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December 4, 2012

VIA EMAIL: [BLM\\_WO\\_Information\\_Quality\\_Guidelines@blm.gov](mailto:BLM_WO_Information_Quality_Guidelines@blm.gov)

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Re: Request for Information Quality Act Review Based on Significant Data Disputes  
in the Oil Shale and Tar Sands Programmatic Final Environmental Impact  
Statement

Dear Ms. Sanford, Mr. Pool and Ms. Thompson:

Pursuant to U.S. Department of Interior (DOI) and Bureau of Land Management (BLM) Information Quality Act Guidelines (IQA Guidelines), Garfield County requests that BLM consider and analyze new information documenting 2012 technological advances for the extraction of oil from shale, and addressing the previously identified scientific controversies relating to the claimed environmental impacts of oil shale development. The Oil Shale and Tar Sands Programmatic Draft Environmental Impact Statement (OS/TS PDEIS) was published in February 2012 and the Final OS/TS PEIS was made available on November 13, 2012. Garfield County is a cooperating agency on the PEIS and submitted comments during the scoping period and for the PDEIS. Garfield County and other comments identified a number of disputed data and scientific issues, including how the new extraction techniques for oil shale are technologically and economically feasible, require little to no consumption of water, and capture more energy than consumed. BLM has ignored the comments and data bringing the new

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technology to its attention, and the OS/TS PFEIS just released improperly limited its technology analysis and environmental impacts to just in situ efforts.

Claiming that the newer techniques were not commercially feasible, the OS/TS PFEIS retained older assumptions of environmental impact that are no longer accurate. Since the close of the comment period several companies have completed testing, which confirms the economic feasibility of oil shale development using the previously described new technology.

Consequently, the No Action Alternative (2008 Record of Decision (ROD)) and the Preferred Alternative would have a similar degree of environmental impacts, a fact which undercuts the DOI's rationale to drastically reduce the availability of land for oil shale development. Garfield County asks that the new information be assessed pursuant to the IQA procedures as requested in this letter and in addition be analyzed in a supplement with a 45 day public comment period.

## **1. Background on Oil Shale Potential in the Piceance Basin**

The Piceance Basin of western Colorado includes some of the richest and highest quality oil shale in the study area. The basin is more than 100 miles long with an average width of over 60 miles. Colorado Geological Survey, Ground Water Atlas of Colorado, Piceance Basin, Ch. 6.2, p.1, [http://geosurvey.state.co.us/apps/wateratlas/chapter6\\_2page1.asp](http://geosurvey.state.co.us/apps/wateratlas/chapter6_2page1.asp). It covers about 7,110 square miles and encompasses portions of Moffat, Rio Blanco, Garfield, Mesa, Pitkin, Delta, Gunnison, and Montrose Counties. *Id.* In 2010, the United States Geological Survey (USGS) estimated there to be about 1.525 trillion barrels of in-place oil in the Piceance Basin, making it the largest oil shale deposit in the world. USGS Oil Shale Assessment Team, *Oil Shale & Nahcolite Resources of the Piceance Basin, Colorado* (2010); see USGS, *Oil Shale Assessment Project Fact Sheet*, at 3, <http://pubs.usgs.gov/fs/2009/3012/pdf/FS09-3012.pdf>. This is 50 percent larger than the previous assessment of about one trillion barrels. *Id.* The majority of the high potential oil can be found in Rio Blanco and Garfield County. See AMSO, *Oil Shale & the AMSO RD&D Program* (Oct. 2011), at 8, <http://www.amso.net/amso/files/f4/f49448bc-7ce1-4ab7-b637-f8890fc75878.pdf>.

Shell, Chevron, and American Shale Oil LLC (AMSO) all have been working for several years in the Piceance Basin under Research Demonstration and Development (RD&D) leases to unlock this large potential of oil shale. ExxonMobil and Natural Soda Holdings, Inc. have more recently begun their work in the Piceance Basin under RD&D leases. They have all expended vast amounts of money, time, and energy into testing their oil shale extracting technologies. However, in order to move forward with commercial oil shale development, these companies require more certainty in the regulations and commercial leasing programs than what is now being proposed in the OS/TS PFEIS. The proposed action instead increases the regulatory burden and decreases support for the commercial leasing program based on outdated and incorrect information

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regarding oil shale development.

## 2. IQA Procedures

The IQA imposes independent requirements on BLM regarding how to handle new or scientifically disputed data. The DOI and BLM both issued IQA Guidelines in conformance with Section 515 of Public Law 106-554.<sup>1</sup> The IQA Guidelines apply to information disseminated on or after October 1, 2002, including the information disseminated in the OS/TS PFEIS. *See* DOI IQA Guidelines, at 1, 10; BLM IQA Guidelines, at 4. The law and related Guidelines apply to third party information if BLM endorses, agrees with, or relies upon it as the basis of its decision. Guidelines for Information Disseminated by Federal Agencies, 67 Fed. Reg. at 8454-55, 8460; DOI IQA Guidelines, at 7; BLM IQA Guidelines, at 4.

Garfield County invokes its rights under the IQA Guidelines for review and correction of information that does not comply with the Guidelines. *See* DOI IQA Guidelines, at 3-6; BLM IQA Guidelines, at 10-14. Prior to disseminating information, BLM must ensure that the information upon which it relies to make a decision is consistent with the relevant IQA Guidelines and that it is of adequate quality. DOI Information Guidelines, at 3; BLM Informative Quality Guidelines, at 10. Garfield County is an "affected person," which includes persons who may use, be benefitted by, or be harmed by the disseminated information, and is entitled to request correction of the information. BLM Informative Quality Guidelines, at 10.

This request for correction of information is not frivolous, duplicative, unnecessary, or unduly burdensome. *See id.* at 11. While BLM has already provided for a comment period on the OS/TS PDEIS, the information in the OS/TS PFEIS does not conform to IQA and Garfield County is entitled to request its correction. *See id.* at 12. Requests for correction of information in draft documents under the NEPA process are treated as a comment on the draft and a response will be included in the final document. DOI IQA Guidelines, at 5. If BLM cannot respond to a request in

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<sup>1</sup>Under the IQA, federal agencies are "to issue guidelines ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by the agency." Pub. L. 106-554, §515 (Dec. 21, 2000) (provided as a note at 44 U.S.C. §3516); *see* Guidelines for Ensuring & Maximizing the Quality, Objectivity, Utility, & Integrity of Information Disseminated by Federal Agencies, 67 Fed. Reg. 8452, 8458-60 (Feb. 22, 2002) (hereafter "Guidelines for Information Disseminated by Federal Agencies").

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the response to comments for the action, then it will consider whether a separate response is appropriate. BLM IQA Guidelines, at 12.

IQA requires BLM to ensure that information it disseminates is developed from reliable methods and data sources, and that information is accurate, reliable, and unbiased. DOI IQA Guidelines, at 1; BLM IQA Guidelines, at 7. If BLM disseminates influential scientific information that analyzes the risks to human health, safety, and the environment, then it must ensure the objectivity of the information by following the principles in the Safe Drinking Water Act Amendments of 1996, 42 U.S.C. §300g-1. Guidelines for Information Disseminated by Federal Agencies, 67 Fed. Reg. at 8457-58, 8460; DOI IQA Guidelines, at 2. BLM shall use “(i) the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices; and (ii) data collected by accepted methods or best available methods.” 42 U.S.C. §300g-1(b)(3)(A) & (B).

The same principle of using the best available data also defines BLM decisions. BLM IQA Guidelines, at 8. “Best available” refers to the availability of the information at the time an assessment was made weighed against the needed resources and potential delay compared to the value of the new information. *Id.* BLM may only rely on older information if the “conditions of the land and/or resources have not substantially changed or where collection of more recent information would not be cost-justified.” *Id.* Requiring the best available science and data means that an agency should “seek out and consider all existing scientific evidence relevant to the decision” and that it “cannot ignore existing data.” *Ecology Center, Inc. v. U.S. Forest Service*, 451 F.3d 1183, 1194, n.4 (10<sup>th</sup> Cir. 2006) (citing *Heartwood, Inc. v. U.S. Forest Service*, 380 F.3d 428, 436 (8<sup>th</sup> Cir. 2004)).

The OS/TS PFEIS’s identification of Alternative 2b as its Preferred Alternatives is not based on the best available science and data. As is discussed below, BLM uses the same information found in the 2008 FEIS. Chapter 3 and Appendix A are almost completely identical to the 2008 FEIS and do not adequately discuss oil shale extraction technology used by companies in the industry or the commercial advances made in the last four years. Omitting discussion of the current technology and feasibility of development violates IQA and the guidelines. Had BLM used the new information, then the environmental impacts of the No Action Alternative would have been equal to those identified for the Preferred Alternative.

This request will not unduly delay final agency action and Garfield County can show a reasonable likelihood that it will suffer actual harm if the information is not used. DOI IQA Guidelines, at 3; BLM IQA Guidelines, at 12. Garfield County has some of the highest potential

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land for the production of oil shale in the State of Colorado. The current Preferred Alternative will limit any development to the small RD&D leases and small adjacent parcels, thereby costing the County and other local government entities significant revenues, including direct share of the federal royalties paid under the Mineral Leasing Act and sales taxes. The County also faces the loss of jobs and indirect revenue from families which would be employed in the industry.

When Garfield County submitted comments during the public comment period for the OS/TS PDEIS, it identified these issues but the new information testing the technology and further substantiating its commercial feasibility did not exist. The OS/TS PFEIS does not comply with the IQA and IQA Guidelines because BLM continued to rely on outdated and inaccurate scientific data. If the information does not comply with the Guidelines, such that non-compliance presents “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,” then BLM must remedy the situation by re-proposing a rule or supplementing the OS/TS PFEIS. DOI IQA Guidelines, at 6. Garfield County expects a response from BLM on the request to correct the scientific data or supplement the OS/TS PFEIS within 60 days. *See* DOI IQA Guidelines, at 4; BLM IQA Guidelines, at 12.

### **3. Relevant New and Quality Information**

The new information complements the issues raised by Garfield County in its April 2012 comments. BLM justified the revision of the oil shale and tar sands 2008 PFEIS based on the need “to take a *fresh look* at the land use plan allocation decisions made in the 2008 ROD associated with the Programmatic EIS, in order to consider which lands should be open to future leasing of oil shale and tar sands resources.” 76 Fed. Reg. 21003 (2012) (emphasis added). It further states that:

As there are *no economically viable* ways yet known to *extract and process oil shale for commercial purposes*, . . . the BLM, through its planning process, intends to take a *hard look* at whether it is appropriate for approximately 2,000,000 acres to remain available for potential development of oil shale, and approximately 431,224 acres of public land to remain available for potential development of tar sands.

*Id.* (emphasis added).

The OS/TS PFEIS expresses “[t]he purpose and need for this proposed planning action is to reassess the appropriate mix of allowable uses with respect to oil shale and tar sands leasing and

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potential development in light of Congress's policy emphasis on these resources." OS/TS PFEIS at ES-1, 1-4. To date, BLM has failed to provide new information that would support the removal of about 67% of the public lands from oil shale and tar sands leasing. BLM has not provided documentation to support revision of the 2008 ROD even though environmental concerns were at the center of the environmental groups' litigation and ultimate settlements with BLM. *See* Complaint at ¶¶63-67, 94-103, 109-12, *Colorado Env'tl. Coalition et al. v. Salazar*, No. 09-cv-00091-JLK (D. Colo. June 16, 2009); Settlement Agreement at ¶¶1, 3, *Colorado Env'tl. Coalition et al. v. Salazar*, No. 09-cv-00091-JLK (D. Colo. Feb. 15, 2011); Settlement Agreement at ¶¶1-2, *Colorado Env'tl. Coalition et al. v. Salazar*, No. 09-cv-00085-JLK (D. Colo. Feb. 15, 2011). The OS/TS PFEIS Preferred Alternative is a replica discussion of an alternative that was previously considered and rejected by BLM. *See* 2008 ROD at 22.

The new information contradicts the premise of the OS/TS PFEIS that oil shale is not commercially feasible, OS/TS PFEIS at 2-38, 2-50 - 2-51, 2-81, 3-247, 4-56, and will have significant environmental impacts. OS/TS PFEIS at 4-17 - 4-162, 4-201. Since the 2008 ROD, several companies have been developing oil shale pursuant to the RD&D leases. The related advances in oil shale technology and actual experience with this technology by Red Leaf Resources Inc., Enefit, American Energy Technologies Inc., and AMSO demonstrate that these techniques are commercially viable. The results of recent testing confirm feasibility and compel supplementation.

**a. Red Leaf Resources, Inc.**

Red Leaf Resources, Inc. (Red Leaf) recently carried out a pilot test of its own oil shale extraction technology, the EcoShale In-Capsule Process (EcoShale Process), in Uintah Basin, Utah, which showed the technology was capable of extracting oil from oil shale. *Pilot Test*, Red Leaf, [http://www.redleafinc.com/index.php?option=com\\_content&view=article&id=14:pilot-test&catid=12:results-demonstrated&Itemid=16](http://www.redleafinc.com/index.php?option=com_content&view=article&id=14:pilot-test&catid=12:results-demonstrated&Itemid=16); Exhibit 1, *Oil Shale Extraction Process Overview*, Red Leaf (Nov. 1, 2012) (Ex.1, *Red Leaf Extraction Process*). Detailed financial models also showed that the EcoShale Process would be highly economical at current oil prices and potentially at oil prices as low as \$45-per-barrel. Ex.1, *Red Leaf Extraction Process; Oil Shale Facts*, Red Leaf, [http://www.redleafinc.com/index.php?option=com\\_content&view=category&layout=blog&id=4&Itemid=5](http://www.redleafinc.com/index.php?option=com_content&view=category&layout=blog&id=4&Itemid=5). The EcoShale Technology has been subject to two external, independent reviews of its engineering and design elements. *Independent Evaluation*, Red Leaf, [http://www.redleafinc.com/index.php?option=com\\_content&view=article&id=17&Itemid=24](http://www.redleafinc.com/index.php?option=com_content&view=article&id=17&Itemid=24). The reviews affirmed most of the design aspects and supported the estimated Utah production cost economics (15% internal rate of return with \$38/bbl oil). *Id.*

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The EcoShale Process uses low temperature heating that results in high quality feedstock. *Oil Shale Facts*, Red Leaf, [http://www.redleafinc.com/index.php?option=com\\_content&view=category&layout=blog&id=4&Itemid=5](http://www.redleafinc.com/index.php?option=com_content&view=category&layout=blog&id=4&Itemid=5). The EcoShale Process only uses about one-fifth barrel of water per barrel of oil, includes about a 12 month cycle from construction to reclamation, and results in reduced CO<sub>2</sub> emissions. *Id.* The overall use of water is limited to dust control, on-site worker needs, and reclamation. Ex.1, *Red Leaf Extraction Process*. The emissions profile is reduced because low emissions heating options, such as natural gas, are utilized with potential for recycling. *Id.*

#### **b. Enefit**

Enefit has had a long history of successful commercial oil shale production in Estonia. Exhibit 2, *Oil Shale Development Technology Summary*, Enefit (Ex.2, *Enefit Oil Shale Development*). In 2009, Enefit began to develop a new generation of Enefit technology that combines Eesti Energia's improved solid heat carrier process and Outotec's Circulating Fluidized Bed technology. *Id.* In 2011, Enefit collected 12 tons of Utah shale using its retorting technology. *Id.* The shale was tested in 2012 at other laboratories, which confirmed the ability of Enefit retort technology to produce oil and gas from Utah shale. *Id.* The quality of the raw oil produced was similar to raw oil produced by using other technologies. *Id.* Enefit's technology allows for a process that is energy self-sufficient, requires no external fuel, and uses no water. *Id.* Gas combustion and the use of excess heat provide more power than the process requires, which then can be used to generate heat and power for the process. *Id.* The ash residue that is produced contains no organic residual and can be used as a raw material in the construction industry. *Id.*

#### **c. American Energy Technologies, Inc.**

Ray Wallage, Chairman to American Energy Technologies, Inc. (AET) has been in the environmental chemical, microorganism business since 1989, which explains the feasibility of microorganisms to extract oil from oil shale. Exhibit 3, Raymond R. Wallage, Chair/CEO of American Energy Technologies, Inc., *A Microorganism Technology for Extracting and Recovering Hydrocarbons, Elements, and Minerals from Oil Shale & Tar Sands*, at 4 (2012) (Ex.3, AET). Mr. Wallage used BioCat, a safe, nontoxic, nonhazardous water based surfactant, and microorganisms to clean up chemical spills in the ground and water. *Id.* Mr. Wallage then used the microorganism to economically convert cellulose into fuel and to liquefy coal. *Id.* Mr. Wallage applies the same principles to use the microorganism blend to liquefy oil shale in order to more economically recover hydrocarbons and other elements and compounds. *Id.* The first

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field scale study proved that the microorganisms and accelerants in a mining tumbler could successfully liquefy oil shale in about 24 hours, and that the process could be scaled up to commercial levels. *Id.* at 5. In another field study, when the BioCat surfactant was added to the microorganism mixture, the liquefying of the oil shale could be accomplished in under 12 hours. *Id.* Commercial sized ore separators using centrifuge technology then separate the liquid blend into parts by weight removing 100% of the hydrocarbons and water. *Id.* at 2, 5.

AET tested the medium to poor quality shale to determine if its microorganism technology would be profitable. Mineral Labs in Golden, Colorado, found that the liquefied oil shale contained 39% silicon dioxide, 9.8% aluminum oxide, 7.9% calcium oxide, 5.3% iron oxide, and smaller traces of other elements. *Id.* at 3. The University of Utah, College of Mines and Earth Sciences, determined that the off gasses from the process had no particular distinction from the compositions of air. *Id.* Also, that the pre-processed ore and the processed ore contained the same volume of hydrocarbons, showing that the microorganism process does not affect the hydrocarbons. *Id.* Activation Laboratories, Inc. in Ontario, Canada, reported a silver content of the liquefied shale at 0.5 parts per million and organic carbon between 10% and 11.6% by weight. *Id.* The scientist who provided the shale for the study estimated the hydrocarbon content was between 10% and 15%, confirming again that the microorganism process does not destroy the hydrocarbon component of the shale. *Id.* at 4.

Based on all these reports, AET determined the oxide components of the shale were worth 11.55 times the value of the oil. *Id.* The 1.8 trillion estimate for recoverable oil could mean oxides worth \$1,247 trillion using commodity prices at the time. *Id.* If the nine trillion barrel number from the Department of Energy 1980 estimates is used, then the oxides could be worth \$6,237 trillion. *Id.* at 2, 4. Not only is the microorganism process profitable, but it also benefits the environment. It uses no heat, has no air contaminants, and the remaining ore consists mostly of silicone dioxide and can be used for reclamation. *Id.* at 5.

**d. AMSO**

AMSO has spent about \$55 million dollars in the first 5.5 years of its oil shale lease on laboratory experiments, modeling, and field tests working towards the commercialization of its in-situ oil shale retorting process. Exhibit 4, E-mail to Tom Jankovsky, Garfield County Commissioner, from Roger Day, AMSO Vice President of Operations (Oct. 5, 2012) (Ex.4, AMSO E-mail). AMSO has been granted three patents on its retorting process and is close to starting its first integrated pilot test. *Id.*



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In early hydrological and geological characterization activities, AMSO collected baseline water quality data and “demonstrated that the previously ignored R1 oil shale resource is both rich and hydrologically isolated from drinking water aquifers.” *Id.* It also developed new electric logging techniques that determine oil shale resource grade without the need for costly coring or laboratory assay. *Id.*

In laboratory studies, AMSO was able to develop an in-situ retorting process that produced higher grade oil and made significant progress in the sequestration of CO<sub>2</sub> in spent oil shale retorts. *Id.* AMSO also identified and developed application methods of new thermal insulation materials, developed several down-hole heater methods, and conducted corrosion studies for qualifying casing in the retorting process. *Id.* Then in pilot design and construction, AMSO applied magnetic directional drilling to create two borehole interconnections from inclined and horizontal wells to vertical wells, and “developed and tested well completion packers and metal-coated fiber optic temperature sensors that withstand retorting conditions.” *Id.* AMSO has “demonstrated the effectiveness of improved well construction thermal insulation that protects aquifers above the retort zone.” *Id.* Further, AMSO has developed advanced seismic, electrical resistance tomography, and fiber optic instrumentation, and proved the effectiveness of the latter two in pre-retort mild thermal testing. *Id.*

AMSO’s in-situ retorting process involves no mining, crushing, or spent-shale disposal that would require water for dust control. AMSO, *Oil Shale & the AMSO RD&D Program* (Oct. 2011), at 15, <http://www.amso.net/amso/files/f4/f49448bc-7ce1-4ab7-b637-f8890fc75878.pdf>. It is isolated from drinking water, so aquifer remediation is not required. *Id.* Based on this, the anticipated water usage is less than one barrel of water per barrel of shale oil. *Id.* Further, the return on invested energy is about four to one and results in comparable or lower CO<sub>2</sub> emissions than tar sands. *Id.* at 16-17. Overall, AMSO’s retorting process proactively addresses all environmental and community impacts by causing minimal surface footprint, protecting aquifers, lowering water usage, being highly energy efficient, emitting low gas emissions, and creating high-value jobs. AMSO, *Initial Results from the AMSO RD&D Pilot Test Program* (Oct. 15-17, 2012), at 2, <http://www.amso.net/amso/files/60/603ae0ae-d2c2-4f74-ba44-a26ca9f7e67c.pdf>.

#### **4. Relevance to OS/TS PFEIS Alternatives**

The new information about the underlying technologies directly relates to the OS/TS PFEIS assumptions on environmental impacts. These new technologies use less water, cause significantly less surface disturbance, and use less electrical power than the assumptions of environmental impacts used in the 2008 FEIS and the 2012 PFEIS. By using outdated

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information as the basis to compare the alternatives, BLM justifies closing 67% of the public land previously classified as suitable for oil shale or tar sands development. The OS/TS PFEIS exaggerates the environmental impacts of oil shale extraction and development. The OS/TS PFEIS states that oil shale development will require more than one barrel of water for each barrel of oil, when far less water is required. OS/TS PFEIS at 4-3 – 4-4, 4-8 – 4-11, 4-34, 4-43 – 4-46, 4-50, 6-300. The OS/TS PFEIS makes equally significant errors in the size of the surface disturbance and amount of electrical power needed. *Id.* at 4-3, 4-7 – 4-8, 4-11, 4-13 – 4-14, 4-33 – 4-34, 4-145, 4-154 – 4-157, 6-231. These outdated and incorrect assumptions of environmental impact allow BLM to conclude that oil shale development is not commercially viable and would have significant adverse environmental impacts, and on that basis Alternative 2b is the Preferred Alternative. *Id.* at 2-37 - 2-38, 2-50 – 2-51, 2-81, 3-247, 4-56.

The failure to use new information about the oil shale extraction techniques confirms BLM's failure to look at new data and ensure the data used meets IQA standards. Several PFEIS chapters, especially Chapter 3 and the Appendices in the OS/TS PFEIS are largely unchanged from the 2008 FEIS. By excluding new information regarding oil shale technology, BLM also fails to acknowledge scientific advances regarding environmental impacts of oil shale extraction and development. Unless BLM addresses these deficiencies, the proposed FEIS and ROD will continue to be materially misleading.

The new test information confirms the need to change the assumptions in the OS/TS PFEIS which conclude the new techniques are not commercially feasible. It also demonstrates the need to alter the environmental analysis to reflect reduced environmental impacts, especially water impacts, from oil shale development. NEPA requires a supplement to incorporate this new data. *See* 40 C.F.R. §1502.9(c).

The conclusion that oil shale development is not commercially viable is inaccurate and ignores new and relevant information recently confirmed by Garfield County's comments. If the OS/TS PFEIS took the required *fresh look* at the 2008 ROD, then it would have to correct the PFEIS assumptions. BLM's failure to incorporate this new information or to address the scientific disputes violates the IQA and calls for revision or supplementation of the PFEIS.

##### **5. The New Information Also Calls for Supplementation of the OS/TS PFEIS**

If the information does not comply with the Guidelines, such that non-compliance presents “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts,” then BLM must remedy the situation by re-proposing a rule

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or supplementing an EIS. DOI IQA Guidelines, at 6. As an independent basis for reconsidering the assumptions used in the PFEIS, Garfield County asks that BLM prepare a supplement to new information and technology regarding oil shale extraction and development and revision of estimated direct, indirect and cumulative environmental impacts. This revision would also address scientific controversies that have an effect on the human environment in accordance with NEPA. 40 C.F.R. §1508.27(b)(4); *Middle Rio Grand Conservation Dist. v. Norton*, 294 F.3d 1220, 1229 (10<sup>th</sup> Cir. 2002). BLM must insure professional integrity, including scientific integrity, of the discussions and analyses in the EIS. 40 C.F.R. §1502.24. Garfield County has already put at issue the assumptions used in the PDEIS and the new information discussed provides additional grounds to issue a supplement to the PFEIS.

An agency must prepare a supplement to a draft or final EIS if “(1) [t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns or (2) [t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. §1502.9(c)(1). A supplement may also be prepared if the agency determines that the purposes of NEPA would be furthered by doing so. *Id.* at §1502.9(c)(2). BLM further calls for supplementation when a new alternative is added that is outside the spectrum of alternatives already analyzed. BLM NEPA Handbook H-1790-1, at 29 (Jan. 30, 2008).

NEPA requires that an agency take a “hard look” at the environmental effects of the proposed action, even after a proposal has received its initial approval. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989). While an agency need not supplement an EIS every time new information is made available, if the new information shows that the remaining action will “affec[t] the quality of the human environment” in a significant manner or to a significant extent not already considered, then preparation of a supplemental EIS is appropriate. *Id.* at 372, 374.

The successful oil shale development by several companies using different technologies after the close of the OS/TS PFEIS public comment period is significant new information relevant to environmental concerns and bears on the impact of the proposed federal action. BLM has not included this new information and data in its analysis of alternatives and their corresponding effects on the human environment. This information changes the assumed environmental impacts of Alternative 1, the No Action Alternative, and also the premise upon which the Preferred Alternative rests. The new scientific information and technology show that oil shale development is economically feasible contrary to the conclusions in the OS/TS PFEIS. Further, the use of this technology will have fewer environmental impacts, including less water, electrical power, and

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surface disturbance. *See Commonwealth of Massachusetts v. Watt*, 716 F.2d 946, 948-49 (1<sup>st</sup> Cir. 1983) (Supplementation of an EIS may be required when modifications to a proposed action, although lessening environmental impacts, also alter the overall cost-benefit analysis of the proposed action.). Therefore, supplementation of the OS/TS PFEIS is appropriate and would benefit the analysis of the alternatives and corresponding environmental impacts.

Supplementation is also appropriate because portions of the OS/TS PFEIS, such as Chapter 3 and the Appendices, are outdated. The assumptions from these sections (Chapter 3 and the Appendices) are carried throughout the analysis of the direct and indirect impacts in Chapter 2, and the cumulative effects analysis in Chapters 4 and 6. This outdated information and analysis dates from the 2008 PFEIS and was probably developed more than five years ago. BLM has a continuing duty to evaluate new information especially when it is relying on information from an EIS that is four to seven years old. *See Citizens Against Toxic Sprays, Inc. v. Clark*, 720 F.2d 1475, 1480 (9<sup>th</sup> Cir. 1983) (“In general, an EIS concerning an ongoing action more than five years old should be carefully examined to determine whether a supplement is needed.”). This is especially true when the accuracy of the scientific assumptions is contested.

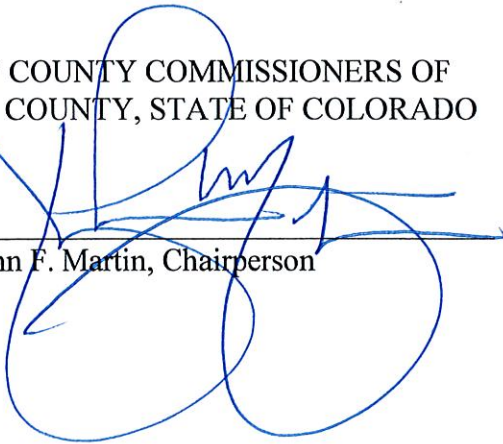
## 6. Conclusion

Garfield County looks forward to the IQA response and announcement that the PFEIS will be supplemented in accordance with the requirements of IQA and NEPA. The County has demonstrated the need for a new draft or a substantive supplement. Failure to incorporate the new information and address the scientific controversy regarding the anticipated impacts of new technology on extraction of oil from oil shale will violate both the IQA and NEPA.

Sincerely,

BOARD OF COUNTY COMMISSIONERS OF  
GARFIELD COUNTY, STATE OF COLORADO

By: \_\_\_\_\_  
John F. Martin, Chairperson



# Exhibit 1



## **Company Overview**

Red Leaf Resources, Inc. was founded in 2006 and is a privately-held Delaware corporation based in Salt Lake City, Utah. The Company is focused on the production of high-quality oil extracted from oil shale resources using its own oil shale extraction technology, the EcoShale™ In-Capsule Process ("EcoShale Process"). Red Leaf holds leases on approximately 17,000 acres through the Utah of School and Institutional Trust Lands Administration. Utah leases are located in the Uinta Basin. Additional options to lease are held in Wyoming and consist of approximately 5120 acres. Red Leaf has also issued domestic and international licenses for the use of its EcoShale™ technology.

## **Process Overview**

The extraction process has been proven through extensive pilot and field testing over a period of seven years. Detailed financial models have been prepared as part of Red Leaf's financing and in preparation for commercial operations. Modeling has shown the process to be highly economic at current oil prices. Red Leaf has recently entered into a joint venture partnership with an affiliate of Total S.A. for development of Utah projects. Additional partnerships and financing have also been completed allowing Red Leaf to move forward with first stage commercial development on its Seep Ridge Leases, Utah and to move forward with environmental and permitting work on other leases in Utah and Wyoming.

## **Advantages of the Process**

Red Leaf has developed the EcoShale Process, with the following important attributes:

- The process does not require water
- Overall use of water for implementing a project using the EcoShale™ process is primarily associated with reclamation, dust control and on-site worker needs
- Overall water usage is expected to be less than a barrel of water per barrel of oil
- The process produces water that can be reclaimed and reused for dust control and reclamation further limiting the raw water use
- The emissions profile is lower than many technologies previously applied in part because low emissions heating options are utilized with potential for recycling and other heating efficiencies
- Processes can allow for rapid reclamation and reduced surface disturbance
- Depleted shale, although not exhibiting hazardous characteristics, can be environmentally managed or impounded
- CO<sub>2</sub> output is significantly reduced with the EcoShale™ low temperature process and utilization of low CO<sub>2</sub> emitting heating fuels (such as natural gas)
- The technology is amenable to carbon capture and sequestration as such options become economic
- Sound methods exist to protect surface water and aquifers
- The process produces a high quality feedstock with an expected average 32+ API gravity weight

# Exhibit 2

#### **A. Enefit Has a Long History of Successful Commercial Oil Shale Production**

Enefit was founded in 1939 and is the world's largest oil shale to energy company. Enefit owns and operates oil shale mines producing up to 18 million tons of oil shale per year and owns and operates the world's largest oil shale fired power plants with a total capacity of 2,380 MW. Estonia has also commercially produced oil from oil shale for almost 100 years. In total, Enefit has mined 1 billion tons of oil shale, produced 550 TWh of power, and produced more than 200 million barrels of oil. Enefit employs approximately 7,000 people.

Enefit's industrial oil production experience is unique in the world and is drawn from Enefit's more than 30-year history of commercially operating its patented technology. After decades of research, development, and operations, Enefit has designed and is in the process of building the most efficient oil shale production technology available anywhere in the world. This is an advanced, new generation technology, based on Enefit's commercially proven technology which has been operating in Estonia for more than 30 years. Enefit's newest generation oil shale plant will go into production in Estonia this year and will more than double Enefit's current oil production capacity in that country. Enefit desires to bring this same, new generation technology to the Uintah Basin in Utah to help America meet its domestic energy needs.

Enefit owns extensive private oil shale resources in eastern Utah, holds State leases, and is the holder of the White River Mine federal RD&D lease. Enefit plans to make substantial capital investments, without government financing, and provide approximately 2000 direct jobs to the State of Utah. Enefit plans to produce hundreds of millions of barrels of oil over the life of its Utah project. Decades of experience in the mining and development of oil shale resources in Estonia provide Enefit with the knowledge, technology, and expertise to responsibly develop oil shale resources in the United States in an environmentally safe manner that will meet or exceed all current federal and state environmental standards.

#### **B. Enefit's Has a Proven Oil Shale Development Technology**

Enefit's commercially proven technology allows oil extraction from fine oil shale particles. The base technology, developed by Estonian scientists and patented in 2005, has operated continuously in Estonia for more than 30 years. In 2009, Enefit and Outotec formed a joint venture to undertake co-development of a new generation Enefit technology. The new Enefit technology combines Eesti Energia's improved solid heat carrier process and Outotec's Circulating Fluidized Bed technology, increasing efficiency and decreasing air emissions. The key benefits of Enefit's technology are the following:

- Only operational fines technology available. More than 50 years of experience developing the solid heat carrier process and 30 years of operational experience in Estonia.
- The process is energy self-sufficient and no external fuel is required.
- Gas combustion and the use of excess heat provide more power than the process requires. Energy left in the spent shale is used to generate heat for the process.



- Heat from ash and stack gases is extracted for power generation.
- Retort gas with a high calorific value that is released in processing can be used for power generation.
- No organic residual is left in the ash, which can be used as a raw material in the construction industry.
- The oil extraction process is water free.

The modular design is essential to allow easy maintenance, process optimization, and streamlined adaptability to the individual characteristics of different oil shale deposits.

### **C. Enefit Has Produced Oil and Gas From Utah Shale Based On Its Proven Technology**

In Q4 of 2011 Enefit collected 12 tons of fresh Utah shale via 21 6 inch core holes drilled to the specified mining horizon across 5 locations on its private property, which is also contiguous to the BLM leased property. This shale was shipped to Enefit's R&D center, owned by Enefit Outotec Technology (EOT), which is the owner of the Enefit retorting technology.

In the first half of 2012 EOT and other laboratories carried out a series of detailed testworks on the Utah shale, including the following:

- Oil shale crushing tests
- Combustion tests
- Detailed investigations of the raw shale
- Retorting testwork in the Enefit bench unit, including production of an oil and gas sample for further detailed analysis
- Detailed analysis of the oil, gas, water and ash produced

The detailed results of these tests are proprietary, but the testing did confirm the ability of the Enefit retort to produce oil and gas from the Utah shale. This testing demonstrated the adaptability of the proven Enefit technology to process the Utah shale. The testwork also confirmed that the quality of raw oil produced from the Enefit retort is similar to raw oil produced from the Utah shale using other technologies. The similarities in the raw (pre-upgraded) oil quality confirm that the upgrading and further refining of the shale oil that was demonstrated in the 1970's and 80's in the US would be applicable to oil produced from Enefit's holdings via the Enefit technology as well.

# Exhibit 3

## A MICROORGANISM TECHNOLOGY FOR EXTRACTING AND RECOVERING HYDROCARBONS, ELEMENTS, AND MINERALS FROM OIL SHALE AND TAR SANDS

Raymond R. Wallage, Chair/CEO, American Energy Technologies, Inc.

### ABSTRACT

Oil shale deposits are found in many parts of the world. They range in age from Cambrian to Tertiary and are formed in a variety of marine, continental, and lacustrine depositional environments. The largest known deposit is in the Green River Formation in the western United States. Per Wikipedia, the largest oil-shale deposits worldwide are listed in the chart below:

Deposit	Country	Period	Million Barrels
Piceance Basin	USA	Cretaceous	1,525,157
Green River Formation	USA	Paleogene	1,444,922
Uintah Basin	USA	Paleogene	1,318,964
Phosphoria Formation	USA	Permian	250,000
Eastern Devonian	USA	Devonian	189,000
Heath Formation	USA	Early Carboniferous	180,000
Olenyok Basin	Russia	Cambrian	167,715
Congo	Democratic Republic of Congo		100,000
Irati	Brazil	Permian	80,000
Sicily	Italy		63,000
Tarfaya	Morocco	Cretaceous	42,145
Volga Basin	Russia		31,447
St. Petersburg, Baltic Oil Shale	Russia	Ordovician	25,157
Vychegodsk Basin	Russia	Jurassic	19,580
Wadi Maghar	Jordan	Cretaceous	14,009
Dictyonema shale	Estonia	Ordovician	12,386
Collingwood Shale	Canada	Ordovician	12,300
Timahdit	Morocco	Cretaceous	11,236
Italy	Italy	Triassic	10,000

From this chart, the United States has 4,908,043 million barrels, and Russia has 243,899 million barrels. Estimates of oil-shale deposits are complicated by several factors. First is the estimate's date, since new oil-shale deposits are found all the time. As an example, the undated chart above does not show deposits in China or Israel, where recent estimates may include these in the top two or three nations for oil shale deposits. Another is the amount of kerogen contained in oil shale deposits. This can vary considerably, affecting the amount of hydrocarbon therein. Next, some nations report the amount of kerogen, without considering how much kerogen may be extracted from their deposits using available technologies and other given economic and geologic conditions.

Various extraction methods yield different quantities of oil. As a result, the estimated amount of resources and reserves varies considerably. A standard method is the "Fischer Assay" which yields a "heating value" or measure of caloric output. It does not tell us how much oil can be extracted from a deposit. Some processing methods yield more useful oil than a Fischer Assay indicates. The Tosco II method yields over 100% more oil and the Hytort process yields between 300% to 400% more oil.

The Tosco II method (a refined Swedish Aspeco process), is an above ground ("ex-situ") retorting technology for oil shale. It uses fine particles of oil shale (the rock is crushed to a powder) and heated in a rotating kiln. The Hytort process is an ex-situ process developed by the Institute of Gas Technology and is classified as a reactive fluid process, producing oil by hydrogenation. There are variations of the above processes, and in-situ ("in place") and combination in-situ and ex-situ methods.

#### **UNITED STATES DEPARTMENT OF ENERGY ("DOE") 1980 ESTIMATES**

America has enormous reserves of oil. Most found in the chaparral ("high desert") areas of Colorado, Utah and Wyoming in rocks known as "oil shale". In 1980, the DOE estimated total American oil shale deposits over 12 trillion barrels of oil, based on gallons per ton ("gpt"). The largest deposit of oil shale, estimated over nine trillion barrels, is located in the Green River Formation in Colorado, Utah and Wyoming. This includes the Green River, Washakie, Uintah, and Piceance Creek Basins. The Central Eastern States were believed to contain over one trillion barrels, and Alaska's overall oil shale deposits were simply described as "large". The DOE then contradicts itself with another estimate, stating: "Potentially Recoverable Oil Share Resources in the Green River Formation at 1.8 trillion barrels."

Why different statements from the DOE? A high estimate of Nine trillion barrels, versus a low of 1.8 trillion barrels? The Company believes the majority of the difference is related to the current technologies used to recover oil from the oil shale. The Company has been told recovery may be as high as 100%. The differences in DOE statements, if examined in mathematical terms, might suggest an average recovery of 20%, which may have been normal for older technologies, for 1.2 trillion is exactly 20% of nine trillion.

#### **VALUE OF OIL-SHALE BASED ON DOE 1980 ESTIMATES.**

Using a reasonable \$60 for a 42-gallon barrel of oil, at 1.8 trillion barrels, the Green River Formation would bring in \$108 trillion dollars. But, what if there was a process, a new process that could easily recover 100% of the oil, plus additional valuable elements and minerals? If so, it may be reasonable to begin looking at the potential value of the Green River Formation's nine trillion barrels. At the same \$60 a barrel, the nine trillion barrels of oil would then be worth \$540 trillion dollars. More than enough the royalties and taxes could be used to pay off the United States national debt.

#### **WHAT ABOUT THE OTHER VALUABLE ELEMENTS AND MINERALS?**

Using existing technologies, the recovery of additional elements and minerals is impossible because the hydrocarbons keep such locked up and not recoverable. But the Company's new patent pending, proprietary microorganism technology, which liquefies the oil shale, allows 100% of the hydrocarbons to be recovered. Once done, additional minerals and elements can be recovered using existing and off the shelf ore separation technologies. The Company did some field scale testing on a medium to poor quality shale because we wanted to know if processing such would be profitable.

#### **MINERAL LABS IN GOLDEN, COLORADO RESULTS.**

They use an X-Ray Fluorescence (XRF)<sup>15</sup> method. XRF testing shows the elements in a sample, testing for 31 major, minor and trace elements and 10 "rare earth elements." Not all elements or compounds are identified with XRF and others must have a high parts-per-million (PPM). Therefore, XRF is a good foundation, a quick picture, of what liquefied shale contains. XRF does not measure for hydrocarbons, gold group or PGM metals. The lab report is included in our attachments.

Here are the XRF results in order of percent by weight:

- **39% silicon dioxide (SiO<sub>2</sub>):** One of the most common ingredients in "dirt." It does not have a high value, but is used in glass, electronics manufacturing, cement production, etc.
- **9.8% aluminum oxide (Al<sub>2</sub>O<sub>3</sub>):** Used to produce aluminum. Bauxite is the most common ore processed for aluminum, being first converted to aluminum oxide through the Bayer process. This suggests it will be less expensive to use the aluminum oxide we recover. The Company suspects the aluminum oxide in oil shale allows a much better quality aluminum.
- **7.9% calcium oxide (CaO):** Used in mortar, plaster, glass production, paper, pollution control, farming, cooking, and other industrial and scientific applications.
- **5.3% iron oxide (Fe<sub>2</sub>O<sub>3</sub>):** It is valuable in various industrial applications, including magnetic storage devices and biomedical manufacturing.

Among other elements they found: 4.0% Magnesium Oxide (MgO); 2.9% Sodium Oxide (Na<sub>2</sub>O); 1.9% Potassium Oxide (K<sub>2</sub>O); 1.1% Sulfur (S); .36% Titanium Dioxide (TiO<sub>2</sub>); .28% Phosphorus Pentoxide (P<sub>2</sub>O<sub>5</sub>); .05% Manganese Oxide (MnO); .04% Barium Oxide (BaO); and others.

#### **UNIVERSITY OF UTAH, COLLEGE OF MINES & EARTH SCIENCES.**

As a public supported university, there was not much they could offer. But Utah is interested in the project because it will bring jobs to the state. The Company got this email after analyzing a sample of the liquefied shale:

*"In the spirit of assistance with your efforts to develop technology for more effective energy recovery and utilization, we were able to analyze the samples you provided. The gas samples provided had no particular distinction, having a composition similar to air. The feed and tailings samples you provided seemed to contain the same amount of hydrocarbon material. Good luck with further efforts in your technology development."*

This means off gasses from the Process need not be captured, making our process more environmentally safe. From odor alone, the Company believes a small amount of methane comes from the microorganisms, but it does not appear to exceed amounts normally found in air. Also, the pre-processed ore and the processed ore contain the same volume of hydrocarbons, confirming the amount of the hydrocarbons are not affected by the Company's microorganism process.

**ACTIVATION LABORATORIES, INC. (ONTARIO, CANADA).**

This lab reported a silver content of the liquefied shale at 0.5 parts per million (PPM), which was expected. Using infrared technology, they reported total organic carbon between 10.0% and 11.6% by weight (average 10.8%). The scientist, who provided the shale for this demo, estimated the hydrocarbon content between 10%-15%, confirming the Company's process does not destroy the hydrocarbon component of the shale, and is profitable with poor quality shale.

**VALUE OF THE OXIDE COMPONENTS OF THE TESTED OIL-SHALE.**

Using commodity prices at the time, the Company was able to obtain values on the oxide components of the oil shale. From those prices we were able to determine the oxide components were worth 11.55 times the value of the oil. If this were to hold true with all qualities of oil shale, then the 1.8 trillion barrel estimate for recoverable oil, could mean the oxides are worth \$1,247 trillion, and if one used the nine trillion barrel number the oxides could be worth \$6,237 trillion.

**ROCKY MOUNTAIN TIMES ARTICLE.**

An interesting note came from a Rocky Mountain Times article a few years ago. They attempted to estimate the amount of gold locked up in the Green River oil shale formation. They simply claimed there is more gold locked up in the United States Green River Formation than has ever been mined in the history of man. In many of the Company's early tests, there was visible gold and platinum in the liquefied shale; and in today's world, "visible" it is considered rich ore.

**THE COMPANY'S PATENT PENDING MICROORGANISM TECHNOLOGY.**

The Company's Chairman, Ray Wallage, has been in the environmental chemical, microorganism business since 1989, when he purchased the formula to an environmentally safe, nontoxic, nonhazardous water based surfactant, now called BioCat. In using BioCat with microorganisms to clean up chemical spills in the ground, or in the water, Wallage became used to working with microorganisms, learning which ones among the five trillion trillion ( $>5 \times 10^{30}$ ) bacteria alone would clean which man made contaminants.

Shortly after, Wallage became aware of the environmental movement, and attempted to find a microorganism to convert cellulose economically into fuel. Not just the fruit of a plant, but the stalks, stems, and leaves. Wallage found a microorganism mixture, that when "married" and "trained" properly (patent pending and cannot be disclosed in detail. Also I use non-scientific language herein), would liquefy cellulose. Archer Daniels Midland, Inc. was given a chance to experiment with the results and found them most effective. They wanted to buy the microbe formula, but would never agree to limit their work to cellulose, so the deal never went through.

Wallage then turned his attention to coal, and within lab scale discovered the same microorganism blend could be trained to liquefy coal, probably creating an economical and cleaner burning diesel fuel substitute. So far liquefying coal has only been accomplished at lab scale, but Wallage has no doubts about it being scalable to commercial sized ventures.

Finally, Wallage heard about the difficulties of current technologies to recover hydrocarbons from oil shale, and again wanted to see if his microorganism blend could be trained to liquefy oil shale. The first lab results were encouraging, but it took several weeks to liquefy oil shale. Some refining of the process brought the time to less than 24-hours, and running the numbers, this looked like a more economically way to recover the hydrocarbons and other elements and compounds from oil shale than all current technologies.

We then had to do a field scale study, and it was quite a challenge finding hardware that would allow the process to be scaled up. We first used a mining tumbler that would hold about 150 pounds of ore but never filled it much beyond 20 pounds, leaving room for the microorganisms and accelerants. The first field scale test went along smoothly and confirmed we could scale the process up to commercial levels. Although it still took about 24 hours to liquefy oil shale.

In August of 2011, we did another field scale study, and this time Wallage added his BioCat surfactant to the microorganism mixture. At certain dilution rates, BioCat was known to be a microbial accelerant. This time, liquefying the oil shale was accomplished in under 12 hours. With a little more tweaking, Wallage is confident he will be able to liquefy oil shale in eight hours or less.

Now the challenge was to determine how to separate the individual elements and compounds from the liquefied oil shale. The first answer proved to be commercial sized ore separators using centrifuge technology. These centrifuges are made in all sizes and quickly separate a liquid blend into parts by weight, with the hydrocarbons coming off first, then the water. We still have to do more experimenting to determine how to extract the oxides, the gold group and platinum group metals from the resulting sludge, but it is believed there are sufficient off-the-shelf technologies available for this.

**THE NEXT CONCERN IS ENVIRONMENTAL SAFETY AND FRIENDLINESS.**

We already learned from the University of Utah tests that our process has no air contaminants to be concerned with.

We use no heat in our process, other than to heat or cool our buildings, so there should be no additional demand on our country's resources to heat the shale.

Once we recover all we can from the liquefied shale, the remaining ore, or now dirt may be a better term, will consist mainly of silicone dioxide, a common ingredient in plain dirt, which can then be used for reclamation or sold since there is always a market for clean dirt. So, our process is environmentally friendly and safe.

**FOR MORE INFORMATION CONTACT.**

Ray Wallage, Chair/CEO, American Energy Technologies, Inc., 14428 E, Monument Drive, Scottsdale, AZ 85262: Phone 480-948-9209: Email [ray@oilshalecorp.com](mailto:ray@oilshalecorp.com)

# Exhibit 4



**From:** Roger Day [<mailto:rday@amso.net>]  
**Sent:** Friday, October 05, 2012 7:34 AM  
**To:** Tom Jankovsky  
**Cc:** Alan Burnham; [len.switzer@amso.net](mailto:len.switzer@amso.net); Jim McConaghy  
**Subject:** FW: AMSO accomplishments

Tom,

AMSO is pleased to explain its development and application of improved technology.

In the first 5.5 years of its lease, AMSO spent about \$55 million dollars on laboratory experiments, modeling, and field tests directed towards the commercialization of its in-situ oil shale retorting process. It has been granted 3 patents on its process and has several more are in progress. It is very close to starting its first integrated pilot test.

In its early hydrological and geological characterization activities, AMSO collected baseline water quality data, demonstrated that the previously ignored R1 oil shale resource is both rich and hydrologically isolated from the drinking water aquifers, and developed new electric logging techniques that determine oil shale resource grade without costly coring and laboratory assay.

In its laboratory studies, AMSO identified and developed application methods of new thermal insulation materials for high temperature well construction, conducted corrosion studies for qualifying casing in the hostile gas environment of oil shale retorting, developed the use of in-situ retorting to produce higher grade oil that will reduce the cost of diesel and gasoline products, developed several unique down-hole heater methods, and made significant progress on being able to sequester CO<sub>2</sub> in spent oil shale retorts.

In its pilot design and construction, AMSO made many innovations for in-situ oil shale recovery, largely involving technology that did not exist in 1980. It was the first to apply magnetic directionally drilling to create two borehole interconnections from inclined and nearly horizontal wells to a vertical wells. It successfully developed and tested well completion packers and metal-coated fiber optic temperature sensors that withstand retorting conditions. It demonstrated the effectiveness of improved well construction thermal insulation that protects aquifers above the retort zone. It developed advanced seismic, electrical resistance tomography, and fiber optic instrumentation around its pilot test area and has already demonstrated the effectiveness of the latter two in pre-retort mild thermal testing.

Roger Day, VP Operations

American Shale Oil, LLC (AMSO)

970-625-2227 office

970-379-6723 cell

970-625-4318 fax

*Tom Jankovsky*  
District 1

*John Martin, Chair*  
District 2

*Mike Samson, Chair Pro Tem*  
District 3



December 4, 2012

VIA EMAIL, ORIGINAL MAILED: [bhudgens@blm.gov](mailto:bhudgens@blm.gov)

Director (210)  
Attn: Brenda Hudgens-Williams  
20 M. Street SE, Room 2134LM  
Washington, D.C. 20003

Dear Ms. Hudgens-Williams,

Pursuant to 43 C.F.R. §1610.5-2, through its undersigned duly authorized Board of County Commissioners' Chairman, Garfield County files this protest of the Bureau of Land Management's (BLM) Proposed Resource Management Amendments (RMP) for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the BLM in Colorado, Utah, and Wyoming and Final Programmatic Environmental Impact Statement (OSTS PFEIS).

**I. Protestants, 43 C.F.R. §1610.5-2(a)(2)(I)**

Garfield County Board of County Commissioners  
Attn: Commissioner John Martin, Chairman  
108 8<sup>th</sup> Street  
Glenwood Springs, Colorado 81601  
(970) 945-5004

**II. Statement of Interests, 43 C.F.R. §1610.5-2(a)(2)(I)**

The proposed land use amendments to the RMPs, which describe those areas that will be closed to application for commercial leasing, exploration, and development of oil shale resources in the Colorado study area, adversely affect and interfere with Garfield County's authority to implement land use plans and regulations concerning the natural resources within its borders. The ability to plan for and regulate the natural resource development in the County would directly benefit the County's economy and provide for the welfare of its citizens. Oil shale rental and royalty payments would contribute directly to the U.S. Treasury with about half of such revenues distributed to the State and local government boards pursuant to State law.

As a political subdivision of the State of Colorado, Garfield County, acting through its Board of County Commissioners, is vested with governmental power and authority to "adopt and enforce ordinances and resolutions regarding health, safety, and welfare" of its citizens. C.R.S. §30-11-101(2). The County must also adopt a master plan for the physical development of the County. C.R.S. §30-28-106. The master plan should include a plan for the extraction of



commercial mineral deposits pursuant to C.R.S. §34-1-104. *See* C.R.S. §30-28-106(3)(c).

Garfield County encourages resource extraction, including oil and gas development, because of the considerable benefit it brings to the economic health of the County. Garfield County Comprehensive Plan 2030, at 60 (Nov. 10, 2010). The County recognizes the legal rights and privileges of surface and mineral owners to extract and develop their mineral interests. *Id.* at 60-61. The County considers facilities that are appurtenances to oil and gas development activities as appropriate in all land uses as long as the mitigation requirements are met. *Id.* at 61. Garfield County also promotes responsible development and mitigation efforts to minimize the effects resource development may have on the natural environment. *Id.* at 60-61.

### **III. Statement of Issues and Parts of the Proposed RMP being Protested, 43 C.F.R. §43 C.F.R. 1610.5-2(a)(2)(ii)-(iii)**

Garfield County protests the proposed RMP Amendments and the OSTs PFEIS on the following grounds:

- (1) Violation of the 2005 Energy Policy Act (EP Act) and arbitrary and capricious change in agency position;
- (2) Violation of the National Environmental Policy Act (NEPA) for failing to use the best scientific information available and for failing to address contrary data and facts that establish that the OSTs PFEIS is based on scientifically controversial assumptions, which requires supplementation, and for making a predetermined outcome;
- (3) BLM arbitrarily failed to provide a reasonable explanation of its change in position in regards to wildlife habitat stipulations and protections; and
- (4) Unlawful management of public lands with alleged wilderness character as *de facto* wilderness when BLM is prohibited from expending federal funds to do so and did so in violation of the Anti-Deficiency Act.

### **IV. Previous Comments, 43 C.F.R. §1610.5-2(a)(2)(iv)**

Garfield County was a cooperating agency throughout the EIS process. The County raised all legal and factual arguments submitted in this protest when they commented during the scoping process and on the OSTs Programmatic Draft EIS (PDEIS). *See* Garfield County Comments (Scoping Comments, OSTs PDEIS Comments (April 14, 2012)). Also, on December 4, 2012, Garfield County, through its Board of County Commissioners, sent a letter to BLM requesting an Information Quality Act (IQA) review on the OSTs PFEIS based on new

information regarding the feasibility of oil shale and tar sands development. A copy of the IQA review letter is attached as Exhibit A.

## **V. Statement of Reasons, 43 C.F.R. §1610.5-2(a)(2)(v)**

### **A. Standard of Review for Agency Decision-Making**

Agency action under the Administrative Procedure Act (APA) is to be set aside if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. §706. An agency action is arbitrary and capricious if it “entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or [if the decision] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

The proposal to adopt the Preferred Alternative is arbitrary because it ignores the congressional mandate, *e.g.* contrary to law, and is based on facts that are contradicted by substantial evidence, and thus the decision runs counter to the evidence before BLM. BLM also acted contrary to law by not following the procedures imposed by NEPA. Due to the deadlines in the settlement agreement, BLM did not take the time to follow the procedures and even failed to provide a reasoned analysis for its decision to exclude a majority of the lands in Colorado from oil shale leasing.

### **B. 2012 OSTIS PFEIS Preferred Alternative Violates the 2005 Energy Policy Act**

Garfield County has commented on BLM’s failure to conform with the EP Act by its proposal to cut off the most geologically prospective public lands that are otherwise suitable and available for oil shale and tar sands leasing. BLM responded to such concerns by stating that the EP Act did not specify how a commercial leasing program must be established or the amount of acreage that must be available under such a program. BLM Comment Response Doc. at 38-39, 41, 45, 124, 142-143, 146-148, 160-161, 163. Under the Federal Land Policy and Management Act (FLPMA), the Secretary has discretion to manage the public lands and establish, revise, and amend land use plans to address resource management issues. *Id.*

#### **1. Statutory Framework and BLM’s 2008 PFEIS Program Compliance**

Section 369 of the EP Act controls BLM’s land use planning oil shale and tar sands resource allocation decisions. Pub. L. 109-58, §369, 119 Stat. 728 (August 8, 2005). In Section 369, Congress declared that it is the policy of the United States that oil shale and tar sands are “strategically important domestic resources that should be developed to reduce the growing

dependence of the United States on politically and economically unstable source of foreign oil imports.” 42 U.S.C. §15927(b)(1).

Under this policy, the Interior Secretary is required to make “available for leasing such land as the Secretary considers to be necessary to conduct research and development activities with respect to technologies for the recovery of liquid fuels from oil shale and tar sands resources on public lands.” *Id.* at §15927(c). Significantly, the Secretary was also required to “complete a programmatic environmental impact statement for a commercial leasing program for oil shale and tar sands resources on public lands, with an emphasis on the most geologically prospective lands within each of the States of Colorado, Utah, and Wyoming.” *Id.* at §15927(d)(1).<sup>1</sup>

By Congressional mandate, therefore, oil shale and tar sands resource allocation must favor those geologically prospective lands within Colorado, Utah, and Wyoming. BLM complied with this direction in 2008 when, through its planning process, it allocated approximately 2,000,000 acres as available for potential development of oil shale, and approximately 431,000 acres of public land as available for potential development of tar sands. 2008 OSTIS Record of Decision (ROD) at 13, 29, 38-39 (amending land use plans in Colorado, Utah and Wyoming).

As required by the EP Act, “the lands that are available for application include[d] all lands within the most **geologically prospective** oil shale areas that are BLM-administered public lands.” *Id.* at 13 (emphasis added). *See also id.* at 31 (the same with respect to tar sands). The more restrictive leasing alternative was expressly rejected because it was not “consistent with the mandate established by the Energy Policy Act of 2005 to establish a commercial leasing program for oil shale and tar sands within the most geologically prospective areas in each of the States of Colorado, Utah, and Wyoming.” *Id.* at 8. *See also id.* at 22 (rejecting alternative that would not make the most geologically prospective areas as available for application for leasing).

## 2. **BLM’s Selection of the Preferred Alternatives is an Arbitrary Change in Position**

BLM purportedly decided to “reconsider” and take a “fresh look” at the 2008 leasing allocations in light of “new information” that has emerged since issuance of the 2008 PFEIS, and as a result of a 2011 Settlement Agreement entered into by the United States with environmental groups. *Id.* at ES-1, 1-4; *Colorado Environmental Coalition et al. v. Salazar*, 09-00085, 09-00091 (D.C. Colo. 2011). One of the lawsuits challenged the 2008 OSTIS PFEIS and ROD, and in settling the case, BLM agreed to analyze an alternative that considers excluding from oil shale leasing and development all lands identified in the Preferred Alternative.

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<sup>1</sup> The EP ACT also required the Secretary to issue final rules establishing a commercial leasing program. *Id.* at §15927(d)(2). Implementing regulations were promulgated in 2008. 73 Fed. Reg. 69414 (Nov. 18, 2008) (codified at 43 C.F.R. Parts 3900, 3920, 3920, 3936).

In a complete about-face from 2008, BLM now proposes to drastically scale back its commercial leasing program. BLM's Preferred Alternative for oil shale would only allocate about 677,000 acres for oil shale leasing. 2012 OSTIS PFEIS at ES-9-10. Remarkably, the Preferred Alternative only leaves about 33% of the lands previously classified as suitable and available open for oil shale and tar sands leasing.

In doing so, BLM violates the EP Act by cutting off the "most geologically prospective" public lands that are otherwise suitable and available for mineral leasing under the 2008 PFEIS program. In this regard, BLM's most egregious violation of the EP ACT is the fact that the agency actually adopts the 2008 PFEIS conservation alternative allocation: "All areas identified as excluded from commercial oil shale and tar sands leasing in Alternative C of the September 2008 OSTIS PFEIS (Alternative C made 830,296 acres available for potential commercial oil shale leasing and 229,038 acres available for potential commercial tar sands leasing)." 2012 OSTIS PFEIS at 2-37.

Alternative C had excluded from application for leasing all lands where surface-disturbance restrictions and/or seasonal limitations were in place to protect known sensitive resources. 2008 OSTIS ROD at 17; 2012 OSTIS PFEIS at 2-42. Again, however, BLM expressly determined that the selection of Alternative C would **not** be consistent with the purposes of the EP Act. 2008 OSTIS ROD at 8, 22. Thus, BLM chose Alternative B, which allocated a vastly larger acreage for oil shale and tar sands leasing. *Id.* at 13, 29, 38-39.

In rejecting Alternative C, BLM concluded as follows:

Selection of alternative C precipitously limits or restricts the decisionmaker's discretion to balance oil shale use and the protection of resources or resource values, in accordance with FLPMA's principal of "multiple use." Although as presently being researched, in situ oil shale extraction would have many impacts similar to those of oil and gas development, exclusion of areas based on existing management prescriptions (e.g., no surface disturbance or seasonal limitation that are in place for oil and gas leasing) unnecessarily speculates upon the nature and degree of impacts that would be caused by future oil shale development. It would be premature to eliminate areas prior to site-specific analysis based on factors that are not known now, but that would be known at the leasing or operation permitting stages, such as location, timing and type of oil shale technology, that may show that these resources could be adequately protected through mitigation. Unlike Alternative B, Alternative C does not give the decisionmaker the necessary discretion to optimize the recovery of energy resources, establish appropriate lease stipulations to mitigate anticipated impacts, or to fully protect a resource or

resource value by choosing not to offer an area for lease.

*Id.* at 22.

Without any explanation, BLM now incorporates the rejected scaled back leasing allocations into its Preferred Alternative. One of the tenets of reasoned decision-making is that “an agency changing its course . . . is obligated to supply a reasoned analysis for the change.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983). Thus, reasoned decision making necessarily requires the agency to acknowledge and provide an adequate explanation for its departure, and an agency that neglects to do so acts arbitrarily and capriciously under the APA, 5 U.S.C. §706. *Jicarilla Apache Nation v. U.S. Dept. of the Interior*, 613 F.3d 1112, 1119 (D.C. Cir. 2010).<sup>2</sup>

In this context, BLM completely fails to provide a reasoned analysis for its 180-degree change in position. BLM may not lawfully make a statutory conformance determination where more restrictive leasing alternatives identified in the OSTs PFEIS were rejected in 2008 as being inconsistent with the EP Act.<sup>3</sup>

Notably, the same lack of reasoned analysis is true with respect to the Preferred Alternative’s exclusion of lands identified by BLM as having wilderness characteristics (LWC). 2012 OSTs PFEIS at 1-5, 2-26. As argued *infra* at Section E, and in Garfield County’s comments, BLM may not lawfully close these lands to oil shale development based on alleged wilderness characteristics. BLM’s action in developing the PFEIS based on lands with wilderness character violates Congress’ prohibition. Just changing the label does not relieve BLM of honoring the funding restriction, and BLM has admitted the funds allocated to implement Secretarial Order 3310 (S.O. 3310) were applied to the PFEIS.

Despite such a prohibition under FLPMA and the 2011 congressional moratorium, BLM proposes to close approximately 66,000 alleged LWC acres to oil shale and tar sands leasing. 2012 OSTs PFEIS at 6-5. *Cf. id.* at 6-7 (excluded LWC acreage may be much as 88,000 acres). The only rationale offered by BLM is that it recently “completed updating its inventory of lands having wilderness characteristics.” *Id.* at 1-5.

BLM, however, already conducted similar LWC inventories prior to its 2008 PFEIS allocation decisions. BLM did not explicitly exclude leasing within lands it believed may have

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<sup>2</sup> This principle applies to changes in policies, standards, and decision-making. *See Center for Native Ecosystems v. Cables*, 509 F.3d 1310, 1327 (10th Cir. 2007).

<sup>3</sup> In this regard, it is irrelevant that the EP Act does not specify the amount of land that needs to be available, where the land is located, and to what extent the program is to be balanced with other resource uses. *See* BLM Comment Response Doc. at 45, 146-148, 159-160, 163.



one or more characteristics of wilderness under any of the alternatives. Instead, it acknowledged that processes were underway in the respective field offices where such lands have been identified to determine appropriate management requirements for these areas. The 2008 PFEIS identified the location of such lands in Chapter 3 and, in general terms, assessed the impacts of development on these lands in Chapters 4 and 5. 2008 OSTIS PFEIS at 2-57. In Garfield County, the Glenwood Springs RMP, the Grand Junction RMP, and White Rive RMP reviewed all lands proposed for wilderness in citizen proposals and made decisions on how they should be managed. The PFEIS contradicts those planning decisions without regard to the facts and findings made by the respective Field Offices.

BLM concluded: “When future site-specific NEPA analyses are conducted on the issuance of commercial leases, the presence of any lands with wilderness characteristics will be considered at that time. The presence of wilderness characteristics on lands otherwise available for multiple use, however, does not necessarily preclude mineral development.” *Id.*

Nothing has changed since 2008, and BLM cannot rely on LWC inventories as “new information” warranting a reduction in leasing allocations. As correctly explained by BLM in 2008, any consideration of LWC should occur during future site-specific NEPA analyses conducted on the issuance of commercial leases. BLM’s abrupt change in course, therefore, was not accompanied by the reasoned analysis required by law.<sup>4</sup>

Finally, BLM’s reliance on sensitive sage-grouse habitat does not justify the proposed oil shale and tar sands resource allocation restrictions. *See* 2012 OSTIS PFEIS at ES-6 (leasing exclusions include core or priority sage-grouse habitat, as defined by such guidance as the BLM or the DOI may issue, except in Wyoming, where such habitat protections will be consistent with Wyoming’s Greater Sage-Grouse Core Area Protection Strategy). With respect to sage grouse, the State of Colorado has completed the process of identifying core or priority sage grouse habitat and established a conservation plan that acts as a supplement to local conservation efforts. *Id.* at 2-37; Colorado Greater Sage-Grouse Conservation Plan (Jan. 2008). The local governments, including Garfield County, have also implemented conservation efforts for sage grouse and their habitats in northwestern Colorado. Northwest Colorado Greater Sage-Grouse Conservation Plan (Apr. 2008); Parachute-Piceance-Roan Greater Sage-Grouse Conservation Plan (Apr. 2008). However, BLM fails to acknowledge whether the identified core/priority habitat areas identified in the OSTIS PFEIS will be consistent with the State or local processes, or whether the State and local processes will be granted the same deference as the Wyoming plans.

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<sup>4</sup> Another compelling example of BLM’s failure to reasonably explain the proposed mineral leasing exclusions is with respect to Areas of Critical Environmental Concern (ACECs). The 2008 OSTIS ROD logically excluded ACECs that were closed to mineral leasing. 2008 OSTIS ROD at 17. BLM now identifies ACECs in the study area **not** closed to mineral leasing that would also be excluded from oil shale/tar sands leasing under the Oil Shale Preferred Alternative. 2012 OSTIS PFEIS at 6-6. BLM provides no explanation for doing so, and ostensibly, this is because the agency can offer none.

Moreover, BLM is currently engaged in a National Greater Sage-Grouse Planning Strategy to identify necessary conservation measures and management restrictions for the maintenance and recovery of sage-grouse populations. *Id.* at 2-22. As with Wyoming's protection strategy, identified regulatory mechanisms for the conservation of sage grouse do not generally preclude mineral development. *See id.* at 2-38. Clearly, therefore, the proposed oil shale leasing exclusions are entirely premature. Not only is the identified habitat inaccurate but the blanket exclusions would not necessarily conform to future sage-grouse initiatives.

These are clearly relevant factors that BLM fails to consider or address in identifying the Preferred Alternative. *Utah Environmental Congress v. Troyer*, 479 F.3d 1269, 1280 (10<sup>th</sup> Cir. 2007) (an agency's decision will be deemed arbitrary and capricious if the agency failed to base its decision on consideration of the relevant factors, or if there has been a clear error of judgment on the agency's part). The 2008 PFEIS currently provides significant and extensive mitigation and protection measures for sage-grouse habitat, and thus, BLM should continue with the status quo. 2008 OSTIS PFEIS at 4-79.

Finally, as discussed below, oil shale development techniques are significantly less disruptive than assumed in the OSTIS PFEIS. Some techniques are less disruptive and involve less surface disturbance than conventional drilling, a fact that BLM fails to address.

Based on the foregoing, therefore, BLM's selection of the Preferred Alternative violates the EP Act and is arbitrary and capricious.

3. **BLM May Not Use the 2011 Settlement Agreement to Ram through the Administration's Environmental Agenda**

According to BLM, the Preferred Alternatives satisfy the 2011 Settlement Agreement reached between environmental groups and the United States. *See* 2012 OSTIS PFEIS at 2-36. The Settlement Agreement requires BLM to propose amending the land use planning decisions made in the 2008 OSTIS ROD, to exclude lands with wilderness characteristics, core or priority sage-grouse habitats, all ACECs from commercial oil shale or tar sands leasing, and all areas identified as excluded from commercial oil shale and tar sands leasing in Alternative C of the 2008 PFEIS. Settlement Agreement at ¶1.

BLM, however, may not rely on the Settlement Agreement to violate its congressional mandate under the EP Act. Land use plan amendments must be consistent with the principles of multiple use set forth in FLPMA and other "applicable law." 43 U.S.C. §1712(c)(1).

It is axiomatic that the leaders of "every administration are required to adhere to the

dictates of statutes that are also products of democratic decisionmaking.” *ILGWU v. Donovan*, 722 F.2d 795, 828 (D.C. Cir. 1983). See also *Atchinson, Topeka & Santa Fe Ry. Co. v. Wichita Bd. of Trade*, 412 U.S. 800, 806 (1973) (agency’s course must be “consistent with its mandate from Congress).

Thus, BLM cannot exploit the Settlement Agreement to ignore the EP Act’s mandate to develop oil shale and tar sands resources. The NEPA process itself is purely procedural and does not require agencies to elevate environmental concerns over other appropriate considerations. *Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 97 (1983); *Stryckers’ Bay Neighborhood Council v. Karlen*, 444 U.S. 223, 227 (1980).

This is precisely why the Settlement Agreement only requires BLM to “consider” amending the 2008 OSTs ROD to protect the identified resources. Settlement Agreement ¶1. As previously demonstrated, *supra* at Section V.B.2, BLM has failed to provide any reasoned analysis or explanation for revoking the administrative findings made in the 2008 OSTs ROD. Indeed, as already determined by BLM in 2008, the only alternative that conforms to the EP Act is the No Action Alternative. To select otherwise would unlawfully elevate the Obama Administration’s anti- oil shale/tar sands policies over statutory dictates.

4. **The Purported Commercial Leasing Program Offered by the Oil Shale Preferred Alternative is a Sham and Violates the Energy Policy Act on its Face**

The EP Act requires a “commercial leasing program for oil shale and tar sands resources on public lands, with an emphasis on the most geologically prospective lands within each of the States of Colorado, Utah, and Wyoming.” 42 U.S.C. §15927(d)(1). The commercial leasing program is statutorily distinct from the research and development leasing program. *Id.* at §15927(c).

BLM maintains that the OSTs PFEIS complies with this statutory requirement: “The BLM’s focus in this planning initiative is on potential development of oil shale and tar sands as sources of energy consistent with congressional policy as expressed in the [EP Act] that a commercial leasing program be established for these resources.” 2012 OSTs PFEIS at ES-1, 1-4.

The Preferred Alternative, however, adopts an RD&D first requirement for its commercial leasing program. BLM would “issue a commercial lease only when a lessee satisfies the conditions of its RD&D lease and the regulations at 43 C.F.R Part 3926 for conversion to a commercial lease.” *Id.* at 2-37.<sup>5</sup>

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<sup>5</sup> Limited exceptions include when a lessee has succeeded in converting an RD&D lease to a commercial lease for a tract on other lands opened under the Preferred Alternative, or plans to use technology that has been proven

Neither the EP Act nor its implementing regulations allow BLM to limit commercial leasing to RD&D lease conversions. The regulations promulgated in 2008 “set out the policies and procedures for the implementation of a commercial leasing program for the management of federally-owned oil shale.” 73 Fed. Reg. at 69414. The RD&D lease conversion regulation is but one small aspect of BLM’s broader commercial leasing program. *See* 43 C.F.R. §3926.10. BLM’s research and development program announced in 2005 is entirely separate. *See* 70 Fed. Reg. 33753 (2005).

The Preferred Alternative, therefore, unlawfully predicates all commercial leasing on the successful completion of the conditions for an RD&D lease and subsequent lease conversion. 2012 OSTs PFEIS at ES-6, 2-37. The EP Act does not allow BLM to merge the two programs by providing for an RD&D first requirement.

Further, the Preferred Alternative omits large amounts of geologically prospective lands from leasing and instead limits development to small, scattered areas more suitable for an RD&D lease or tied to RD&D leases already issued. *Id.* at ES-6, 2-36 - 2-41, 2-68 - 2-73. The small, scattered areas available for leasing under the Preferred Alternative render a commercial leasing program less feasible and discourage commercial development. The additional layer of NEPA analysis will also cause unreasonable delays in oil shale development. *Id.* at 2-31 (“Additional NEPA analysis would be required prior to issuance of RD&D lease and prior to conversion of an RD&D lease to commercial oil shale lease. . .”). These commercial leasing constraints are also contrary to the EP Act because they hinder rather than promote oil shale development.

Consequently, BLM’s claim that it has effectively provided for a commercial leasing program is clearly specious.<sup>6</sup> BLM did not call the Preferred Alternative a commercial leasing program in the draft. It merely added the term when Garfield County and others cited the conflicts with the 2005 EP Act. The minor changes to land available for leasing are de minimus when compared with the lands now closed. To the contrary, the Preferred Alternative’s RD&D first requirement blatantly violates the EP Act and implementing regulations because it fails to provide for a separate, comprehensive commercial leasing program. BLM’s actions to change the name of the alternative to add “commercial” without changing the alternative impeaches its conclusion that it has honored the law. Similarly, if BLM concluded in 2008 that this alternative was not consistent with the EP Act, then BLM must somehow explain what has changed, other than politics. It cannot do so and thus the OSTs PFEIS violates the EP Act as well.

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commercially viable on nonfederal lands in the study area. *Id.* at 2-38, 2-80 - 2-81.

<sup>6</sup> BLM, in fact, admits that the Preferred Alternative was a RD&D program when it writes: “fosters a robust **RD&D program** as a first step toward a viable and environmentally acceptable oil shale industry.” BLM Comment Response Doc. at 41, 43, 45, 157 (emphasis added). This contradicts BLM’s claim that it is really a commercial program.

BLM initially interpreted a commercial leasing program under EP Act as two million acres. While BLM now claims it has discretion to offer much less and still call it a commercial program, it cannot escape the fact that this new interpretation contradicts the contemporaneous interpretation of the agency. While courts give deference to agency interpretation, it must provide more than what DOI has here. If the first and contemporaneous interpretation was two million acres in three states, it must advance why this RD&D with a few more acres is also commercial.

**C. 2012 OSTs PFEIS Fails to Explain BLM's Change in Position Regarding Wildlife Habitat**

Garfield County supports the continuity of wildlife corridors and preservation of riparian and other wildlife habitat, as well as ensuring that mineral extraction activities mitigate their effects on wildlife habitat. Garfield County Comprehensive Plan 2030, at 58, 60-61. During the comment period, commentors noted the lack of analysis on wildlife habitat and the potential impacts oil shale development would have on seasonal habitat, especially in regards to big game. BLM Comment Response Doc. at 80, 82-83. BLM responded that loss of seasonal habitats from oil shale development could have a significant impact on big game but that it was not possible to conduct a more detailed site-specific analysis for each species until exact project locations are known. *Id.* The County disagrees with the lack of objective analysis regarding wildlife habitat protection in the OSTs PFEIS, which has led to most of the lands that were available for leasing to be excluded in Colorado.<sup>7</sup>

FLPMA requires BLM to manage public lands consistent with the “principles of multiple use and sustainable yield.” 43 U.S.C. §1732(a). BLM must manage the public lands and their resources in a way that best meets the present and future needs of the American people. *Id.* at §1702(c). FLPMA defines the “principal or major uses” as limited to “domestic livestock, grazing, fish and wildlife development and utilization, mineral exploration and production, rights-of-way, outdoor recreation, and timber production.” *Id.* at §1702(l). FLPMA also incorporates the energy and mineral development directive with Mining and Minerals Policy Act. 43 U.S.C. §1701(a)(12).

In balancing the resources, BLM must engage in informed, reasoned decision-making. One of the tenets of reasoned decision-making is that “an agency changing its course . . . is obligated to supply a reasoned analysis for the change.” *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983). Thus, reasoned decision making necessarily requires

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<sup>7</sup> See *Am. Indep. Mines & Minerals Co.*, 733 F. Supp. 2d 1241, 1267 (D. Idaho 2011) (citing *Wyo. State Snowmobile Ass’n v. U.S. Fish & Wildlife Serv.*, 741 F. Supp. 2d 1245, 1258 (D. Wyo. 2010)) (Issues can be raised by a third party as long as it brings sufficient attention to the agency of the challenged issue.).

the agency to acknowledge and provide an adequate explanation for its change in position, and an agency that neglects to do so acts arbitrarily and capriciously under the APA, 5 U.S.C. §706. *Jicarilla Apache Nation v. U.S. Dept. of the Interior*, 613 F.3d 1112, 1119 (D.C. Cir. 2010).<sup>8</sup>

BLM purportedly decided to “reconsider” and take a “fresh look” at the 2008 leasing allocations in light of “new information” that has emerged since issuance of the 2008 PFEIS, and as a result of a 2011 Settlement Agreement entered into by the United States with environmental groups. *Id.* at ES-1, 1-4. The PFEIS does not provide any new information that would support the changes.

In a complete about-face, BLM now proposes to significantly scale back its commercial leasing program. BLM’s Preferred Alternative for oil shale would only allocate about 677,000 acres for oil shale leasing, with only 26,259 acres (2012 OSTs PFEIS at ES-9 – ES-10, 2-28, 2-47) or 35,309 acres (BLM oral communication with Garfield County) located in Colorado. Remarkably, the Preferred Alternative reduces the lands previously classified as suitable, available and open for oil shale leasing in Colorado by approximately 90%.

BLM now adopts the 2008 PFEIS conservation alternative allocation: “All areas identified as excluded from commercial oil shale and tar sands leasing in Alternative C of the September 2008 OSTs PFEIS (Alternative C made 830,296 acres available for potential commercial oil shale leasing and 229,038 acres available for potential commercial tar sands leasing).” 2012 OSTs PFEIS at 2-37. Alternative C in the 2008 PFEIS had excluded from application for leasing all lands where surface-disturbance restrictions and/or seasonal limitations were in place to protect known sensitive resources. 2008 OSTs ROD at 17; 2012 OSTs PFEIS at 2-42, 6-79. Again, however, BLM expressly determined that the selection of Alternative C would **not** be consistent with the purposes of the EP Act. 2008 OSTs ROD at 8, 22. Thus, BLM chose Alternative B in the 2008 PFEIS, which allocated a vastly larger acreage for oil shale and tar sands leasing. *Id.* at 13, 29, 38-39.

More specifically, in rejecting Alternative C, BLM concluded as follows:

Selection of alternative C precipitously limits or restricts the decisionmaker’s discretion to balance oil shale use and the protection of resources or resource values, in accordance with FLPMA’s principal of “multiple use.” Although as presently being researched, in situ oil shale extraction would have many impacts similar to those of oil and gas development, exclusion of areas based on existing management prescriptions (e.g., no surface disturbance or seasonal limitation that are in place for oil and gas leasing) unnecessarily speculates upon the nature and

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<sup>8</sup> This principle applies to changes in policies, standards, and decision-making. *See Center for Native Ecosystems v. Cables*, 509 F.3d 1310, 1327 (10th Cir. 2007).

degree of impacts that would be caused by future oil shale development. It would be premature to eliminate areas prior to site-specific analysis based on factors that are not known now, but that would be known at the leasing or operation permitting stages, such as location, timing and type of oil shale technology, that may show that these resources could be adequately protected through mitigation. Unlike Alternative B, Alternative C does not give the decisionmaker the necessary discretion to optimize the recovery of energy resources, establish appropriate lease stipulations to mitigate anticipated impacts, or to fully protect a resource or resource value by choosing not to offer an area for lease.

*Id.* at 22.

Without any explanation, BLM now incorporates the previously rejected scaled back leasing allocations into its Preferred Alternative. 2012 OSTs PFEIS at 2-29, 2-37, 2-42, 6-79. Some of the resources covered by the stipulations and restrictions in place for oil and gas leasing in Colorado include sage-grouse leks and nesting habitats, raptor habitats, and wildlife habitat. 2008 OSTs PFEIS at 2-37; 2012 OSTs PFEIS at 2-42. The “[w]ildlife habitat includes a combination of winter range, crucial winter range, summer range, and calving areas for antelope, deer, elk, and moose, as well as seclusion areas for other wildlife.” *Id.* A large portion of the lands excluded from leasing in Colorado under the Preferred Alternative was due to the wildlife habitat stipulations and elk and mule deer winter habitat. *See* 2012 OSTs PFEIS at 2-101 - 2-103, 6-19, 6-83, 6-240.

These exclusions are unwarranted considering the excessive numbers of elk and mule deer in and around the most geological prospective areas for oil shale development for Colorado. The Colorado Parks and Wildlife 2011 estimates show about 36,000 mule deer and about 65,000 elk in the area. Ex.B, Colorado Parks and Wildlife Population Numbers (Apr. 26, 2012) (See the deer population numbers for DAU 11, 12, and 41. See also the elk population numbers for DAU 6, 10, and 14). These numbers are either above or within the long term objective population target numbers. *Id.* It is apparent that the elk and mule deer populations are not suffering in Garfield County and require no additional protection then what is already available in the RMPs.

Under the No Action Alternative, the wildlife habitats identified for spatial or temporal protection in BLM RMPs that would be present in the lease application lands in Colorado include: 27,977 acres of raptor nesting and fledging habitat, 89,310 acres of big game severe winter range, 24 acres of big game winter range, 30 acres of big game, and 163,100 acres of deer and elk summer range. *Id.* at 6-19, 2-101 - 2-102, 6-240. The number of acres of wildlife habitat protected by stipulations under the Preferred Alternative is **zero**. *Id.* at 6-240. BLM completely failed to provide any explanation or reasoned analysis as to why these lands now should be excluded from leasing. BLM also fails to provide any maps, besides those showing mule deer

and elk summer and winter habitat. For example, and without limitation, there are no maps showing the raptor nesting areas, big game severe winter range, elk crucial winter range, or various other wildlife habitat stipulation areas at listed in the OSTs PFEIS. *See id.* at 2-101 - 2-103, 6-19, 6-240.

The amount of acres of elk and mule deer habitat in Colorado under the No Action Alternative are 245,634 acres of mule deer winter habitat, 172,773 acres of mule deer summer habitat, 320,262 acres of elk winter habitat, and 172,542 acres of elk summer habitat. *Id.* at 6-22. The Preferred Alternative would only include 44,869 acres of mule deer winter habitat, 19,558 acres of mule deer summer habitat, 46,756 acres of elk winter habitat, and 19,565 acres of elk summer habitat. *Id.* at 2-103, 6-83, 6-240. The lands available for leasing that included the seasonal habitat for mule deer and elk are proposed to be reduced by about 85% and 87% respectively. Again, BLM fails to provide any explanation or reasoned analysis as to why these lands should be excluded from leasing.

The Colorado RMPs allow oil and gas development to proceed in these same areas subject to stipulations to reduce interference with wildlife during crucial time-periods and to prevent the reduction of habitat to a level where it is insufficient to maintain winter wildlife populations. White River ROD and Approved RMP, at 2-26-2-28, A-19-A-21 (July 1997); Grand Junction Resource Area RMP and ROD, at 2-14-2-16 (Jan. 1987); ROD and RMP of the Glenwood Springs Resource Area, at 13 (Table 2), 14, 18-19, App. B51 – B52 (1988). Reasons for closing lands to oil and gas development included the need to protect WSAs, for example, not wildlife habitat. White River ROD and Approved RMP, at 2-9; Grand Junction Resource Area RMP and ROD, at 2-7-2-10; ROD and RMP of the Glenwood Springs Resource Area, at 13 (Table 2), 14. There is no explanation in the OSTs PFEIS as to why oil and gas development can occur and oil shale development is excluded. The same time limitations currently used for oil and gas would be just as effective in protecting elk and mule deer seasonal habitats from the potential impacts of oil shale development.

In this context, BLM completely fails to provide a reasoned analysis for its 180-degree change in position for excluding a large portion of the Colorado lands available for leasing in order to protect wildlife habitat. Therefore, BLM's selection of the Preferred Alternative is arbitrary and capricious.

***D. OSTs PFEIS Fails to Conform to the National Environmental Policy Act Rules***

**1. OSTs PFEIS Fails to Resolve Significant Scientific Controversies**

Garfield County commented on the OSTs PFEIS as to BLM's failure to locate and consider information that has been generated since the 2008 ROD and to take the requisite "hard



look” as required by NEPA. It commented further on this failure in its Request for IQA Review. *See* Ex.A Garfield County’s IQA Request (Dec. 4, 2012). BLM did add data from companies RD&D projects to the OSTs PFEIS in Appendices A and B, but failed to incorporate this data into its analysis of the available technologies and corresponding environmental impacts throughout the rest of the OSTs PFEIS. In response to comments on its NEPA shortcomings, BLM stated that it has done adequate review as required by NEPA and more specific analysis of environmental impacts from new technologies would be addressed in project-specific NEPA analysis. *See* BLM Comment Response Doc. at 39, 64-66, 129-130, 133, 137-138, 153, 160-161.

NEPA requires that an agency take a “hard look” at the environmental effects of the proposed action, even after a proposal has received its initial approval. *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 374 (1989). BLM must insure professional integrity, including scientific integrity, of the discussions and analyses in the EIS. 40 C.F.R. §§1500.1(b), 1502.24. It must also address scientific controversies that have an effect on the human environment and support its position. 40 C.F.R. §1508.27(b)(4); *Middle Rio Grand Conservation Dist. v. Norton*, 294 F.3d 1220, 1229 (10<sup>th</sup> Cir. 2002) (setting aside critical habitat designation EIS on the basis that “[t]he wide disparity in the estimates of water required for the designation, and the associated loss of farmland acreage, indicates that a substantial dispute exists as to the effect of the designation.”).

The OSTs PFEIS fails to address the scientific controversies, as discussed in the attached IQA letter, in regards to new technological advances in oil shale and tar sands development and the corresponding environmental impacts. *See* Ex. A Garfield County IQA Request (Dec. 4, 2012). This information changes the assumed environmental impacts of Alternatives 1, the No Action Alternatives, and also the premise upon which the Preferred Alternatives rest. The new scientific information and technology show that oil shale development will have fewer environmental impacts, including less water, electrical power, and surface disturbance. Thus, the oil shale development is economically feasible contrary to the conclusions in the OSTs PFEIS.

The new, quality information on oil shale technologies requires BLM to prepare a supplement to the OSTs PFEIS. An agency must prepare a supplement to a draft or final EIS if “(1) [t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns or (2) [t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. §1502.9(c)(1). A supplement may also be prepared if the agency determines that the purposes of NEPA would be furthered by doing so or when a new alternative is added that is outside the spectrum of alternatives already analyzed. *Id.* at §1502.9(c)(2); BLM NEPA Handbook H-1790-1, at 29 (Jan. 30, 2008).

BLM did include a discussion of the new technological advances made and current

RD&D projects in Appendices A and B of the OSTIS PFEIS. BLM, however, did not incorporate this new and quality information into the analysis of the direct, indirect, and cumulative impacts. See BLM Comment Response Doc. at 39, 41, 45, 125, 128, 130, 139, 142-143, 147-148, 153, 156, 159-160, 162-163 (BLM refers to the new technology and resulting impacts as nascent and speculative). BLM's responses omit the fact that the Colorado School of Mines has sponsored an annual symposium on oil shale development and documented this same information in a peer-reviewed context. This omission is a perfect illustration of how BLM failed to address the underlying controversy, perhaps because it could not explain away the science. Past oil shale development information and their corresponding impacts are still carried throughout the analysis of the direct and indirect impacts in Chapter 2, and the cumulative effects analysis in Chapters 4-6. See 2012 OSTIS PFEIS at 4-1 ("Some of the information on the environmental consequences of oil shale development in this chapter is based on past oil shale development efforts . . . information derived from other types of mineral development (oil and gas, underground and surface mining of coal) was used in preparing this chapter."). Therefore, supplementation of the OSTIS PFEIS is appropriate to provide further discussion and analysis of the new technologies and corresponding environmental impacts.

Supplementation is also appropriate because portions of the OSTIS PFEIS, such as Chapter 3 and the Appendices, are outdated. The assumptions from these sections (Chapter 3 and the Appendices) are carried throughout the analysis of the direct and indirect impacts in Chapter 2, and the cumulative effects analysis in Chapters 4-6. This outdated information and analysis dates from the 2008 OSTIS PFEIS and was probably developed more than five years ago. BLM has a continuing duty to evaluate new information especially when it is relying on information from an EIS that is four to seven years old. See *Citizens Against Toxic Sprays, Inc. v. Clark*, 720 F.2d 1475, 1480 (9<sup>th</sup> Cir. 1983) ("In general, an EIS concerning an ongoing action more than five years old should be carefully examined to determine whether a supplement is needed."). This is especially true when the accuracy of the scientific assumptions is contested.

While it is beneficial to look at the technology used in the past for oil shale development, it is just as important, if not more, to include analysis of the new technologies. These new technologies will help resolve some of the environmental concerns raised by the use of past technologies. Further, BLM's failure to analyze the new oil shale technologies and their corresponding impacts violates NEPA. See 40 C.F.R. §§1500.1(b), 1502.24, 1508.27(b)(4).

## **2. BLM's Preferred Alternatives were Predetermined**

Garfield County argued that the OSTIS PFEIS process is a result of a negotiated settlement from a lawsuit brought by environmental groups and that the final decision has been predetermined by this settlement. BLM responded to such comments by stating that the OSTIS PFEIS was not predetermined, and that while it did agree to consider a certain alternative, it has

nonetheless complied with its NEPA obligations. BLM Comment Response Doc. at 143, 147-48. BLM further states that the settlement agreement was consistent with the Secretary's expressed interest in putting more focus on a RD&D program. *Id.* at 143, 147.

An "[EIS] shall serve as the means of assessing the environmental impact of proposed agency actions, *rather than justifying decisions already made.*" 40 C.F.R. §1502.2(g) (emphasis added); *see* 40 C.F.R. §1502.5. The "hard look" required by NEPA "must be timely, and it must be taken objectively and in good faith, not as an exercise in form over substance, and not as a subterfuge designed to rationalize a decision already made." *Forest Guardians v. U.S. Fish & Wildlife Service*, 611 F.3d 692, 712 (10<sup>th</sup> Cir. 2010) (quoting *Metcalf v. Daley*, 214 F.3d 1135, 1142 (9<sup>th</sup> Cir. 2000)). When an agency predetermines the NEPA analysis by committing itself to an outcome, the agency fails to take the requisite hard look due to its bias and has acted arbitrarily and capriciously. *Id.* at 713; *see Davis v. Mineta*, 302 F.3d 1104, 1112-13 (10<sup>th</sup> Cir. 2002) (A federal government officials' prejudgment of NEPA issues resulted in an environmental analysis that was tainted and inadequate.). Predetermination occurs when an agency "irreversibly and irretrievably" commits itself to a particular action before it has completed an environmental analysis. *Forest Guardians*, 611 F.3d at 714.

BLM's settlement agreement with environmental groups has been the primary reason for reconsidering the 2008 PFEIS and for choosing the Preferred Alternatives. *See* Settlement Agreement in *Colorado Environmental Coalition et al. v. Salazar*, 09-00085 (Feb. 15, 2011). Through the agreement, BLM restricted its administrative discretion under the EIS process. BLM committed itself to proposing amendments to the RMPs for Colorado, Utah, and Wyoming and to initiate scoping under NEPA for such revisions. Settlement Agreement at ¶¶1-2. As part of the NEPA analysis, BLM is required to include an alternative that excludes from commercial oil shale or tar sands leasing (1) all areas identified as lands with wilderness characteristics (LWCs), (2) the whole Adobe Town Very Rare or Uncommon area, (3) core or priority sage-grouse habitat, (4) all areas of critical environmental concern (ACEC), and (5) all areas identified as excluded in Alternative C of the 2008 PFEIS. *Id.* at ¶1.

The Settlement Agreement limits the alternatives BLM can consider in the NEPA analysis to a no action alternative, an alternative that removes all the lands just described, and an alternative that removes some of the lands just described. *Id.* at ¶2. BLM then limited the purpose and need statement by agreeing to define it so that it can be met by the two alternatives chosen by the environmental groups in the settlement agreement. *Id.* BLM effectively precluded otherwise reasonable alternatives from being considered by agreeing to this type of statement. *See Colorado Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1174-76 (10<sup>th</sup> Cir. 1999) (an agency may reject alternatives that do not satisfy a reasonable purpose and need.). The purpose and need in the OSTs PFEIS is to "reassess the appropriate mix of allowable uses with respect to oil shale and tar sands leasing and potential development." 2012 OSTs PFEIS at 1-4. BLM will

consider amending the applicable RMPs to specify whether any areas currently open for application for leasing and development should not be available for such application. *Id.*

BLM was committed to a predetermined outcome in the OSTs PFEIS to reduce the potential for oil shale and tar sands development. Large sections and whole chapters of the OSTs PFEIS are largely the same as the 2008 PFEIS. BLM only added discussions about the new technology for oil shale and tar sands development to Appendices A and B after receiving extensive comments from cooperating agencies and others concerning this new and quality data. BLM, however, still refused to incorporate and consider this information in its analysis of the alternatives and environmental impacts. Commentors also proposed an alternative that would increase the amount of lands made available for commercial oil shale and tar sands leasing as compared to the other proposed alternatives, but BLM refused to consider it. BLM chose Alternatives 2 and 2(b) as its Preferred Alternatives, which effectively exclude all the lands from commercial oil shale and tar sands leasing as set forth in the settlement agreement. 2012 OSTs PFEIS at 2-36 - 2-37, 2-69; Settlement Agreement at ¶1.

The Preferred Alternatives also require RD&D leasing requirements be met prior to any commercial lease applications being accepted. 2012 OSTs PFEIS at 2-37 - 2-38. This decision was also predetermined as BLM agreed to not issue any commercial oil shale or tar sands leases until the publication of the RMP amendments, but was allowed to nominate parcels to be leased for RD&D and in the Asphalt Ridge Special Tar Sands Area. Settlement Agreement at ¶¶7-8. BLM had already agreed to only issue RD&D leases and discontinued the issuance of commercial leases before the EIS process had even started. *See Metcalf*, 214 F.3d at 1143-44 (the court invalidated an agency's decision because it had predetermined the outcome when it made a contractual commitment to support the Makah whaling proposal before preparing an environmental assessment.).

Lastly, the set time frames proposed in the settlement agreement provide additional evidence of the predetermined outcome for the OSTs PFEIS. BLM agreed to publish a notice of intent for the RMP amendments within 120 days of the settlement agreement. Settlement Agreement. at ¶1. Then it agreed to issue a final decision on the RMP amendments by December 31, 2012. *Id.* at ¶5. BLM did publish the notice of intent within 120 days and appears intent on issuing the final decision by December 31, 2012, assuming that BLM treats this protest with the same disregard as it did the cooperating agency comments. BLM is rushing to issue a final decision without regard to the facts or competing legal obligations and constraints. Even when multiple cooperating agencies requested more time to comment on the OSTs PFEIS, BLM refused to grant the additional time because it needed to meet the deadline set in the Settlement Agreement. *See* BLM Comment Response Doc. at 1119-20. BLM gave cooperating agencies less than two weeks to review several thousand pages of text in the OSTs PFEIS.

BLM has not met its statutory obligation under NEPA to take the requisite hard look at the new technologies and environmental impacts, rather than justifying a decision already made, due to its premature commitment to the Preferred Alternatives and to arbitrary deadlines. 40 C.F.R. §§1502.2(g), 1502.5.

***E. Implementation of LWC Classifications in RMPs is Unlawful***

A significant percent of the excluded acreage in the OSTs PFEIS is justified on the basis that the LWCs must be protected. 2012 OSTs PFEIS at 1-5, 2-12, 2-22, 2-36, 2-38, 2-47, 2-51, 2-69, 2-75, 2-77, 2-79. Garfield County has commented on the fact that BLM's attempt to implement S.O. 3310 and the corresponding guidance manuals violates the Congressional spending moratorium. BLM responded to such comments by stating that nothing in the Congressional actions prevents it from considering the wilderness value of lands in establishing, revising, or amending lands use plans pursuant to FLPMA. BLM Comment Response Doc. at 57-58, 145.

**1. OSTs PFEIS violates Congressional Funding Freeze on LWC Identification and Management**

On December 22, 2010, Secretary Salazar announced a new initiative to identify and manage public lands with wilderness character. S.O. 3310 Protecting Wilderness Characteristics on Lands Managed by the Bureau of Land Management (Dec. 22, 2010).<sup>9</sup> This action was followed with the adoption of manuals to guide BLM employees in the implementation of the extra-wilderness designation process. The resulting controversy and outcry, not to mention Director Abbey's admission that no specific section of FLPMA authorized the identification of lands with wilderness character outside of Section 603, led Congress to defund the entire initiative. Department of Defense and Full-Year Continuing Appropriations Act, 2011 (Pub. L. 112-10, Sec. 1769); Consolidated Appropriations Act, 2012 (Pub. L. 112-74, Sec. 125) (Dec. 23, 2011); Continuing Appropriations Act, 2013 (Pub. L. 112-175) (Sept. 28, 2012).

BLM has long contended that a mere inventory of wilderness character falls within its authority, citing 43 U.S.C. §1711(a). But FLPMA is equally clear that BLM cannot change land management based on an inventory unless and until the land use plan is amended. *Id.* The OSTs PFEIS uses an undisclosed wilderness inventory and then proposes to change the management of these areas to protect the alleged wilderness character without disclosure of the basis for BLM's

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<sup>9</sup>The Wild Lands Policy, IM 2011-154 and the LWC and wildlands manuals (MS 6310 and 6320) contradict the commitments made to the State of Utah, the U.S. Congress and the public when the Secretary stated that he would honor the Settlement Agreement between Utah and DOI (Answering Yes to the question from Senator Bennett "Do you agree that currently the Department has no authority to establish new WSAs (Post-603 WSAs) under any provision of law, such as the Wilderness Act of [sic] Section 202 of FLPMA?") The Secretary also stated BLM had no authority to impose nonimpairment management on non-WSA lands.

determination. This is exactly what S.O.3310 directed BLM to do and what Congress prohibited. When Congress froze all funding for S.O 3310, two months after the *Colorado Environmental Coalition v. Salazar* (09-0085, 09-0091) settlement, BLM's hands were tied. The apparent decision to proceed regardless of the funding freeze is in contempt of Congress and unlawful. 31 U.S.C. §1341.<sup>10</sup> DOI and BLM officials who authorized the expenditure of these funds face employment actions and even criminal penalties. *Id.* at §§1341, 1350.

Calling these areas LWCs or claiming that BLM is only using its separate inventory authority does not change the result. BLM proposes to manage the areas in the same manner as it would have had Congress not shut down all funding related to S.O. 3310. Changing the name from "Wildlands" to "LWCs" does not make the action any more lawful. BLM has assiduously avoided any kind of public rulemaking process to implement the switch from S.O. 3310 to Instruction Memorandum (IM) 2011-154, and in 2012 to manuals that were issued without public notice or rulemaking. FLPMA requires that any implementation of authority be through APA rulemaking, and the manuals materially change the planning rules and criteria and cannot be implemented by this nonpublic process without violating the law. 43 U.S.C. §1740.

The OSTs PFEIS contradicts Congress' clear direction that BLM cease and desist from implementing the provisions of S.O. 3310. The fact that BLM put the implementing manuals in abeyance but issued IM 2011-154 and more recently manuals that implement the Order does not excuse BLM from the clear violation of Congress' edict. 31 U.S.C. § 1349, 1340. The IM 2011-154 and the manuals suffer from procedural deficiencies as well. It was issued without coordinating with local governments, public comment or in accordance with rulemaking procedures. Thus, it independently violates FLPMA's mandate that its provisions be implemented through rulemaking, 43 U.S.C. §1740.

An IM issued by BLM in order to evade the funding and implementation freeze on S.O. 3310 enjoys little or no presumption of legality. *United States v. Mead Corp.*, 533 U.S. 318 (2001) (holding that the court owes little deference to agency guidelines). By implementing the IM, BLM runs a serious risk that the OSTs PFEIS will be set aside.

## 2. No Legal Authority to Implement Secretarial Order 3310 or Similar Direction

Unlike the definition of multiple use for National Forests, 16 U.S.C. §529, FLPMA does

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<sup>10</sup> The Antideficiency Act provides that "an officer or employee of the U.S. Government may not make or authorize an expenditure or obligation exceeding an amount available in an appropriation or fund for the expenditure or obligation; involve the government in a contract or obligation for the payment of money before an appropriation is made unless authorized by law . . ." 31 U.S.C. §1341. The act imposes criminal penalties for violation, *Id.* at §1350, and authorizes adverse personnel action for employees that violate the law. *Id.* at §1349.

not include wilderness as one of the statutory multiple uses. 43 U.S.C. §1702(c). Wilderness has its own definition, which is limited to Section 603. ("(I) The term 'wilderness' as used in section 1782 of this title shall have the same meaning as it does in section 1131(c) of Title 16." *Id.* §1702(I). The term 'wilderness' is found only in the definition section, 43 U.S.C. §1702(I), and the wilderness review provisions of Section 603, 43 U.S.C. §1782; 43 C.F.R. §1601.0-5(I). Section 603 is the only provision in federal law that authorizes the identification, study and recommendation of public lands for wilderness designation by Congress. Thus, BLM is not at liberty to add wilderness to other provisions in FLPMA when Congress so clearly chose not to.

Only Section 603 of FLPMA authorizes BLM to manage lands so as to not impair their wilderness character. *Tri-County Cattleman's Association Idaho Cattlemen's Association*, 60 IBLA 305, 314 (1981). There is no other statutory authority for BLM to study and manage public lands as if they were wilderness. Public lands are to be managed so as to not unduly and unnecessarily degrade the resources. (43 U.S.C. §1732(b) [nondegradation standard], except for WSAs which are managed so as to not impair the wilderness character.) *Id.* at 1782(c).

The Interior Secretary's authority to identify public lands as wilderness study areas under Section 603 has expired. *State of Utah v. Babbitt*, 137 F.3d 1193, 1206, n.17 (10<sup>th</sup> Cir. 1998) (Secretary Babbitt wrote "I also agree with you that FLPMA's section 603 no longer provides authority to inventory BLM land in Utah for wilderness values."). BLM has attempted to claim discretion to manage lands to preserve their wilderness character but the planning rules do not so provide. The rules were revised to remove wilderness study from the general planning process and have never been amended to make wilderness study part of the land use planning process.<sup>11</sup>

Section 202 of FLPMA provides for the development and revision of land use plans. 43 U.S.C. §1712. Land use planning must have coordination with state and local governments, public involvement and be consistent with FLPMA. 43 U.S.C. §1712(a). The criteria for developing and revising land use plans, includes (1) using and observing the principles of multiple use and sustained yield set forth in FLPMA and other applicable laws, 43 U.S.C. §1712(c)(1); (2) interdisciplinary approach, §1712(c)(2); (3) priority to designate ACECs, §1712(c)(3); and (4) "to the extent consistent with the laws governing the administration of the public lands, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the States and local governments within which the lands are located," §1712(c)(9). FLPMA further states: "Land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act." *Id.*

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<sup>11</sup> By comparison, the Forest Service revised its planning rules to integrate wilderness study and recommendations into each plan revision. 36 C.F.R. §219.27 (1982).

Nothing in Section 202, which governs land use planning, authorizes wilderness study or wilderness-type management. The history of the planning rules shows that the word "wilderness" was deleted from the draft of the planning rules on purpose. When BLM wrote the rules governing land use plans, it originally defined a resource management plan as including "the initial determination of whether a wilderness study area shall be recommended to the President for recommendation to the Congress as suitable or unsuitable as an addition to the National Wilderness Preservation System." 43 Fed. Reg. 58764, 58768-69 (1978) draft 43 C.F.R. §1601.0-5(p)(2). The definition of a resource management plan was later revised to delete reference to wilderness study area recommendations. *See* 44 Fed. Reg. 46386 (1979). Thus, BLM has no regulations in the land use planning chapter authorizing establishment of wilderness type areas or authorizing nonimpairment management for such lands other than designating WSAs pursuant to Section 603, which expired.

BLM adopted the Wild Lands Policy through three Manuals, based on its claimed discretion in FLPMA, Sections 201, 202 and 302 of FLPMA. Those provisions do not support BLM's claimed authority to designate Wild Lands or LWCs or to manage them as if they were designated WSAs for nonimpairment of the wilderness character.

IM 2011-154 and later the manuals were adopted without proper comment procedures and without coordination with local governments. Under Section 202(a), BLM has no choice but to coordinate with local governments and to resolve conflicts in land use plans. 43 U.S.C. §1712(a). So far BLM has failed to do so on this very important issue. Garfield County does not support proposed or identified LWCs. BLM has clearly violated Section 202 by not coordinating both its inventory and LWC determination with the state and local governments.

The OSTs PFEIS also fails to identify which, if any, inventory it has used to identify the LWCs. The single map in the OSTs PFEIS identifies these areas but does not disclose the factual basis for the LWC classification. 2012 OSTs PFEIS Fig. 2.3.3-2. Thus, it is impossible to divine the resource values that prompted the classification being used in the OSTs PFEIS. If Garfield County had access to this information, it could provide site specific documentation of the errors in the premise that these are LWCs.

These lands are not "wilderness" as that term is used in the Wilderness Act. These areas are heavily roaded and include powerlines, rights-of-way for pipelines, as well as oil and gas development. Chapter 6 of the OSTs PFEIS lists the areas and acreage without providing maps or a description. The OSTs PFEIS uses a limited and incorrect definition of wilderness. Footnotes to Tables 6.1.1-2 and 6.2.1-3 state: "The key characteristics of wilderness that may be considered in land use planning include an area's appearance of naturalness and the existence of



outstanding opportunities for solitude or primitive and unconfined types of recreation.” This statement is materially incorrect, because the definition of wilderness requires that an area be roadless and that it be greater than 5,000 acres. 16 U.S.C. §1131(a). The OSTs PFEIS conveniently drops the first two criteria. It appears that the OSTs PFEIS adopts this unofficial and inaccurate information and excluded significantly high potential public lands from oil shale and tar sands leasing.

## VI. Conclusion and Remedy Requested

Based on the foregoing, Garfield County requests that the BLM Director set aside and remand the Proposed RMP Amendments for Allocation of Oil Shale and Tar Sands Resources on Lands Administered by the BLM in Colorado and OSTs PFEIS with the following direction:

- (1) Select the No Action Alternative as the only alternatives consistent with the purposes and provisions of EP Act;
- (2) Provide for and promote a commercial oil shale and tar sands leasing program without an RD&D first requirement;
- (4) Resolve the significant scientific controversies documented herein as required by NEPA;
- (5) Meet its statutory obligation under NEPA to take the requisite hard look at the new technologies and environmental impacts, rather than justifying a decision already made, due to its premature commitment to the Preferred Alternative and to arbitrary deadlines; and
- (6) Comply with FLPMA and the congressional funding freeze in not protecting LWCs.

Thank you for the opportunity to submit this protest.

Sincerely,

BOARD OF COUNTY COMMISSIONERS OF  
GARFIELD COUNTY, STATE OF COLORADO

By: \_\_\_\_\_

John F. Martin, Chairman