

Environmental, economic, and social concerns killed oil shale 25 years ago before it got started.

If oil shale goes forward now, we need to know all of the facts.

The Energy Policy Act of 2005 directed the BLM to analyze the environmental, economic, and social impacts of a new commercial leasing program for oil shale and tar sands resources in Colorado, Utah, and Wyoming. This environmental review will form the basis of a commercial leasing program that may occur as early as 2007.

In January 2006, the public has the opportunity to be heard, to tell the BLM their concerns and describe the issues that are important to them.

Oil Shale Would Affect Valuable Water Supplies

Oil shale development is a water buffalo. Mining and retorting oil shale takes two to three barrels of water to produce just one barrel of oil in one of the West's driest areas. Nobody but Shell Oil knows how much water will be needed for its experimental *in-situ* method being developed at Mahogany, though even Shell acknowledges that water supplies are likely to be a limiting factor. BLM has found that oil shale development would lead to up to an 8.2 percent reduction in the annual flow of the White River.

Oil shale also leaves behind a huge mess. Spent oil shale results in highly-saline runoff that could degrade water quality in nearby creeks or require costly treatment in perpetuity. A million-barrel per day oil shale industry could increase salinity in the Lower Basin by up to 2.4 percent.

Clean water in the Upper Colorado River Basin is tightly regulated and in high demand. BLM needs to find out how much water will be needed -- and whether it's available -- before it OKs any oil shale leasing.

Oil Shale Would Dramatically Affect Communities of Western Colorado

During the short-lived oil shale boom of the 1980s, federal officials estimated oil shale development would result in an eight-fold population increase in Rio Blanco County and more than triple the population of Garfield County. A ten-fold population increase was projected for Rifle, Meeker and Rangely. In the 1980s, the BLM set a carrying capacity threshold of 5-15% annual growth rate in these communities, meaning that a project that would result in growth exceeding this amount would not be leased or approved.

While impacts from a new oil shale industry are difficult to quantify without concrete plans for development, its potential is undeniable. With new industry comes significant numbers of people and increased demands on our government, our roads, our schools, and our hospitals. Oil shale would only add to the trend of local growth and strain caused by the recent rapid growth of the oil and gas industry in northwestern Colorado in the last decade.

BLM must analyze what kind of growth oil shale will bring to our communities and the effects this dramatic influx. BLM should also strengthen the carrying capacity threshold to protect our communities.

Oil Shale Would Cause Serious Air Pollution

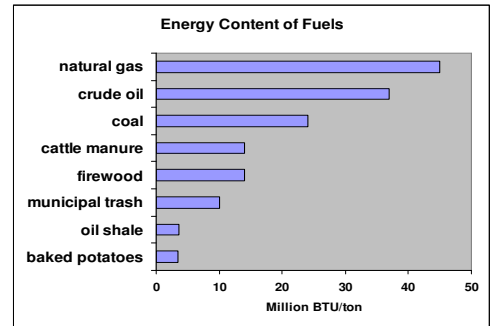
All of the areas primed for oil shale development currently enjoy high-quality air. But oil shale's huge energy needs lead to significant emissions generated when fossil fuels are burned to produce the energy needed to create shale oil. The mining and processing of shale itself produces numerous toxic pollutants, such as sulfur dioxide, carbon monoxide, ozone, and particulates. The power plants required for *in-situ* development alone would release ten million tons of greenhouse gases. According to the *Denver Post*, the combination of more coal-fired power plants and oil shale production creates four times the amount of greenhouse gases as from the production of conventional crude oil.



BLM not only has to find out the current air-quality baseline, it also must find out exactly how much pollution will result from either traditional above-ground retorts or from in-situ processing before allowing any leasing.

Oil Shale Would Require Huge Amounts of Energy

Turning rocks to oil also requires massive amounts of energy. Even just a 100,000 barrel-per-day oil shale operation using Shell's *in-situ* conversion technology would require 1,200 megawatts of electricity -- which would require a new power plant as large as any currently operating in Colorado, enough to serve a city of 500,000. This power plant, costing about \$3 billion, would consume five million tons of coal each year. To produce 1 million barrels of shale oil a day would require ten new power plants and five new coal mines to serve them.



BLM needs to analyze where this energy would come from and what impacts its generation would have on the landscape, communities, and air quality.

Oil Shale Would Have Huge Impacts on Existing Uses of the Land

Oil shale development that uses mine-and-retort methods produces a huge amount of spent rock. A 100,000-barrel-per-day oil shale industry would require disposal of up to 150,000 tons of waste rock each day, or 55 million tons annually. Crushing and retorting increases the volume of the spent shale by 15-25 percent, compounding disposal problems. Shell's *in-situ* method results in nearly 100% occupation of the land. It requires 15 to 25 heating holes per acre, plus wells for recovery of the produced oil and gas as well as those to construct and maintain a freeze wall. The production zones would be stripped of vegetation and would take a decade or more to recover.

Regardless of the method of development, oil shale would require significant new industrial infrastructure. Roads, power plants, power distribution systems, pipelines, water storage and supply facilities, and construction staging and storage areas would impose additional demands on the landscape.

BLM must analyze how much oil shale development would change the landscape, and it must analyze the effects on people and wildlife that will result from oil shale development, including associated infrastructure.

Oil Shale Would Take Away Valuable Wildlife Habitat

Elk, deer, and aquatic species including native fish could be seriously impacted by a full-scale oil-shale industry. BLM has estimated that large-scale oil shale development would result in the permanent loss of nearly 50 percent of BLM stream fisheries. BLM also found that water disruptions would result in the loss of 35% of Colorado River cutthroat trout fisheries. Oil shale would doom up to 11% of available nest and brood range for blue and sage grouse to long-term loss.

BLM must analyze the effects an oil shale industry would have on wildlife, both from direct impacts to occupied habitat and from indirect and cumulative impacts from associated activities.

BLM MUST LOOK CLOSELY BEFORE IT LEAPS!

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Also, check out the following resources for more information:

Office of Technology Assessment, "An Assessment of Oil Shale Technologies" (June 1980).
Available at: http://www.wws.princeton.edu/ota/ns20/year_f.html

RAND Corporation, "Oil Shale Development in the United States" (2005).
Available at: http://www.rand.org/pubs/monographs/2005/RAND_MG414.pdf

Udall, Randy, "The Illusive Bonanza: Oil Shale in Colorado" (2005).
Available at: <http://www.aspencore.org/images/pdf/OilShale.pdf>