



WYOMING OUTDOOR COUNCIL, *ET AL.*

176 IBLA 15

Decided September 11, 2008



United States Department of the Interior
Office of Hearings and Appeals
Interior Board of Land Appeals
801 N. Quincy St., Suite 300
Arlington, VA 22203

WYOMING OUTDOOR COUNCIL, *ET AL.*

IBLA 2006-155 & 2006-157

Decided September 11, 2008

Appeals from a Record of Decision of the Wyoming State Director, Bureau of Land Management, approving the Jonah Infill Drilling Project in Sublette County, Wyoming. EIS WY/PL-06/006-1310.

Affirmed.

1. Environmental Quality: Environmental Statements--
National Environmental Policy Act of 1969:
Environmental Statements--Oil and Gas Leases: Drilling

BLM properly decides to approve an oil and gas development program on Federal surface and/or mineral estates dispersed throughout a 30,500-acre area of Federal, State, and private lands, following preparation of an EIS, where, in accordance with section 102(2)(C) of NEPA, 42 U.S.C. § 4332(2)(C) (2000), it has taken a hard look at the potential significant environmental consequences of doing so, including the likelihood of exceeding applicable air quality standards of the Clean Air Act, 42 U.S.C. §§ 7401-7671q (2000), and reasonable alternatives thereto. BLM's decision will be affirmed where the appellant does not demonstrate, with objective proof, that BLM failed to consider a substantial environmental problem of material significance to the proposed action, or otherwise failed to abide by the statute.

2. Environmental Quality: Environmental Statements--
National Environmental Policy Act of 1969:
Environmental Statements--Oil and Gas Leases: Drilling

A rule of reason applies when reviewing new information regarding a proposed action analyzed in an EIS and considering whether a supplemental EIS is required.

A decision to approve an oil and gas development program analyzed in an EIS without preparation of a supplemental EIS will be affirmed when new information does not show that the remaining action will affect the quality of the human environment in a significant manner or to a significant extent not already considered.

3. Environmental Quality: Environmental Statements--
National Environmental Policy Act of 1969:
Environmental Statements--Oil and Gas Leases: Drilling

Section 102(2)(E) of the NEPA, 42 U.S.C. § 4332(2)(E) (2000), requires consideration of a reasonable range of alternatives to a proposed action, including a no-action alternative. Appropriate alternatives are those that would accomplish the intended purpose of the proposed action, are technically and economically feasible, and will avoid or minimize adverse effects. A “rule of reason” governs the selection of alternatives, both as to which alternatives an agency must discuss and the extent to which it must discuss them.

4. Federal Land Policy and Management Act of 1976: Land Use-Planning--National Environmental Policy Act:
Environmental Statements--Oil and Gas Leases: Drilling

The “reasonably foreseeable development” scenario (RFD scenario) for oil and gas is a long-term projection of oil and gas exploration, development, production, and reclamation activity in a defined area for a specified period of time. That scenario is not a land-use decision establishing a binding maximum to which BLM must conform. A subsequent decision to exceed such a scenario does not violate the land-use plan, section 302(a) of FLPMA, 43 U.S.C. § 1732(a) (2000), or the rules at 43 C.F.R. Subpart 1610. Whether an exceeded RFD scenario demonstrates an inadequate analysis of environmental impacts to the extent of such exceedance is a question that must be determined on a case-by-case basis.

5. Federal Land Policy and Management Act of 1976:
Surface Management--Oil and Gas Leases: Generally--
Oil and Gas Leases: Discretion to Lease

BLM's decision to approve a large scale oil and gas development project without setting a threshold level beyond which the project will constitute unnecessary or undue degradation of the public lands does not amount to a failure to take an "action necessary to prevent unnecessary or undue degradation of the [public] lands" under section 302(b) of FLPMA, 43 U.S.C. § 1732(b) (2000).

APPEARANCES: Timothy J. Preso, Esq., and Abigail M. Dillen, Esq., Bozeman, Montana, Robert E. Yuhnke, Esq., Boulder, Colorado, and Bruce Pendery, Esq., Logan, Utah, for Wyoming Outdoor Council, *et al.*; Suzanne H. Lewis, Esq., Laramie, Wyoming, for Biodiversity Conservation Alliance and Center for Native Ecosystems; Laura Lindley, Esq., and Robert C. Mathes, Esq., Denver, Colorado, Dennis L. Arfmann, Esq., and Jennifer L. Morris, Esq., Boulder, Colorado, and Mary A. Viviano, Esq., and Erika Z. Enger, Esq., Denver, Colorado, for Encana Oil & Gas (USA) Inc.; John F. Shepherd, Esq., Sandra A. Snodgrass, Esq., and Lawrence E. Volmert, Esq., Denver, Colorado, Jack D. Palma, Esq., and Jenifer E. Scoggin, Esq., Cheyenne, Wyoming, and Jeffrey C. Conrad, Esq., Houston, Texas, for BP America Production Co.; Patrick J. Crank, Esq., Vicci M. Colgan, Esq., and Nancy E. Vehr, Esq., Office of the Attorney General, Cheyenne, Wyoming, for the State of Wyoming; S. Amanda Koehler, Esq., and Arthur R. Kleven, Esq., Office of the Regional Solicitor, U.S. Department of the Interior, Lakewood, Colorado, for the Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE ROBERTS

Wyoming Outdoor Council, Upper Green River Valley Coalition, The Wilderness Society, and Greater Yellowstone Coalition (collectively, WOC) and Biodiversity Conservation Alliance and Center for Native Ecosystems (collectively, BCA) have separately appealed from a March 14, 2006, Record of Decision (ROD) of the Wyoming State Director, Bureau of Land Management (BLM), approving the Jonah Infill Drilling Project (JIDP or Project) within the Jonah Field, an existing oil and gas development approximately 32 miles southeast of Pinedale, Wyoming. The Board docketed WOC's appeal as IBLA 2006-155 and BCA's appeal as IBLA 2006-157, and consolidated the two appeals by order dated June 28, 2006. EnCana Oil & Gas (USA) Inc. (EnCana) and BP America Production Company (BP America), both proponents of the Project and holders and/or operators of Federal oil and gas leases

in the Jonah Field, and the State of Wyoming (State) have been granted intervenor status in these appeals.

In its June 28, 2006, order, the Board provided an extensive review of the record, including the extensive pleadings filed by the parties, and denied petitions for stay filed by WOC and BCA, concluding that they had failed to demonstrate a likelihood of success on the merits of their appeals. WOC filed a petition for reconsideration of the Board's order rejecting its stay request, which the Board denied by order dated March 30, 2007. The Board engaged in a comprehensive consideration of appellants' assertions of error in again determining that they were not likely to succeed on the merits of their appeals. Neither WOC nor BCA have filed any substantive pleading following issuance of our March 2007 order. Our present review leads us to again conclude that appellants have failed to show that the State Director erred in approving the Project and, for the reasons that follow, we affirm the ROD.

I. BACKGROUND

A. *The Jonah Infill Drilling Project*

The Jonah Field is described as "one of the most . . . highly productive sweet natural gas fields in North America," estimated to contain approximately 12.8 trillion cubic feet of natural gas. January 2006 Final Environmental Impact Statement (FEIS) at 1-1. It encompasses a 30,500-acre area of Federal, State, and private lands in Ts. 28 and 29 N., Rs. 107, 108, and 109 W., Sixth Principal Meridian, Sublette County, Wyoming, within the Upper Green River Valley, which is situated south of Yellowstone and Grand Teton National Parks (Parks) in western Wyoming. The vast majority of the land in the Jonah Field is Federal surface/mineral estate (28,580 acres), with the remainder being State surface/mineral estate (1,280 acres) and private surface/Federal mineral estate (640 acres). Virtually all of the public lands in the Project area are administered by BLM's Pinedale Field Office, with the remainder (320 acres) subject to the jurisdiction of its Rock Springs Field Office.

Previous BLM decisions have authorized surface disturbance in the Jonah Field in connection with 533 wells on 497 well pads occupying 4,209 acres, including roads, pipelines, and other facilities. See FEIS at 1-3, 2-12 to 2-14 (Ex. 1). The ROD authorizes the drilling of an additional 3,100 wells in that area. For the purposes of analysis, BLM assumed drilling would occur at a rate of 250 wells per year. See ROD at 1 (Ex. 2). New access roads, pipelines, and other facilities will be constructed in connection with the drilling of the wells. Reclamation of disturbed areas will begin as soon as they are no longer needed for drilling activities and conclude once the sites are no longer needed for production activities. No more than 14,030 acres will be disturbed at any one time, and the total cumulative

surface disturbance over the life of the Project cannot exceed 20,334 acres (including 16,125 acres of new and 4,209 acres of existing disturbance) in the Project area. *Id.* at 12, 14. For the purposes of analysis, BLM assumed an overall life of the Project of 76 years, with roadbuilding, facility construction, and drilling anticipated to last 13 years. *Id.* at 1-2.

B. NEPA Review

BLM based the ROD on a February 2005 Draft EIS (DEIS) and the January 2006 FEIS, as well as a November 2004 Draft Air Quality Technical Support Document (TSD), a January 2005 Draft Socioeconomic Analysis TSD, an August 2005 DEIS Air Quality Impact Analysis (DAQIA) Supplement, an August 2005 Draft Air Quality TSD Supplement, a January 2006 Final Air Quality TSD, a January 2006 Final Socioeconomic Analysis TSD, and a January 2006 Public Comment Analysis Report.¹ All of these documents, which were subject to public comment, were prepared pursuant to section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. § 4332(2)(C) (2000), in order to address the potential significant environmental impacts of the proposed action and alternatives thereto.

As noted, BLM's Preferred Alternative² would authorize the drilling of 3,100 wells in the Project area, at a rate of 250 wells per year, but provided that air pollutant emissions would be reduced by 80% from the level of such pollutants that would be emitted through unmitigated Project development. *See* Letter to U.S. Environmental Protection Agency (EPA) from BLM, dated Oct. 5, 2005; FEIS

¹ The FEIS, DEIS, and some of the other environmental analysis documents upon which BLM relied in issuing its ROD are multi-volume documents. However, since each volume contains distinctive pagination, we will cite to each of these documents, using the title of the basic document and the particular page at issue.

² In the DEIS, BLM addressed the No Action Alternative, under which drilling would continue as already approved in the Jonah Field; Alternative A, which curtailed environmental restrictions on drilling; and Alternative B, which would authorize only directional drilling from existing well pads. BLM also considered Alternative C, limiting development to 1,250 wells and well pads; Alternative D, increasing the number of wells and well pads to 2,200; Alternative E, allowing only 16 well pads per section; Alternative F, increasing well pad density to 32 well pads per section; Alternative G, increasing well pad density to 64 well pads per section; and BLM's Preferred Alternative, as discussed in detail below, which was substantially revised prior to issuance of the FEIS based on public comment and agency analysis.

at 4-19.³ BLM's preference for this alternative was reinforced by EPA's opinion that any alternative that would result in greater emissions was considered to be "Environmentally Unsatisfactory," given the anticipated effect on visibility in nearby Class I areas, which include national wilderness areas and national parks larger than 5,000 acres and 6,000 acres, respectively, that were in existence on August 7, 1977.⁴ See 42 U.S.C. § 7472(a) (2000); Letter to BLM from EPA, dated Oct. 7, 2005, at 2.

In commenting on the DEIS, EPA commended BLM for adopting the 80% emissions reduction, noting that there remained an anticipated visibility impact to a Class I area which caused it "Environmental Concerns."⁵ Letter to BLM from EPA, dated Oct. 7, 2005, at 2-3. EPA stated that development for the Jonah Field at an annual rate less than 250 wells was advisable, "unless the operator secures new and clean diesel engine technology for well drilling operations." *Id.* at 3. Of major concern to EPA was BLM's report that, even with an 80% emissions reduction, modeling disclosed that there would be a significant adverse impact to visibility in the Bridger Wilderness Area, which is the closest Class I area to the Project area.⁶ See FEIS at 3-7 (Map 3.1). BLM thereafter adopted measures to

³ BLM explained in the FEIS at page 4-19 that "[i]mpacts [to air quality] from the Preferred Alternative as described herein are those potentially occurring from the high emissions scenario (i.e., 250 wells developed per year, 50% directionally drilled wells, 80% Tier 0 . . . and 20% Tier I drilling rig emission levels) with an 80% reduction in emissions levels." Tier 0 produces the most emissions, with the higher Tier ratings corresponding to lower emissions. As discussed, *infra*, in the ROD BLM imposed Tier II and Tier III requirements on the operators.

⁴ An EPA rating of "Environmentally Unsatisfactory" means that EPA review "has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality." U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements (Rating System) (attached to Letter to BLM from EPA, dated Oct. 7, 2005).

⁵ Under the Rating System, an EPA rating of "Environmental Concerns" means that EPA review "has identified environmental impacts that should be avoided in order to fully protect the environment."

⁶ BLM explained that visibility impacts were measured by whether there was a "noticeable change in visibility" when compared to background conditions, expressed in deciviews (dv)," and that a dv of 1.0 or greater was deemed to be a "significant adverse impact." FEIS at 4-12. BLM stated that the anticipated significant adverse impact consisted of having a greater than 1.0 dv impact for a maximum of 3 days per year, as a result of the Project, and for a maximum of 6 days per year, as a result of
(continued...)

further reduce emissions, involving the use of “new and clean diesel engine technology,” thereby eliminating all significant adverse impacts to visibility in Class I areas. *See* ROD at 5, 14; ROD, Appendix A, at A-3 to A-4.

Following issuance of the FEIS, EPA determined that BLM had “properly analyzed and disclosed to the public the potential environmental impacts of the project.” Letter to BLM, dated Feb. 10, 2006, at 1. EPA concluded that, “[t]hrough innovative approaches and cooperation with the operators, we have been able to find solutions allowing continued field development, while implementing pollution control technologies which will eliminate the visibility impacts from the Jonah field development on the nearby Bridger/Fitzpatrick Wilderness areas.” *Id.*

II. BLM’S MARCH 2006 RECORD OF DECISION

In its March 2006 ROD, BLM approved a revised Preferred Alternative for the Project, concluding that the approved drilling conformed to its applicable land-use plans (Pinedale Resource Management Plan (RMP) and Green River RMP). The ROD stated that “[t]he revised Preferred Alternative, and its associated outcome-based performance objectives, mitigation, and Best Management Practices (BMPs), would achieve high levels of natural gas recovery . . . while minimizing impacts related to the key issues,” including questions of surface disturbance, air quality, and wildlife and wildlife habitat. ROD at 13; *see id.* at 3-8. Notably, BLM’s approval of the Project did not authorize drilling or other surface-disturbing activity:

The [BLM] Authorized Officer *will review and authorize each component of the project that involves disturbance of [F]ederal lands on a site-specific basis.* The methods used to evaluate and authorize each surface[-] disturbing activity include, but are not limited to, an Application for Permit to Drill (APD), right-of-way (ROW) grant, Sundry Notice, or Special Use Permit with the supporting environmental review.

Id. at 3 (emphasis added).

In approving the Preferred Alternative, BLM adopted various measures, set forth in Appendix A (Administrative Requirements, Conditions of Approval, and Mitigation) and Appendix B (Operator-Committed Practices) of the ROD, which are

⁶ (...continued)

the Project and other past, present, and reasonably foreseeable future oil and gas development. FEIS at 4-20, 4-24; FEIS, Appendix J (Air Quality Impact Tables), at J-13 (Tables J-17 and J-18), J-26 (Table J-33), J-27 (Table J-34). BLM found no significant adverse impact for any other Class I area. *See* FEIS at 4-20, 4-24; FEIS, Appendix J, at J-13 (Tables J-17 and J-18), J-26 (Table J-33), J-27 (Table J-34).

intended to mitigate significant environmental impacts. The measures identified in Appendix A are to be applied when BLM, “supported by site-specific environmental review,” approves specific drilling or other surface-disturbing activity, and those identified in Appendix B became “mandatory requirements” upon issuance of the ROD. ROD at 8.

BLM provided for the mitigation of cumulative adverse impacts to wildlife in the Project area, using three strategies:

- 1) return field habitat function in the shortest time possible, 2) perform on-site mitigation to the extent practicable and employ compensatory (off-site) mitigation (CM) when complete on-site mitigation is not effective in the short[]term, and 3) institute an adaptive management process to ensure monitoring and both on- and off-site mitigation are effective.

ROD at 5. BLM stated that habitat function would be restored as soon as possible by “rapid on-site interim and final reclamation[.]” *Id.* BLM placed spatial and seasonal restrictions on drilling and other surface-disturbing activity in order to protect raptors and greater sage-grouse during nesting, breeding, and other sensitive time periods during their life cycles. ROD, Appendix A, at A-5; ROD, Appendix B, at B-10, B-11. BLM provided that, during operations, Project operators would undertake pre-disturbance surveys and would monitor BLM Wyoming Sensitive wildlife species and their habitat in the Project area, avoiding or mitigating adverse impacts, subject to oversight by BLM, the Wyoming Department of Game and Fish, and the U.S. Fish and Wildlife Service. ROD, Appendix A, at A-4, A-5; ROD, Appendix B, at B-2, B-9, B-10, B-11.

BLM also provided that, before undertaking any Project activities, the operators were required to obtain the appropriate air quality permits for drilling and other activity from the applicable State agency (Wyoming Department of Environmental Quality (WDEQ)), and thereafter comply with all Federal and State air quality laws. ROD, Appendix B, at B-2, B-3, B-16; FEIS at 1-8, 4-3. Further, BLM provided that, in order to limit air quality impacts, “Tier II or equivalent diesel engine emission technologies will be required for all drill rigs at the earliest possible date.” ROD, Appendix A, at A-3. BLM stated that operators would be required to reduce average drilling rig emissions to Tier II standards or better by January 1, 2007, and to Tier III standards or better by January 1, 2009, and to capture, through flareless completion techniques, an average of 90% of the hydrocarbon and other emissions which would have ordinarily occurred with flaring. ROD, Appendix B, at B-16.

BLM expected that Project emissions would not exceed National Ambient Air Quality Standards (NAAQS) or Wyoming Ambient Air Quality Standards (WAAQS),

or violate Prevention of Significant Deterioration (PSD) requirements. It did acknowledge that modeling indicated “potential significant adverse visibility impacts” in the Parks and other Class I areas, which it addressed through performance-based mitigation measures jointly developed by BLM, WDEQ, EPA, and the Forest Service (FS), U.S. Department of Agriculture. ROD at 5; ROD, Appendix A, at A-3 to A-4. BLM provided for a 12-month Demonstration Project, during which Project operators would test new drilling engine technologies capable of achieving emissions better than Tier II diesel engines, as defined in a plan to be developed by the operators and WDEQ. This would be followed by an Implementation Period, during which operators would comply with Best Available Technology (BAT), established by WDEQ, based on the results of the testing program. ROD, Appendix A, at A-4. Air quality would be monitored following Project approval, and appropriate regulatory action would be taken by WDEQ to resolve any subsequent violations of air quality standards by Project activities. ROD at 5; ROD, Appendix A, at A-3, A-4; ROD, Appendix B, at B-3, B-16.

Under the ROD, EnCana and BP America committed to fund a compensatory mitigation program at \$24.5 million for monitoring drilling, roadbuilding, pipeline construction, reclamation, and other ongoing Project activities, as approved by the ROD, and mitigating any adverse environmental effects of the Project. ROD at 3, 7-9, 14, Appendix C (Adaptive Management in the Jonah Infill Drilling Project Area). The fund, which would be split between “Offsite Wildlife Habitat Improvement Projects” (\$16.5 million) and “Other Monitoring, Inspection, and Enforcement Activities” (\$8 million), would be administered by a new entity, known as the Jonah Interagency Mitigation and Reclamation Office (JIO), staffed by full-time or contract employees of BLM, WDEQ, and other State agencies. JIO is charged “with ensuring the effectiveness of onsite and offsite mitigation measures, and providing a ‘rapid response’ to potential ‘unnecessary and undue environmental degradation.’” EnCana Opposition (IBLA 2006-155) at 6, *quoting* ROD, Appendix C, at C-2. Based on the results of monitoring Project impacts, JIO will recommend changes to the Project to BLM, which will, in consultation with appropriate Federal and State agencies, decide whether to adopt the changes, as the Project proceeds.⁷ ROD at 3.

III. ARGUMENTS OF THE PARTIES

WOC’s primary argument is that the ROD violates section 102(2)(C) of NEPA, 42 U.S.C. § 4332(2)(C) (2000), because BLM failed to consider the impacts of the Project and other past, present, and reasonably foreseeable future oil and gas

⁷ BLM provided for adaptive management, which is the ongoing process, during Project implementation, of evaluating and changing Project activities as predictions about their potential effects are replaced by knowledge about their actual effects. *See* ROD, Appendix C, at C-1.

development in the area on air quality in the Upper Green River Valley and nearby Parks and other Class I areas. WOC expresses concern that the Project threatens to dramatically increase emissions and resulting concentrations of air pollutants, including ozone and small particulate matter, posing significant health risks to the people who live in the Parks and surrounding wilderness lands, in violation of the air quality requirements of the Clean Air Act (CAA), 42 U.S.C. §§ 7401-7671q (2000). WOC Petition at 1-2.⁸ WOC states that air quality in the Upper Green River Valley is already impacted by existing oil and gas development, noting the presence of a total of 2,530 wells in the area managed by BLM's Pinedale Field Office alone. *Id.* at 3.

BCA contends that BLM violated NEPA by rejecting the directional drilling alternative (Alternative B) in its ROD. Such rejection, BCA argues, is "unreasonable and unsupported by the record," and thus arbitrary and capricious, since the directional drilling of wells from the existing well pads is technically and economically feasible. BCA Petition at 24. According to BCA, directional drilling would produce the gas reserves of the Jonah Field as fully as the use of 3,100 vertical wells. *Id.*

BCA also argues that the construction, noise, pollution, and traffic in the Project area during the 76-year life of the Project will eradicate most of the Wyoming sensitive species remaining in the area, specifically the greater sage-grouse, pygmy rabbit, sage thrasher, Brewer's sparrow, and sage sparrow. BCA contends that such harm to Wyoming's wildlife will violate section 302(b) of the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. § 1732(b) (2000), which dictates that BLM, in managing the public lands, "take any action necessary to prevent unnecessary or undue degradation of the lands." BCA Petition at 20. BCA ties this FLPMA requirement to obligations under NEPA, arguing that "BLM must demonstrate that it has complied with the 'unnecessary or undue degradation' standard," that it must do so in the EIS, and that, having failed to do so, BLM violated NEPA. *Id.* at 20-23.

IV. ANALYSIS

We will first address WOC's argument that the ROD violates section 102(2)(C) of NEPA, 42 U.S.C. § 4332(2)(C) (2000), because BLM failed to adequately consider the impacts of the Project and other past, present, and reasonably foreseeable future oil and gas development in the area on air quality in the Upper Green River Valley and nearby Parks and other Class I areas.

⁸ WOC filed with the Board a pleading stating that it intended for its Corrected Petition for Stay to serve as its statement of reasons (SOR) for appeal.

A. NEPA COMPLIANCE

[1] This Board recently decided *Biodiversity Conservation Alliance (BCA)*, 174 IBLA 1 (2008), which involved an appeal from the ROD issued by the Wyoming State Director, BLM, authorizing the Desolation Flats Natural Gas Field Development Project in Sweetwater and Carbon Counties, Wyoming. In considering challenges under NEPA, the Board set forth the following legal framework:

NEPA is a procedural statute designed to “insure a fully informed and well-considered decision.” *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 558 (1978). NEPA does not bar actions which affect the environment, even adversely. Rather, the process assures that decisionmakers are fully apprised of likely effects of alternative courses of action so that selection of an action represents a fully informed decision. *In re Bryant Eagle Timber Sale*, 133 IBLA 25, 29 (1995). When BLM has satisfied the procedural requirements of section 102(2)(C) of NEPA, it will be deemed to have complied with NEPA, regardless of whether a different substantive outcome would be reached by appellants, this Board, or a reviewing court. *National Wildlife Federation*, 169 IBLA 146, 155 (2006).

An EIS is judged by whether it constitutes a “detailed statement” that takes a “hard look” at the potentially significant environmental consequences of the proposed Federal action and reasonable alternatives thereto, considering all relevant matters of environmental concern. *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976); *Western Exploration Inc.*, 169 IBLA 388, 399 (2006); *Southwest Center for Biological Diversity*, 154 IBLA 231, 236 (2001); see 40 C.F.R. § 1502.2(a). We are guided by a “rule of reason.” *IMC Chemical, Inc.*, 155 IBLA 173, 195 (2001). The EIS must contain a “reasonably thorough discussion of the significant aspects of the probable environmental consequences” of the proposed action and alternatives. *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982), quoting *Trout Unlimited, Inc. v. Morton*, 509 F.2d 1276, 1283 (9th Cir. 1974). Significant impacts are expected when an agency prepares an EIS. *Western Exploration Inc.*, 169 IBLA at 399, citing 40 C.F.R. § 1502.16 (EIS must include discussion of “adverse environmental effects which cannot be avoided”); 42 U.S.C. § 4332(2)(C) (2000) (EIS required when significant impacts are found).

174 IBLA at 13-14 (footnote omitted).

An appellant challenging a BLM decision to approve oil and gas development, following preparation of the EIS, must carry its burden to demonstrate by a preponderance of the evidence, with objective proof, that BLM failed to adequately consider a substantial environmental question of material significance to the proposed action, or otherwise failed to abide by section 102(2)(C) of NEPA. *See, e.g., Colorado Environmental Coalition*, 142 IBLA 49, 52 (1997). In the case of the JIDP, which involves questions that are highly technical in nature, we must also acknowledge that when BLM properly relies on the professional opinion of its technical experts, concerning matters within the realm of their expertise, which is reasonable and supported by record evidence, an appellant challenging such reliance must demonstrate, by a preponderance of the evidence, error in the data, methodology, analysis, or conclusion of the experts. *E.g., Salinas Ramblers Motorcycle Club*, 171 IBLA 396, 400 (2007); *Fred E. Payne*, 159 IBLA 69, 77-78 (2003). A mere difference of opinion, even of expert opinion, will not suffice to show that BLM failed to fully comprehend the nature or scope of the significant impacts. *Fred E. Payne*, 159 IBLA at 78.

1. BLM Complied with NEPA in Determining that the Project's Air Quality Impacts will Meet Clean Air Act Standards.

WOC's central challenge to BLM's approval of the JIDP rests upon its contention that BLM failed to adequately consider the impacts on air quality in the Upper Green River Valley and nearby Parks. Regulation of air quality is governed by the CAA, 42 U.S.C. § 7472(a) (2000), and its implementing regulations, and their State counterparts. *See generally Alabama Power Co. v. Costle*, 636 F.2d 323, 346-52, 361-62 (D.C. Cir. 1979). In Wyoming, ensuring compliance with Federal and State air quality standards falls under the administrative jurisdiction of WDEQ, subject to EPA oversight. WDEQ is responsible for setting maximum allowable limits (NAAQS and WAAQS) for six criteria pollutants (CO (carbon monoxide), SO₂ (sulfur dioxide), NO₂ (nitrogen dioxide), ozone,⁹ and particulate matter (PM₁₀ and PM_{2.5})), and setting maximum allowable increases (PSD increments) above legal baseline concentrations for three of these pollutants (SO₂, NO₂, and PM₁₀) in Class I and Class II areas.¹⁰

⁹ Project activities do not emit ozone (O₃), but expected emissions of volatile organic compounds (VOC) and NO_x (oxides of nitrogen) contribute to the formation of ozone, when subjected to a chemical reaction in the atmosphere triggered by sunlight. *See* FEIS at 4-6.

¹⁰ EnCana provides a detailed description of Wyoming's compliance with the CAA, stating that "Wyoming implements its responsibility by submitting a state implementation plan ('SIP') to the EPA specifying what emission reductions and other control measures it will use to attain the NAAQS," and that "[o]nce EPA

(continued...)

Permits to drill oil and gas wells must be accompanied by State air quality permits, because such wells are deemed to be minor sources of regulated emissions, and such permits will only be issued where the applicant can demonstrate compliance with Federal and State air quality standards. *See, e.g., State Opposition* (IBLA 2006-155) at 11-13. Therefore, in approving the Project, BLM properly assumed that emissions would be regulated, and, if necessary, controlled so as to satisfy both Federal and State air quality standards. *See, e.g., ROD* at 5; *ROD*, Appendix A, at A-3; *ROD*, Appendix B, at B-3, B-16; *FEIS* at 4-3.

BLM was, nonetheless, required by section 102(2)(C) of NEPA to consider the potential significant impacts to air quality in the Project and surrounding areas from approval of the Project, given this regulatory context. According to the *FEIS*, regional background values for the criteria pollutants are below established standards, and all areas within the Cumulative Impact Assessment Area (CIAA) are designated as “attainment” for all criteria pollutants, meaning that the NAAQS for each pollutant is currently being met. *FEIS* at 3-6; *see* Table 3.7. BLM modeled the air quality impacts on the Project and surrounding areas, using expected emissions by drilling and other Project activities, and other past, present, and reasonably foreseeable future oil and gas development in the CIAA. *FEIS* at 4-3. BLM concluded that cumulative impacts of the Project would not exceed NAAQS, WAAQS, or PSD increment limitations, and, therefore, would not violate the CAA. *See ROD* at 5; *FEIS* at 4-19 through 4-24, 5-3.

a. 80% Emissions Reduction

WOC challenges BLM’s adoption under the Preferred Alternative of the 80% reduction of air pollutant emissions on the basis that, even if it can be achieved, it will result in air quality impacts that still violate the CAA. According to WOC, “even under this 80-percent reduction alternative, the Jonah Infill project remains

¹⁰ (...continued)

approves the SIP, it is codified and enforceable as [F]ederal law.” *EnCana Opposition* (IBLA 2006-155) at 24. *EnCana* explains that “Wyoming’s permitting program exceeds the [F]ederal program by requiring construction permits for any source that may emit any air contaminant in any form, including minor sources from oil and gas operations.” *Id.* at 25, *citing* WYO. STAT. ANN. §§ 35-11-201 to 35-11-203 (Lexis Nexis 2005, and Wyoming Air Quality Stds. & Regs. (WAQSR), Ch. 6, § 2(a)(i). In addition, states *EnCana*, “[a]s part of the permitting process, WDEQ requires applicants for both major and minor sources to demonstrate that the proposed facility ‘will not prevent the attainment or maintenance of any ambient air quality standard’ or ‘cause significant deterioration of existing ambient air quality’ before an air quality permit will issue.” *EnCana Opposition* (IBLA 2006-155) at 26, *quoting* WAQSR Ch. 6, § 2(c)(ii) and (iii), at 6-3.

a severe threat to air quality.” WOC Petition at 9. WOC also asserts that EPA’s endorsement of the Preferred Alternative was based upon predictions of an 80% reduction in emissions on a rate of development of 50 to 75 wells per year, but that BLM had failed to demonstrate how that reduction could be achieved when drilling is proceeding at the rate of 250 wells per year, as approved by BLM in its ROD. *Id.* at 9, n.5.

In reviewing the record, however, we find no indication that BLM predicated achievement of the 80% emissions reduction on a rate of development of less than 250 wells per year. Rather, BLM’s modeling of the air quality impacts of the Preferred Alternative was based on the assumption of a rate of development of 250 wells per year, along with an 80% reduction in emissions. ROD at 14; FEIS at 4-19; Final Air Quality TSD at 6. BLM based its determination that the CAA would not be violated upon such modeling.

Even so, WOC argues that BLM has yet to specify how it would, in fact, achieve an 80% reduction in emissions. WOC notes that BLM focuses on the use of Tier II diesel engines on drilling rigs, since they emit less pollutants than standard engines, but fails to appreciate that such engines are “not widely available at this time.” WOC Petition at 9. WOC charges that drilling was not being deferred until such engines are available.

The record shows, however, that BLM’s air quality impact modeling for the Preferred Alternative did not rely on the use of Tier II or equivalent diesel engines on all drilling rigs in the Project area, but assumed in a high emissions scenerio that 200 wells would have Tier 0 engines and 50 wells would have Tier I engines. FEIS at 4-19; Final Air Quality TSD at 14, n.5. BLM provided for the exclusive use of Tier II or equivalent diesel engines at the earliest possible time, and, in any event, by January 1, 2007. ROD, Appendix A, at A-3; ROD, Appendix B, at B-16. BLM did not assume that the 80% emissions reduction depended on the availability of Tier II diesel engines for drilling rigs, but rather recognized that such reduction must be achieved by other means.¹¹

¹¹ EPA indicated to BLM that it “believes that the 80 percent reduction scenario is a reasonable and attainable approach.” Letter to BLM, dated Oct. 7, 2005, at 3. EPA reviewed several “recent developments,” in addition to Tier II diesel engines, that could reduce emissions. EPA stated that “[i]n addition to technological solutions, there are many options for either BLM or the Wyoming DEQ to control the rate of well development to correspond with the availability and use of cleaner drilling rigs beginning with the early project development phase.” *Id.*

Moreover, if it is not possible to achieve the 80% emissions reduction through technological means, BLM has acknowledged that the rate of development may be reduced below 250 wells per year in order to achieve CAA compliance. Accordingly, the ROD states that “the actual pace of development may be limited by air quality impact restrictions and associated mitigation, which creates the potential to increase the duration of the field development phase.” ROD at 14.

Our review of the record demonstrates that WOC has failed to show that the 80% emissions reduction cannot be achieved, or that, even if achieved, CAA violations will result. Clearly, the CAA regulatory framework in place will dictate the pace of development.

b. Nitrogen Dioxide (NO₂) Emissions

BLM concluded that the Project will not result in an NO₂ concentration in the Project and surrounding Class II areas that exceeds CAA limits. BLM’s analysis indicated that Project activities will result in a total increase in the NO₂ concentration of 18.9 μg/m³ (micrograms per cubic meter), below the maximum allowable annual average ambient NO₂ concentration increment (25 μg/m³) available under the PSD program. FEIS at 4-19; FEIS, Appendix J, at J-1 (Table J-1).

WOC argues that BLM’s analysis is flawed because it relied on data regarding the existing air quality of the Project area dating from 2001 and collected at a site (Green River, Wyoming) 60 miles downwind of the Project area, rather than “far more recent and relevant” data generated by WDEQ which dates from 2004 and was collected in the Project area. WOC Petition at 30. WOC states that BLM “failed to account for much of the existing pollution in the project area,” which has already consumed “much” of the maximum allowable 25 μg/m³ increase. *Id.* at 32, 34. WOC asserts: “Had BLM used [WDEQ’s] data to calculate [background] NO₂ concentrations, it would have found that added emissions from the Jonah Infill project will consume more than the NO₂ PSD increment in violation of the Clean Air Act.” *Id.* at 30. WOC explains that WDEQ had determined that, as of 2004, the existing NO₂ concentration was 11.5 μg/m³ (rather than BLM’s 3.4 μg/m³), with the result that, with the addition of BLM’s anticipated 18.9 μg/m³ increase, the concentration would reach 30.4 μg/m³ (rather than BLM’s 22.3 μg/m³), more than the maximum allowable 25 μg/m³ incremental increase.

BP America responds that WOC fundamentally errs in its criticism of BLM’s analysis of the effects of the Project on the NO₂ concentration in the Project and surrounding Class II areas, noting that BLM’s anticipated increase of 18.9 μg/m³ takes into account WDEQ’s reported 11.5 μg/m³ background level, since it incorporates the continuing impact of “many [non-Project] sources.” BP America Opposition (IBLA 2006-155) at 11. BP America explains: “Because Scenario 2 [Cumulative

Sources] is a cumulative modeling exercise, to add the 18.9 $\mu\text{g}/\text{m}^3$ cumulative estimate to the WDEQ's 2004 cumulative estimate would result in double counting many sources, thereby egregiously overstating actual increment consumption." *Id.* As set forth in Table 3.5, at page 31 of the Final Air Quality TSD, the maximum modeled annual NO_2 concentration for Scenario 2 is 18.9 $\mu\text{g}/\text{m}^3$. *Id.* at 29; see Summary Report, Southwest Wyoming NO_2 PSD Increment Consumption Modeling: Results for Sublette County, dated Sept. 15, 2005 (Ex. 25 attached to EnCana Opposition (IBLA 2006-155)), at SR-24.

WOC does not dispute the existence of double counting. See WOC Reply at 15. Further, it makes no effort to quantify the extent of double counting, merely stating that it is "impossible" to determine the extent of double counting, and thus calculate the increase in the NO_2 concentration which is likely to occur as a consequence of the Project. *Id.* Most importantly, WOC provides no evidence to establish that adding BLM's cumulative estimate to WDEQ's 2004 existing NO_2 concentration would result in an increase in the NO_2 concentration greater than the maximum allowable 25 $\mu\text{g}/\text{m}^3$, after taking into account the matter of double counting. WOC further fails to demonstrate that the Project is likely to result in a violation of the NO_2 PSD increment requirements of the CAA.

In assessing the potential significant environmental impacts in the EIS, BLM properly relied upon the adequacy of State enforcement to ensure that no CAA violation occurs. See EnCana Sur-Reply in Opposition to Petition for Stay (Sur-Reply in Opposition) (IBLA 2006-155) at 6; ROD at 5; ROD, Appendix A, at A-3. BLM also provided that it would, in cooperation with the JIO, monitor compliance with air quality standards, and, in consultation with WDEQ, EPA, FS, and the National Park Service (NPS), decide whether to make appropriate changes to the Project, in order to mitigate significant adverse impacts. See ROD at 5; ROD, Appendix A, at A-3; Public Comment Analysis Report, Table III-B, at 16, 186. Given the imposition of monitoring, coupled with follow-up mitigation, in order to account for unforeseen future circumstances affecting the Project, we conclude that BLM has fairly evaluated the potential environmental impacts of the Project on maximum allowable NO_2 concentrations, satisfying section 102(2)(C) of NEPA. See, e.g., *Colorado Environmental Coalition*, 169 IBLA 137, 143-44 (2006), and cases cited.

c. Ozone-Producing Emissions

(1) The "Scheffe Method" of Measuring the Formation of Ozone

WOC's argument regarding the inadequacy of BLM's analysis of ozone-producing emissions relates primarily to BLM's use of the "Scheffe method" of measuring the effects of ozone emissions resulting from Project activities. WOC challenges BLM's conclusion that the ozone standard will not be exceeded as a

consequence of Project emissions as being based upon the Scheffe method, a “discredited methodology.”¹² WOC Petition at 39. The Scheffe method, states WOC, was developed “nearly twenty years ago,” and is “not recognized by EPA,” since it cannot “reliably predict conditions in the real world of the Jonah Infill project area.” *Id.* WOC claims that “BLM produced an analysis that was calculated to hide the Jonah Infill’s actual ozone impacts.” *Id.* at 40.

WOC states that EPA issued regulations, entitled “Guideline on Air Quality Models” (Guideline), pursuant to a Congressional directive in section 165(e)(3)(D) of the CAA, 42 U.S.C. § 7475(e)(3)(D) (2000), that it promulgate regulations which “shall specify with reasonable particularity each air quality model or models to be used under specified sets of conditions[.]”¹³ *Id.* at 40-41. WOC asserts that, under the Guideline, the “recommend[ed]” model in the case of multi-source emissions, such as an oil and gas drilling project, is the “Community Multi-scale Air Quality” (CMAQ) model, which was not used by BLM. *Id.* at 42. WOC notes that, while alternate models can be used so long as they are shown to EPA’s satisfaction to perform as well or better than the preferred method, BLM has not provided any such justification for the Scheffe method, or obtained EPA approval. WOC asserts that BLM’s failure to use EPA’s preferred model for evaluating the impacts of Project emissions on ozone levels precludes BLM from finding compliance with the CAA.

Further, WOC argues that, in any event, BLM’s decision to rely on the Scheffe method is arbitrary because BLM has failed to demonstrate that that methodology is capable of accurately predicting the effects of Project emissions on ozone levels. WOC Petition at 45, *citing Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 923 (D.C. Cir. 1998). In support of its position, WOC offers an April 8, 2006, technical report, entitled “Ozone Modeling in the Jonah Infill Development Project Final Environmental Impact Statement,” prepared by Dr. Jana B. Milford (Milford Report) (Ex. 10c attached to WOC Petition), which details the Scheffe method’s deficiencies in predicting such effects. *See* WOC Petition at 46.

¹² We learn from EnCana that the Scheffe method was developed by an EPA employee (Dr. Richard D. Scheffe), and was published by EPA in a September 1988 document entitled “VOC/NO_x Point Source Screening Tables” (Scheffe Paper), which is contained in the record (Final Air Quality TSD, Appendix A, Sub-appendix A). Opposition (IBLA 2006-155) at 38. WOC reports that Scheffe is still employed at EPA as a “senior science advisor.” Reconsideration Petition at 3.

¹³ The Guideline is contained in Appendix W of EPA’s 40 C.F.R. Part 51 regulations. The Guideline in the 2005 version of the C.F.R. has since been amended, effective Dec. 9, 2005. *See* 70 Fed. Reg. 68218 (Nov. 9, 2005).

In addressing WOC's arguments, we note that EPA indicated in its Guideline, under the heading "*Recommendations*," that use of the CMAQ model is not required in the case of ozone modeling: "Control agencies with jurisdiction over areas with ozone problems are *encouraged to use* photochemical grid models, such as the Models-3/Community Multi-scale Air Quality (CMAQ) modeling system,[] to evaluate the relationship between precursor species and ozone." Guideline, 5.2.1 (70 Fed. Reg. at 68235) (emphasis added). WOC offers no evidence that BLM is a "[c]ontrol agenc[y]," and, even if it were, that BLM was *required* by EPA, under the Guideline, to use the CMAQ model or to obtain EPA approval in order to use an alternate model.

EnCana states that BLM's use of a particular air quality model to assess the effects of Project emissions of VOC and NO_x on ozone formation was not subject to EPA approval, and thus is "not subject to the PSD program." EnCana Opposition (IBLA 2006-155) at 37-38, n.26. EnCana emphasizes that the PSD program is administered by WDEQ and not BLM. *Id.*; *see also* BP America Opposition (IBLA 2006-155) at 13; BLM Response to Corrected Petition for Stay (BLM Response) (IBLA 2006-155) at 13-14. In addition, EnCana responds that the Scheffe method, a screening model, was properly used by BLM to "conservatively estimate the impact of ozone from the JIDP." EnCana Opposition (IBLA 2006-155) at 38; *see also* BLM Response (IBLA 2006-155) at 18; Milford Report at 19.

Following our June 2006 stay order denying WOC's petition for stay, WOC sought reconsideration, asserting that "new information provides compelling support for appellants' arguments identifying deficiencies in the BLM's analysis of the Jonah Infill project's ozone impacts." Reconsideration Petition at 8. Its "new information" consists first of statements made by Scheffe in a July 18, 2006, e-mail to EPA and a subsequent July 28, 2006, letter to WOC.¹⁴ In those documents, Scheffe generally expressed the opinion that the "ozone screening tool" known as the Scheffe method which he had developed in 1988 while employed at EPA was, in WOC's words, "not scientifically adequate to predict ozone impacts from planned [oil and gas] developments," since it was "antiquated and useless," quoting Scheffe.¹⁵

¹⁴ The July 18, 2006, e-mail and July 28, 2006, letter are attached as Exhibits A and B, respectively, to an Aug. 7, 2006, Declaration of Abigail M. Dillen (Dillen Declaration), which is attached to WOC's Reconsideration Petition. Exhibit A consists of an e-mail exchange, involving three e-mails over several days, principally between Scheffe and Valerie Broadwell, both EPA employees.

¹⁵ Scheffe's statement that his method was antiquated and useless was in response to a July 13, 2006, e-mail inquiry by Broadwell, on behalf of Region 8 of EPA, which has responsibility for the Project area. That inquiry was directed to various EPA

(continued...)

Reconsideration Petition at 2, 3, *quoting* e-mail to Broadwell, dated July 18, 2006; *see also* July 28, 2006, Letter to WOC. WOC contends that, given the inadequacy of the Scheffe method, BLM was not justified in finding that ozone generated by Project emissions would not exceed the “governing” NAAQS. Reconsideration Petition at 2, 4. WOC asserts that Scheffe’s admission that the method cannot reliably predict ozone concentrations generated by the Project renders the method not “useful” for NEPA compliance purposes, since it does not “accurately predict the ‘behavior’ of the air system being modeled.” *Id.* at 5, *quoting State of Ohio v. U.S. EPA*, 784 F.2d 224, 228 (6th Cir. 1986).

These submissions notwithstanding, we conclude that WOC has not shown error in using the Scheffe method as a conservative ozone screening tool, as explained below, for the purpose of determining whether there is *any likelihood* that the Project will cause ozone concentrations to exceed the NAAQS. While Scheffe’s opinion may call into question use of his own method as a reliable tool for predicting with certainty ozone concentrations resulting from any oil and gas development, it does not undermine the usefulness of the method as a conservative ozone screening tool. *See, e.g.*, WOC Reconsideration Petition at 5. Scheffe does not disavow his assertions, made at pages 3 and 4 of the Scheffe Paper, that “[t]he ozone increment estimates produced from this analysis should be interpreted as *conservative predictions* which would exceed ozon[e] formation produced by actual episodic events,” and that “[t]he [screening] tables presented herein are intended to serve as a means for *screening effects* on ozone from individual point sources so that subsequent, more refined analyses can be focused on sources where it is warranted.” (Emphasis in original). BLM was of the opinion that the Scheffe method was adequate to the task of estimating potential ozone concentrations: “The Scheffe method used may not provide the best tool for concentration estimation, but the BLM believes that the data and analyses provided in the EIS and [Air Quality] [TSD are adequate for this impact assessment.”¹⁶ Public Comment Analysis Report, Table III-B, at 7. It is, in the

¹⁵ (...continued)

employees, including Scheffe, regarding the propriety of BLM’s use of the Scheffe method “to project [wintertime] ozone levels,” in light of the fact that, in the winter of 2005 and 2006, “one oil and gas field in Wyoming recorded exceedances of the 8-hour ozone NAAQS[.]” She inquired: “Should [we] be asking them to use something other than the ‘Scheffe Method’? Are there more valid methods that the EPA should be directing BLM to use for their EIS?” No response from any of the other EPA employees to the questions posed by Broadwell is provided. Nor is there any evidence that Scheffe or any other EPA employee offered an alternate method.

¹⁶ BLM also noted that, while there were other models, the Scheffe method was preferred because it was less expensive and time-consuming, and was applicable to

(continued...)

words of EnCana and BP America, intended to “estimate” potential, rather than predict actual ozone concentrations resulting from Project activities. EnCana Opposition to Petition for Reconsideration (IBLA 2006-155) at 4; BP America Response to Petition for Reconsideration (IBLA 2006-155) at 3.

Further, despite Scheffe’s representation, EPA has not officially disavowed BLM’s use of the Scheffe method for this purpose. See BP America Opposition (IBLA 2006-155) at 14 (“EPA raised no objection to the screening model for ozone that BLM used for this project.”). As BLM emphasizes, “the Scheffe method was implemented with review and input from EPA, as well as the WDEQ.” BLM Response (IBLA 2006-155) at 21. WOC, at best, demonstrates that, “[i]nternally at EPA, staff are questioning whether the Scheffe Method is a valid tool for predicting ozone formation from ‘wintertime ozone levels on/near oil [and] gas fields.’” Reconsideration Petition Reply at 1.

Moreover, BLM offers un rebutted evidence that EPA supported use of the Scheffe method at the time of preparation of the FEIS and related air quality analyses. BLM submits the August 31, 2006, Declaration of Susan Caplan, a BLM Wyoming State Office air quality specialist who served as BLM’s lead representative in the Jonah Infill Air Quality Stakeholders’ Group (Stakeholders’ Group), which was composed of representatives of BLM, EPA, WDEQ, FS, and NPS. See Caplan Declaration, Ex. F to BLM Opposition to Petition for Reconsideration (IBLA 2006-155). Caplan states that the Scheffe method was approved for use in BLM’s environmental review by the Stakeholders’ Group. She reports that, after extensive discussions concerning its “problems and limitations,” the Stakeholders’ Group “agreed that, despite its problems, the Scheffe method was the best available model for wintertime ozone concentrations in southwest Wyoming, particularly considering time and resource constraints.” *Id.* at 2, ¶6.

BLM provides an August 31, 2006, letter from the Assistant Regional Administrator, Office of Ecosystem Protection and Remediation, EPA Region 8 (Ex. E to Opposition to Petition for Reconsideration (IBLA 2006-155)), which reports EPA’s position, as a member of the Stakeholders’ Group, on the use of the Scheffe method:

EPA Region 8 staff actively participated in the group of stakeholders convened by BLM in order to comment on the air quality assessment protocol for the JIDP. At that time, all parties involved were in

¹⁶ (...continued)

rural areas, whereas the other models were designed for urban environments. See Final Air Quality TSD at 19, 23, 32-34; Public Comment Analysis Report, Table III-B, at 7.

agreement that the ozone assessment tool commonly referred to as the “Scheffe” method which consists of VOC/NO_x Point Source Screening Tables developed by [an] EPA staff member in the late 1980’s was an acceptable screening model to use for the JIDP. Although this approach was never certified by the EPA, *EPA Region 8 did not object to the use of the Scheffe method for the JIDP and deemed it a reasonable tool for the JIDP FEIS* and the subsequent decisions made by the BLM in the Record of Decision. [Emphasis added.]

See also Letter to BLM from Regional Administrator, Region 8, EPA, dated May 18, 2006 (Ex. 32 attached to EnCana Opposition to Petition for Reconsideration (IBLA 2006-155)), at 2; Letter to BLM from Director, NEPA Program, Office of Ecosystem Protection and Remediation, Region 8, EPA, dated Aug. 28, 2006 (Ex. E attached to BLM Opposition to Petition for Reconsideration (IBLA 2006-155)) (“We continue to believe that the use of the ‘Scheffe’ method was the most reasonable and appropriate tool for the JIDP FEIS and the subsequent decisions made by BLM in the Record of Decision.”); Public Comment Analysis Report, Table III-B, at 102.

On balance, the record demonstrates that while the validity of the Scheffe method as a means of predicting ozone formation may have been subject to internal debate within EPA following completion of the FEIS, neither EPA nor WDEQ not only did not object to, but officially supported, its use by BLM in the context of NEPA review of the Project.¹⁷ We conclude that BLM did not err in its use of the Scheffe method in arriving at conservative estimates of ozone concentrations resulting from the JIDP.

¹⁷ WOC also asserts that new information regarding BLM’s decision not to use the Scheffe method in the case of the Pinedale Anticline Oil and Gas Exploration and Development Project (Pinedale Anticline Project) undercuts BLM’s decision to use the Scheffe method in the case of the JIDP. WOC Notice of Supplemental Authority in Support of Petition for Reconsideration at 2, *quoting* Draft SEIS at 4-62. However, BLM’s decision not to use the Scheffe method in the case of the Pinedale Anticline Project does not necessarily establish that its use in the case of the JIDP was inappropriate, especially given the differences, as noted by EnCana and not disputed by WOC, between the two projects. EnCana Response to Notice of Supplemental Authority (IBLA 2006-155) at 2.

(2) *Other Alleged Deficiencies in BLM's Ozone Impacts Analysis*

WOC further argues that, even relying on the Scheffe method, BLM failed to properly evaluate the Project's ozone impacts by minimizing the existing ozone concentration in the Project area *and* the expected level of ozone caused by Project activities. WOC asserts that BLM relied upon its own assessment of the existing 8-hour average concentration of $75.2 \mu\text{g}/\text{m}^3$, rather than WDEQ's assessment of $147 \mu\text{g}/\text{m}^3$, and that, when added to the expected generation of $54.7 \mu\text{g}/\text{m}^3$ over an 8-hour period, the 8-hour NAAQS for ozone of $157 \mu\text{g}/\text{m}^3$ is exceeded in the case of WDEQ's, but not BLM's, baseline concentration. WOC argues that BLM achieved compliance with the CAA by improperly relying on "a background *long-term* [ozone] concentration based on 1-hour measurements" ($75.2 \mu\text{g}/\text{m}^3$), rather than the "background *8-hour* ozone concentration" ($147 \mu\text{g}/\text{m}^3$). WOC Petition at 49 (emphasis in original). WOC states that instead of properly taking the average over an 8-hour period in order to compare it to the 8-hour NAAQS, after adding the expected 8-hour level attributable to Project emissions, BLM averaged a series of 1-hour measurements of ozone concentration. According to WOC, "[t]his was directly at odds with BLM's announced approach of combining '[b]ackground air quality concentrations . . . with modeled Project-related emissions for the same averaging time periods so that total predicted pollutant concentrations can be compared to applicable air quality standards.'" *Id.* at 50, quoting DEIS at 3-4.¹⁸

In addition, WOC challenges BLM's calculation of the expected level of ozone caused by Project activities, based on anticipated emissions of VOC and NO_x , because in applying the Scheffe method BLM utilized the table for predicting ozone levels in rural, rather than urban, areas. WOC argues that BLM's use of the rural table was improper because it was to be employed not only where the emissions source and downwind area were rural areas, but also only "where ozone exceedances have never been reported[.]" WOC Petition at 53, quoting Scheffe Paper at 6. WOC states that use of the rural table was inappropriate given "several recent exceedances of the ozone 8-hour standard in and very near the Jonah Field." WOC Petition at 53. WOC notes that "[e]ither the urban table should have been used or at a minimum the highest value obtained from applying both tables should have been used," thus resulting in an 8-hour average concentration of $111.9 \mu\text{g}/\text{m}^3$, rather than BLM's

¹⁸ EnCana responds that BLM's use of the "monitored 1-hour ozone average background ozone concentration" to assess ozone impacts of the Project was an "overly conservative" approach, which was, in fact, endorsed by WDEQ and EPA. EnCana Opposition (IBLA 2006-155) at 40, citing Final Air Quality TSD at 33-34. See also BP America Opposition (IBLA 2006-155) at 15, quoting Final Air Quality TSD at 33 (referring to Final Air Quality TSD at 22 (Table 3.1)); BLM Response (IBLA 2006-155) at 20.

54.7 $\mu\text{g}/\text{m}^3$. *Id.* at 54. WOC points out that, when the expected 8-hour average concentration of ozone generated by Project activities (111.9 $\mu\text{g}/\text{m}^3$) is added to BLM's (75 $\mu\text{g}/\text{m}^3$) or WDEQ's (147 $\mu\text{g}/\text{m}^3$) baseline concentration, the total 8-hour NAAQS of 157 $\mu\text{g}/\text{m}^3$ for ozone would be exceeded.

EnCana and BP America both dispute WOC's analysis. EnCana states that BLM properly used rural, not urban, tables for calculating anticipated ozone levels, since the Project and affected downwind areas are rural. EnCana explains that "Pinedale, with a population of about 1,500 people, is the largest town near the JIDP and it is more than 32 miles away." EnCana Opposition (IBLA 2006-155) at 40. BP America observes that meteorological conditions in "rural southwest Wyoming" are "not typical" of conditions in urban areas, and that the models available for estimating ozone formation in urban areas, "where high temperature, summertime, stagnant conditions can persist and are conducive to ozone formation," are not appropriate. BP America Opposition (IBLA 2006-155) at 14, *quoting* Final Air Quality TSD at 32. EnCana further asserts that the few ozone exceedances do not call for use of the urban tables, stating: "Isolated occurrences of elevated ozone levels which are caused by stratospheric intrusion or other natural events do not convert the JIDP into an urban environment." EnCana Opposition (IBLA 2006-155) at 40. BLM adds that "[t]he NAAQS contemplate limited exceedances from sources such as stratospheric ozone intrusion." BLM Response (IBLA 2006-155) at 20; *see* EnCana Opposition (IBLA 2006-155) at 37, n.25; 40 C.F.R. Part 50, Appendix I, at ¶1.

The parties further disagree as to the cause of the ozone exceedances. EnCana discounts the role of oil and gas development activities in the exceedances, relying on an opinion expressed by CH2M Hill, an environmental consultant, following analysis of the Jonah Field ozone data for 2005-2006. CH2M Hill stated:

It remains our position that the elevated ozone readings in the Pinedale area in February 2005 and 2006 are not attributable to photochemical processes involving local industrial sources of air pollution. Rather, the elevated readings were caused by natural transport to the ground of ozone from the lower levels of the ozone-rich stratosphere.

EnCana Sur-Reply in Opposition (IBLA 2006-155), Ex. 33 at 2. BP America argues that the elevated ozone levels could not be considered "exceedances" under the Scheffe Paper: "There have been no measured ozone levels that may properly be considered an exceedance in the area. The 'exceedances' in February 2005 and 2006 are anomalies that appear to be caused by natural events in the atmosphere and not from any emissions sources." BP America Opposition (IBLA 2006-155) at 16. WOC contends, on the other hand, that BLM's position that the exceedances were attributable to natural circumstances has been undermined by new information provided by EPA. WOC Reconsideration Petition at 7; *see* July 6, 2006, Letter from

Richard R. Long, Air and Radiation Program Director, EPA Region 8, at 2, stating that atmospheric conditions during recorded exceedances were not conducive to stratospheric ozone intrusion but were typical of photochemical-generated ground-level ozone.

We deem it appropriate to take our guidance from WDEQ, which is responsible for taking enforcement action with respect to recorded exceedances. At the time the parties completed their briefing, WDEQ had not yet reached a definitive conclusion regarding the cause of the 2005 and 2006 exceedances and was still investigating the matter. WDEQ stated that it continued to work with all interested parties to “investigate the cause of the exceedances, which is still not well understood. It has *not* been determined that [oil and gas] development in the Jonah Field caused the exceedances.”¹⁹ BLM Opposition to Petition for Reconsideration (IBLA 2006-155) at 3; *see* State Response to Petition for Reconsideration (IBLA 2006-155) at 4; EnCana Opposition to Petition for Reconsideration (IBLA 2006-155) at 2-3.

We generally agree with EnCana that BLM’s estimate of an 8-hour concentration of $54.7 \mu\text{g}/\text{m}^3$ as the expected ozone level attributable to Project emissions was “highly conservative,” and, when added to the $75.2 \mu\text{g}/\text{m}^3$ existing ozone concentration, results in a cumulative ozone concentration of $129.9 \mu\text{g}/\text{m}^3$, *below the 8-hour NAAQS of $157 \mu\text{g}/\text{m}^3$* . EnCana Opposition (IBLA 2006-155) at 41; *see* BP America Opposition (IBLA 2006-155) at 15. WOC presents no affirmative evidence, supported by objective proof, regarding the level of ozone which is likely to be generated by the Project, using the CAMQ or any other methodology, and has otherwise not established error in BLM’s analysis and conclusion regarding the likely ozone impacts of the Project itself.

WOC has failed to demonstrate that the Project is likely to result in a violation of the ozone requirements of the CAA that was not adequately addressed by BLM in its EIS. Project activities are, above all, subject to the permitting and compliance provisions of the CAA, which are administered by WDEQ under EPA oversight. After Project approval, such activities must first be permitted and then will be monitored by WDEQ, in order to ensure that they do not generate ozone exceeding the NAAQS in violation of the Act. *See* ROD at 5; ROD, Appendix A, at A-3; Public Comment Analysis Report, Table III-B, at 6-7. BLM provided that it would, in cooperation with the JIO, monitor compliance with air quality standards, and, in consultation with WDEQ, EPA, FS, and NPS, decide whether to make appropriate changes to the Project, in order to mitigate significant adverse impacts. *See* ROD, Appendix A, at

¹⁹ BP American argues that there has been no violation of the CAA, since “[t]he anomalous ‘exceedances’ in February 2005 and 2006 do not constitute a violation of the ozone standard under EPA’s regulations.” Opposition (IBLA 2006-155) at 16.

A-4; see ROD at 5; ROD, Appendix A, at A-3; Public Comment Analysis Report, Table III-B, at 16, 186.

We, therefore, conclude that BLM has fairly evaluated the potential ozone impacts of the Project, satisfying section 102(2)(C) of NEPA. See *Save Medicine Lake Coalition*, 156 IBLA at 233-34.

d. Fine Particulate Matter Emissions

WOC argues, in its Petition, that BLM failed to properly evaluate the potential negative effects on human health associated with Project emissions of fine particulate matter (PM_{2.5}). WOC states that BLM's modeling of air quality impacts indicates that during the early stages of the Project, Project activities are likely to cause total 24-hour PM_{2.5} concentrations in the Project area to reach 49.2 µg/m³, for a cumulative total of 62.4 µg/m³, given other regional sources. WOC Petition at 57, citing Final Air Quality TSD, Appendix G (Draft Air Quality TSD Supplement (August 2005, revised January 2006)), at G-E-21 (Table G-E.5.1), G-E-22 (Table G-E.5.2)). WOC further asserts that Project activities will generally result in a total 24-hour concentration of 44.0 µg/m³, given the baseline concentration and expected emissions. WOC Petition at 57, citing FEIS, Appendix J, at J-3 (Table J-5).

At the time of filing its Petition, WOC noted that EPA had set the NAAQS for PM_{2.5} at a concentration of 65 µg/m³ over a 24-hour period in 1997, but that studies since that time revealed that a standard of 35 µg/m³ was more appropriate to protect public health, that EPA had proposed that standard on January 17, 2006, and that EPA was originally required to finalize its new standard by September 27, 2006, pursuant to a court-ordered consent decree. That decree stated: “[T]he current primary [24-hour and annual] PM_{2.5} standards, taken together, are not requisite to protect public health with an adequate margin of safety[.]” WOC Petition at 57, quoting 71 Fed. Reg. 2620, 2643 (Jan. 17, 2006).

While recognizing that the new 24-hour PM_{2.5} standard had yet to be adopted, WOC argued that BLM was required to consider the effects on human health of the PM_{2.5} emissions allowed by the Project, given the “large body of compelling scientific evidence” that such emissions will cause significant adverse health effects. Petition at 57. According to WOC, given the current state of knowledge about the health effects of PM_{2.5} emissions, it was not sufficient for BLM to say that emissions will be below the NAAQS in effect at that time, and thus to “assume that PM_{2.5} emissions will be harmless to human health.” *Id.* at 58, citing FEIS at 4-19.

In our June 2006 stay order, we concluded that WOC had failed to show that it was likely to prevail on the argument that BLM had failed to properly evaluate the potential negative effects on human health of Project emissions exceeding EPA's

proposed new 24-hour PM_{2.5} standard. The new standard was, at that time, “a matter of speculation,” which need not be considered pursuant to section 102(2)(C) of NEPA, and, in any event, BLM would be required to ensure that Project activities abide by the standard. Order, dated June 28, 2006, at 26, citing *Edwardsen v. U.S. Dep’t of the Interior*, 268 F.3d 781, 789 (9th Cir. 2001). We basically agreed with EnCana that, since Project emissions need not comply with an NAAQS that was “not currently in effect, and may not be in effect until 2007 or beyond,” BLM could not be said to have violated NEPA by “fail[ing] to analyze a proposed EPA PM_{2.5} standard that may or may not become a[n] NAAQS standard at some future date.” EnCana Opposition (IBLA 2006-155) at 42; *see also* BP America Opposition (IBLA 2006-155) at 17-18.

However, WOC informed us, in its Supplemented Petition for Reconsideration (Supplemented Petition), that on September 21, 2006, EPA had in fact adopted the proposed new 24-hour PM_{2.5} standard of 35 µg/m³. WOC stated that EPA had adopted the new standard because the “current suite of primary PM_{2.5} standards, taken together, is not sufficient and thus not requisite to protect public health [with an adequate margin of safety],” as demonstrated by studies “document[ing] the causal link between short-term inhalation of PM_{2.5} and premature mortality, heart attacks, and respiratory diseases, including lung cancer and asthma.”²⁰ Supplemented Petition at 1, quoting 71 Fed. Reg. at 61,161. WOC concluded that, “[u]nder this new standard, [BLM’s] . . . modeling analysis shows that PM_{2.5} emissions from the Jonah Infill project will violate the Clean Air Act’s health-based air quality standards, jeopardizing the health and welfare of people who live and work in the Upper Green River Basin.” Supplemented Petition at 2.

The Final Rule was published in the *Federal Register* on October 17, 2006 (71 Fed. Reg. 61,144), and went into effect on December 18, 2006. Thus, the new 24-hour PM_{2.5} standard is no longer a matter of speculation. Further, there is no question, based on the results of BLM’s original air quality modeling, that Project activities will result in total 24-hour PM_{2.5} concentrations in the Project area exceeding 35 µg/m³.

However, EPA’s adoption of the new standard does not compel the conclusion, as WOC argues, that BLM failed to adequately consider the potential adverse human health effects of Project activities. While studies existed disclosing the potential adverse human health impacts of PM_{2.5} emissions exceeding the then current 24-hour PM_{2.5} standard, EPA had not changed the standard when BLM was preparing the EIS

²⁰ The “[current] suite” of primary PM_{2.5} standards, to which WOC refers, are the 24-hour standard of 65 µg/m³, which was to be changed with EPA’s final rulemaking, and the annual standard of 15 µg/m³, which was to be retained. *See* 71 Fed. Reg. 61,144 (Oct. 17, 2006).

for the JIDP. Certainly, BLM's modeling of air quality impacts in its FEIS did not disclose a violation of the CAA requirements, since it did not reveal that the existing PM_{2.5} standard of 65 µg/m³ would be exceeded. Thus, we cannot conclude that BLM erred in its assessment of impacts of PM_{2.5} emissions at the time of Project approval.

Moreover, EnCana rightly argues that a determination by WDEQ of whether the Project will actually violate the CAA by exceeding the new NAAQS will be made sometime in the future and will be dependent on actual monitoring data, not modeled projections. EPA must decide, based on a State recommendation, whether the State is an attainment or nonattainment area for 24-hour PM_{2.5}, which designation will become effective in April 2010, and the State must finally adopt, by April 2013, an SIP for meeting the new standard. "States will not actually be required to meet the new 24-hour NAAQS for PM_{2.5} until April 2015 . . . , with possible extensions until April 2020." EnCana Answer (IBLA 2006-155) at 4.

[2] Nevertheless, we are faced with the question of whether BLM is now required to supplement the analysis of air quality impacts in its FEIS, based on EPA's promulgation of the new 24-hour PM_{2.5} standard. *See, e.g., Wyoming Independent Producers Ass'n*, 133 IBLA 65, 85-86 (1995). Under 40 C.F.R. § 1502.9(c)(1), an EIS must be supplemented "if . . . [t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." *See, e.g., TOMAC v. Norton*, 433 F.3d 852, 863 (D.C. Cir. 2006). The Supreme Court has said that, under this regulatory requirement, "an agency need not supplement an EIS every time new information comes to light after the EIS is finalized," but that, applying the rule of reason, "if the new information is sufficient to show that the remaining [major Federal] action will 'affect the quality of the human environment' in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared." *Marsh v. Oregon Natural Resources Council*, 490 U.S. at 373-74 (emphasis added). "[W]hether more NEPA analysis based on new information is required depends on the nature of the NEPA analysis already completed, and the nature of the information available at the time of the agency action." *Center for Native Ecosystems*, 170 IBLA 331, 346 (2006); *see also Wyoming Independent Producers Ass'n*, 133 IBLA at 85-86.

With the JIDP, BLM's analysis in the EIS has already, in effect, taken the "new information" into account. BLM has determined the extent to which Project activities are likely to cause changes in PM_{2.5} concentrations in the Project area, in the short and long term. BLM has provided that operators are required to abide by Federal and State air quality laws, failing which operations can be curtailed, and that actual PM_{2.5} concentrations caused by Project activities would be monitored by WDEQ. Should concentrations exceed Federal or State air quality standards, appropriate permitting and enforcement action would be taken by WDEQ, subject to EPA oversight, to ensure compliance with the CAA. *See EnCana Sur-Reply to Supplemented Petition*

for Reconsideration (IBLA 2006-155) at 7; State Surreply to Supplemented Petition for Reconsideration (IBLA 2006-155) at 4; ROD at 5; ROD, Appendix A, at A-3. Finally, BLM has provided that it would, in cooperation with the JIO, monitor compliance with air quality standards, and in consultation with WDEQ, EPA, FS, and NPS, decide whether to make appropriate changes to the Project, in order to mitigate significant adverse impacts. See ROD at 5; ROD, Appendix A, at A-3; Public Comment Analysis Report, Table III-B, at 16, 186.

We conclude that EPA's new 24-hour PM_{2.5} standard does not constitute significant new information, relevant to environmental concerns and bearing on the proposed action or its impacts, requiring BLM to supplement the EIS before allowing the Project to go forward, because of "the nature of the NEPA analysis already completed[.]" See *Center for Native Ecosystems*, 170 IBLA at 346. Since BLM has already provided for ensuring that the NAAQS for PM_{2.5} would not be exceeded by Project activities, we see no reason to now require BLM to supplement its EIS. Most importantly, we cannot say, given the measures adopted by BLM, that the new information concerning the change in the 24-hour PM_{2.5} standard is "sufficient to show that the remaining [major Federal] action will 'affect[t] the quality of the human environment' in a significant manner or to a significant extent not already considered," therefore requiring preparation of a supplemental EIS. *Marsh v. Oregon Natural Resources Council*, 490 U.S. at 373-74 (emphasis added). The record does not disclose that any significant impact will occur that BLM should address as a present concern.

2. BLM Considered the Directional Drilling Alternative.

[3] BLM is required by section 102(2)(C) and (E) of NEPA and its implementing regulations to rigorously explore and objectively evaluate, in an EIS, all *reasonable* alternatives to the proposed action, which will accomplish its intended purpose, are technically and economically feasible, and yet have a lesser or no impact. 42 U.S.C. § 4332(2)(C) and (E) (2000); 40 C.F.R. §§ 1500.2, 1501.2, 1502.1, and 1502.14; *City of Carmel-by-the-Sea v. U.S. Department of Transportation*, 123 F.3d 1142, 1155 (9th Cir. 1997); *Dubois v. U.S. Department of Agriculture*, 102 F.3d 1273, 1286-87 (1st Cir. 1996), *cert. denied*, 521 U.S. 1119 (1997); *Howard B. Keck, Jr.*, 124 IBLA 44, 53-54 (1992), *aff'd*, *Keck v. Hastey*, No. S92-1670-WBS-PAN (E.D. Cal. Oct. 4, 1993). All this ensures that the BLM decisionmaker "has before him and takes into proper account all possible approaches to a particular project." *Calvert Cliffs' Coordinating Committee, Inc. v. United States Atomic Energy Commission*, 449 F.2d at 1114.

BCA contends, as it did in *BCA*, 174 IBLA at 6-7, that BLM violated NEPA by rejecting the directional drilling alternative (Alternative B) in its ROD. BCA argues that BLM's determination is "unreasonable and unsupported by the record," and thus

arbitrary and capricious, since the directional drilling of wells from the existing well pads “is feasible from both the technical and economic perspective, and would produce the gas reserves of the Jonah Field as fully as the use of 3,100 vertical wells.” BCA Petition at 24; *see* Best Management Practices for Fluid Minerals, Wildlife Management, BLM (Ex. R attached to Petition), at unpaginated 9. BCA states that directional drilling would reduce production by 4% (or less with “remediation”) compared to vertical drilling, and that “[i]n a field estimated to contain 10.5 **trillion** cubic feet of natural gas reserves, the difference of 4% is quite negligible[.]” Petition at 28, *citing* Declaration of Kenneth Kreckel, dated Apr. 10, 2006 (Ex. J attached to Petition) (emphasis in original).

Contrary to BCA’s contention, the record shows that BLM fully considered the all directional drilling alternative. BLM recognized that the alternative would reduce the expected total cumulative surface disturbance from 20,334 acres, with BLM’s Preferred Alternative, to 7,431 acres (including 3,222 acres of new and 4,209 acres of existing disturbance), thereby benefitting wildlife and other resources. ROD at 13; FEIS at 2-17. BLM concluded, however, that, because of technical limitations, the exclusive use of directional drilling would result in the non-recovery of approximately 1.8 trillion cubic feet of natural gas and 18 million barrels of oil, thus failing to fully achieve the aims of the proposed action. ROD at 13; FEIS at 4-28 to 4-29. EnCana notes that BLM relied on a report prepared for EnCana by Resource Management Services, Inc. (RMS), entitled “Jonah Infill Drilling Project Evaluation of Directional Drilling,” dated July 16, 2004 (Ex. 15 attached to EnCana Opposition (IBLA 2006-157)), and referenced in the FEIS, which discusses in detail the unique geological conditions of the Jonah Field and the difficulties associated with directional drilling in that field, based on EnCana’s experience.²¹ EnCana Opposition (IBLA 2006-157) at 18.

EnCana explains that, in addition to increased costs of approximately \$240,000 per well, “directional drilling leads to differential sticking (when the drill pipe becomes attached to the borehole wall), stuck casing (the inability to circulate casing at the bottom of the well during completion which potentially strands reserves), and casing set off-bottom (when casing does not reach the total depth of the well bore, stranding reserves).” EnCana Opposition (IBLA 2006-157) at 18, *citing* FEIS at 7-8 and FEIS, Appendix B (Jonah Infill Drilling Project Development Procedures Technical Support Document); *see also* BLM Objection to Petition for Stay (IBLA 2006-157) at 14-15. EnCana asserts that, based on its experience drilling 140 directional wells in the Jonah Field, it found that “casing in directional wells is

²¹ EnCana states, however, that although directional drilling is “technically difficult in the JIDP, and results in significant lost reserves,” it has undertaken such drilling in the past “[i]n order to comply with surface disturbance limitations imposed in previous [BLM approval] documents.” Opposition (IBLA 2006-155) at 9, n.5.

stuck 86% of the time, and that the casing in directional wells is stuck off bottom 28% of the time, resulting in significant lost reserves.” EnCana Opposition (IBLA 2006-157) at 18. Moreover, EnCana states that directional drilling will have “significantly (20%) greater air emissions” than vertical drilling, owing to “[t]he longer drilling times, increased load factors on drilling rig engines, and increased traffic required[.]” Opposition (IBLA 2006-155) at 9; Opposition (IBLA 2006-157) at 10; *see* ROD at 13; FEIS at 2-17; Final Air Quality TSD at 11; Final Air Quality TSD, Appendix B (“Project Emissions Inventories”), at B-10, B-11, B-27, B-28.

Our review leads us to conclude that BCA has failed to demonstrate any error in BLM’s analysis of any lost recovery attributable to all directional drilling. *See* Kreckel Declaration at unpaginated 2; BCA Petition, Ex. J, Attachment A, at 14-15; BCA Reply at 4. BCA’s analysis fails to demonstrate any error in BLM’s overall analysis or conclusion of higher air quality impacts, and in fact acknowledges that directional drilling may result in the potential for greater air emissions. *See* BCA Reply at 3; 5. We conclude that BLM’s rejection of the all directional drilling alternative rests upon a rational basis, is supported by the record, and is not arbitrary and capricious. *See* BCA, 174 IBLA at 6-7; *see also* *Moffat County Road Department*, 158 IBLA 221, 224 (2003).

B. BLM Complied with FLPMA

1. BLM Complied with Land-Use Plan Conformance Requirement of Section 302(a) of FLPMA.

[4] WOC argues that BLM’s approval of the Project violates the land-use plan conformance requirement of section 302(a) of FLPMA, 43 U.S.C. § 1732(a) (2000), on the basis that it violates the “reasonably foreseeable development” scenario (RFD scenario) stated in the Pinedale RMP by authorizing the drilling of 3,100 wells in an area where the Pinedale RMP “allows no more than 900 wells[.]”²² WOC Petition at 16, *citing* *Norton v. Southern Utah Wilderness Alliance*, 542 U.S. 55, 69 (2004); *see* Instruction Memorandum (IM) No. 2004-89 (January 16, 2004).²³ In *Wyoming*

²² The 3,100 wells would be drilled across two areas, one subject to the Pinedale RMP and the other to the Green River RMP. WOC does not assert that the number of wells drilled in the latter area would be violative of the Green River RMP. We note that oil and gas leasing and development were authorized in the portion of the Project area covered by the Green River RMP. Green River RMP at 12, Map 13 (“No Lease Areas”).

²³ IM No. 2004-89 expired on Sept. 30, 2005. It replaced *BLM Manual* Section 1624 and the related Handbook, H-1624-1, Planning for Fluid Mineral Resources (Rel. 1-

(continued...)

Outdoor Council (WOC), 164 IBLA 84 (2004), which also involved an argument that BLM violated FLPMA by approving development of wells in excess of the number contemplated in the RFD scenario for the Pinedale RMP, the Board declined to “decide the implied question of whether the RFD scenario can or should be deemed to constitute a land use decision within the meaning of the 43 CFR Subpart 1610,” stating that “[t]he better question is whether in any given case an exceeded RFD scenario demonstrates that further environmental analysis is required, a question that must be determined on a case-by-case basis.” 164 IBLA at 102. In *BCA*, 174 IBLA at 11, the Board decided the question left open in *WOC*, ruling that “an RFD scenario is [not] a land-use decision constituting a binding maximum to which BLM must ‘conform’” The Board held: “[W]e do not find that use of the RFD scenario for analysis in the underlying EIS led to a violation of the RMP, FLPMA, or the rules at 43 CFR Subpart 1610.” *Id.* at 12.

In viewing the JIDP in the context of the Pinedale RMP, we find no restriction in the RMP on the number of wells which can be drilled within the Pinedale Resource Area. Rather, as *WOC* later states, the RMP merely “*contemplate[d]* [the] drilling of no more than 900 wells in the entire Pinedale Resource Area[.]” Petition at 19, *citing* Draft Pinedale RMP/EIS at 191 (Table 39 (“Projected Drilling Activity and Associated Surface Disturbance (1985 through 2005)”)) (emphasis added).

The subject ROD assumed, for purposes of its NEPA analysis at the time of preparation of the RMP EIS in 1987, that drilling would not exceed 900 wells. Pinedale RMP ROD at 15; FEIS at 1-10. This constituted the RFD scenario. *See* FEIS at 1-10. We agree with BP America that BLM was not precluded from later approving drilling in excess of 900 wells: “[N]othing in FLPMA, the regulations, or case law requires the proposed action to strictly conform with the RFD scenario analyzed in the underlying NEPA document prepared for the RMP.” BP America Opposition (IBLA 2006-155) at 3. As we stated in *WOC*, 164 IBLA at 99, “implicit in *WOC*’s argument is the conviction that the RFD scenario establishes a point past which further exploration and development is prohibited We do not agree.” *See also Southern Utah Wilderness Alliance*, 159 IBLA 220, 234 (2003) (“[T]he general reference to the number of wells that might be anticipated or assumed annually in the [resource area] does not constitute a term, condition or substantive limit on the number of wells BLM may authorize.”).

In the present case, BLM simply could not have relied on the Pinedale RMP EIS to satisfy its NEPA obligation to address the likely environmental impacts of approving *more drilling* than envisioned in the EIS. BLM was required to separately

²³ (...continued)

1583 (May 7, 1990)), which had been deleted with the issuance of IM No. 96-147 (July 26, 1996).

comply with section 102(2)(C) of NEPA. BLM has done so here. The present EIS satisfies BLM's obligation to analyze the effects of drilling more than 900 wells in the Pinedale Resource Area. We conclude that BLM's approval of the Project does not violate the land-use plan conformance requirement of section 302(a) of FLPMA.

2. The Project Will Not Cause Unnecessary or Undue Degradation Under Section 302(b) of FLPMA.

[5] BCA contends that BLM's approval of the Project violates the requirement of section 302(b) of FLPMA, 43 U.S.C. § 1732(b) (2000), that BLM, in managing the public lands, "take any action necessary to prevent unnecessary or undue degradation of the lands." BCA Petition at 20. BCA also avers that BLM violated NEPA, arguing that "BLM must demonstrate that it has complied with the 'unnecessary or undue degradation' standard," that it must do so in the EIS, and that, having failed to do so, BLM violated NEPA as well as FLPMA. *Id.* at 20-23. BCA concludes that, "[w]hile impacts are disclosed by the NEPA analysis in the FEIS, BLM has not assessed the impacts *through the lens of its FLPMA 'unnecessary or undue degradation' duties,*" and has thereby failed in its affirmative obligation to prevent impacts that cause such degradation. *Id.* at 49 (emphasis added).

In effect, BCA asserts that BLM has a procedural obligation under NEPA to properly consider whether the Project will result in unnecessary or undue degradation of the public lands, and thereby demonstrate compliance with section 302(b) of FLPMA. We disagree. BLM's obligation under section 102(2)(C) of NEPA is to fully consider the likely significant impacts of approving the Project. It is not to address the question of whether BLM will, in approving the Project, transgress its FLPMA obligation to prevent unnecessary or undue degradation, by exceeding some pre-determined "threshold" or otherwise. We agree with BP America's statement that BCA's "attempt to convert [section 302(b) of FLPMA] into a *procedural requirement* that BLM identify a specific threshold beyond which any impacts would be considered unnecessary or undue . . . finds no support in the statute, regulations, or case law." BP America Opposition (IBLA 2006-157) at 3 (emphasis added); *see* BLM Answer to SOR (IBLA 2006-157) at 7; EnCana Opposition (IBLA 2006-157) at 13. We conclude that BLM was not required to assess compliance with the FLPMA requirement to prevent unnecessary or undue degradation in an EIS prepared to consider the potential environmental impacts of oil and gas development.

However, we recognize that BLM does have a *substantive obligation*, under FLPMA, to prevent unnecessary or undue degradation of the public lands, and is thus required to ensure that approved activities will not unnecessarily or unduly degrade public lands. *E.g.,* BCA, 174 IBLA at 4-5; WOC, 171 IBLA 108., 121 (2007). BLM was cognizant of that obligation, and found that the Project was not likely to cause unnecessary or undue degradation, based on its environmental analysis in the EIS.

See FEIS at 1-4 (“[Lessees have a] statutory right . . . to develop [F]ederal mineral resources . . . as long as unnecessary and undue environmental degradation is not incurred.”); Public Comment Analysis Report, Part II, at 185-87, 350 (“The revised Preferred Alternative in the FEIS will minimize adverse impacts while undertaking actions necessary to prevent undue degradation of the land through mitigation and restoration.”).

BCA has not carried its burden to demonstrate, by a preponderance of the evidence, error in BLM’s environmental analysis, or otherwise show that the Project will actually result in any unnecessary or undue degradation of the public lands. See, e.g., *BCA*, 174 IBLA at 5-6, and cases cited; e.g., ROD at 4, 5-6; FEIS at 3-28 to 3-29, 3-66 to 3-68, 3-71 to 3-85, 4-30 to 4-32, 4-55 to 4-77, 4-79 to 4-84.

V. CONCLUSION

We, therefore, hold that appellants have failed to establish that the Wyoming State Director erred as a matter of fact or law in approving the Jonah Infill Drilling Project.

To the extent not explicitly or implicitly addressed, all other assertions of factual or legal error are rejected as contrary to the facts or law, or immaterial to the disposition of the present appeal.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 C.F.R. § 4.1, the decision appealed from is affirmed.

_____/s/_____
James F. Roberts
Administrative Judge

I concur:

_____/s/_____
Bruce R. Harris
Deputy Chief Administrative Judge