

## Key points

**The most important point is that the DEIS is deficient and the document fatally flawed. A new DEIS must be undertaken, and include a conservation alternative. The range of alternatives considered in this document are inadequate in as much as the differences among them are negligible. There are obligations to monitor the effects of mitigation (NEPA) but there is no plan and no commitment to do so in this DEIS. Other specific points include:**

1. Water supply for the exploratory wells should be sourced far away from local drinking water sources given the lack of necessary water data.
2. Water contamination that results from the use of fracking chemicals in the drill process are showing up in wells not only in Wyoming but in other states where drilling and residential wells are near one another. Because of insufficient water information the conclusion that methane and toxic chemicals cannot migrate to groundwater and surface water and contaminate domestic wells, river, surface and livestock water is unsupportable. Our concerns are based on: **1) the Wyoming Oil and Gas Conservation Commission (WOGCC) chemical disclosure requirements that exempt disclosure during exploration. Without disclosure, no monitoring can occur; 2) lack of specific ground water, surface water and recharge area information; 3) the increasingly serious problems all over the country where fracking has caused water contamination and public health consequences.** Benzene in water wells in the Anticline, and Pavillion, Wyoming are cases in point. Recent news tells us that diesel fuel was extensively used by fracking companies. **Diesel fuel used as a fracking fluids must be banned by the FS in order to meet its obligation to assure high quality waters.**
3. The FS knows or should have known about the water data deficiency. "Site-specific ground water data for the lease area and vicinity are limited...." (See See Draft EIS Oil and Gas Leasing in the Wyoming Range, BTNF, Ground Water Resources, page3-53). Nothing has been done to alleviate this shortcoming in the intervening years. A study by the USGS-Boulder, a center of excellence, must be undertaken and the DEIS process delayed until baseline water information is made available. (See water comments, Gaily and Paulson)
4. The unapproved **PXP project should be held until the EPA fracking study has been completed** and until the EPA has published its findings, and until the Congress decides whether to remove the exemption fracking fluids have from current water law.
5. **If the FS is unwilling to wait for the EPA study and subsequent Congressional action, then it must prohibit the use of chemically induced exploration i.e. fracking fluids in the PXP project.**
6. **Produced waters and condensate are also of concern.** The draft is unclear about how these will be handled and says different things in different places in the document and has different requirements for

the exploratory phase and production phase. **Open pits and or aeration for any purpose is unacceptable. Relocation of all fluid handling and compressor stations is necessary.**

7. Water consumption is estimated to be "minimal" in industrial terms, but the availability of water and the source(s) of the water are unknown as are recharge areas where the drilling is to take place. Groundwater and surface water mandatory for residential and agricultural consumption is unstudied, thus **conclusions about minimal water demand must be relative to existing water conditions and existing demand.** The aquifer that supports Hoback Ranches, for example remains unstudied according to the USGS. **(The USGS is an important agency that has not been included as a reviewer/cooperator in this DEIS and that is a significant short-coming.)**

8. The South **Hoback Rim is critical for wildlife, and that is under recognized in this DEIS. The DEIS does not recognize the elevated biological status of the Rim; rather it treats it as though it were another piece of real estate completely missing its significance for ecological and genetic connectivity.** Further diminishing the mule deer herd is not consistent with the FS Plan and goals. Hunting in this area in 2008 and 2009 brought in more than 2 million dollars a year each year confirming the "dominant use" of this area. ( See wildlife, Dorsey) Important WY Game and Fish Department comments were provided for the 2007 DEIS and their comments were ignored. ( See Wildlife and Wyoming Game and Fish Department Comments)

9. **The road access is deleterious to the fate of wildlife . Effort should be made to relocate the access road to avoid severing the ecological and genetic connectivity of the south Hoback Rim. ( See Wildlife) The network of roads ( and pads) requires re-siting as well. Access is planned through slopes greater than 40%, across unstable soils and landslide areas which is stated as an area of no surface occupancy in the lease stipulations.** This immediately makes the proposed action untenable. Analysis shows the surface occupancy attributable to roads and pad as grossly underestimated. ( See Road and Wildlife)

***The U.S. Fish and Wildlife Service listed the lynx as threatened under the Endangered Species Act on March 24, 2000. The DEIS actually neglects the importance of the Hoback Rim, the habitat, food supply, and relevance of this area to lynx ( and other wildlife) and to the entire Greater-Yellowstone Area.*** Well pad locations, snow compaction, bifurcating migration routes through forested areas critical to lynx and other wildlife need to be changed. Many dimensions of the drilling infrastructure put these lynx requirements at risk. Lynx is a threatened species and the **FS has an obligation not to move this species to "endangered status" by its actions.** Wildlife fragmentation would occur as a result of the proposed plan. (See Wildlife)

10. Seasonal restrictions, classic mitigation efforts in this case are a no win! The year round wildlife requirements suggest only small windows year round when industrial activity can occur. **The year round windows for each species including and especially moose, need to be developed and a strict enforcement plan developed as well. Servicing wells during important restricted months may be impossible. When mule deer foals drop, that is not an indication that the trucks can roll and rigs operate!**

**11. The air analysis does not represent local conditions. Air monitoring to establish baseline air quality data is necessary.** The air modeling is inadequate. Public health and safety is inadequately addressed. Air Quality model shows persistent reliance on 2006 as a baseline year. That is unacceptable and is methodologically wrong. HAPs are extremely important and under considered. ( See air section and Milford letter)

**12. Fire threat is recognized, but mitigation by just creating defensible space ( or requiring fire extinguishers on trucks) is insufficient to meet the threat to the BT and nearby private infrastructure.** An additional increase in resources for the buildup of onsite fire fighting infrastructure is necessary. Fire training, equipment, availability of personnel to meet the demands of this remote location is necessary. Preventative measures are important, but the practical application and enforcement of those practices is questionable. Hoback Ranches is recognized as an at risk community without drilling adjacent to its B-T/BLM fence lines. **A risk analysis needs to be performed and bond requirements needs to be commensurate with the outcome of such a risk analysis.** A \$150,000 nation-wide bond is insufficient.

**13. Road access and networks as proposed are unsustainable and do not reflect the requirements of the FS Plan. The road access needs to be changed as do the location of certain well pads. Unstable soils and steep slopes cannot be mitigated successfully according to engineering analysis and adversely affect wildlife.** Lease stipulations regarding slopes and landslides, and unstable soils prohibit this route from ever actually being built. (See wildlife and road sections)

**14. Soil depletion and disturbance from operations is under assessed** affecting not only the roles soils play in stabilization, but biological support. Air borne pollutants and industrial runoff can have a serious long- term effects on soils and water and their ability to sustain food supply for wildlife.

**15. Insufficient socio-economic data is available about northern Sublette county to draw conclusions.** The northern part of the county is recreational and the southern part industrial. The DEIS lumps the two together as though they were the same. A key factor in the local economy is hunting, wildlife viewing and other recreational uses of the Forest. Estimated revenues from hunters in and around the project area in 2008 and 2009 total more than \$2M. ( See wildlife) The FS recognizes this in the "recreational/wildlife dominance" of the Forest Plan. That dominance needs to be retained in accordance with the FS Plan.

**16. Buffer Zones are ignored both in terms of distances surrounding sage grouse leks, and those where no surface occupancy is permitted within 500 feet of riparian areas or surface waters. These serious matters require reconfiguration of the entire MDP site.**

**17. Seismic activity has recently and repeatedly occurred in this area. In late 2010 there were earthquakes felt in Jackson, Bondurant Valley, and Hoback Ranches. As a part of the Yellowstone ecosystem this area is subject to quakes that could have an impact on drilling materials, storage, and equipment causing spills, cracking, and other adverse impacts. Earthquakes need to be addressed and mitigation efforts to secure wells, and equipment including rigs described.**

**18. Growth in field size, number of wells and down-hole spacing is not taken into account.** Based on the implicit projection of large volumes of gas produced ( even though analyses shows a 40% overstatement See Walker) it is not unlikely that if a significant find is realized that like the Pinedale Anticline that began with 800 wells and grew to 4,500 in just a few years with 5,000 more approved, that this PXP field would grow beyond the 136 wells and 40 acre down-hole spacing. (2.5 and 5 acre down-hole spacing in the Anticline is under discussion).

The DEIS needs to anticipate growth. PXP has already boasted that will drill a Jonah Field in the Forest and we have no reason to assume that their intent is not that. **The sustainability of the Forest is at risk if growth is not anticipated and cumulative impacts are not calculated.**

**Growth and cumulative impacts are well documented in other cases.** For example See Evidence of Impairment if Air Quality Related Values in the Bridger Wilderness Area, Wyoming, Wyoming Outdoor Council, Feb 8, 2007. In that analysis several fields are identified with a total of 80,000 additional oil and gas wells in Wyoming 39% of which are to be drilled in southwest Wyoming and 10,000 in the upper Green River Valley in the next 10-20 years. A photo documentary in the WOC document shows smog and reduced visibility in the Bridger Wilderness. In 2000 there were 4,345 oil and gas wells in southwest Wyoming as documented in the Pinedale Anticline DEIS at 5-3 (Table 5-11). The point is that the Class 1 Bridger Wilderness area air quality is at risk. Similarly, if growth in wells in the Anticline (5,000 new wells have been approved) plus PXP wells in the basin mountain environment of Bondurant and vicinity were to be drilled, other wilderness areas would be at risk. **The FS cannot cause, as a result of its actions, visibility impairment in wilderness areas especially when there is ample evidence that impairment has already occurred.**

These points were developed by Linda J. Cooper, President and Spokesperson for SDSBT, and an Energy and Environmental Policy expert with a 35 year professional history.