifications (additional/ different project design features or mitigating measures), and ensure plan conformance including standards for public land health.

Decision - The ADR FONSI documents the authorized Officer's decision to approve the ROW grant and lists the required mitigation measures. Mitigation examples for this project might include: 1. Use brush beater to minimize soil surface disturbance when removing vegetation; 2. Use weed-free mulch incorporated into the soil surface at the rate of 2 tons per surface acre prior to seeding; 3. Seed using a drill in the Fall of 1999; 4. Seed the disturbed area with a weed free native seed mixture (list the species and 1bs./ acre of pure live seed (PLS) for each species in the mixture). The AO signs and dates the document.

EXAMPLE 4: An example of where the assessment for compliance with the standards is a low priority due to the size and location of the public land in contrast to the bigger operation on adjacent private lands.

Action proposal - Grazing permit renewal on a category "C" allotment involving an 80 acre tract of rough rocky public land inside a 1500 acre private pasture.

NEPA documentation - Providing a site specific EA/EIS analysis exist on this allotment, an administrative determination record (ADR) can be used to renew the grazing permit for another term. The ADR would reference the existing EA/EIS, and document plan conformance. In the description of the proposed action it should be mentioned that the allotment is a low priority category "C" with no known resource concerns or problems, no public interest or controversy, management options and alternatives in applying health standards are limited, and that continuation of livestock grazing consistent with existing terms and conditions of the permit will have no additional impacts to overall land health.

If a site specific (to the allotment) EA/EIS does not exist, a site specific EA must be used to renew the permit.

Decision - The ADR FONSI documents the authorized Officer's decision to renew the permit for a 10 year period consistent with the proposed action with no change to the present terms and conditions, and

prescribes as appropriate, any monitoring as necessary to assure present conditions are maintained.

Examples of actions requiring an assessment of standards:

EXAMPLE 5: An example of a significant action requiring and EA where only minimal data exists, or the data which exists is inconclusive on the health of the land or compliance with the standards.

Action/Proposal - An oil company proposes a 30 well drilling program at 160 acre spacing which covers about 5,000 acres. The land is rough and there has been little grazing during the past 10 years due to a bankruptcy and two failures to successfully transfer the grazing privileges. At present, little data exists which is inconclusive about the health of the area and compliance with the standards. If time permits relative to making a decision or taking action on the proposal, additional data can be gathered to make a quality analysis on compliance with the standards. Otherwise, document the NEPA analysis as follows.

NEPA documentation - An EA, long or short form, will be used to explain the scope of the project, analyze alternatives, etc., and discuss the impacts. Under the Plan Conformance Review Standards for Public Land Health section, and the Critical Element sections that relate to specific standards, indicate that, "The analysis finds that the proposal can be partially implemented without adversely impacting land health provided appropriate design features are incorporated into the proposal and specific mitigating measures are applied. Full and complete implementation, or modifications to the approved partial proposal will be conditioned on results of monitoring". Depending on the type of bureau action, the following chart in the EA electronic format maybe required, optional, or not required. In this example with the situation of inconclusive data, determinations on compliance with standards was not made and the only entry would be the total acres in the project area.

	Current Situation			With Proposed Action	
	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Causative Factors	Acres Achieving or Moving Towards Achieving	Acres Not Achieving
Standard 1					
Standard 2					
Standard 3			.		
Standard 4					
Standard 5					
Total Acres					

Total Number of acres in project area: 5000

Decision - The EA FONSI documents the AO decision to partically authorize the proposed drilling program, and identifies the required design features and mitigation measures. Initiate appropriate monitoring to assure land health and compliance with standards is being acheived.

NOTE: If the above example was renewal of a grazing permit, the decision may be to approve the permit for a shorter term with the condition that longer term approval and/or modifications to terms and conditions be based upon monitoring.

EXAMPLE 6: An example of a significant action requiring EA where there is sufficient information and data to determine compliance with the standards and the health of the land. If a site specific environmental analysis currently exists and is deemed adequate for the current proposal, an ADR can be used in lieu of the EA.

Action/Proposal - Renewal of a grazing permit for a 7,000 acre, 4 pasture allotment. There is good information and data for the entire area to determine if standards are being acheived/not acheived. The only concern about the allotment is a 40 acre infestation of leafy spurge in one pasture and a 200 yard section of skunk creek that is not at PFC in another pasture.

NEPA documentation - The EA would document the proposed action, alternatives, impacts, etc. To meet the requirements of applying health standards, the table under the Plan Conformance Review - Standards for Public Land Health section would be completed like the following. This is an example of determinations on compliance with standards using acreage data.

	Current Situation			With Proposed Action	
	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Causative Factors	Acres Achieving or Moving Towards Achieving	Acres Not Achieving
Standard 1	6950			6950	
Standard 2	45	5	flashflood	50	
Standard 3	6960	40	weed inv.	7000	
Standard 4	NA			NA	
Standard 5	7000			7000	
Total Acres	6955	45			

Total Number of acres in project area: 7000

Additionally, under CRITICAL ELEMENTS, each section relating to individual standards would address the present situation, impacts, and mitigation measures. Example:

Critical Elements - Vegetation: The vegetation communities in this allotment overall meet Standard 3 with exception of a 40 acre leafy spurge infestation in Pasture 2. If left untreated, this patch will increase in size further impacting desirable vegetation in the allotment and the uses that depend on it. To mitigate the impacts of the proposed action, the infestation will be controlled with herbicide application, multiple times if needed.

Other actions and mitigation measures could result in the analysis include:

1. Prescribe the continuation of existing, or establish new, monitoring to maintain land health.

2. Install temporary electrical fence around 5 acre riparian site in non-functioning condition and rest from grazing for 2 years or until the area heals sufficiently from the damage caused by the flash flood.

Decision - The EA FONSI documents the decision to renew the permit for a 10 year period with the above mitigating actions shown as terms and conditions on the permit.

EXAMPLE 7: This is an example of an action requiring an EA or ADR in which it is determined that the standards can not be achieved if the action is approved.

Action/Proposal - The county chamber of commerce wants to hold a 4th of July off-road 4-wheel drive race on a course crossing 90 miles of trails on public lands. About one third of the route is across badlands broken into small drainages, 8 of which have flowing streams which would be forded. Another third of the route crosses mid-slopes and ridges vegetated with grass, shrubs, juniper and ponderosa pine trees. The remaining third of the route crosses relatively flat areas of sage brush and open grasslands. Two hundred fifty participants and 1500 spectators are expected to be on the course, concentrated in five different viewing areas.

NEPA documentation - The NEPA document would explain the scope of the project, alternatives, discuss impacts, etc.. To meet the requirements of applying health standards, the table under the Plan Conformance Review - Standards for Public Land Health section would be completed like the following. This is an example of determinations on acheiving or moving towards acheiving standards with the proposed action.

	Current Situation			With Proposed Action	
	Achieving or Moving Towards Achieving	Not Achieving	Causative Factors	Achieving or Moving Towards Achieving	Not Achieving
Standard 1				x	x
Standard 2				x	x
Standard 3			.	x	x
Standard 4				x	x
Standard 5				x	x
Total Acres					

Total Number of acres in project area: 600 (includes course, stream crossing, view areas)

Additionally, under CRITICAL ELEMENTS, each section relating to individual standards would address the present situation, impacts, and mitigation measures. Examples include:

Critical Elements - Soils: Permeability and infiltration of upland soils occurring on the proposed race course would be temporarily impacted by vehicle and human compaction, damage to the soil would occur by spinning wheels that displace or destroy ground and vegetation cover, thus increasing the opportunity for increased and accelerated erosion. To mitigate the impacts would require the course be relocated off certain identified portions of the badlands and mid-slopes to locations with soils less likely to erode and damage to occur.

Critical Elements - Vegetation: The vegetation communities (upland and riparian) located directly on the race course would be most impacted, with less impact occuring in the viewing areas. Although the impacts would be temporary, vegetation impacts at 3 stream channel crossings (identified on map) would be severe and long term. Changes in the three stream crossing locations would mitigate the impacts to vegetation.

Similiarly, water quality impacts and possible mitigation would be mentioned under Critical Elements - water quality. The analysis concludes that land health standards can not be achieved if the proposed action is implemented because, the proposal would cause unmitigatable, unacceptable impacts on riparian and water quality standards due the racing vehicles and some spectator vehicles fording the streams.

Decision - The EA FONSI would document the decision to reject the off-road vehicle race permit application based on the inability to maintain land health due to unmitigatable impacts to specific soils, riparian vegetation, and water quality on erosive upland sites and where the fording of streams is proposed. The race might be able to be authorized if the race course routing could be changed.

EXAMPLE 8: This is an example of a significant action requiring in which it is determined that standards are not being met due to livestock grazing.

Action/Proposal - The proposed action is a grazing permit renewal for a 3200 acre grazing allotment which involves three and one-half miles of riparian area in "not functioning" condition and upland areas with excessive and accelerated erosion on approximately 1000 acres. The entire allotment is a sagebrush monoculture, lacking the expected diversity in the native plant communities.

NEPA documentation - The EA document would explain the scope of the project, alternatives, discuss impacts, etc.. To meet the requirements of applying health standards, the table under the Plan Conformance Review - Standards for Public Land Health section would be completed like the following. The folowing is an example of determinations on compliance with standards under both the current situation and proposed action.

Current Situation			With Proposed Action	
Achieving or Moving Towards Achieving	Not Achieving	Causative Factors	Achieving or Moving Towards Achieving	Not Achieving

Standard 1	x	erosion	x
Standard 2	x	NF cond.	x
Standard 3	x	lacks diversity	x
Standard 4	NA		NA
Standard 5	x	siltation	x
Total Acres	x		

Total Number of acres in project area: 3200

Additionally, under CRITICAL ELEMENTS, each section relating to individual standards would address the present situation, impacts, and mitigation measures. Examples include:

Critical Elements - Soils: Excessive and accelerated erosion is occurring on 1000 acres. Permeability and infiltration of upland soils are not functioning due to lack of adequate canopy, ground and litter cover. The majority of the upland vegetation sites are sagebrush dominated with no variety in rooting depths. The few native species found in these dominated sites lack vigor. These indicators are a result of livestock over grazing in a continuous season long grazing system. To mitigate the impacts to upland soils will require prescribed burning on 2000 acres, 1500 of which would need to be reseeded with a native species mixture. Another 700 acres needs to be plowed with a rangeland disc followed with seeding a native species mixture. The entire allotment needs to be managed under a planned grazing system which provides for periods of use and adequate rest intervals.

Critical Elements - Flood Plains, Wetlands, Riparian Zones: Three and one-half miles of riparian area is non-functioning, characterized with cut streambanks, wide shallow channel that continues to erode, lacks desired deep rooted vegetation to anchor the channel and other appropriate vegetation to provide protection during high flows. These impacts are a result of excessive livestock use. This situation can be corrected and mitigated by changing the existing grazing use pattern from continuous year long to a planned system which compliments and meets the needs of the riparian area.

Critical Elements - Vegetation: The vegetation communities for both upland and riparian lack diversity to to poorly timed and excessive livestock use. The uplands are sagebrush dominated while the riparian area is predominately shallow rooted kentucky bluegrass, and introduced species. Sagebrush control using fire and plowing followed with reseeding, along with a planned grazing system that accounts for the needs of upland and riparian sites would mitigate the impacts to vegetation.

Similiarly, water quality impacts and possible mitigation would be mentioned under Critical Elements - water quality.

The analysis finds that land health standards are not being achieved and it is determined that livestock grazing is the primary cause. The analysis concludes that land health standards can be achieved if the proposed action is mitigated as indicated in the Critical elements above.

Decision - The EA FONSI documents the decision to issue a new 10 year grazing permit incorporating the appropriate guidelines as terms and conditions to improve land health relative to standards 1, 2, 3, and 5. The appropriate guidelines as terms and conditions of the permit need to be identified i.e. reduce livestock numbers, change the season of grazing, initiating a grazing management program that will take into account the proper use and needs of upland and riparian areas, increase cover to prevent erosion and to increase the plant diversity on the uplands, and plans for needed developments such as off stream watering facilities, burn and plow 2700 acrea, seed 2200 acres, fencing and other needed improvements. To assure progress is made towards acheiving land health, existing monitoring would continue, or new monitoring would be initiated as necessary.

"Note that regulations require that appropriate action must be taken as soon as practical, but not later than the start of the next grazing season, to commence making progress towards improving the health of the land." By issuing a 10 year permit with new terms and conditions, the regulation requirement has been met. The A.O. has taken appropriate action by identifying the problems and prescribing appropriate rememdies. Beginning the development of the grazing plan and implementation and treatments can then be scheduled accordingly.

EXAMPLE 9: This example is the same as number 5 above, except it is determined that standards are not being met due to reasons other than livestock grazing.

Action/Proposal - The proposed action is a grazing permit renewal for a 3200 acre grazing allotment which involves three and one-half miles of riparian area in "not functioning" condition and upland areas with excessive and accelerated erosion on approximately 1000 acres. The entire allotment is a sagebrush monoculture, lacking the expected diversity in the native plant communities.

NEPA documentation - The EA document would explain the scope of the project, alternatives, discuss impacts, etc.. To meet the requirements of applying health standards, the table under the Plan Conformance Review - Standards for Public Land Health section would be completed like the following. The following example shows determinations on compliance with standards in terms of acreage for both the current situation and proposed action.

	Current Situation			With Proposed Action	
	Acres Achieving or Moving Towards Achieving	Acres Not Achieving	Causative Factors	Acres Achieving or Moving Towards Achieving	Acres Not Achieving
Standard 1		3000	erosion	3000	
Standard 2		200	NF cond.	200	
Standard 3		3200	lacks diversity	3200	
Standard 4		NA		NA	

Standard 5	200	excessive siltation	200
Total Acres	3200		

Total Number of acres in project area: 3200

Additionally, under CRITICAL ELEMENTS, each section relating to individual standards would address the present situation, impacts, and mitigation measures. Examples include:

Critical Elements - Soils: Excessive and accelerated erosion is occurring on 1000 acres. Permeability and infiltration of upland soils are not functioning due to lack of adequate canopy, ground and litter cover. The majority of the upland vegetation sites are sagebrush dominated with no variety in rooting depths. The few native species found in these dominated sites lack vigor. These indicators are a result of excessive use and poor distribution of wild horses in the allotment. To mitigate the impacts to upland soils will require prescribed burning on 2000 acres, 1500 of which would need to be reseeded with a native species mixture. Another 700 acres needs to be plowed with a rangeland disc followed with seeding a native species mixture. Numbers of wild horses need to be reduced to levels consistent with overall grazing capacity of the allotment that includes 85 AUMs of livestock use during a 2 week period in the fall.. Additionally, a grazing system with water developments which distributes wild horse use needs to be developed and implemented.

Critical Elements - Flood Plains, Wetlands, Riparian Zones: Three and one-half miles of riparian area is non-functioning, characterized with cut streambanks, wide shallow channel that continues to erode, lacks desired deep rooted vegetation to anchor the channel and other appropriate vegetation to provide protection during high flows. These impacts are a a result of excessive season long use by wild horses, and increased numbers of elk which come a month earlier in the fall and stay a month longer in the spring than normal. This situation can be corrected and mitigated by reducing the numbers of both wild horses and elk, and implementing a system which pulls horse and elk use out of the riparian area during critical times to allow for recovery and improvement.

Critical Elements - Vegetation: The vegetation communities for both upland and riparian areas lack diversity due to poorly timed, poor distribution, and excessive wild horse and elk use. The uplands are sagebrush dominated while the riparian area is predominately shallow rooted kentucky bluegrass, and introduced species. Sagebrush control using fire and plowing followed with reseeding, along with a planned grazing system that accounts for the needs of upland and riparian sites would mitigate the impacts to vegetation.

Similiarly, water quality impacts and possible mitigation would be mentioned under Critical Elements - water quality.

The analysis finds that land health standards are not being achieved and wild horse and elk use is the primary cause. The analysis concludes that land health standards can be achieved if the proposed action is

mitigated as indicated in the Critical Elements above.

Decision - The EA FONSI documents the decision to issue a new 10 year grazing permit with no change to terms and conditions, except that future use may be modified consistent with the development and implementation of a wild horse management plan, and proposed mitigation treatments and developments including prescribed burns, plowing, seeding, and additional watering facilities. In addition, pursue gather operations to remove excess numbers of wild horses to acheive AML's. To resolve the elk problems, develop a plan with the Division of Wildlife to control numbers and periods which might include seeding projects off site to intercept and hold the elk, continued hazing, and depredation hunts. To assure progress is made towards acheiving land health, existing monitoring would continue, or new monitoring would be initiated as necessary.

BUREAU ACTIONS APPENDIX H

GUIDANCE FOR ASSESSMENTS AND NEPA IN IMPLEMENTING HEALTH STANDARDS IN COLORADO

LANDSCAPE ACTIONS (PROJECT, PROGRAM, AND ADMINISTRATIVE)

DEFINITIONS AND EXAMPLES				
LARGE LAND AREAS SELECTED FOR PLANNING AND DEVELOPMENT. INCLUDES PARTNERSHIP & WATERSHED APPROACHES, CO-OP PLANS, ALLOTMENT OR GROUPS OF ALLOTMENTS, MANAGEMENT EMPHASIS AREAS, OTHER GEOGRAPHICAL AREAS, ETC.	SITE SPECIFIC - I. E. WATER DEVELOPMENTS, BOAT RAMP, CATTLE GUARD, APD PROJECT AREA IS QUITE SMALL AND WELL DEFINED	AREA SPECIFIC - R.O.W., VEG'N TRMTS, ALLOTMENT ACTIONS, LAND EXCHANGES. THERE IS A DEFINED SIZE IN ACREAGE TO THESE TYPES OF ACTIONS	MAINTENANCE - ROADS, TRAILS, FACILITIES, AND LONG TERM REAUTHORIZAT'NS I.E. GAS PROD'CTN	ON THE GROUND MINOR ACTIVITIES THAT ARE INCLUDED IN THE CATEGORICAL EXCLUSION LISTS, I.E. REPLACING BOTTOM STRAND OF FENCE WIRE, ADDING BIRD LADDERS TO TROUGHS, ETC

ASSESSMENT AND STANDARDS FOR P.L. HEALTH CHART				
REQUIRED - A FORMAL ASSESSMENT WITH ALL STAKEHOLDERS RESULTING IN DETERMINATION OF COMPLIANCE WITH EACH STANDARD WITH ACRES MEETING/NOT MEETING FOR REPORTING PURPOSES. WHERE A NEPA DOCUMENT IS PREPARED FOR THESE TYPES OF PLANS, THE CHART IN THE NEPA DOCUMENT WILL BE COMPLETED WITH ACREAGE ACHIEVING, NOT ACHIEVING ETC.	NOT REQUIRED - AN ASSESSMENT OF COMPLIANCE WITH EACH STANDARD IS NOT REQUIRED UNLESS CUMULATIVE IMPACTS ARE IDENTIFIED IN WHICH THE ACTIVITY MAY SHIFT TO AN AREA SPECIFIC ACTIVITY. CHART IN NEPA DOCUMENT NOT FILLED OUT	FOR LOW PRIORITY ACTIONS WHERE NO RESOURCE ISSUES, CONFLICTS , OR PUBLIC INTEREST EXISTS, ASSESSMENT IS OPTIONAL. CHART IN NEPA IS OPTIONAL, AND FILLED IN WITH X's OF ACRES IF USED. FOR MEDIUM TO HIGH PRIORITY ACTIONS WHERE RESOURCE ISSUES, CONFLICTS, AND PUBLIC INTEREST EXISTS AN ASSESSMENT IS REQUIRED. AS MINIMUM, CHART IN NEPA FILLED IN WITH X's FOR COMPLIANCE DETERMINATION, OR, IF ACTION IS DEEMED AS A LANDSCAPE, ACREAGE WILL	NO ASSESSMENT REQUIRED. NONCOMPLIANCE NOTED DURING INSPECTIONS ARE CORRECTED WITH PROJECT DESIGN FEATURES (PDF), MITIGATION MEASURES, SPEC's AND STIP's	NO ASSESSMENT REQUIRED.

BE FILLED IN

NEPA DOCUMENT

NEPA - LONG OR SHORT FORM EA DEPENDING ON ISSUES, PROBLEMS, CONCERNS AND PUBLIC INTEREST, WITH PLAN AMENDMENT, EIS POSSIBLE	NEPA - ADR IF SITE SPECIFIC ANALYSIS EXISTS, OTHER WISE A LONG OR SHORT FORM EA REQUIRED. PDF'S, MITIGATION MEAS, STIP's ETC. ARE KEY TO AUTHORIZING THESE ACTIVITIES	FOR LOW PRIORITY - NEPA WOULD BE AN ADR IF SITE SPECIFIC ANALYSIS EXISTS, OTHER WISE A LONG OR SHORT FORM EA REQUIRED. COULD ALSO BE A PLAN AMENDMENT OR AN EIS. PDF'S, MITIGATION MEASURES, STIP's ETC. ARE KEY TO AUTHORIZING SOME OF THESE ACTIVITIES	NO NEPA REQUIRED UNLESS ACTIVITY PROPOSED IS OUTSIDE THE SCOPE OF MAINTENANCE	NEPA GENERALLY NOT REQUIRED EXCEPT FOR CAT X OR CER DOCUMENT