



**CANYONLANDS WATERSHED COUNCIL**

Kent Hoffman  
Deputy State Director, Division of Lands and Minerals  
attn: Becky Hammond  
Utah Bureau of Land Management  
440 West 200 South, Ste 500  
Salt Lake City, Utah 84101

Via fax to 801-539-4237 on December 17, 2012

**February 2013 Oil and Gas Lease Sale  
Protest and Request for Director Review**

Dear Mr. Hoffman,

Thank you for your consideration of our request to review a selection of the parcels proposed to be offered for lease in the February 2013 oil and gas lease sale.

Interest

The Canyonlands Watershed Council (CWC) is a nonprofit organization based in Moab, Utah. Its mission is to protect the waters and watersheds of southeastern Utah, and CWC thus has a strong interest in the possible impacts to environmental and human health from local oil and gas development.

In this letter, we focus on the parcels that present threats to sources of drinking water, both public and private, as well as potential threats to air quality in southeastern Utah.

**WATER QUALITY ISSUES.**

We are concerned that BLM, in this sale and others, is offering more parcels near populated areas for lease. Hydraulic fracturing practices, which significantly increase the threat of groundwater contamination, have become very common in the last decade. In recent public statements, officials from the Utah Division of Oil, Gas and Mining indicated that hydraulic fracturing was not a problem in Utah in great part because it so rarely took place near populated areas.

Parcels 042, 054, 055, 119 and 131, however, are all near populated areas, and any development within them would place at risk drinking water sources that are not yet well mapped. These sources serve isolated rural communities with limited financial resources. These communities-- Moab, La Sal and Monticello--have a very limited ability to assess, monitor, and prevent or repair contamination of their groundwater sources.

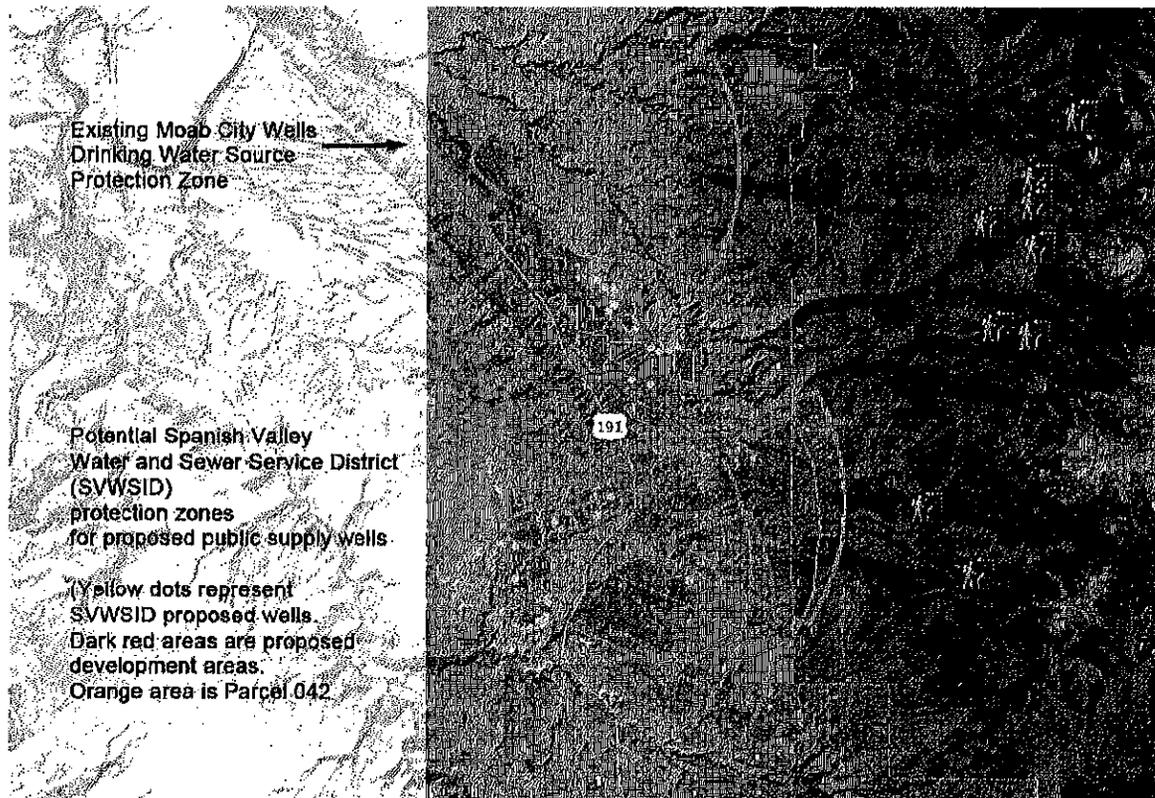
We are specifically concerned with water quality risks in the following parcels:

Parcel 042 (Moab area)

First, we would like to thank the BLM for deferring adjacent Parcel 039, which crossed into Moab's protected municipal surface watershed, from sale.

We asked that the State Director defer this parcel from this lease sale for the following reasons:

- The groundwater flows in the area are not well mapped. Of particular concern is the system of underground fractures in the Glen Canyon Aquifer; these increase water movement rates and provide the flows that feed Moab's municipal wells and springs. Existing studies, performed primarily by the Utah Geologic Survey and the US Geologic Survey, make educated guesses that show high rates of conductivity--between 50 and 100 feet per day--through the fractures. These studies also note the need for specific mapping of the fracture system, including the fractures lying under other rock layers, reaching south of the Moab valley and very possibly under Parcel 042. Any contamination from underground activities in Parcel 042 has an increased likelihood of traveling into municipal and private wells because of the increased vulnerability of the fracture system.
- The City of Moab, Grand County, and Congressman Jim Matheson have all prioritized the need to conduct an independent groundwater study of the Moab area. These funds have gone been approved in the federal budget, but not yet appropriated, as part of the Water Resources Development Act. The effort to fund or otherwise conduct such a study is ongoing. The urgent need to map groundwater supplies and flow patterns in the Moab area is a top priority for local governments, referenced in the General Plans of both the City of Moab and Grand County, and is one of the primary goals of the Moab Area Watershed Partnership, a multi-stakeholder effort to conduct watershed planning for the area. Until these flows are better know, it is hard to make safe decisions about how to place and control potential contamination sources such as oil and gas wells.
- Parcel 042 is near private residences--one fully constructed and several lots under building permit--which will depend upon wells for culinary water, with no public water or alternative source nearby. Again, without groundwater mapping in the area, these wells are put at risk of contamination from drilling activities.
- Spanish Valley Special Service District has applied to drill over a dozen new public supply wells in the vicinity of Parcel 042. Using the best available scientific information--the Utah Drinking Water Dource Protection zone for nearby Moab wells, which pull water from the same aquifer--it appears likely that the Utah Division of Drinking Water's drinking water source protection zone for the proposed wells would cross well over Parcel 042. (See the map below).



We ask that BLM defer Parcel 042 until the following conditions, at minimum, are met:

- CONDITION 1. The groundwater study for the Moab area has been completed, and
- a. That study indicates that the underground fracture system connecting to Moab's public wells does not intrude under Parcel 042, and
  - b. That study indicates that private wells near Parcel 042 would not be threatened by drilling activities

AND

- CONDITION 2. The Utah State Engineer either:
- a. Rejects SJSVSSD's application to drill wells on Bridger Jack Mesa, OR
  - b. Approves SJSVSSD's application, and a mandatory Drinking Water Source Protection Zone established.

Until the conditions above are fulfilled, it is very risky to allow oil and gas development in any part of Parcel 042, so near the sole source of drinking water for thousands of people.

### Parcel 119- La Sal School area

We ask that the State Director defer this parcel from lease for the following reasons:

- Parcel 119 is very close to the Utah Drinking Water Source Protection zone for the well at the La Sal School (see map below--the red is Parcel 119, the blue lines denote the Source Protection Zone). The direction of groundwater flow, which runs from the wet mountain zone downhill to settled areas, is almost directly from parcel towards the well. Any problems with underground activities would put this well, in addition to several private wells, in danger of irretrievable contamination.
- The protection zone for this well is unusually small compared to other zones in the region. The studies conducted for such protection zones are often based on very poor hydrogeologic data, since in rural areas like La Sal that is often the best data available. If the protection zone was even somewhat closer to the size of similar zones in the Moab area, Parcel 131 would be well within it.
- We are concerned that the uncertainty of groundwater data, combined the lack of community resources to research and enforce protection measures to manage potential contamination sources (state and federal governments defer most of that responsibility to the water well owner), will greatly increase the risks to drinking water.



*Map of Parcel 119 (red) and the La Sal School's Drinking Water Source Protection Zone (blue lines).*

Parcels 054, 055 and 131- Near Monticello

First, we would like to thank BLM staff for removing the portions of these parcels that overlapped the Loyd's Reservoir Drinking Water Source Protection Zone and the City of Monticello's water treatment plant.

However, there are remaining parts of three split estate parcels still proposed for auction in the area. We ask the BLM to defer these parcels for the following reasons:

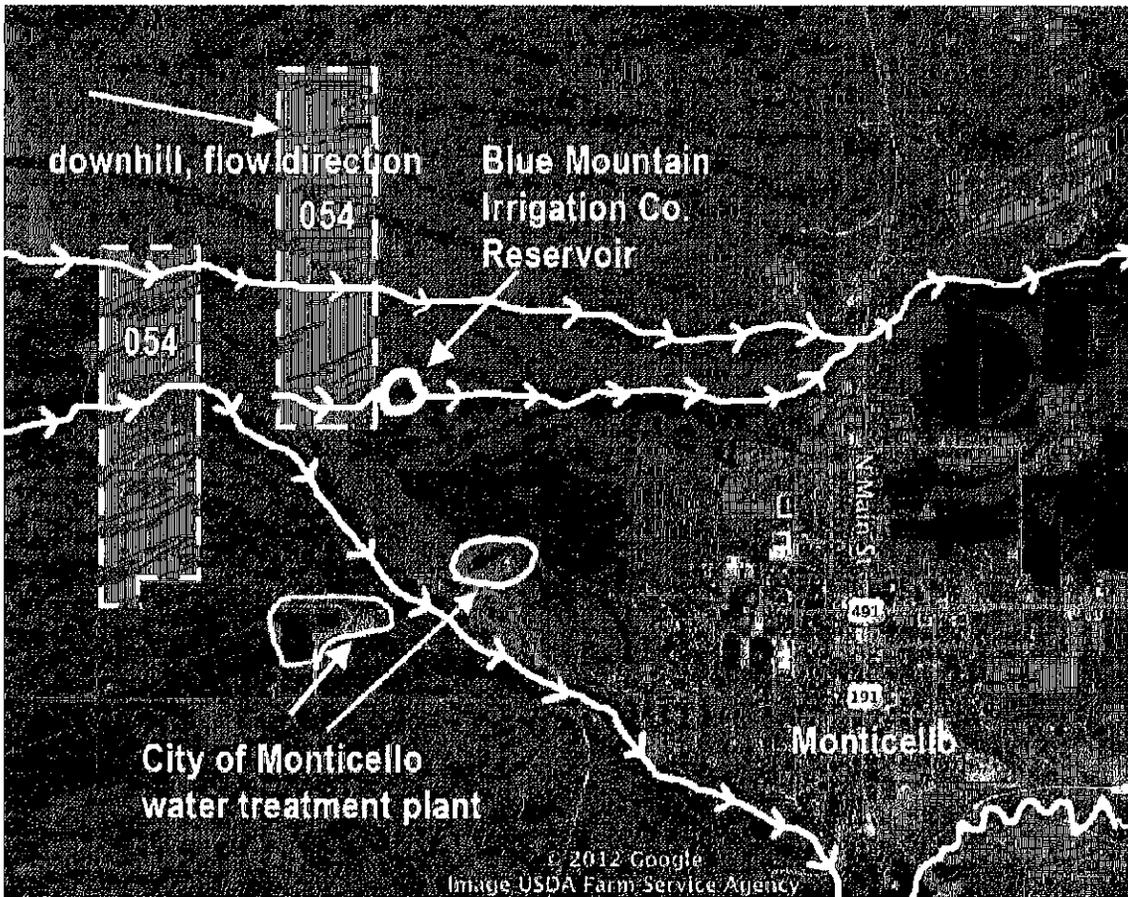
- Much of Monticello depends on private wells for culinary water. However, only public water supply wells are protected by Drinking Water Source Protection Zones. Therefore, most of the culinary water supply for Monticello residents is without any protective designation, and will not trigger measures for well casings etc. that are normal practice for oil and gas development near major groundwater sources.
- The three parcels are all on private land, and the EA lists no special stipulations for the parcels (aside from certain mandatory protections for endangered species and cultural resources). There will be almost no requirements or oversight for protection of groundwater or surface runoff near populated areas.
- Parcel 054 is immediately upstream of Monticello neighborhoods, and immediately adjacent to the Blue Mountain Irrigation Company's reservoir (see map). Any polluted surface runoff from this parcel--a result of seasonal flash floods common in the area, equipment failure, human error, or any number of other common events--would go almost immediately into lands and waters that have direct and regular contact with people.

In short, oil and gas development next to the town of Monticello and its water supplies will trigger none of the normal safety measures, and we are concerned that this, combined with the uphill proximity of the parcels, put Monticello's water at risk of irreparable damage.

We ask that the BLM defer parcels in this area until the following conditions are met:

CONDITION 1. An independent (meaning conducted by a federal or state government agency, not petroleum industry consultants) groundwater study for Monticello groundwater has been conducted and approved.

CONDITION 2. The State Division of Drinking Water, local government or comparable regulatory body has a plan to protect Monticello groundwater on file, and that plan allows oil and gas development in the proposed lease parcels.



*Map. Parcel 054 is immediately upstream of the City's drinking water treatment plant, irrigation reservoir, and the town itself.*

#### AIR QUALITY.

We are concerned with the cumulative density of industrial development in the Lisbon Valley area, particularly the regional effects on air quality.

Unless the conditions in the next section are met, we ask that the BLM defer all Lisbon Valley parcels for the following reasons:

- The impact analysis in the EA is inadequate. The Moab EA states:

An oil or gas well, including the act of drilling, is considered to be a minor source under the Clean Air Act. Minor sources are not controlled by regulatory agencies responsible for implementing the Clean Air Act. In addition, control technology is not required by regulatory agencies at this point, since San Juan and Grand counties are considered to be in attainment of the NAAQS. (EA, page 27)

This analysis is faulty for the following reasons:

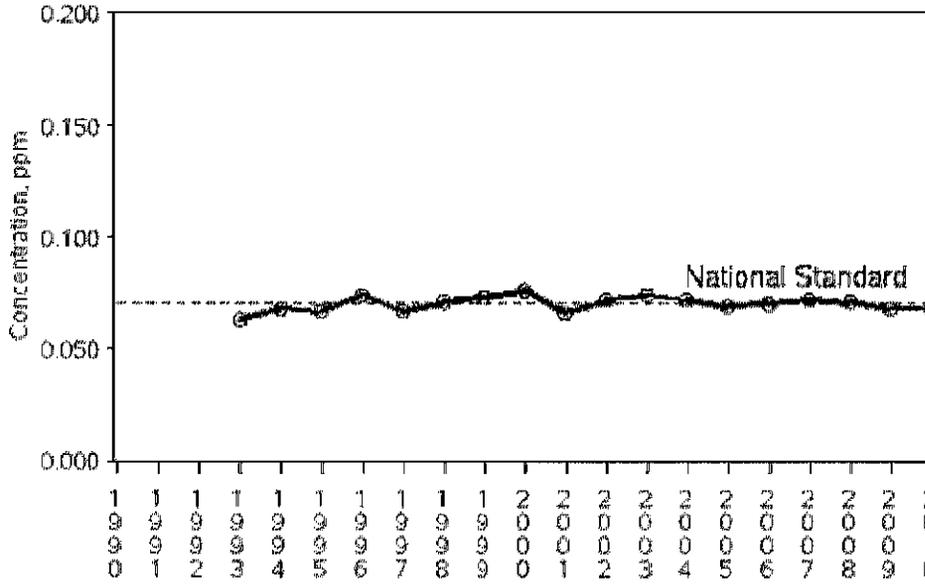
1. All of the modeling and other analysis in the EA is based on air quality sampling from the Island in the Sky District of Canyonlands National Park. This sampling station is many miles from Lisbon Valley, as well as much higher in elevation. Existing sampling does not reflect air quality in Lisbon Valley or Moab/Spanish Valley. Moab is much closer to Lisbon Valley than the air monitoring station at Canyonlands (the towns of La Sal and Monticello are closer still). These areas are far more likely to reach nonattainment for air quality standards than the Canyonlands monitoring station. The current monitoring will not alert anyone of potential impacts to human health (or other values) from inversion layers in valleys, where most people live.

2. A single oil or gas well may be a minor source; a large field of oil and gas wells, as well as existing industrial development in Lisbon Valley (uranium and hardrock mining and processing), is a different matter, and should be analyzed as such.

3. Even at the Canyonlands air monitoring station, there have been several incidences of near-nonattainment for Class I airshed standards. The statement that control technology is not required for these minor sources is based on attainment status. If air quality is nearing non-attainment in Canyonlands National Park, we are very concerned that it is already non-attaining in the Moab valley and other place with winter inversion layers and more development, as well as more proximity to the high density of leases. A realistic measurement of air quality in the populated areas of southeastern Utah should be performed before BLM can assume compliance with NAAQS.

4. Because there is no baseline air quality data for the Moab valley, Lisbon Valley, or other areas closer to development, there will be no way to ascertain whether oil and gas drilling activities are impacting air quality.

**Ozone Air Quality, 1990 - 2010**  
 (Based on Annual 4th Maximum 8-Hour Average)  
 San Juan County  
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We ask that BLM defer the Lisbon Valley parcels until both of the following conditions are met:

**CONDITION 1.** Air quality monitoring is set up in Lisbon Valley or nearby La Sal, and Moab. This monitoring need not be as regular or extensive as in Canyonlands if that is cost-prohibitive, but it should establish both a current baseline for air quality, and be able to regularly monitor for changes to air quality. Air quality impact modeling in NEPA documents nearer to those stations should be based on that data.

**CONDITION 2.** Standards and stipulations are attached to oil and gas development (and other activities, such as potash or uranium mining and milling) in the area that are based on the modeling described above.

**CONCLUSION**

The Canyonlands Watershed Council--our staff and volunteers and members--are all residents of southeastern Utah. We recognize that the proposals in this letter reflect a particularly cautious attitude toward the protection of human and environmental health in our region. However, we believe that the protection of our water supply, which is pristine and almost impossible to replace, deserves extraordinary caution. We are afraid that the lack of good data, a

situation common to low-income rural areas, makes us more vulnerable to water and air contamination, because decisions at many levels are based on inadequate knowledge. We thus ask BLM to exercise extraordinary caution when considering taking these risks.

Please keep us apprised of future developments in this project. Thank you very much for your consideration of these requests.

Sincerely,



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**Protest/ Request for Director Review of the February 2013 oil and gas lease sale**

From the Canyonlands Watershed Council

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