- Connelly, J.W., M.A. Schroeder, A.R. Sands, and C.E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wildl. Soc. Bull. 28:967-985.

- Braun, C.E. 2006. A Blueprint for Sage-grouse Conservation and Recovery. Unpublished report.

These reports are attached as Exhibits 6-12.[12]

Most importantly, this research shows that at a minimum the BLM should adopt a minimum of a three-miles no surface occupancy and no surface disturbance/vegetation treatment buffer around sage grouse leks in order to protect the leks themselves as well as surrounding nesting habitat. BLM's standard two-miles limitation has been shown to be insufficient by this research. If the Wyoming BLM State Office is prepared to adopt greater protective measures for the sage grouse, as we have heard, any such measures should be incorporated into the Rawlins RMP before it is finalized.

With respect to pygmy rabbits, it would appear that the only protection that currently applies is a requirement for intensive management in identified crucial habitat. Page 2-109. Greater, more proactive management is needed. At a minimum, the BLM should provide that pygmy rabbit habitat (not "crucial" habitat) will be "avoided" and it should put in place requirements to survey for pygmy rabbit presence in areas likely to contain this species prior to allowing disturbance. It is generally recognized that this species frequents areas with sandy soils in areas of tall or dense sagebrush. As a BLM sensitive species, BLM must avoid impacts so as to meet its obligation to "include specific habitat and population management objectives designed for conservation" and "management strategies necessary to meet those objectives."[13] The BLM should especially avoid disturbance in sand dune areas because such disturbance, according to the recently released draft EIS for the Moxa Arch Infill in the Kemmerer Field Office, "may rarely be fully reclaimed to the original vegetative composition and structure." An affirmative obligation to avoid impacting pygmy rabbit habitat coupled with surveys to determine if rabbits occupy an area will provide far greater conservation benefit to this species than intensive management required only in "identified crucial habitat," a designation which may not even exist or be defined so far as we know, and which has no existing data base or other repository so far as we know. See Exhibit 13 (BLM report on the status of the pygmy rabbit noting the lack of information on habitat for this species).

With respect to prairie dogs, the ACEC proposed under Alternative 3 should be adopted in the Rawlins RMP. More importantly, the requirement that surface disturbing activities be prohibited within 50 meters of white-tailed prairie dog areas should be

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[12] The Ph.D. Dissertation of Matthew Holloran is available at http://www.voiceforthewild.org/general/pubs.html.

[13] The term "conservation" is defined in BLM's special status species manual and specifically with respect to special status species (as opposed to ESA listed species) it means "to use, and the use of, methods and procedures such that there is no longer any threat to their continued existence or need for continued listing as a special status species." (emphasis added).

adopted in the Rawlins RMP, even if the ACEC is not designated. See page 2-84. In addition, above-ground facilities should not be permitted within one-quarter mile of prairie dog towns unless equipped with raptor anti-perch devices, and power poles should not be allowed in prairie dog towns. Page 4-481. Given the possibility of listing of this species, the BLM should take strong proactive management steps to remove this species from its sensitive species list, not to mention preventing listing under the ESA. This is required by the BLM's sensitive species manual and the other legal provisions discussed above,

II. THE BLM MUST IMPROVE THE AIR QUALITY ANALYSIS IN THE RAWLINS RMP.

The Rawlins RMP suffers from several significant shortcoming with respect to its consideration of issues related to air quality and climate change. These include a need for a quantitative analysis of air quality impacts rather than a qualitative analysis, the need for a specific consideration of the impacts of implementation of the Rawlins RMP on climate change and the likely implications of climate change for the Rawlins RMP, a need for a careful consideration of potential impacts from ozone pollution, and a need for BLM to ensure that it "provides for compliance" with the Clean Air Act and other air quality regulations, standards, and plans. Furthermore, the mitigation for air quality impacts specified in the Rawlins RMP is insufficient, and below we will recommend specific improvements with respect to mitigation measures. Each of these issues will be considered in turn.

A. The BLM Must Do a Quantitative Analysis of Air Quality Impacts.

The Rawlins RMP did not provide a quantitative analysis of air quality impacts, rather it only provided a qualitative analysis. Pages 4-5, A4-11, A4-27. In essence all that was presented was an inventory of likely future increases in emissions of criteria air pollutants. Page F-44 (Figure 4-24). It is anticipated that emissions of air pollutants will increase from 20,960 tons per year to 42,305 tons per year by 2023. Page 4-11.

This "analysis" is insufficient to meet the requirements of NEPA. An EIS must consider the environmental impacts of a federal action, it must consider the effects of the action. A consideration of the environmental effects of an action requires a consideration of both the direct and indirect effects. 40 C.F.R. § 1508.8. Here the BLM has provided no such analysis, it has presented an inventory of the likely increase in pollutants but it has made no attempt to consider the direct effects that "are caused by the action and occur at the same time and place" nor has it made any attempt to consider indirect effects "that are caused by the action and are later in time or farther removed in distance." Id. All that BLM does is state that the tonnage of pollutants will increase from 20,960 tons per year to 42,305 tons per year. Page 4-11. See also page 2-116 (presenting contrary data).

BLM unequivocally states that based on its "RMP-specific air quality analysis" the impacts on ambient criteria pollutant concentrations, visibility, atmospheric

deposition, or ozone "are not known, it is not possible to draw any conclusions to potential expected impacts on these air quality values." Page A4-27. On a cumulative basis it states that impacts on these air quality values "are not known, [and therefore] it is not possible to quantify potential impacts on these air quality values from sources in the [region of influence]", although it does then go on to say that based on analyses done for the Desolation Flats project and the Atlantic Rim project the "possibility" that emissions may significantly impact visibility "must be considered." Id. See also page 4-94 to 4-96. In any event, the BLM downplays the utility of the analyses done for these two projects even further: "It would be inappropriate to infer [resource management plan planning area] impacts directly from impacts estimated for the Desolation Flats or Atlantic Rim projects as a result of differences in such components as emissions inventories."[14] Page 4-496. In other words, the air quality analyses for these projects specifically do not fill the gaps in the analysis for the Rawlins RMP.

This is not the "detailed statement" on the "environmental impact of the proposed action" or the "adverse environmental effects which cannot be avoided should the proposal be implemented" that NEPA requires. 42 U.S.C. §§ 4332(2)(C)(i)-(ii). It is nothing more than an inventory of emissions with no concrete conclusions whatsoever regarding potential impacts of the emissions. This is a violation of NEPA. The BLM is required to "consider every significant aspect of the environmental impact of a proposed action." Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 98 S.Ct. 1197, 1216 (1978).

The BLM offers up several reasons for why its qualitative analysis is appropriate. All of these reasons are completely unavailing. The BLM claims that there was insufficient specific data on future projects, "there was limited time available to complete the analysis, quantitative analysis will be required as development projects are defined, and the Wyoming Department of Environmental Quality will ensure compliance with air quality standards. Page A4-27. See also pages 4-5 and A4-11 to A4-12.

BLM anticipates that 8,822 wells will be drilled under this RMP. Page ES-7. BLM already know where at least 12,190 of those wells will be drilled (this number is correct); its scoping notice for the Continental Divide-Creston Project states that 8,950 wells will be drilled in that project area, BLM just approved drilling 2000 wells in the Atlantic Rim project area, and the draft EIS for the Seminoe Road project stated that 1,240 well would be drilled in that area. Quite simply, quite a bit is known about where development is likely to occur. See Maps 3-5 and 4-7 (presenting existing fields and likely areas of future development). BLM has a very good idea about where development is going to occur. Moreover, in fields like the Creston-Blue Gap field and

[14] At a minimum the following should be noted. The Desolation Flats project allows for approximately 350 wells to be drilled and the Atlantic Rim project allows for 2000 wells. Yet the Reasonably Foreseeable Development Scenario under the Rawlins RMP is that 8,822 wells are anticipated to be drilled. Page ES-7. Clearly the analysis done for the limited number of wells in these two projects can say little about the much greater number of wells that are likely to be drilled in the Rawlins Field Office under the auspices of the RMP. Furthermore, many of these wells will be drilled in the Continental Divide-Creston project area, which is much closer to the Bridger Wilderness Class I area than either Desolation Flats or the Atlantic Rim.

the Atlantic Rim where there has been extensive prior development or extensive developmental drilling (on PODs), the BLM knows many more details—like how deep wells will likely be, the likely spacing of wells, and so on. Claimed lack of knowledge about where future projects will be is not a convincing reason for not preparing a quantitative analysis of air quality impacts. As recognized by the courts,

> An agency may not avoid an obligation to analyze in an EIS environmental consequences that foreseeably arise from an RMP merely by saying that the consequences are unclear or will be analyzed later when an [environmental assessment] is prepared for a site-specific program proposed pursuant to the RMP. "[T]he purpose of an [EIS] is to evaluate the possibilities in light of current *and contemplated* plans and to produce an informed estimate of the environmental consequences . . . . Drafting an [EIS] necessarily involves some degree of forecasting."

Kern v. United States Bureau of Land Management, 284 F.3d 1062, 1072 (9th Cir. 2002) (underlines added).

Likewise, "limited time" being available to prepare a quantitative analysis is not persuasive. This RMP revision process has been going on for at least six years. See Page 5-6 (noting that the notice of intent to prepare this EIS was published on February 25, 2002). Clearly "limited time" has not been an issue here. It does not take 6 or more years to develop a quantitative analysis, which is the implication of BLM's claim that there was not enough time to develop a quantitative analysis. In any event, an agency's self imposed time deadlines do not excuse it from preparing a legally sufficient EIS.

That quantitative analyses may be prepared for future projects is also of no moment. The BLM's obligation is prepare an adequate NEPA analysis for this proposed federal action potentially significantly affecting the quality of the human environment, that is, the Rawlins RMP, not some unknown and unspecified future projects. And that the Wyoming Department of Environmental Quality may ensure compliance with the Clean Air Act also does not excuse the BLM from fully disclosing what the environmental impacts of its actions will be, regardless of whether legal standards will or will not be violated. The BLM acknowledges that implementation of the RMP may at a minimum cause significant impacts to visibility in protected Class I areas, at least on a cumulative basis, which is more than enough to trigger a requirement for a full and complete analysis regardless of what DEQ may require or do at some point in the future.

We must note that this situation stands in inexplicable contrast to what is going on just across the border in Colorado. In the Little Snake Field Office the BLM is conducting a quantitative air quality impacts analysis as part of that RMP revision. The Little Snake Field Office shares approximately a 130-miles border with the Rawlins Field Office. It is utterly arbitrary to have one Field Office engaging in a quantitative analysis while an immediately adjacent Field Office engages in a qualitative analysis. The two analyses are entirely incomparable and therefore of greatly reduced utility. This is totally contrary to rational land use planning and management, as well as NEPA. Given that the

reasons offered up by the Rawlins Field Office for not doing a quantitative analysis are entirely unpersuasive, the BLM should not approve the proposed Rawlins RMP until a far more useful and informative quantitative air quality impacts analysis is completed so as to allow for fully informed, as opposed to benighted, land management.

B. The BLM Must Consider the Impacts of Implementation of the Rawlins RMP on Climate Change and Global Warming and Must Consider the Implications of Climate Change on the Environment in the Rawlins Field Office that will be Subject to the RMP.

The Rawlins RMP currently has almost nothing to say about climate change. This is insufficient to meet the requirements of NEPA given the increasing and almost universal recognition of the significance of this issue. The courts are increasingly demanding that this issue be considered. See Massachusetts v. Environmental Protection Agency, 127 S.Ct. 1438 (2007) (U.S. Supreme Court determines the harms associated with climate change are serious and well recognized and greenhouse gases fit well within the Clean Air Act's definition of an air pollutant). We would note that BLM is under direction from the Secretary of the Interior to "consider and analyze potential climate change impacts" when developing RMPs. Exhibit 14 (letter from the Secretary of the Interior regarding need to consider climate change). This directive applies specifically to oil and gas development activities. And of course, NEPA requires that BLM consider all environmentally significant issues in its RMP EIS, and there is no doubt that global warming is such an issue.

Not only will the CO_2 emissions generated by activities occurring on BLM lands contribute to global warming, the impacts of global warming are likely to affect management actions and options in the Rawlins Field Office. For example, there is increasing evidence of earlier and drier springtime conditions in the Rocky Mountain West (in effect summer is coming at earlier and earlier dates), which is having profound effects on wildfire occurrence and size. Exhibit 15. We believe the BLM should consider likely climate impacts that will occur in the Rawlins Field Office and make provision for addressing them. Furthermore, at a minimum the BLM should provide an estimate of the quantity of CO_2 emissions that will be generated by activities on BLM lands and identify means to reduce those emissions. At least as importantly and perhaps more importantly, the BLM should identify the quantity of methane (CH_4) that will be emitted as a result of oil and gas development activities and identify means to reduce those emissions. Methane of course is a far more "powerful" greenhouse gas than is carbon dioxide. The failure to provide at least this level of analysis of climate change issues makes the Rawlins RMP legally deficient.

C. The BLM Must Consider Ozone Pollution Impacts in the Rawlins RMP.

As currently written, the Rawlins RMP provides no analysis of potential impacts from ozone pollution. The emissions of particulate matter (PM10 and PM2.5), nitrogen oxides (NOX), sulfur dioxide, volatile organic compounds (VOC) and hazardous air pollutants are specified, but ozone formation and pollution is not addressed, even though

it is a criteria pollutant under the Clean Air Act. This is unacceptable and does not meet the requirements of NEPA.

The Rawlins Field Office is currently at 94 percent of the national ambient air quality standard for ozone. Page 3-4 (Table 3-1). Ozone "is a strong oxidizing chemical that can burn lungs and eyes and damage plants at high concentrations." Page A4-2. In fact, the EPA is poised to lower the National Ambient Air Quality Standard for ozone, likely in March 2008. Exhibit 16. Given this, the Rawlins RMP EIS cannot simply ignore this highly significant pollutant that can have severe impacts on human health, especially among vulnerable populations such as the very young and old and those with respiratory problems. The Rawlins RMP predicts dramatic increases in "ozone precursors" (primarily VOC and NOX, but also carbon monoxide) so clearly there is a strong likelihood for an increase in the ozone concentration in the area. Given that the national ambient air quality standard is almost exceeded already and given that EPA is poised to lower the standard even farther so as to fully protect human health and welfare, the BLM cannot just ignore this issue in the Rawlins RMP.

D. The BLM Must "Provide for Compliance" with the Clean Air Act and Related Regulations, Standards, and Plans.

The FLPMA requires that BLM land use plans shall "provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans." 43 U.S.C. § 1712(c)(8). It might be worth noting that this requirement extends farther than just ensuring compliance with National Ambient Air Quality Standards; it applies as well to other standards and implementation plans.

As currently fashioned, the Rawlins RMP does not meet this requirement. At a minimum, the BLM acknowledges that there may be significant impacts on visibility in protected Class I areas and that there may be significant impacts on nitrogen deposition, affecting air quality related values on Forest Service lands. Pages A4-27 to A4-28. See also pages 4-494 to 4-496. A failure to meet the national goal of the "prevention of any future and the remedying of any existing impairment of visibility in mandatory class I Federal areas," 42 U.S.C. § 7491(a)(1), is not providing for compliance with a relevant standard or plan, as required by the FLPMA. Likewise the failure to ensure compliance with the standards adopted by the relevant Federal Land Manager for the protection of air quality related values on protected Federal lands is a failure to meet the obligation established by FLPMA. Moreover, framed in the negative, the BLM cannot possibly claim that the Rawlins RMP will "provide for compliance" with the Clean Air Act and other air quality standards and plans because it affirmatively states in the RMP that it has almost no idea of what impacts will result as a consequence of implementation of the RMP due to the fact it has only engaged in a qualitative analysis. Ignorance does not allow the BLM to find—as it must under the explicit terms of FLPMA—that the Rawlins RMP will "provide for compliance" with clean air protection requirements.

E. Mitigation that Would Help Ensure That the BLM "Provides for Compliance" with Applicable Clean Air Laws.

The Rawlins RMP is virtually silent regarding any protections that would be applied to protect air quality. Generally, the BLM would do little more than leave protection of air quality to the State of Wyoming and assist in monitoring efforts. Pages 2-20 to 2-21. Certain measures might be "considered" although even that is far from certain. Page A4-28. We believe the BLM can do much better than this and we would like to make the following recommendations.

First, the BLM should commit to asking and encouraging the DEQ to apply the air pollution control standards currently applicable in the Jonah and Pinedale Anticline fields on BLM lands in the Pinedale Field Office to concentrated development areas in the Rawlins Field Office (the Atlantic Rim and Continental Divide-Creston fields, and perhaps in the future the Seminoe Road field). As the BLM is aware, the DEQ requires best available control technology (BACT) to be applied to emissions from oil and gas development throughout the state, but it has stricter requirements that apply to the Jonah and Pinedale Anticline fields.[15] See http://deq.state.wy.us/aqd/oilgas.asp. In developing the new guidance for BACT applicable to oil and gas development, which was adopted by the DEQ in September 2007, the DEQ initially planned to require the provisions applicable to Jonah and the Pinedale Anticline in all "concentrated development areas" in the state, which certainly would have included the above-mentioned fields in the Rawlins Field Office. In the end, the DEQ decided not to extend the heightened requirements beyond the Jonah and Pinedale Anticline Fields at this time, but it also made it clear that it intended to move in this direction in the future, the option definitely was not taken off the table. Consequently, if the BLM were to approach the DEQ and ask that these requirements be extended to concentrated development areas in the Rawlins Field Office, there is a significant possibility that it would agree to do so. Given the BLM's obligation to provide for compliance with clean air requirements in the Rawlins RMP, this is a very reasonable and practical mitigation measure that the BLM should commit to pursuing in the Rawlins RMP.

Second, the BLM should adopt the language and policy being adopted by the BLM with regard to the Pinedale Anticline project in western Wyoming. Specifically, the Pinedale Anticline revised draft supplemental EIS provides that the "ultimate goal of air quality mitigation . . . is to ensure that emissions . . . result in zero days of visibility impairment over 1 dv" in Class I areas. Revised Draft Supplemental EIS for the Pinedale Anticline Oil and Gas Exploration and Development Project at 4-84. The Rawlins RMP should adopt a like goal, which is in compliance with the national goal established by the Clean Air Act of no impairment of visibility in Class I areas. Moreover, in the initial draft supplemental EIS for the Pinedale Anticline project, the BLM stated that this goal would be met by using "any and all available means" to achieve the goal. The BLM should adopt like mitigations measures for implementation in the Rawlins RMP. This is

[15] The DEQ is also moving toward regulation of emissions from drill rigs in the Pinedale and Jonah fields, and this could be an option in the Rawlins Field Office as well.

necessary to ensure that BLM meets its obligation to "provide for compliance" with clean air law and policy.

III. THE DISCUSSION OF UNAVOIDALBE ADVERSE IMPACTS AND THE RELTIONSHIP BETWEEN LOCAL SHORT-TERM USES AND LONG-TERM PRODUCTIVY PRESENTED IN THE RAWLINS RMP IS INSUFFICIENT.

In addition to requiring an analysis of the environmental impacts of a proposed Federal action, the NEPA also requires a "detailed statement" regarding the "relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity" and "any adverse environmental effects which cannot be avoided should the proposal be implemented." 42 U.S.C. §§ 4332(2)(C)(ii) and (iv). The BLM presents these required considerations on pages 4-534 and 4-536 of the Rawlins RMP, although these statements of little more than a page each hardly qualify as being "detailed."

Both of these discussions suffer from a similar and fundamental flaw that makes them insufficient because they are simply incorrect. The underlying problem is that the BLM does not seem to fully recognize or embrace the high degree of retained rights that it enjoys in areas where oil and gas leases have been issued. The level of these rights has been discussed in some detail above. If the BLM were to fully acknowledge and pursue with enthusiasm its retained rights, many "unavoidable adverse impacts" would not be unavoidable at all and many short-term uses would not have nearly so many consequences for long-term productivity.

For example, with respect to big game crucial winter ranges and impacts thereto, the BLM claims that "impacts to crucial habitats would be unavoidable under current BLM policy to foster oil and gas development." Page 4-534. This is simply a misstatement of what national policy is. National policy is to foster oil and gas development in full recognition of and implementation of many equally relevant and binding environmental protection laws and policies. Pursuing oil and gas development does not stand alone as some separate overriding goal. If the BLM claims otherwise, it is simply wrong. Such a claim would be a complete mischaracterization of the law, and a result of it would be the BLM would overstate what adverse impacts are "unavoidable." Deeming these impacts "unavoidable" allows the BLM to justify and permit these impacts when in fact it need not do so and cannot do so. As discussed above, the BLM has almost complete authority to regulate the time, place, and manner of oil and gas development, and in fact an obligation to do so. Operators' economic considerations and desires are not binding on the BLM except at some outer limits (i.e., if the regulation allows for no economically viable use of the leasehold). Using its retained authority the BLM has many, many options at its disposal to prevent "unavoidable" impacts—lease suspension, requiring directional drilling and other development techniques, pursuing lease trades, etc. Many "unavoidable" impacts of oil and gas development are in fact avoidable if the BLM would fully recognize and exert its retained rights. Because this is

not recognized, the discussion of unavailable adverse impacts in the Rawlins RMP is insufficient and incorrect.

The discussion of short-term use versus long-term productivity suffers from similar problems. If BLM recognized its right to require a paced form of oil and gas development, short-term uses could be tempered with resultant benefits to long-term productivity. If the BLM were to adopt a "vision" for future oil and gas leasing and adopt oil and gas leasing categories accordingly many inappropriate and unneeded short-term uses could be avoided, protecting long-term productivity.

The BLM should revise these discussions in full recognition of its retained rights in areas that have been leased for oil and gas development so that it fully understands what impacts are unavoidable and can fully recognize the degree to which long-term productivity might be impacted. Absent such, the Rawlins RMP does not fully educate either the BLM or the public on these important issues.

IV. CONCLUSION

For the foregoing reasons, the protesting parties protest the following provisions in the Rawlins RMP on the bases stated above:

Parts of Plan Protested	**Brief Non-exclusive Statement Of Reasons Why Decision Is Wrong. For Complete Reasons And Issues See The Full Text Of The Protest**
Provisions for leasing classifications made in Map 2-38, on pages 2-36 and 2-37, and related references in Chapter 4, and Table 2-4.	Decisions related to leasing classifications fail to fully recognize BLM's retained rights in leased areas; would fail to prevent unnecessary or undue degradation of the public lands; fail to meet the obligation to engage in multiple use management as defined in FLPMA; fail to abide by FLPMA's requirement to protect relatively scarce values and ensure long-term benefits are maintained; fail to meet the environmental protection obligations established by NEPA; fail to meet the requirements of the BLM's sensitive species manual for BLM sensitive species and recognize the likely ESA listing of the sage grouse, pygmy rabbit, and prairie dogs; are contrary to the policies of the State of Wyoming and public opinion in Wyoming; and fail to provide a vision for future oil and gas leasing as is being developed in the Pinedale Field Office and

	recognize the implications of the railroad checkerboard for future leasing decisions.
Provisions for "intensive management" in Tables 2-1 and 2-4 and related references in Chapter 4 and the definition of intensive management on page G-10.	Decisions related to intensive management fail to fully recognize BLM's retained rights in leased areas; would fail to prevent unnecessary or undue degradation of the public lands; fail to meet the obligation to engage in multiple use management as defined in FLPMA; fail to abide by FLPMA's requirement to protect relatively scarce values and ensure long-term benefits are maintained; fail to meet the environmental protection obligations established by NEPA; fail to meet the requirements of the BLM's sensitive species manual for BLM sensitive species and recognize the likely ESA listing of the sage grouse, pygmy rabbit, and prairie dogs; and are contrary to the policies of the State of Wyoming and public opinion in Wyoming.
Provisions related to special designations and management areas and recreation and visitor services presented in Tables 2-1 and 2-4 and related references in Chapter 4.	Decisions related to special area management fail to fully recognize BLM's retained rights in leased areas; would fail to prevent unnecessary or undue degradation of the public lands; fail to meet the obligation to engage in multiple use management as defined in FLPMA; fail to abide by FLPMA's requirement to protect relatively scarce values and ensure long-term benefits are maintained; fail to meet the environmental protection obligations established by NEPA; fail to meet the requirements of the BLM's sensitive species manual for BLM sensitive species and recognize the likely ESA listing of the sage grouse, pygmy rabbit, and prairie dogs; are contrary to the policies of the State of Wyoming and public opinion in Wyoming; and fail to provide a vision for future oil and gas leasing as is being developed in the Pinedale Field Office and recognize the implications of the railroad checkerboard and special management areas for future leasing decisions.
Provisions for the Adobe Town Dispersed	Decisions related to the Adobe Town

Recreation Area on page 2-42, related provisions in Chapter 4, and Appendix 37, as well as Table 2-4.	Dispersed Recreation Area fail to fully recognize BLM's retained rights in leased areas; would fail to prevent unnecessary or undue degradation of the public lands; fail to meet the obligation to engage in multiple use management as defined in FLPMA; fail to abide by FLPMA's requirement to protect relatively scarce values and ensure long-term benefits are maintained; fail to meet the environmental protection obligations established by NEPA; fail to meet the requirements of the BLM's sensitive species manual for BLM sensitive species and recognize the likely ESA listing of the sage grouse, pygmy rabbit, and prairie dogs; are contrary to the policies of the State of Wyoming and public opinion in Wyoming; and fail to provide a vision for future oil and gas leasing as is being developed in the Pinedale Field Office and recognize the implications of the railroad checkerboard and special management areas for future leasing decisions.
Provisions for BLM sensitive species (sage grouse, pygmy rabbit, and prairie dogs) in Tables 2-1 and 2-4 and related references in Chapter 4, as well as Appendices 1 and 13.	Decisions related to the identified sensitive species fail to fully recognize BLM's retained rights in leased areas; would fail to prevent unnecessary or undue degradation of the public lands; fail to meet the obligation to engage in multiple use management as defined in FLPMA; fail to abide by FLPMA's requirement to protect relatively scarce values and ensure long-term benefits are maintained; fail to meet the environmental protection obligations established by NEPA; fail to meet the requirements of the BLM's sensitive species manual for BLM sensitive species and recognize the likely ESA listing of the sage grouse, pygmy rabbit, and prairie dogs; and are contrary to the policies of the State of Wyoming and public opinion in Wyoming.
Provisions related to air quality in Tables 2-1 and 2-4 and related references in Chapter 4, as well as Appendix 4.	Failure to present a quantitative analysis, failure to consider global warming impacts and issues, failure to consider ozone

	impacts, and a failure to "provide for compliance" with air pollution control laws and policy.
The discussion of Unavoidable Adverse Consequences and Short-term versus Long-term Use on pages 4-534 and 4-536.	These discussions fail to recognize the extent of BLM's retained rights in leased areas, and thus improperly overestimate the degree of impacts that must be tolerated and the affects on long-term productivity of the environment that must be endured.

Moreover, the portions of the plan identified by page number throughout the text of this protest are also protested.

As indicated, these decisions are wrong for the reasons stated in the full text of this protest, generally because the decisions would be based on the faulty NEPA and FLPMA compliance noted, and because the decisions would be based on analyses and actions that violate the other legal requirements identified above in the full text of the protest. Because of the flaws identified above, these provisions contrary to the law and public policy cannot be adopted. The recommended improvements we have suggested would correct these problems.

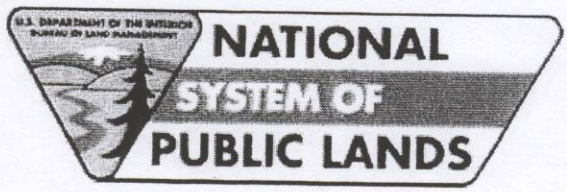
Furthermore, while the specific provisions noted in the table above are protested, these do not represent a complete list of the issues being protested or of the parts of the plan protested. For a complete list of the issues protested, the parts of the plan protested, and the reasons why decisions in the RMP are wrong, reference must be made to the entire text of this protest. Since the specifically protested provisions noted in the table above are based on and depend on the faulty analyses and conclusions identified throughout the Rawlins RMP, the entire Rawlins RMP is subject to protest pursuant to 43 C.F.R. § 1610.5-2, and is in fact protested by the parties.

To correct these problems the parties request that the BLM Director exercise his supervisory authority over the Rawlins Field Office and supplement the Rawlins RMP and/or issue a notice of significant change, with modifications adopted as indicated in this protest. Thank you for considering the points in this protest, and we look forward to improvement of the Rawlins RMP.

Sincerely,

Bruce Pendery
Staff Attorney, Wyoming Outdoor Council
And on Behalf of all Parties

Exhibit 2



Final BLM Review of 77 Oil and Gas Lease Parcels Offered in BLM-Utah's December 2008 Lease Sale

Prepared in response to the "REPORT TO SECRETARY KEN SALAZAR REGARDING THE POTENTIAL LEASING OF 77 PARCELS IN UTAH," submitted by Deputy Secretary of the Interior David J. Hayes, June 11, 2009

October 7, 2009

Introduction

On December 19, 2008, the Utah State Office of the Bureau of Land Management (BLM) held a quarterly oil and gas lease sale. At that sale, the BLM auctioned 116 parcels, including 77 parcels that became subject of a Federal District Court temporary injunction. On January 17, 2009, the court entered a temporary injunction against the sale of the parcels after concluding that plaintiffs had established a likelihood of success on the merits regarding their claims that the proposed lease sales violated the National Environmental Policy Act (NEPA), the Federal Land Policy and Management Act, and the National Historic Preservation Act (NHPA).

On February 6, 2009, Secretary of the Interior Ken Salazar concluded that the issues raised by the court, along with other concerns that had been raised about the lease sale, merited a special review. Specifically, the Secretary stated the following in a memorandum to the BLM's Utah State Director: "There has been considerable controversy surrounding this lease sale, including questions about the degree of coordination between the BLM and other Federal agencies, including the National Park Service, and the adequacy of the environmental review and analysis performed in connection with certain parcels as well as the underlying Resource Management Plans.... Given the concerns raised about the adequacy of the consideration given to important values many members of the public associate with these 77 parcels, such as sensitive landscapes and cultural resources, and my belief that the issues raised merit further review, I am directing you to withdraw the 77 parcels that were covered by the January 17, 2009, Temporary Restraining Order from further consideration in this lease sale."

Deputy Secretary David J. Hayes led a Departmental team that evaluated the December lease sale and made recommendations regarding the matter in a report to the Secretary dated June 11, 2009 (hereafter referred to as the Hayes Report). Deputy Secretary Hayes's review recommended to the Secretary that the BLM should "...appoint a multi-disciplinary team of experienced BLM officials who have not been involved in the decision-making regarding the 77 parcels in question to make site-specific decisions on whether to reinstate any of the 77 parcels." The Hayes Report went on to add: "...the BLM team should determine whether: (1) the parcels should be reoffered to the original bidders under the same conditions as previously specified (in which case the winning bidders should have the opportunity to repay their bonus payments and move toward execution of their leases); (2) the parcels should be reoffered for oil and gas development, but under different terms than had been specified in the original offering (in which case the parcels should be subjected to a new auction process); or (3) the parcels should be deferred from leasing." Finally, the Hayes Report recommended that the BLM initiate a comprehensive air quality analysis for the region and stated, "As the BLM team reviews individual leasing decisions, it should evaluate whether the approval of some of the leases for oil and gas development can go forward without waiting for the completion of the comprehensive air analysis."

The then-Acting Director of the BLM selected a team of 11 persons (the Team or Review Team) to review the lease parcels. The Team was made up of BLM and National Park

Service (NPS) employees experienced in various planning, leasing, and operational aspects of oil and gas development on public lands. The Team was led by an employee of the U.S. Forest Service who is also delegated BLM line management responsibilities under the authority of Service First. Collectively, the Team members represented most of the technical specialties involved in the interdisciplinary review of oil and gas leasing and operations, as well as the processing and approval of lease offerings and development proposals. On average, the Team members have more than 25 years of experience with the BLM or NPS. A roster of Team members and their brief biographies are provided in Appendix A.

Methodology

The Team met in Salt Lake City and received an initial briefing on July 13 from the BLM Utah State Director, the Deputy State Directors for both Natural Resources and Lands and Minerals, and the Director of the Utah Governor's Public Lands Policy Coordination Office. In addition to the entry briefings, each Team member was provided with copies of:

- the December 2008 lease sale information for each of the 77 parcels;
- maps depicting proposed lease stipulations from BLM Resource Management Plans (RMPs), existing leases and oil and gas development activities, special designations such as Wilderness Study Areas and Areas of Critical Environmental Concern, visual resource management classifications, BLM- and citizen-identified wilderness characteristics, and Special Recreation Management Areas;
- copies of the Vernal, Price, and Moab Resource Management Plan Records of Decision; and
- summaries of representative December 2008 lease sale protests.

The Team set out for field trips based out of three offices in eastern Utah. In Vernal, the Team was briefed again by local managers, and spent two and a half days looking at 17 leasing parcels in three groups. In Price, the Team spent two and a half days looking at 24 parcels in three groups. In Moab, the Team spent three and a half days looking at 36 parcels in six groups. During all field trips, the Team was accompanied by local managers and/or mineral staff. During part of the field review in Vernal, the Team was accompanied by the local wildlife biologist; in Moab, wilderness and recreation staff members also went into the field with the Team. The Team was joined in the field by local National Park Service managers to look at one parcel adjacent to Dinosaur National Monument and to look at the West of Arches National Park group of parcels. Up to 14 hours per day were spent in the field on these reviews.

It was the initial intention of the Team to set foot on every one of the 77 leases cited in the Hayes Report. A few of those leases, however, proved to be inaccessible or difficult to access by vehicle and, due to time constraints, the Team had to settle for visual examination at some distance for 11 of them (lease numbers 087, 111, 210, 211, 242, 382, 335, 337, 338, 340, and 343). In those cases, visual examination was from one or

more vantage points sufficient to satisfy Team members that they had adequate knowledge of the parcel in question so as to make an informed recommendation for lease disposition. In all cases, Team members were able to see enough of each lease parcel to observe the general location of the parcel, potential access routes, each parcel's juxtaposition to other land uses and existing oil and gas development, and the landforms and vegetation communities involved.

Many of the lease parcels the BLM offered in the December 19, 2008, Utah sale consisted of more than one distinct unit. Sometimes the Team set foot on all of the units of a lease parcel, sometimes on only one. Frequently, more than one stop was made for a given parcel. It was typical, upon arriving at a parcel, for the Team to get out; make certain of location; photograph key or characteristic views; review the leasing documents, individual protests, and resource maps provided by the Utah State Office and field offices; and discuss the parcel at hand with local staff as well as with other members of the Review Team. Some parcels were explored on foot by a subset of Team members where necessary to gain sufficient perspective of the potential concerns.

After the field visits were completed, the Team spent one and a half days in Moab beginning preparation of this report by listing (first) individual and (second) group consensus assessments on a lease-by-lease basis as the foundation for recommendations on specific parcels, and then developing a list of general recommendations that were subsequently fleshed out and are incorporated below.

Findings

The Team viewed their primary task as developing findings for each of the 77 lease parcels and developing recommendations on whether individual parcels should be leased, deferred, or removed from further consideration for leasing. The Team also accepted the tasks of developing recommendations for dealing with air-quality issues related to the leasing of Federal oil and gas in eastern Utah, and recommending additional criteria the BLM should consider in reviewing specific parcels proposed for leasing and when it may be appropriate to remove parcels from leasing consideration altogether.

It was obvious to the Team that BLM-Utah has put in a great deal of effort in developing new (2008) RMPs that deal, in part, with oil and gas leasing. (Three of BLM-Utah's six new RMPs were applicable to the 77 lease parcels and reviewed by the Team.) The implementation of these new plans in the face of continued active leasing and development will be a challenge to field staff and the state office alike. The relatively high volume of leasing undertaken in the December 2008 lease sale, immediately following the completion of the new RMPs, significantly tested the field staff's ability to make use of the new plans and the automated systems used to identify necessary lease stipulations, lease notices, and other conditions. Consequently, it is not surprising there were some parcel-specific errors in applying the new RMPs to the development of lease stipulations, but overall the Team was impressed with BLM-Utah's effort and accuracy in applying the very new plans to the December 2008 sale. Despite the unfortunate slip in

communication with the National Park Service, as detailed in the Hayes Report, BLM field staff went to significant lengths to correct the error and to ensure communication occurred. Likewise, the National Park Service personnel with whom the Team met also went to great lengths to complete their review of the proposed lease parcels in a very compressed period of time.

Findings for Specific Parcels

The Table below presents the Teams recommendations and rationale for each of the 77 parcels reviewed. The Table is organized by the groups presented in the Hayes Report (see color legend below). The Team recommendations fall in three categories: lease, defer, or remove from leasing.

Differing slightly from the wording used in the Hayes Report, the Team's recommendation to "defer" means that the parcels should not be leased until one or more of the following conditions are met: 1) necessary corrections are made to the leasing documents, including the possible reconfiguration of parcels; 2) needed analysis is completed and changes are made to the supporting RMPs and associated lease stipulations; or 3) a finding that conditions are such that leasing would assist in the orderly development of the oil and gas resource. The rationale for deferral is provided in the right-hand column of the Table. In some cases the Team recommended deferral to provide opportunity for very simple corrections to lease documents or to verify the completion of an inventory. These parcels could be made available for leasing with a minimal amount of effort, but the stipulations and other conditions would likely differ from those incorporated in the December 2008 offering. In other cases, deferral may require reconfiguration of a parcel or consideration of a new lease stipulation that may require an amendment to a newly completed RMP, which could result in a lengthy delay or choice to defer indefinitely. The Team recognizes that in some cases the additional review, analysis, or plan modification may result in a finding that the parcel should be removed from consideration for leasing.

Where the Team recommends "remove from leasing," the field review found that leasing was inappropriate because of critical resource values and/or the apparent lack of net benefit to be gained from leasing. These parcels are presently available under BLM-Utah's newly completed RMPs. In these cases, it may be appropriate to consider modification to the respective RMP or a mineral withdrawal.

Recommendations of "lease" mean that the parcels could go forward as presented in the December 2008 lease sale or with the addition of a Lease Notice that would have no net effect on the ability to develop the parcel (i.e., a clearer statement of what would already have been a requirement under the December 2008 sale).

Hayes report group in "existing gas development and infrastructure areas"

Hayes report group in "more limited development areas"

Hayes report group "requiring more detailed site-specific analysis"

Parcel #	*Recommended Action*	*Issues / Concerns / Rationale*
West of Dinosaur National Monument group		
The Review Team looked at one lease totaling approximately 330 acres, 40 of which are private surface; the lease is in two pieces. Managed by the Vernal Field Office, the Federal surface portion is rolling-to-broken topography dominated by sagebrush, grasses, and rock. It is dissected by a road and parallel pipeline rights-of-way. Several contiguous parcels have authorized, pending, or State mineral leases; there are no active wells in the area. The northeast half mile of the Federal surface portion is contiguous with Dinosaur National Monument's recommended wilderness; a portion of the lease is within the proposed "America's Red Rock Wilderness Act"; the BLM previously found none of the lease to have wilderness characteristics.		
101	Defer	The Team recommends that the BLM and NPS reevaluate the merits of offering the parcel near the park for lease. If a lease is to be offered, the Team recommends the addition of a lease notice identifying the need for viewshed and soundscape analysis in relation to Dinosaur NM. The lease parcel could be reconfigured to allow the immediate leasing of the western parcel involving only split estate without further analysis.
White River Canyon group		
The Review Team looked at six leases totaling approximately 9,588 acres, 320 of which are private surface; the six leases are in a total of 12 pieces. Managed by the Vernal Field Office, most of the leases are in the rugged canyon country surrounding the White River. Most of the adjacent area is leased, with extensive development to the immediate northwest and moderate development to the south. The White River Special Recreation Management Area lies just to the west. Almost the entire area is within the proposed "America's Red Rock Wilderness Act"; the BLM previously found almost the entire area to have wilderness characteristics and chose to protect the surface of three of the leases as a "Natural Area" with a No Surface Occupancy (NSO) stipulation containing very limited exceptions.		
106	Defer	Recommend clarification of the cherry-stemmed road into the lease parcel (section 23) in the lease stipulations discussion. While most of this parcel is NSO, there was confusion among the Team members and local staff regarding the ability to site operations along the road. The Team strongly recommends that no surface occupancy be allowed along or at the end of the cherry-stemmed road. The Team also recommends the addition of an elk habitat stipulation to provide protection to apparent year-around, low-elevation, elk range (a number of elk with calves were observed on this parcel and on nearby parcels within this group).
109	Defer	The Team recommends the addition of an elk habitat stipulation (a number of elk with calves were observed on this and/or adjacent parcels).
110	Lease	
111	Defer	This lease is in two pieces; the western piece could be leased as currently stipulated; the eastern piece, by adding an NSO stipulation, could allow both mineral development and protection of the wilderness characteristics this land has in common with the contiguous Natural Area.
136	Defer	The Team recommends the area of NSO should be extended to cover most of this parcel because of visual quality and the extremely rugged terrain and lack of drilling sites. The VRM II boundary would incorporate the area the Team recommends for NSO. Leasing may be determined to be in the best interest of the public in order to avoid possible drainage of Federal oil and gas due to drilling nearby, particularly to the north and west, but the portions of this parcel below the rim of the large canyon appear to present few drilling opportunities, and much of the area may be reachable from

		adjacent pad locations. The river bottom is primarily split estate with only standard stipulations. Development of Federal minerals in this area would be inconsistent with nearby efforts to protect the visual resources of this area, suggesting the split estate portions should be removed from leasing or NSO stipulations should be applied. Similarly, there appears to be no rationale why the riparian and raptor stipulations were not extended to cover the split estate portions as well.
137	Defer	See the discussion for parcel 136 above.
Central Uinta Basin group		
The Review Team looked at 10 leases totaling approximately 14,107 acres; the 10 leases are in a total of 16 pieces. Managed by the Vernal Field Office, the leases are on lands with two different physiographic expressions: most of the area is in rolling sage brush with juniper and piñon and is crossed by several roads and ways; in the southeast part of this group (leases 115 and 116), the country is considerably more rugged, with more trees and fewer vehicle routes. Some of the nearby land (including the Winter Ridge Wilderness Study Area to the south) has active, pending, or State mineral leases, and there are a few active wells in the vicinity. Most of the leases are within three separate areas proposed in the "America's Red Rock Wilderness Act"; the BLM found wilderness characteristics in one of these (lease 112) that it chose not to protect.		
090	Lease	
091	Defer	This and other parcels in the vicinity include occupied Greater Sage-grouse habitat. The relatively small size of suitable habitat, and its isolation from other sage-grouse habitats, presents the likelihood that oil and gas developments and operations within this parcel will lead directly to the loss of the local grouse population.
093	Defer	This and other parcels in the vicinity include occupied Greater Sage-grouse habitat. The relatively small size of suitable habitat, and its isolation from other sage-grouse habitats, presents the likelihood that oil and gas developments and operations within this parcel will lead directly to the loss of the local grouse population.
094	Lease	
096	Defer	This and other parcels in the vicinity include occupied Greater Sage-grouse habitat. The relatively small size of suitable habitat, and its isolation from other sage-grouse habitats, presents the likelihood that oil and gas developments and operations within this parcel will lead directly to the loss of the local grouse population. Nearby operations may be found to pose significant drainage concerns. If leasing is determined to be in the best interest of the public in order to address drainage, NSO stipulations should be extended to all sage-grouse habitat in this parcel throughout the year.
097	Defer	This and other parcels in the vicinity include occupied Greater Sage-grouse habitat. The relatively small size of suitable habitat, and its isolation from other sage-grouse habitats, presents the likelihood that oil and gas developments and operations within this parcel will lead directly to the loss of the local grouse population. Nearby operations may be found to pose significant drainage concerns. If leasing is determined to be in the best interest of the public in order to address drainage, NSO stipulations should be extended to all sage-grouse habitat in this parcel throughout the year.
098	Defer	This parcel should be reviewed using the soon-to-be-released new Wilderness Characteristics Inventory Manual. Leasing may be found to be in the best interest of the public in order to address the drainage posed by nearby operations. In such a situation, additional stipulations may be found necessary after completion of a revised inventory of wilderness characteristics.
112	Defer	This and other parcels in the vicinity include occupied Greater Sage-grouse habitat. The relatively small size of suitable habitat, and its isolation from

		other sage-grouse habitats, presents the likelihood that oil and gas developments and operations within this parcel will lead directly to the loss of the local grouse population. Nearby operations may be found to pose significant drainage concerns. If leasing is determined to be in the best interest of the public in order to address drainage, NSO stipulations should be extended to all sage-grouse habitat in this parcel throughout the year.
115	Defer	This parcel should only be offered with an NSO stipulation because of obvious access concerns, including highly erodible soils in the only apparent access corridor, wildlife habitat, and cultural resources, as well as possible wilderness characteristics.
116	Defer	This parcel should be reviewed using the soon-to-be-released Wilderness Characteristics Inventory Manual.
Nine Mile Canyon group		
The Review Team looked at five leases totaling approximately 4,050 acres; 1,600 of these are private surface; the five leases are in a total of eight pieces. One (083) is on land managed by the Vernal Field Office; the remaining parcels are managed by the Price Field Office. The lease parcels are in the rugged country around the upper reaches of the Nine Mile Creek and its tributaries, upstream from the cultural Area of Critical Environmental Concern, but within or bordering the associated Special Recreation Management Area and National Scenic Backcountry Byway. Most of the surrounding area has authorized, pending, or State mineral leases; there are no active wells in the area.		
083	Defer	Defer leasing at a minimum; no lease may be a preferred option. Leasing in this area may require supplemental environmental analysis to consider fully the direct, indirect, and cumulative impacts to air quality, cultural resources, big game habitat, the National Scenic Byway, and visual resources. This analysis should also reflect the results of NHPA consultation currently underway and should address methods to reduce the obvious dust issues stemming from heavy oil and gas field traffic in the vicinity.
328	Defer	See the discussion for parcel 083.
330	Defer	See the discussion for parcel 083.
331	Defer	See the discussion for parcel 083.
332	Defer	See the discussion for parcel 083.
Desolation Canyon group		
The Review Team looked at 15 leases totaling approximately 12,760 acres; 1,700 of these are private surface; the 15 leases are in a total of 30 pieces. Two leases north of Nine Mile Creek are on land managed by the Vernal Field Office; the remaining leases are within the Price Field Office. This group of leases can be divided into three physiographic expressions. Those leases north of Nine Mile Creek are in the arid uplands of this canyon just upstream from its confluence with the Green River; vegetation is sparse and views of the eroded landscape are vast. The leases immediately south of Nine Mile Creek are in similarly eroded landscapes, but the north-facing slopes on one side of Horse Bench and the steep south-facing ravines leading into the Green River on the other side make for a landscape considerably more covered with piñon and juniper. The southern leases are on predominantly sage- and grass-covered mesa fingers of the Tavaputs Plateau. The northern leases are within a Special Recreation Management Area, an Area of Critical Environmental Concern, or both. Several of the leases are contiguous with either the Desolation Canyon or Jack Canyon Wilderness Study Areas (WSAs). Most of the leases are within areas proposed in the "America's Red Rock Wilderness Act" that the BLM found to have wilderness characteristics and chose not to protect. Much of the surrounding area (including both WSAs) has authorized or State mineral leases, and there is a narrow band of development trending northwest/southeast through the middle of this group.		
086	Defer	The Team recommends deferral to reconsider the impacts on documented

		wilderness characteristics and to provide opportunity to consider the cumulative impacts of expanded leasing in the area near or accessed (in part) by Nine Mile Canyon. Further, leasing should be deferred until the completion of NHPA consultation relating to the use of, and development near, Nine Mile Canyon. The findings of the ongoing West Tavaputs field development Environmental Impact Statement should also inform future leasing decisions for this area, especially in the case of air quality. Leasing in this area would extend leases into the generally unleased portion of lower Nine Mile Canyon and the expansive canyon network breaking toward Desolation Canyon. Should significant oil or gas production begin on other lands in the immediate vicinity, it may be appropriate to go forward with leasing, but at the present time it does not appear that leasing of this area is needed to ensure the orderly development of minerals.
087	Defer	See the discussion for parcel 086.
335	Defer	See the discussion for parcel 086.
337	Defer	See the discussion for parcel 086.
338	Defer	See the discussion for parcel 086.
339	Defer	See the discussion for parcel 086.
340	Defer	See the discussion for parcel 086.
341	Defer	See the discussion for parcel 086.
342	Defer	See the discussion for parcel 086.
343	Defer	See the discussion for parcel 086.
345	Defer	See the discussion for parcel 086.
348	Defer	The Team recommends deferral to provide opportunity to consider the cumulative impacts of expanded leasing in the area near or accessed (in part) by Nine Mile Canyon. Further, leasing should be deferred until the completion of NHPA consultation relating to the use of, and development near, Nine Mile Canyon. The findings of the ongoing West Tavaputs field development EIS should also inform future leasing decisions for this area, especially in the case of air quality.
349	Defer	The Team recommends deferral to reconsider the impacts on documented wilderness characteristics and to provide opportunity to consider the cumulative impacts of expanded leasing in the area near or accessed (in part) by Nine Mile Canyon. Further, leasing should be deferred until the completion of NHPA consultation relating to the use of, and development near, Nine Mile Canyon. The findings of the ongoing West Tavaputs field development EIS should also inform future leasing decisions for this area, especially in the case of air quality.
350	Defer	The Team recommends deferral to provide opportunity to consider the cumulative impacts of expanded leasing in the area near or accessed (in part) by Nine Mile Canyon. Further, leasing should be deferred until the completion of NHPA consultation relating to the use of, and development near, Nine Mile Canyon. The findings of the ongoing West Tavaputs field development EIS should also inform future leasing decisions for this area, especially in the case of air quality. Portions of this parcel contain high-quality sage grouse habitat; it may be more appropriate to not lease these areas given their significance to this grouse population. Leasing of this parcel would expand Federal mineral leasing into currently unleased areas with little obvious benefit to the orderly development of oil and gas. One piece of this parcel involves split estate.
355	Remove from leasing	Portions of this parcel contain high-quality sage grouse habitat; it may be more appropriate to not lease these areas given their significance to this grouse population. Leasing of this parcel would greatly expand Federal

		mineral leasing into currently unleased areas with little obvious benefit to the orderly development of oil and gas. At a minimum, the Team recommends deferral to reconsider the impacts on documented wilderness characteristics on the federal portion of this parcel, and to provide opportunity to consider the cumulative impacts of expanded leasing in the area near or accessed (in part) by Nine Mile Canyon. Further, leasing should be deferred until the completion of NHPA consultation relating to the use of, and development near, Nine Mile Canyon and the West Tavaputs development EIS.
South of Green River, UT group		
The Review Team looked at four leases totaling approximately 5,700 acres managed by the Price Field Office. The leases are in the vicinity of the Green River, but almost always far enough away to not include riparian habitat; the environment is predominantly broken and very dry, with little vegetation. Most contiguous parcels have authorized, pending, or state mineral leases; there are no active wells in the area. The southern end of this group is contiguous with a large cultural Area of Environmental Concern, and has not been inventoried for wilderness characteristics.		
361	Lease	
368	Lease	
369	Defer	No evidence of completed Wilderness Characteristic Inventory, yet area appears to meet at least minimum size for wilderness character, especially given that the parcel is contiguous with a large ACEC that appears to have few roads. Defer to verify whether wilderness character was inventoried.
370	Defer	See discussion for parcel 369 above.
East of Green River, UT group		
The Review Team looked at four leases totaling approximately 2,910 acres; the four leases are in a total of nine pieces. Managed by the Moab Field Office, most of these pieces are in the scrub flats south of the Book Cliffs; the northeast corner of the northernmost piece of lease 159 and all of lease 187 are on the southern edge of the Cliffs themselves. Vegetation is sparse, with junipers becoming more common in the Book Cliffs. Most parcels in the area have authorized or state mineral leases, but there are no active wells in the area. Three of the leases have portions within areas proposed in the "America's Red Rock Wilderness Act" that the BLM found to have wilderness characteristics and chose not to protect.		
159	Lease	*Note: The map provided to the Team fails to show NSO in Section 15, suggesting BLM-Utah records may need correction before lease is issued. The Team recommends the addition of a water-depletion Notice to Lessees (NTL) to make clear the requirements stemming from Section 7 Endangered Species Act consultation for the Colorado River fishes.*
164	Lease	
169	Lease	
187	Defer	This parcel should be reviewed using the soon-to-be-released Wilderness Characteristics Inventory Manual.
Southeast of Green River, UT group		
The Review Team looked at eight leases totaling approximately 13,445 acres; the eight leases are in a total of 14 pieces. Managed by the Moab Field Office, these leases are dominated by blackbrush and bare rock, dissected by numerous vehicle routes. There are isolated riparian areas, bighorn lambing areas, and a basin of unusual sand dunes dominated by cottonwood trees. All of the leases are within the Labyrinth Rims / Gemini Bridges Special Recreation Management Area. About one-third of the group's lease area is proposed for designation in the "America's Red Rock Wilderness Act"; the BLM found almost all of this to be without wilderness characteristics -- the exception being the southern half of lease 163 (which it chose not to protect). Except for lease 163, the parcels are contiguous with other areas that have authorized, pending, or state		

mineral leases; there appears to be some active production near the west side of this group.		
162	Lease	
163	Defer	This parcel is a substantial distance from the nearest existing Federal oil and gas leases, presenting the issue of inoculating a large, undeveloped area in advance of the logical expansion of development. The Team found little evidence that leasing of this parcel would promote the orderly development of oil and gas. Based on the historical development of this area, including the known geologic structures and targets, and the pattern of existing development and recent leasing, the Team recommends that no leasing occur in the vicinity of this parcel unless/until development progresses to areas much nearer to this parcel. If at some point it is determined to be appropriate to go forward once again with leasing this parcel, stipulations should be reviewed to ensure that potential conflicts with recreation management objectives and wilderness characteristics are fully considered.
166	Defer	Leasing this parcel, particularly the southern portion, would appear to present significant conflict with recreation management objectives.
167	Lease	*Note: Leasing of several parcels within this group would appear to present significant conflict with recreation management objectives presented in the RMP and recreation opportunities apparent on the ground.*
168	Lease	*Note: Leasing of several parcels within this group would appear to present significant conflict with recreation management objectives presented in the RMP and recreation opportunities apparent on the ground.*
170	Lease	*Note: Leasing of several parcels within this group would appear to present significant conflict with recreation management objectives presented in the RMP and recreation opportunities apparent on the ground.*
171	Lease	*Note: Leasing of several parcels within this group would appear to present significant conflict with recreation management objectives presented in the RMP and recreation opportunities apparent on the ground.*
175	Lease	*Note: Leasing of several parcels within this group would appear to present significant conflict with recreation management objectives presented in the RMP and recreation opportunities apparent on the ground.*

The Review Team looked at 12 leases totaling approximately 24,685 acres; the 12 leases are in a total of 18 pieces. Managed by the Moab Field Office, the leases are in two sub-groups. The main sub-group is immediately west on US-191; the closest leases are approximately three miles from the western boundary of Arches National Park. These leases are within the Labyrinth Rims / Gemini Bridges Special Recreation Management Area. The scrublands in the northeast corner of this sub-group soon give way to more a more dominate mix of sage, grass, and red rock; vehicle routes abound. The southwestern sub-group, leases 176 and 177, are on the edge of Hell Roaring Canyon -- more remote, with far fewer vehicle routes. About two-thirds of this subgroup is proposed for designation in the "America's Red Rock Wilderness Act"; the BLM previously found about one-third of the sub-group to have wilderness characteristics, which it chose not to protect. There are a few authorized, pending, or state mineral leases in the vicinity of either sub- group, but there are no active wells.

174	Defer	It appears there may be some reasonable opportunities for leasing within the West of Arches group. The Team recommends that BLM defer leasing until BLM and NPS--and perhaps others such as Utah State Parks, Utah State Lands and USFS--develop a Memorandum of Understanding (MOU) pertaining to the management concerns, communication protocols, and appropriate levels of analysis of surface-disturbing activities within the shared landscapes of the canyon country in the area surrounding Moab, Utah. Within the scope of this MOU, the Team recommends that a

		collaborative re-examination be undertaken of the merits of leasing these parcels. A local collaborative approach could lead to a clearer mutual understanding of how authorized uses and development of all public land ownerships affect the overall value of scenery and recreational opportunities and their corresponding effects on travel and tourism, as well as the their impacts to the ecological functions of the lands. The Team further suggests that such a collaborative effort should consider the benefit of preparing a relatively localized air quality model, the need for a nightskies and a broad scale visual resource analysis. An outcome of this collaborative approach could be a State Director NTL advising all oil and gas lessees of concerns to be addressed in permitting operations in the canyon country.
176	Defer	See discussion for parcel 174.
177	Defer	See discussion for parcel 174.
180	Defer	See discussion for parcel 174.
181	Defer	See discussion for parcel 174.
182	Defer	See discussion for parcel 174.
183	Defer	See discussion for parcel 174.
184	Defer	See discussion for parcel 174.
185	Defer	See discussion for parcel 174.
186	Defer	See discussion for parcel 174.
196	Defer	See discussion for parcel 174.
197	Defer	See discussion for parcel 174.
Southern Uinta Basin group		
The Review Team looked at four leases totaling approximately 6,400 acres; the four leases are in a total of five pieces. Managed by the Moab Field Office, three of the leases are sagebrush flats at the southern edge of the Book Cliffs; the fourth (209) is in two pieces along steep canyons and riparian bottomlands with massive cottonwoods and perennial water, separated from Coal Canyon and Flume Canyon WSAs by primitive roads. Most of the parcels are surrounded by authorized, pending, or state mineral leases; there is considerable activity to the west and southeast. All of the leases are within areas proposed for designation in the "America's Red Rock Wilderness Act"; the BLM found wilderness characteristics on all of 210, most of 211, and some of 212, but none on 209. The BLM chose not to protect the wilderness characteristics present through a "natural area" designation.		
209	Remove from leasing	The Team found apparent big game crucial winter range and corridor, bounded by two WSAs, no apparent well location due to steep slopes and floodplain. NSO may be an option to removing this parcel from further consideration for leasing, but there appears to be little reason to lease this parcel given the pattern and level of development of existing leases in the immediate vicinity.
210	Lease	
211	Lease	
212	Lease	
East of Arches National Park group		
The Review Team looked at one lease totaling approximately 600 acres; the lease is in two pieces. Managed by the Moab Field Office, almost the entire lease is within the canyon of the Colorado River. There are a couple of state mineral leases in the vicinity, some authorized leases to the north, and pending leases within the canyon contiguous to the south, but there are no active wells within three miles. Leases within the		

canyon have a No Surface Occupancy - No Exception stipulation.		
242	Remove from leasing	Although NSO stipulations should ensure protection of the resource values present, there appears to be little reason to lease this parcel from a minerals management perspective and many social and natural resource reasons not to lease.
The Review Team looked at seven leases totaling approximately 8,505 acres; the seven leases are in a total of 10 pieces. Managed by the Moab Field Office, the leases are in two sub-groups. Leases 201-203 are along the Anticline Road—a Utah Scenic Backway, with the sagebrush flats giving way to the cliff-side views of Lockhart Basin on the west side and Hatch Wash on the east. Leases 205-208 are among the sage, piñon, and juniper along the Utah Scenic Backway to the Needles Overlook -- one of our nation's incomparable vistas. There are both authorized Federal and state mineral leases contiguous with all these lease parcels, but only one producing well in the vicinity. Most of these leases are within areas proposed for designation in the "America's Red Rock Wilderness Act"; the BLM found wilderness characteristics only on the edges of the 201-203 sub-group, which it chose not to protect through a "natural area" designation.		
201	Defer	The Team recommends that BLM defer leasing until BLM and NPS--and perhaps others such as Utah State Parks, Utah State Lands and USFS--develop an MOU or similar agreement pertaining to the management concerns, communication protocols, and appropriate levels of analysis of surface-disturbing activities within the shared landscapes of the canyon country in the area surrounding Moab, Utah. Within the scope of this MOU, the Team recommends that a collaborative re-examination be undertaken of the merits of leasing these parcels. A local collaborative approach could lead to a clearer mutual understanding of how authorized uses and development of all public land ownerships affect the overall value of scenery and recreational opportunities and their corresponding effects on travel and tourism, as well as their impacts to the ecological functions of the lands. The Team further suggests that such a collaborative effort should consider the benefit of preparing a relatively localized air quality model, the need for nightskies and soundscapes policies, and a broad-scale visual resource analysis. An outcome of this collaborative approach could be a State Director NTL advising all oil and gas lessees of concerns to be addressed in permitting operations in the canyon country. The value of the shared landscape in this area appears to have been recognized through the RMP designation of nearly all of the East of Canyonlands area as the Canyon Rims Special Recreation Management Area, as well as the state's designation of two Scenic Backways. The Greater sage-grouse stipulations should be removed. This parcel falls within the defined habitat for the Gunnison sage-grouse. The NSO stipulation applied for VRM is not consistent within the Moab RMP, which identified a CSU stipulation for this concern.
202	Defer	See the discussion for parcel 201.
203	Remove from leasing	The Team recommends several of the parcels near Hatch Point be removed from leasing altogether. If, however, leasing is someday determined to be in the public interest in order to protect against drainage, the Team felt no surface occupancy should be allowed, without any exceptions. The parcels in this area are along or very close to two Utah Scenic Backways—state-designated scenic routes. Also, development on the parcels in the Hatch Point area would likely be quite visible from Canyonlands National Park, either the Island in The Sky area, or from the Needles unit of the Park. Similarly, development on the parcels near Hatch Point would be in the foreground for users of the BLM-administered lands in

		the area and would likely be contrary to the VRM II classifications put on most of these lands in the Moab RMP.
205	Remove from leasing	See discussion for parcel 203. Also, the lease package for the December 2008 sale mistakenly included a NSO stipulation for VRM Class II (RMP says CSU), and stipulations for the Greater sage-grouse but this parcel falls within the range of the Gunnison sage-grouse.
206	Remove from leasing	See discussion for parcel 203. Also, the lease package for the December 2008 sale mistakenly included stipulations for the Greater sage-grouse but this parcel falls within the defined range of the Gunnison sage-grouse.
207	Remove from leasing	See discussion for parcel 203. Also, the lease package for the December 2008 sale mistakenly included a NSO stipulation for VRM Class II (RMP says CSU), and stipulations for the Greater sage-grouse but this parcel falls within the range of the Gunnison sage-grouse.
208	Remove from leasing	See discussion for parcel 203. Also, the lease package for the December 2008 sale mistakenly included a NSO stipulation for VRM Class II (RMP says CSU), and stipulations for the Greater sage-grouse but this parcel falls within the range of the Gunnison sage-grouse.

Why Did the Review Team Arrive at Conclusions that Differed from those of the BLM-Utah Staff?

Immediately following the completion of the field work and compilation of the parcel-by-parcel findings presented above, the Team took the opportunity to explore why their findings differed substantially from those of BLM-Utah management and staff. Members of the Team noted that it appeared that BLM-Utah staff followed the established process for reviewing the proposed lease parcels, and with few exceptions had accurately interpreted their RMP decisions and translated those decisions to the December 2008 lease offerings. This was verified by the Team's review of those same RMP decisions and of the lease documents prepared for the December 2008 sale. The Team, however, had the opportunity to complete a great deal of additional review using approaches that were not readily available to the BLM-Utah staff in the fall of 2008. The Team identified the following as key factors in explaining the different findings:

- On-the-ground review of all parcels
- A diverse, experienced interdisciplinary review team
- The hindsight provided by the various lease protests and legal challenges
- The interaction between the Review Team and the responsible land managers and their staff
- Time and attention dedicated to a single task of reviewing the parcels
- Separation from historical issues, baggage, and preconceptions
- Opportunity to see comparisons and contrasts between approaches, parcels, and decisions

On-the-ground Review

The Team had the opportunity to spend nine days in the field looking at each of the 77 lease parcels in question. Doing so provided a great opportunity to ground-truth the maps and data provided to us by BLM-Utah and see firsthand what the issues might be both on the individual tracts as well as in the general vicinity of the parcels. By visiting and viewing the parcels, the Team was able to observe firsthand the issues of access, the vegetation types and land forms involved, and even to observe some of the resources of concern. While Team members would have preferred more time to visit the parcels before finalizing their recommendations, even the short visits to each specific parcel yielded a great deal of information. In the short time available, the Team was able to witness the presence of various wildlife species such as sage grouse and elk, see surrounding viewsheds, to generally assess the opportunities to site development facilities, and gain a feel for the current levels of disturbance in the vicinity.

BLM field staff used a combination of existing knowledge of the area, field visits, and existing data sources (including available inventory data) in developing the RMPs, the associated lease stipulations, and guidance related to oil and gas development. Resource specialists that have worked in a BLM field office for any length of time undoubtedly possess a much greater understanding of the land, resources, and uses involved with each lease parcel. It seems, however, these specialists were not afforded the opportunity to visit the specific lease parcels and assess the configuration of lease parcels offered in the December 2008 sale. Typically, staff review of the parcels to be offered in a lease sale has been a matter of reviewing the existing literature, data files, plan decisions and supporting maps, etc. The Review Team was provided much of this same information, but in addition was provided an opportunity to observe the parcels in the field to verify the records and to assess whether the prescribed stipulations would yield the intended results in each specific instance.

The Team found another significant benefit to the on-the-ground review of proposed lease parcels: the opportunity to observe study and consider the specific configuration of a final lease offering. Often, the BLM receives expressions of interest or nominations for a collection of parcels that may be modified substantially before the lease sale is held. A portion of the nominated Federal minerals may be temporarily deferred from leasing or may be found to have been removed from leasing through the RMP or subsequent actions that could prohibit any leasing (e.g., a large-scale devotion of the lands to a different use or designation). The resulting configuration of tracts making up the parcels available for leasing may in itself result in management concerns not originally contemplated in the BLM's land-use plans or its review of expressions of interest and nominations for leasing. For instance, the BLM's review in advance of the lease sale could defer the leasing of minerals in the middle of a large block, essentially isolating the tracts to be offered on the outer edges of the block. In some cases, this change in configuration could inhibit orderly development of the minerals, could result in the potential to unevenly alter or displace other resources or uses (e.g., wildlife, recreation, or livestock grazing), or could significantly impact resources (such as visual quality) for little gain in fluid mineral development opportunities. The Team's approach provided an opportunity to observe some of the unintended consequences of this type of reconfiguration that may not be readily apparent in an office setting review of the lease parcels.

Interdisciplinary Field Review

The Team comprised persons with a wide variety of BLM, Forest Service and National Park Service experience in the management of oil and gas, as well as other public land resources. While the Team did not have the local experience or expertise typical of BLM field office personnel, they did have an average of more than 25 years experience in their respective fields and brought knowledge and experience in managing oil and gas resources that spanned across the west. Most importantly, the Team met with BLM-Utah personnel together, visited the lease parcels together, reviewed all of the available supporting documentation together, and discussed and compared notes together. This approach provided for a true interdisciplinary review of each of the parcels and made the most of the knowledge and experience individual Team members possessed. While BLM field offices use an interdisciplinary approach in preparing RMPs and in reviewing quarterly lease sale packages, each discipline's review is usually conducted separately. In the past, BLM field offices seldom would have the opportunity for an inclusive interdisciplinary Team visit and discussion of the specific parcels proposed for leasing.

In addition, members of the Team had access to the most recent research, information, requirements, and policies on several disciplines that were not available to the field offices at the time of the lease sale.

The Benefits of Hindsight

Included in the documentation provided for the Team's review were summaries of some of the lease protests received for the December 2008 sale and some of the court documents filed by various plaintiffs. The Team had the benefit of reviewing the stated concerns in conjunction with their visits to the parcels and were able to actually ground-truth the alleged errors and omissions. Field offices in eastern Utah appear to be familiar with the typical protest points based on past experience, but they did not have the opportunity to review the parcels in light of the specific protests prior to making the determination that a parcel should be offered in an upcoming lease sale.

Interaction between the Review Team and Field Managers

During field review, the Team was given an opportunity to hear the local manager's rationale for RMP decisions and the determinations to offer specific parcels in the December 2008 sale. This interaction informed the Team of how BLM-Utah anticipated future development would occur and how lease stipulations, in conjunction with conditions of approval, would protect various resources. Given this information, the Team was in a good position to consider whether the goals and objectives of the local managers could reasonably be met through under the terms and conditions applied to a parcel in the December 2008 lease sale.

Time Devoted to the Review of Specific Parcels

Except for the opportunity to conduct on-the-ground site visits, the most striking difference between the Team's review of parcels and the review conducted by BLM-Utah prior to the December 2008 lease sale may be the amount of time the Team was able to devote – as a team -- to the review of each parcel. Although the Team's review was compressed into a short amount of time, it was the only task at hand for the Team members. In addition, the review involved only the 77 lease parcels in question rather than the 241 parcels announced on November 4, 2008, subject to BLM-Utah review in advance of the December sale. Presumably, field office review of proposed lease parcels began with an even greater number of parcels in the early fall of 2008.

Separation from Historical Issues, Preconceptions, and Involvement

Several of the Team members had some level of familiarity with the physical and socio-political landscape of eastern Utah, but none of the Team members were directly involved in the development of the eastern Utah RMPs or the BLM-Utah oil and gas leasing process. This enabled the Team to take a very objective look at the lease parcels and the data, determinations, and decisions presented in the various documents made available for the Team's review. The Team did hear some anecdotal accounts of perceived political pressures in relation to Federal resource development's effect on neighboring lands and economies, historical conflicts over issues such as access and road maintenance, internal guidance on the development of RMPs, etc., but the Team was not itself subjected to these external influences.

In addition, several field office employees said they believed they were required by law to give greater deference to mineral leasing proposals than to the protection of other land uses on specific leases. While it is unclear how that notion came to be commonly believed, the Team's analyses were not encumbered by this misconception.

Opportunity to Compare Parcels and Approaches

The Team looked at parcels offered in three different field offices of BLM-Utah under three different RMPs. This provided an opportunity to observe and question why there were differences in approaches and decisions. For instance, the three RMPs differed in the way they notified potential lessees of water-depletion issues pertaining to the recovery of threatened or endangered fishes in the Colorado River drainage even though a single interagency recovery plan applies to all three of the field offices visited. In other cases, there were some relatively obvious differences in the way visual management criteria were applied and the corresponding way in which visual resource management concerns were reflected in lease stipulations. It was readily apparent that the BLM Utah State Office had assisted the field offices in achieving some levels of consistency in their RMPs, yet differences in approaches were still apparent as the Team compared lease parcels and the protections incorporated in the proposed lease packages.

What Does this Mean in Terms of the Overall BLM Approach to Leasing Decisions?

The field review of proposed lease parcels by an experienced interdisciplinary team clearly yielded somewhat different results in terms of determining whether parcels proposed should be leased. This occurred even though the evidence available to the Team suggested that BLM-Utah's review of parcels was thorough, completed by qualified personnel, and consistent with the recently completed RMP direction. Based on the Review Team's experience, it appears that on-the-ground, interdisciplinary, objective review by qualified personnel having sufficient time devoted to the task of proposed lease parcel review may yield different results when compared to a GIS-based review of RMP decisions and documented resource values. As explained above, there are several other "advantages" the Team had in reviewing the parcels offered in the December 2008 sale, but the greatest benefit came from the concurrent field review by experienced personnel.

A BLM policy requiring an interdisciplinary field review of proposed lease parcels would likely yield similar differences in finalizing oil and gas lease offerings. Such a policy, however, would present enormous challenges to the BLM in terms of staffing, skills availability, budget, and foregone work under current levels of leasing interest and activity. Given recent levels of leasing interest, the backlog in offering parcels, the somewhat unpredictable nature of industry's expressions of interest and nominations, the frequency and size of lease sales, and the seasonal limitations on access to many parcels and areas, it may be unreasonable to expect the BLM to be able to comply with such a requirement.

As an alternative to adding a requirement for the BLM to complete field review of all lease parcels nominated under the current process, the BLM could take steps to limit the scope of oil and gas lease offerings in a way that could ensure opportunity to complete necessary field reviews. Such an approach should make use of industry's expressions of interest and nominations to prioritize general areas and even specific parcels to be considered for leasing. If the BLM were to play a greater role in identifying which parcels to offer in each lease sale, there would likely be several benefits in addition to ensuring opportunity for necessary field review:

- Lease parcels could be configured in a way that would better ensure orderly development of the fluid mineral resource, including the correction and avoidance of potential drainage situations;
- Quarterly lease offerings could be concentrated in certain field offices and rotated around the state allowing more time for individual offices to concentrate on the review of upcoming sales and to have a "breather" between the less frequent sales in their particular office;
- Nominations identified for any given lease sale could be required further in advance, allowing more time for field review;
- Interdisciplinary thinking and interoffice coordination could be built in up-front;
- Field work could be conducted in "blocks," making more efficient use of staff time needed for field review;
- Field review could be planned and completed ahead of time;
- Field staff could better anticipate, avoid, and prepare to respond to lease protests;

- Lease protesters could focus their arguments on more-specific areas and resource concerns;
- Problems associated with "pioneer" or speculative leases could be avoided by concentrating leasing in areas where development is most likely to occur based on historical development, adjacent development, or geologic information;
- Lease stipulations for new areas would be more uniform; and
- Coordination with other interested parties such as state land managers, the National Park Service, etc., could be concentrated by area, and planned and completed well ahead of the lease sale notice.

Along with the benefits of the BLM playing a greater role in controlling the timing, size, and pattern of lease offerings, there would undoubtedly be some costs and pitfalls. These could include reduced bonus bids or even no bids on reconfigured parcels, or effects on the development of adjacent non-Federal mineral leasing and development. The BLM would need to carefully evaluate the various benefits and costs of this recommendation to be sure necessary safeguards and incentives are put in place. Nonetheless, the Team believes this change holds great promise in addressing many of the concerns raised in the Hayes Report and observed by the Team while conducting their field review of BLM Utah's December 2008 lease sale parcels in eastern Utah.

Air Quality

The Hayes Report instructed the Team to evaluate whether the approval of some of the leases for oil and gas development can go forward without waiting for the completion of the comprehensive air analysis. Several factors were presented in the Hayes Report to help guide the Team in this review. As presented in the Table above, the Team found a number of lease parcels that could go forward without additional air quality modeling being conducted. In most cases, these parcels are near existing development and do not appear to pose any significant new threats to air quality. In several of the groups of parcels considered, the Team found that additional air quality study would be appropriate (see for instance, the Nine Mile Canyon group), or that local land and resource managers needed to develop a framework for how to assess protections for shared landscapes (see for instance, West of Arches group).

The Hayes Report found that: "While some analyses of air quality issues have been undertaken in the areas covered by the Utah RMPs and others are underway, attention to the issue remains both limited and fragmented." The Hayes Report went on to recommend that the BLM move forward with a comprehensive air quality strategy for the region, in consultation with the National Park Service, the Environmental Protection Agency, and state officials. The Hayes Report said the comprehensive strategy should include:

- An analysis of whether and, if so, what additional monitoring is needed in the Utah RMP areas to adequately characterize air quality in the region for key parameters.

- A plan to install and maintain any additional monitoring stations, in cooperation with other agencies and interested stakeholders.
- The initiation of a programmatic air-quality Environmental Impact Statement that will analyze current air quality in the Utah RMP areas, and will model the impacts that alternative development scenarios may have on air quality in the areas.

The Team was not in a position to develop the details of a comprehensive air quality strategy for the region nor to develop a plan for installing additional monitoring stations. Through field work, review of documentation supporting the December 2008 lease sale, conversations with BLM-Utah and National Park Service employees, and through internal discussions, the Team finds sufficient evidence to confirm the findings presented in the Hayes Report. The Team offers the following discussion in support of furthering the Hayes Report direction to prepare a comprehensive air quality strategy across agencies, both Federal and state.

A Comprehensive Interagency Strategy

It is apparent that BLM needs to take a leadership role in developing a comprehensive strategy for considering air quality effects of oil and gas leasing and permitting actions for eastern Utah. The Team had the opportunity to discuss and observe some of the air quality concerns for eastern Utah. This portion of the Intermountain West certainly presents some air quality issues (e.g., mandatory Federal PSD Class I areas, NPS-monitored ozone concentrations approaching applicable Federal standards at three locations), but these potential energy-related air quality issues are not limited to eastern Utah. In addition, there is the need for a multi-agency (both Federal and state) consideration of these issues. The Team recommends that the BLM take a leadership role in developing a comprehensive strategy to address energy leasing, development, and related air quality concerns for Utah, and perhaps Colorado, New Mexico, Wyoming, and Montana as well. For each of these states there is significant energy leasing and development activity, as well as current and emerging air quality concerns (e.g., continuing compliance with Federal ozone standards in the Four Corners region, in southwestern Wyoming, and near the northeast Utah-Wyoming border). In the end, it may be more appropriate to divide this region into smaller study areas due to modeling concerns, etc., but the initial concepts should be developed on a broader scale.

During the review of BLM-Utah's December 2008 lease sale, it became apparent to the Team that there were some significant differences between the various agencies in the views, approaches, and policies related to air quality management during land-use planning and in fluid mineral leasing and development decisions. The Team sees a need for the development of a comprehensive air quality strategy involving the BLM, state air quality bureaus, EPA, the National Park Service, and the USDA-Forest Service. Each of these agencies plays a key role in land use planning, authorization or permitting of potential pollutant sources, and/or in protecting air quality, and should be involved in developing a comprehensive strategy. Consideration should also be given to involving or providing opportunities for the involvement of interested tribes. A significant amount of related work has already been completed (e.g., the Federal Land Managers' Air Quality

Related Values Workgroup [FLAG], the Federal Leadership Forum, the Four Corners Air Quality Task Force, and Western Regional Air Partnership's haze modeling), but there remains a need to develop a stronger, more inclusive interagency approach to this issue that cuts across the responsibilities and authorities of state and Federal agency players. The BLM, as a primary player in the leasing and development of oil and gas resources, is well positioned to initiate this interagency, interstate approach.

Monitoring of air quality

Throughout the Team's time in Utah, it heard statements to the effect of there being too few air-quality monitoring sites in eastern Utah. In the region evaluated, EPA reports that no regulatory air quality monitoring is currently conducted, although the NPS operates ozone monitors at Canyonlands National Park (since 1998), Dinosaur National Monument (since 2007), and Colorado National Monument (since 2007). The Northern Ute Tribe has also installed two new monitoring sites with EPA's assistance within the external boundary of the Uintah and Ouray Reservation (these data are not yet available).

The Team recommends that one of the first tasks is to identify necessary or appropriate locations for regulatory air quality monitoring stations and the measurement parameters appropriate for each station. Air quality monitoring is needed to: 1) characterize air pollutant concentrations at specific locations and time periods; 2) compare to conditions predicted through air-quality modeling and inform necessary adjustments to models using empirical data; and/or 3) evaluate the effectiveness of required mitigation (stipulation) requirements. A comprehensive air quality strategy must take into account what monitoring activities are needed to inform future decisions. Recent information indicates that these air-quality issues are not likely to improve on their own in the near future. As a result, it is imperative to increase and then maintain our knowledge of existing air quality in order to implement effective actions and mitigation measures.

A key component of an effective monitoring strategy would be how monitoring is funded – both the initial outlay for equipment and the ongoing operational costs, including quality control, quality assurance, and data management. The interagency, interstate approach to developing a comprehensive strategy would lend itself well to the distribution of adequate funding and operation responsibilities, ensuring that state boundaries and agency-specific interests alone would not inordinately influence monitoring activities. Private funds, such as energy industry or other applicant/lessee/permit holder sources, may also contribute to the overall funding, but the locations, equipment, and parameters of measurement should be prescribed by the affected state and Federal agencies developing the comprehensive strategy.

Choosing an appropriate modeling platform

Another major consideration is the selection of a modeling platform to be used as the basis for potential modeling efforts. The intent here is not to limit future efforts to a single model or vendor, but instead to identify appropriate regional air quality modeling methodologies and components to enhance comparisons among jurisdictions. This will

allow for evaluation of potential new emission sources and the effectiveness of potential mitigation measures in a comprehensive strategic manner. This recommendation is intended to streamline the modeling effort by seeking agreement of modeling protocols in advance, hopefully avoiding conflicts regarding the modeling process. Development of such a modeling platform should be developed cooperatively, including EPA's guideline models, but there may be benefit if the various agencies were to strategically select the appropriate regional modeling platform. In addition, these agencies have already begun discussions with the Western Governors' Association regarding the expansion of their Western Regional Air Partnership (WRAP) for this kind of modeling effort.

Using an agreed-upon modeling platform should reduce the controversy and concern over who conducts the modeling analysis and who provides funding. Using a formally accepted modeling platform, and ensuring transparency in the parameters controlling the model, should limit controversy regarding the reliability of the results regardless of which agency or private entity is responsible for the model or who pays for the effort. In addition, finding common ground on how to interpret and apply modeling results is also needed.

Efficacy of mitigation

This region has already encountered air quality concerns, with some areas approaching the National Ambient Air Quality Standards for ozone. New potential sources are frequently proposed. Mitigation of these new proposals may prevent less-than-desirable air quality situations from getting worse, but this mitigation may not be the most efficient way to improve air quality. Additional work should be done to inform BLM managers and others on what mitigation measures can be most effective, including when and where they should be required. An example is the recently completed Four Corners Air Quality Task Force study that examined the potential for mitigating (reducing) coal-fired power plant emissions as well as those from oil and gas development. An expansion of this effort for the rest of the region, combined with the comprehensive modeling effort, should be considered by the partners developing the Comprehensive Interagency Strategy.

Limitation of models

Additional modeling is universally supported by the involved agencies, yet there appear to be widely varying views of what air quality modeling can do for decisionmakers. Modeling is an effective tool for predicting potential air quality conditions based on assumed activities and related emissions. In this form, models provide an excellent tool for comparing between various alternatives in terms of evaluating potential sources of pollutants and in terms of mitigation options. While the results of modeling are invaluable for making comparisons, they should not be used as absolute answers without understanding their limitations. The comprehensive interagency strategy should include a discussion of what models can and can't do for decisionmakers to be sure that the various agencies represented have a shared understanding of the value of model results.

Regional Model and Programmatic Air Quality Environmental Impact Statement

The Hayes Report found that the BLM should initiate a regional modeling effort and a programmatic air-quality Environmental Impact Statement that will analyze current air quality in the Utah RMP areas, and will model the impacts that alternative development scenarios may have on air quality in the areas. The Team believes it may be premature to initiate such an effort in advance of convening the interagency effort described above. In recent years there have been numerous air quality models prepared for various reasons within the Intermountain West. These models, and their results, have been met with widely varying levels of acceptance and support, in part due to disagreements tied to acceptable data, selection of models, inputs to the modeling effort, and how the results should be interpreted and used. A comprehensive strategy will resolve most of these issues, and should be completed in advance of launching a regional model effort.

Once the protocols for regional models are developed by the interagency team, and models are completed and results made available, it would be appropriate for the BLM to consider how the results might affect existing land-use plans and their implementation. The Team suggests that review would benefit from the involvement of interagency partners as well. If the results of the regional models appear to constitute significant new information that could reasonably affect the decisions presented in existing RMPs, BLM-Utah (and other BLM offices as appropriate) should then initiate an effort to supplement the EISs developed in conjunction with the RMPs and consider the need to modify the RMP decisions as they pertain to oil and gas leasing and development.

Other Issues and Recommendations of the Team

Throughout the review, the Team kept track of several other issues and concerns that became apparent and developed recommendations in hopes of assisting BLM-Utah and the BLM's Washington Office fluid minerals staff. The remainder of this report discusses issues and recommendations of the more substantive findings.

Utah RMPs vary significantly in their use of "no surface occupancy," "no surface disturbance," and the use of related exceptions, modifications, and waivers. BLM-Utah should ensure consistency in application of NSO stipulations and in the exception, modification, and waiver criteria. Utah field offices have identified various categories of surface disturbing activities for which NSO stipulations could apply—activities including fluid mineral development as well as other uses. In some cases, these stipulations include related exception, modification, and waiver language. Exception criteria differ between offices; some allow exceptions for NSO while others do not. The differences in applying exception, modification, and waiver criteria seem to be an aspect of striving for equal treatment of all surface-disturbing uses and an attempt to provide consistency in application of surface-management constraints among different program activities (e.g., realty, oil and gas, other minerals). However, this apparent attempt to achieve "equal treatment" may prove to be confusing and to unnecessarily constrain otherwise important multiple-use management. An "equal treatment" approach may also prove to be

inappropriate given the types, extent, and limitations of the management activities, use authorizations, or transfer of rights that may be involved. The Team recommends:

- Give strong consideration to providing no exceptions to NSO for oil and gas stipulations;
- If retained, identify specific criteria and decision points to be applied in considering an exception to an NSO stipulation and the intent in such an action;
- Consider an NTL to address the application of exception, modification, and waiver criteria;
- Provide clarification of the differences between no surface disturbance and no surface occupancy;
- Review stipulations for all other surface-disturbing activities to ensure stipulations are appropriately structured and labeled to avoid confusion with NSO stipulations made part of oil and gas leases.

There should be greater interdisciplinary participation in identifying lease parcels to be offered. There appears to be little interdisciplinary input into the formulation and configuration of lease parcels. Instead, nearly all lease offerings are initially identified by industry, leaving BLM specialists to independently assess the potential impacts and to identify appropriate lease conditions under relatively short timeframes. There is a need to develop a process to adequately reflect the needs of other resources as identified in each field office's RMP during the lease formulation process. The Team observed that field offices did not fully understand how lease parcels were formulated by the Utah State Office and believed that the current process did not adequately address the needs of other resource decisions identified in each field office's RMP. As recommended previously in this report, the BLM should take a greater role in identifying which parcels should be offered for lease and an interdisciplinary process should be used in identifying these parcels. Parcel configuration should be by the BLM's choice rather than the result of screening out various pieces that may have been nominated by industry since the ultimate configuration of a parcel in itself may result in unnecessary environmental effects and may not be in the interest of orderly development.

The Review Team recommends that BLM-Utah develop policy and a process to ensure an interdisciplinary parcel review to incorporate current RMP decisions in the formulation of lease parcel lists. This process should also address issues of parcel size, shape, and location in relationship to areas previously leased or unleased public lands. Field offices should be involved very early in the lease parcel formulation process to raise local concerns and ensure that they are addressed prior to being elevated to the state or national level.

The presence of a sizeable backlog of nominated lease parcels greatly increases the pressure placed on BLM staff in terms of time to complete the work and perceived political leverage. Some of the backlog simply presents the challenge of catching up with demand over a period of time, but there are undoubtedly some nominated parcels that would not be appropriate to lease. These parcels remain on the backlog indefinitely in the absence of a readily available means for removing them from

further lease consideration. The Utah State Office maintains an overwhelming backlog of potential lease parcels that have been nominated for competitive leasing. Many of these parcels were previously deferred while the RMPs were being completed. The addition of many potential lease parcels late in the December 2008 lease sale review process led to hurried review and the failure to provide timely notification to the National Park Service and others. Working through the backlog of parcels will continue to stretch the BLM Utah's capability. The Team recommends:

- The Utah State Office should provide the respective field offices with a complete list of parcels remaining on the "deferred" list for a "triage"-level review and recommendations outside of the normal lease sale review process and timeframes;
- BLM-Utah field offices consider all new information (since finalization of their respective RMP/EIS) in their parcel review, including information that has come in the form of lease sale protests, or has been provided by stakeholders such as the National Park Service;
- Following the initial review, the Utah State Office should finalize their decisions for the backlogged nominations, proceeding with offering parcels, deferring for additional analysis, or rejecting the lease nominations;
- The BLM Washington Office should develop or clarify policy relating to parcel deferral to provide a clear, easily implemented option of removal from further consideration for the life of an RMP when a parcel-specific review yields new information;
- The BLM should consider making greater use of withdrawal actions to provide lasting protection of key resource values.

During the Team's review, information was provided that showed previously offered parcels adjacent to one or more of the 77 parcels reviewed for which protests have not yet been resolved. These parcels were mapped as "pending leases." The parcel-specific recommendations made here should be considered in addressing the outstanding protests for these pending leases. In a number of cases, the Team found potential inconsistencies between the ways in which parcels offered in the December 2008 sale were treated, or how the Team determined the December 2008 parcels should go forward, with the previous leasing actions for adjacent, sometimes contiguous, parcels that remain under protest. The Team recommends that in completing the review of those protests, the BLM Utah State Office should consider the findings in this report to achieve greater consistency. Examples of such issues can be found with the pending leases in Lockhart Basin where leasing or surface occupancy may be inconsistent with the visual resource management objectives and past BLM expenditures in scenic overlooks, in addition to the concerns raised in this report for parcels east of Canyonlands National Park group. Other examples include pending leases in the Central Uintah Basin group surrounding occupied sage-grouse habitat.

During the field review, it became apparent that BLM and National Park Service managers in the "canyon country" near Moab, Utah, should increase their levels of coordination and collaboration in dealing with oil and gas leasing and development. The Team strongly recommends that the BLM and NPS work together, inviting

representatives of SITLA and the USDA-Forest Service to develop a joint vision and strategy for managing the shared landscapes of canyon country. An MOU outlining how the partners agree to manage the shared canyon country landscape may be appropriate.

BLM-Utah should avoid issuing new leases in the viewsheds and soundscapes it shares with Arches National Park and Canyonlands National Park until the state and Federal land managers in the canyon country have an opportunity to develop a more collaborative approach to dealing with shared landscapes. As existing leases expire in this area, the lands previously leased should also fall under this shared landscape approach.

As discussed under specific parcels in the Table, there appears to be a great need and opportunity for canyon country land managers to collaborate in identifying the key features drawing the millions of visitors to their area each year, and to develop a framework or common understanding of how each managing agency contributes to the protection or enhancement of these features. The spectacular scenery and tremendous vistas of the canyon country are obviously major draws for tourism and other recreationists. Recreational opportunities, including mountain biking, off-roading, hiking, river sports, sightseeing, cultural resource viewing, and other activities make the area a world-class destination. It is the aggregate of these opportunities, involving lands managed by the BLM, National Park Service, and others that is so important. Visitors to the region's parks make great use of the surrounding public lands. Likewise, visitors to the public lands managed by the BLM make great use of the National Parks. Canyon country truly represents a shared landscape where land management by one entity greatly complements the management by others.

Some helpful outcomes of this process would include a joint vision of what canyon country can and should offer to the public and the development of mutually accepted analytical tools for measuring various use and management proposals against the ability to preserve the vistas, resources, and resource uses that are so important to the character of the region and its local economies. Included in these analytical tools should be a nightskies assessment, a soundscape assessment, a broad-scale visual resource analysis, and a local model of air quality and potential changes to air quality that can be used as the framework for assessing impacts to the National Parks' Class 1 airsheds and for identifying preferred approaches to manage resource uses and visitation to the region. Also, it may be found appropriate to develop and issue a State Director NTL advising all oil and gas lessees of the concerns to be addressed in permitting operations in the canyon country.

The potential benefit of greater coordination and collaboration between the BLM and NPS was evident at Dinosaur National Monument. Opportunities to avoid repetitive requests for leases in inappropriate locations immediately adjacent to the park, especially the viewshed of the new planned visitor center and entrance road, were readily apparent.

Dark nightskies and natural soundscapes can be adversely impacted by oil and gas development and their associated ancillary facilities. There is a potential for direct visitor impact from BLM-authorized oil and gas construction and development with

respect to nightskies (direct observation of artificial night-time lighting, the reduction in astronomical observations due to increased optical scattering, and impacts on biological species) and soundscapes (where natural sounds are degraded by those caused by human industry or technology). In some instances, these sources may also create biophysical impacts. In recent years, significant headway has been made by Federal agencies in furthering our understanding of the role that these two parameters play in overall ecosystem health and visitor enjoyment of Federal lands including ways to mitigate impacts to these resources. Further research is currently under way that will yield even more useful information.

The Team recommends that the BLM, through a team approach with NPS, USDA-Forest Service, and the Fish and Wildlife Service, develop and implement "Best Management Practices" related to nightskies and natural soundscapes. This effort can take advantage of the existing body of knowledge and expertise and be poised to implement emerging information and transform the protection of these two parameters into standard oil and gas operating procedures. Through its deliberations, such a team may identify mitigation techniques that need to be tested for their efficacy. The team should consider engaging companies in efforts to test techniques and to help advance the development of new technologies.

Utah needs to consider soon-to-be-issued direction addressing sage-grouse at a landscape scale. The RMPs for the three field offices for this review have been undergoing revision for up to seven years prior to the completion of the Records of Decision signed in 2008. Since late 2005 to present, a large amount of additional research has been published concerning the effects of oil and gas development on sage-grouse and their habitat. Some field offices have been able to incorporate this new information into their land-use plans to various extents but there is a lack of consistency between those plans. Some of this inconsistency may be the result of the protest resolution process for the RMPs that have delayed the approval of those plans. Other issues may be the result of a lack of statewide policy when addressing sage-grouse in land-use planning.

The Review Team recommends that the Utah State Office develop policy and direction to consistently address sage-grouse (Greater and Gunnison) in land-use plans and leasing decisions. This policy and direction should guide maintenance and amendment actions on current land-use plans and should be applied to new lease parcels. At a minimum, this policy and direction should address sage-grouse at a landscape scale down to the microsite scale because of the complexity of habitat needs for this species. BLM field offices should work together to ensure resource information and management are consistent across boundaries where applicable.

In addition to recently published research, the Utah State Office should also use the soon-to-be-issued Studies in Avian Biology – Greater Sage-Grouse (late summer/fall 2009) that will summarize current habitat conditions and research, and provide additional recommendations related to landscape management of sage-grouse habitats. The Western Association of Fish and Wildlife Agencies directors have also recently approved

recommendations developed by the Sage and Columbian Sharp-tailed Grouse Technical Committee relating to the sage-grouse "core habitat" mapping concept when addressing sage-grouse habitat. A review of these recommendations will also provide an excellent foundation for addressing landscape issues of sage-grouse management.

SITLA & fee leases and development increase pressure to lease adjacent Federal lands. While traveling to Federal parcels, the Team observed numerous instances of adjacent state-managed (or private) leases that either had existing wells (and production), or on which drilling activities were occurring. It was apparent to the Team that neither the State Institute and Trust Lands (SITLA) parcels nor private lands under the purview of the Utah Division of Oil, Gas, and Mining (UDOGM) were subject to the same environmental considerations being applied by BLM-Utah and the Team in its review of the 77 parcels. The result is that BLM decisionmakers may be subject to increased pressure or perceived pressure to lease Federal lands adjacent to SITLA or private minerals to prevent "drainage" of Federal oil and gas resources by offset wells. (Conversely, a representative of the State of Utah raised concerns that BLM decisions not to lease an area can diminish the revenue stream from SITLA lands.)

The Team recommends that the Utah State Office consider a statewide strategy to engage the SITLA to discuss potential options, including the formation of compensatory royalty or communitization agreements, or for the exchange of lands with the most sensitive resource values. It appeared to the Team that the decision to lease a Federal parcel was often influenced by adjacent leases of non-Federal minerals. In many cases adjacent development may indeed be a primary factor in deciding to lease, but the Team recommends that BLM-Utah also further develop these additional approaches to add to the tools available for protecting the public's interest in all its resources.

The BLM Assistant Director for Minerals and Realty Management should initiate a review of options for establishing agreements with state and fee lands adjacent to parcels the BLM has determined to be unsuitable for leasing, as described in § 43 CFR 3162.2-2 (b, c, and d), and § 43 CFR 3181.4. There were divergent opinions across the field offices as to the degree of discretion the BLM has to protect other environmental resources and values by refraining from issuing leases that may be subject to drainage.

There is a lack of consistency in the application of protections for endangered Colorado River fish across all three of the BLM-Utah field offices visited and the RMPs supporting leasing actions. Lease notices, or preferably lease stipulations, should be applied to all parcels containing Critical Habitat for the endangered Colorado River fish and all parcels tributary to designated habitat. The use of these stipulations and notices is inconsistent across the 77 parcels reviewed by the Team. Water depletion lease notices or stipulations should be applied to any portion of the Upper Colorado River drainage basin above Lake Powell. Although the BLM would retain the ability to condition or in some cases prohibit activities that would adversely affect endangered species under broader lease terms, the Team recommends that all leases spell out the anticipated requirements. The Team recommends that deferred leases be corrected in this regard before any reoffering occurs. Also, the Team recommends that BLM-Utah

consider issuing a NTL to address other leases that have been issued or may be issued in keeping with the findings of this report.

Oil field traffic has turned the road through Nine Mile Canyon into a huge source of fine silty dust, which obscures the rock images and may be accelerating damage to them. Nine Mile Canyon, along with many of its tributary canyons, is a nationally significant cultural landscape because of its wealth of rock images and high density of associated archaeological sites. Oil and gas development in and around the Canyon has been ongoing since the 1950s but has greatly increased since the West Tavaputs oil field exploration commenced in 2004. More leasing in and around the Canyon will likely result in more development and correspondingly more traffic, leading to more dust and greater adverse effects to the cultural resources in the Canyon. Oil field traffic volumes pose a safety concern for other road users. The BLM needs to be assertive in resolving Nine Mile Canyon road dust issues.

A working group formed through the National Historic Preservation Act Section 106 process for the West Tavaputs EIS (http://www.blm.gov/ut/st/en/fo/price/energy/Oil_Gas.html) is currently addressing ways to mitigate the adverse effects of dust on the Nine Mile Canyon rock images caused by the development of the West Tavaputs oil and gas field. As part of this effort, BLM-Utah should work assertively with Carbon County and the oil and gas industry to resolve the dust issues in the canyon. Options include (but are not limited to) paving the road or applying non-toxic, non-corrosive dust abatement substances. Although the BLM may not have management responsibility for many of the roads in the area, the dust and any corresponding effects, such as those to cultural resources and public land visitor safety, could be considered indirect effects of the BLM's actions to lease and permit development of Federal minerals in the Nine Mile Canyon and Desolation Canyon areas. Correcting the dust issues in Nine Mile Canyon is a thorny issue, but BLM-Utah should consider whether the Federal actions can justifiably continue in the absence of significant progress in resolving the dust-abatement issues, and whether off-site dust abatement should be considered as a mitigation measure. The Team recommends that additional leasing not occur until the NHPA consultation for West Tavaputs EIS is completed and actions for abating dust in Nine Mile Canyon are initiated.

The Team observed a concern that there is a lack of candid, unfiltered communication with various State of Utah resource managers. The State of Utah has chosen to handle official contacts with BLM (such as comments on plans or NEPA documents) through a single point of contact, the Public Lands Policy Coordination Office. This greatly streamlines the handling of comments, but it remains clear that various state agencies have differing points of view on issues such as oil and gas leasing in specific areas, just as various agencies of the Department of the Interior have differing views. In some cases, Federal laws (such as the National Historic Preservation Act) mandate communication with state agencies other than the Public Lands Policy Coordination Office (in the case of NHPA, the State Historic Preservation Office). BLM field staff are placed in difficult positions when the official state position differs from input they receive locally. State agency input is frequently based on the same on-the-

ground observations and data being used by local BLM specialists. The Team recommends the BLM Utah State Office work with the Public Lands Policy Coordination Office to explore ways to avoid these conflicts while ensuring that diverse field expertise is available to inform decision making. The concept of a clearinghouse approach is admirable, but it appears some fine-tuning of the MOU or process is needed to ensure that field expertise and local data sets for a variety of subjects can be fully accessed.

The Utah State Office should pursue opportunities to use the recently completed EISs for the applicable RMPs to support planning changes should they become necessary. Some recommendations provided by the Review Team could lead to amendments to the recently completed BLM Utah land-use plans. Since the EISs and alternatives analyzed for these plans are current, these documents may provide an option to support amendments and preclude or reduce the need for additional analysis. A review should be conducted to determine if there is decision space available through the range of alternatives analyzed in the RMP EISs and if this information can be used to inform and modify RMP decisions if needed. Also, as part of this evaluation, the potential to update or supplement the existing ROD and approved plan should be explored. The processes for public notification and comment or protest would also need to be investigated. This information would be useful for other states in evaluating and implementing recent land-use plans.

The BLM and others would benefit by guidance from the Solicitor's Office on the nature of the right created by the issuance of a lease. The Team heard various opinions from Utah State Office and field office personnel as to the nature and extent of the right created when the BLM issues a lease. Some viewed the right as a compensable property right interest that could only be extinguished with the payment of "just compensation" while others viewed a lease as a "contingent right" that could be extinguished at a later date. In the latter case, whether compensation would be required went unanswered. Also, there are various opinions regarding what level of development might constitute enjoyment of a lease.

The nature of a lease right is a fundamental issue that underlies the Bureau's oil and gas leasing program. The Team believes the BLM must adhere to a very deliberative and probing process in granting such rights to ensure that oil and gas development in a given area represents the "highest and best use." In making a decision to issue a lease, the Bureau is putting into motion the possibility that full field development may occur. Even if only a small percentage of leases ever get developed, the consequence of issuing a lease may still be significant. Because of the potential fiscal implications of this issue and the divergent viewpoints, the Review Team recommends that the Director of the BLM request a Solicitor Opinion on the matter.

Following discussions in the field, the Team observed that assumptions underlying the value and use of reasonable foreseeable development (RFD) scenario differed between offices. The Team recognizes that the RFD can play a critical role in the environmental analysis of future leasing, particularly with respect to determining the "highest and best use" of a given area, and offers the following recommendations:

- Ensure that the RFD has been peer reviewed for consideration of anticipated activity levels (exploration and development). Identify the basis for RFD estimates – this would tie into the discussion of past, present, and reasonably foreseeable analysis. Consider contracting with an outside party to peer review the RFD, as this often represents a major point of contention among stakeholders.
- Emphasize that the cumulative impact analyses in RMP/EIS should include all past, present, and future development projections.
- Review IM 2004-89 for conformance to make sure the proper reference documentation for the RFD is provided, and that the RFDs are available on the BLM-Utah Website.
- Review land-use plan for conformance with all affected decisions. If necessary, note that additional NEPA analysis (e.g., an EA or EIS for an expanded exploratory drilling or development program) will likely require an update to the RFD. If a change in the land-use plan is identified, pursue modification through the NEPA process.
- Identify and clearly communicate a process for tracking development activities and acres disturbed. Also, include as part of the RMP implementation plan to ensure that goals, objectives, and desired conditions are being met and that the leasing decisions are still current.
- Share information on RFD among offices (possibly through a statewide clearinghouse through BLM-Utah's Division of Minerals). The description of the RFD scenario should clearly state: "A copy of this report shall be kept in both the field and state office for public viewing and an electronic copy shall be placed on the issuing office's Website."
- Provide clear documentation in NEPA documents of applicability of RFD to the current analysis.

New staff and those who were not engaged in the RMP need to develop ownership and understanding of the RMP and the related decisions. The Review Team heard some comments in the field that suggested a need for greater understanding of how the RMPs guide the review of lease parcels and how the plans can be kept current. The Team recommends the following steps to managers and planning and environmental coordinators to increase understanding and ownership of the new RMPs:

- Provide frequent references to the RMP and conformance reviews on a day-to-day basis;
- Mentor staff not involved with the RMP in the content and application of RMP decisions;
- Have staff update information and data for the RMP yearly;
- Have staff provide the necessary maintenance actions to update the plan to reflect the use of this data; and
- Provide a yearly summary of these accomplishments for the file and emailed to everyone in the office.

The Team noted that the Visual Resources Management Inventory (VRI) for each of the three RMPs used to support the December 2008 lease sale fell short of what is widely accepted for Visual Resource Management. Both Vernal and Price Field Offices appeared to be operating under incomplete VRM Inventories. Both offices should re-evaluate the status of their VRI, consider contracting for new VRIs, and then re-evaluate their RMP Decisions based on impacts to the visual values revealed by the inventory. The appropriate form of plan modification would be determined by these re-evaluations.

Although Moab's VRI was complete, it appeared to be pieced together using an outdated Travel Management Plan.

The Team believes that an interagency, collaborative VRM process would lead to better decisions relating to the many public lands resources. Since political boundaries are invisible to the visitor, spatial continuity via land management is critical; this is especially true in Utah's canyon country, where the shared landscape is dramatic and in many areas is the primary reason tourists desire to visit a given area.

The Team further recognizes this lack of complete or up-to-date VRI extends beyond the Utah field offices that were visited and is quite likely an issue common to many BLM plans. The Team recognizes this as a major issue that leads to decisionmaking in the absence of complete knowledge of the visual resources potentially impacted through the leasing and development of oil and gas. We recommend that the BLM's Washington Office conduct a careful evaluation of all Bureau field offices to determine the status of VRIs, Bureau-wide, and that the office update needed visual inventories and associated RMPs. Existing VRM policy calls for each state to have a VRM lead – a person with skills in the environmental design arts (e.g., landscape architect). This individual will be available, at the state level, to assist the district and field offices with training, guidance, and specific project impact mitigation. BLM-Utah, along with other state offices, should re-establish a VRM lead.

In addition, the Visual Resource Management Manuals and Handbooks have not been significantly updated since their development in the late 1970s, and the Team recommends that these documents be revised to avoid some of the problems seen on the ground in Utah.

The Team noticed discrepancies between the various offices in dealing with lands with wilderness characteristics. There seemed to be some confusion on:

- What constitutes "wilderness characteristics";
- What areas should be analyzed for their presence;
- How to determine if wilderness characteristics are present;
- How to decide if those areas that had been identified as having wilderness characteristics should be carried forward (or not) in the land-use plans;
- What stipulations are appropriate to protect wilderness characteristics; and

- The degree to which wilderness characteristics on lands not being managed to protect them should still be protected from "unnecessary or undue degradation."

Recent court decisions have made it clear that the BLM must keep a current inventory of this resource, as it would with any other resource. This change came late in the RMP process and may account for some of the discrepancies between the three field offices. In addition, the Utah State Office direction available while the plans were being prepared was developed without national guidance on these questions, as well as without any exploration of how characteristics could be evaluated with other potential uses, the degree to which "wilderness characteristics" preclude other activities, and uncertainty on whether impacts to this resource need to be analyzed even in areas where they are not being protected. This guidance has been in draft for over two years; it should be completed and released. The Team recommends that BLM-Utah review the plans in light of this new guidance and make necessary modifications.

APPENDIX A

Review Team Roster

Name	Title	Agency
Mark Stiles (Team Lead)	Forest Supervisor San Juan National Forest	USDA Forest Service
Scott Archer	Senior Air Resource Specialist National Operations Center	Bureau of Land Management
Chris Barns	Wilderness Specialist Washington Office	Bureau of Land Management
Susan Caplan	Air Resource Specialist National Operations Center	Bureau of Land Management
Renee Dana	Coordinator Wyoming Landscape Conservation Initiative	Bureau of Land Management
James Haerter	Oil, Gas, and Energy Program Lead California State Office	Bureau of Land Management
Art Hutchinson	Superintendent Great Sand Dunes National Park	National Park Service
Tom Lahti	Landscape Architect Wyoming State Office	Bureau of Land Management
Signa Larralde	State Archaeologist New Mexico State Office	Bureau of Land Management
Carol McCoy	Planning, Evaluation, & Permits Branch Chief Geologic Resources Division	National Park Service
Earl "Tom" Rinkes	State Biologist Idaho State Office	Bureau of Land Management

Biographies

Name: **Mark W. Stiles**

Current Job Title: Forest Supervisor/BLM Center Manager

Current Duty Station: San Juan Public Lands, Durango, CO

Years of Experience with BLM: 22 years as a BLM employee, an additional 6 years as a cross-delegated BLM manager while employed by USDA-Forest Service

Years of Other Experience: 6 years as a USDA-Forest Service Forest Supervisor

Highlights of Most Relevant Experience: BLM Planning Project Manager for major energy-related plan, BLM Regulations Analyst for several oil and gas related rulemakings, Team Member for developing the BLM's Uniform Oil and Gas Leasing Stipulation format policies, 10 years of experience as a line manager responsible for evaluating oil and gas lease packages prior to lease sale, 14 years of experience as a line manager involved in decision making related to oil and gas operations post lease

Name: **Scott F. Archer**

Current Job Title: BLM Senior Air Resource Specialist (Physical Scientist)

Current Duty Station: National Operations Center, Division of Resource Services, Branch of Environmental Compliance (OC-580)

Years of Experience with BLM: 28 years Air Resource Specialist (11 years at Colorado State Office, 17 years at Denver Service Center)

Years of Other Experience: 5 years (intermittent) National Park Service, 3 years (contractor) U.S. Environmental Protection Agency

Highlights of Most Relevant Experience: Conducted original continuous meteorological monitoring within the Grand Canyon, Arizona: Coordinated original continuous air quality monitoring at several National Park Service, Bureau of Land Management, and U.S. Army locations; BLM management liaison to Grand Canyon Visibility Transport Commission; facilitated creation of the Four Corners Air Quality Task Force; lead BLM representative to IMPROVE (http://vista.cira.colostate.edu/improve/), WESTAR (http://www.westar.org/), AASC (http://www.stateclimate.org/), and two WAAESD-WERA workgroups (http://www.colostate.edu/Orgs/WAAESD/)

Name: **Christopher V. Barns**

Current Job Title: Wilderness Specialist, BLM National Landscape Conservation System

Current Duty Station: Arthur Carhart National Wilderness Training Center, Missoula MT

Years of Experience with BLM: 18

Years of Other Experience:

Highlights of Most Relevant Experience: 8 years as Wilderness & Recreation lead in Farmington (NM) District; drafted EIS for oil & gas development in the Bisti/De-Na-Zin Wilderness.

Name: **Susan Caplan**

Current Job Title: BLM Air Resources Specialist (Physical Scientist)

Current Duty Station: National Operations Center, Division of Resource Services, Branch of Environmental Compliance

Years of Experience with BLM: 12

Years of Other Experience: 3 years City of Fort Collins, Colorado; 2 years Forest Service (Mount Baker/Snoqualmie NF in Seattle, Washington; San Juan NF in Durango, Colorado); 6 years Department of Commerce, National Oceanic and Atmospheric Administration (Boulder, Colorado)

Highlights of Most Relevant Experience: initiated BLM meteorological monitoring project (Wyoming Air Resources Monitoring System); awarded EPA's Silver Medal for Superior Service "for exemplary leadership within the NEPA process to protect the environment in the western United States as the nation's energy resources are developed."

Name: **Renee Dana**

Current Job Title: Wyoming Landscape Conservation Initiative Coordination Team Lead

Current Duty Station: High Desert District Rock Springs, Wyoming (BLM)

Years of Experience with BLM: 35

Years of Other Experience: na

Highlights of Most Relevant Experience: Led an interagency team in building landscape scale partnerships--2 years; District NEPA Coordinator--4 years; 20 years experience as District and Field Office Land Use Plan Coordinator; Team Lead on the Green River RMP and Jack Morrow Hills CAP and first Pinedale RMP; Team member West Wide Energy Corridor EIS and Oil Shale EIS; NSHT team

Name: **James P. Haerter**

Current Job Title: Geologist, Oil & Gas Program Lead

Current Duty Station: California State Office, Sacramento

Years of Experience with BLM: 16

Years of Other Experience: 10 years of oil and gas industry experience, including more than 5 years throughout the Rocky Mountain West

Highlights of Most Relevant Experience: Began BLM career as a geologist working on potential oil & gas drainage issues throughout California; a trained and certified project manager; and for the past 5 years, served as the lead for the 3rd largest oil & gas program in the BLM.

Name: **Art Hutchinson**

Current Job Title: Superintendent, Great Sand Dunes National Park and National Preserve

Current Duty Station: Great Sand Dunes NP, Mosca Colorado

Years of Experience with NPS: 21

Years of Other Experience: na

Highlights of Most Relevant Experience: Superintendent of Big Thicket National Preserve, Beaumont Texas. Big Thicket National Preserve is a split estate with Private Minerals under the Preserve. The Preserve had 130 active oil and gas wells. During Art's tenure the Preserve completed the first Oil and Gas Management Plan (EIS) that remains in use.

From 2005-2007 served as the National Park Service's liaison to the Department of the Interior, specifically the Deputy Secretary for Fish, Wildlife and Parks.

Name: **Tom Lahti**

Current Job Title: Landscape Architect

Current Duty Station: Wyoming State Office

Years of Experience with BLM: 31 years BLM

Years of Other Experience: 1 year USFS, 1 year MN DOT

Highlights of Most Relevant Experience: Provides technical guidance and coordination for disturbed land reclamation, visual resource management, environmental design, project planning, and develops mitigation strategies for environmental impacts associated with oil and gas, mining, wind energy, and other realty actions across Wyoming and the Bureau. Team lead for developing: BLM Wyoming's interagency/inter-government reclamation standards, Wyoming's original Standard Oil and Gas Lease Stipulations,

National Geophysical Exploration manual and handbook, National Standard Environmental Color and Camo Systems, the BLM's Pilot Environmental Management System (Wyoming), etc.

Name: **Signa L. Larralde**

Current Job Title: Cultural Resources Program Lead, BLM New Mexico State Office

Current Duty Station: Santa Fe, NM

Years of Experience with BLM: 19 years

Years of Other Experience: 3 years as a USDI Bureau of Reclamation Regional and Area Office Archaeologist, 1 year as tribal archaeologist (Navajo Nation), 2 years as USDI Bureau of Indian Affairs archaeologist (Navajo Area Roads and Range Programs), approximately 10 years as a consulting archaeologist (Intermountain West)

Highlights of Most Relevant Experience: 10 years experience in directing projects and authoring cultural resource reports on oil and gas field inventories in eastern Utah and other large energy related projects throughout the Intermountain West, 20 years experience in administering cultural resources programs with oil and gas components in Utah and New Mexico, co-director of Permian Basin partnership with industry (funding archaeological research in a highly developed oil and gas field in SE NM)

Name: **Carol McCoy**

Current Job Title: Chief, Planning, Evaluation, and Permits Branch; Geologic Resources Division; Natural Resource Program Center; National Park Service

Current Duty Station: Denver, Colorado

Years of Experience with the NPS: 28 years with the NPS

Years of Other Experience: 3 years with the Environmental Protection Agency working on air pollution related issues.

Highlights of Most Relevant Experience: 28 years with the NPS working on energy and mineral development related issues from policy and regulatory matters to site-specific permitting decisions in and adjacent to parks. Area of responsibility includes aiding park managers in the field and Washington address park protection issues associated with federal oil and gas leasing near parks, and nonfederal oil and gas development in parks. Over 700 nonfederal oil and gas operations exist in parks. Direct a multidisciplinary team to aid park resource managers apply regulatory and policy handles, and evaluate resource

impacts and needed mitigation measures associated with oil and gas development. Focus is on protecting park resources and values, and advancing interagency collaboration.

Name: **Tom Rinkes**

Current Job Title: Fish and Wildlife Biologist

Current Duty Station: Idaho State Office

Years of Experience with BLM: 31

Years of Other Experience: 2 years - US Fish and Wildlife Service, Kenai, Alaska, 2 years - Idaho Department of Fish and Game, Kamiah, Idaho

Highlights of Most Relevant Experience: Wyoming BLM State Sage-grouse/sagebrush biologist for 8 years. Participated on numerous oil and gas interdisciplinary teams for field development EIS/EAs for 21 years. Five years on BLM Wyoming's oil and gas stipulation review committee. Fourteen years experience as a field office biologist implementing oil and gas leasing decisions.