

INTERIOR BOARD OF LAND APPEALS

Western Slope Environmental Resource Council, et al.

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WESTERN SLOPE ENVIRONMENTAL RESOURCE COUNCIL, ET AL.

IBLA 2003-125, 2003-126, and 2003-127

Decided October 28, 2004

Appeals from decisions of the Acting Deputy State Director, Colorado State Office, Bureau of Land Management, dismissing protests to three competitive oil and gas lease sales. COC65946; COC65948; COC65950-65954; COC66211-COC62222; COC66372-COC66376.

Decision appealed from in IBLA 2003-125 affirmed; appeal in IBLA 2003-125 dismissed in part for lack of standing; appeals in IBLA 2003-126 and IBLA 2003-127 dismissed for lack of standing; and petition for stay denied as moot.

1. Oil and Gas Leases: Competitive Leases--Rules of Practice: Standing to Appeal

Under 43 CFR 4.410(a), in order to have standing to appeal a BLM decision dismissing protests to the inclusion of various parcels in notices of competitive oil and gas lease sales, the appellant must be a party to the case and be adversely affected by the dismissal decision. A party may appeal the dismissals only as to those individual parcels for which it can establish that it is adversely affected. Appeals to competitive oil and gas lease sales are properly dismissed for lack of standing where appellants fail to show any cognizable legal interest that was adversely affected as to any of the lease parcels included within the sales.

2. Environmental Policy Act--Environmental Quality: Environmental Statements--National Environmental Policy Act of 1969: Finding of Significant Impact--Oil and Gas Leases: Competitive Leases

A BLM decision dismissing a protest to a competitive oil and gas lease sale is properly affirmed on appeal where appellant fails to demonstrate with objective proof that

BLM's decision was premised on a clear error of law or demonstrable error of fact, or that BLM's analysis failed to consider a substantial environmental question of material significance to the proposed action. BLM did not fail to consider alleged significant unique impacts associated with coalbed methane production on the North Fork Valley parcels in the Piceance Basin where no evidence was produced establishing that significant impacts had occurred or were reasonably likely to occur in connection with coalbed methane production. Evidence of asserted significant impacts associated with coalbed methane production in other basins was insufficient to establish that those impacts would occur on the North Fork Valley parcels in the Piceance Basin, absent objective proof that the conditions that exist on the North Fork Valley parcels in the Piceance Basin will result in the asserted significant impacts.

APPEARANCES: Mike Chiropolos, Esq., Boulder, Colorado, and Susan Daggett, Esq., Denver, Colorado, for appellants; Laura Lindley, Esq., and Robert C. Mathes, Esq., Denver, Colorado, for Gunnison Energy Corporation; and Laura Lindley, Esq., Robert C. Mathes, Esq., and Diane M. Blieszner, Esq., Denver, Colorado, for Encana Oil & Gas (USA) Inc.

OPINION BY ADMINISTRATIVE JUDGE ROBERTS

Western Slope Environmental Resource Council (WSERC), the Rocky Mountain Chapter of the Sierra Club (the Sierra Club), the California Environmental Coalition (CEC), and the Natural Resources Defense Council (NRDC) (hereinafter "appellants," unless individually noted), have filed a joint appeal from a series of three very similar January 10, 2003, decisions of the Acting Deputy State Director, Colorado State Office, Bureau of Land Management (BLM), dismissing their protests of the inclusion of numerous parcels in three competitive oil and gas lease sales located in the Piceance Basin in Colorado, as identified below.

The Board assigned three docket numbers to the consolidated appeals of the three January 10, 2003, decisions. The first docket number, IBLA 2003-125, relates to the decision dismissing WSERC's protest of the inclusion of seven parcels (COC65946, COC65948, and COC65950-COC65954) in BLM's May 9, 2002, competitive oil and gas lease sale. Those parcels, located in Delta and Gunnison Counties, Colorado, are described by appellants as the North Fork Valley parcels. The second, IBLA 2003-126, concerns the decision dismissing the protest filed by the Sierra Club, CEC, and NRDC to the inclusion of 12 parcels (COC66211-COC66222)

in BLM's August 8, 2002, competitive oil and gas lease sale. Those parcels, located in Mesa and Garfield Counties, Colorado, are referred to by appellants as the Little Bookcliffs parcels. The third, IBLA 2003-127, relates to the decision dismissing the protest filed by the Sierra Club, CEC, and NRDC to the inclusion of five parcels (COC66372-COC66376) in BLM's November 14, 2002, competitive oil and gas lease sale. Appellants refer to those parcels, located in Garfield County, Colorado, as the Rangely Area parcels. Appellants state that all of the parcels overlie the Piceance Deep coal field, the primary coal bed methane (CBM) producing field in the Piceance Basin.

Despite the filing of a consolidated appeal of all three decisions, appellants admitted in a subsequent pleading that they only claim standing to appeal those parcels they protested. See Appellants' Reply at 4. Thus, although the four organizations joined in a consolidated appeal of all three decisions, that appeal is limited to a challenge by WSERC to the decision relating to the seven North Fork Valley parcels (IBLA 2003-125), while the other three organizations, the Sierra Club, CEC, and NRDC, are appealing the decisions concerning the 12 Little Bookcliffs parcels (IBLA 2003-126) and the five Rangely Area parcels (IBLA 2003-127). To the extent a party to the consolidated appeal originally sought to appeal a decision relating to parcels it had not protested, its appeal is dismissed.

With their joint notice of appeal, WSERC, the Sierra Club, CEC, and NRDC filed a petition for stay of BLM's decisions (Petition), and they subsequently filed a timely statement of reasons for appeal (SOR), stating that they intended their Petition to serve as their SOR in this proceeding (referred to jointly as "Petition/SOR").

In the decision at issue in IBLA 2003-125, BLM notes that WSERC's protest is based upon its position that "BLM has not analyzed the impacts of coalbed methane (CBM) leasing and development for these lands" in the North Fork Valley. In its decision, BLM states that all seven of the parcels are within the geographical area covered by the Uncompahgre Basin Resource Management Plan (UBRMP) and related Environmental Impact Statement (EIS), containing a Reasonably Foreseeable Development (RFD) scenario that "provided the basis for an analysis of the anticipated impacts from leasing for oil and gas development (see page 3-29)." BLM states that the UBRMP presents "past[,] current and anticipated future activities, representing a sound basis for analyzing direct, indirect, and cumulative impacts" of CBM development, that the RFD estimated the drilling of 10 wells per year, and that the UBRMP/EIS analyzed impacts associated with oil and gas wellpad, road, and pipeline construction for the RFD scenario. (IBLA 2003-125 Decision at 1.)

Responding to WSERC's assertion that the effects of CBM development are different from those associated with other oil and gas development, BLM stated:

“Based upon BLM’s experience with permitting hundreds of CBM wells in the San Juan Basin there are no differences and/or impacts associated with CBM development in Colorado than for those associated with wells drilled into sandstone or shale reservoirs.” Id. Further, BLM responded to WSERC’s concerns regarding the asserted unique impacts to ground and surface water:

WSERC alleges there are unique impacts to groundwater from CBM development that have not been analyzed in current plans. All oil and gas well drilling on Federal lands, regardless of the geologic formation being developed, are subject to Onshore Order No. 2, Drilling Operations. This regulation includes minimum standards for casing and cementing of wells, which ensures protection of usable water zones penetrated by the well. Usable water zones, which includes those containing up to 10,000 ppm of total dissolved solids, must be protected and isolated. Given that this regulation applies to all wells, protection of groundwater from oil and gas well drilling is not a unique CBM issue.

In regards to any unique impacts to surface water due to potential CBM drilling and development, in Colorado, there will not be any fundamentally different impacts from those of a well drilled into a sandstone or shale reservoir. For example, the UBRMP requires that site specific conditions of approval be utilized to minimize erosion. In the case of produced water disposal, Onshore Order No. 7, Disposal of Produced Water, applies to all Federal oil and gas wells, regardless of formation. The approved water disposal methods contained in Onshore Order No. 7 require close coordination with the State since they have primacy of most water disposal issues via Environmental Protection Agency (EPA) delegation. The Colorado Oil and Gas Conservation Commission, in coordination with the Colorado Department of Public Health and Environment, has strict standards and a rigid permitting process for any surface discharge of water co-produced with oil and gas. Currently in Colorado more than 90% of the water co-produced with oil and gas is disposed of or used for enhanced recovery by underground injection while the rest is placed in disposal pits. Given this approach it would be highly speculative to assume surface water disposal will be an issue in the North Fork Valley.

Therefore, we have determined that impacts from CBM development in the North Fork Valley will not be fundamentally different from impacts associated with sandstone or shale reservoirs. Because of this similarity, sale and leasing of the protested parcels is consistent with oil and gas leasing decisions made in the UBRMP. Accordingly, the protest

of the sale and lease issuance of parcels COC5946, COC65948, COC65950, COC65951, COC65952, COC65953 and COC65954, is dismissed.

(IBLA 2003-125 Decision at 1-2.)

In its decision at issue in IBLA 2003-126, responding to the protest dated August 7, 2002, filed by Earthjustice on behalf of the Sierra Club, CEC, and NRDC, regarding lease parcels COC66211-COC66222, included in the August 8, 2002, competitive oil and gas lease sale, BLM stated:

[I]mpacts from CBM exploration and development in the Grand Junction Field Office (GJFO) area are similar to conventional gas exploration and development. These impacts are adequately analyzed in the March 1985 draft Resource Management Plan (RMP) and Environmental Impact Statement (EIS) and the 1987 Grand Junction Resource Area (GJRA) RMP. * * * An updated EIS is not required because information and circumstances have not changed substantially since the issuance of the RMP and EIS.

(IBLA 2003-126 Decision at 1.) In its decision, BLM reiterates, albeit not relying upon any specific field development experience as in IBLA 2003-125, that “[b]ased upon BLM’s experience with permitting CBM wells, there are no differences and/or impacts associated with CBM development in Colorado than for those associated with wells drilled into sandstone or shale reservoirs.” (IBLA 2003-126 Decision at 1.)

In the decision challenged in IBLA 2003-126, BLM again addressed the subject of impacts to groundwater based upon Onshore Order No. 2, and considered impacts to surface water based on Onshore Order No. 7, concluding, as it had in IBLA 2003-125, that “[c]urrently in Colorado more than 90% of the water co-produced with oil and gas is disposed of or used for enhanced recovery by underground injection while the rest is placed in disposal pits.” (IBLA 2003-126 Decision at 2.) As in IBLA 2003-125, BLM stated that “[g]iven this approach it would be highly speculative to assume that surface water disposal will be an issue in the North Fork Valley.” Id. Acknowledging that these parcels lie in the Piceance Basin, BLM concluded that it had determined that impacts from CBM development “will not be fundamentally different from impacts associated with sandstone or shale reservoirs,” and that owing to “this similarity, sale and leasing of the protested parcels is consistent with oil and gas leasing decisions in the GJRA RMP.” Id.

The January 10, 2003, decision at issue in IBLA 2003-127, responding to the November 13, 2002, protest filed by Earthjustice on behalf of the Sierra Club, CEC,

and NRDC, is identical to the decision in IBLA 2003-126, save the identification of the different lease parcels being offered for sale (COC66372-COC66376).

[1] On February 24, 2003, Gunnison Energy Corporation (Gunnison) filed a motion to dismiss the appeal and an opposition to the stay petition (Gunnison Motion/Opposition), and on March 6, 2003, Baseline Minerals, agent for Encana Oil and Gas (USA) Inc. (Encana), filed a similar pleading (Encana's Motion/Opposition). Both Gunnison and Encana argue that the appellants lack standing to maintain the subject appeal, relying primarily upon Wyoming Outdoor Council (WOC), 153 IBLA 379 (2002), and Eugene M. Witt, 90 IBLA 265 (1986).^{1/} The facts and issues related to standing in WOC are similar to those in the subject appeal. In WOC, BLM had filed a motion to dismiss the appeal on the basis of lack of standing, arguing that "appellants merely have an interest in a problem, but that they have failed to identify any specific harm to any protected interest of any particular member of their organization." 153 IBLA at 381-82. In reply to BLM's motion to dismiss, appellants submitted three affidavits: (1) Mike Foate stated that "he uses public lands included in [one of the parcels] for his recreation and in his guiding and tour business"; (2) Bill Barlow stated that "he holds a grazing permit" on one of the parcels; and (3) Jane Dunbar stated that "she is the surface owner of two parcels in the February sale * * * for which BLM sold oil and gas leases for the underlying Federal minerals." Id. at 382.

In WOC, the Board observed that under 43 CFR 4.410, "[a]ny party to a case who is adversely affected" by a BLM decision has a right to appeal to this Board. The Board stated: "An appellant must have a legally cognizable interest in the land at issue in order to be adversely affected; however, that interest need not be an economic or a property interest. Use of the land will suffice." 153 IBLA at 382-83, and cases cited. BLM challenged Foate's affidavit, stating that his commercial activity on the public lands was "unauthorized and unlawful," and that such use "may not support standing to appeal a substantive BLM decision denying a protest." Id. at 283; see Eugene M. Witt, 90 IBLA 265, 272 (1986). Moreover, Foate acknowledged to BLM that he no longer had access to any of the parcels, negating his contention that "he uses such land for '[his] personal enjoyment.'" The Board found that while Foate had not established standing, Barlow and Dunbar had.

Also of relevance is the Board's disposition in WOC of the appellants' assertion that, pursuant to John R. Jolley, 145 IBLA 34 (1998), they "need only show use of

^{1/} Although both Gunnison and Encana argued that appellants who had not filed protests did not satisfy the "party to the case" requirement of 43 CFR 4.410(a), we need not consider that issue, given that appellants admitted that they only claim standing to appeal the inclusion of those parcels they protested. (Appellants' Reply at 4.)

one of the 48 parcels of land leased in the February 2000 lease sale in order to establish standing to challenge the Acting Deputy State Director's decision as it relates to all those parcels." WOC, 153 IBLA at 383. The Board stated that "appellants' reliance on Jolley is misplaced," and that "the Jolley ruling on standing is limited to the land exchange situation in which each parcel is an integral part of the proposed exchange." Id. With regard to standing to challenge an oil and gas lease sale, the Board stated:

Clearly, each parcel in an oil and gas lease sale is not essential to the sale. BLM could conduct a sale for one parcel or for a hundred parcels. Each individual parcel has its own characteristics and is offered separate from each other parcel. Thus, while an individual or a group has the right under 43 C.F.R. § 4.450-2 to protest all parcels offered at a lease sale, dismissal of such a protest does not guarantee the right to appeal the dismissal decision as to all parcels. Dismissal of the protest of the individual or group establishes "party to a case" status under 43 C.F.R. § 4.410(a). However, in order to maintain an appeal one must also show that he or she is adversely affected by the decision being appealed. As discussed above, this may be shown through evidence of use of the land in question. In the oil and gas lease sale context, that means providing evidence of use of each particular parcel to which the appeal relates. In this case, appellants have provided such evidence for only three parcels. [Emphasis added.]

Id. at 384.

Turning to the specifics of the instant case, Gunnison shows that it was the successful bidder on parcels COC65946, COC65948, and COC65951-COC65954 at issue in IBLA 2003-125. Gunnison further contends that WSERC does not have a cognizable interest in the land because it has not provided any support for its statement of standing, and has failed to provide any evidence that its members use parcels COC65946, COC65948, and COC65951-COC65954. In Exhibit H to its Motion/Opposition, Gunnison provides a map of the lease tracts identifying the surface ownership as BLM, private, or Forest Service, U.S. Department of Agriculture. Gunnison notes that in order to establish actual use of the subject parcels, appellants must demonstrate legal access to them. Gunnison argues that "[w]ithout this verification the Appellants' use of the Subject Lands would only be possible by trespassing or other unauthorized means." (Gunnison's Motion/Opposition at 7.) Such use, Gunnison contends, may not support standing to appeal, citing WOC, 153 IBLA at 382; Eugene M. Witt, 90 IBLA at 272. Because appellants have failed to prove that their interests will be adversely affected by the issuance of leases to the cited parcels, Gunnison submits that their appeal should be dismissed. (Gunnison's Motion/Opposition at 6-7.)

In a reply to the motions to dismiss filed by Encana and Gunnison (Appellants' Reply), appellants provided a series of declarations of WSERC members, which they maintain establish WSERC's standing to maintain the appeal with regard to the North Fork Valley parcels. See Appellants' Reply, Exhs. 27-36. Gunnison responded, stating that "in [appellants'] most recent filing, WSERC provides statements from its members alleging use of Parcel Nos. COC65946, COC65948, COC65951, COC65952 and COC65953." Despite numerous opportunities to do so, Gunnison asserts that "[a]ppellants have failed to provide evidence of use of Parcel No. COC65954." Accordingly, Gunnison urges the Board to dismiss the appeal with regard to parcel COC65954, and to order the lease immediately issued. (Gunnison Reply at 3.)

In its Motion/Opposition, Encana shows that it was the high bidder on oil and gas lease parcels COC66219-COC66222 included in the August 8, 2002, competitive oil and gas lease sale, and the high bidder on parcel COC66375 offered at the November 14, 2002, competitive oil and gas lease sale. Encana seeks to dismiss the appeal filed by the Sierra Club, CEC, and NRDC appeal in IBLA 2003-126 as it relates to issuance of leases on parcels COC66219-COC66222, and in IBLA 2003-127 as it relates to issuance of the lease on parcel COC66375.

Citing Wyoming Outdoor Council, 156 IBLA 377, 379 (2002), Encana maintains that to establish standing one must demonstrate a legally cognizable interest in the land at issue in order to be adversely affected, and that this standard is only satisfied in the oil and gas lease sale context by evidence that appellant actually used each individual parcel at issue in the appeal. Encana contends that appellants failed to provide any evidence that their members actually used parcels COC66219-COC66222 and COC66375. The only specific allegation of use, Encana notes, is contained in the declaration of Pete Kolbenschlag (Petition/SOR, Exh. 14), which contains no assertion that he actually used the above-mentioned parcels. Encana notes that a portion of the surface of parcels COC66219 and COC66220 is privately owned, as is the surface of almost all of parcel COC66375. Encana asserts that the vague allegation that appellants "use" each of the parcels is not sufficient to show that they have the consent of the surface owner to access such parcels. Encana observes that this Board has consistently held that "unauthorized or unlawful use of the public lands may not support standing to appeal a substantive BLM decision denying a protest." (Encana's Motion/Opposition at 5-6, citing WOC, 153 IBLA at 382; Eugene M. Witt, 90 IBLA at 272.)

In addition, on July 1, 2003, Encana filed a document captioned "Renewed Motion to Dismiss," asserting that Appellants' Reply included affidavits intended to show standing, but that "significantly, none of the affidavits describes any use of Parcels 66219, 66220, 66221, 66222, or 66375, for which Encana was the high bidder." (Encana's Renewed Motion to Dismiss at 2; emphasis in original.) Encana

insists that because appellants have demonstrated absolutely no legally cognizable interest in these parcels, their appeals must be dismissed.

We conclude that the declarations of WSERC's members, submitted with Appellants' Reply, fail to establish a cognizable legal interest on behalf of the Sierra Club, CEC, and NRDC in any of the parcels involved in IBLA 2003-126 and IBLA 2003-127. Having failed to establish use or any other cognizable legal interest in any individual parcel, their appeals docketed in IBLA 2003-126 and IBLA 2003-127 are properly dismissed in their entirety for lack of standing. WOC, 153 IBLA at 383; Eugene M. Witt, 90 IBLA at 272. ^{2/}

Furthermore, examination of the declarations provided in Appellants' Reply does not disclose any allegation that a member or members of WSERC have used or have a cognizable legal interest in COC65954. Gunnison does not challenge the sufficiency of the declarations for purposes of establishing standing to parcels COC65946, COC65948, and COC65951-COC65953. ^{3/} Consequently, we deny the motion to dismiss WSERC's appeal for lack of standing with respect to these parcels. We agree with Gunnison that the declarations submitted do not establish standing with regard to parcel COC65954, and therefore grant the motion to dismiss with respect to that parcel, thus dismissing in part WSERC's appeal in IBLA 2003-125. In addition, WSERC offers no use of lands included in COC65950. The appeal is also dismissed as to that parcel. See WOC, 153 IBLA at 383.

Having addressed the motions to dismiss the appeals for lack of standing, we turn to the merits of WSERC's appeal in 2003-125. ^{4/} In doing so, we necessarily deny their petition for stay as moot. For the reasons explained below, we affirm BLM's decision.

Appellants contend that they are entitled to prevail on the merits of their appeal principally because BLM failed to follow the Board's decisions in Wyoming Outdoor Council (WOC I), 156 IBLA 347 (2002), and Wyoming Outdoor Council

^{2/} We have noted that appellants admitted that they only claim standing to appeal those parcels they protested. (Appellants' Reply at 4.) WSERC did not protest the sale of the parcels covered by IBLA 2003-126 and IBLA 2003-127, and, as they recognize, have no legally cognizable interest in those appeals.

^{3/} Gunnison states that it filed a noncompetitive offer for, but did not receive, parcel COC65950, which is subject to BLM's decision at issue in IBLA 2003-125.

^{4/} Even though only WSERC's appeal remains pending for our consideration, we sometimes refer to the arguments advanced by "appellants," since WSERC, the Sierra Club, CEC, and NRDC jointly filed the Petition/SOR and the Reply to the Motion/Oppositions filed by Gunnison and Encana.

(On Reconsideration) (WOCII), 157 IBLA 259 (2002). Those cases, as construed by the Tenth Circuit Court of Appeals in Pennaco Energy, Inc. v. U.S. Department of the Interior (Pennaco II), 377 F.3d 1147 (10th Cir. 2004), are central to our resolution of this appeal.

As in the instant appeal, in WOC I, the issue before the Board was whether, with regard to the three leases not dismissed for lack of standing in WOC, supra, BLM had correctly determined that existing NEPA documentation “adequately analyzed the environmental effects of the proposed inclusion of the affected parcels in the February 2000 competitive lease sale or whether the agency violated NEPA by failing to undertake additional site-specific environmental reviews before deciding to offer the parcels for oil and gas leasing.” WOC I, 156 IBLA at 357. BLM and Pennaco, as an intervenor, argued that NEPA was satisfied by existing documents, namely the Buffalo RMP and EIS, and the Wyodak EIS. The Board concluded that the Buffalo RMP/EIS was inadequate because it failed to “specifically discuss CBM extraction and development, which were not contemplated uses in 1985, although they are the planned uses for the leases issued for the disputed parcels,” and rejected BLM’s position “that the techniques and impacts associated with CBM extraction and production are not significantly different from those analyzed in the Buffalo RMP/EIS.” Id. at 358. The Board’s analysis, as set forth below, provides the framework within which we must consider the present case:

We find * * * that not only does the record amply demonstrate that the magnitude of water production from CBM extraction in the Powder River Basin creates unique problems that CBM development and transportation present critical air quality issues not adequately addressed in the RMP/EIS, but BLM itself has also acknowledged the inadequacy of the RMP/EIS as far as the analysis of CBM issues is concerned. * * * Because the Buffalo RMP/EIS failed to take the requisite hard look at the impacts associated with CBM extraction and development, which clearly are relevant matters of environmental concern in this case, BLM could not rely on that document to satisfy its NEPA obligations for the proposed leasing decisions at issue here.

In apparent recognition of the deficiencies in the Buffalo RMP/EIS, BLM also relies on the October 1999 Wyodak Final EIS. * * * Given that the leasing decisions had already been made and the leases issued, the EIS did not consider reasonable alternatives available in a leasing decision, including whether specific parcels should be leased, appropriate lease stipulations, and NSO [no surface occupancy] and non-NSO areas. Thus, despite the Wyodak EIS’ detailed analysis of the impacts of CBM development, which we note parenthetically undercuts BLM’s claim that the impacts of CBM extraction are the same as those

of other methane production, that document's failure to consider reasonable alternatives relevant to a pre-leasing environmental analysis fatally impairs its ability to serve as the requisite pre-leasing NEPA document for these parcels.

Since the existing NEPA documents relied upon by BLM, whether viewed separately or taken together, do not constitute the requisite hard look at the environmental consequences of the proposed action, BLM was required to conduct further NEPA analysis before deciding whether to approve the sale of the parcels at issue. The ["Interim Documentation of Land Use Conformance and NEPA Adequacy"] DNA's dependent as they were on the Buffalo EIS/RMP and the Wyodak EIS, fail to even identify, much less independently address, any of the relevant areas of environmental concern or reasonable alternatives to the proposed action and thus do not satisfy BLM's NEPA obligations in this case.

Id. at 358-59 (footnotes omitted). The Board reversed BLM's dismissal of the protest in WOC I as to the three parcels in issue.

BLM petitioned the Board for reconsideration of its decision in WOC I, arguing, inter alia, that the Board erred in failing to decide whether Park County Resources Council, Inc. v. U.S. Department of Agriculture (Park County), 817 F.2d 609 (10th Cir. 1987), or Conner v. Burford (Conner), 848 F.2d 1441 (9th Cir. 1988) cert. denied, 489 U.S. 1012 (1989), controlled the decision. BLM contended that under Park County, "NEPA does not require BLM to analyze all of the impacts associated with full field development prior to issuing oil and gas leases, but, given the agency's retention of extensive authority to approve or disapprove surface disturbing activities on issued leases, allows it to defer that analysis until concrete site-specific proposes have been submitted." WOC II, 157 IBLA at 261. The Board noted that "[i]n WOC [I], we concluded that, since a pre-leasing EIS, i.e., the Buffalo RMP/EIS, had been prepared, we did not need to decide whether Conner or Park County controlled, pointing out, however, that, "even under Park County, the pre-leasing NEPA documentation * * * must take a hard look at the environmental consequences of the proposed action." WOC II, 157 IBLA at 262, quoting WOC I, 156 IBLA at 357 n.5. The Board explained:

The issue in this case was not whether BLM was required to evaluate the impacts of full field development in an EIS before issuing the challenged leases; rather, the question was whether the existing NEPA documents were sufficient to provide the requisite pre-leasing NEPA analysis for the sale of the affected parcels in light of the probable use of the parcels for CBM development. We concluded that

significant omissions in both the Buffalo RMP/EIS and the Wyodak EIS precluded BLM from relying solely on those documents to satisfy its NEPA obligations; that the [DNAs] prepared for the sales, failed to mention or independently address the relevant areas of environmental concern or reasonable alternatives, and thus did not satisfy BLM's NEPA obligations; and therefore, that BLM was required to conduct further NEPA analysis before deciding whether to approve the sale of the parcels at issue. We did not hold that BLM was required to prepare an EIS addressing the impacts of full field development before deciding whether to lease the parcels. We therefore did not need to decide whether Park County or Connor applied. [Footnotes omitted.]

WOC II, 157 IBLA at 262. Regarding the “function of pre-leasing NEPA analysis,” the Board stated: “Given the admittedly serious and unique impacts of CBM extraction and development, including water quantity and quality and air quality issues, the utilization of the proposed leases for CBM activities is a relevant matter of environmental concern which must be addressed in a pre-leasing analysis.” Id. at 264.

The WOC I and II cases were reviewed by the U.S. District Court for the District of Wyoming (District Court) in Pennaco Energy, Inc. v. U.S. Department of the Interior (Pennaco I), 266 F.Supp.2d 1323 (D.Wyo. 2003), which relied upon Park County in stating that the “hard look” test under NEPA is satisfied if “BLM considers generally the potential environmental effects of its actions before issuing a lease and reserves a more detailed environmental analysis until a site-specific drilling proposal is made through an Application for Permit to Drill.” Pennaco I, 266 F.Supp.2d at 1326, citing Park County, 817 F.2d at 624. The District Court stated that the “[a]gency action must be upheld if the agency ‘examined the relevant data and articulated a rational connection between the facts found and the decision made.’” Pennaco I, 266 F.Supp.2d at 1327, quoting Olenhouse v. Commodity Credit Corp., 42 F.3d 1560, 1574 (10th Cir. 1994). Further, “[e]ven if the court does not agree with the agency’s findings, those findings cannot be set aside if they are supported by substantial evidence.” Pennaco I, 266 F.Supp.2d at 1327.

The District Court reversed the Board’s decision in WOC I^{5/} and reinstated BLM’s decision, stating that the Board decision “provide[d] very little rationale or documentation to support its decision.” Id. at 1329. The District Court stated that the Board’s “opinion does not identify the ‘unique problems’ caused by CBM extraction, or the ‘critical air quality issues’ caused by CBM development and transportation,” and concluded that “[t]he evidence cited by the IBLA simply does not

^{5/} BLM’s petition that the Board reconsider its decision was decided by the Board while the matter was pending in District Court.

constitute substantial evidence.” Id. The District Court took note of the fact that the Board recognized that the Wyodak “EIS contains a ‘detailed analysis of the impacts of CBM development,’” and that “IBLA’s problem with this EIS was that it is project-level, and thus it does not consider pre-leasing alternatives, such as issuing leases with NSO stipulations.” Id.; quoting WOC I, 156 IBLA at 359. The District Court disagreed with the Board’s conclusion that because neither the Buffalo RMP/EIS nor the Wyodak EIS “alone is sufficient to enable the BLM to take a hard look, the two documents together are also insufficient,” finding instead that “when the two documents are considered together, they provide the BLM with all the information it needs to take the requisite hard look before making its leasing decision.” Pennaco I, 266 F.Supp.2d at 1330. Accordingly, the District Court ruled that “[t]he extensive and current analysis of the environmental effects of CBM development in the Wyodak EIS reasonably supplemented the pre-leasing alternatives in the Buffalo RMP/EIS so as to provide sufficient information to enable the BLM to take a hard look in this general fashion,” and that “IBLA’s opinion arbitrarily and capriciously elevates form over substance by separating the two documents and refusing to consider them together.” Id.

In Pennaco II, the Tenth Circuit reversed the District Court’s decision, and remanded the matter to the District Court for reinstatement of the Board’s decision. The Tenth Circuit applied the same standard of review as the District Court, *i.e.*, it defers “to the decision of the [IBLA], and we will set aside an IBLA decision only if it is arbitrary, capricious, otherwise not in accordance with law, or not supported by substantial evidence.” Pennaco II, 377 F.3d at 1156, quoting IMC Kalium Carlsbad, Inc. v. Bd. of Land Appeals, 206 F.3d 1003, 1009 (10th Cir. 2000). The Tenth Circuit defined “substantial evidence” as “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” Pennaco II, 377 F.3d at 1156, quoting Doyal v. Barnhart, 331 F.3d 758, 760 (10th Cir. 2003). Stating that its application of the “arbitrary and capricious standard” is “very limited in its sweep,” the Tenth Circuit defined the “narrow question before [it as] whether the IBLA acted arbitrarily and capriciously in deciding that the leases at issue should not have been issued before additional NEPA documentation was prepared.” Pennaco II, 377 F.3d at 1156. The Tenth Circuit answered that “narrow question” with the following analysis:

We conclude the IBLA gave due consideration to the relevant factors and that the IBLA’s conclusion was supported by substantial evidence in the administrative record. To determine whether additional NEPA documents were needed, the IBLA was required to consider whether existing NEPA documents were sufficient to allow the agency to take a “hard look” at the environmental impacts of CBM development on the three parcels at issue. Appropriately, the IBLA’s decision turned on its answer to that precise question. Further, the administrative record contains substantial evidence to support the

IBLA's conclusion that the proposed action raised significant new environmental concerns that had not been addressed by existing NEPA documents.

Id. at 1156-57. Stating that its review of the record was not "limited to those passages expressly relied upon by the IBLA," id. at 1157, the Tenth Circuit referred to certain documents not relied upon or cited by the Board in concluding that "[t]here is additional evidence in the record, not cited by the IBLA, that the BLM previously had concluded existing NEPA analyses were not adequate to address the impacts of CBM development." Id. at 1158.

Important to our review of the impacts of CBM production and development in the Piceance Basin area, including the North Fork Valley parcels at issue in IBLA 2003-125, is the Tenth Circuit's consideration of the water quantity issue in the Powder River Basin, and its view that the record "contains evidence to support the IBLA's conclusion that water production associated with CBM extraction is significantly greater than water production associated with non-CBM oil and gas development." Id. at 1158. The Tenth Circuit recognized that the record "contains some evidence arguably contrary to the IBLA's findings (such as the Zander affidavit) [^{6/}], but that such evidence "does not render the IBLA's decision arbitrary and capricious." Id. at 1159. The Tenth Circuit agreed with the Board that "the Wyodak EIS had one significant shortcoming," i.e., it "was a post-leasing analysis and, therefore, the BLM did not consider pre-leasing options, such as not issuing leases at all." Id. at 1160. According to the Tenth Circuit, BLM has a "statutory responsibility under NEPA" to consider the "direct, indirect and cumulative impacts of past, present and reasonably foreseeable future actions * * * before the agency makes an irreversible commitment." Id., quoting the BLM Handbook for Planning for Fluid Resources. The Board "did not act arbitrarily and capriciously in deciding that the Wyodak EIS did not adequately supplement the Buffalo RMP EIS." Pennaco II, 377 F.3d at 1160.

In their Petition/SOR, appellants contend that the Board's WOC I and II decisions control this case. They emphasize that the "admittedly serious and unique

^{6/} Pennaco argued before the Board in WOC I that BLM had complied with NEPA because the analysis in the Buffalo RMP/EIS and Wyodak Draft EIS constitute the "hard look" at the potential environmental impacts of CBM production in the Powder River Basin, citing the Affidavit of Richard A. Zander, the Associate Field Manager for Minerals and Lands, Buffalo Field Office, BLM (attached to Pennaco's Response as Exh. B). The Tenth Circuit noted: "Zander avers that 'CBM wells produce substantial water, but much less than that asserted by Appellants in this proceeding,'" and that "[a]ccording to Zander, some CBM wells produce less water than some conventional oil and gas wells." Pennaco II, 377 F.3d at 1157.

impacts of CBM extraction and development, including water quality and quantity and air quality issues,” that distinguish CBM development from conventional gas, obtain in the Piceance Basin and the North Fork Valley. (Petition/SOR at 16, quoting WOC II, 157 IBLA at 264. Appellants dismiss BLM’s attempt to rely “on purported differences between the Piceance Basin and the Powder River Basin in northeast Wyoming-Southeast Montana, or purported similarities between the Piceance Basin and the San Juan Basin in southwest Colorado,” (Exhs. 1-3), maintaining that “these inter-basin comparisons do not excuse the BLM from specifically analyzing the impacts of CBM development in the Piceance Basin prior to leasing the disputed lands.” (Petition/SOR at 17.) Appellants argue that BLM’s position urging appellants “to trust the agency, that BLM officials know best, that the consensus is misinformed, and that there is nothing to worry about, since CBM impacts are practically indistinguishable from conventional gas * * * is the same defense which IBLA rejected in the Wyoming Outdoor Council decisions.” (Petition/SOR at 19.) Moreover, appellants maintain that BLM must take a hard look at the differences between CBM and conventional gas development for the “targeted Piceance Basin lands in RMP revisions before it can defend its premature, uninformed conclusions that CBM is little different from conventional gas.” Id.

Appellants challenge the adequacy of the “Documentation of Land Use Conformance and NEPA Adequacy” worksheets (DNAs), including the North Fork DNA prepared by BLM for the May 9, 2002, sale. See Petition/SOR, Exhs. 9-11. Noting that DNAs are designed to ensure that new projects or site-specific agency action complies with pre-existing NEPA documents, and that while the assumption underlying the use of DNAs is that “compliance with these documents ensures ongoing compliance with NEPA,” appellants assert that “[i]n this case the DNAs fail to establish that BLM took a hard look at CBM in applicable plans or that CBM development conforms to the RMPs.” (Petition/SOR at 23.) For example, appellants contend that the North Fork DNA is flawed, stating that the UBRMP does not satisfy the conformity requirement for CBM development, given that section (C) of the DNA acknowledges that other than the UBRMP, there are no other NEPA documents that cover the proposed action. Id. at 23, Exh. 9.

Appellants note that “[s]ection (D)(1) of the [North Fork] DNA relies on legal authority for the proposition that BLM is not required to undertake site-specific environmental reviews prior to leasing when it previously analyzed the environmental impacts.” Id. at 23, Exh. 9. Here, appellants contend that “BLM misses the point,” since the UBRMP “lacks any meaningful discussion of CBM development and associated impacts.” Id. at 23, Exh. 9. According to appellants, section (D)(3) of the DNA “fails to recognize that the potential for CBM exploration and development on the disputed lands constitutes ‘new information and circumstances.’” Id. at 23, quoting Exh. 9. Similarly, section (D)(3) assumes that the impacts are substantially unchanged from those identified in existing NEPA

documents, and “blithely asserts that there is ‘no differences that may result from leasing’ the disputed lands despite the dearth of CBM analysis in the RMP.” Id. at 23, quoting Exh. 9.

Appellants note that in section (D)(6) of the DNA, in which BLM purports to address cumulative impacts of CBM development, BLM states that the impacts remain substantially unchanged from those discussed in the Uncompahgre Basin EIS. Appellants argue that BLM essentially ignores the “existence of the impending CBM boom,” as well as the fact that existing environmental documents do not account for the existing and projected development. (Petition/SOR at 25.) Appellants state that the field manager’s approval of a DNA which rests on the conclusion that preparing an additional site-specific NEPA document at subsequent stages resolves any potential concerns, overlooks Board precedent establishing that the “unique impacts of CBM need to be analyzed prior to leasing.” Id. Consequently, according to appellants, whatever authority BLM retains to “impose conditions and stipulations to mitigate the significant impacts of CBM extraction at a later stage does not negate BLM’s duty at the leasing stage to consider whether these impacts warrant adopting alternatives not available at the post-leasing stages, such as no leasing or leasing with stipulations precluding/limiting CBM activities.” Id., quoting WOC II, 157 IBLA at 264 (emphasis supplied by appellants).

Additionally, appellants rely upon WOC II, 157 IBLA at 262, in which the Board defined the central issue as “whether the existing NEPA documents were sufficient to provide the requisite pre-leasing NEPA analysis for the sale of the affected parcels in light of the probable use of the parcels for CBM development.” As previously noted, the Board concluded in WOC II that omissions in the underlying EIS and RMP “precluded BLM from relying solely on these documents to satisfy its NEPA requirements.” Id. Appellants argue that the DNAs, including the North Fork DNA for the May 9, 2002, sale, do not mention or independently address areas of environmental concern and reasonable alternatives, that the DNAs failed to satisfy BLM’s NEPA obligations, and, consequently, that BLM must conduct further analysis before deciding whether to approve the sale of the parcels at issue. Id.

In its Motion/Opposition, Encana disputed many of the above-described legal and factual bases offered by appellants in challenging BLM’s decision. Much of Encana’s Motion/Opposition relates to BLM’s inclusion of the Little Bookcliffs parcels (COC66211-COC66222) in the August 8, 2002, lease sale. Encana devotes much of its discussion to refuting appellants’ claim that the decision violates NEPA because the Grand Junction RMP and related EIS does not specifically analyze the impacts of CBM development on the Little Bookcliffs parcels. (Encana’s Motion/Opposition at 1-2.) Since we are dismissing, in this opinion, the appeal filed by appellants regarding BLM’s dismissal of their protest of the sale of those parcels (IBLA 2003-126), the relevance of much of Encana’s Motion/Opposition is tangential to our consideration

of CBM development on the North Fork Valley parcels (COC65946, COC65948, and COC65950-COC65954) pending under IBLA 2003-125. However, Encana's basic premise that appellants have not shown that BLM failed to consider significant environmental impacts associated with CBM development, especially the magnitude of water production, in the Little Bookcliffs area holds true for sale of the parcels in the North Fork Valley.

Encana's contention that appellants are wrong that in offering the subject parcels for sale BLM ignored Board precedent in the WOC cases, stating that appellants' reliance on those cases is "misplaced." (Encana Motion/Opposition at 10). Encana emphasizes that the Board decided the WOC cases as it did "only after examining the magnitude of water production and related impacts from coal seam natural gas production in the Powder River Basin." (Encana Motion/Opposition at 11.) According to Encana, unlike the situation presented in this appeal, the Board was presented with specific evidence demonstrating that development of gas from coal seams in the Powder River Basin requires the production of significant quantities of water. Encana argues further:

As plainly noted in the Board's decisions, however, the IBLA's determination in the WOC cases related only to coalbed methane production in the Powder River Basin of Wyoming. WOC, 156 IBLA at 358; WOC, 157 IBLA at 261. In fact, the WOC decision on reconsideration specifically notes that the Board's determination was limited only to the three leases at issue in that appeal, and that it did not even apply to other leases issued in the Powder River Basin. WOC, 157 IBLA at 261. Thus the WOC decisions do not stand for the proposition that in every geologic basin, the impacts of exploring and producing natural gas from coal formations are different than the impacts of exploration and production of all other formations, nor could they, as the IBLA's review was limited to the specific facts in the Powder River Basin, the specific NEPA documents under review, and the three leases specifically at issue. Contrary to Appellants' statement, the WOC decisions do not, in any manner, demonstrate that the BLM violated IBLA precedent when making its leasing determination for the Subject Parcels in this case.

(Encana's Motion/Opposition at 11.)

Encana's analysis of the WOC litigation is consistent with, and supportive of, that offered by Gunnison in its Motion/Opposition, which we now consider. Gunnison asserts that the draft EIS (DEIS) "accompanying the 1988 Resource Management Plan contains concrete environmental analysis concerning oil and gas development in the Uncompahgre Basin," and that that "document not only describes

the impacts of oil and gas development in general, it discusses the potential impacts in each of sixteen separate management units.” (Gunnison’s Motion/Opposition at 14, Exh. D (UBRMP/DEIS at 2-5 - 2-7).) Gunnison emphasizes that the DEIS includes valuable information regarding groundwater within the Mesaverde Formation, the formation which contains coal seams in the North Fork Valley; that the DEIS specifically notes that the “Mesaverde formation is a low water-yielding aquifer;” and that the DEIS further considers the impacts of discharge from the Mesaverde formation, noting that the Mesaverde formation already discharges into the Gunnison River. (Gunnison’s Motion/Opposition at 14-15, Exh. 15 at 2-7.) The DEIS further discusses the impacts that oil and gas lease and development may have upon surface water, groundwater, and soils. (Gunnison’s Motion/Opposition at 14-15.)

Gunnison asserts that based upon BLM’s experience with permitting hundreds of wells in the San Juan Basin, there are no differences and/or impacts associated with CBM development in Colorado than those associated with wells drilled into sandstone or shale reservoirs. Because BLM’s determination is “contrary to popular consensus,” appellants insist that “BLM is required to conduct additional site-specific NEPA analysis prior to leasing the Subject Parcels,” notwithstanding the fact that appellants “have failed to provide any evidence indicating that the impacts associated with natural gas development in the North Fork Valley will be distinct from production in shale or sandstone formations.” Id. at 17. Gunnison maintains that although appellants rely on a study disseminated by the Natural Resources Law Center, “[t]here is nothing in the record indicating that either the quality or quantity of water produced in connection with future development on the [North Fork Valley parcels] would have adverse environmental impacts.” Id. at 17-18. In fact, Gunnison avers that “the only substantial evidence in the record before the BLM indicates that almost no water will be produced in connection with natural gas development from these coal seams.” Id. at 18.

Gunnison relies upon two sources in asserting that “almost no water” will be produced in the subject area: (1) a USGS report entitled “Hydrology and Subsidence Potential on Proposed Coal Lease--Lease Tracts in Delta County, Colorado,” dated May 29, 1984 (USGS Report); and (2) a report prepared by Wright Water Engineers, Inc. (Wright), retained to prepare an “independently peer-reviewed study of the surface and underground water supplies in the area” (Wright Report). (Gunnison Motion/Opposition at 18-19.) The USGS Report specifically studied the nature and extent of water within the coal formations in the land surrounding the subject parcels. The USGS Report indicates that the coal bearing formation within the area “probably transmits very little water because its transmissivity is very small.” (Gunnison’s Motion/Opposition at 18, Exh. J (USGS Report at 8).) The report relates that several test wells drilled into the coal formation near Paonia, Colorado, did not produce water; and that “water within the Mesaverde Formation normally is limited

to relatively small and isolated lenticular sandstones.” Id. at 9. Gunnison states further that “information obtained when dewatering an underground coal mine in the area indicates that the coal produces very little water.” (Gunnison’s Motion/Opposition at 18, Exh. K (Letter from Gunnison to BLM).) In light of the foregoing, Gunnison submits that “[t]here is simply no evidence to suggest that the production of water will have potential harmful impacts, or that BLM failed to consider such impacts.” (Gunnison’s Motion/Opposition at 18.)

Gunnison explains that the Wright Report, prepared in anticipation of potential CBM exploration in the North Fork Valley, confirms the conclusion of the USGS that the production of gas from coal seams in the North Fork Valley is not likely to result in any impacts different than those resulting from other natural gas development. One finding of the Wright Report is that “the Mesaverde formation has very low permeability and thus transmits little water.” (Exh. L (Executive Summary (ES) of Wright Report at 3).) Gunnison relates that the Wright Report identifies several examples of lack of transmissivity in the Mesaverde formation in the area of the subject parcels. In pertinent part, the report states:

The average water production rate from the seven oil/gas wells in the study area with data is about 1 gallon per minute (gpm), or about 35 barrels per day. By contrast, the flow of a typical garden hose is about 6 to 10 gpm (citation omitted). In the Powder River Basin (Wyoming) where oil/gas wells are in more permeable formations, water yields of 30 gpm or higher are not unusual.

(ES of Wright Report at 3.) Gunnison contends further:

Given the very different characteristics of the coal seams in the North Fork Valley (of which the BLM was well aware due to its observation of the dry coal mines in operation there and the U.S.G.S. report) from the characteristics of the coal seams in the Powder River Basin, there is simply no basis on which to conclude that the impacts of gas production from those coal seams will be different from the impacts of gas production from shales or sandstones.

(Gunnison’s Motion/Opposition at 19.)

Gunnison rejects appellants’ claim that BLM failed to analyze the cumulative impacts of 600 wells in the Uncompahgre Basin and surrounding areas. The regulations, Gunnison relates, define the term “cumulative impacts” as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions[.]” Id. at 24, quoting 40 CFR 1508.7 (2002). Gunnison maintains that “[o]nly reasonable

forecasting and speculation is required by NEPA,” and that “[t]he primary problem with the Appellants’ criticism is the fact that a proposal for 600, or any other number of wells, is not before BLM at this time, and therefore that is not a reasonably foreseeable future action.” (Gunnison’s Motion/Opposition at 24, citing National Wildlife Federation, 150 IBLA 385, 396 (1999).) Gunnison states that “there is no indication that such a proposal will ever be made because there is, as yet, no evidence that natural gas from coal seams in the Uncompahgre Basin can be economically recovered.” (Gunnison’s Motion/Opposition at 24.)

Gunnison challenges appellants’ statement that the reason the development of gas from coal seams causes “unique impacts” is the “greater well densities” required. See Petition/SOR at 2. Gunnison charges that appellants have identified no support for this allegation, noting that “the density at which any oil or gas field is developed depends on the particular porosity and permeabilities of the source formation and whether the formation is continuous or discontinuous.” (Gunnison’s Motion/Opposition at 16.) Gunnison cites, for example, the fact that in Garfield County (which is north of the North Fork Valley parcels) the Colorado Oil and Gas Conservation Commission (Conservation Commission) has found that wells drilled to the Williams Fork Formation (not a coal seam) should be authorized at one well per 20 acres, i.e., 32 wells per section, in order to efficiently and economically recover the gas. Id.; see Conservation Commission Order No. 479-7, 440-19, 139-34, 510-4 (Nov. 29, 2000). By comparison, Gunnison relates that the Conservation Commission “has allowed only two wells per 320 acres for the production of gas from the Fruitland Coal seam in a specific area of La Plata and Archuleta Counties, Colorado, south of the [Piceance and the North Fork Valley] Parcels.” (Gunnison’s Motion/Opposition at 16.) The facts, Gunnison argues, simply do not support appellants’ claim that “a ‘unique impact’ of producing natural gas from coal seams is increased well density.” Id.

In their Reply to Gunnison’s Motion/Opposition, appellants assert that there is an abundance of scientific evidence supporting their arguments. In support of their argument that CBM development results in “unique impacts,” appellants rely upon a BLM document entitled “Coalbed Methane Development in the Northern San Juan Basin of Colorado: A Brief History and Environmental Observations” (CBM Report). See Petition/SOR, Exh. 38. ^{Z/} Concerning CBM production methods and

^{Z/} Appellants state that the CBM Report identifies the following “categories of significant CBM impacts to property and resources:” (1) “Gas seeps in soils that overlie Mesaverde sandstone outcrops were noted in the mid-1990’s as manifesting in patches of dead grass in pastures northeast of Durango[.]” (Appellants’ Reply at 8, quoting Exh. 38 at 16; (2) “In near-surface coal outcrops, hydrostatic pressure reduction may allow locally desorbed coalgas to migrate entrained with groundwater (continued...)”) (continued...)

characteristics in the Northern San Juan Basin, appellants note that the CBM Report relates that:

Coalbed methane wells are drilled with techniques similar to those utilized for drilling conventional wells, but completion practices and the method of reservoir evaluation are different. [Petition/SOR, Exh. 38 at 9.] Cavitation and fracturing methods are discussed [in Exh. 38] at 10-11 .

Some coal beds at depths greater than 4500' can yield commercially significant volumes of light oils when the produced gas is carbon dioxide-rich. This is not typical of [San Juan Basin] coal gas, but is characteristic of coal gas produced from the northern Piceance Basin of Colorado. [Exh. 38 at 12.]

(Reply at 9.) Appellants state that “[t]he Northern San Juan Basin CBM Report establishes that CBM impacts in the Piceance Basin are almost certain to be ‘fundamentally different’ from the impacts of conventional gas development.” (Reply at 10, footnote omitted.) Appellants note further that the Natural Resources Law Center Report recognized that “[e]ach coalbed methane basin is unique. Each poses a different set of exploration and development challenges and produces a distinctive set of impacts on surrounding communities and ecosystems.” Id.

While not disputing Gunnison’ claim that water production is expected to be low in the Piceance Basin, appellants note that USGS data establishes that “CBM production in the Uintah Basin just west of the disputed lease parcels, water production averages 215 barrels per day per well, compared to 275 barrels in the Powder River Basin.” Id. at 14. Based upon this data, appellants state that BLM should analyze the best available scientific data on water production and disposal methods, including environmental impacts in any pre-leasing document. Appellants assert that according to the EPA, “[t]he produced water from coalbed methane

²⁷ (...continued)

or rise vertically through porous soils to the surface.” Id., quoting Exh. 38 at 11; (3) “[T]wo homes located directly above the outcrop/subcrop of the Fruitland Formation coalbeds were declared unsafe for habitation due to explosive accumulations of methane; five homes were ultimately removed from the hazardous zone.” Id., quoting Exh. 38 at 3, 26, 30-31; and (4) “Self-heating of near surface coals can result from fluctuations/lowering of a water table in the coalbeds * * * have engaged the attention of regulatory agencies and the community,” and “[s]pontaneous combustion can be spawned by fluctuations of water levels within coalbeds.” Id., quoting Exh. 38 at 3, 17.

extraction in the Piceance Basin is of such low quality that it must be disposed of in evaporation ponds or re-injected into the formation from which it came, or at even greater depths * * *.” Id. at 14-15, quoting Petition/SOR, Exh. 40 at Table 5-1.

Gunnison filed a “Sur Reply in Opposition to Petition for Stay,” stating that while appellants allege that BLM failed to acknowledge environmental consequences associated with natural gas development, the crucial factor in this case is that “[a]ppellants have failed to produce any information or evidence demonstrating that BLM failed to consider a significant environmental question of material significance with regard to leasing decision[s] at issue.” (Sur Reply at 8.) Gunnison asserts that in the case of the North Fork Valley parcels, “[a]ppellants rely on the reports from other geologic basins or general information regarding potential impacts of coalbed methane natural gas development,” and that “[a]ppellants have failed to provide any evidence indicating that leasing or development in the North Fork Valley will lead to the impacts seen in other geologic basins.” Id.

Gunnison emphasizes that appellants’ evidence (Petition/SOR, Exh. 39 at 9) demonstrates that each coalbed methane basin is unique, and that a common factor is that CBM basins are all different. (Sur Reply at 8.) Gunnison reasons that appellants have not presented any evidence contradicting BLM’s decisions stating that the impacts will be no different from those associated with wells drilled into shale or sandstone reservoirs.

Gunnison notes that appellants’ final argument regarding water resources, raised for the first time in their Reply, concerns potential dangers stemming from hydraulic fracturing of coalbed natural gas wells, and is premature, since there is no proposal for this particular drilling development or completion technique before BLM. Gunnison maintains there is no support for appellants’ concerns related to hydraulic fracturing. In support of this contention, Gunnison points to a draft report wherein EPA determined that hydraulic fracturing does not pose a significant risk to underground sources of drinking water (USDWs), specifically in the Piceance Basin. (Sur Reply, Exh. N. (Draft EPA Report).) That report states in pertinent part:

Based on the information collected, the potential threat to USDWs posed by hydraulic fracturing of CBM wells appears to be low and do not justify additional study. * * * If risks from hydraulic fracturing of CBM wells were significant, we would expect to find instances of water well contamination from the practice. Instead, thousands of CBM wells are fracturing annually and yet EPA did not find persuasive evidence that any drinking water wells had been contaminated by CBM hydraulic fracturing.

Id., Draft EPA Report at 1; see also Report at 15. Gunnison states that in the absence of objective evidence regarding potential harms which BLM failed to consider, the arguments advanced by appellants must be dismissed. (Sur Reply at 16.)

In a “Second Notice of Supplemental Authority” (Gunnison’s Second Notice) Gunnison informed the Board that in a similar case also involving leases in the Piceance Basin of Colorado, filed by the same parties, and involving identical issues, the Board denied appellants’ petition for stay, concluding that the Board was “not persuaded that BLM failed to adequately consider the significant adverse environmental impacts likely to occur as a consequence of leasing the nine parcels of Federal land at issue here, and resulting CBM development.” (Gunnison’s Second Notice at 3, quoting Order in Western Slope Environmental Resource Council, IBLA 2003-333 (Nov. 17, 2003), at 5.) In pertinent part, the Board concluded:

We find that, in the course of preparing the Uncompahgre Basin RMP EIS, GMUG National Forest Oil and Gas Leasing EIS, and WR National Forest Oil and Gas Leasing EIS, BLM and FS did not discern any significant adverse impacts to the quality and quantity of surface and underground water, or to grazers, farmers, and other downstream users from the disposal of produced water generated by oil and gas operators. Appellants have failed to demonstrate any error in this determination by BLM and FS, concerning the impacts of oil and gas operations on water resources, specifically attributable to actual differences in the quantity and/or quality of water which is likely to be produced in connection with CBM (versus conventional natural gas) development of the leased lands at issue here and the resulting environmental impacts, and thus to show noncompliance with section 102(2)(C) of NEPA. Above all, they have not identified any specific environmental impact uniquely attributable to CBM development of the lands at issue here, which should have been, but was not, addressed in the EIS’s.

Id. Further rejecting the claim that BLM violated FLPMA, the Board stated:

The 1989 RMP authorizes the leasing of oil and natural gas resources, including methane gas, within BLM’s Uncompahgre Basin Resource Area. It does not specifically envision the extraction of methane gas from coal reservoirs. However, the RMP “specifically provide[s]” for oil and gas leasing, and CBM development, which would follow from such leasing, is “clearly consistent” with the decision to authorize leasing, and thus natural gas development. 43 CFR 1601.0-5(b), see RMP at 9-10, 32. Thus, we think that appellants have failed to demonstrate that they are likely to succeed on the merits of their argument that BLM

failed to satisfy the general land-use plan conformance requirement of section 302(a) of FLPMA.

Id. at 5-6. Gunnison contends that the Board's approach in its Order in IBLA 2003-333 was correct and should be followed herein.

[2] As can be seen from the arguments offered by the parties, there is a profound disagreement in this case as to whether BLM complied with NEPA in approving the sale of the parcels in question. This case is governed by the rule, followed by the Board, that the appropriate time for considering the potential impacts of oil and gas exploration and development is when BLM proposes to lease public lands for oil and gas purposes because leasing, at least without NSO stipulations, constitutes an irreversible and irretrievable commitment to permit surface-disturbing activity, in some form and to some extent. WOC I, 156 IBLA at 357; Colorado Environmental Coalition, 149 IBLA 154, 156 (1999), and cases cited; see also Sierra Club v. Peterson, 717 F.2d 1409, 1414-15 (D.C. Cir. 1983). We must judge the adequacy of BLM's analysis by whether it reflects a "hard look" at the potential environmental impacts of the proposed leasing, considering all relevant matters of environmental concern. WOC I, 156 IBLA at 357; Colorado Environmental Coalition, 149 IBLA at 156.

The Tenth Circuit stated in Pennaco II, 377 F.3d at 1152, that "[t]he hotly contested issue underlying [WOC I and II] is whether the environmental impacts of CBM development are significantly different than the environmental impacts of non-CBM oil and gas development." In the instant case, Gunnison contends that given the geologic realities of the Piceance Basin and the North Fork Valley, and the consequent fact that very little water will be produced as a result of CBM development, if the parcels are in fact eventually developed for CBM production, there are no impacts from CBM development that would be significantly different from non-CBM development. The evidence presented by Gunnison, including the USGS and Wright Reports described above, regarding relatively small amounts of water resulting from CBM production on the subject parcels, given the porosity and lack of transmissivity of the geologic formations, supports its position that the environmental consequences of concern in WOC I and II do not obtain herein. Gunnison presents "substantial" objective evidence that water amounts resulting from CBM production in the Piceance Basin are no greater than water produced from conventional oil and gas production from shale and sandstone reservoirs. As in Pennaco II, "the narrow question before us is whether * * * the leases at issue should not have been issued before additional NEPA documentation was prepared." 377 F.3d at 1156. We conclude on the facts of this case that BLM took a "hard look" at the environmental consequences of issuing the subject leases, considering all relevant matters of environmental concern. See WOC I, 156 IBLA at 357; Colorado Environmental Coalition, 149 IBLA at 156.

This Board has held on numerous occasions that appellants challenging a BLM decision bear the burden of demonstrating with objective proof that the decision is premised on a clear error of law or demonstrable error of fact, or that the analysis failed to consider a substantial environmental question of material significance to the proposed action, here the leasing decisions. Native Ecosystems Council, 160 IBLA 288, 292 (2003); Lee and Jody Sprout, 160 IBLA 9, 12-13 (2003); Klamath Siskiyou Wildlands Center, 157 IBLA 322, 328 (2002); Southern Utah Wilderness Alliance, 123 IBLA 302, 308 (1992). Mere differences of opinion provide no basis for reversal of a BLM decision, and appellants bear the burden of demonstrating error by a preponderance of the evidence.

In this case, appellants have failed to carry this burden, not because of a disagreement between experts, but rather because of a failure to demonstrate that BLM did not consider a substantial environmental question of material significance, namely environmental impacts associated with CBM development on the North Fork Valley parcels. While acknowledging that each basin is different, appellants nonetheless attempt to extrapolate impacts associated with CBM development in other basins to the North Fork Valley parcels in the Piceance Basin, without any geologic or scientific evidence that conditions which give rise to such asserted impacts exist in the Piceance Basin and on the North Fork Valley parcels.

There is simply no objective proof in this case that CBM production, should it occur on the subject leases, will result in impacts associated with large volumes of water produced with CBM as in the WOC cases. In fact, the only evidence offered concerning the Piceance Basin and the geology underlying the North Fork Valley parcels indicates that owing to the lack of transmissivity of the coal, relatively little water will be co-produced. Appellants did not dispute the volumes identified by Gunnison, or argue that the anticipated volumes exceed volumes typically associated with conventional oil and gas development, including secondary recovery operations. Appellants' Reply in response to the data proffered by Gunnison abandons their primary claim concerning the impacts of anticipated huge volumes of water and attempts to focus on the quality of the water likely to be co-produced. However, assuming the volumes to be co-produced are no different than found in conventional operations, those impacts are covered by the existing NEPA analyses, as well as by Onshore Order Nos. 2 and 7, relied upon by BLM in its decisions.

Again, in the case of impacts identified by appellants as being associated with CBM operations in the San Juan Basin, appellants have not shown that these impacts are likely to occur on the North Fork Valley parcels. Several of the impacts listed by appellants appear to relate to shallow coal seams that are significantly closer to useable water aquifers. By contrast, there is a great deal of objective evidence that the geologic realities of the North Fork Valley parcels are strikingly different from those found in the San Juan and Power River Basins. See USGS and Wright Reports,

discussed supra. In addition, the Draft EPA Report addressing impacts to underground sources of drinking water (USDWs) by hydraulic fracturing discusses CBM reservoirs in the Piceance Basin, stating, inter alia:

The major coalbed methane target, the Cameo-Wheeler-Fairfield coal zone (Figure A-3-3), is contained within the Williams Fork Formation of the Mesaverde Group and holds approximately 80 to 136 trillion cubic feet of coalbed methane (Tyler et al., 1998). This coal zone ranges in thickness from 300 to 600 feet, and lies more than 6,000 feet below the ground surface over a large portion of the basin. (Tyler et al. 1998). Individual coal seams of up to 20 to 35 feet thick can be found within the group, with net coal thickness of the Williams Fork Formation averaging 80 to 150 feet thick.

* * * * *

Initially, it was anticipated that coalbed methane wells in the sandstones and coals of the Cameo zone would have high production rates of water. However, testing later showed that they produced very little water (Reinecke et al., 1991). Both the sandstones and coal beds are tight, poorly permeable, and are generally saturated with gas rather than water or a mixture of water and gas. Tyler et al. (1998) state that geologic and hydrologic controls need to be synergistically combined in order to achieve the highest gas production, and conclude that this synergism is absent in the hydrocarbon-overpressured part of the Piceance Basin. The dynamic flow of a hydrologic system enhances the collection of gas in traps, but in much of the Piceance Basin that flow is not present because of the overpressuring and saturation with gas.

Consequently, the conventional models for coalbed methane accumulation developed for other basins do not apply well for exploration and development in the Piceance Basin. Tyler et al. (1996) concluded, “very low permeability and extensive hydrocarbon overpressure indicate that meteoric recharge, and hence, hydropressure, is limited to the basin margins and that long-distance migration of groundwater is controlled by fault systems.” Recharge is limited along the eastern and northeastern margins of the basin because of offsetting faults, but zones of transition between hydropressure and hydrocarbon overpressure in the western part of the basin and on the flanks of the Divide Creek Anticline in the southeastern part of the basin may possess better coalbed methane potential, as indicated by the exploration targets delineated in Tyler et al. (1998) (Figure A3-5).

(Sur Reply, Exh. N (Draft EPA Report at A3-2).)

Concerning likely impacts to drinking water and consumptive water well resources, the Draft EPA Report states:

[Water] wells in these two bedrock aquifer systems, the upper [700 feet thick] and lower [900 feet thick]) Piceance Basin aquifers, typically range in depth from 500 to 2,000 feet, and commonly produce between 2 to 500 gallons per minute of water (USGS, 1984). These Tertiary bedrock aquifers are stratigraphically separated from the base of the Cameo coal zone in the Cretaceous Mesaverde Group by from less than 1,500 feet of strata along the Douglas Creek Arch to more than 11,000 feet along the basin trough just west of the Grand Hogback (Johnson and Nuccio, 1986) (Figure A3-2).

Aquifer maps do not exist for the Piceance Basin, but water quality in the Piceance Basin is poor owing to nacholite (sodium bicarbonate) deposits and salt beds within the basin. (Graham, 2001). Only very shallow waters such as those from the surficial Green River Formation are used for drinking water (Graham, CDWR, personal communication 2001). In general, the potable water wells in the Piceance Basin extend no further than 200 feet in depth, based on well records maintained by the Colorado Division of Water Resources. At least two wells in the area are approximately 1,000 feet in depth, but they are used for stock watering.

* * * * *

It is unlikely that any USDWs and methane bearing coals (generally located at great depth) would coincide in this basin. The thousands of feet of stratigraphic separation between the coal gas bearing Cameo zone and the lower aquifer system in the Green River Formation should prevent any of the effects from the hydrofracturing of gas-bearing strata from reaching either the upper or lower bedrock aquifer USDWs.

Id. at A3-3 - A3-4. Table ES-4 of the Draft EPA Report states that it is “unlikely” that coal is found within the USDW in the Piceance Basin, as “[t]he stratigraphic separation between the coal gas bearing zone and the lower aquifer system in the Green River Formation is approximately 6,400 feet. The major coalbed methane target, the Cameo-Wheeler-Fairfield coal zone lies roughly 6,000 feet below the ground surface in a large portion of the basin.” In contrast, the same Table states that “yes” it is likely that coal is found within the USDWs in both the San Juan and Powder River Basin.

Further, the Draft EPA Report refutes the concern that hydraulic fracturing is likely to contaminate drinking waters, specifically with respect to the Piceance Basin:

Hydraulic fracturing is a common practice in coalbed methane completions in this basin. The fluids used during fracturing vary from water to gelled water, with sand as a proppant. From 1,500 to more than 11,000 feet of strata separate the coals from the shallow USDWs, indicating that the potential for water quality contamination from hydraulic fracturing techniques is minimal. The only hydraulic fracturing fluid contamination pathway to the USDWs might be through faults or fractures extending between the deep coal layers and the shallow aquifers. The occurrence of these fractures and faults has not been substantiated in any of the literature examined for this investigation.

(Sur Reply, Exh. N at A3-5.) As distinguished from the Piceance Basin where, at a minimum, 1500 feet of strata separate the coals from the shallow USDWs (no more than 200 feet in depth), coals in the northern San Juan Basin Fruitland Formation range from “near or at ground surface along the western and eastern edge of the [Southern Ute] Reservation, to a depth of over 4,000 feet in the south central part of the Reservation.” (Petition/SOR, Exh. 44 at 184; see also Exh. 26 at 54-55.)

The evidence in the record indicates that productive coalbeds in the Piceance Basin lie at significant depths below the surface and below surface water aquifers, i.e., not “near surface.” Appellants have not produced any evidence that the impacts associated with near-surface coal are currently or reasonably likely to be associated with CBM production from coalbeds at significant depths on the North Fork Valley parcels.

On the present record, appellants have not shown that BLM failed to consider impacts which it contends will be associated with CBM production on the North Fork Valley parcels, principally because they have not shown that the impacts associated with CBM production in other basins, such as Powder River and San Juan, will result from such development and production. Absent an objective showing that the reported impacts on which appellants predicate their case are reasonably likely to occur on the North Fork Valley parcels, we decline to find that appellants have shown error in BLM’s decision.

We conclude that the NEPA documentation at issue demonstrates that BLM took the requisite hard look at the environmental consequences of oil and gas development on the North Fork Valley parcels in the Piceance Basin. Given that the effects of CMB production in the Piceance Basin will not significantly differ from conventional oil and gas production, we do not fault BLM for not specifically

analyzing the environmental impacts of CBM production in the Piceance Basin per se. As in WOC, 158 IBLA 384 (2003), appellants have not convinced us that BLM erred in including the subject parcels in the competitive oil and gas lease sale, “especially since the impacts associated with CBM development will be analyzed in greater detail in site-specific environmental documents prepared for any proposed development on the lease issued for that parcel.” Id. at 395.

BLM’s decisions herein were predicated upon the fact that eventual development of the subject parcels for CBM or conventional oil and gas production would be subject to site-specific review. The geologic realities of the North Fork Valley, together with the fact that there will be further site-specific environmental study when the leases are developed, lead us to conclude that appellants have not shown by a preponderance of the evidence that BLM’s analysis failed to consider a substantial environmental question of material significance to the proposed action, here the leasing decisions. There is simply no evidence, let alone substantial evidence, that BLM failed to consider significant impacts associated with CBM development in approving the competitive lease sales at issue in these appeals.

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from in IBLA 2003-125 is affirmed, the appeal in IBLA 2003-125 is dismissed in part, the appeals in IBLA 2003-126 and IBLA 2003-127 are dismissed for lack of standing, and the petition for stay is denied as moot.

James F. Roberts
Administrative Judge

I concur:

Bruce R. Harris
Deputy Chief Administrative Judge