

# Oil Shale Economics

## Existing Analyses Do Not Measure Impacts of Commercial Development Adequately

Is oil shale economically viable? Even the federal government does not know. And yet, in making the case for accelerated commercial development of oil shale and tar sands resources in Colorado, Utah, and Wyoming, President Bush's Departments of Energy (DOE) and the Interior (DOI) pointed to a range of macroeconomic, socioeconomic, and consumer benefits that would result. However, a close review of data and existing studies reveals far different conclusions.

### What's at Stake?

Environmental quality is a critical economic force in oil shale country and the environmental amenities provided by public lands are an important economic driver. Areas proposed for oil shale development overlap with tourism, agriculture, and recreational opportunities. Older workers and retirees, who are drawn to the region because of its environment and quality of life, bring with them investment, retirement, and other non-employment income.

### What's at Risk?

Water demands for shale development will come at the expense of local farms and ranches. Industrial development can also conflict with and displace a wide variety of uses, including recreation, hunting, energy production, and livestock grazing. Development would also compromise clean air, clean water, climate, water supply, and wild-life habitat.

Prioritizing oil shale and tar sands development at the expense of non-extractive economic drivers may harm the economy of the region in the long run by depleting the natural amenities currently responsible for the economic growth and stability. Further, oil shale development is not necessary to "save" the local economy. In fact, quite the opposite may be true: oil shale may undermine the fundamental components of a solid, diversified, and vital economic and socioeconomic environment.

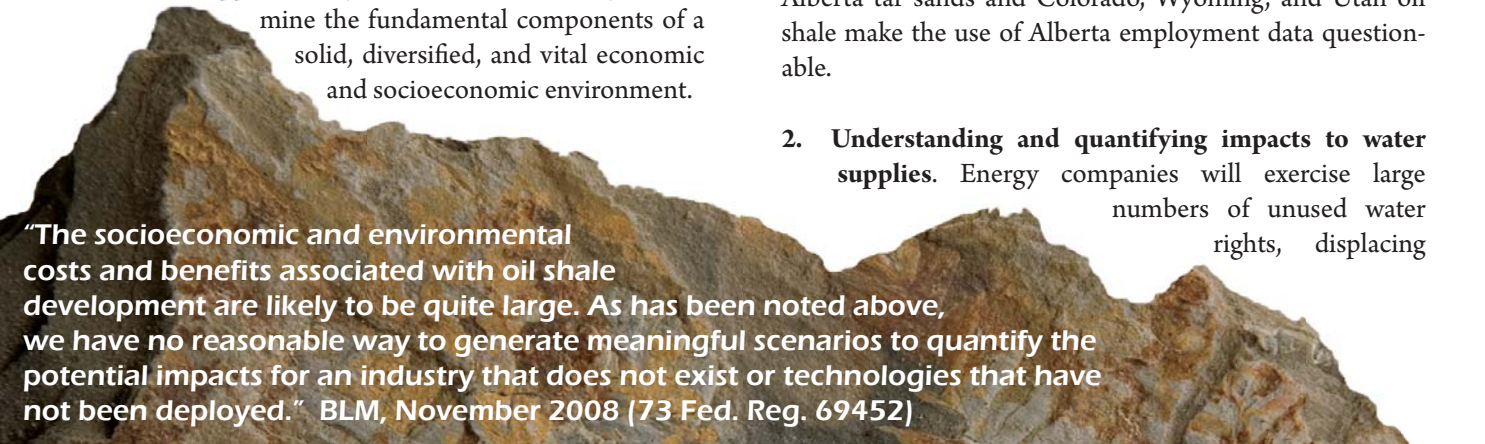
As Colorado's Governor, Bill Ritter, has argued, oil shale leasing on top of the "existing network of energy development and changing land uses will put more pressure on an already fragile ecosystem and public temperament."

### What's the Problem?

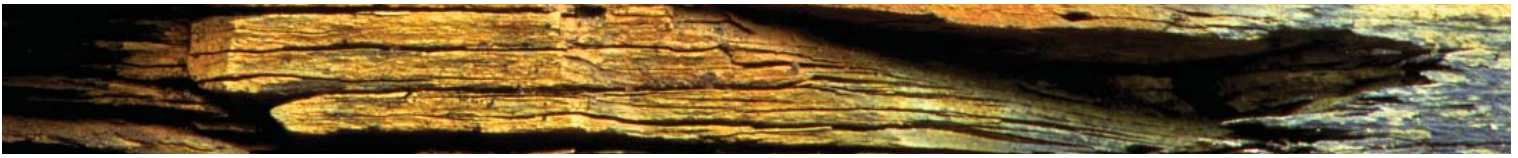
The federal government has a poor understanding of the economic and socioeconomic impacts of commercial oil shale development. Despite DOI's attempt to address the information deficit through the federal RD&D program, there are inextricable questions that need to be answered regarding how industrial scale oil shale operations would impact the region and the nation – questions that cannot be answered by the current scale of research.

### More Work is Needed

- 1. Updating outdated or inapplicable employment data.** The employment information and related support activities (electric generation, coal mining, etc.) comes from late-1970s, early-1980s, or current Alberta tar-sands development. Changes in technologies and labor productivity since the last boom make the earlier data of questionable relevance. Likewise, the differences in the properties of Alberta tar sands and Colorado, Wyoming, and Utah oil shale make the use of Alberta employment data questionable.
- 2. Understanding and quantifying impacts to water supplies.** Energy companies will exercise large numbers of unused water rights, displacing



**"The socioeconomic and environmental costs and benefits associated with oil shale development are likely to be quite large. As has been noted above, we have no reasonable way to generate meaningful scenarios to quantify the potential impacts for an industry that does not exist or technologies that have not been deployed." BLM, November 2008 (73 Fed. Reg. 69452)**



many current users, including some existing irrigated agricultural operations. Water supply and demand in the arid West have been under pressure. The pressure, when coupled with loss of water due to global warming, is expected to increase need and competition amongst users.

**3. Understanding demographic and economic shifts since the 1982 oil shale bust.** As rural communities diversify their economies, the framework for making public land management decisions must also evolve. Management plans for public lands need to account for all aspects of the economic and social systems of these communities, including investment and retirement income, recreation, tourism, and entrepreneurial businesses attracted to scenic locations. Management plans must also consider the increasing importance of industries and economic sectors that rely on these public lands, but not necessarily on the extraction of natural resources.

**4. Comparing oil shale development to alternative energy sources.** Alternative, sustainable energy sources are showing increased promise and are proving to be economically competitive. DOE and DOI must evaluate the economic value these sources offer to meet American's energy needs as a way of contextualizing the exaggerated public benefits – including economic benefits – DOE associates with oil shale development.



## Colorado In Focus: Snapshot of Economic Challenges

1. There is a projected \$1.3 Billion shortfall in a four county region to meet infrastructure demands after oil shale revenues to local governments are taken into account.
2. Baseline population projections already strain most municipalities. Oil shale would overwhelm the capacity of local governments to meet growth requirements.
3. Federal tax support is unknown and infrastructure needs will precede tax revenues by years.
4. Development will likely require new towns—or similar private investment.

Source: 2008 Associated Governments of NW Colorado Socioeconomic Analysis and Forecast

2. The federal government must contract for new independent analyses that, among other things, examine the economic and socio-economic impacts of commercial development. A complete and accurate picture of likely local economic impacts would require:

- a. Identifying the full set of economic changes triggered by commercial development.
- b. Identifying the true labor demands of oil shale production.
- c. Recognizing and accurately depicting the local economy.
- d. Broadening the economic base view of the local economy to include retirement and investment income, trade, tourism, cultural institutions, and federal and state organizations and facilities.

3. Industry, especially those with federal research leases, must open their books for inspection so that all can better understand the likely impacts.

*If you have questions or would like more information, please contact David Abelson, WRA Oil Shale Director, at [david@crescentstrategies.com](mailto:david@ crescentstrategies.com).*

## Policy & Research Needs

As proponents and opponents of oil shale development agree, commercial development cannot proceed unless and until industry and government demonstrate that proven technologies can develop oil shale without unacceptable environmental, climate, economic, or social costs. This burden has not been met.

1. The federal government must prohibit commercial development until questions regarding economic and socioeconomic impacts are answered.



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