



**United States Department of the Interior**  
**FRONT RANGE**  
**RESOURCE ADVISORY COUNCIL MINUTES**  
**February 13, 2013**  
**Denver West Marriot, Golden, Colorado**



**RAC MEMEBERS PRESENT**

**Category 1**

Bill Dvorak  
Michael Barningham

**Category 2**

Ted Hoefler, III  
Mark Hesse

**Category 3**

John Stevenson  
Al Trujillo  
Christopher "Kit" Shy  
Laura Benjamin

**ATTENDEES**

Tom Heinlein, Front Range District Manager; Leah Quesenberry, Associate Front Range District Manager; Paul Tigan, Assistant San Luis Valley Field Manager; Keith Berger, Royal Gorge Field Manager; Denise Adamic, Front Range Public Affairs Specialist / RAC Coordinator; Erin Adair, Clean Water Action; Suzanne O'Neill, Colorado Wildlife Federation; Eddie Kochman, Park County resident; Cliff Smedley; Terrance O'Neill, Colorado Wildlife Federation; Misi Ballard, Great Old Broads for Wilderness; Alisa Lapp, Clean Water Action; Janet Wise, Great Old Broads for Wilderness; Chip Taylor, Colorado Counties Inc.; and Phillip Doe.

**OLD BUSINESS**

The meeting was called to order by Chairman Kit Shy at 1 p.m. Kit led the group in saying the pledge then asked for any comment on, or corrections to, the minutes from the last meeting. No one had anything to offer. Ted Hoefler III, moved that the minutes be approved as written; Al Trujillo seconded. The RAC unanimously approved the minutes.

Introductions were made by RAC members and the public in attendance (see attendee list above). Additionally, Chairman Shy introduced Chip Taylor as a member of Colorado Counties Inc. Taylor was invited by Shy to listen in on the RAC meeting on behalf of Colorado Counties Inc.

**PUBLIC COMMENT**

Seven members of the public were present to address the Front Range RAC. Those statements are outlined below. If formal statements were submitted, those are attached to the official minutes as well.

- 1) *Erin Adair, Clean Water Action.* Adair was present to explain a "Don't FRAC" campaign geared to stopping oil and gas development in the Park County and South Park basin. Adair

addressed South Park parcels that were deferred from the February 2013 lease sale, and asked that the BLM create a Master Leasing Plan (MLP) to protect resources and drinking water. (Formal statement submitted, see attached).

Adair also submitted a box of comment cards and letters to be delivered to the BLM Colorado State Director. There were approximately 900 signed form letters (attached) and about 400 individual correspondence ranging from typed formal letters to handwritten and children's drawings. The theme throughout everything was to stop fracking and stop oil and gas development.

- 2) *Suzanne O'Neill, Colorado Wildlife Federation.* O'Neill asked the BLM to develop a Master Leasing Plan (MLP) in South Park. O'Neill raised two main points: 1) BLM should consider an MLP process before doing a resource management plan revision, and 2) Don't entertain any leasing in the area until an MLP is completed. (Submitted statement attached)
- 3) *Eddie Kochman, South Park resident and advisory board member to Park County Commissioners.* Kochman appreciated that the BLM Royal Gorge Field Manager was considering doing a Master Leasing Plan (MLP). The MLP should be done immediately and before any more leasing could occur. Extensive information exists from Colorado Parks and Wildlife about resource issues in the area and the BLM should consider this information in its planning efforts. Park County has done a hydrologic study across most properties – every well has radioactivity levels that exceed water quality standards. Oil and gas development in the area has the potential to impact already poor quality water sources. (Submitted statement attached)
- 4) *Cliff Smedley.* National Parks should not be exploited but they should be treasured. The oil and gas industry is replete with contamination. This Industry is not a good neighbor. The BLM should stop the industry from polluting and hurting the environment. (Submitted statement attached)
- 5) *Terrance O'Neill, Colorado Wildlife Federation.* Water is a precious commodity. There used to be a lot of talk about conserving water, but there is not as much of that discussion going on now. In Park County 90 percent of water is appropriated to other sources. O'Neill discussed his experience of volunteering on U.S. Forest Service and BLM lands to remove trash, and report/put out fires. In 2 years of volunteering 20-40 hours a week on the forest, O'Neill only saw U.S. Forest Service staff twice. O'Neill is a concerned resident of South Park regarding the macro-scale of the oil and gas industry. A lot of money comes in from sporting and tourism activities in South Park; these industries will be adversely affected by oil and gas development. (Submitted statement attached)
- 6) *Misi Ballard, Great Old Broads for Wilderness.* Ballard requested the BLM develop a Master Leasing Plan (MLP) before revising the Royal Gorge Field Office's resource management plan. Ballard feels responsible for protecting the watershed for all the population who use it, and an MLP can protect that water. (Submitted statement attached)

- 7) *Phillip Doe, Environmental Issues Director for Be the Change.* Waste water wells that are associated with oil and gas development should not be allowed to happen in Colorado. Only 30 percent of the BLM land in Colorado that has been leased for oil and gas is in development. The BLM should not lease any more land until the rest of the leased land is developed. (Submitted statement attached)

Additionally, two comments were submitted to the RAC outside of the public comment period and were distributed to the RAC members later. Those comments have been included in the official minutes as the last two public comments attached to this document. Those comments were:

- A) *Sonia Skakich-Scrima, What the Frack?! Arapahoe.* Skakich-Scrima expressed serious concern about the extraction of natural gas, oil, uranium and other mineral extractions within the Front Range watershed of South Park and other nearby areas. (Submitted statement attached)
- B) *Randee Webb, concerned citizen of Aurora, Colorado.* Webb said there is no safe distance, no safe setback, from oil and gas unconventional fracking (or horizontal, slickwater, high-volume hydraulic fracturing) and all its associated activities. (Submitted statement attached)

RAC members then addressed those comments raised by the public. The Council began by asking the BLM staff present, how does environmental review occur for leasing? The BLM explained that there is a 2-step environmental review process. First, the BLM completes an environmental assessment (EA) at the leasing stage, before a parcel is offered at the lease sale. Second, the BLM completes an environmental review of the application for permit to drill (APD) with site-specific information.

The Council then asked the BLM staff if a master leasing plan (MLP) would affect areas that are already leased. The BLM explained that an MLP would make new allocation decisions on what parcel may be offered in the future but would not impact leases already in effect.

The Council asked if an MLP would put a stop to fracking. The BLM said no: an MLP would address stipulations like critical wildlife habitat criteria and would deal primarily with surface management concerns. MLPs are a relatively new idea and so the BLM is trying to figure out exactly how they work in the overall land management process. There is no “cookbook” for creating and implementing an MLP – these plans are being done in a few places but the BLM is trying to figure out the best way to work on an MLP and how the public is involved in that process.

The Council asked if there is a fracked well in South Park? Eddie Kochman (member of the public) said he was not sure, but there are deep wells already drilled in South Park and what has been found from them is that rock and geological formations under the South Park area are naturally fractured with a lot of aquifers that may be adversely affected by fracking.

Chairman Shy thanked the public for their comments and invited them to stay for the remainder of the meeting as there were other agenda topics to be addressed. Most of the public exited.

## **FOLLOW-UP FROM LAST MEETING**

There were no issues that needed to be revisited from the last meeting.

## **RAC NOMINATION DISCUSSION**

Denise Adamic updated the RAC on the open nomination period and whose terms were to expire in November 2013. The five open positions on the Front Range RAC include one (1) in category one, two (2) in category two, and two (2) in category three. The descriptions of these RAC positions are as follows:

*Category One* – Public land ranchers and representatives of organizations associated with energy and mineral development, the timber industry, transportation or rights-of-way, off-highway vehicle use, and commercial recreation.

*Category Two* – Representatives of nationally or regionally recognized environmental organizations, archaeological and historical organizations, dispersed recreation activities, and wild horse and burro organizations.

*Category Three* – Representatives of state, county, or local elected office; representatives and employees of a state agency responsible for the management of natural resources; representatives of Indian Tribes within or adjacent to the area for which the RAC is organized; representatives and employees of academic institutions who are involved in natural sciences; and the public-at-large.

Those members whose terms are up in November are: Ed Nielsen (Category 1), Jay Heeter (Category 2), Mike Nelson (Category 2), Laura Benjamin (Category 3), and Kit Shy (Category 3).

Adamic reminded the group that nomination forms and more details could be found on line at: [http://www.blm.gov/co/st/en/BLM\\_Resources/racs/frrac.html](http://www.blm.gov/co/st/en/BLM_Resources/racs/frrac.html). Nominations are due to Adamic by March 14.

## **MANAGER UPDATES**

### ***Keith Berger, Manager, Royal Gorge Field Office***

- *Resource Management Plan Revision:* The Royal Gorge Field Office (RGFO) is planning to update its resource management plan (RMP) when the budget allows. The BLM has considered several options for this revision and is currently considering a total plan overhaul. The RGFO spoke with the Park County Advisory Board about possibly doing an MLP as part of the plan revision. The BLM is not sure yet how completing an MLP would look in relation

to the overall RMP revision time frame or the budget to do it. The BLM Washington D.C. office has reviewed the RGFO's pre-plan proposals for how and what the RGFO plans to do in an RMP revision. Because the BLM is currently working under a continuing resolution through March 27, 2013, the RGFO cannot begin any RMP revision efforts. Once the Federal government's budget is finalized, the RGFO will have a better idea of a timeframe for revising the RMP.

Al Trujillo asked if the BLM hires contractors to complete RMP revisions. Berger explained that some but not all of the environmental analysis for completing an RMP may be contracted out.

- *Oil and Gas leasing and development:* On February 11, 2013, the BLM Royal Gorge Field Office released a preliminary parcel listing for public consideration in the November 14, 2013, oil and gas lease sale. The preliminary listing includes 12 parcels of public mineral estate in Baca, Bent, Kiowa, Huerfano and Weld counties. Those parcels will be analyzed in an environmental assessment, which is scheduled for a 30-day comment period in May 2013.
- *Lesser Prairie Chicken:* The lesser prairie chicken has been considered a candidate species for several years but now has become eligible for listing, possibly as "threatened." The RGFO is participating in a five-state effort to consider range-wide conservation plans as well as Candidate Conservation Agreements (CCAs). A CCA is an agreement that any federal operator (grazing permittee, oil and gas leasee, right-of-way holder) may sign in order to identify best management practices for their operations. With a CCA in place, should a species be listed, the operator can continue with their operations.

Kit Shy asked that form does a CCA take, do other agencies have input into what is agreed upon? Berger explained that the U.S. Fish and Wildlife Service (FWS) must approve any best management practices that are agreed upon. There is voluntary monitoring involved until a species is listed; then there are monitoring requirements.

Shy then asked if the BLM reviews its own actions in the area, for example dispersed camping. Berger said yes, by law the BLM must look at its own actions in those areas and must confer with FWS to determine what, if any, impacts there would be to a species and its habitat.

- *Southern Great Plains Rapid Ecosystem Assessment (REA):* The RGFO will be involved in a Rapid Ecosystem Assessment. Climate change and other widespread environmental influences are affecting the western landscapes that are managed, in part, by the Bureau of Land Management (BLM). In response, the BLM has launched fourteen Rapid Eco-regional Assessments (REAs) since 2010 to improve the understanding of the existing condition of these landscapes, and how conditions may be altered by ongoing environmental changes and land use demands.

The REAs examine ecological values, conditions, and trends within ecoregions, which are large, connected areas that have similar environmental characteristics. Examples of

ecoregions include the Sonoran Desert and the Colorado Plateau. Ecoregions span administrative boundaries and typically encompass areas much larger than those managed by individual BLM field offices. The ecoregions under assessment range in size from 11 million to 91 million acres. Assessments of these larger areas provide land managers additional information and tools to use in subsequent resource planning and decision-making.

REAs are called “rapid” assessments because they synthesize existing information, rather than conduct research or collect new data, and are generally completed within 18 months. This time frame is relatively “rapid” in comparison to assessments that conduct research or collect new data, or in comparison to the preparation of a BLM land-use plan, which typically takes from 36 to 48 months to complete.

- *Arkansas River Travel Management Plan Supplementary Rules:* The RGFO issued final supplementary rules for the Arkansas River Travel Management Plan (ARTMP) area. The rules were published in the Federal Register on Feb. 13, and become effective March 15, 2013. Travel management plans designate uses and travel routes to protect natural resources while still providing various recreational opportunities. The Federal Register notice addresses decisions made through the ARTMP, which was developed with extensive public participation over a period of two years.

The ARTMP rules include:

1) All motorized travel is limited to designated roads and trails. For the purposes of parking, including camping, travel is allowed up to 100 feet from the centerline of a designated road or trail only if this travel does not cause or is unlikely to cause significant undue damage to or disturbances of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources or other uses of the public lands.

2) Bicycle riding is limited to designated roads and trails marked open to such use by a Bureau of Land Management sign or map.

3) Recreational target shooting is prohibited on all public lands within the Methodist Mountain Area south of Salida (2,314 acres) and the Turkey Rock area near Howard (361 acres). These areas are identified as closed to recreational target shooting by either a BLM sign or map.

4) Operation of a motorized vehicle within the area known as Turkey Rock Trials Area (52 acres) is limited to motorcycles specifically designed for observed trials riding.

5) Motorcycles specifically designed for observed trials riding are prohibited within the Turkey Rock Trials Area after sunset or before sunrise.

In the coming months, the BLM will begin installing signs throughout the area to reflect the travel management rules.

- *Arkansas Headwaters Recreation Area River Plan Update:* The RGFO has held meetings with Colorado Parks and Wildlife (CPW) to merge what each agency needs to do for their environmental analysis requirements. Both agencies decided to look at only what areas of the plan that needs to be updated rather than an all-encompassing management plan revision.

Previously, the agencies had planned to revise the entire plan. The new plan updates will happen next year.

- *Interactive Minerals Website* – The RGFO launched an interactive website that allows visitors to learn where minerals are found along Colorado’s Front Range and the role minerals play in their daily lives. The RGFO’s new website: [www.blm.gov/co/st/en/fo/rgfo/minerals.html](http://www.blm.gov/co/st/en/fo/rgfo/minerals.html) provides users with an interactive map of Colorado’s Front Range counties. By clicking on each county, visitors can explore which minerals are found on public lands there and how those minerals are used. The website also includes general guidance and regulations for mining minerals on BLM lands.
- *Intern and Veteran employment programs:* Amy Titterington who was a geologist intern with the RGFO has been hired as a full time geologist with BLM at Lake Havasu. Titterington is a great success story as she was offered two BLM positions. In terms of veterans’ employment, the RGFO is participating in the Wounded Warrior and Operation Warfighter programs. This is a cooperative effort with Fort Carson Army base. The RGFO has had one person (Nathan Edgerton) successfully complete the program and was hired as a seasonal. The RGFO has hired a second participant this year.
- *Garden Park National Natural Landmark (NNL) expansion update:* The National Park System Advisory Board concurred with the BLM’s recommendation for expanding the Garden Park Fossil Area’s National Natural Landmark designation. The RGFO just received a memo certifying that decision. Now, the ultimate decision authority resides with the Secretary of Interior.
- *Cache Creek update:* At the last Front Range RAC meeting, Berger was asked about visitation numbers for 2011 and 2012 at Cache Creek recreational placer mining area. He said he would have to talk to staff in order to get those numbers. At this meeting, Berger answered the question stating that as of 9/13/2011 there were a total of 3,500 total miners (1,187 sluicers, 479 high bankers, 468 panners). The 2012 figures have not been split yet, but the total number of users was 4,400.
- *Guffey Gorge:* Guffey Gorge is an area of BLM land where the public swims and cliff jumps. The public safety issue that must be addressed first is parking along the road. There is very limited space for cars to park safely without being a traffic hazard. All Park County can do currently to control this is to issue parking tickets to people. Unfortunately, writing parking tickets is not alleviating the problem because the parking tickets are not costly enough to deter the illegal parking. The RGFO plans to meet with Park County Commissioners to discuss possibly expanding the parking lot area in the hopes that more space will illuminate the overcrowded roadway. The BLM has already tried to limit parking, but that has not stopped people from lining the road with cars.

Bill Dvorak asked if the drought has affected the amount of water present in Guffey Gorge. Berger said, no. Mark Hesse asked if there is an erosion problem with trails leading to the

swimming hole. Berger explained that there has been, but the RGFO has rerouted trails to avoid such problems.

**Paul Tigan, Assistant Field Manager, San Luis Valley Field Office**

- *Geothermal leasing environmental assessment (EA):* The final EA was released in October 2012. The SLVFO received no protests from the public or in the Governor's Consistency Review. The record of decision is pending a biological assessment that is mostly dependent upon on the Gunnison sage-grouse listing and critical habitat announcements that were recently made by the U.S. Fish and Wildlife Service.
- *Solar programmatic environmental impact statement (PEIS) and competitive interest announcement:* The SLVFO currently has two applications pending for leases to develop solar energy in the De Tilla Gulch & Los Mogotes solar energy zones (SEZ). The language of the Solar PEIS demands a competitive leasing process must occur in order for the BLM to issue a lease.

It is not clear how the BLM will proceed if there is only one applicant. Because the PEIS requires a competitive process, the BLM cannot move forward with just one applicant - at least for now. When the new regulations are finalized, the BLM anticipates that there will be a procedure for moving forward with one applicant. The BLM doesn't know what that would look like, but there are similar situations that BLM administers, such as some kinds of coal leasing, where the BLM sets a reserve price that must be met through a closed bid process for the lease to move forward.

What will the BLM do before the leasing process is established in regulation? The BLM will use the competitive leasing process that is already codified in regulation at 43 CFR 2804.23. The new competitive leasing regulations will be specifically tailored to renewable energy production on public lands.

The BLM Colorado State Office has prepared a public interest announcement for this current application. The interest announcement will hopefully drum up other interested parties. The announcement includes a Federal Register Notice, press release, legal notice, and letter to current solar energy developers in the San Luis Valley. This competitive interest announcement is the first in the nation and a high priority for the BLM's headquarters.

- *Rio Grande Natural Area (RGNA):* The Rio Grande Natural Area Commission continues to make progress in its efforts to develop a management plan for the private lands within the Natural Area. The Rio Grande Water Conservation District was recently given approval to hire writer/editor staff to help begin drafting the required resource plan for non-Federal lands within the Natural Area.

The SLVFO continues to find ways to address the feral horse issues in the area which are becoming a dominant topic of discussion for the BLM and the Commission. In mid-December, the SLVFO hosted a media tour which kicked off the public education campaign

the BLM is taking on consisting of editorials in all the Valley papers, presentations at community lecture series, posters at livestock sale barns, and helping the Commission write editorials.

The RGNA Commission will hold its next meeting on March 14, 2013, in Canon City and will tour the Wild Horse and Inmate Program training facility.

- *San Francisco Creek / Dan Hughes application permit to drill (APD)*: The APD is for a proposed exploratory oil and gas well that would be drilled on land owned by the Dan A. Hughes Company, five miles south of Del Norte. The federal mineral rights below the private land were leased from the BLM in 2006. The SLVFO is about a month away from releasing a draft environmental assessment (EA). During the scoping period, the major comments from the public were for the BLM to consider findings from the Rio Grande County hydrogeological study. The BLM has done so. Some key findings will guide BLM (and the State) in permitting a drilling plan that is both reasonable for the proponent and protective of the groundwater resources.
- *Blanca Wetlands*: The SLVFO is completing a draft environmental assessment (EA) for expanding the Blanca Wetlands Area of Critical Environmental Concern (ACEC). The EA also analyzes grazing on three allotments within the wetlands area. The SLVFO expects to begin the BLM-internal review of the draft EA at the district and state offices in the coming weeks.

Additionally, the BLM plans to continue its restoration work in the area by running water on the land north of the ACEC this summer. When the first round of such work occurred last fall, the BLM wildlife biologists noted remarkable results in vegetative and microinvertebrate recovery.

- *Gunnison's Sage Grouse proposed listing and critical habitat*: The long-awaited proposed listing of the Gunnison sage-grouse came from the U.S. Fish and Wildlife Service in January 2013. This action affects the northern edge of the SLVFO where a satellite population of three male birds has been found. The BLM plans to begin road closures this spring around the Poncha Pass Lek site. The BLM will continue funding the Poncha Pass Population Working Group Coordinator position.

The SLVFO has several concerns should the bird become listed, including: how to manage habitat in an area lacking water and have questionable restoration possibilities based upon the soil type; what is the long term viability of a population and its historical connection to the Gunnison basin; and what would grazing management prescriptions look like.

- *Southwestern Willow Flycatcher critical habitat*: The U.S. Fish and Wildlife Service designated critical habitat for the Southwestern Willow Flycatcher on January 3, 2013. This designation does not include the private land in the San Luis Valley because of the Rio Grande Water Conservation District's Habitat Conservation Plan. The BLM believes the

designation is a positive move to acknowledge the special resources in the McIntire Simpson area, Rio Grande Natural Area, and the Alamosa Wildlife Refuge.

**Tom Heinlein, *Front Range District Manager***

- *Uncertain Federal Budgets and Sequestration:* BLM Colorado is preparing to absorb an 8 to 10 percent budget cut should sequestration take effect. The Front Range District (FRD) is in decent shape since the budget is 70 percent labor and 30 percent operations. “Labor” funds go to paying for personnel, while “operations” go to paying for such things as office supplies, vehicles, facilities, etc. BLM Colorado has been conservative this fiscal year with its budget. The threat of sequestration is not an entirely new concept for the BLM since the agency is use to operating under continuing resolutions in which a Federal budget is uncertain until the middle of the fiscal year. The BLM will continue maintaining positions and staff to keep key agency activities operating, but the agency is not expecting to receive an infusion of money.

There are six key vacancies in the upper levels of the BLM and DOI right now. Once those positions are filled, the leadership will clarify what the agency’s priorities are for the coming years. America’s Great Outdoor will likely remain an important program.

- *Drought and beetles:* Colorado and most of the West have faced several years of drought that has stressed the area’s natural resources, making it easier for various types of beetles to hit Colorado’s forests. Bark beetles are spreading east from the Continental Divide, and most are going after Engelmann and other types of spruce trees. Near Canon City, there is a large IPS beetle infestation. Throughout the Front Range, various types of beetles are attacking the forests.

The FRD is not quite sure yet how the lack of moisture will affect resources this year. The BLM has visited with some grazing permittees who have shared their concern about being able to count on BLM allotments. Unfortunately, the BLM cannot yet determine what conditions will look like at turn out time for permittees, but the agency is keeping permittees informed. The FRD hopes for a very wet spring with recovery, but not made any determinations yet on grazing allotments. The BLM will work with permittees to consider contingencies.

**CLOSING DISCUSSION**

Once the managers completed their reports, Chairman Shy opened the meeting for general discussions. The Council posed questions to the BLM, which were answered in turn, and vice-versa:

*RAC: How does the RAC support the BLM in Resource Management Plan (RMP) revisions and Master Leasing Plan (MLP) development?* The BLM is new to developing MLPs, so the BLM is not quite sure how the process will look; however, when the process begins the RAC will be tapped for advice and review.

The group moved into a discussion. Some RAC members voiced concerns about getting MLPs done before or outside of the RMP revision process because revising or amending an RMP can be a lengthy exercise. Other RAC members thought it was important to look at all issues holistically, so an MLP should be developed within or concurrently with an RMP revision.

*BLM:* The State Director has asked the RAC for feedback about how to get the public more involved in BLM planning processes. Some RAC members thought one way to keep the public involved in a planning process was for the BLM to take a phased approach to planning, that way there would always be something going on for the public to be engaged in. Otherwise, the public may think that their input is not heard because the current planning effort is so broad (when completed all at once). The BLM pointed out that the National Environmental Policy Act requires the agency to take a look at cumulative impacts – meaning that every use or impact must be considered at once and as a whole action. A RAC member raised another point: the public that is vocal are those people who have been affected by a certain type of use. The RAC should take tours of the areas that are negatively affected by federal actions. Another member pointed out that the public feels that their voices don't matter when they do raise an opinion. This creates a sense of distrust in the public. The public feels that there are bigger / more political powers at play that make the decisions regardless of what the public's input is.

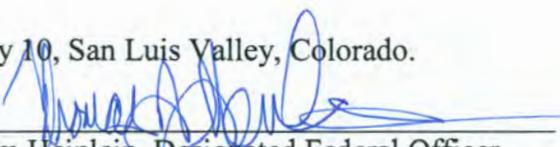
*RAC:* Could the RAC look at which categories within an RMP have been reviewed within the last 10 years and decide which is ready for update and which are not? The BLM said, not necessarily. When new data comes forth, that needs to be put in the plan. Also, in Colorado demographics change so quickly along with demands on the public lands, that everything should be reviewed periodically. For instance, climate change is a new concept for many RMPs and should be addressed. A RAC member said that land managers expect the public to come to them, but managers never go to the public for input – maybe they should. There are forums where people can go to share ideas. Also, land management terminology and process is overwhelming and so much of the public does not understand what is going on.

Before adjourning the meeting, Chairman Shy asked if any RAC members had further questions about anything discussed at the meeting. None were raised.

John Stevenson moved to adjourn the meeting, Ted Hoefler III, seconded. The meeting was adjourned at 5:21 p.m.

#### **NEXT MEETING DATE**

July 10, San Luis Valley, Colorado.

  
Tom Heinlein, Designated Federal Officer  
Front Range District Office  
Bureau of Land Management

  
Christopher "Kit" Shy, Chair  
Front Range Resource Advisory Council

# Public Comments

**Each public comment is separated by a blank page**

## FRONT RANGE RAC TESTIMONY 2-13-13: Erin Adair, Clean Water Action

My name is Erin Adair. I am the Program Coordinator for Clean Water Action in Colorado – our local office is in downtown Denver. Clean Water Action is a national member-based organization that works to protect our environment, public health, and community quality of life. We are a grassroots organization that brings together a diverse coalition of individuals, groups, and campaigns to solve environmental and community problems. Clean Water Action was founded in 1972, and our earliest victories were the passage of the original Clean Water Act in 1972 and the Safe Drinking Water Act in 1974. Clean Water Action's state programs have since branched off to focus on both national and state driven issues; we have been a leading voice in the drilling and fracking controversy in Pennsylvania, Michigan, Texas, California, and Colorado.

For the past 4 months, our professional field canvass has been educating and mobilizing residents in the metro Denver area about the potential threats of oil and gas drilling and fracking on BLM public lands in Park County. Our Don't Frack Denver's Water campaign specifically addresses the parcels of public lands near the headwaters of the South Platte River and three reservoirs in the South Park Basin that provide drinking water to nearly 2 million metro Denver residents. Our field organizers collected nearly 2,000 postcards and handwritten letters to Director Helen Hankins urging her to proceed with great caution and to create a Master Leasing Plan for the South Park Basin in order to guarantee that their drinking water is protected. I have brought these postcards and letters with me today to be submitted as public comment.

I realize the BLM has since deferred these parcels of land from this February leasing auction – thank you for that – however this deferral is temporary and merely kicks the can down the road. We have been urging BLM to create a Master Leasing Plan for the South Park Basin that has broad support from both Park County and metro Denver residents, as well as bringing fracktivists to the table so we can all have a say if cancer-causing chemicals are proposed to be injected into Denver's watershed. Current planning documents are outdated and without a Master Leasing Plan, deferring this sale does not ensure that drinking water is protected; it only delays the potential for drilling and fracking activity in this sensitive area.

Leasing parcels of land at the headwaters of the South Platte River would be a game changer for the drilling and fracking controversy in Colorado. As we've knocked on doors in the metro area; the support to control, regulate, and even stop fracking altogether was enormous.

Clean Water Action and our members strongly urge you, Director Hankins, to create a Master Leasing Plan for the South Park Basin that has broad community support from both Park County and metro Denver residents. There should be multiple stakeholders present – including fracktivists – when deciding the fate of sensitive areas like the headwaters of the South Platte River. These are OUR public lands, and we depend on you to make decisions that will protect and preserve our air, land, and water.

Thank you.

Helen Hankins, Colorado State Director  
Bureau of Land Management  
2850 Youngfield Street  
Lakewood, Colorado 80215



**Director Hankins,**

I am very concerned that your office has twice proposed drilling near drinking water supplies for the Denver metro area in the South Park Basin. That entire region is the headwaters for the South Platte River and the drinking water source for nearly 2 million people in the Denver metro area.

Scientific studies indicate that cancer causing fracking chemicals can migrate into groundwater due to careless drilling and fracking practices. In addition, spills and releases of drilling and fracking chemicals have occurred in thousands of places in Colorado impacting both groundwater and surface water.

**Please protect the Denver area's drinking water from this hazardous threat.**

As a first step, we request that the Bureau of Land Management (BLM) prepare a Master Leasing Plan for BLM lands in the South Park Basin. The Plan must have broad support from the local community as well as citizens on the Front Range before any drilling or fracking ever moves forward. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read "Helen Hankins", written over a horizontal line.

Name

A handwritten address in blue ink, "3983 Arbol Ct", written over a horizontal line.

Address

A handwritten city name in blue ink, "Boulder", written over a horizontal line.

City

A handwritten zip code in blue ink, "80301", written over a horizontal line.

Zip





Comments by Colorado Wildlife Federation at  
Statewide BLM Colorado Resource Advisory Council Meeting  
February 13, 2013

Colorado Wildlife Federation has advocated MLP for South Park beginning with an application on November 4, 2011. We are pleased that BLM this month has signaled its intention to undertake master leasing planning for South Park

However, BLM also said it intends to conduct an MLP within the future process for revising the 1996 Royal Gorge Field Office (RGFO) Resource Management Plan (RMP). According to the BLM RGFO Manager yesterday, the start of the RMP work is one or two years away depending on funding and will likely be a three to four year process.

Our strong concern is that oil and gas leasing might occur in South Park during this extended interim period of time before completion of the RMP revision. Leasing has occurred elsewhere in Colorado during RMP revision processes. In other areas, Colorado BLM has used its old RMPs during prolonged revision periods to react to industry nominations for leases.

South Park is a unique area of Colorado. The South Park Basin (within the Upper South Platte Watershed) supplies a substantial amount of the drinking water for the metro area through Denver Water and Aurora. This remarkable area features gold medal fisheries, abundant wildlife, vistas, ranching and tourism. South Park also became designated by Congress in 2009 as a national heritage area, recognizing its protected natural resources, historic ranching and mining structures, and archeological sites.

Our request today is two-fold:

First, we urge that MLP be tackled now as a stand alone, rather than lumping development of a South Park MLP into the eventual estimated three to four year RMP process.

Second, we urge that BLM not entertain nominations for leases in South Park before a MLP is in place. The MLP will enable the RGFO to adopt a strategic landscape level approach. Stated differently, the MLP process equips the BLM and the community and other stakeholders to take a careful look at potential conflicts between oil and gas development and drinking water, gold medal fisheries, wildlife, archeological treasures, vistas, etc. Such an approach to MLP also will provide certainty for industry by identifying the lands for leasing which have the least amount of conflict. To lease parcels in the interim simply would undercut the ability to apply the MLP tools effectively.

An MLP in South Park should be cost effective. By way of important example, much legwork has been done and more is underway by Park County. The County commissioned the Coalition for the Upper South Platte to conduct a baseline sampling study that addresses water quality conditions in proximity to lands in the South Park Basin subject to past and potential future oil and gas development. The first report was completed in September 2012 and released in January 2013. The next phase will focus on the deep aquifers. The water quality and geology of South Park form a very complex relationship, to say the least.

Are there funds available now specifically for BLM to conduct MLPs ?

Thank you for this important opportunity to provide our comments and recommendations.

Sincerely,



Suzanne O'Neill  
Executive Director  
Colorado Wildlife Federation



February 13, 2013

To: Front Range RAC, Bureau of Land Management

From: Eddie Kochman  
P. O Box 224  
Fairplay, Colorado 80432  
[eddiekochman@aol.com](mailto:eddiekochman@aol.com)

Thank you for the opportunity to speak to members of the Front Range RAC.

## OVERVIEW

I am a property owner in Park County. The property is located near Fairplay and borders sections of the Middle Fork of the South Platte, which is a quality trout fishery. I am fortunate to own such property and it is my objective to be a good steward in the future. Other property owners and citizens of Park County share this objective. Management of the extensive Bureau of Land Management lands in Park County is critical toward achieving this objective.

I am also a member of the Park County Advisory Board on the Environment. The Board of County Commissioners appoints members. The role of the Board is to advise the Commissioners on matters related to the natural environment of Park County, which does include water, air, wildlife and wildlife habitat. We are also concerned about impacts to private property and maintaining the many qualities that make Park County and South Park a very special place.

The Advisory Board on February 12 did hold a meeting in Fairplay, which was attended by Keith Berger, Field Manager of the Royal Gorge Field Office. Bill Dvorak a RAC member also attended the meeting. The purpose of this meeting was to discuss future plans of BLM regarding completion of a Master Leasing Plan (MLP) for portions of South Park.

At the meeting Mr. Berger stated that completion of a future Master Leasing Plan was a likely, depending on a number constraints, including obtaining the necessary budget to complete a MLP. This was very welcome news. Mr. Berger is scheduled to attend a future meeting of the Board of County commissioners at which time he will further discuss a MLP.

Such news was very welcome and members of the Advisory Board very much appreciated both Mr. Berger and Mr. Dvorak

## RECOMMENDATIONS TO FRONT RANGE RAC

The following recommendations to the Front Range RAC are mine only and do not reflect a formal position of the Park County Advisory Board on the Environment. They are in large part based on the statements of Mr. Berger at the February 12 meeting of the Board.

A Master Leasing Plan is necessary for those BLM lands in Park County regarding future leasing, exploration and production of oil and natural gas.

Amending existing plans, which contain out dated information, especially in relation to water related impacts, should not be an option.

No further leasing of BLM lands should be undertaken until a MLP is completed.

The final design of a MLP should take into consideration recommendations by Park County (including towns), water municipalities, (including Denver Water and Aurora Water), local water authorities United States Forest Service, State of Colorado agencies (including Parks and Wildlife), livestock interests, organized recreational and environmental interests, historical, Native American, mining and oil gas interests and local residents.

The MLP process should begin at some point in 2013 and can be undertaken in segments. For example, Park County does have a significant level of water quality data that is now available for inclusion into a MLP analysis. In addition, Colorado Parks and Wildlife has extensive data on wildlife and habitat within Park County, including on BLM.

The BLM should consider entering into an agreement with Park County and other interests for completion of a MLP. Perhaps there are also options for funding assistance.

There should be a public outreach program developed by the BLM to keep all concerned advised on the progress of designing and implementing a MLP plan

#### ATTACHED RECOMMENDATIONS CONCERNING THE CONTENTS OF A MLP

Attached for review is correspondence dated December 5, 2012, which contains my recommendations for MLP contents. I am aware of the specific criteria established for an MLP, but feel there are specific area in Park County, such as water aquifers and potential for contamination, that deserve special consideration.

Thank you for the opportunity and I again state that such recommendations and comments are mine only.

#### Copies

Park County Advisory Board Members  
Tom Esienman, Park County

December 5, 2012

To: Park County Advisory Board On The Environment (ABE)  
From: Eddie Kochman, ABE Member

Now that the BLM has delayed the proposed sale of oil/gas leases to allow further analysis and study. Park County and other interests have the opportunity to help design the study parameters. ABE is in a position to make recommendations to the Board of County Commissioners and others on the parameters for the study. Following are my recommendations for consideration at our December 11 Fairplay meeting:

**OBJECTIVE:** By March 12, 2013 have a completed recommendation to BLM on study parameters. The plan would be endorsed by the Board of County Commissioners, as well as other stakeholders, including water managers (Denver Water, Aurora Water, Upper South Platte, Center Of Colorado Conservancy District, Headwater Authority Of The South Platte), Colorado Parks and Wildlife, Colorado Division of Water Resources, Fairplay, Alma, CUSP, U.S. Geological Survey, Colorado Geological Survey, Colorado Oil and Gas Conservation Commission (COGCC), private landowners and others.

The intent of the study would be to define cumulative impacts (beneficial and negative) associated with future oil/gas exploration and production on BLM administered lands throughout Park County.

#### STAKEHOLDER MEETING

With the support of the BOCC invite (through Tom Eisenman) all stakeholders to a one-day workshop for the purpose of discussion and developing a draft study plan. Pending a short period of review all stakeholders would be asked for comments and eventual approval of a final study plan for submission to the BLM. ABE would have prepared an initial draft study plan for discussion at the initial workshop. Certain stakeholders such as Colorado Parks and Wildlife may not be in a position to officially endorse such a plan, but would likely be willing to participate in such a process.

Also, it is recognized that the COGCC has certain rules that will apply to any future oil /gas exploration and production activities that may occur in Park County. However, Park County still has considerable authority.

#### OUTLINE BY SUBJECT FOR FUTURE BLM STUDY PLAN

##### SUMMARY OF 1990'S BLM ANALYSIS

I have never seen the analysis data and final report completed by the BLM in the mid 1990's which did address impacts that might be associated with oil/gas production in Park County on lands administered by the BLM.

A critique of this report is necessary, combined with a summary of areas that need updated analysis. Examples would be potential impacts associated with hydraulic fracturing and contamination of water aquifers and air quality.

#### SUMMARY OF HISTORIC AND FUTURE POTENTIAL FOR OIL/GAS PRODUCTION

The plan should have a history of past oil/gas exploration activities that have occurred in Park County, on BLM, municipal, state and privately owned lands. Also included would be the total amount of acreage that is currently under lease, as well as the total acreage that may be available for lease in the future. This data would allow an understanding of what could be expected in the future should oil/gas exploration and production would ever become a major action throughout Park County.

#### GEOLOGICAL FORMATIONS AND ASSOCIATED WATER CONTAMINATION RISKS

A summary of the current knowledge concerning geological formations throughout Park County, with emphasis on the potential for finding profitable levels of oil and gas, as well as uranium. The extent of potential oil/gas production from the Niobrara formation would be of most importance. Based on this summary make a determination if the available data is adequate to project future potential impacts, or if obtaining additional data is necessary. Such a summary would allow a risk determination for contamination of both deep and shallow water aquifers from hydraulic fracturing chemicals, deep level disposal of oil and gas wastewater, escaping methane gas and radioactive material. It is also of concern that deep water disposal of contaminated wastewater has potential to create earthquakes.

#### WATER QUALITY, SHALLOW AND DEEP LEVEL AQUIFERS

A summary of the current data that is available related to water quality (both shallow as well as deep aquifers) throughout Park County. Such summary should highlight areas of concern that currently exist from natural levels of radioactivity and radon. The summary would likely point out the need for further water quality studies in parts of Park County. One possible conclusion could be the need for both shallow and deep and shallow level monitoring wells in proximity to any future oil/gas production areas on BLM lands.

#### UNDERGROUND WASTEWATER INJECTION

It is a common practice to inject oil/gas drilling wastewater underground. While the practice does have some level of regulation by COGCC, it still has potential to contaminate shallow and deep level aquifers. Recent information indicate potential to cause levels of seismic activity that can trigger earthquakes, as well as possible contamination of shallow and deep level aquifers. Effective monitoring of this activity is critical and if it occurs on BLM lands in the future there should be advance requirements for effective monitoring that detects early seismic activity, as well as occurrence of water contamination.

#### AQUATIC AND TERRISTRIAL WILDLIFE SPECIES & CRITICAL HABITAT

Colorado Parks and Wildlife will be developing it's own recommendations to the BLM regarding protection of wildlife and wildlife habitat, as well as the interests of fishermen and hunters. CPW has indicated a willingness to interact with Park County and others in developing recommendations to BLM. It is assumed the BLM will accept the recommendation of CPW and incorporate them into the analysis study.

#### SETBACKS FOR SURFACE WATERS, SPRINGS AND WATER WELLS

Certain BLM lands are in close proximity to surface waters including flowing rivers, springs and reservoirs including Antero, Spinney and 11-Mile. All of which are sources of water for the Metro area. In addition there are thousands of wells used for household and domestic use, which are also in proximity to BLM, as well as lands administered by the Colorado Board of Land Commissioners. Setbacks that give reasonable protection against water contamination are a critical requirement, along with periodic monitoring of water quality. The study plan should define these necessary setbacks in each case where a potential oil/gas production operation might exist. The geological formations of the area should be considered on a case-by-case basis in determining the setback distance.

#### VOLUME AND SOURCES OF WATER REQUIRED FOR HYDRAULIC FRACTURING ALONG WITH PUBLIC DISCLOSURE OF CHEMICALS USED IN FRACTURING AND LEVELS OF RADIOACTIVITY IN WASTE WATER

Hydraulic fracturing requires millions of gallons of water for each well. The source of such water in large-scale production areas is a major concern. Will such water come from sources in Park County? Past proposals included buying private water rights and pumping water from rivers and reservoirs. Potential even exists for buying water from municipalities and towns including Fairplay. The cumulative impacts of such action could be significant for Park County and need to be defined in the study plan.

Chemicals used in fracturing are subject to public disclosure by rules of the Colorado Oil and Gas Conservation Commission. However certain "trade secret" exceptions limit full disclosure of certain chemical and materials. The BLM study plan should address the range of chemicals and other materials that have potential to be injected into lands within Park County, along with worst-case options should these chemicals and materials contaminate shallow and deep level aquifers.

Extensive purchase of water used for hydraulic fracturing that comes from existing agricultural rights could have negative impacts in the long-term both to agriculture and the economy of Park County.

#### AIR QUALITY

Oil and gas exploration and full scale production has potential to negatively impact air quality through escaping gases, including methane. This potential should be defined in the BLM study plan along with monitoring requirements.

## IMPACTS TO ROADS, PUBLIC FACILITIES AND SERVICES WITHIN PARK COUNTY

The study should address negative impacts to roads, public facilities and other public services that are the responsibility of Park County. Costs to fully mitigate these impacts should be defined.

## IMPACTS TO PRIVATE LANDS AND PROPERTY VALUES

Full-scale oil/gas production will impact private lands that are adjacent to BLM lands especially if water and air contamination occur. Should such impact occur what is the recourse for private lands that are affected?

## HISTORICAL, ARCHEOLOGICAL AND NATIVE FLORA

Park County has extensive historical and archeological sites, which are well known and documented. Others are yet to be fully documented including archeological sites on private, municipal, state lands and lands administered by the BLM. Certain species of native flora that are very limited in range also exist in portions of Park County. The study plan should define these resources if they exist on BLM lands and the potential impacts of oil/gas exploration and production.

## CONCLUSION

The above recommendations can be further expanded, but in my judgment they cover the most significant parameters that should be included in any future study plan undertaken by the BLM. I ask that ABE members review these recommendations by our December 11 meeting toward of the objective of developing a final study plan for consideration by the BOCC and eventually the BLM. I am also forwarding these recommendations to others including the National and Colorado Wildlife Federations, Colorado Parks and Wildlife and private landowners for comment.



To: Bureau Land Mgmt  
Front Range RAC

From: Cliff Smedley  
Grassroots Activist against Fracking  
Representing myself  
Phone: 303-808-0117

To the County Commissioner and the Association of Counties, shame on you for not providing a more robust response in Colorado against Fracking. Our National Parks that the BLM manages ~~is~~<sup>are</sup> our National Treasure and should be protected rather than exploited!! The oil and gas industry has been given an open door thanks to Dick Cheney. Mr. Cheney's advice has been proven to be wrong on numerous issues including oil and Gas drilling. There have been thousands of spills and documentation of Air/water pollution. There is NO reason to treat the O and G Industry as a Good Neighbor. They have proven themselves to be Bad Actors wherever they go. Please keep this Industry out of our Nation Parks that are managed by the BLM.

Respectfully Submitted,

Cliff Smedley

Cliff Smedley

209 Sky Lark Cir  
Lafayette, CO 80026



February 13, 2013

I have provided comment regarding the prior BLM South Park Land Tenure Adjustment Plan formulation process relating to specific concerns about resource management planning for the South Park region located in Park County.

My concerns relate to the potential adverse impacts of the scope of possible development on BLM properties as these present harm and degradation of critical wildlife habitat with broader adverse consequence.

My prior comments have directly related to proposed or possible development of BLM holdings on, and adjacent to, the area of Reinecker Ridge. This area has repeatedly been described as having special environmental significance, primarily due to its vital wildlife habitat and associated recreational resource value.

My concern, and that of many Park County residents, is whether BLM personnel properly consider the special significance of South Park holdings in the course of formulating process and policy in resource management decision making.

My hope is that BLM decision makers will appropriately consider the unique and special significance of South Park holdings as BLM formulates future process, and that BLM will act to preserve the quality and integrity of these holdings.

Terrance P. O'Neill  
626 Mount Guyot Circle  
P. O. Box 173  
Jefferson, Colorado 80456  
719-836-3377  
tp1820@q.com



**Public Comments to the**  
**Front Range Resource Advisory Council,**

**Feb 13, 2013**

My name is Misi N. Ballard. I am a property owner and part-time resident of South Park, Colorado. I am the South Park Broadband Leader for the the Great Old Broads for Wilderness and a Board member of Wild Connections. I appreciate this opportunity to express my deep concerns for the future of South Park to the Front Range Resource Advisory Council.

As was announced yesterday by Mr. Keith Berger, BLM's Royal Gorge Field Office Manager, at the Advisory Board on the Environment meeting in Fairplay, the BLM is now considering the inclusion of a Master Leasing Plan in the upcoming revised Resource Management Plan process. This is welcome news to those of us concerned about the tremendous environmental threats facing South Park from potential major energy development on our public lands. We also heard, though, that BLM leasing activities may continue as normal while the Resource Management Plan is revised, a process that can easily take years to complete, without benefit of a Master Leasing Plan to guide current development. This scenario would leave South Park vulnerable to all the potential environmental threats inherent in energy development including surface and groundwater contamination, air, noise, light and traffic pollution, and the resulting loss of the rural, wild character of the area upon which its strong outdoor-oriented economy is based, and the destruction of critical wildlife habitat and migratory corridors ; in short, we would be opening the door to the industrialization of South Park. We simply cannot allow the possibility of piecemeal development to occur.

In light of BLM's acknowledgement of the need for a Master Leasing Plan in South Park, it is unacceptable to consider proceeding with business as usual until such time as the revised Resource Management Plan is completed. Knowing that the RMP process will likely take years to complete, I request that BLM develop a Master Leasing Plan for South Park before beginning the lengthy Resource Management Plan process, thereby immediately enabling a broader consideration of potential energy development impacts to the entire landscape of South Park and its resources, including water quality and quantity, wildlife habitat,

fisheries and air quality before leases are issued during this interim period. A MLP could reasonably be developed within 6 months.

We have a heavy responsibility to protect the clean water that more than half of Colorado's 5 million people depend upon, the wildlife populations and their habitats found in South Park, and the rural quality of life and the strong recreation-based economy it supports, not just for our present-day population but for the generations to follow. A Master Leasing Plan will help avoid the conflicts and harmful impacts inherent where mineral and important wildlife and environmental resources overlap.

Thank you.

Misi N. Ballard

South Park Broadband Leader  
Great Old Broads for Wilderness  
[southparkbroadband@gmail.com](mailto:southparkbroadband@gmail.com)  
303.884.7640



# Be the change, USA

BLM RAC Testimony, February, 13, 2013

Thank you all for listening to our testimony today. My name is Phillip Doe. I am the Environmental Issues Director for Be the Change, a grassroots organization concerned with fostering good government.

My comments will be like those we have made repeatedly to the BLM over the last several years on the agency's oil leasing program. None of our past recommendations have ever been acted upon, or even replied to. But persistence is a virtue, we are told. So, here we go again.

We believe all leasing of public land in the state should cease until a comprehensive RMP/EIS can be developed for the entire state. Our reasons are several:

1. Over 8000 square mile of public land have already been leased to the oil industry in this state. Yet, no evaluation of the cumulative impacts of this huge land transfer has been undertaken. We believe NEPA requires an examination of the cumulative impact. The NEPA document should include in its examination state and private land as well. We estimate that public and private land controlled by the industry in this state comes to over 20,000 square miles of land, a land mass greater than that 8 the states, and rivaling the size of West Virginia. Can anyone doubt that the development of this land through fracking will result in significant impacts to this state, its people, its water supply, it air quality, its wildlife, its recreation base, its very fabric?
2. Since the BLM's own representative said only last year that 70 percent of the public land leased to the industry is undeveloped, a moratorium will not have a noticeable impact on development.
3. Any development that takes place on already leased land must incorporate a zero air emissions requirement. NOAA's recent evaluation of gas operations in Weld County, Colorado, and in the Uintah Basin in Utah show methane leaks of between 4 and 9 percent of total production. Methane has heat trapping qualities that, over the short term, are 105 times greater than CO2.

Other studies show that the releases of air borne chemicals from well sites have a significant health impact on those living within .7 of a mile. To play their part in reducing climate change and protecting public health, the BLM must institute a zero emissions standard for any lease. Based on the gas production in the state in 2010, at 4 percent the methane lost in sloppy production would have heated from one-third ot one-half the housing units in the state. And that's not even

considering the amount of gas that is wasted through flaring.

4. Development on already leased land must require a declaration of the water source for fracking, just like any other developer. Additionally, any flow back or produced water must be cleaned to standards that allow its reintroduction into our streams or groundwater reserves. Deep well reinjection into Class II wells must be banned. The science says they will all leak. If they do, we will be creating what has been called the greatest intergenerational environmental calamity of all time.

5. For the RMP a significant part of the evaluation should be water availability, with sensitivity analysis done based on climate change. For example, the BOR recently said that the Colorado River Basin may experience a 9 percent reduction in annual runoff. BOR is notoriously conservative. Thus a range of futures should be employed to understand the impacts to streams and rivers if water is made available to the industry. If the analysis shows severe impacts to water quality and fisheries, then alternatives must be insisted upon. Propane is being used in Canada. It may be required here. It has the virtue of simplicity, gas in, gas out.

I'm attaching our comments of last year on proposed leases in South Park. We continue to believe that leasing land for oil development in South Park is akin to criminal insanity. It is Denver's supply. It must be protected against the threat of contamination, even accidental. The same can said of every other source aquifer for drinking water in the state.

Thank you.

COMMENTS from Be the Change to BLM re Feb 2013 Leases see South Park

These constitute the comments of Be the Change. We are a Colorado grassroots organization dedicated to the concept of good government fostered through transparency and dialog.

Transparency and dialog appear to be sadly lacking in the case at hand: the proposed lease auctions of several federal parcels within Park County, the headwaters area for much of Denver's municipal water supply.

1. As we commented to the proposed 2 well permits within the Bald Hill Unit for which an EA was issued in 2010, but has never been acted upon, we strongly object once again to this piecemeal approach to transferring public ownership of federal land into the hands of the oil and gas industry through the process of mineral leasing one parcel at a time. Over 80,000 acres of public land, mostly federal, have already been leased in Park County; yet, there has been no cumulative analysis as required by NEPA.

2. In as much as approximately 8000 square miles of federal land in this state--a land mass larger, incidentally, than that of several eastern states--have already been leased to the oil and gas industry, we once again must insist that a statewide comprehensive EIS be undertaken so that the public and its decision makers have a reasonable understanding of the social, environmental, and economic impacts these leases, if fully developed, would have on our way of life. It is not enough to pretend that since the leases aren't immediately converted into producing oil and gas wells a more serious defense of the public trust is unnecessary. This is patent nonsense, for production is clearly the industry's intent, and the BLM must be alive to that intent and understand the potential impacts on a cumulative basis. Anything less is simply abdication to the industry and destructive of the public's trust in the motivation and intelligence of the government we pay for and rely upon for the health, safety and general welfare.

3. In this regard we invite your attention to the recent programmatic EIS on solar development in the west as announced with considerable fanfare by the Obama administration and Secretary Salazar this past summer. We would also remind you that your agency has prepared a similar programmatic EIS on western oil shale development over a year ago. We commented extensively, both in writing and at the Denver public hearing on the oil shale programmatic EIS extensively, reminded Interior that the big play in the west is on shale oil, not oil shale, for the latter is economically infeasible, while the former is where all the action is--most of the 8000 square miles of leases in this state are for shale oil, not oil shale, as we mentioned earlier.

4. We are filled with wonderment that not even a word is made of the recent federal court ruling in , ( *Case 1:08-cv-01624-WJM -MJW Document 94 Filed 10/18/11 USDC Colorado.*) : COLORADO ENVIRONMENTAL COALITION; INFORMATION NETWORK FOR RESPONSIBLE MINING; CENTER FOR NATIVE ECOSYSTEMS; CENTER FOR BIOLOGICAL DIVERSITY; and SHEEP MOUNTAIN ALLIANCE, Plaintiffs,, v. OFFICE OF LEGACY MANAGEMENT; and UNITED STATES DEPARTMENT OF ENERGY IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLORADO. In that ruling the court stated: " that BLM should have supplemented those environmental analyses

prior to issuing the leases, because of evidence in the record of “significant new information about the affected environment” that did not exist at the time of the prior environmental analyses. Id. at 1264-65.

As we have reminded the BLM on several occasions in the past, the existing RMP the Canon City office is relying on for compliance with NEPA in issuing these leases is over 20 years old, dating to 1991 as we recall. It is *tabula rosa* on the subject of wide scale leasing for oil and gas under a fracking regimen. In fact, horizontal fracking which will be the mining or drilling technology employed in almost every instance in Colorado wasn't even devised until 2003. Moreover, horizontal fracking is an intensive heavy industrial activity, using huge quantities of water and land. These eventualities are simply being ignored by the BLM to their embarrassment and our consternation. An EIS must be undertaken for the BLM to be in concert with the court reasoning on another issue, to be sure, but one that has direct application to the issue before us.

5. In as much as all of the rivers on the front range of Colorado are over appropriated, with the prospect that climate change may further diminish the natural flow of these rivers, isn't it necessary for the BLM to factor this reality into its lease criteria? Where is the water for these wells to come from. Can the people of Colorado afford to give up its most valuable resource to an industry that through the process of fracking destroys water for any other use. Doesn't the BLM, given federal guidelines have the requirement to look at climate change in regard to oil and gas leases, and mustn't this be done on a cumulative basis for it to have meaning for the public and decision makers?

6. This is somewhat of an aside, but we are aware that the Bald Hill Unit is still in existence even though there is no oil or gas production with in this 37,000 acre unit in Park County. It is our understanding that revenues are to supplant rent and that the 10 year lease term is waved when a parcel is unitized. Isn't the United States losing significant revenue by allowing this unit designation to stand? The 10 year clock should be running on these leases and should be retroactively applied. Would you not agree?

From Be the Change:

Phil Doe

Environmental Issues Director

Wes Wilson

Science Advisor





Adamic, Denise <dadamic@blm.gov>

---

## Fwd: FW: Comment submission re BLM and Front Range RAC Public Hearing of Feb 13, 2013

1 message

---

**Borders, Shannon** <sborders@blm.gov>  
To: Denise Adamic <dadamic@blm.gov>

Tue, Feb 12, 2013 at 1:36 PM

——— Forwarded message ———

From: **Sonia-Skakich Scrima** <joejederman@msn.com>

Date: Tue, Feb 12, 2013 at 1:23 PM

Subject: FW: Comment submission re BLM and Front Range RAC Public Hearing of Feb 13, 2013

To: sborders@blm.gov

### Written Comments re BLM and Front Range RAC Public Hearing

(Link to the BLM's website about the RAC meeting on Wednesday, 13 February 2013:

[http://www.blm.gov/co/st/en/BLM\\_Information/newsroom/2013/blm\\_to\\_hold\\_joint.html](http://www.blm.gov/co/st/en/BLM_Information/newsroom/2013/blm_to_hold_joint.html) )

12 Feb 2013

From: Sonia Skakich-Scrima, M.A.

I hereby wish to express serious concern, on behalf of myself and the grassroots concerned citizens group, What the Frack?! Arapahoe, regarding development plans for extraction of natural gas, oil, uranium and other mineral extraction within the Front Range watershed of South Park and other nearby areas.

Such development must be curtailed until such time as critical due diligence has been performed to assure the protection of public health and safety, specifically:

1) Assurance of no risk of contamination of aquifers, ground and surface waters in these areas, which serve as the watershed for all of metro Denver, Aurora and other Front Range communities. With regard to high volume slickwater hydraulic fracturing of shale for oil and gas, contamination risks are posed by migration of thermogenic methane pockets, migration of toxic fracking fluid chemicals injected underground, as well as migration of deep earth salts and heavy metals and naturally occurring radioactive materials (NORM) that combine with the injected water and chemicals for hydrofracking.

Myers' computer simulation study of hydrogeologic impacts of hydrofracking shale (attached), performed based on hydrogeologic factors pertaining to the Marcellus shale, indicate high risk of methane gas and fluid migration in the Marcellus shale, within even a decade, and with anticipated rate of migration of more than a mile a year in some geologic areas. He states that the timelines of migration are anticipated to be even shorter in the Western region of the United States, given the hydrogeologic characteristics of the West!

Myers' study highlights the fact that setbacks of even 1 mile (as proposed by City of Aurora for the Spinney Reservoir) may be wholly inadequate to mitigate risk of contamination. Moreover, toxic emissions of VOCs,

PAHs, methane, etc. from horizontal hydrofracking poses risk of surface water contamination to reservoirs, streams, rivers, etc. An additional risk to surface and groundwater is posed by spills, blowouts, explosions etc. COGCC's data indicates that 1/3 of all such accidents (which are extremely common, averaging about 1 per day) contaminate surface or ground water in Colorado.

Contamination of groundwater via fluid /gas migration appears to be permanent and irreversible at this time, since potential contaminants are a combination of methane gas, deep earth heavy metals, salts, highly toxic chemicals (including known neurotoxins, VOCs, endocrine disruption chemicals, carcinogens, and PAHs), and significant NORM content (the South Park area is known to contain uranium deposits). There are numerous instances of permanent water contamination from horizontal hydrofracking, in Wyoming, Pennsylvania, and Colorado.

Myers' study must be repeated with hydrogeologic data specific to the South Park area, in order to objectively ascertain risks to the watershed that serves all of the Front Range. Additional studies must be performed, with empirical data collection, in geologic areas that best match the hydrogeology of South Park and where unconventional hydrofracking is already occurring, to measure actual rates of gas and fluid migration. Yet other studies need to be performed to assess whether currently available technology and operations changes can significantly reduce risk of air and water contamination and climate change escalation. There should be no consideration of hydrofracking authorization in the area surrounding South Park until such time as the above described data and objective risk assessments become available and it can be objectively proven that unconventional hydrofracking poses no significant risk to water, land, air, or health (including human health and other biologic species). Colorado and the Front Range population cannot be subjected to risk of permanent contamination of its watershed areas.

2) Additionally, authorization should not be considered until such time as water supply issues are comprehensively considered, with actual water use data (rather than vague industry and COGCC estimates), and consideration of the impact of hydrofracking water use on Colorado's regional water supply and climate. Horizontal hydrofracking uses tremendous quantities of clean water (est.2-5 million per frack job, with each well capable of being fracked up to 20 times). Water used is rendered permanently contaminated (due to heavy metals, salts, NORM, toxic chemicals) content, and thus removed from Colorado's productive and beneficial use. (Although there is some re-cycling of "produced" fracking water at some well sites, it is unclear what the recycling capacity is, how many times it can be recycled for oil and gas operations use, whether all companies can be compelled to use such recycling, etc. This information needs to be clarified for public consideration.)

Additionally, industry estimates that at least 40% of water used in the horizontal hydrofracking process is sequestered, permanently, underground, in injection wells whose sole purpose is to sequester this highly toxic fluid. This water is permanently removed from Colorado's hydrologic cycle. (It must here be additionally noted that such injection wells are also subject to cement degradation and fluid migration; One of the top U.S. experts on unconventional hydrofracking, Dr. Anthony Ingraffea, Cornell University, points out that all cement fails over time and that cement casings cannot be counted on to permanently sequester frack fluids from aquifers above).

Colorado is a semi arid state and currently in a drought cycle (which last year impacted more than 60% of the state). A Dept of Interior report of April 2011 regarding climate and water in the Rocky Mountain Region, predicted several decades of increasing water scarcity. Climate panel estimates of temperature increases are for increased temperature rise in our region, with attendant increase in drought. Water scarcity is thus a critical issue. Howarth et al's study regarding the impact of unconventional hydrofracking methane release and flaring on climate change escalation indicates that it is even more significant than that of coal, and their data has been confirmed by subsequent assessments of methane release from unconventional hydrofracking in Colorado.

The impacts of horizontal hydrofracking on Colorado's water supplies and climate must urgently be scientifically assessed, by agencies with requisite scientific capacities to do so (certainly to involve NOAA scientists, as well as hydrogeologic specialists). Such objective assessment must occur prior to any consideration of authorization of drilling permits in the South Park area, the watershed for the entire front range.

3. Our grassroots group is calling for a moratorium on all new unconventional drilling in Colorado, including the conversion of old (vertical ) to new (horizontal) wells, until such time as necessary scientific risk assessment is

performed (pertaining to air quality, water supplies, water quality, health) and necessary cost estimates are completed and made public. Our online petition currently has more than 5,300 signatures and continues to grow, as Coloradans learn of the serious risks and costs that have not been adequately addressed or even investigated: <http://signon.org/sign/time-out-on-fracking>. Our long version of this petition, addressed to CO legislators and our Governor, is also attached.

In conclusion, it is incumbent upon the BLM and RAC to act prudently on behalf of the public interest and to require that due diligence be performed, with rigorous objective assessment of risks, prior to any authorization for mineral extraction in the South Park area. Colorado and Coloradans cannot afford to take any significant risks to water supplies, our most precious resource.

Please enter this submission into the public record of comments received. Thank you.

Sonia Skakich-Scrima  
(founder, What the Frack?! Arapahoe)  
15011 E Arkansas Dr  
Aurora CO 80012  
Tel 303-917-5160

--

Shannon Borders  
Public Affairs Specialist  
Bureau of Land Management  
2465 S. Townsend Ave.  
Montrose, CO 81401  
970-240-5399

---

## 2 attachments

 **FrackWaterModellingTHREAT10yrs.doc**  
28K

 **MoratoriumSciStudyRequestCOLegisl20123[1][1].doc**  
39K

The premise of the oil and gas industry, that impermeable layers of rock will keep fracking fluid (composed of benzene and other extremely toxic chemicals) safely locked nearly a mile below water supplies, is a cornerstone of the industry's argument that fracking poses minimal threats to water and the environment. A new peer reviewed study, using computer modeling of the Marcellus shale with known principles of geology and hydrogeology, concludes that natural faults and fractures in the Marcellus, exacerbated by the effects of fracking itself, could allow chemicals to reach the surface in as little as "just a few years." "Simply put, [the rock layers] are not impermeable," said the study's author, Tom Myers, an independent hydrogeologist whose clients include the federal government and environmental groups. "The Marcellus shale is being fracked into a very high permeability," he said. "Fluids could move from most any injection process."

**This kind of scientific modelling has not been done for the Niobrara shale under Colorado, yet the study indicates that the same hydrogeologic principles would apply. Therefore such a study is urgently needed for Colorado, to assess threat to our precious ground water !**

Sonia Skakich-Scrima, What the Frack?! Arapahoe

## New Study Predicts Frack Fluids Can Migrate to Aquifers Within Years

by Abraham Lustgarten

ProPublica, May 1, 2012, 4:29 p.m.

A new study has raised fresh concerns about the safety of gas drilling in the Marcellus Shale, concluding that fracking chemicals injected into the ground could migrate toward drinking water supplies far more quickly than experts have previously predicted.

More than 5,000 wells were drilled in the Marcellus between mid-2009 and mid-2010, according to the study, which was published in the journal Ground Water [1] two weeks ago. Operators inject up to 4 million gallons of fluid, under more than 10,000 pounds of pressure, to drill and frack each well.

Scientists have theorized that impermeable layers of rock would keep the fluid, which contains benzene and other dangerous chemicals, safely locked nearly a mile below water supplies. This view of the earth's underground geology is a cornerstone of the industry's argument that fracking poses minimal threats to the environment.

But the study, using computer modeling, concluded that natural faults and fractures in the Marcellus, exacerbated by the effects of fracking itself, could allow chemicals to reach the surface in as little as "just a few years."

"Simply put, [the rock layers] are not impermeable," said the study's author, Tom Myers, an independent hydrogeologist whose clients include [2] the federal government and environmental groups.

"The Marcellus shale is being fracked into a very high permeability," he said. "Fluids could move from most any injection process."

The research for the study was paid for by Catskill Mountainkeeper and the Park Foundation, two upstate New York organizations that have opposed gas drilling and fracking in the Marcellus.

Much of the debate about the environmental risks [3] of gas drilling has centered on the risk that spills could pollute surface water or that structural failures would cause wells to leak.

Though some scientists believed it was possible for fracking to contaminate underground water supplies, those risks have been considered secondary. The study in Ground Water is the first peer-reviewed research evaluating this possibility.

The study did not use sampling or case histories to assess contamination risks. Rather, it used software and computer modeling to predict how fracking fluids would move over time. The simulations sought to account for

the natural fractures and faults in the underground rock formations and the effects of fracking.

The models predict that fracking will dramatically speed up the movement of chemicals injected into the ground. Fluids traveled distances within 100 years that would take tens of thousands of years under natural conditions. And when the models factored in the Marcellus' natural faults and fractures, fluids could move 10 times as fast as that.

Where man-made fractures intersect with natural faults, or break out of the Marcellus layer into the stone layer above it, the study found, "contaminants could reach the surface areas in tens of years, or less."

The study also concluded that the force that fracking exerts does not immediately let up when the process ends. It can take nearly a year to ease.

As a result, chemicals left underground are still being pushed away from the drill site long after drilling is finished. It can take five or six years before the natural balance of pressure in the underground system is fully restored, the study found.

Myers' research focused exclusively on the Marcellus, but he said his findings may have broader relevance. Many regions where oil and gas is being drilled have more permeable underground environments than the one he analyzed, he said.

"One would have to say that the possible travel times for a similar thing in Arkansas or Northeast Texas is probably faster than what I've come up with," Myers said.

Ground Water is the journal of the National Ground Water Association [4], a non-profit group that represents scientists, engineers and businesses in the groundwater industry.

Several scientists called Myers' approach unsophisticated and said that the assumptions he used for his models didn't reflect what they knew about the geology of the Marcellus Shale. If fluids could flow as quickly as Myers asserts, said Terry Engelder, a professor of geosciences at Penn State University who has been a proponent of shale development, fracking wouldn't be necessary to open up the gas deposits.

"This would be a huge fracture porosity," Engelder said. "So I read this and I say, 'Golly, does this guy really understand anything about what these shales look like?' The concern then arises from using a model rather than observations."

Myers likened the shale to a cracked window, saying that samples showing it didn't contain fractures were small in size and were akin to only examining an intact section of glass, while a broader, scaled out view would capture the faults and fractures that could leak.

Both scientists agreed that direct evidence of fluid migration is needed, but little sampling has been done to analyze where fracking fluids go after being injected underground.

Myers says monitoring systems could be installed around gas well sites to measure for changes in water quality, a measure required for some gold mines, for example. Until that happens, Myers said, theoretical modeling has to substitute for hard data.

"We were trying to use the basic concepts of groundwater and hydrology and geology and say can this happen?" he said. "And that had basically never been done."

<http://www.propublica.org/article/new-study-predicts-frack-fluids-can-migrate-to-aquifers-within-years>

To: The Honorable Governor Hickenlooper and Colorado State Legislators

From: What the Frack?! Arapahoe, concerned citizens group

Colorado currently has around 40,000 wells for the extraction of oil and gas from shale and it is anticipated that this number will triple over the next few years, with most expected to use horizontal hydraulic fracturing (commonly referred to as "fracking"). Yet, the significant costs and risks associated with such extraction have not been appropriately assessed and the safety of the lifespan process of horizontal fracking from shale has not been proven.

On the contrary:

- A. Significant cost factors are beginning to emerge and many of these appear to have been externalized onto the state, local governments, communities and or individuals, as uncompensated losses.
- B. Significant risks to public health and safety and to water supplies and the environment are beginning to emerge from local complaints, incident reports, reports of common symptom constellations, and some scientific studies. Some of these risks appear to be in violation of requirements to protect public health from serious known and preventable dangers, some of them appear to pose intolerable/unsustainable risks to our common vital resources (clean water supplies, climate), and some of these large scale risks are of the kind that are irreversible (such as permanent health damage, permanent contamination of water).

(see attachment for additional review of cost and risk factors)

Until comprehensive scientific assessment is performed, we are only guessing at what the real risks are to health and our water supply and our land and our climate. We cannot establish setback distances or otherwise regulate the industry appropriately with any confidence.

Therefore, to proceed to triple our well numbers in Colorado, with so many indicators of serious risk and harms, many of which are not "fixable" (such as long term health impacts, permanent contamination of an aquifer, impact on our increasingly water scarce climate), would be grossly irresponsible and devastating to Colorado and its residents, current and future. A moratorium on all new wells must therefore be immediately instated.

Appropriate study of the above risks must be done during the moratorium, starting with a comprehensive overview of currently available data, in order to objectively assess risk and allow informed policy decisions possible, at their conclusion. The scale and permanence of the risks listed above demand this course of action.

If any of the scientific studies or the initial data overview reveals serious risk to public safety, public health or water, a full moratorium or ban must be instated, until such time as alternative technology or processes are developed that can remove the significant risk to the public and our common environment.

Please instate an immediate moratorium on all applications for new wells, including conversions of vertical wells to horizontal wells and the reopening of old wells, in order to ensure the health and safety of Coloradans and the proper care of our common vital resources in this state we all love.

(Attachment to Moratorium Petition)

**INDICATIONS OF COSTS AND RISKS OF EXPLORATION AND LIFESPAN EXTRACTION OF OIL OR GAS FROM SHALE WITH USE OF HORIZONTAL HYDRAULIC FRACTURING**

**Significant financial costs to communities and individuals include:**

Road and property damage, local government staff time, impact on traffic flow and accidents, impact on competing businesses such as tourism, recreation, farming, home and property realty, impact on jobs, impact on other infrastructure, impact on the property values of individual, business, and community surface owners, increase in police, fire and emergency services trainings and work loads, impact on local health services, impact on community desirability and recreational offerings and open air assets (such as parks and trails, historic or tourist sites).

Real cost estimates must be obtained for each of these, based on cost experience from across Colorado, so that local officials and residents are fully aware of the costs associated with drilling in their area, in order to appropriately account for such costs in their cost benefit analysis necessary to their budgets and in order to appropriately update their oil and gas rules/ordinances and inform their decision-making regarding wells in their community.

**Colorado legislators, regulatory agencies, local governments, businesses and residents need to have a clear and comprehensive assessment of these associated costs. Under C.R.S. 24-4-101.5, the General Assembly must : “ensure that a state agency promulgates rules only after full consideration of the effects of its rulemaking action. Agencies engaged in rulemaking are required, under certain circumstances, to prepare both a regulary analysis and a cost-benefit analysis...(to consider) effects, impacts, probable costs, and consequences the rules will have.” Yet, COGCC has not conducted comprehensive assesments of impacts nor costs and therefore such necessary information is not available to Colorado legislators and local government decision makers and there is no objective assurance of public health and safety.**

**Significant risks of hydraulic fracturing extraction include:**

**-Risks to public safety:** of fires, explosions, and spills at O&G facilities and well sites; traffic accidents associated with large volume heavy tanker trucks, especially those carrying toxic materials ; increased risk of earthquakes from both injection wells and the fracking process itself

**-Risks to our local and state water supply:** decreased availability of water for agriculture and other uses; risks to local and state water security (water supplies) as Colorado grows increasingly water scarce; risk of contamination of surface water by spills and fluid migration from wells; risks of significant water depletion posed by fracking's destruction of vast quantities of water for further productive use and by its sequestration of large quantities of water underground and out of the hydrologic cycle ; risk of contamination of ground water supplies by fugitive migration of fracking fluid and/or thermogenic methane migration associated with fracking

**-Risks to public (and animal) health:** Increased risks of disease and dysfunction and fatalities associated with exposure to toxic emissions from well sites, hydrogen sulfide gas release, particulate sand, diesel,, toxic chemicals, thermogenic toxins (such as salts, heavy metals, and naturally occurring

radioactive materials) in wastewater and other waste products , exposure to emitted VOCs, methane release and flaring, and ozone production. Increased stress to communities and individuals of 24/7 heavy industrial traffic, noise, smells, and lights, that interfere with daily functioning, business and recreation.

Diseases and dysfunctions suspected to be directly associated with horizontal fracking lifespan impacts such as those described above are, neurologic impairment to memory, coordination, and information processing, increased pulmonary disease such as asthma and silicosis, increased risk of cardiopulmonary disease such as heart attack or stroke, increased risk of certain cancers such as leukemia, increased risk of gastrologic and ear nose and throat dysfunctions, increased risk of reproductive failure and endocrine disruption to mothers passed on to future generations.

**Risks to the environment:** industrialization of natural areas and low impact trails and other recreation; risks of spills that contaminate land and destroy it for further productive or natural use; risks listed above that impact natural waters both surface and ground, that impact flora and fauna; risks listed above that impact health of animals; toxic air emissions and ozone production that impacts flora health ; ozone and methane release that degrade our atmosphere and escalate climate change (this becomes a more urgent issue every year, as we approach the climate change tipping point that leads to irreversible climate collapse )

**Additional risks, as yet unknown:** Horizontal slickwater hydraulic fracturing has only been in common use since around 2005 and has since then enjoyed a unique exemption to federal health and safety laws that would have otherwise triggered data collection and investigations by the EPA and other agencies that regulate public health. The exemptions have precluded such continuous monitoring. Therefore, additional hazards may exist that as well, that will only be discovered when the process and its impacts are adequately monitored and studied.

#### **SCIENCE AND OUTCOME BASED POLICY AND DECISION MAKING:**

**Note that the following countries, states, or cities have restricted horizontal hydraulic fracturing from shale, via a moratorium or ban, based on risk factors listed above, especially risks to health and water, and are calling for scientific study to enable further decision making:**

France Germany Austria Czech Republic Bulgaria Roumania South Africa Argentina

Quebec and Nova Scotia, Canada Ireland : 5 counties Boxel, Netherlands

Christchurch, New Zealand New York New Jersey Vermont Maryland

Philadelphia,Pittsburgh and 6 towns in PA LasVegas NM 2 towns in Ohio 3 towns in West Virginia

#### **Risk Assessment Program:**

Some scientific data collection and theoretical modeling based on known variables has been produced to date- by the USGS, in process by the EPA, by university programs in public health and hydrogeology, veterinary science, etc. , and by individual researcher teams. However, the bulk of the data remains to be systematically collected and analyzed and will need funding in order to take place.

Until comprehensive scientific assessment is performed, by hydrogeologists, climate scientists, air emissions scientists, toxicologists, epidemiologists, medical specialists such as pediatricians, cardiopulmonologists, oncologists, neurologists, and endocrine disruption scientists, we are only guessing at what the real risks are to health and our water supply and our land use and our climate. We cannot establish setback distances or otherwise regulate the industry appropriately with any confidence.

Therefore, to proceed to triple our well numbers in Colorado, with so many indicators of serious risk, many of which are not "fixable" (such as long term health impacts, permanent contamination of an aquifer, impact on our climate), would be grossly irresponsible. A moratorium on all new wells must be instated.

Appropriate study of the above risks must be done during the moratorium, in order to objectively assess risk and make informed policy decisions at their conclusion. The scale and permanence of the risks listed above demand this course of action.

Additionally, if any of the scientific studies reveal serious risk to public safety, public health or water, a full moratorium or ban must be instated, until such time as alternative technology or processes are developed that can remove the significant risk to the public and our common environment.

Since such comprehensive study requires time to acquire grants or funding, assemble research teams, design the studies, collect data, analyze the data and interpret it, we request that:

- 1) A team of top Colorado specialists be assembled (by a nomination process of their peers)

to first review all available data, worldwide, on the issues of concern, to rate estimated probability of risk, estimated scale and scope of risk, and permanence or reversibility of damage, in order to prioritize research projects and produce an initial objective risk assessment that can inform policy makers and the public and may determine the scope of the moratorium. Examples:

-If T. Meyer's hydrogeologic model of risk of contamination of ground water within decades applies similarly to Colorado's hydrogeology as it does for the Marcellus shale region, then a complete moratorium should be instated from the outset.

- If McKenzie and Ritter's Health Assessment is supported by additional data in other communities or is reanalyzed to remove confounding variables such as distance from highways and found to have the same results, then a complete moratorium should be instated from the outset.

- If climate science, which has found unexpected escalation in the rate of climate change, finds that the current well count is contributing substantially to the positive feedback loops for climate change in our region, then a complete moratorium should be instated from the outset.

- 2) As in the EU and most recently in Germany, the oil and gas industry should be asked to fund the research to a large degree, certainly all the cost of the preliminary meta analysis of all available data for initial risk assessment. As in the EU and in Germany, this requirement should include the contingency that industry have no influence of any kind on the research or

researchers, other than to provide available industry data sets and be open to researcheroverview of any data that has been collected by industry.

What the Frack?! Arapahoe would be happy to arrange a presentation or meeting with any legislator or legislators or the Governor and to present at that time a list of scientific papers referenced in this petition as indicating costs and risks associated with the lifespan process of extracting oil or gas from shale when horizontal hydraulic fracturing is used.

Thank you for your consideration and all that you do for the benefit of our state.

Sonia Skakich-Scrima,

Founder of What the Frack?! Arapahoe ([www.frackingcolorado.wordpress.com](http://www.frackingcolorado.wordpress.com))

Tel: 303-917-5160 e mail: [joejerman@msn.com](mailto:joejerman@msn.com)



There is NO safe distance, no safe setback, from oil & gas unconventional fracking (or horizontal, slickwater, high-volume hydraulic fracturing) and all its associated activities. The basic science of physics teaches that water flows – whether it's on the surface or underground. The many and varied experiences in our country alone have shown the permanent destruction of water caused by poisons injected underground or those naturally occurring that are disturbed by this type of drilling, fracturing, or whatever the oil and gas industry calls it today.

Every day, yes, every day, there is another report in our nation of contamination by the oil and gas industry, as well as other fossil fuels. Today's article from Weld County, Colorado, is "Windsor well spewing flowback fluid (copy attached)."

So when Aurora calls for a 1 mile setback from its watershed in South Park Basin, Park County, Colorado, it should be seen by the oil and gas industry as a gift. This is a CRITICAL WATERSHED providing drinking water to 75% of Colorado's population (as it serves the headwaters of the South Platte River with 3 reservoirs: Antero, Spinney Mountain, and Elevenmile Canyon). About 40% of Aurora's water supply, as well as Denver's, comes from here. Fracking the South Park Basin may destroy the water of nearly 2 million residents. Communities affected include:

|               |                  |                   |          |
|---------------|------------------|-------------------|----------|
| <b>Aurora</b> | Lakewood         | Centennial        | Lakeside |
| Denver        | Ken Caryl        | Greenwood Village | Sheridan |
| Wheat Ridge   | Columbine        | Cherry Hills      |          |
| Edgewater     | Columbine Valley | Federal Heights   |          |
|               | Littleton        | Glendale          |          |

Despite any bullying by oil and gas, and other government agencies, -- as mineral owners (and land owners), the BLM must say NO to oil and gas development in the South Park Basin. At the very least, grant setbacks of a mile or more, prepare a Master Leasing Plan (MLP) that includes a 100% guarantee that all the water is protected from contamination, and include in the process of making the MLP significant weight by drinking water advocates and fracktivists of the Denver metro area.

We all know that "Safe Fracking" is a Bad Fairytale.

Mrs. Randee Webb, concerned citizen

Address: Ptarmigan Park HOA, 12854 E Villanova Dr, Aurora, CO 80014

Phone: h/w 303-750-6858

Email: rwebb153@hotmail.com

## windsor well spewing flowback fluid

<http://denver.cbslocal.com/2013/02/12/green-liquid-oozing-from-broken-weld-county-well-for-more-than-24-hours/>

**WELD COUNTY, Colo. (CBS4)** – People in part of Weld County are worried about what's coming out of a broken oil well.

A green liquid has been oozing from the well north of Windsor since Monday morning. The owner says part of the well failed.

CBS4's Ty Brennan was told the liquid is flow-back water, which consists of oil and water. It's basically what comes out after the fracking process. Those who own and operate the well said they hoped to have it capped by Tuesday night.

+frack fluid!

"It's been going on for over 24 hours now," Ken Hall said.

Hall has a front row seat to the liquid spewing out of the oil rig, which is located a few hundred feet away from his backyard.

"I went, 'Oh no, this is not good,'" Hall said.

Hall said the liquid has been flowing since 9:30 a.m. Monday.

"It's a lot of fluid, there's a pond down there that's formed," he said.

---

The well is owned and operated by PDC Energy, a Denver-based company with a large presence in Weld County. Senior Vice President of Operations Bart Brookman said it was a mechanical failure at the newly drilled well which lead to the leak.

"A piece of surface equipment, which we refer to as the 'well head,' had what we call a 'dog bolt' shear off, which caused the release of what we call 'flow-back fluid,'" Brookman said.

Brookman said the flow-back fluid consists of water and oil and that a team is making sure to clean it up.

frack fluid  
^

"We've got an environmental team, we have booms on location absorbing it, and a recovery trench that that fluid is flowing in to," Brookman said.

An engine from the Windsor-Severance Fire Rescue has been on scene the whole time, but there is no natural gas coming from the leak.

Hall calls oil drilling a double-edged sword.

"We need the energy, we need the jobs, but we need to be safe, and we need the facts," Hall said.

---

## Public Comment Regarding Oil and Gas Drilling in South Park, Colorado

These comments are being submitted on behalf of What the Frack?! Arapahoe, a concerned citizens group in Arapahoe County.

Our concerns with the proposal to allow drilling in South Park are as follows:

1. The proposal rests on a preliminary impact statement developed under an outdated 1996 land management plan, developed prior to the advent of horizontal hydraulic slick-water fracturing of shale for oil and gas.

There *must* be a comprehensive EIS developed prior to leasing parcels for drilling.

***The EIS must take into account:***

**The known impacts of horizontal hydraulic slick-water fracturing, including :**

- air quality,
- surface and groundwater,
- human health,
- traffic,
- quality of life,
- local commerce dependent upon tourism and recreation,
- the unique pristine characteristics of this area
- the total water supply of the western region (including scientific projections of increasing water scarcity, as outlined in the Dept of Interior report, taking into account that horizontal fracking destroys water for further use),
- the fact that South Park contains the headwaters for Denver and a water reservoir for Aurora
- the geologic features of the region with regard to risk of seismic events (per USGS reports),
- the permanent lurking threat of groundwater contamination by wastewater remaining in wells and placed in deep injection wells, due to risk of migration of frack fluids and methane pockets, and
- the contribution of total estimated number of wells to climate change.

2. The EIS and all discussion of oil and gas development in the area must acknowledge the research of Tom Myers, the computer simulated modeling of extraction from Marcellus shale, incorporating known hydrogeologic factors, which showed that well wastewater migration and methane migration to nearby aquifers can be expected to occur within as little as several years or a decade, and that western hydrogeologic features might escalate the timescale of migration even faster.

***The EIS should therefore, rationally, require that a similar computer simulation model, incorporating known hydrogeologic features and factors in the South Park area be completed before allowing any drilling in this area*** which provides water for the Denver population and for the city of Aurora (Spinney Reservoir).

To *not* require such study would be the height of irresponsibility, given the possible consequences to such an important water supply.

3. The 1000 feet setback from surface water requested by the City of Aurora appears to have no scientific basis. The Myers' study demonstrates that migration of wastewater fluid inside the well, and of methane pockets disturbed by fracking, can be expected to occur at a rate of a mile (5,280 feet) a year in some geologic areas.

***The setback from surface and groundwater must be determined by scientific study of hydrogeologists and the specific hydrogeology of the area, not by arbitrary numbers.***

4. Park County administrators and Park County residents have made it very clear that oil and gas drilling would pose a significant risk to area commerce (recreation and tourism based), to area quality of life, and to property values based on pristine land and air, and to the health of area wildlife and humans. ***They have made very clear that drilling in this area with our current technologies of horizontal fracking:***

- ***is incompatible with their economy,***
- ***is incompatible with their public health and welfare,***
- ***would pose uncompensated losses and preventable risks to the residents, area wildlife, and community assets.***

They have made it very clear that they are opposed to allowing drilling in the area for these reasons:

"We want to preserve our environment, our water quality, our air quality, our wildlife corridors, our wildlife and fisheries... Our economy is based on recreation," said Park County administrator Tom Eisenman.

5. Mr. Eisenman also asked: "Drilling responsibly. Is that an oxymoron?" Clearly this is the case in the pristine area of South Park, where the heavy industry of horizontal fracking would destroy the pristine wilderness and the very basis for their economy.

***The BLM recognized similar risk of devastating losses for the North Fork BLM lands and removed the land from lease, when area organic farmers and orchardists and tourism small companies raised similar concerns, and should similarly rule on behalf of South Park.***

However, it must be acknowledged at this point in time that available scientific study of serious risks posed by horizontal hydrofracking to water supplies, water quality, air quality, human health, climate change, and seismicity indicates that ***"responsible drilling" is indeed an oxymoron with regard to the current practices of horizontal fracking. The scale and scope of risks are unprecedented in the history of the West and in the case of climate change and water supply, in the history of our species on the planet. These are problems that are unfixable if we get them wrong.*** (Problems such as: Risk of permanent contamination of our groundwater supplies, permanent poisoning of vast quantities of water used in the process of extraction, contribution of methane venting to climate change, fracking chemical exposure effect on future generations via endocrine disruption, etc).

**Please act as a responsible steward for our public lands and the public trust and deny these leases at South Park at this time, and require that the studies and factors listed above be duly completed and considered before making any future recommendations regarding fracking in this area.**

Sincerely,  
Sonia Skakich-Scrima  
15011 E Arkansas Dr, Aurora CO 80012 / Tel 303-755-8129  
On behalf of What the Frack?! Arapahoe

What the Frack?! Arapahoe is a concerned citizens group in Arapahoe County, CO, dedicated to providing public information and public discussion regarding the impacts and risks of oil and gas extraction from shale, including the current inadequacy of federal, state and local government regulations to address serious public risks and significant uncompensated losses. We seek to empower citizens and their elected representatives to demand a stop to preventable harms, in protection of our health, our environment, our water supply, and our quality of life.