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"Kathleen
Jachowski"
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>

11/24/2008 07:34
PM

To
<BBRMP_WYMail@blm.gov>

cc

Subject
BLM--RMP COMMENTS--SAGE-GROUSE
LWG-BIG HORN BASIN

THIS E-MAIL, ALONG WITH THE ABOVE ATTACHMENT SHOULD BE ENTERED INTO THE PUBLIC RECORD OF THE BIGHORN BASIN RESOURCE MANAGEMENT REVISION PROCESS-SCOPING ISSUES---DEADLINE FOR COMMENT HAS BEEN EXTENDED TO NOVEMBER 24, 2008.

THIS INFORMATION REPRESENTS GOALS, OBJECTIVES AND SUGGESTED ADAPTIVE MANAGEMENT STRATEGIES WHICH THE BIG HORN BASIN SAGE-GROUSE LOCAL WORKING GROUP WOULD LIKE TO HAVE ENTERED INTO THE PUBLIC RECORD, AND WOULD LIKE CONSIDERED DURING THE DEVELOPMENT OF THE RESOURCE MANAGEMENT PLAN REVISION FOR THE BIG HORN BASIN.

THESE GOALS, OBJECTIVES AND ADAPTIVE MANAGEMENT STRATEGIES (RECOMMENDED MANAGEMENT PRACTICES -RMPs ARE PART OF THE APPROVED BHB--PLAN FOR SAGE-GROUSE CONSERVATION AS SUBMITTED TO AND ACCEPTED BY THE WYOMING GAME AND FISH COMMISSION IN NOVEMBER 2007.

WE APPRECIATE THE OPPORTUNITY TO OFFER THESE CONSIDERATIONS FOR INCLUSTION AND INTEGRATION INTO THE BIGHORN BASIN RESOURCE MANAGEMENT PLAN.)

THANK YOU,

KATHLEEN P. JACHOWSKI, CHAIRPERSON
BIG HORN BASIN SAGE-GROUSE LOCAL WORKING GROUP

-----Original Message-----
From: Tom Easterly [mailto:Tom.Easterly@wgf.state.wy.us]
Sent: Friday, November 21, 2008 9:03 AM
To: Kathleen Jachowski
Subject: conservation strategy

The Goals & Objectives in our Plan were right above the Adaptive Mgmt and BMPs so it was easy to create one file containing all of that info. It was 20 pages and may be a large pdf file.
(See attached file: BHBConservStrategy.pdf)

CONSERVATION STRATEGY

This section of the Big Horn Basin Sage-grouse Conservation Plan provides specific goals, objectives and actions designed to improve sagebrush habitats and sage-grouse populations. We also offer recommended management practices (RMPs) to address or mitigate possible limiting factors. Agency and industry sector commitments, outside the scope of the BHBLWG, are also provided to demonstrate other efforts that are being undertaken to assure sage-grouse populations in the BHBCA remain viable (page 81).

After thorough discussion of factors affecting sage-grouse populations in the Big Horn Basin, the BHBLWG ranked those factors to establish priorities. Our initial ranking of factors affecting grouse (page 26) was used as a baseline for expanded discussion on how best to address these factors. Personal experience, review of existing scientific literature and appreciation for limited site-specific information lead to a prioritizing of goals and objectives that differed from our initial ranking of factors. Through this process, we developed four major goals to fulfill our mission "*...to enhance sagebrush habitats and ultimately sage-grouse populations within the Big Horn Basin*." Several of these goals have sub-goals to address specific factors that may affect sage-grouse. Goals address habitat, populations, research and education:

1. **MAINTAIN, ENHANCE, AND/OR RESTORE QUALITY HABITAT FOR SAGE-GROUSE,**

2. **MAINTAIN AND ENHANCE SAGE-GROUSE POPULATIONS IN THE BIG HORN BASIN,**

3. **SUPPORT RESEARCH TO BETTER UNDERSTAND THE DYNAMICS OF SAGE-GROUSE POPULATIONS AND THEIR HABITATS IN THE BIG HORN BASIN,**

4. **EDUCATE THE PUBLIC ABOUT SAGE-GROUSE AND CONSERVATION OF THEIR HABITATS.**

The strategy for sage-grouse conservation in the BHBCA is to meet the goals and sub-goals through the development and implementation of objectives. Objectives are the actions designed to improve sage-grouse habitats and populations in the Big Horn Basin. Objectives were ranked by the BHBLWG to assist in prioritizing projects and funding. Ranking criteria included: 1) urgency, 2) feasibility and likelihood of success, 3) benefits to multiple species, 4) importance to sage-grouse populations and 5) importance to sagebrush habitats.

Some of these objectives will be implemented by the BHBLWG, but others rely on implementation by cooperating agencies and other groups. Although the BHBLWG does not have authority to enforce implementation of objectives, agencies and groups should agree to work toward implementation of these objectives. Objectives may be

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implemented using a variety of management actions and practices. Where we felt it necessary, we provide more details on how to implement objectives. In other instances, we allow for maximum flexibility on how objectives are to be implemented.

Recommended management practices are included to assist with implementation of some of our objectives (pages 63-70). RMPs are techniques that should be implemented, voluntarily, to mitigate for possible impacts on sage-grouse habitats. RMPs may be appropriate under some circumstances but not under others. The user must determine relevance and appropriateness of each RMP, which may require modification to meet site-specific conditions. They are not implied regulations although some are based on current regulations or policies. If deemed appropriate, some may become future policy via established agency procedures, outside the authority of the BHBLWG.

Conservation Goal #1: **MAINTAIN, ENHANCE, AND/OR RESTORE QUALITY HABITAT FOR SAGE-GROUSE**

Sub-goal: Livestock Grazing. **Promote grazing practices that maintain suitable sage-grouse habitats on federal, state, and private land in the Big Horn Basin.** Managers and owners of the land and livestock should be aware of and address potential impacts of livestock grazing on sage-grouse populations and habitats.

Objective: **The BHBLWG will conduct/host two workshops/field tours in the Big Horn Basin by the end of 2008 to demonstrate livestock management practices that can be beneficial to sage-grouse habitat.**

Objective: **Within one year of plan adoption, the BHBLWG will identify and work with willing landowner(s), BLM and NRCS to apply the Ecological Site Description/Adaptive Management process to manage at least one project area for improved sage-grouse habitat.**

Objective: **Land managers should use the Adaptive Management process (described below) to evaluate habitat conditions for sage-grouse, identify desired vegetation communities best suited for the site and obtain a list of RMPs to use for management of the site when grazing plans are revised.**

Sub-goal: Vegetation Management. **Endorse habitat treatments that are beneficial to sage-grouse and provide a mix of early, mid and late seral vegetation stages on a landscape scale.** Sagebrush communities evolved with disturbance, but the frequency of disturbance has been debated. Habitat treatments (e.g., mowing, burning, spraying) should be used to reduce sagebrush density and increase herbaceous vegetation.

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Treatments should promote a mosaic of early, mid and late seral stages of plant succession on a landscape. We provide RMPs to be considered in project planning (page 64).

Objective: **Beginning with the adoption of this plan, vegetation treatments on public lands or on private land with public funds should be designed to maintain or enhance sage-grouse habitat on a landscape scale, while considering ecological, economic and cumulative impacts.**

Objective: **The BHBLWG will initiate efforts to create a GIS data layer that encompasses all of the available habitat treatments that have taken place Basin-wide for use in assessing cumulative impacts and guidance on future habitat treatments by 2008.**

Sub-goal: Mineral Development. **Minimize negative impacts of exploration and/or development of mineral resources on sage-grouse habitat and encourage reclamation that restores or improves sage-grouse habitats.** The BLM, WDEQ/LQD, mining companies and oil/gas exploration and development companies should be aware of potential impacts to sage-grouse and work to lessen those impacts.

Objective: **By 2008, conduct at least one workshop/field tour to present successful low impact exploration, production, and/or reclamation techniques that could be used throughout the Basin.**

Objective: **Where and when loss of sage-grouse habitat is unavoidable, industry should use off-site mitigation to produce similar habitat values, effective upon adoption of this plan.**

Objective: **The BHBLWG will write a letter in 2007 requesting that permitting agencies allow use of appropriate, non-native vegetation species to aid in reclamation of difficult areas.**

Objective: **The BHBLWG will request that the NRCS area resource conservationist contact the Bridger Plant Materials Center to develop sage-grouse friendly seed mixes from existing plant materials for the Big Horn Basin.** – *Completed.* Letter sent through NRCS to Plant Materials Center, October 2006. USDA Plant Materials Center responded that opportunities for establishing native vegetation from seed are limited in the 5-9 inch precipitation zone. Bridger Plant Materials Center did not have a seed mix available that they could recommend. Test plots for sage-grouse habitats are currently being evaluated in the Pinedale area, which may be useful in the Bighorn Basin.

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Objective: **Industry and permitting agencies should attempt to re-establish sagebrush habitat on disturbed sites previously used by sage-grouse by implementing RMPs** (pages 65-68)**.**

Sub-goal: Invasive Plants. **Limit the introduction and spread of invasive plants in sage-grouse habitat and promote control and reduction of infestations.** All users of sagebrush communities have a stake in seeing that invasive plants do not become established and should work toward elimination of these plants in areas where they have become established.

Objective: **The BHBLWG will provide and request publication of two articles in local Conservation District newsletters on the potential effects of invasive plants on sage-grouse by 2008.**

Objective: **Land managers should monitor and evaluate proposed or implemented vegetation treatments in sage-grouse habitat to determine if invasive plant management is necessary.**

Objective: **Land managers/owners, working with local Weed and Pest districts, should conduct at least one project to control invasive plants in or near sage-grouse habitat, annually beginning in 2007.**

Sub-goal: Conflicting Wildlife Management. **WGFD should consider impacts on sage-grouse when developing population objectives and strategies for big game species.** Big game herds in the BHBCA have not been documented to cause any landscape-scale habitat degradation; however, some site-specific impacts have occurred on winter ranges. WGFD recently began conducting browse transects on winter ranges to track if concentrations of big game are impacting habitats, sagebrush in particular. To reduce impacts of big game on sage-grouse habitats, the BHBLWG recommends the following objective:

Objective: **WGFD, in cooperation with federal state, local government and private landowners, should monitor vegetation use by big game wildlife in areas identified as important sage-grouse habitat and identify any resulting negative effects to sage-grouse habitat likely being caused by big game species. Areas where specific habitat problems are occurring should be identified and evaluated for corrective management actions.**

Sub-goal: Wild Horse Management. **BLM should assure that feral horse populations are maintained at acceptable carrying capacities and impacts to sage-grouse caused by feral horses are minimized.** If populations of feral horses are too high for the range, overgrazing may occur. Overgrazing of habitats by horses, wildlife or

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livestock can be detrimental to sage-grouse habitats. The BHBLWG will comment on horse populations when it believes they are impacting sage-grouse habitats.

Objective: **Request "Interested Party" status for the Big Horn Basin Local Working Group on all actions on the McCullough Peaks and 15-Mile horse herds through the life of the working group.**

Sub-goal: Farming. **The BHBLWG will promote farming operations that are compatible with maintenance and enhancement of sage-grouse habitat.** Converting sagebrush habitat to farmland is no longer a major concern in the BHBCA. Agricultural areas can provide habitat for sage-grouse, especially during summer (brood-rearing).

Objective: **Develop and facilitate distribution of a brochure on farming for sage-grouse, coordinated with UW Extension, by December 2007.**

Sub-goal: Monitoring. **Facilitate the continued identification and mapping of important sage-grouse habitats in the Big Horn Basin.** We concluded that little is known about sage-grouse habitat use in the BHBCA. Knowledge of habitat selection and seasonally important areas is vital for identifying habitat improvement projects, for identifying mitigation and for assessing long-term viability of the species.

Objective: **Seek funding to support identification, delineation and mapping of important sage-grouse habitats with initial GIS coverages developed by Dec. 2011.**

Objective: **Field personnel with WGFD and BLM should utilize the Wildlife Observation System (WOS) and/or Wyoming Natural Diversity Database to document sage-grouse locations and other relevant data.** – *Completed.* Letter was written to BLM and WGFD offices in Bighorn Basin with this recommendation, April 1, 2006.

Sub-goal: Water Development. **Provide additional water sources, where suitable, for sage-grouse, other wildlife and livestock.** Water can be a scarce, and sometimes limiting, habitat component for sage-grouse in the BHBCA. Development of accessible water can benefit all wildlife and livestock.

Objective: **The BLM, WGFD, and NRCS should assure that new water developments in sage-grouse habitats, provide access for sage-grouse and where possible, existing water developments should be retro-fit to provide access to water.**

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Objective: **Through the life of the BHBLWG, we will help facilitate funding to complete at least one water project per year with specific sage-grouse benefits. Agencies are expected to continue efforts to achieve this objective.**

Objective: **Develop reservoirs, wetlands, or other water sources as part of reclamation of mined lands in areas with limited water.**

Objective: **The BHBLWG will submit a letter to the WDEQ & Region 8, EPA stating support for continued historic (pre-1975), conventional oil field surface discharges of water in sage-grouse habitats that meet the needs of wildlife and livestock without bioaccumulation of contaminants at levels that would be hazardous to human health and the environment.** – *Completed*. Letter was sent February 2006.

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Conservation Goal #2: **MAINTAIN AND ENHANCE SAGE-GROUSE POPULATIONS IN THE BIG HORN BASIN**

Sub-goal: Population level. **The average number of males per lek should not decline below 24 males/lek during population peaks; below that level, more stringent protections on sage-grouse populations and habitat may be needed.** This baseline figure for males/lek was obtained from data collected during 2000. The State-wide Plan used males/lek averages from 2000 to establish baseline levels for the state. Males/lek are used as an index to population level. No population estimates for the BHBCA or the state have been determined.

Sub-goal: Hunting. **The WGFD should recommend hunting regulations that are responsive to fluctuations in sage-grouse population levels.** The BHBLWG recommends that hunting seasons continue. Hunting has had minimal impacts on sage-grouse populations in the BHBCA. Hunting seasons (season dates, length, bag limits) should continue to be responsive to sage-grouse population levels.

Sub-goal: Predation. **Where and when scientific studies have demonstrated negative impacts, the BHBLWG endorses the control of predators to reduce their impacts on sage-grouse populations.**

Sub-goal: Monitoring. **Beginning with the adoption of this plan, management agencies should improve reliability of data collected on sage –grouse by implementing the following:**

1. WGFD, BLM, industry and volunteers will use established protocols for monitoring leks and lek complexes.
2. WGFD and BLM should develop standardized methodology for surveying and documenting sage-grouse broods.
3. State and federal agencies and industry should look for ways to enhance funds to insure adequate personnel to implement protocols for monitoring sage-grouse.
4. WGFD should compile harvest data on sage-grouse that more accurately represents the Big Horn Basin sub-population. Management Area 37 should be split on the Bighorn Mountain divide, with the west portion of that area made into a new management area or combined with Management Area 21.

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Conservation Goal #3: **SUPPORT RESEARCH TO BETTER UNDERSTAND THE DYNAMICS OF SAGE-GROUSE POPULATIONS AND THEIR HABITATS IN THE BIG HORN BASIN**

Research Objective: **The BHBLWG will propose and solicit research on sage-grouse in at least one of the following areas, beginning in 2007:**

- Development of a reliable population estimation technique (or validation of techniques currently being developed) for sage-grouse in the Big Horn Basin, to be used in establishing minimum population goals;
- Evaluate the impacts of predators (especially "new" predators) and implement management actions accordingly;
- Evaluate grazing regimes and habitat treatments that have potential to benefit sage-grouse habitats; and/or
- Assess impacts of weather on sage-grouse and their habitats.

Conservation Goal #4: **EDUCATE THE PUBLIC ABOUT SAGE-GROUSE AND CONSERVATION OF THEIR HABITATS**

Objective: **In 2007, The BHBLWG will contact coordinators of Project Learning Tree and WILD About OREO (Outdoor Recreation Education Opportunities) to discuss the development of a workshop to introduce teachers and students to the importance of sage-grouse and the sagebrush steppe in Wyoming. This workshop could include coordinating field trips to view sage-grouse leks.**

Objective**: Present information to the public about potential impacts of subdivisions on sage-grouse. This should be an on-going effort.** – In March 2006 and 2007, presentations were given by a BHBLWG member as part of "Living on a Few Acres" program hosted by Cody Conservation District.

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Monitoring And Adaptive Management

The distribution, trend and abundance of sage-grouse populations are the ultimate indicators of success of the conservation strategies presented in this document. Therefore, reliable and comparable methods of monitoring sage-grouse populations and habitats are critical to evaluate effectiveness of conservation actions implemented across the landscape. Consistent monitoring will provide data necessary to measure long-term success of this plan, as well as provide the basis for adapting management to take advantage of newly acquired information and changing environmental conditions.

Monitoring

Techniques currently used for monitoring sage-grouse populations in the Big Horn Basin are consistent with those recommended by the Western Association of Fish and Wildlife Agencies' (WAFWA's) Sage-Grouse and Columbian Sharp-Tailed Grouse Technical Committee. In 2005, this Committee organized a sub-committee to develop and/or update protocols for sage-grouse population monitoring. Updated protocols recommended by the Technical Committee should be implemented in Big Horn Basin as they become available. The current protocol will be contained in WGFD's Wildlife Management Techniques Manual when the updated version is released.

The Bureau of Land Management began a process to identify appropriate methods for assessing and monitoring sagebrush habitats at multiple scales. These methods should be available for implementation in 2007 and should be the means by which sagebrush habitats are monitored across the range, including the Big Horn Basin.

Adaptive Management

Adaptive management incorporates monitoring and research into land use planning and project implementation. It integrates monitoring and research with habitat management to test planning assumptions. Projects and management actions should be changed if monitoring or research data indicate that goals are not being achieved. Quantitative (measurable, not subjective) data must be collected for adaptive management to succeed.

The BHBLWG has developed an adaptive management approach for vegetation management. Management actions should be based upon current ecological condition at a particular site and its potential desired plant community. This effort originated as a decision matrix to determine which RMPs to implement when addressing possible impacts of grazing management on grouse habitat. This process could be implemented for most vegetation management actions and may be applicable to reclamation of disturbed areas.

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Using Adaptive Management to Manage Vegetation for Sage-grouse

In determining how to improve sage-grouse habitat, an adaptive management approach is recommended. Using adaptive management to manage vegetation integrates monitoring and research with habitat projects (e.g., mowing, burning, inter-seeding, grazing management). Implementation of projects should be modified based upon results of monitoring and research. Thus, a "continuous loop" of management and monitoring is created which may lead to improved sage-grouse habitats (Fig. 29). In some instances, *not* doing a project is habitat management and *not* changing management actions is being adaptive. Not all sites have potential to support sagebrush and sage-grouse; therefore efforts need to be on those areas where success is probable.

When assessing if a habitat management project is needed two questions should be answered: Are sage-grouse numbers limited by quantity or quality of habitat in the area? Are the necessary habitat components (see General Sage-grouse Biology And Habitats section, above) for at least one life-stage (e.g., brood-rearing, winter) of sage-grouse being provided in an area? If these questions cannot be answered, more monitoring may be needed. If they can be answered, will vegetation management improve conditions for sage-grouse or is current management adequate?

All interested parties should be involved in vegetation management decisions. On public land, biologists and range managers from the land management agency should involve grazing permittees, state wildlife/habitat managers and, depending on the type of project, recreationists, special-use permit holders (oil/gas leases) and neighboring landowners. On private land, the willing landowner should involve state wildlife/habitat managers, NRCS District Conservationist, appropriate federal range and wildlife managers and neighboring landowners.

Key factors determining if changes are needed in management are based upon sage-grouse and vegetation. The specific life-stage(s) for which sage-grouse currently use a particular parcel of land (allotment, pasture, drainage, or landscape) and the habitat requirements during that life-stage must be known. Treatments may also be applied in hopes of attracting a specific life-stage of grouse. The existing plant community and condition of the vegetation need to be assessed using appropriate range surveys.

NRCS range personnel can determine dominant soil type and ecological site for a project area. NRCS's Field Office Technical Guide (FOTG) provides in-depth descriptions of all ecological sites in Wyoming. State-and-Transition Models within FOTG (Fig. 30) provide production capability and potential plant communities for each ecological site. Landowners, land managers and biologists must then determine if the existing plant community and condition is optimal for that ecological site and for the desired sage-grouse life-stage for which habitat is being provided.

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If the existing plant community is not in optimal condition or if a different community is desired at the site, vegetation management may be necessary. State-and-Transition models provide possible management options (transitions) on how to move an area from current conditions to the desired plant community. Transitions that may have caused an undesirable plant community to occur at that ecological site are also provided. Some examples of management options include long-term prescribed grazing or brush treatment. Management options/actions can be implemented using a variety of recommended management practices (RMPs) to achieve optimal habitat conditions for various life-stages of sage-grouse.

Selection of RMPs depends on which habitat management options are selected. RMPs may not be appropriate for every set of conditions. The user must determine relevance and appropriateness of each RMP, which may require modification to meet site-specific conditions. Some RMPs for vegetation management practices are included. RMPs for livestock grazing are too numerous to list here and vary greatly, depending on ecological site, condition of vegetation community, precipitation, past livestock management, wildlife use levels, class of livestock, and ranch economics. WAFWA's sage-grouse technical committee, BLM, Society for Range Management, various state agriculture departments, and other ranching interests are developing lists of RMPs for livestock grazing in sage-grouse habitat. After current and desired vegetation communities are assessed, interested land and livestock managers should implement those selected RMPs to improve sage-grouse habitat using grazing management.

The adaptive management approach could also be applicable in reclamation of disturbed areas. If a site has been disturbed to a point that has changed the soil profile, such as strip mining, this technique may not be useful. We stress the need to use adaptive management in mine reclamation. Monitoring of reclamation efforts needs to occur. If initial reclamation actions were not successful, new actions should be taken. With assistance from industry representatives, the BHBLWG compiled some RMPs that may be useful in mitigating impacts of mining and oil/gas exploration and development on sage-grouse habitats. RMPs for bentonite mining and oil/gas development are listed separately (pages 65 and 67, respectively), but some actions may be applicable to both types of disturbances or mitigations.

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Figure 29. Flowchart depicting vegetation management for sage-grouse using adaptive management.

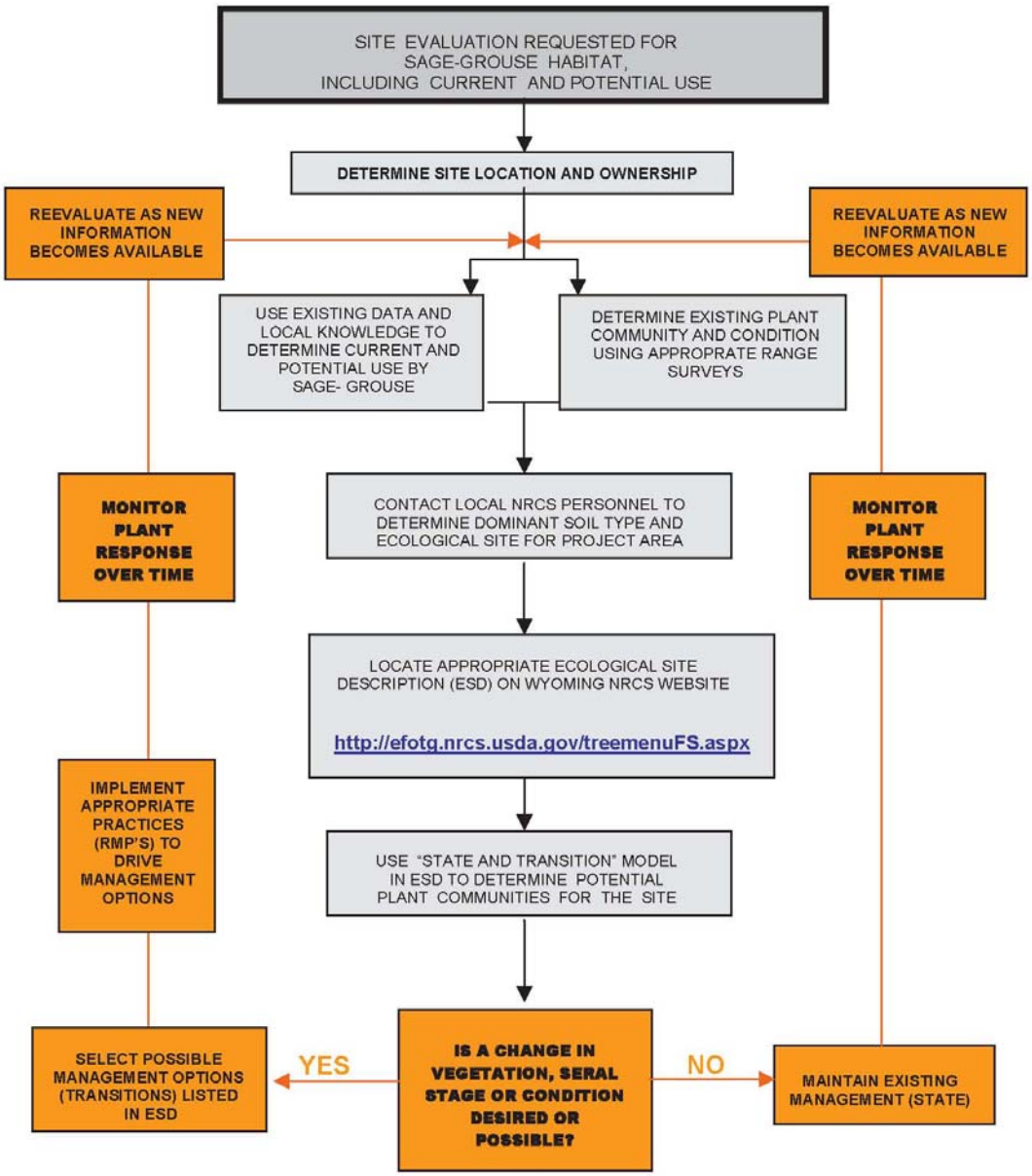

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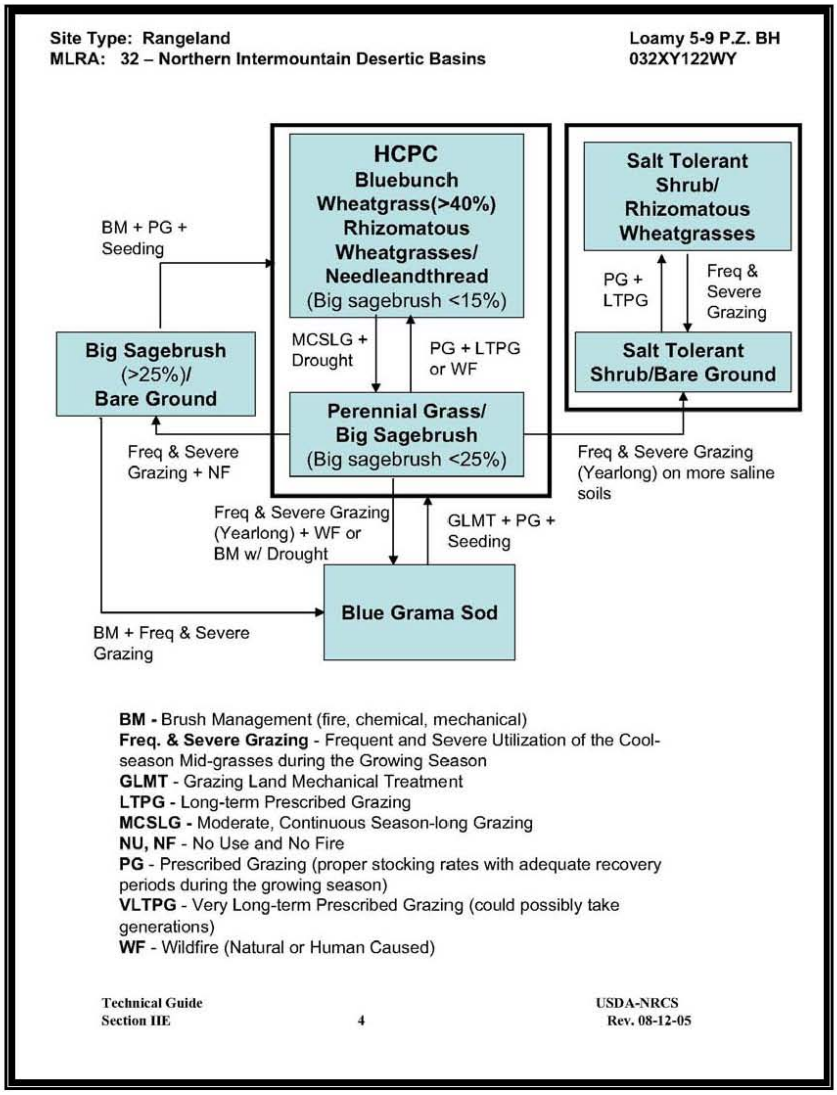
Figure 30. Example of a State-and-Transition model from Natural Resources Conservation Service's Field Office Technical Guide showing potential vegetation communities and the transitions between communities for a "loamy, 5-9" precipitation, Big Horn Basin ecological site.



HCPC, an acronym for Historic Climax Plant Community, was not defined on this page of the field guide.

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Recommended Management Practices for Grazing Management

Management practices prescribed for grazing in a State-and-Transition model from Natural Resources Conservation Service's Field Office Technical Guides provide a good starting point when field evaluations indicate grazing management needs to be changed. After current and desired vegetation communities are assessed, interested land and livestock managers should refer to RMPs to improve rangelands using grazing. Depending on the situation, many options may exist for land and livestock managers to consider when altering grazing for improved sage-grouse habitats.

For example, a pasture on a loamy site dominated by big sagebrush with a canopy cover over 15% and an understory of less than optimal cool season grasses probably needs a management change. To improve this vegetative community the frequency and severity of growing season grazing needs to be more closely managed. Proper stocking rates help manage grazing intensity. Fewer livestock could be taken to the pasture or livestock could be in the pasture for a shorter time. Herding, salting, or water management could be used to change livestock distribution within the pasture. Flexible grazing rotation plans manage frequency of grazing through prescribed movement of livestock thus allowing for adequate plant recovery periods.

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Recommended Management Practices for Vegetation Treatments

- Treatments should provide a mosaic of treated and untreated areas. Treatment pattern should be irregular and avoid large blocks.
- Manage for a variety of sagebrush cover, depending on how the area is used by sage-grouse: 15-25% sagebrush canopy cover for nesting, 5-15% cover in summer habitat and 20-35% in wintering areas. Treatments should be conducted in areas with high shrub cover (>30%) and poor herbaceous vegetation. Conversely, no treatment should be considered where sagebrush cover is less than 20%.
- Avoid conducting sagebrush treatments without first addressing cheatgrass (and other invasive weeds) presence, particularly in Wyoming big sagebrush communities.
- Sagebrush treatments should be limited in size, not exceeding 120m (400ft) in width.
- Conifer/juniper invasion into sagebrush dominated landscapes should be treated to promote healthy sagebrush system.
- Consider creation of fire breaks in areas of large continuous sagebrush. Treatments to create firebreaks should be designed to enhance sage-grouse habitat.
- Protect and maintain areas of unburned sagebrush within perimeter of treated areas or wildfires to serve as seed source.
- Defer livestock grazing for 1-2 growing seasons post-treatment to allow for establishment of herbaceous vegetation. Consider using temporary electric fencing around treated areas to allow for use in the untreated portion of a pasture or allotment.
- Avoid treating nesting habitats during the nesting season.
- Use extreme caution when treating Wyoming big sagebrush in areas with less than 8" annual precipitation.
- If herbaceous vegetation is scarce or nonexistent prior to treatment, consider seeding treated areas with native grass and forb species.
- Evaluate all wildfires greater than 40 acres in occupied sage-grouse habitat to determine if rehabilitation of the burned area is needed. When rehabilitation is necessary, the first priority is protection of the soil resource. Use appropriate mixtures of sagebrush, native grasses, and forbs that permit burned areas to recover to a sagebrush-perennial grass habitat.
- Maintain sagebrush cover within 300m of treated areas, riparian areas and other foraging areas.
- Additional treatments in adjacent areas should be deferred until the previously treated area again provides suitable sage-grouse habitat.
- Monitor treated areas to detect invasive vegetation and treat any infestations.
- Use of chemicals to "thin" or control sagebrush is usually inappropriate for winter and breeding habitat.
- Brush beating should be done in strips (usually 10-20m wide) not to exceed ¼ (25%) of the width of untreated strips. Strips should conform to the terrain and should not be straight lines and should be perpendicular to prevailing wind.
- Determine threshold levels of habitat alteration that can occur without negatively impacting specific sage-grouse populations. As a general rule, treat no more than 20% of any seasonal habitat type until results are evaluated.
- Develop and maintain cumulative records for all vegetation treatments to determine and evaluate site specific and cumulative impacts to sage-grouse habitats and identify best management practices for successful vegetation treatments.

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Recommended Management Practices for Mining and Reclamation

The user must determine relevance and feasibility of each RMP, which may require modification to meet site-specific conditions.

General mining and reclamation practices:

- Perform an order 1 or 2 soil survey of the area planned for mining to determine the quality of soil available for reclamation.
- Reduce unnecessary disturbance by using developmental drilling data to narrow planned mining disturbance, and reduce road construction.
- Train equipment operators in proper soil handling and mining practices, and monitor them regularly.
- When the mining series is large enough, use a castback mining sequence, and spread soils live at appropriate phases.
- Leave islands of native vegetation within pits for a source of native seed.
- Keep reclamation concurrent with mining.
- Make use of timing stipulations to reduce impacts to sensitive species during certain times of the year and day.
- Place soil, spoil, and bentonite stockpiles outside of sagebrush habitat.
- Save and use all overburden that is chemically suitable as a growth medium to put a buffer between chemically unsuitable spoil and vegetation establishment zone.
- Because of limited soil resources, and a normally abrupt decrease in soil quality with depth, stockpile topsoil and subsoil separately when initially stripping the soil, or during castback mining, spread live topsoil and subsoil separately.
- Create varied topography during the contouring portion of reclamation. Avoid flat, smooth contouring in most cases.
- Deep rip areas that have had regular heavy equipment traffic to reduce compaction before spreading soils.
- When replacing the soil onto contoured land, don't spread soil thin; use mosaics of deeper soil
- Leave surface fairly rough to provide microenvironments, however, clods should not be large.
- Seed in mid to late fall after the risk of germination and freezing of young seedlings has past.
- Include forbs in the seed mix, when available.
- Use "water harvesting" techniques such as furrows, pitting, snow fences, depressions in reclamation, etc.
- Consider using multi-stage plantings. When allowed, use non-native species, to prepare the topsoil, reduce erosion, and control noxious weeds, then reseed in later years with desirable native vegetation (grasses, forbs, shrubs).
- Where needed, fence reclamation to reduce grazing and browsing on emerging vegetation.
- Monitor and mitigate failed reclamation in a timely manner (three to five years).
- Consider off-site sage grouse habitat mitigation such as developing water sources.

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Mining RMPs (Cont.)

Sagebrush Establishment Practices:

- Replace topsoil to create deeper pockets in low-lying areas such as drainages and depressions rather than spreading it evenly over the entire reclaimed area.
- Use recently harvested sagebrush seed for best viability.
- Use locally harvested seed or seed harvested from similar climate.
- Seed with a minimum of two to four pounds PLS sagebrush seed per acre.
- Plant sagebrush seed in depressions and drainages that collect more water than in uplands.
- Plant sagebrush seed on the soil surface or onto snow.
- Reduce competition between sagebrush establishment and other vegetation species.
- Consider the incorporation of organic matter to enhance the soil's water retention capacity.
- Plant sagebrush seed on north facing slopes.
- Create snow fences using topography and natural features (e.g., boulders) and plant sagebrush seed in those areas.
- To improve sagebrush and herbaceous establishment, use cost effective (i.e. drip) irrigation in arid areas.
- Monitor reclamation sites for noxious weeds and other invasive species; treat any undesirable vegetation immediately for best results using chemical or mechanical methods (including hand pulling)

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Recommended Management Practices for Oil and Gas Exploration, Development, and Production Operations

The following is an overview of the basic types of construction sites. In most cases, specific requirements for each site are contained in the surface-use agreement negotiated with the surface owner or the federal land manager. The user must determine relevance and feasibility of each RMP, which may require modification to meet site-specific conditions.

Project design phase:

- The well pad should be constructed as small as possible to minimize soil and surface disturbance.
- Multiple wells should be drilled from existing pads or the same pad, to minimize disturbance when possible.
- Use directional drilling where appropriate to minimize impacts to sage-grouse.
- The topsoil should be removed from the site in lifts and placed at the edge of the location for reuse.
- Reduce the drilling location (pad) to the smallest size possible to support safe production operations. Re-spread stock piled topsoil on those areas to be re-vegetated as soon as possible.
- Locate wells and roads away from nesting, brood rearing, and winter habitats and at least ¼ mile away from leks, where appropriate.
- Utilize horizontal drilling, where geologically feasible, to maximize oil and gas recovery, while minimizing the number of wells necessary to develop a producing reservoir.

Construction of the roads:

- Disturbance of new areas should be avoided whenever possible. Whenever possible, existing roads should be utilized or expanded to minimize the amount of new surface disturbance.
- Topsoil should be removed and stored along the Right of Way (ROW).
- After the road is built, the topsoil should be spread on the road out slopes and seeded
- Stream crossings should be avoided when possible. Existing crossings or bridges should be used.
- Vehicles should be confined to authorized traffic routes.
- Areas disturbed, as a result of road construction, should be re-vegetated as soon as practical after construction.

Construction of pipelines/flowlines:

- The pipeline/flowline should be constructed in the roadway ROW, when possible, and the topsoil will have already been removed during road construction.
- Re-contouring should take place on the ROW.
- The ROW area should be re-seeded.

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Oil/gas RMPs (cont.)

General:

- Utilize central production, treatment, and compression facilities to minimize the footprint on the landscape.
- Plugged and abandoned locations and access roads should be reclaimed as soon as possible.
- Water wells drilled for oil and gas exploration or development, may be released to the BLM or private surface owners for livestock, wildlife, and sage-grouse watering sources. Operators should consult with the BLM Natural Resource Specialists and biologists and/or WG&F biologists to determine where additional water sources may be beneficial to sage grouse.
- Consider use of timing stipulations to reduce impacts to sage-grouse during certain times of the day and year, regardless of mineral ownership.
- Seeding should be completed in the fall before the ground is frozen, or in the spring after the ground has thawed.
- Sage-grouse friendly seed mixtures should be utilized where specified and approved by the BLM.
- Sage-grouse friendly seed mixtures may be utilized on operator owned lands or other private lands as approved by the surface owner.
- Monitor and mitigate failed reclamation in a timely manner.
- Where necessary, fence reclamation areas to reduce impacts from livestock and feral horses.
- Where necessary and practical, use water-harvesting techniques such as ripping, pitting, snow fences, depressions, etc.
- Consider/utilize irrigation to help establish vegetation in naturally dry environments and drought impacted areas.
- Rip, drill, or seed with contours 90 degrees from prevailing winds to help catch precipitation and minimize loss of seed.
- Control noxious weeds on disturbed areas.
- Use certified weed free seed.
- Evaluate the option of using pallets/mats for drilling operations to reduce disturbance to topsoil and vegetation.
- Reduce vehicle traffic and/or disturbance by remote monitoring of producing wells.
- Utilize noise reduction devices and technology to minimize impacts.
- Incorporate organic matter into the soil to increase the carbon content and enhance the soil's ability to retain moisture.
- Consider off-site mitigation, such as water development and vegetative treatments.
- Utilize erosion control structures and good engineering practices to minimize environmental impacts and prevent offsite sediment transport.
- For new exploration activities (includes private as well as public lands):
    - When proposing a new well or project, identify important sage-grouse habitats out to a 3-mile radius around active leks.
    - Design, locate, and construct projects to avoid the important habitats.
    - If important habitats cannot be avoided, mitigate impacts with enhancement of disturbed habitats and/or timing restrictions within the identified area.
    - If important habitats cannot be avoided or enhanced within the identified area; work with land management agency and/or private landowner to fund off- site habitat enhancement project(s).

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The Big Horn Basin LWG felt it was important to reiterate RMPs listed in the State-wide Plan for specific factors that we did not discuss in detail, including recreation, pesticide use, farming and residential development. Some new RMPs, not previously listed in the State-wide Plan, have been included below. These RMPs are applicable to the Big Horn Basin and should be implemented where/when possible to lessen impacts to sage-grouse and sagebrush habitats. Refer to the State-wide Plan for additional RMPs relevant to all the factors listed in this plan.

Recommended Management Practices for Recreation

1) Develop travel management plans and enforce existing plans.
2) Restrict off-road-vehicle use in occupied sage-grouse habitats
3) Avoid recreational activities in sage-grouse nesting habitat during the nesting season.
4) Restrict organized recreational activities between March 15 and July 15 within two miles of a lek site.
5) Recreational facilities should be located at least two miles from lek sites and in areas that are not in crucial sage-grouse habitat
6) Establish and maintain a small number of lek viewing sites and minimize viewing impacts on these sites. Viewing sage-grouse on leks (and censusing leks) should be conducted so that disturbance to birds is minimized or preferably eliminated.
7) Agencies should generally not provide all lek locations to individuals simply interested in viewing birds.
8) Develop and provide information related to recreation and its impacts on sage-grouse habitat.
9) Discourage dispersed camping within important riparian habitats occupied by sage-grouse during late summer.
10) Avoid construction of overhead lines and other perch sites in occupied sage-grouse habitat. Where these structures must be built, or presently exist, bury the lines, locate along existing utility corridors or modify the structures in key areas.
11) Control dust from roads and other surface disturbances.
12) Inform the public that dog training on sage-grouse outside the hunting season is illegal.

Recommended Management Practices for Pesticide Use

1) Determine the extent of pesticide use within sage-grouse habitats.
2) Examine what, if any, effects each pesticide use may have on sage-grouse populations.
3) Where possible, adjust alfalfa harvest timing instead of applying pesticides to control weevils.
4) Make use of current laboratory analysis procedures where sage-grouse mortality is observed. Report where pesticides have caused mortality in sage-grouse.
5) Determine which pesticides and application strategies are simultaneously beneficial to agriculture and least harmful to sage-grouse.
6) Research effects of pesticides on sage-grouse in Wyoming with a specific goal of testing impacts of actual rangeland applications.
7) Work with county Weed and Pest Districts to identify low-toxicity alternatives to pesticides classified as a medium to very high risk to game birds.
8) Encourage simple, standardized record-keeping formats for all Weed and Pest Districts, that would allow access to pesticide use information in their counties and statewide.
9) Address grasshopper issues using Reduced Area Application Treatments approach.

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Recommended Management Practices for Farming

1) Map suitable sage-grouse habitat and focus conservation and management efforts on areas where the most benefit can be realized.
2) Develop and provide information on funding options available to landowners who wish to improve sage-grouse habitat.
3) Work with private landowners to prepare habitat maps, which identify seasonal habitats for sage-grouse and to develop a voluntary site-specific management program.
4) Provide landowners with information on sage-grouse and how to provide for and protect sage-grouse habitat.
5) Develop water sources to benefit both crop production and healthy riparian habitat. Avoid surface and sub-surface water depletion that impacts sage-grouse habitats.
6) Improve visibility of new fences, and of existing fences where problems have been documented, in sage-grouse habitats.
7) Research and develop incentives that would reward farmers who provide the type of habitat that maintains and enhances sage-grouse populations.
8) Maintain sagebrush cover adjacent to beneficial crops (e.g., alfalfa, soybeans).
9) Do not mow fields in a circular pattern toward the center; mow from the center outward or mow fields starting from an adjacent barren area toward heavy cover. Install a "flushing bar" on the swather to flush birds ahead of the mower.

Recommended Management Practices for Residential Development

1) Encourage assimilation of sage-grouse information into county plans as they are developed. Develop and distribute appropriate literature for developers and county planners.
2) Limit free-roaming dogs and cats.
3) Maintain appropriate stocking rates of livestock on small acreages.
4) Encourage cluster development, road consolidation and common facilities that would have a reduced impact on sage-grouse.
5) Where necessary to build or maintain fences, evaluate whether increased visibility, alternate location, or different fence design will reduce hazards to flying grouse.
6) Maintain healthy sagebrush communities on small acreages.
7) Plan development to allow for sage-grouse movement.
8) Where possible protect habitat through conservation. (i.e. land exchanges, conservation easements, leases or CRP type programs)
9) Develop or locate funding sources to encourage maintenance or improvement of sage-grouse habitat on private lands.
10) Locate and manage sanitary landfills, dumps and trash transfer stations to eliminate predator impacts to sage-grouse.
11) Provide education on the effects of residential development on sage-grouse habitat and populations. Facilitate conservation districts and extension agents' ability to educate the public about sage-grouse.
12) Consider developing travel management plans that would allow seasonal closure and reclamation of roads.
13) Reduce noise from industrial development or traffic especially in breeding and brood-rearing habitats.
14) Avoid construction of overhead lines and other perch sites in occupied sage-grouse habitat. Where these structures must be built, or presently exist, bury the lines, locate along existing utility corridors or modify the structures in key areas.
15) Control dust from roads and other surface disturbances.

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Meeteetse Conservation District

P.O. Box 237 • Meeteetse, WY 82433
2103 State Street
(307) 868-2484 • mcd@tctwest.net

November 24, 2008 via E-mail: BBRMP_WYMail@blm.gov

To: Caleb Hiner, Planning and Environmental Coordinator
Worland Field Office
101 South 23rd
Worland, WY 82401

Re: Scoping Comments for the Bighorn Basin Resource Management Plan Revision

The Meeteetse Conservation District is pleased to be able to offer the following scoping comments for the BLM Big Horn Basin Resource Management Plan Revision (BBRMP).

The Meeteetse Conservation District (MCD), pursuant to W.S. 11-16-101 *et. seq.*, is responsible for enhancing and maintaining natural resources, including the protection of water quality and quantity, preservation of wildlife, and the protection of public lands, while stabilizing ranching and farming operations, and protecting the tax base within its local district boundaries. Additionally, authority for these comments is established through The Meeteetse Conservation District Long Range Program Land Use Management and Resource Conservation Plan (1994) (currently in the comment period of its revision process with adoption planned for December 10, 2008), which must be recognized under U.S.C. § 1712 (c) (9), along with other locally developed land use and resources management plans.

As a Cooperating Agency (CA) in the BBRMP, the MCD has participated in the scoping process through promotion of the scoping to the public through its weekly newsletter, *Trail News*, coordination with other CAs, and through direct citizen contact. According to Council on Environmental Quality (CEQ) regulations Section 1501.6, CAs shall "participate in the scoping process." The MCD has participated in that process to the best of its ability.

An overarching concern of the MCD is the management of federal lands for multiple use and sustained yield (PL 86-517 (16 U.S.C. 528-531), the Multiple-Use and Sustained Yield Act, 1960). Multiple uses, especially those that reflect the custom and culture of the MCD and provide for socioeconomic stability through products and services must be protected.

"Preservation" should be subordinate to "conservation" (which is defined in W.S. 11-16-101: "Conservation" means development, improvement, maintenance, preservation, protection and use of natural resources, and the control and prevention of floodwater and sediment damages, and the disposal of excess waters.) since preservation is included therein as a component of conservation.

The BBRMP should be crafted so as to remain flexible and easily adjusted as unforeseen changes in management methods and scientific fact evolve.

The Scoping notice suggested several topics related to the various land use and management topics. These comments will strive to follow that theme.

MCD BBRMP Scoping Comments to BLM 2008-11-24.doc

ENERGY AND MINERALS MANAGEMENT

Energy development shall be a principal component of multiple use.

Appropriate safeguards to prevent erosion and minimize offsite sedimentation shall be applied to disturbed areas.

Directional drilling should be encouraged where technically feasible in order to minimize the area of surface disturbance.

The BBRMP should provide for the production of "alternative energy".

CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

The MCD believes that climate change and greenhouse gas emissions are secondary to managing the landscape and its resources for multiple use and sustained yield as well as providing for the social and economic stability of the Big Horn Basin community. The ability to predict the specific direction, magnitude and duration of future climatic change does not really exist.

Management for the expectation of periodic drought is appropriate based on existing climatic history, and the BBRMP should have the flexibility to manage the landscape and resources based on changing climatic conditions.

AIR QUALITY

Air quality monitoring for both baseline and regulatory purposes should be increased.

LIVESTOCK GRAZING MANAGEMENT

The BLM should formally recognize and actively inform the public of the benefits of grazing on public land as a management tool.

Grazing AUMs should be based on actual grazing capacity as related to stocking rate, duration, and intensity.

- Reductions in permitted AUMs upon the transfer of an allotment must be based on hard scientific evidence.
- The BBRMP should allow for a reinstatement of suspended AUMs based on sound science.
- The BBRMP should provide for flexibility in AUM use, to be determined between the BLM Range Con and permittee based on forage availability.

RECREATION/VISITOR USE AND SAFETY MANAGEMENT

Increased interpretive signage would help to educate tourists about sensitive cultural, ecological, and paleontological sites, providing both resource protection and enhanced visititor experience.

TRAVEL MANAGEMENT, INCLUDING OFF HIGHWAY VEHICLE USE

Roading shall be designed to minimize erosion.

MANAGEMENT OF WILDLIFE HABITAT INCLUDING PROTECTION OF SENSITIVE SPECIES HABITAT

Fragmentation, restoration, destruction, improvement of habitats, disruption of migration routes, and management of both game and non-game species should be considered in the BBRMP.

The BBRMP should facilitate the ability to collect scientific data regarding wildlife.

The BBRMP should provide for collaboration between all authorized land management and natural resource management entities and that it should ensure resulting wildlife data and interpretations be made available to the public.

WATER

The BBRMP must formally recognize Wyoming's constitutional ownership of ground and surface water and its authority over management of its water resource.

The BBRMP must provide for the discharge of produced water in accordance with Wyoming law.

WATER QUALITY

Development of detention ponds in ephemeral and intermittent drainages (livestock watering reservoirs included) would contribute to improved water quality as well as erosion and sedimentation control. Development of detention ponds should be facilitated by the BBRMP.

Federal water quality data should be made available to facilitate future monitoring strategy and evolving technical interpretation.

LAND TENURE ADJUSTMENTS, REALTY LEASES, AND UTILITY CORRIDOR RIGHT-OF-WAYS

Land exchanges that provide for larger, "blocked up" parcels should be encouraged.

BLM land tenure adjustments should provide for "no net gain" in federal acreage, overall within the Big Horn Basin through time.

MANAGEMENT OF AREAS WITH SPECIAL VALUES (SUCH AS ACECS)

Designation of special areas such as ACECs and wilderness study areas should be minimized and only used as a "last resort". Instead, lands should be managed by methods that do not impede future change as multiple use priorities shift.

Areas of Critical Environment Concern, ACECs, must first meet the definition requirements of FLPMA, 43 U.S.C., 1702a, at this point in time. Current ACEC designated areas shall be reviewed to insure they do meet the criteria.

Educational, site condition monitoring, and enforcement activities should be codependent.

The size of wild horse management areas should be considered from ecological, social and economic perspectives.

Wilderness designation eliminates the ability to manage. The MCD is opposed to wilderness.

The use of contraceptives should be considered as part of wild horse management.

VEGETATION MANAGEMENT

Prescribed fire should be managed to minimize erosion and offsite sedimentation.

The BBRMP should provide for active participation in local wildfire management plans.

INVASIVE SPECIES

Impacts to wetlands, riparian areas, and vegetation are generally proportional to the amount of land that is disturbed. Noxious weeds introduced to disturbed areas can spread to adjacent land and negatively impact local agriculture and livestock operations as well as the BLM lands.

Baseline information and future modeling regarding native, non-native, invasive, and noxious species should be provided, and reclamation and mitigation procedures should be clear.

Integrated pest management should provide that innovative weed control methods such as chemical pathogens be reviewed and considered.

Emphasis on landscape-scale management of invasive species, such as tamarisk, should be incorporated in the BBRMP.

VISUAL RESOURCE MANAGEMENT

Public land grazing is an issue closely related to open space conservation. The BBRMP should always consider the benefits of management through grazing, and recognize the potential changes in land use patterns on adjacent properties that could develop as a result of BLM grazing management.

Working landscapes should be recognized by the BBRMP as helping to maintain desirable viewshed aesthetics.

PUBLIC PROCESS

Social and economic surveys should be conducted within a large enough time frame to allow proper survey question development.

The public should be kept aware of progress by the BLM to the fullest extent practicable and should especially recognize comments from Big Horn Basin residents and their elected local government.

The cumulative effect of incremental regulations must be recognized as the BBRMP is developed.

Finally, the MCD regrets the limited time available to develop scoping comments to the degree it wished. The MCD will participate in the BBRMP to the fullest degree possible and will both provide additional comments of its own and facilitate the incorporation of additional comments from its Cooperators as appropriate.

Respectfully submitted,

Steve Jones

Resource Management Coordinator

MCD BBRMP Scoping Comments to BLM 2008-11-24.doc

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"John Joyce"
<njoyce@tctwest.net>

11/24/2008 04:34 PM

To <BBRMP_WYMail@blm.gov>

cc

Subject Comments on the Scoping Meeting for BLM Bighorn Basin Resource Management Plan Revision Project

From Nancy Joyce, Manderson, WY(See attached file: Comments on the Scoping Meeting for BLM Bighorn Basin Resource Management Plan Revision Project.doc)

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Comments on the Scoping Meeting for BLM Bighorn Basin Resource Management Plan Revision Project
Submitted by Nancy Joyce, Manderson, Wyoming

Thank you for the opportunity to share my concerns with you for the Bighorn Basin Resource Management Revision Plan. Here are my concerns:

Grazing

-Recognize the importance of good stewardship of the land through sound livestock grazing practices based on science. It is in the permittees best interest to keep the range in good shape.
-Grazing allotments should continue to be tied to a home ranch/farm property.
-Consult with grazing permittees before making decisions and implementing them when they affect that allotment.
-I do not support non-grazing entities/groups from controlling grazing allotments and instilling non-use when their goal is to eliminate livestock grazing on public lands.

Multiple Use

-Support the policy of Multiple Use for BLM lands and continue livestock grazing, logging, mineral extraction and oil and gas development.
-Consider wind energy and solar energy development on BLM lands if they don't negatively impact grazing on that allotment.

Water

-Encourage BLM land managers to be open to new water projects such as watering holes and reservoirs on and adjacent to BLM land. These will benefit humans, livestock and wildlife.
-If water quality is acceptable, allow the use of produced water from wells on grazing allotments for livestock and wildlife water.
-Encourage BLM participation in planning water projects and encourage the development of new water projects on BLM land.

Economics

-Consider the local and state economics when making decisions about BLM land. Every decision will have consequences for neighboring property.
-Recognize that BLM grazing permits add value to the home ranch/farm they are associated with.

Desert Land Entry

-Continue the Desert Land Entry program.

EA/EIS

-Consider the consequences of each EA/EIS decision on surrounding communities and permittees.
-Do not manage for or restrict activities on resources on behalf of a Species of Concern simply because there is no baseline data on it.

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Minerals Extraction, Oil & Gas Development
-Continue with minerals extraction and oil and gas development keeping in mind how said development impacts grazing allotments.
-Reclaim old unused drilling pads and roads and restore back to grazing. See the "Restore New Mexico project" on BLM ground in southern New Mexico.
-Support energy independence for America.

Recreation
-Support recreation on BLM ground. Allow use of OHV. Designate special recreation areas solely for OHV use on ground not suitable for grazing, oil and gas development.
-Support hunting and fishing on BLM land. Designate areas for shooting ranges.
-No new wilderness acreage.
-Consider more signage for interesting geologic features and formations as on the Ten Sleep Canyon highway.

Funding Projects
-Speed up the timeline for funding projects. Currently I am told it takes two years to receive funding for an **approved** project. That is too long! Be flexible in drought times.

Credible Data
-Make decisions based solely on credible scientific data, not on politics or possible lawsuits from environmental groups.

Biological Resources/Habitat Management
-Allow chemical treatment for the improvement of habitat. Allow permittees to spray weeds or pests if necessary.
-Allow mechanical treatment of vegetation.
-Allow use of prescribed fire as a habitat management tool.
-Manage ecosystems to support grazing, wildlife, oil and gas development, i.e., multiple use. If habitat is damaged from drilling pads and associated roads, then keep species such as sage grouse viable so their numbers don't precipitate actions that threaten to shut down mineral extraction, oil and gas development or livestock grazing.

Interagency Cooperation
-Keep lines of communication open to other concerned agencies and permittees. As in this RMP Revision plan, continue to cooperate and consult with agencies and groups with a vested interest in BLM resources, i.e., local Conservation Districts, logging companies, oil and gas companies, Guardians of the Range, steering committee for Wyoming Water Development Commission Level I Nowood River project. We are all in this together!

Again, thank you for allowing me to comment.
Nancy Joyce
Manderson, WY

1224

"Johnny Maclean"
<jmaclean@ecosyst
emrg.com>

11/24/2008 04:51
PM

To
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cc
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<cody_wymail@blm.gov>, "Jill
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Subject
BBRMP Scoping Comments from Bighorn
Basin County Commissioners

Dear Mr. Bateson, Mr. Roberts, Mr. Stewart, and Mr. Hiner,

I am submitting the official scoping comments of the Park, Big Horn, Washakie, and Hot Springs County Commissioners on their behalf. As a Cooperating Agency, we appreciate your consideration of these comments. Please provide a written response that addresses this document. We would like to review an internal draft of the Resource Management Plan with appropriate time to make comments and revisions on the draft before it is released.

If you have any questions, please contact any of the County Commissioners, or Ecosystem Research Group (ERG).
Thank you,

John MacLean; Ph.D.
Senior Environmental Scientist
Geologist
Ecosystem Research Group (ERG)
P.O. Box 8214
121 Hickory Street Suite 3
Missoula, MT 59807
Phone: (406) 721-9420
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jmaclean@ecosystemrg.com
(See attached file: BBRMP Scoping Comments.doc)

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MEMORANDUM

To: Eddie Bateson, Mike Roberts, Mike Stewart, and Caleb Hiner; Bureau of Land Management

From: Bighorn Basin Resource Management Plan - County Commissioner Cooperators: Jill Shockley Siggins, Park County; Keith Grant, Big Horn County; John Lumley, Hot Springs County; Terry Wolf, Washakie County

Date: November 24, 2008

Re: Scoping Comments for the Bighorn Basin Resource Management Plan Revision

We appreciate the Bureau of Land Management (BLM) including the Commissioners of Big Horn, Hot Springs, Park, and Washakie Counties as a Cooperating Agency (CA) in the revision of the Bighorn Basin Resource Management Plan (BBRMP). According to the National Environmental Policy Act (NEPA) Handbook (USDI 2008), Council on Environmental Quality (CEQ) regulations Section 1501.6 states that CAs shall "participate in the scoping process." CA involvement, especially in early processes such as scoping, ensures the Lead Agency is aware of local knowledge and public interests necessary to make appropriate decisions. It is to the BLM's and the public's benefit to consider the CAs' input to the fullest extent possible. As a CA, we have participated in the scoping process by:

- Scheduling and purchasing radio advertisements with the Big Horn Basin Radio Network to announce the scoping meetings scheduled across the Bighorn Basin;
- Initiating contacts with individuals on the BBRMP mailing list;
- Working with County Information and Technology Departments to link the BLM website information with County websites;
- Creating blogging sites to stimulate conversations regarding the BBRMP revision process;
- Placing BBRMP information and meeting schedules in high traffic areas of our communities;
- Submitting press releases at County Commissioners' meetings announcing the scheduled meeting dates and information regarding the BBRMP process;
- Participating in the radio program "Speak Your Piece" on KODI explaining the BBRMP revision process;
- Sending letters to our City Councils requesting these announcements be made at their council meetings;
- Contacting small circulation papers to notify their constituents of the scoping meetings through their monthly and weekly papers;

- Sending numerous emails to various groups, individuals, and constituents with information on how to participate, including links on the county website to the blogging sites, Ecosystem Research Group's online survey, and the BLM website; and

- Sending out a test CODE RED message on Saturday, November 8, to approximately 7000 Park County households encouraging citizens to participate in scoping and referring them to the county website.

Through our solicitations, we have collected numerous comments important to the BBRMP revision process, as well as results of a survey asking Bighorn Basin residents to rank the issues most important to them. We have organized and summarized the comments and survey results into the following issues we would like you to consider as part of the scoping process. Results from the scoping survey are presented at the end of this memorandum, and a list of considerations from the Hot Springs County Commissioners is attached in Appendix A. We would like the BLM to consider these scoping comments in their Draft Resource Management Plan (RMP), and we would like a written response that addresses this document. We would also like to review an internal draft and be allowed appropriate time to make comments before the public Draft RMP is released.

Primary Policy and Purpose of NEPA

The BLM needs to insure the public that the policies and goals of NEPA will be adhered to throughout this process. The purpose and policy according to NEPA include:

- **NEPA's purpose** is not to generate paperwork–even excellent paperwork–but to **foster excellent action**.

- NEPA process is intended to help public officials make decisions based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.

- Procedures should be implemented to make the NEPA process more useful to decision-makers and the public, to reduce paperwork and the accumulation of extraneous background data, and to emphasize real environmental issues and alternatives.

- **Environmental Impact Statements shall be concise, clear and to the point**.

- The Lead Agency should facilitate public involvement in decisions which affect the quality of the human environment.

- The Lead Agency should assess reasonable alternatives to proposed actions that will **avoid or minimize adverse effects of these actions upon the quality of the human environment**.

The BLM must ensure this plan is governed by BLM's three criteria: Multiple Use, Sustained Yield and Economic Impact. The plan should emphasize management and good stewardship of the land so natural resources can be used on a reliable and continuous basis in a multiple use program.

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Public Process

The public should be informed early of all opportunities for public involvement. The BLM should consider all comments from the public, and should strive to incorporate those comments from Bighorn Basin residents.

Of particular concern is the public participation plan for the BBRMP. Bighorn Basin residents have the right and responsibility to participate throughout this public process. Caleb Hiner of the BLM has told attendees of the scoping meetings that comments received from the public after the scoping comment deadline would be recognized and considered. It is important for the BLM to communicate in writing the details of the public participation plan, including how public comments will be considered, how feedback will be provided, and how the public will be able to participate in the process after scoping is over. Please make such communications available as soon as possible.

The BLM Land Use Planning Handbook (USDI 2005) lists several topics for socioeconomic analysis in its Appendix D. Meetings to discuss these topics should be scheduled early and should be announced clearly to the public.

All budgets should be provided in a clear and transparent manner. Budgetary information should be provided to the public at the earliest possible time. Inventory data and information collection budgets should be included in the BBRMP. Section 1610.4-3 of the Federal Land Policy and Management Act of 1976 (FLPMA) states (USDI 2001):

> The District or Area Manager shall arrange for resource, environmental, social, economic and institutional data and information to be collected, or assembled if already available. New information and inventory data collection will emphasize significant issues and decisions with the greatest potential impact. Inventory data and information shall be collected in a manner that aids application in the planning process, including subsequent monitoring requirements.

The BLM should not only include baseline data collection and analysis for all significant issues, but should also include the budget for each analysis.

Flexibility of Plan

Due to unforeseen changes in the political and environmental landscapes, and to the unknown effects of our changing climate, some residents of the Bighorn Basin would like management plans dealing with the next 15–20 years to have a degree of flexibility for adaptation to changing environmental conditions. The plan should assess an array of models of future climatic and environmental conditions.

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Paleontological, Archeological, Cultural, and Historical Resources

Residents of the Bighorn Basin are attached to its landscapes and heritage. The Bighorn Basin has some of North America's most significant prehistoric archaeological, historical, and paleontological sites, and the potential for finding additional sites on BLM lands is extremely high. Non-renewable cultural resources such as paleontological and archeological sites have not garnered as much attention as higher profile issues. Wyoming residents would like to see a greater focus on protecting and preserving these sites because once they have been damaged they cannot be restored. We believe developing curriculum highlighting the historic treasures across the Bighorn Basin and integrating this material into our children's education will raise awareness and respect for future generations. Suggestions for increasing preservation include:

- Educate the public about cultural and historical resources,
- Educate the youth of Wyoming by coordinating efforts between the BLM and the State of Wyoming Department of Education in developing curriculum highlighting the historic treasures across the Bighorn Basin and integrating this information into the fourth grade Wyoming history curriculum,
- Build a broader volunteer program utilizing documented heritage information and share this information through education programs, historic signage, brochures, web programs, magazines, and travel brochures,
- Improve site condition monitoring,
- Provide clear, unambiguous warnings that site looting will result in strict punishments,
- Provide legal examples of unacceptable site damage, and
- Make cultural resource protection a zero-tolerance legal enforcement campaign.

There should be a clear system to evaluate the value, uniqueness, and significance of each cultural and historical site to ensure that their preservation does not unduly encumber multiple uses of public lands.

Social and Economic Effects

There is concern our western culture is being destroyed or detrimentally changed. Decreased livestock grazing on public lands negatively impacts working ranches. Documentation of historic levels of grazing is vital so that small changes in usage over time will not result in large unnoticed cumulative effects. The BLM needs to analyze and document the historic number of grazing allotments and Animal Unit Months (AUMs) and compare the reduction in AUMs applied over the years to leased grazing allotments. We believe these numbers are significant. Reductions in AUMs contribute to the changing culture and way of life of our Wyoming ranching families. The highest value of these lands with reduced grazing allotments or AUMs is to sell to developers and "hobby" ranchers. With large ranches being subdivided into smaller tracts, many unintended consequences emerge. Our wildlife corridors and habitat are forever altered. We

are witnessing urban sprawl creeping into these special places, and our landscapes and viewsheds are being chewed up by housing, roads, and rural businesses at alarming rates. This has compounding effects on our local economy and the ability for local governments to provide services to the outlying residents. The BLM should consider the benefits of grazing on public land and should educate the public to these benefits. The BLM should work with the Wyoming Game and Fish Department and insist they control game herd numbers just as the ranchers must control their allotment/AUM numbers. The land is able to support both of these important segments of our economy. A delicate balance exists between protecting our farming and ranching communities, big game herd numbers, and hunting opportunities. None of these multiple uses can exist without the other, and all are important in a balanced approach to grazing on our public lands.

Oil and gas development provides many socioeconomic benefits and challenges to the citizens of Wyoming. Although oil and gas development is not the only factor influencing the change in population in the Bighorn Basin, the industry fundamentally influences the region's population. Considering the "boom and bust" history of the oil and gas industry, the BLM should analyze how long-term population trends and employment rates will affect the Bighorn Basin.

Appropriate urban development should be considered in the BBRMP. The analysis should include projections of the Bighorn Basin's socioeconomic situation in the event of a decline in the oil and gas industry.

The BLM Land Use Handbook clearly states in Appendix D, Sec. III. B., that the plan "must include at least one economic strategies workshop" for local governments, community leaders, and citizens. The handbook also specifies that the "cost of such workshops should be included in the RMP planning budget and indicated in the pre-plan." The BLM should make the budget and schedule of such economic strategies workshops clear in the BBRMP.

Tourism

Tourism in the Bighorn Basin is an important industry. It relies heavily on Wyoming's natural resources. The BLM should analyze the effect that the BBRMP will have on the tourism industry, especially with regard to viewsheds, wildlife, vegetation, and recreation. Long-term socioeconomic effects should also be considered. For example, if the tourism rate can be quantified and modeled, we could have information to predict how the employment rate will be affected.

A program involving interpretive signs could help educate tourists about preserving the Bighorn Basin and enhance the tourists' experience. A national trend recognizes the importance of Heritage Tourism and the BBRMP is suited to address these opportunities. We encourage the BLM to support and explore

these prospects. Narratives and oral histories of BLM leaseholders, BLM employees, and the public using BLM lands will be lost if coordinated efforts do not record this history.

Air Quality

As a Federal Agency permitting activities with the potential to impact our air quality, the BLM should make a commitment to incorporate monitoring and emissions standards within the BBRMP. State and federal agencies are charged with regulating industry to meet appropriate standards. The public often must try to discern conflicting statements regarding these regulations, and we encourage transparency in the permitting process and the impacts to the public as a result of expanded industrial activity. To understand what emissions levels are acceptable, baseline air quality data should be analyzed and provided. These baseline levels must be incorporated into the BBRMP prior to development activity.

Light Pollution

An important issue that has not been addressed previously is the effect of industrial development on nighttime visibility. Wyoming's clear night skies are a treasure appreciated by residents and tourists. Our cities and rural developments across the Bighorn Basin cast a golden glow onto our night skies that can be seen for miles across the Bighorn Basin. This light pollution has begun to dampen the clarity of the stars and the Milky Way. Minimizing light pollution may also be essential not only to human wellbeing, but also to the wellbeing of wildlife.

We encourage consideration regarding the impacts additional lighting will have within the 3.2 million acres of public lands. Studies have been conducted (e.g. Albers and Duriscoe 2001) that model light pollution in the continental United States. The BLM should implement a night skies initiative to monitor and analyze current and future levels of light pollution. A baseline assessment of light pollution levels in the Bighorn Basin would be beneficial for monitoring future effects of development. These measures will protect our night skies so future generations may continue to view our beautiful stars and the splendor of the Milky Way.

Soil Erosion and Sedimentation

The BBRMP should carefully consider potential soil erosion. The Bighorn Basin is characterized by shallow to very deep soils derived mainly from soft sedimentary rocks such as siltstone and very fine-grained sandstone interbedded with soft mudstone. These soils are easily eroded by wind and water. Gully and sheet erosion commonly occurs on hillsides along ephemeral and intermittent streams. Sparse vegetation increases the likelihood of gully and sheet erosion. Many of these shallow and moderately deep soils (less than 40 inches thick) have low saturated hydraulic conductivity and a high or very high runoff hazard on slopes greater than 6 percent. Over 80 percent of the soils in the Bighorn Basin have a

soil loss tolerance of 3 tons/acre/year or less. Arid climate and low vegetative production produces little soil protection and accelerated soil erosion and resultant sedimentation.

Residents are concerned about erosion rates. They are specifically concerned with the resultant sedimentation into Bighorn Lake. High rates of sedimentation are decreasing stream flow rates, destroying fish habitats, and diminishing recreation resources. The BLM should analyze measures to decrease soil erosion. Coordinated efforts with local government agencies will help identify areas where mitigation measures can occur.

Maintaining high lake levels benefits Wyoming fisheries and recreation, and also benefits the tailwater fishery, sediment control, hydropower production, waterfowl, weed control (i.e. tamarisk), and Montana reservoir fisheries and recreation. Data from the United States Geological Survey's Suspended Sediment Database for the Manderson gauging station along the Bighorn River show that the most effective (and the only cost-effective) way to drop out sediment where it causes the least damage is to maintain lake levels above 3625 ft during spring runoff.

Wildlife

A balance between wildlife and livestock should be analyzed to promote all parts of Wyoming's culture and environment. Development, fragmentation and destruction of habitats, disruption of migration routes, and management of game and non-game species should be considered in the BBRMP. A significant portion of wildlife populations depend on the open spaces of both public and private lands. A healthy livestock community promotes open spaces. Wildlife benefits from many of the range and water improvements built and maintained by the ranching community. The effects of changing agricultural landscapes on wildlife must be considered.

Over the past ten years severe drought has negatively impacted our wildlife habitats. These weather patterns and beetle infestations have been responsible for the decline in our forests health. These changes will have an impact on future conditions, and we believe an analysis of these conditions should be included in the BBRMP.

Wild horses have long been considered a part of our western heritage. The size of the wild horse management units identified in the past RMP seems to be adequate. Wild horse numbers and their impacts on native plant and animal species and sustainable livestock AUMs must be addressed. As part of the wild horse management plan, the use of contraceptives should be continued, and adoption and slaughter of excess animals should be considered. Additionally, the BLM should consider replacing helicopters with riders to round up horses in order to reduce stress and injury. The cost of helicopter roundups is excessive and riders on horseback would be able to accomplish this task through a traditional

western roundup. It seems natural to round the wild horses up when they are gathered near the highway. Helicopter roundups negatively impact the wild horse program and public support.

Management of sage-grouse continues to be a major issue in Wyoming. When analyzing the impacts of oil and gas exploration and development on these habitats, the best available science should be implemented to protect the resource and wildlife. A position paper (WGFD 2008) on sage-grouse best practices was written as a coordinated interpretation of recent sage-grouse research related to oil and gas development by the Western Association of Fish and Wildlife Agencies (WAFWA). The best available science should be considered with the management of all wildlife when planning for multiple uses of public lands.

Federal Endangered, Threatened, and Candidate Species

According to the Wyoming Game and Fish Department, the following Endangered, Threatened, and Candidate species may be affected by the BBRMP: black-footed ferret, Canada lynx, gray wolf, yellow-billed cuckoo, and Ute ladies'-tresses. Please provide a baseline assessment to special status species, and an analysis of how those species will be affected by the proposed plan.

The BLM should consider the cumulative effects of habitat management on private landowners and property from predators such as wolves, grizzly bears, mountain lions, coyotes, bobcats, and raptors. The increased size of the Yellowstone National Park buffalo herds and the potential for these buffalo to wander onto BLM lands and private properties create concern with regards to the Wyoming cattle industry. The ranching community has borne the negative impacts of many federal decisions, and the addition of brucellosis status is one more burden.

Wetlands, Riparian Areas, Vegetation, Noxious Weeds, and Reclamation

Weeds introduced to disturbed areas can spread to adjacent land and negatively impact local agriculture and livestock operations. Baseline information and future modeling regarding native, non-native, invasive, and noxious species should be provided, and reclamation and mitigation procedures should be clear. Innovative weed control methods such as chemical pathogens should be reviewed and considered. More restoration projects should be considered.

Of particular interest are saltcedars. Saltcedars are invasive plants that consume huge amounts of water and change soil composition by accumulating large quantities of salt. Due to their huge water consumption and high salt tolerance, saltcedars out-compete native plants like cottonwoods and willows. This affects the entire ecosystem, and it damages grazing areas. The BLM should include specific analyses and plans regarding these plants, continue working with the ranching community to reduce the

negative impacts any grazing activity may have on wetlands and riparian areas, and insist the Wyoming Game and Fish Department address the impacts that over objective game herds have on BLM resources.

Hydrology: Groundwater and Surface water

The BBRMP should provide measures to minimize pollution and mitigate impacts by development. Baseline water quality data should be available to facilitate future monitoring analyses. Budgets for all baseline data studies should be included in the BBRMP.

The development of all water resources has potential benefits for not only livestock and wildlife, but also for recreation and tourism. The BLM should strive to build and improve all water resources for the benefit of all public land users. They should also work closely with private, state, and other federal agencies to obtain the financial resources necessary for water development on public land.

Recent articles (e.g. Lustgarten 2008) regarding an oil and gas industry practice called hydraulic fracturing have uncovered a series of contamination incidents that raise questions over the Environmental Protection Agency's (EPA) stance that the process poses no risk to drinking water. The BLM should review the recent incidents and the hydraulic fracturing process. The BLM should have a complete knowledge of all hazardous chemicals used in the fracturing process, and should consider the risks involved concerning Wyoming's surface water and groundwater.

Fisheries

Plans to preserve native habitats and fight the introduction of non-native species should be considered. Erosion of soils and sediment delivery to waterways are major issues affecting fish populations which warrant consideration.

Grazing

The BLM should address grazing as a key issue. The effect of the revised BBRMP on grazing could directly or indirectly affect many other components of the Bighorn Basin, including landowners, vegetation, wildlife, surface water, groundwater, soils, and socioeconomics. As part of the grazing issue, the process of renewing grazing permits should be reviewed and streamlined if possible.

In addition to grazing issues, the BLM should address how range improvements and lessee allotments will be affected by the proposed plan. Any temporary or permanent changes in land use need to be mitigated and/or disclosed.

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Open Space Preservation

The BLM should recognize in the BBRMP the value of conservation easements and land exchanges in the management of our public lands. While these tools have been utilized in the past, the process is cumbersome and takes years to implement. Initiatives to streamline these processes are imperative to preventing beautiful landscapes from being developed.

Directional drilling should remain a priority to minimize the development of unnecessary pads.

Public land grazing is an issue closely related to open space preservation. The BLM should consider the benefits of increasing public land grazing, and the potential changes in land use patterns on adjacent properties as a result of BLM grazing management. The viability of ranching is directly related to public land grazing administration.

Working Landscapes

Ranchers and farmers can be great stewards of the land. Working landscapes help maintain open spaces when they are properly used. The benefits of keeping working landscapes from being subdivided and developed should be considered in the BBRMP.

Logging should be utilized and permitted as a management tool. Timber harvest should be based on sustained yield, healthy forests, and improved habitat. Timber harvest should include not only logs but firewood, Christmas trees, posts, poles, and other forest products commonly available to the public.

Oil and gas exploration and development is critical to the security of our nation. The BLM should not restrict the development of these minerals. Periods of operation should not be used as tools for denying development. The process must be transparent and streamlined.

Land Use Planning

Appropriate management of watersheds should be considered. Topics such as wildlife migration, nesting, calving, nursery areas, and preservation of open spaces should be analyzed. Coordination and consultation with the counties and the implementation of the counties' adopted land use plans should be considered.

BLM lands that offer potential for community development and lay in a mosaic within private lands or near existing developments should be considered for community development projects.

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Wilderness

The 3.2 million acres of land in the BBRMP were set aside by congress as multiple use lands. Millions of acres in the west are designated as wilderness. We oppose designating any of the lands within this BBRMP as wilderness. Designations of wilderness study areas should be removed and reinstated in the general management area. We believe the continued management of these lands as multiple use lands fulfills their intended purpose.

Restoration

Regulations requiring restoration of landscapes and habitats should be analyzed, especially concerned with mining oil and gas development. Increasing the level of enforcement of restoration and reclamation measures should be considered.

Fire

The management of fuels is an important issue. As logging and grazing on public lands has decreased, fuels have increased. The BLM should analyze the benefits of new alternatives to fire management in the BBRMP.

Aesthetics

The viewshed is important to Bighorn Basin citizens, and any short and long-term impacts should be characterized and presented. The viewshed is not only important as an aesthetic factor, but it is also a consideration for the tourism industry, and it is therefore a socioeconomic issue. The BLM should consider providing a Geographic Information System (GIS) analysis showing impacts to viewsheds from different key locations to help residents better understand potential impacts from development on public lands.

Recreation

Recreation is an important issue to Wyoming's citizens and tourism industry. Hunting and fishing opportunities should be maintained. The use of all-terrain vehicles is part of Wyoming citizens' current lifestyle, and the implantation of loop-trails should be considered. The BLM should consider increasing their efforts to monitor improper recreational use of public lands. Potential impacts of all recreation to big game, including impacts on winter range, should be considered as well. The BLM should implement a public education program to explain the various perspectives regarding motorized and non-motorized recreation. Trails should be better marked to increase public awareness of allowable uses. Local service clubs and youth groups should be asked to monitor and clean up areas of concern. Programs such as

"Wyoming's Adopt a Highway" should be implemented. Educational signs and trash receptacles should be placed in these areas.

The Bighorn Lake management plan needs to be reviewed. Maintaining high lake levels will benefit Wyoming fisheries and recreation, tailwater fisheries, sediment control, hydropower production, waterfowl, weed control (i.e. tamarisk), and Montana reservoir fisheries and recreation.

Roads

Bighorn Basin residents consider the number of roads as an important issue. The BLM should review the plan for roads while considering the Wyoming public's interests. Roads should be marked to inform the public of proper motorized and non-motorized use.

It may be beneficial to consider a separate road use designation for certain roads that are used periodically for maintenance of range improvements and other non-recreation uses. Their designation could limit travel to necessary use only rather than closing the roads completely.

Oil and Gas Leasing

The Wyoming Profile of Demographics, Economics, and Housing states:

> "On August 8, 2005, the Domenici-Barton Energy Policy Act was signed into law. The law set a strong tone related to the nation's approach to development and the use of energy. While the Act has no immediate impact, its reach extends far into the future and the effects upon Wyoming have begun. Among the key elements of the Act are:
>
> - Improves the nations electricity transmission capacity and reliability by providing enforceable mandatory reliability standards, incentives for transmission grid improvements and reform transmission rules,
> - Promotes a cleaner environment by encouraging new innovations and the use of alternative power sources,
> - Promotes clean coal technology and provides incentives for renewable energies, such as biomass, wind, solar and hydroelectricity, and
> - Provides leadership in energy conservation by establishing new mandatory efficiency requirements.
>
> Due to Wyoming's long history of resource-based industry, it is reasonable to believe that high paying jobs in the mining and utilities industries are coming to Wyoming partly as a result of this legislation."

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Reductions in Oil and Gas exploration and development opportunities within the BBRMP will have a negative effect on our local, state, and national economy. In the current national economic crisis we need to support all sectors of our economy.

The BLM must consider all factors in the analysis of management options in relation to oil and gas extraction. Options are needed to protect and enhance opportunities to explore and develop these resources. Surface resource management options must consider the compatibility of oil and gas with the identified objectives. Mitigation tools can be implemented, but they need to be reasonable and not used as tools to shut down this industry. Oil and gas contributes a great deal to the socioeconomic stability of our communities and nation. The ability to have this continued resource available for future use is important as new technologies continue to be developed. Restrictive surface management practices will result in the decline of this industry at a time our nation is seeking to reduce energy dependency. The BBRMP should address a comprehensive analysis of the socioeconomic benefits of oil and gas in the considered management areas. Wyoming's mineral royalty program and the financial contributions from minerals to the local, state, and national treasuries should be considered. Discussions and analyses regarding the negative impacts of oil and gas are often underscored while the benefits of surface opportunities to the public and the BLM are not identified or recognized. Some groups suggest oil and gas development severely degrades the visual quality of an area. They would like large areas to be set aside as Visual Resource Management (VRM) Class II classification in order to prohibit this industry from extracting minerals for our public's use.

We recognize in our decision-making role that not all citizens agree on oil and gas development regulations, and we encourage the BLM to work with industry on site-specific locations and review and adapt appropriate measures with regard to surface disturbance concerns. The rate at which oil and gas development will likely take place should be considered in the BBRMP. Appropriate development should be regulated by the BLM to protect the Bighorn Basin's environment while maximizing its resources.

Mining

Bentonite mining is important in the Bighorn Basin. The recent reclamation of abandoned gypsum mines in the Bighorn Basin indicates how the land can be mined and reclaimed to its natural state. The BLM showcases reclamation efforts such as wildfire and riparian mitigation work, and sites where industry has reclaimed abandoned mine sites within the Bighorn Basin should be showcased as well. Public awareness and negative perception can be changed through education. The positive results of management practices need to be highlighted throughout the BBRMP.

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Alternative Energy

Alternative energy production is a major issue in Wyoming, a state with ample solar, wind, and geothermal resources. Residents would like the BLM to consider alternative energy production in the BBRMP. Shared opportunities seem to exist with regard to wind energy in the BBRMP. Currently private landowners are approaching our counties with requests to install wind turbines. While these measures are encouraged, there are cumulative impacts to the landscapes and viewsheds as they are developed. Some of these installations result in conflicts with neighbors' and property owners' rights. Wind turbines must be located near transmission lines and in areas of relatively strong winds. We welcome the opportunity to work with the power companies, the BLM, and local governments to develop community sites where people can develop and transmit their wind energy into the national grid to offset their raising utility costs and support a cleaner environment.

Energy Security

Energy security and reducing foreign energy dependence is incredibly important to the United States, and specifically to the prolific hydrocarbon-producing region of western Wyoming. The BLM should consider energy security and the continued exploration and development of our minerals and fossil fuels in the BBRMP.

The BLM should review which rivers within the planning area are suitable for hydroelectric development. Hydroelectric development is one of the most overlooked sources of energy. This development is renewable and readily available. The BLM should analyze geothermal development opportunities within the BBRMP. Priority should be given to the reductions of foreign energy dependence and the utilization of sustainable natural resources available within the Bighorn Basin.

Municipal Services

A portion of the taxes that Bighorn Basin residents pay goes towards municipal services. Bighorn Basin water resources, landfills, and public road surfaces should be considered in the BBRMP.

Geographic Information System Data Needs

GIS data are increasingly important when spatially evaluating rangelands. The BLM should consider improving the GIS database to quantify rangeland condition and vegetation distribution and production. GIS technology should also be used to evaluate United States Census Bureau data with regard to many of the socioeconomic issues listed in this memorandum. Counties and cities continue to invest money in digital data, and this information should be shared with all agencies for the benefit of our public.

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Other Issues

- Proper management of multiple uses of lands should be considered in the BBRMP.
- Appropriately designated areas for target shooters should be considered.
- Increased monitoring and penalties of inappropriate use of public land should be considered.
- Documentation of what has and has not succeeded in the Cody, Washakie, and Grass Creek Resource Management Plans should be provided.
- The BLM should consider instituting an official volunteer program to help with under-funded projects.
- Preservation of the McCullough Peaks area is of special concern to many residents.
- Socioeconomic problems in neighboring areas should be investigated for a better understanding of how to avoid such problems in the Bighorn Basin.

SURVEY RESULTS

An online survey asked residents to rank their top ten issues out of a list of thirty. The issues were scored based on their rankings, with the most important issue receiving a ranking of 10, the second most important issue receiving a ranking of 9, and so on. Figure 1 shows a comparison of Bighorn Basin County Commissioners' survey results with the results of the Bighorn Basin general public. Figure 2 shows a comparison of the Park County Commissioners' survey results with the results of Keith Grant, Big Horn County Commissioner, and Terry Wolf, Washakie County Commissioner. According to the survey, the most important issues to Bighorn Basin residents are grazing, air quality, water quality and yield, wildlife habitat, open space preservation, motorized and non-motorized recreation, roads, and oil and gas development. The results indicate that every issue listed had some level of importance to the residents, emphasizing the large number of perspectives in the region. County Commissioners and residents also provided comments on the survey forms, and those comments were a major source of information for this scoping summary.

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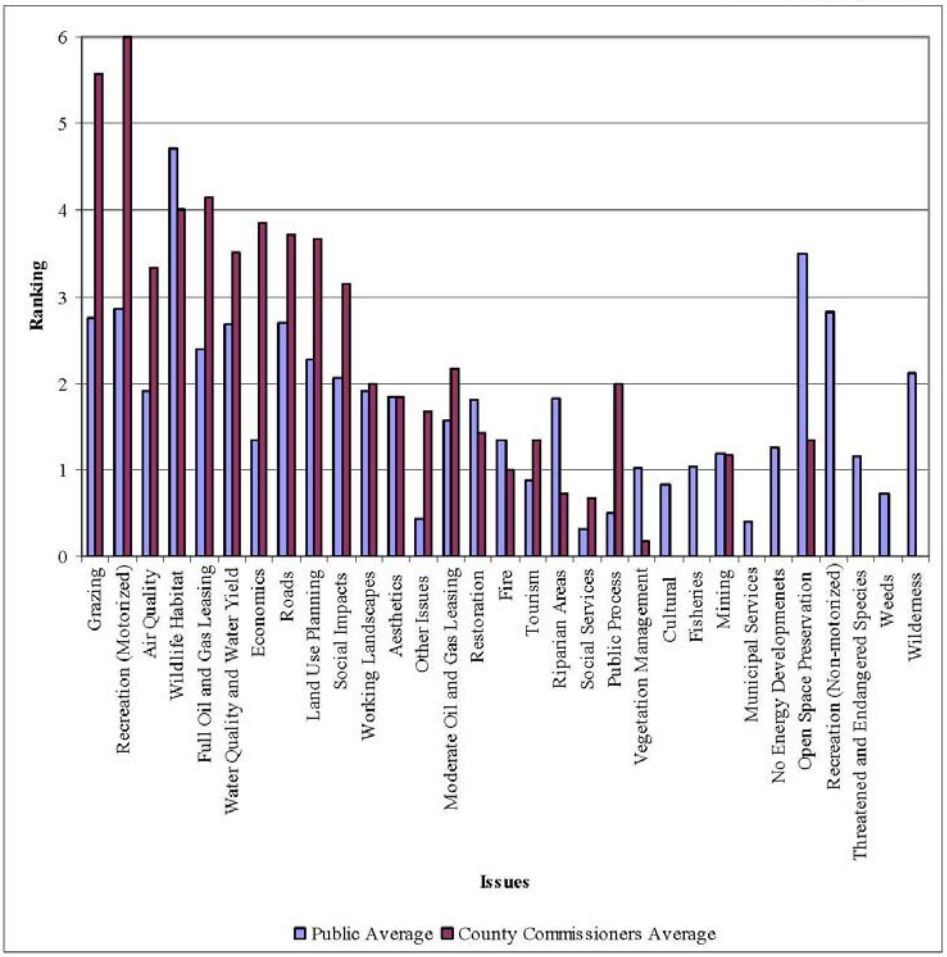

Figure 1 Scoping Survey Results of County Commissioners and the Bighorn Basin Public

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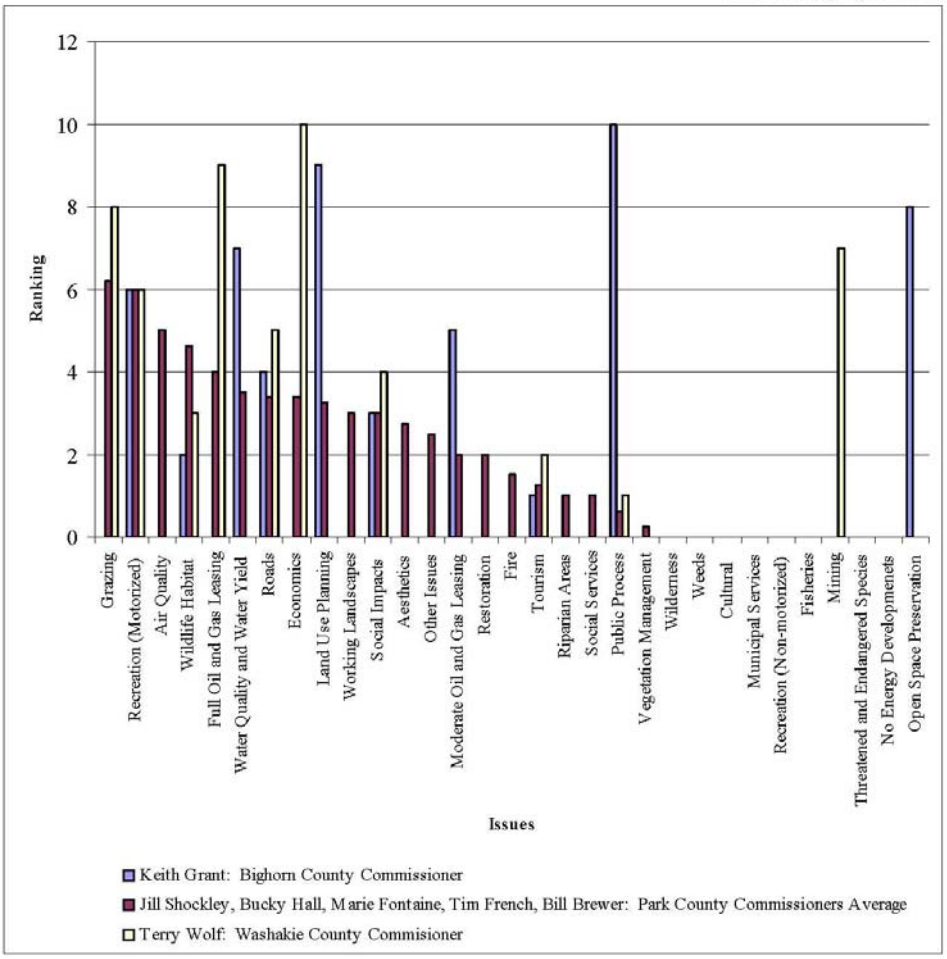

Figure 2 Scoping Survey Results of Park and Big Horn and Washakie County Commissioners

Appendix 1. Hot Springs County Commissioners' scoping comments

General

1. The plan must be governed by BLM's three criteria, 1–Multiple Use, 2–Sustained Yield, 3–Economic Impact. No special interest or single use shall have undue influence and must meet the three criteria.

2. The plan should emphasize management and good stewardship of the land so that natural resources can be used on a reliable and continuous basis in a multiple use program.

3. The BBRMP revision shall incorporate county land use plans per FLPMA (43 U.S.C. 1712, Section 202, C, 9).

4. The cumulative effect of restrictions and/or regulations must be considered so not to impede the progress of and/or utilization of the resource in a manner that would render an objective economically unfeasible, such as reduction of time of use in segmented periods or time restrictions so short in duration that use becomes a financial obligation instead of profitable, creating a negative economic impact.

5. Aggressively participate in RMP projects brought forward by conservation districts, land owners and/or permittee's. Conduct EA's in a timely manner (30-60 days) so as not to delay projects that are designed to improve the environment, sustain yield capability, wildlife habitat, water quality, air quality, or any other component of good land management.

6. Coordinate the BLM plan and all associated projects with local government (County Commissioners, Conservation Districts, Watershed Districts, etc) in those geographic areas to be effected.

7. There shall be no net gain in total BLM acres. Preferably some of the isolated parcels that are insignificant and difficult to manage should be offered for sale at market value to the permittee first, then neighboring permittees, and then the public. Those parcels that have private improvements (barns, sheds, etc) should be sold or traded to the person owning the improvements.

8. BLM should engage in a plan to assemble parcels that are non-contiguous into a block format by trading and/or selling land. Assembling land into larger blocks makes for more efficient management and control with less intrusion or regulation on private enterprise.

9. Permits, EAs, EISs, etc., regarding production, harvesting or conservation practices that generate jobs, improve the habitat, and have an economic impact on the community, such as gas/oil leases, drilling permits, timbering, water tank and pipe lines, spring development, reservoir improvement, etc., should receive priority attention so as to maximize the beneficial impact, economic as well as land enhancement.

10. Fire should play a beneficial role in habitat regeneration. Fire plans should be coordinated with local governments, conservation and watershed districts. Protection of critical and crucial habitats should have a high priority.

Special Areas

11. Areas of Critical Environment Concern, ACECs, must first meet the definition requirements of FLPMA, Section 43, U.S.C., 1702a, at this point in time. Current ACEC designated areas shall be reviewed to insure they do meet the criteria, and those that do not shall be removed. The remaining designated ACECs must be limited in size and scope to the minimum necessary to specifically protect and prevent irreparable damage to values that are objectively shown to be relevant and important, or to protect human life, or to

provide safety from natural hazards. Damage must be shown in all respects to be truly irreparable and justified on short and long term horizons. ACECs must not be used as a substitute for a wilderness suitability determination, nor offered as a means to manage for so-called wilderness characteristics.

12. Any and all special designated "Wilderness Study Areas" shall be removed from that designation and reinstated in the general management area if nothing has been done with them in the past 10 years. To declare it a study area and then not study it means it wasn't important enough to be set aside in the first place. At a minimum, the area must be re-evaluated to ensure it meets the criteria for such designation.

Law Enforcement

13. Contract with and authorize County Sheriff Departments to enforce BLM regulations relative to the general public, such as illegal recreational use, vandalism, off road use, litter, etc. This would be more efficient and effective than employing additional BLM enforcement officers.

14. Provide trail makings to inform public of open and/or closed trails. Establish a working relationship with recreational groups or clubs to help maintain signs, etc.

Minerals

15. Do not restrict the development of minerals to the point the economic impact makes it financially unfeasible. Time periods of operation should not be limited to only a couple of months per year.

16. Streamline the permitting process to 60 days or less. The current permit time of 6 months to years is unacceptable and has a significant negative economic impact.

Grazing

17. Reinstate the Annual Unit Months (AUMs) that are being carried as suspended on the permits. Allow for flexibility in AUM use, to be determined between the BLM Range-Con and permittee based on forage availability.

18. There shall be no net loss in permitted AUMs, but the actual use may vary annually based on vegetative supply, weather and range conditions.

19. Streamline the process to refurbish reservoirs and/or install water tanks and pipelines across the land for the improvement of water distribution for livestock and wildlife.

Recreation

20. Set aside a less productive area near towns for off highway vehicle (OHV) use as a playground. Allow for competitive type tracks or trails and an area for general riding and hill climbing to be set up. A condition could be for a local club to oversee and take control of the management, including clean-up and general maintenance.

21. Set aside an area for a shooting range near each urban area. A condition of this may be contracting with a local gun club, sportsman club or similar organization for the management and oversight. The contract or lease should be long term, so a permanent type shooting range, club house, and/or equipment can be installed to ensure the safe and responsible handling and use of firearms.

22. Establish and map nature trails and/or loop trails for recreationists & OHV, providing a more controlled use, and coordinate that use with Sheriff Departments for enforcement oversight.

23. Include an OHV management plan, designated use areas, non-use areas and designated trails. Plan should allow for permittee to use OHV in non-use areas for activities associated with the permitted use, such as installation, inspection, or maintenance of fencing, pipeline, livestock, and any other use associated with the permitted activity.

Forestry

24. Logging or timbering should be permitted on any and all timbered areas before fire is used as a management tool. The management plan should provide for a mosaic of seral stages, not for dominance of a particular age or species.

25. Include a variety of plans for effective pest, disease and insect management.

26. Timber harvest should be based on multiple use, sustained yield and economic impact coupled with the goal for a healthy forest and improved habitat. Timber harvest should include the harvest of not only logs, but firewood, Christmas trees, post and poles, and other forest products commonly available to the public.

Vegetation

27. Initiate an aggressive plan for the control of sage brush, noxious weeds and/or invasive species, using a combination of methods, including mechanical, chemical, fire, etc.

Water

28. Work cooperatively and coordinate with the WY State Engineer Office regarding water issues, as they are the regulatory authority and legal owner of all water in the state.

29. Coordinate with county officials on any and all water issues relative to Coal Bed Methane discharge water, oil field discharge water, or any water extracted as a result of mining or mineral activity.

30. Work with the conservation districts to monitor, analyze, evaluate, improve and/or maintain water quality in the streams.

31. Allow mineral discharge water to flow over BLM land if requested by the downstream users and/or grazing lessee.

Wildlife

32. Species of concern will be addressed, but the decisions effecting them must be based on the best available science, not conjecture, supposition, or guessing. Local watershed plans, conservation plans, grazing plans, and mineral development schedules should be considered in depth.

33. Wildlife is an important part of the Wyoming landscape and a valuable asset to our custom, culture, and economic stability, especially the recreational industry. The population of each species should be managed in such a manner that they share the range with other multiple use applications, such as grazing and mineral extraction.

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34. Species of concern should not be given priority just because there is no information on them. To assume they are threatened, endangered, or in jeopardy without science would be irresponsible and could place not only an undo hardship, but a significantly negative economic impact on the community, effecting its social and cultural environment.

35. Species of all types, animal or plant, disappear and new ones emerge over time in a natural evolution. Care must be taken to ensure that unrealistic measures are not taken to protect a species destined for extinction naturally or new species are not misinterpreted as rare and threatened or endangered.

Historical & Paleontological Resources

36. Care should be taken to protect rare historical and paleontological resources when and where necessary for evidence gathering, study and historical purposes, but not all fossil finds contain significant deposits that should be protected forever. Care must be taken to balance or weigh the significance of each find and its impact on the multiple use of the area.

Desired Conditions

37. A landscape working in harmony in a multiple use concept, utilizing the renewable resources and extracting minerals, intertwined with recreational enjoyment for the benefit of all. A balance between nature and man, measured by the 3 criteria, of multiple use, sustained yield and economic impact.

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Subject
Big Horn Basin RMP Scoping Comments

Bighorn Basin RMP Revision Team
Bureau of Land Management
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These comments are submitted for consideration in the revision process. I am a Big Horn Basin native, raised on a ranch which included BLM grazing allotments. My education is in Natural Resource Recreation Planning and Management. I enjoy diverse motorized and nonmotorized recreational opportunities on the subject lands (and waters), relish the extensive photographic opportunities throughout the area, and am an involved advocate of responsible Off-Highway Vehicle (OHV) recreation. I have conducted ATV safety training for numerous personnel from both field offices as an ATV Safety Institute Instructor, presently volunteer as a Wyoming Associate Partner to the National Off-Highway Vehicle Conservation Council, teach as a Master Tread Trainer with the Tread Lightly! program, previously initiated the Wyoming State Trails OHV ethics education program, and continue to encourage the Wyoming Game and Fish Commission to incorporate a segment OHV ethics into all of their Outdoor and Hunter Education programs. Although I work with a number of different organizations, the comments contained herein do not represent the viewpoints, desires or stand of any organization; they are purely personal.

I have observed and experienced numerous changes to the subject lands over the past 40+ years and recognize the intrinsic value to diverse publics. Management practices pertaining to the livestock and mineral industries have evolved into greater protection for the land, wildlife and aesthetics of the area. With consideration to the extensive acreage of BLM and other public lands within the subject area, the management of these lands has a tremendous impact on the area's economic health. It is critical that you develop a plan with sufficient flexibility and direction to managers to ensure residents and neighbors benefit from progressive growth, a predominant factor of which is accessible public lands for recreation. Wyoming's public lands are a predominant factor for the growing population of Baby Boomers who are relocating here from elsewhere. It is critical to keep in mind the needs for accessibility and the base reasons for their choices of places to live. Remote areas, wandering two-tracks through wild lands settings, opportunities for natural discovery in an age of electronic

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entertainment - all reasons to ensure the opportunities developed or enhanced through this process remain viable well into the future.

The RMP must seriously address travel management and OHV recreation. Recognition and differentiation between a travel system and an OHV trail system are critical! It is too easy to lump both together and fail to appropriately address ongoing issues. Referencing a conversation with one of the subject area recreation managers a couple of years ago, the statement was made "We're just about done developing horse facilities (trailheads, trails and crossings), now we need to start working on OHVs." OHV issues have been recognized and handled with varying degrees of success throughout the West for many years; this undertaking is far past due. A multiple-approach effort necessary to ensure responsible, ethical use is encouraged instead of the existing "management by closure" or "ignore it" management styles. Funding sources are available for assistance with design, development, engineering and implementation through the Wyoming State Trails Program and local volunteers.

This plan must require Field Offices to actively become involved in ensuring reasonable training sites, OHV trails, an organized OHV Trail system, open riding areas, and developed facilities are planned for and established. Such efforts are critical management efforts which will be rewarded with reduced OHV impacts, structured opportunities and enhanced opportunities for everyone involved. OHV recreation is a sustainable, manageable recreation opportunity with tremendous potential for development in the Big Horn Basin. The economic impact of such a trail system would be a boon to the moderate and depressed economies of Hot Springs, Washakie and Big Horn Counties, lending a diversified visitor base during the season periods and retaining visitors for extended periods instead of passing through to Yellowstone and other principal tourism destinations. The diversity of settings, features, terrain, moderate distances between communities and largely undeveloped areas offer seemingly unlimited opportunities for an extended trail network with a limited number of trailheads, open riding areas, etc.
Elements to consider are:

1. Engineering: Consider different OHV types: Dirt bike riders seek narrow, twisty single-track trails. ATV riders seek trail experiences that encourage discovery, challenge and exploration. Side-by-side operators seek 2-track routes with similar opportunities. No matter the recreation type, every recreation enthusiast finds the specific type of activity they are seeking, whether it is provided or whether they have to create it for themselves. Each user is different, yet typically all three are forced to accept routes designed for quick movement of people or goods from Point A to Point B. Extensive mapping of existing routes has been completed, yet the routes are solely beneficial to typical 4-wheeled vehicles and do not consider the recreational aspect of OHVs. Many OHV enthusiasts are willing to assist in your process, if encouraged and invited to participate as welcome partners in the process.
2. Education: Provide what they want, tell them it is (where you want them), show them where you want them, now you know where they are. Each Field Office should identify appropriate sites adjacent to suitable riding areas or routes which can be used to conduct OHV Safety and Ethics education courses. Previous attempts to establish such sites have either been rebuffed because the RMP didn't address them, or the effort was effectively killed through neglect. This Plan should establish this as a base requirement, prior to closure of any

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existing riding area. Other education tools to offer include planning for the provision of area-specific maps, trailhead kiosks, cooperative partnerships with local communities, businesses and enthusiast groups to direct OHV use to appropriate and desirable settings.

3. Enforcement: Law enforcement is a tool, but should be one of the last management tools, not the first one! Getting buy-in from the OHV community means working with them, establishing a rapport and moving forward. Co-oping with other law enforcement agencies and volunteers can significantly reduce the demands on the minimal enforcement personnel on your staff. Looking to examples such as the Paiute Trail System for effective partnerships (Richfield Utah Field Office) would be greatly beneficial.
4. Evaluation: Once the system is in place, see what is working and what isn't. Before you start, determine what the existing uses are, where it is occurring and why it is being done there. Plan and consider future facilities to direct OHV enthusiasts to appropriate/desired sites. Access to improved facilities including lodging, meals and fuel are critical. One specific use which could be addressed through a private/public partnership is the development of motocross facilities. Such a facility is sorely lacking near Cody, and other areas may benefit as well.

Furthermore, the agency needs to differentiate between OHV recreation and the use of OHVs in other activities. The cross-country use of OHVs for livestock management is unacceptable and negatively reflects on responsible OHV recreational enthusiasts. I've personally observed (& tried to address) the use of ATVs and dirt bikes to gather livestock, fix fences, place salt blocks and other uses by grazing permittees. The resultant tracks entice other OHV users to follow the same route, resulting in unnecessary and unmaintainable routes. A separate and increasing predominant issue is the use of ATVs while hunting. This use is also not a recreational use of the OHV, but as a transportation tool. A nationally recognized issue, this mis-use reflects negatively on responsible OHV enthusiasts. Failing all other measures, a management practice such as the banning of the operation of an ATV by hunters during hunting season(s) would be a better practice than to punish all OHV use during a specific period or in a specific area. Such a system is already implemented and quite effective on the Wyoming Range (Bridger-Teton N.F.). It is a simple fact that all abuse cannot be shouldered by any single user group, but these findings and suggestions are in line with discoveries made in other locations with similar settings.

Care must be exercised to conserve the resources for future generations and maintain a healthy ecosystem while retaining adaptable management options to address current issues and well as those which will develop in the future. Extreme caution must be exercised in management designations (ACECS) or recommendations for inclusion in various programs (Wilderness, Wild & Scenic Rivers, etc.) which lend permanency to a specific management technique which may not be appropriate for subsequent generations. I know that numerous and diverse resources exist throughout the subject area which have significant cultural, historical, scenic or environmental value(s). Their protection and preservation is critical for future generations to grasp and appreciate the resource's significance. How that is done must be approached cautiously to ensure overly restrictive measures are not applied which would preclude future generations from developing the same deep appreciation we have today. Although images can convey scenes, there is no greater experience than standing in front of petroglyphs, wandering though teepee rings, or experiencing the extreme heat and cold in mystical

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settings found in the landscape of the our Big Horn Basin. Restricting access to the vast majority of such areas, only to the able-bodied, would be an injustice and travesty for which there is no justification.

I appreciate this opportunity to request your attention to these matters in the revision process. I will be happy to answer any questions that you have, participate in the Revision Process in any manner that would be beneficial to your efforts, and assist in any way possible.

Thank you,

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