



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Washington, DC 20240
<http://www.blm.gov>

In Reply Refer To:
3900 (320)

MAR 20 2013

Mr. John Martin, Chairperson
Garfield County Commission
108 8th Street, Suite 213
Glenwood Springs, Colorado 81601

Dear Mr. Martin:

This letter responds to your Information Quality Act (IQA) Information Correction Request (Request) dated December 4, 2012, regarding the November 2012 *Proposed Land Use Plan Amendments for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the Bureau of Land Management in Colorado, Utah, and Wyoming and Final Programmatic Environmental Impact Statement (PRMP/FPEIS)*, which has been prepared by the Bureau of Land Management (BLM), pursuant to the requirements of the Federal Land Policy and Management Act of 1976, as amended (FLPMA), and the National Environmental Policy Act (NEPA), and their respective implementing regulations.

The Request questions the assumptions made in the PRMP/FPEIS regarding the feasibility and environmental impact of “new extraction techniques” identified by the requestor. As such, the Request asks that the BLM “consider and analyze new information documenting 2012 technological advances for the extraction of oil from oil shale and tar sands, and addressing the previously identified scientific controversies relating to the claimed environmental impacts of oil shale and tar sands development.” The remedies requested are for the BLM to:

1. “Correct” its analysis because Garfield County identified a number of disputed data and scientific issues in both its scoping comments and its comments on the draft PEIS and that regardless, the BLM has continued to rely on outdated information; and
2. Prepare a supplement to the FPEIS based on the new information provided in the Request.

However, most of the Request seems to provide a policy argument for why the BLM should reconsider its Proposed Plan Amendment, which, if adopted, would reduce the number of acres of public lands in Colorado, Utah, and Wyoming open to commercial leasing and development of oil shale from approximately 2 million acres to approximately 670,000 acres, and reduce the number of acres of public lands in Utah open to leasing of tar sands resources from approximately 430,000 acres to approximately 130,000 acres. As described in the PRMP/FPEIS, the lands are proposed for closure to the leasing and development of these resources largely

because of the nascent character of the industries associated with their development, and the need to protect other identified resources from possible environmental consequences of commercial development about which little is known. At the outset it is important to clarify that the IQA is not a mechanism for requesting changes to policy decisions about alternatives, only for correcting specific information.

A. Oil Shale and Tar Sands Development on Public Lands: Overview

The BLM anticipates that oil shale and tar sands development would proceed in a decision-making process with three steps: (1) land use planning (the subject of this PRMP/FPEIS), (2) leasing, and (3) approval of a plan of development. The following description is modified from the description on page 1-2 of the PRMP/FPEIS.

- (1) **Land Use Planning:** The land use planning initiative being supported by this PEIS is considering which public lands within the States of Colorado, Utah, and Wyoming, are to be allocated as open, and which are to be allocated as closed to oil shale/tar sands development. Lands allocated as open are those within which the Secretary of the Interior may initiate a call for nominations, to which project proponents may respond by submitting applications to lease lands where they propose to develop specific projects. The current experimental state of the oil shale and tar sands industries does not allow the PEIS to include sufficient specific information or cumulative impact analyses to support decisionmaking regarding lease issuance within these allocated lands, including adoption of any protective stipulations.

The analysis in the PEIS is necessarily programmatic in character, consistent with the requirements of the narrow land allocation decision to be made, and consists of general descriptions of the kinds of technologies that might eventually be used to develop these resources, and the kinds of environmental impacts that might be expected to occur associated with these technologies. This information about environmental consequences that might be associated with future uses of the land is provided to inform the decisionmakers regarding allocation of land to a possible use. Given the nascent character of the oil shale and tar sands industries, the PRMP/FPEIS proposes to close many acres of public lands to commercial development.

- (2) **Leasing:** Leasing is a Federal action subject to all pertinent laws, regulations, and policies, including, but not limited to, the requirements of NEPA, the National Historic Preservation Act (NHPA), and the Endangered Species Act (ESA). The BLM must also review the technical and due diligence aspects of any proposal or ongoing activity, respectively, to ensure its initial and continued viability and must ensure the necessary coordination and consultation with other entities, including other Federal agencies, tribes, States, local governments, and the public in its consideration of a lease application. The BLM's consideration of a proposal for an oil shale or tar sands lease must be sufficient to take into account predictable impacts of the action on natural and cultural resources, as well as other potential impacts. The analyses conducted as part of the review for a lease application may result in a decision to approve, modify, or deny a lease. The BLM may

authorize a lease with stipulations and requirements for best management practices, and may amend local land use plans if necessary.

- (3) **Project Development:** After obtaining a lease, a project proponent must submit to the BLM an application to approve a plan of development. The plan of development identifies specifics such as location, facilities, and timing. Approval of the plan of development is a Federal action subject to all pertinent laws, regulations, and policies, including, but not limited to, the requirements of NEPA, NHPA, and ESA. The BLM must review plans of development for other factors, including technical viability, and must ensure the appropriate consultation and coordination with other Federal agencies, tribes, States, local governments, and the public. It is at this final stage, when the particulars of a proposed project are known, that the BLM requires the most detailed analyses and may condition approval on specific requirements to avoid, minimize, or mitigate adverse impacts on various resources.

B. The Public Process for the Oil Shale and Tar Sands PEIS

Under NEPA's implementing regulations, the BLM's planning regulations implementing FLPMA and the Department of the Interior's (DOI) Departmental Manual, the BLM must conduct a comprehensive public comment process on proposed land use plans. Comments may be submitted in response to a scoping notice or in response to public review of a draft environmental impact statement (EIS) supporting proposed plan decisions. When preparing a final EIS, the BLM must respond to all substantive written comments submitted during the public comment period. The BLM is not required to respond to comments that are not substantive or are received after the close of the comment period.

Under the BLM's Information Quality Guidelines, the BLM must "appl[y] the principle of using the 'best available' data in making its decisions." The guidelines define "best available" as information available "at the time an assessment was made weighed against the needed resources and the potential delay associated with gathering additional information in comparison to the value of the new information in terms of its potential to improve the substance of the assessment." The guidelines state that "[w]here appropriate, the BLM will seek input from appropriate stakeholders and the scientific community."

In addition, the DOI Information Quality Guidelines specify that when the Department is conducting a public process under NEPA, "where the request pertains to a final document under the timetable for the foundation document (unless it would be more timely and efficient to conduct a separate review and conclusion), the Department's disseminating bureau or office and the NISC [National Invasive Species Council] will first determine whether the request pertains to an issue discussed in the draft document upon which the requester could have commented. If the bureau or office determines that the requester had the opportunity to comment on the issue at the draft stage and failed to do so, it may consider the request to have no merit."

Consistent with NEPA and BLM planning regulations, the Notice of Intent (NOI) to engage in planning and prepare the Oil Shale and Tar Sands PEIS was published in the *Federal Register* on April 14, 2011. The NOI briefly outlined the scope of the planning initiative, and invited the

public to provide information and comments regarding the proposed scope of the initiative, as well as raise issues and concerns with the possible environmental consequences associated with the planning initiative and with the development of oil shale and tar sands resources in Colorado, Utah, and Wyoming. The BLM received over 23,860 comments from the public, including Garfield County and several of the companies whose information Garfield County asserts was erroneously excluded from consideration in this planning process, in response to this NOI. The BLM published a Scoping Summary Report in October 2011 (available on the project website, along with all other referenced documents at <http://ostseis.anl.gov>) explaining how it planned to address the issues raised.

The Draft PEIS was published February 3, 2012, and the 90-day comment period on the Draft PEIS closed on May 4, 2012. All comments received, along with the BLM's responses, may be found in Volume 5 of the PRMP/FPEIS. As a cooperating agency, Garfield County received preliminary copies of the Draft for review and comment. In an email dated December 1, 2011, Commissioner Jankovsky stated, "Garfield County supports alternative 4 and would be strongly opposed to another alternative that would limit Colorado development on the RD&D leases only." In response to the comments the BLM received on the Draft PEIS from several counties indicating that some of the current holders of Federal research, development, and demonstration (RD&D) leases, as well as holders of leases on State or private lands might have information pertinent to the planning process, the BLM followed up with several of the companies to request additional information. As discussed in more detail below, the companies either declined to respond or were unable to provide this information.

It is important to clarify that as discussed above, in the April 2011 NOI and in Chapter 1 of both the Draft PEIS and the PRMP/FPEIS, the scope of the decisionmaking to be supported by the development of this NEPA analysis is limited to an allocation decision. The analysis of potential impacts associated with oil shale and tar sands development in Chapters 4, 5, and 6 is programmatic in character and designed to disclose the potential impacts from future leasing and development, in order to provide the decisionmaker the available, essential information for making the allocation decision. The BLM also concluded that, as in the 2008 Oil Shale and Tar Sands PEIS and Record of Decision, the NEPA and other applicable analyses supporting this planning initiative do not provide the required analyses for issuance of new RD&D leases or conversion of RD&D leases to commercial leases. Rather, subsequent NEPA and other analyses at the leasing stage (whether oil shale, tar sands, or RD&D) will be required to determine the character and extent of the effect of oil shale and tar sands development when more specific information is known about the specific technologies being proposed and associated environmental consequences in the locations being proposed. Thus, while Chapters 4 and 5 summarize some of the assumptions and potential impact-producing factors, this PEIS is not analyzing specific impacts to other resources from oil shale and tar sands leasing and development; that analysis will be provided as part of the decisionmaking process to determine whether leases should be granted or development approved. Preparing a supplement to analyze "information" that is based on preliminary test results is neither necessary, nor appropriate. For example, the Garfield County Request letter states, with regard to the American Shale Oil LLC (AMSO) technology, "It[s] *anticipated* water usage is less than one barrel of water per barrel of shale." AMSO has only recently (January 2013), after several set-backs, placed the heating element into the ground. However, heating has not yet occurred due to equipment failure.

Essentially, the technology has not been field tested. To say definitively that these technologies use little or no water and to prepare a supplement on the basis of anticipated water usage would be not only unnecessary and inappropriate for this allocation decision, but precipitous, as well.

C. Information asserted to be available at the time of FPEIS development

Garfield County, in its April 14, 2012, Resolution Opposing the BLM's 2012 Oil Shale and Tar Sands PEIS, (which was rescinded on August 9, 2012), stated, "the development and production of oil from oil shale has been proven beyond a doubt to be technologically and economically feasible." The Resolution also stated, "technology to extract oil from the oil shale rock is not only economically feasible, but it requires little to no consumption of water, contrary to myths which falsely claim that oil shale requires large consumption of water resources." However, as indicated above, even in the context of our follow up on the comments submitted on the Draft, the BLM did not receive information sufficiently detailed enough to conclude that it was reproducible under the IQA, thus necessitating a change in the assumptions and analysis the BLM was relying upon for this land use planning initiative.

For instance, with respect to Garfield County's assertions regarding water usage, as described in Chapter 4 of both the Draft and Final PEIS, in making assumptions about the range of water use associated with each of the three kinds of technologies anticipated to be used for oil shale extraction and processing, the BLM included in these assumptions the water that would be required not only for processing itself, but also for associated needs, such as water for mining and drilling operations; cooling of equipment; transport of ore and processed shale; dust control for mines, crushers, overburden and source rock storage piles, and retort ash piles; cooling of spent shale exiting the retort; wetting of spent shale prior to disposal; fire control for the mine and industrial area; irrigation for re-vegetation; and sanitary and potable uses. Additional water uses required for in situ projects include water for hydraulic fracturing, steam generation, water flooding, quenching of kerogen products at producer holes, cooling of productive zones in the subsurface, cooling of equipment, and rinsing of oil shale after the extraction cycle. Depending on the quality of the shale oil produced directly from in situ processes, water may be required for additional processing of the product at the surface. By contrast, representations by Garfield County, in the Request, about Enefit's technology, for instance, only describe water use associated directly with the processing of the shale, and do not take into account the water that would be required for all of these other needs. Under NEPA, and for its planning purposes, the BLM must consider the impacts on water resources from all aspects of potential oil shale and tar sands development, not just water used to process the ore itself.

As the BLM explained in its responses to comments received during the 90-day comment period on the Draft PEIS, not only did these kinds of representations by RD&D lessees not warrant alteration in the BLM's analytical assumptions, particularly for a programmatic analysis such as this one, but, more importantly, demonstration that a technology is capable of extracting kerogen from oil shale is not the same as demonstration that such extraction can be done commercially, using oil shale from the Piceance or Uintah Basins. Lab and field tests so far performed by many of these companies may demonstrate capacity, but, regardless of the claims made, they do not demonstrate the commercial viability of such technology. Further, as noted in the BLM's response to comments received on the Draft PEIS, references to development of these resources carried out in Estonia as demonstrating the current viability of a commercial oil shale industry in

the United States do not acknowledge the distinct political and economic structures operative in that country. For these reasons, while the BLM acknowledged these comments, we declined to change our assumptions for this planning initiative.

D. Information asserted to be available after FPEIS publication

Significantly, even though the Request asserts, “Since the close of the comment period, several companies have completed testing which confirms the economic feasibility of oil shale development,” it appears that three of the companies (Red Leaf, Epic Oil, and American Energy Technologies) cited by Garfield County completed their testing (to demonstrate the commercial viability of the technologies) prior to the close of the comment period (based on test dates reported on company websites, presentations given at the Colorado School of Mines Oil Shale Symposiums and the Exhibits attached to the Request). While it is not possible to readily ascertain test dates for the other three technologies referred to by Garfield County, the asserted information regarding the Red Leaf Pilot Test, Epic Oil Extractor’s Technology, and American Energy Technologies, Inc. field scale studies was available during both the Scoping and/or Draft.

In any case, to the extent that the information in exhibits 1 through 7 is information that had not been provided before, we note again that this information is comprised of statements that various companies have performed tests, but, as indicated above, does not provide specific test results or otherwise reproducible information that provides evidence that the technologies can produce profit on a commercial scale by developing oil shale or tar sands resources in the Piceance or Uintah Basins. Indeed, more recent information regarding Enefit’s activities shows that their representations regarding lack of water needed for development of oil shale resources do not take into account the universe of requirements for water associated with such development, and it appears from recent press that Enefit may be experiencing setbacks in its testing in Germany of its processing technology on Utah oil shale. See “Estonian Press Reports Enefit American Oil Faces Setback Developing Mine,” *Vernal Express*, January 28, 2013. (“According to the authors tests indicate that the Utah shale is drier and harder, contains more tiny particles of dust, and requires more energy to break down than expected... At this juncture, state-owned Eesti Energia is exploring alternative technologies, including the Paraho technology typically used in neighboring Colorado.”) (Enclosed and available at http://vernal.com/detail.html?sub_id+3607359).

Part of the reason that the BLM has proposed to make fewer lands available for development of these resources is because, as indicated by the information available from Enefit and others, these industries are in their infancy. As the current RD&D lessees are able to provide information sufficient to demonstrate their commercial viability, they will have opportunity to apply to convert their leases to commercial use. As explained above, in section A, information relevant to issuance of commercial leases will receive legal and policy review at that time. As the oil shale and tar sands industries become more developed, the BLM will have the opportunity to consider whether or not it is appropriate not only to issue commercial leases, but also whether or not to further amend the applicable land use plans, in order to allocate a greater number of acres as available for these uses.

The information Garfield County provided does not appear to support the assertion that the testing done to date with these technologies demonstrates that oil shale development in the Piceance or Uintah Basins is economically viable on a commercial scale. While these technologies appear to hold promise, and many have been lab and/or field tested, most of the technology descriptions in the Request do not provide sufficient detail in their depiction of results and technical data that would warrant revision of the analytical assumptions underlying this planning process or undertaking a supplemental analysis.

E. Conclusion

We have conducted a thorough review of your Request and the IQA process, and we find the Request does not provide the basis for “correcting” the PRMP/FPEIS nor does it provide evidence of the need for conducting a supplemental assessment.¹ As such, no changes will be made.

Sincerely,



Michael D. Nedd
Assistant Director
Minerals and Realty Management

Enclosure

¹ Garfield County requests that the BLM circulate a supplement to the PEIS that includes the corrected information pursuant to the Council on Environmental Quality regulations at 40 CFR 1502.9(c), implementing NEPA. For reasons similar to those provided here, with respect to your request under the IQA, the representations provided in the Request do not constitute “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts” so as to warrant supplementation under the NEPA regulations, and are not further addressed herein.