Scoping Comments
Uncompahgre Resource Management Plan Revision

by Western Colorado Congress
and Western Slope Environmental Resource Council

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Introduction

Western Colorado Congress (WCC) and the Western Slope Environmental Resource Council (WSERC) hereby submit comments regarding the Uncompahgre Resource Management Plan Revision.

Western Colorado Congress (WCC) is a grassroots, democratic organization dedicated to challenging injustice by organizing people to increase their power over decisions that affect their lives. WCC is the largest, most well-established grassroots citizen group in Western Colorado, with over 2400 members in six affiliated community groups from Steamboat Springs to Ridgway. WCC's community groups and members work together to create healthy, sustainable communities, social and economic justice, environmental stewardship, and a truly democratic society. Community groups within the BLM's Uncompahgre planning area include Ridgway-Ouray Community Council, Uncompahgre Valley Association, and Western Slope Environmental Resource Council.

WSERC is a grassroots non-profit conservation organization based in Paonia, Colorado. WSERC organized in 1977 and has over 500 ` members. Our organization promotes "Healthy Lands, Healthy Lives," and is dedicated to protecting and enhancing the environment and quality of life in Delta County and Colorado's Western Slope.

Because our two groups have signed on to group comments by the Dolores River Coalition, et al and Southern Rockies Conservation Alliance, we are focusing this letter on specific recommendations for places our members know well.

In addition to these comments, WCC and WSERC contributed materially to the comments separately submitted by the Center for Native Ecosystems (CNE) by identifying and convening a group of scientists and others with expertise in the species, ecosystems and special places on the UFO. Please see the CNE comments for specific recommendations on species and places not covered in detail here.

Our members value intact natural ecosystems that maintain their preColumbian constituent species in natural abundances. Protected natural ecosystems on public lands are the last refuges of many threatened, endangered, and dwindling species. These ecosystems provide valuable natural resources and ecosystem services, such as water collection and purification systems and carbon sinks that protect against global warming. For the communities in and nearby the UFO, they are the basis of a renewable, vibrant recreation economy.

The economic benefits to the community of preserving wild lands should be evaluated and quantified, and possible harm to these benefits should be carefully evaluated when considering mineral extraction, logging, grazing, or other projects that disturb wild lands.

We urge the UFO to control and strictly limit gas production, mining, motorized recreation, and other uses that threaten the long-term health of natural ecosystems. We urge you to preserve BLM land for future generations and to favor the following low-

impact uses:

- Wide open, rugged, remote backcountry/landscapes/open spaces.
- Backcountry silence and solitude.
- Areas for bird watching, hiking, quiet use, nonmotorized hunting.
- Quiet, natural soundscapes and landscapes, free of motorized noise.
- All wilderness study areas.
- Large blocks of undisturbed, unfragmented habitat.
- Corridors of natural habitat that protect core areas.
- Integrity of ecosystems and wildlife habitat.
- Undisturbed late seral stages of vegetation, which are increasingly rare, and upon which many species depend.

We note that multiple use of public land should not be interpreted to mean that all uses can or should coincide in all areas. The "natural" values listed above are generally lost when lands are opened to commodity production. Therefore, land must be set aside specifically for natural ecosystems in which degrading uses are prohibited.

Comments

3.1 - Recreation and Visitor Services

North Delta Designated OHV Play Area. On the basis of the excellent signing, fencing, patrolling and other management that the UFO has implemented in the OHV open areas in Peach Valley/Gunnison NCA, we recommend that the North Delta motorized open area remain open with management practices in place that are equivalent to Peach Valley/Gunnison NCA.

We do not want other OHV Play Areas created because of likely damage to native ecosystems.

Jumbo Mountain. Historically Jumbo Mountain, near Paonia, was sparsely used, primarily by hikers. However, use has increased greatly in the past 20 years, with ATV users and mountain bikers appearing as new user groups. Because Jumbo Mountain is so close to Paonia and because it is used intensely for recreation, it should be used exclusively for recreation. For safety reasons, BLM should exclude mountain bikes and ATVs from trails designated for hiking and horse riding. The BLM should investigate whether new access points might be developed that would decrease conflict between user groups. Several of our members are adjacent property owners and we urge the BLM to work closely with them on access issues.

Recreation Permits. Allow competitive recreation events only if they can be managed to have low impacts and if they do not significantly increase overall use. Set carrying

capacity limits and other restrictions on commercial outfitter guides and Special Use Permits

Antler collection. Continue to implement and enforce prohibitions on elk and deer antler collection to stop impacts on soils, vegetation, watersheds and wildlife.

Dispersed camping
All motorized travel should be restricted to existing roads and trails and designated parking and pull-out areas. Dispersed camping should be restricted to existing campgrounds, which should be designated as official campsites. The BLM should not allow vehicular camping anywhere else.

3.2 - Travel Management

We know that the UFO is not starting its travel management planning at this time. However, many of our comments on the RMP involve controls on travel, so we are placing them in this section. Please consider these comments now rather than deferring their consideration to the travel management scoping period.

Limit motorized use

- Limit motorized use in the UFO to existing trails.
- As soon as possible complete ORV route designations on all UFO areas where this has not been done.
- In the interim, make a plan for how to contain expanding use.
- In the interim, close all damaging routes.
- Limit off-road vehicles to areas where they will have minimal impacts on wildlife habitat, quiet users and the solitude of BLM backcountry. According to retired Forest Service wildlife biologist Craig Grother, "It is clear that motorized vehicles affect big game populations, security, distribution, and reduce habitat effectiveness. "

Identify and close sensitive areas

- Sensitive areas/habitat needed by elk, deer, big horn sheep, antelope, rare and sensitive plant and animal species such as Gunnison sage grouse, prairie dogs and burrowing owls
- Sensitive watersheds, riparian areas
- Erosive soil areas
- Fragile vegetation types
- Big game winter range, calving, lambing and fawning areas. Studies, for example those by Michael Wisdom, have shown that deer and elk are disturbed and leave areas frequented by both ATV's and mountain bikes.
- Remote areas that cannot easily be enforced
- Areas where motorized noise will disturb wildlife and Quiet Users.
- Some of these areas also may need to be closed to mountain biking or even hiking in the case of highly sensitive areas.
- Any sensitive sites should be closed (seasonally, if appropriate) to antler

collection, as is now being done on UFO to protect sage grouse habitat.

Close or keep closed the following places to motorized recreation

- BLM lands north of the Tabeguache Creek WSA/Special Management Area including the Shavano, Campbell, and Burro Creek drainages.
- Monitor Creek, Potter Creek, and Criswell Creek Canyons adjacent to the Camel Back WSA.
- Portions of San Miguel River Corridor.
- Undeveloped areas in and adjacent to all WSAs.
- Camp Ridge and Sowbelly Ridge, Rose Creek, and Open Draw drainages, adjacent to Dominguez Canyon Wilderness,
- Close the Gunnison and McCarty Trail systems to ORVs and mountain bikes and set them aside as horse and foot trails.
- Dolores River Canyon. This area has red sandstone cliffs, river otters, peregrine falcons, etc. WCC supports the more detailed recommendations as outlined in the Dolores River Coalition's comments.
- Norwood Canyon. This portion of the San Miguel River corridor provides habitat for mountain lions, hawks, eagles, and both rare and familiar native fish.
- Roubideau/Potter/Monitor canyon system west of Delta. Maintain existing road closures and do not build a new ATV loop into Potter and Monitor Canyons. These areas are relatively undisturbed and provide excellent habitat.
- BLM lands north of the Tabguache Creek WSA/Special Management Area which include the Shavano, Campbell, and Burro Creek dranages. This area has very high wildlife values and excellent opportunities for non-motorized recreation and hunting.
- Conduct road closures of user-developed OHV trails in the west end of Montrose and San Miguel Counties where they were established following vegetation treatments (e.g. chainings) and post-fire revegetation projects. Areas associated with the Burn Canyon fire include Hamilton Creek, Hamilton Mesa, Callan Draw, Burn Canyon, and McKee Draw. The Campbell Creek fire opened up protions of Campbell Creek and Shavano Creek to motor vehicles. Other examples include Bramiers Draw, Wickson Draw, and Mailbox Park.
- Conduct an inventory to identify areas of roadless or low road-density (< 1 mile per section) and manage them as primitive backcountry areas with no motorized uses. An evaluation should be done as to whether to close these areas to mountain bikes as well.

Keep routes open conditional on user compliance

Institute a policy that designated OHVs routes remain open subject to compliance. If resource damage and off-route use can not be controlled these routes would be closed.

3.4 - Cultural and Paleontological Resources

The BLM did an excellent job addressing management of cultural and paleontological resources in its management plan for the Gunnison Gorge NCA. The UFO RMP should mimic that management approach. Cultural resources are non-renewable and should be managed for permanent protection.

4.1 - Wilderness and Wilderness Study Areas

Camel Back
Camel Back needs permanent protection by wilderness designation. Camel Back supports bighorn sheep and is as remote and beautiful as Dominguez Canyon. Consideration should be given to incorporating adjacent Roubideau Forest Service lands into the wilderness area. This is one of the most important areas to our members.

Adobe Badlands
Although we are aware that the UFO did not find the Adobe Badlands suitable for wilderness designation, we believe there is enough significance to this remnant landscape that it is deserving of permanent wilderness protection. It contains imperiled endemics, and fragile Mancos shale formation. The Adobe Badlands WSA is the last untouched example of this habitat type in the UFO and possibly anywhere on the Western Slope. If not protected by wilderness designation, then none of this type of landscape will be protected. Because of increasing development pressure, particularly from gas development, this area will be heavily degraded without wilderness protection.

Dolores River Canyon and Sewemup Wilderness Study Areas
We continue to recommend that the BLM advise Congress, when the opportunity arises, to grant full wilderness protection to these areas.

Tabeguache Special Management Area
We commend the BLM's management of this area as non-motorized and non-mechanized. The Tabeguache Special Management Area overlaps with a Potential Conservation Area recommended by the Colorado Natural Heritage Program for protection of sensitive plant communities. It is not suitable for mechanized travel and should be managed for its valuable wildlife habitat and hiking opportunities.

4.2 - Wild and Scenic Rivers

Protect as many eligible rivers and tributaries as possible. All of the river segments listed in the BLM's draft Wild & Scenic Rivers Eligibility Report should retain their eligibility for inclusion in the National Wild and Scenic Rivers System, and should be carefully evaluated for the next level of protection. Particularly deserving are those with unusually good understories of buffalo berry, New Mexico privet, or box elder, or stands of cottonwoods.

Cottonwood Creek, Monitor Creek, Potter Creek, and Roubideau Creek. These creeks provide and complement wildife habitat and ecological diversity near the rich country along Monitor Mesa and the surrounding or nearby Roubideau/Camel Back Wilderness Study Area;

Escalante Creek. Escalante Creek and its tributaries define the surrounding country; protecting these streams will ensure healthy wildife, productive agriculture, and stable water tables.

Gunnison River. The Gunnison River itself contains segments that should be carefully evaluated to ensure enduring protection for the important fish habitat and recreation opportunities there, whether through wild & scenic river measures or other approaches. Protection strategies should recognize and integrate the protections already in place in the Dominguez-Escalante National Conservation Area and should ensure that no new dams or major water diversions occur on the Gunnison above its confluence with the Colorado River.

North Fork of the Gunnison. This watershed faces increasing development and recreation pressure. All eligible streams there should be carefully reviewed for protection.

San Miguel River. This watershed is nearly incomparable across the western United States for its intimate ecological settings, remote and thriving backcountry, naturally varying and flowing river and streams, contribution to important water systems in several states, and scenic wonder. Every eligible stream segment in this watershed should receive prompt, extensive, and reliable protection, both through wild & scenic suitability findings and through clear and firm management prescriptions in the BLM's resource management plan:

Beaver Creek, Dry Creek, Fall Creek, Naturita Creek, and Saltado Creek. These creeks are important contributors to the flows and health of the San Miguel itself and provide essential riparian habitat and geographically important streamflows in their own rights.

San Miguel River. Segments of this river warrant the most thorough analysis and the highest level of protection for habitat, riparian health, and avoidance of industrial intrusions.

Tabeguache Creek. This creek should be designated in keeping with the surrounding lands status as a congressionally designated area for preserving wilderness values.

Dolores River. Few streams boast the unique natural values—and extent of threats to those values—as are found along the Dolores River. The river itself, and all its eligible tributaries, should receive immediate, thorough, and enduring protection. As larger conversations, among a diverse and extensive collection of experts, local governments, and stakeholders, are now proceeding toward a more natural and reliable regime of streamflows in the Dolores River, it is both timely and essential that the BLM provide the interim protection afforded under wild & scenic suitability. This action, and correspondingly protective measures in an update resource management plan, will both contribute to, and provide opportunity for, those broader conversations to reach successful conclusion.

4.3 - Areas of Critical Environmental Concern (ACECs)

All existing ACECs should be kept. There are four ACECs in the UFO: Fairview, Needle Rock, Adobe Badlands, and San Miguel. The Fairview ACEC protects only part

of the habitat of the endemic clay-loving buckwheat. This ACEC should be enlarged for greater protection.

To protect the significant values present within the ACECs, the BLM should withdraw all mineral leases from these areas, including oil and gas leases. The development of gravel mines in the San Miguel River occurred in the past and should now be prohibited in order to protect the unique riparian vegetation communities, wildlife, recreation, and scenic values.

The Colorado Natural Heritage Program has recommended additional ACECs within the UFO to protect rare and imperiled plants. We support designation of all ACECs recommended by the CNHP.

Some areas to consider for ACEC status:

- Tabeguache Pueblo and Tabeguache Caves. These contain important archaeological sites that show a relationship between the Fremont and Anasazi cultures. There is some evidence of farming (corn production).
- Paradox/Long Valley: important rock art and archaeological area. Investigate possible conflicts between peregrine falcons and hang gliders on the cliffs above Paradox. The Paradox Valley lupine, deserves ACEC.
- Lower Uncompahgre Plateau Area. There are many scattered important archaeological sites that include archaic to Ute occupation in the 1880s, e.g. the Harris Site, rock art sites, and wickiups.
- Gunnison sage grouse sites. The UFO should designate known Gunnison sage grouse lek sites and concentrated nesting and brood rearing habitat as an ACEC. Specific sites are displayed in the Gunnison Sage Grouse plan for the San Miguel Basin.

5.1 - Special Status Species

Sensitive Plant and Animal Species

The UFO should strive to identify new special status plant or wildlife areas or species needing special protection or likely to need special protection in the future. The UFO should be proactive in establishing ACECs for such areas and/or species likely to be threatened in the future. ACECs could be designated for all sensitive sites in the UFO area.

Special status species include Gunnison Prairie Dog, Gunnison Sage Grouse, Uinta Basin Hookless Cactus, and Yellow-billed Cuckoo.

Prairie dogs and associated species. The UFO can play a major role in recovering prairie dogs and species dependent on prairie dogs by managing to increase prairie dog numbers and to increase the area occupied by large prairie dog towns. Burrowing owl, (wintering) feruginous hawk, golden eagle, long-nosed leopard lizard, and kit fox could be preserved by good conservation of the two prairie dog species' habitats. Management actions could

include restrictions on motorized travel, restrictions on shooting in prairie dog habitat, prohibiting surface disturbance due to oil and gas drilling, and managing vegetation to benefit prairie dogs, notably control of cheat grass and other weeds.

There is a need for ACECs to protect wildlife habitat in the best remaining large areas of semi desert/salt desert habitat for the two prairie dog species and their associated species. The most obvious place for this is the east side of Highway 50, across from the Escalante Canyon turn off. This would fit the CDOW plan to "Work with public land agencies and other affected stakeholders to identify management emphasis areas (MEAs) (within the GUPD and WTPD IPAs) where intensive management can focus on landscape scale conservation for the entire prairie dog ecosystem." from their Grand Valley and Uncompahgre Valley Action Plan for white-tailed prairie dogs. If there is a similar area of Gunnison's prairie dogs in the UFO's west end, it could be considered as an ACEC, too. Management of these would be mainly travel management and weed control.

Gunnison Sage Grouse. The UFO should incorporate the management guidelines in the statewide Gunnison Sage Grouse Conservation Plan into the RMP so that subsequent grazing, mineral extraction, and travel management decisions will be based on these guidelines. The UFO should manage to increase occupied habitat area and quality of habitat, increase population sizes, increase connectivity between populations (between the San Miguel Basin population and the Pinon Mesa, Cerro, and Monticello populations, for example) and increase potential for Gunnison Sage Grouse to reoccupy historic habitat that is not used now. Strategies include reversing permanent loss of habitat trends on private land through conservation easements or fee acquisitions, reducing fragmentation of occupied, potential, and historically used sage habitat by strict travel management policies and by not allowing oil and gas development, and by reducing or eliminating antler collecting in occupied habitat.

Quality of habitat should be improved using best science regarding increase of forbs, reduction of PJs, and protecting wet areas. (Recommendations on connectivity using historic habitat, oil and gas development, and habitat vegetation are addressed in the *San Miguel Basin GUSG Working Group Conservation Plan* from 2010.) New transmission or other utility lines should not be allowed in Priority Habitats or Special Status Species habitats, but GUSG are probably the most sensitive of nearly any species to them.

Bighorn sheep

The UFO supports populations of both Rocky Mountain and desert bighorn sheep. Rocky Mountain bighorn are present on and adjacent to BLM lands near Sawpit and Deep Creek. Desert bighorn occupy portions of the Uncompahgre Plateau from Big Dominguez Creek to the Roubideau. Research demonstrates that domestic sheep can give wild sheep disease, including pasturella, which can cause massive die offs of bighorn. There are presently active domestic sheep allotments that overlap both Rocky Mountain and desert bighorn herds within the UFO. The RMP should plan to gradually phase out allotments that overlap wild sheep habitat.

Clay-loving buckwheat. All populations should have total protection from any damaging

uses, especially travel.

Yellow-Billed Cuckoo
The BLM should protect all riparian areas that are capable of supporting any cottonwood species in order to increase the low population of Yellow-Billed Cuckoos. The desired outcome for Yellow-Billed Cuckoo would be protection of all riparian areas that are capable of supporting any cottonwood species, and increasing the low population of cuckoos. This would require eliminating tamarisks and Russian knapweed, (and replacing them with native species), encouraging regeneration of cottonwoods, and maintaining large areas of large shrubs beneath and adjacent to the cottonwoods. This would also benefit countless other species of birds, bats and other wildlife. Willows may not affect cuckoos but are critical for other species.

Fish, Wildlife and Migratory Birds:
Management of remaining wildlife on public lands has become more important with the inevitable fragmentation of adjoining private land. This has to be considered by land management agencies and they must take a larger scale approach to planning. Any possible action to help plan, encourage or fund conservation easements on adjoining land is now worth it.

Priority species and habitats (in addition to SSS): Priority species could include the remaining predators (mountain lion, bear, raptors), migratory big game (deer, elk), and some obligates (Pinyon Jay) of the habitat for which UFO is primarily responsible. All of the bats from the State BLM Sensitive list that are in the UFO area should be protected by protecting caves, shafts and structures and by improving and protecting riparian areas. Current or historic Peregrine Falcon nests should be undisturbed. In the case of obligate species for each habitat type, it might be easier to focus on the habitat. In either case, all of the UFO habitat types are important. In addition to riparian, sage, and semi-desert mentioned above, PJ and mountain shrub are very important for a variety of wildlife.

Desired conditions of all of these habitats are more late seral stages than usually exist now, less fragmentation and better connectivity, and fewer weeds. The shrubs/understory are very important to wildlife in PJs and riparian areas. Non-native weeds are especially important in riparian areas and semi-desert shrub habitat. Rocky Mountain Bird Observatory studies being done for the Tamarisk Coalition on the Colorado Plateau Rivers show that *all* bird species are less common when tamarisk make up most of the understory. Literature that indicates tamarisk may not be quite as bad may be comparing them to no understory, rather than to native shrubs. Any management activity that affects native vegetation seems to affect some wildlife species.

Noise policy for wildlife
The BLM should institute a noise control policy that minimizes the impact of off-road vehicles, extractive industries, and other producers of noise on wildlife and quiet users. Sources of noise should not be allowed in habitat that is critical to noise-sensitive species.

6.1 - Vegetation and Land Health

All of the UFO's habitat types are important for some species, and many of those species need advanced seral stages or mature trees and other vegetation. Management should strive to ensure that both the overstory and understory of any vegetation type should be in the historic range of variability of age classes.

Our primary concern is that the BLM maintain and restore healthy, functioning ecosystems and wildlife habitat. The UFO should meet or exceed the State BLM Land Health Standards pertaining to "Upland soils," "Riparian Systems," "Healthy, productive plant and animal communities," Threatened and Endangered species, and "Water quality."

6.2 - Managing for Livestock and Against Weeds

Weed control and vegetative treatments

Vegetative treatments, such as prescribed burning and mechanical brush removal, should focus on areas that are degraded because of past heavy grazing and that need improvement to support continued grazing. Areas with infestations of weeds should not be burned or mechanically treated until pretreatments have been done to prevent further infestations during or after the treatment.

The RMP should prohibit aerial spraying of pesticides and toxicants on public land. Avoid application of herbicides to broad areas (>80 acre patches) in any single season. If APHIS becomes involved in pest control on adjoining private lands, the UFO's default/starting position for pest control on public lands should be "No Aerial Spray," regardless of whether APHIS has met NEPA requirements.

Areas that should be left untreated include those that are far from roads, have minimal human and/or grazing intrusion, and have high vegetation diversity and populations of sensitive plants/animals. (See CNHP database to assist in identifying such areas).

Harvesting by people of vegetative products should be directed toward areas slated for treatment, and/or close to well-used roads.

Weed and pest control terms should be defined in the RMP, including the following: Pesticides are chemicals used to control undesirable arthropods; toxicants are chemicals used to control troublesome vertebrates; herbicides are chemicals used to control weeds and/or to adjust the relative competitive advantage of various plants on a site. BLM has some good rules about the use of herbicides, which are not as dangerous as pesticides and toxicants. Nonetheless, the UFO should use herbicides as a last resort when other management options will not suffice.

Grazing

Grazing is a historical use that we value however a balance needs to be struck between the economics of grazing and land health and impact. We recommend that BLM increase

its monitoring and managing of lands that are leased for grazing to impede negative impacts to water and vegetation.

Ensure livestock grazing is done with best management practices, improving rather than degrading native ecosystems. Special care needs to be taken in riparian areas that are easily degraded by cattle, for instance the Jay Creek and Love Gulch in the North Fork area.

Impact of grazing should be reduced where grazing degrades high-quality watersheds or wildlife habitat (e.g. winter concentration areas, fawning areas). Examples would be the San Miguel watershed and McDonald Mesa area between Crawford and Paonia.

Unallocated and vacant allotments should remain such. More than 7% of land should be unallocated, and priority should be given to un-allocating lands that have had minimal grazing and that have good vegetation diversity and few weeds.

Grazing permitees and recreational users should be taught to identify problem weed areas so they can be control before weeds spread. Contact local recreation and environmental groups to solicit volunteers for weed identification and inventory.

7.1 - Coal, Oil & Gas

The BLM must put the health and safety of the land and people ahead of mineral extraction.

Coal

- The BLM should only allow new coal leases in Inventoried Roadless Areas where the leases would be adjacent to existing mines. The pristine sections of the Grand Mesa National Forest on the south slope of the Grand Mesa that have been designated as IRA represent the only remaining link for wildlife travel/migration between the wilderness areas of the Elk Mountains and the Grand Mesa. Linkages such as these are crucial to maintaining genetic diversity among resident populations of all species in this area.
- The Dry Creek area identified in earlier plans as available for coal mining is not only in one of these areas but represents one of the few areas of aspen and oak brush, i.e. lower elevation habitats within the UFO that may be considered nearly "wilderness" in character. On terms of maintaining a "multiple use" focus in the UFO and GMUG this parcel is of prime importance to grazers and outfitters. Both of these activities would be impacted by coal mine development.
- The BLM should find a way to ensure that methane vented from coal mines is captured and used.

Gas and Oil

- Directional drilling. Gas producers should be required to drill multiple wells from single pads whenever possible to decrease surface disturbance.

- Well pad density. The allowed density of well pads should be determined on a case-by-case basis to decrease negative effects on the air, water, wildlife, views, and quiet.
- Clustering of pads. Clustering of pads should be considered because in some cases clustered pads may cause less overall surface impact than the same number of pads evenly distributed over more acreage.
- Comprehensive plans. Please continue your excellent efforts to encourage development of comprehensive plans. APDs should not be approved unless the proposed wells are included in a long-term area-wide plan.
- Cumulative impacts. When making decisions as to lease stipulations or APDs, the BLM should consider total impact of drilling including associated roads, road traffic, pipelines, lights, noise, etc.
- GMUG IRAs. No leases that allow surface occupancy should be sold in GMUG Inventoried Roadless Areas (IRAs). No leases should be sold in the 300-foot setback zone on either side of existing roads in GMUG IRAs. If there are already leases in the setback zones, these should not be permitted for drilling.
- Split-estate. On split-estate lands, landowners have most problems with water quality, air quality, and noise, and the BLM should do all possible to minimize such problems.
- Set backs from residences. At the very least the set back requirements of pads and other facilities from residences should be increased to 200 meters.
- Environmental monitoring. Air, water, and noise monitoring should be ongoing with remote reporting so problems can be detected quickly and rectified.
- Visual and noise pollution. Require vegetative buffers or constructed barriers to block noise and hide eyesores. Require mitigation of noise from trucks, heavy equipment, and compressors, etc. in populated areas or wildlife birthing and nesting areas.
- Ground-water contamination. Ground-water contamination is perhaps the most crucial issue since once an aquifer is compromised it cannot be recovered. Any failure of well casings or any other occurrence that introduces drilling materials, frac fluids, fuels, produced water or any other potential contaminant into domestic or livestock wells should be prevented by state-of-the-art engineering.
- Bonding. Bonds should be sufficient to cover the value of any public lands or private property harmed by gas activities, including water pollution and loss of agricultural production. The size of such bonds should be based on an accurate assessment of possible harm, and should not be limited to the minimum set forth in the *Gold Book* (p. 13). It is not an adequate response for the operator to simply provide an alternative source of water. These bonding requirements need to be passed on to any subsequent owners of wells.
- Watershed protection. The Water Conservation Service (WCS) has defined setbacks that exceed the COGCC rules for protection of these water sources and delivery systems. The BLM should stipulate no-surface-occupancy (NSO) within these WCS-determined watershed setbacks. Moreover, dependent on the watershed, larger areas might need to be stipulated as NSO for adequate protection. Each watershed needs to be fully characterized in terms of recharge area, slope characteristics, vegetative cover, etc. so as to safely determine how

surface disturbances and drawdown effect of well development and production may affect the system in the long term.

- Air quality protection. In areas where air flow could transport dust, other particulates, or gases that could be annoying or hazardous to health, the BLM should consider NSO stipulations on leases.
- Evaluation guidelines. The RMP should state clearly what BMP's, lease stipulations, and conditions of approval will be employed in areas open to leasing.
- Engineering guidelines. Because gas production practices change rapidly, the BLM *Gold Book* should be updated frequently to ensure that it mandates best practices.
- Frac'ing fluids and produced water. Conditions of approval for drilling should include full disclosure of chemical constitution of frac'ing fluids. Likewise, there should be regular analysis and disclosure of the chemical composition of produced water because of the possibility it contains chemicals like toluene and benzene. If such volatile carcinogenic materials are present they should not be stored in such a way that they contaminate air. Requiring closed loop drilling may help prevent spillage and leaks from surface storage of drilling muds, fracing fluids, and produced water.
- Water protection. As a condition of approval, the BLM should require the developer of a well to collect baseline data on all ground water and surface water sources that could possibly be contaminated. Continued monitoring should continue during the lifetime of the well. This obligation should transfer to any new owners of such wells. Irrigation water sources and canals are essential to our agricultural base and need protection from contamination.
- Storm water management. Runoff from well sites must be managed in a more effective way than using straw bales or the plastic sheeting that collapses under snow conditions.
- Restoration versus reclamation. Well pads or other areas where native plants have been disturbed should be *restored* to natural conditions, including similar mixes of species and seral stages. Roads created for development should be obliterated and made impassable to off-road vehicles when no longer needed.
- Holding leases by production. The BLM needs to apply valid economic criteria in determining whether a lease is held by production. Simply drilling a well should not be grounds for "holding by production." Instead, there must be a realistic likelihood, based on the production of gas and the cost to connect to a pipeline, that the well will eventually be connected to a pipeline, i.e. that it will eventually be producing in the sense of getting gas to market. Because drilling costs are currently low, operators may be tempted to drill wells to hold leases that they have little or no likelihood of bringing into production. To make such economically-based assessments, the BLM must have access to personnel qualified to judge whether a given test volume is meaningfully economic at prevailing gas prices, including consideration of how quickly the well's initial output would decline.

7.2 - Uranium and Other Mineral Resources

The revised management plan needs to address how uranium mining will occur to ensure proper protections and prohibit leasing within the river corridors. BLM must ensure that all state and federal laws are applied to any permitted mines. The BLM must also ensure that a viable long-term plan for dealing with any radioactive or contaminated materials as well as any other waste products is securely in place. All permitted mines must:

- Prove that there will be no harm to both surface and ground water quality and quantity;
- Prove that the long-term ecological health of the area will not be jeopardized;
- Have viable restoration plans in place before permits can be granted; and
- Have an adequate bonding mechanism in place sufficient enough to cover the entire cost of restoration.

7.3 - Renewable Energy Resources

Although we support the development of a strong renewable energy sector, we caution that large-scale alternative energy development projects, such as wind farms, solar arrays, or geothermal plants can cause the same types of harm to natural ecosystems as gas and other traditional energy projects. Therefore any proposed alternative energy projects should receive the same scrutiny and restrictions that we advocate for gas development herein.

8.1 - Land Tenure

We encourage the BLM to hold preliminary discussions with local jurisdictions (including fire departments) about land parcels BLM is considering offering for sale or exchange.