



Oil Shale: Bad for Wildlife, Water, Climate Change, and the Western Way of Life

In its final days in office, the Bush Administration prematurely finalized federal regulations governing commercial oil shale development on 2 million acres of public land in Colorado, Wyoming and Utah. Serious concerns persist about extracting the resource such as the amount of water it will require in an already arid climate, the risks of unproven technology, and the irreparable harm extraction will cause to the western landscape and wildlife.

Oil shale will destroy essential wildlife habitat throughout Colorado, Utah and Wyoming



Map Source: Rand Corporation

The vast majority of oil shale resources in the United States are found in the 16,000 square mile Green River Formation in northwest Colorado, northeast Utah, and southwest Wyoming. This area is also some of the most valuable wildlife habitat in the United States; the area supports an impressive array of wildlife, from mule deer and elk to mountain lions, black bears, and bald eagles. Especially in small communities, these lands and their wildlife resources provide the basis of economies that hunters, anglers, wildlife viewers, outfitters, and guides support.

The Piceance Basin is home to the largest migratory mule deer herd in North America, a robust migratory elk population, one of only six greater sage-grouse populations in Colorado, populations of Colorado River cutthroat trout, and a host of other wildlife species. These wildlife resources have been built up over millennia, and are of long-term statewide and national economic, ecological, and aesthetic importance. Colorado's future is reliant on these resources remaining strong and healthy.

- Colorado Governor Bill Ritter, 5/15/08¹

Oil shale development will severely stress water resources

Colorado, Utah and Wyoming are arid states with scarce water resources. Water is absolutely vital to local economies and ecosystems in the West. The Bureau of Land Management's (BLM) own analysis found oil shale development would increase competition for already limited water. In 1996, the agency found that oil shale development in Colorado would reduce the annual flow of the White River by up to 8.2% and would permanently destroy or severely degrade nearly 50% of BLM-managed stream fisheries, including that of the Colorado River cutthroat trout.²

Oil shale will increase greenhouse gas emissions

At a time when states, and the nation as a whole, are making concerted, forward-thinking efforts to reduce greenhouse gas (GHG) emissions, a commercial oil shale program would produce 15% - 50% more GHG emissions compared to conventional oil production.³ In order to extract a usable product, oil shale companies must heat the ground for 2-3 years and consume enormous amounts of energy in the process. Producing 1 million barrels of oil shale per day would require the energy output of roughly 10 new power plants and 5 new coal mines⁴.



Oil shale will require the construction of many new, coal-fired power plants like this one.



Existing natural gas development – Wyoming’s Jonah Field.
Image courtesy of SkyTruth



Is this the future of our western landscape?
Simulation courtesy of SkyTruth

Oil Shale will forever alter our western way of life

The Rocky Mountain West has experienced record oil and gas development over the past 8 years. According to the U.S. Department of the Interior, industry currently has over 47.5 million acres of conventional onshore oil and gas leases nationwide, yet is actively producing oil and gas on less than 13 million acres. Since 2001, BLM has approved the drilling of more than 32,000 new wells⁵, with 120,000 additional wells in the planning stage. The consequences to the western landscape are well documented, including significant wildlife losses. Further, industry already has the rights to over 200,000 acres of oil shale deposits and 3 million acres of oil shale resources found on private lands⁶. We need to pause before deciding whether we should dedicate yet more of our federally managed western landscape to industrialization. The options are clearly defined – should our western lands and communities continue to serve a tired, old, dirty energy industry or should we begin the necessary and economically sustainable transition to a new, clean, renewable energy future?

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Prime big game habitat such as that of Colorado’s Roan Plateau are being targeted by the oil shale industry.
Image courtesy of SkyTruth

1. Governor Bill Ritter, CO (D). “Press Release—Oil Shale”, 5/15/08. Available at: <http://www.colorado.gov/cs/Satellite/GovRitter/GOVR/1210842794693>
2. Bureau of Land Management. “White River Resource Area Resource Management Plan Final Environmental Impact Statement”, June 1996, p. 4-4.
3. Brandt, A. R. and Farrell, A. E. “Scraping the bottom of the barrel: CO2 emission consequences of a transition to low-quality and synthetic petroleum resources”. *Climatic Change* (2007) 84:241–263. Available at: <http://cdmc.epp.cmu.edu/syn.pdf>
4. Bureau of Land Management, “Draft Oil Shale and Tar Sands Resource Management Plan Amendments to Address Land Use Allocations in Colorado, Utah, and Wyoming and Programmatic Environmental Impact Statement”, December 2007, p. 4-12 to -13.
5. The Wilderness Society, “Analysis of BLM’s Oil and Gas Development 2001-2007: Explosion of Drilling and Leasing Hits Rocky Mountain States Hardest”, available at: <http://wilderness.org/files/analysis-blm-development.pdf>
6. The Wilderness Society, “Oil Shale Fact Sheet: Private Shale Resources are Undeveloped”, available at: <http://wilderness.org/files/Oil-Shale-FS-private-lands.pdf>