United States Department of the Interior

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In Reply To:

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SDR-922-04-02
SDR-922-04-03
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December 9, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

DECISION

Geri Small, President Northern Cheyenne Tribe P.O. Box 128 Lame Deer, Montana 59043	SDR-922-04-01
Gail Small, Executive Director Native Action P.O. Box 409 Lame Deer, Montana 59043	SDR-922-04-02
Biodiversity Conservation Alliance, American Lands Alliance, and George Wuerthner; Represented By Western Environmental Law Center P.O. Box 1507 Taos, New Mexico 87571	SDR-922-04-03
Michael Reisner Northern Plains Resource Council 2401 Montana Ave., Suite 200 Billings, Montana 59101-2336 Jack R. Tuholske Sarah K. McMillan Tuholske Law Office, P.C. Northern Plains Resource Council P.O. Box 7458 Missoula, Montana 59807	SDR-922-04-04

REMANDED
STAY IS ISSUED

The Northern Cheyenne Tribe (Northern Cheyenne), Native Action, Western Environmental Law Center (WELC), on behalf of the Biodiversity Conservation Alliance, American Lands Alliance, and George Wuerthner, and Northern Plains Resource Council (NPRC)[a] request a State Director Review (SDR) of the September 16, 2003, Decision Record and Finding of No Significant Impact (FONSI) (Enclosure 1) approved by the Bureau of Land Management (BLM) Miles City Field Manager. The September 16, 2003, decision is based on an environmental assessment (EA) (Enclosure 2), prepared in response to the filing of 85 Applications for Permit to Drill (APDs) and the Tongue River – Badger Hills Project (Badger Hills) Plan of Development (POD) by Fidelity Exploration and Production Company (Fidelity). Because the Miles City Field Manager's decision was issued under 43 CFR 3162.3-1, it is subject to SDR according to 43 CFR 3165.3(b).

The SDR requests by the Northern Cheyenne, Native Action, WELC and NPRC were considered timely filed on October 15 and 17, 2003, in accordance with 43 CFR 3165.3(b), and assigned numbers SDR-922-04-01 through SDR-922-04-04, respectively (Enclosures 3, 4, 5 and 6). Since Native Action incorporated the reasons cited by the Northern Cheyenne in its SDR request, and the WELC and NPRC requests are also focused on BLM's EA of the Badger Hills POD, all four SDR requests are considered in this review. The NPRC also requested a meeting with the State Director. This request was for an informal meeting instead of an oral presentation proceeding according to 43 CFR 3165.3(d). The meeting with the State Director occurred on October 29, 2003, and is also considered in this review.

On October 27, 2003, the BLM sent notification letters to the appellants. These letters stated that the SDR Decision would not be completed within 10 business days outlined in the regulations at 43 CFR 3165.3(d) because more time was necessary to fully address the issues raised by the appellants. The NPRC sent a response to this notification on October 30, 2003. This response stated BLM is required to issue a decision by the close of business on Friday, October 31, 2003, and if a decision did not occur by this date, the NPRC would consider it a denial of its request for SDR. The BLM again responded by letter dated October 31, 2003, to notify NPRC of its determination that a delay beyond 10 business days was necessary and appropriate for the SDR under review.

BACKGROUND

This section is included to provide information about BLM's management direction for the project area.

The March 1985 Record of Decision (ROD) for the Powder River Resource Area Resource Management Plan/Environmental Impact Statement (RMP/EIS) addresses all management activities under the jurisdiction of BLM, including the effects of oil and gas leasing and development activities on water, air, soils, cultural resources, wildlife, and other resources. In the early 1990s, BLM decided to amend several RMPs, including the Powder River RMP, and prepared the Miles City District Oil and Gas RMP/EIS

[a] This document uses the term appellants when referring to all of the parties that filed the subject State Director Reviews.

Amendment (1994 Amendment). The 1994 Amendment exclusively focused on the impacts of oil and gas leasing, exploration, and development activities. At the time the 1994 Amendment was prepared, only low levels of development of CBNG were anticipated. For this reason, the BLM only analyzed the environmental impacts of limited CBNG development. The 1994 Amendment stated:

> "The Reasonably Foreseeable Development projections can accommodate the drilling of test wells and initial small scale development of coalbed methane. This amendment does not contain either a hydrologic analysis of the RFD area or an environmental study of the impacts of building major pipeline systems. In order for full-field development to occur on Federal oil and gas lands, an additional environmental document tied to this amendment would be required."

Between 1994 and 1998, the BLM approved 11 APDs in the Tongue River CBM Project proposed by Fidelity.[b] These APDs were only approved for exploratory activities, including testing for water and natural gas. In 1998, Fidelity proposed further development of the Tongue River CBM Project. In 1999, more than 100 wells were drilled in the CX Field and production activity started. This expanded drilling occurred on private and state leases since the BLM would not allow any more exploration or development activity in the CX Field until the ongoing analysis was complete. The BLM conducted an EA and concluded that there could be significant impacts from the project. The BLM ceased working on the Tongue River CBM Project EA and started the Statewide Oil and Gas EIS and RMP Amendment of the Powder River and Billings RMPs.

This EIS was prepared with the State of Montana Department of Environmental Quality and Board of Oil and Gas Conservation (MBOGC). In January 2003, the Montana Final Statewide Oil and Gas EIS and RMP Amendment of the Powder River and Billings RMPs (Statewide FEIS) were published.

On April 30, 2003, the BLM State Director issued a ROD for the Statewide FEIS. This ROD establishes management goals, objectives, and management actions for future management of oil and gas operations on BLM-administered lands within the Powder River and Billings RMP areas.

On June 13, 2003, Fidelity filed its Badger Hills POD in the MCFO for wells in T. 9 S., R. 40 E., and T. 9 S., R. 41 E., Big Horn County, Montana. The POD consists of 178 CBNG wells located within the expansion area of the existing CX Field, and production of an existing federal well shut in during preparation of the Statewide FEIS. Eighty-five of the 178 new wells are federal. The remaining wells are proposed for development of private and state leases. The MBOGC has sole jurisdiction of private and state wells. When an operator proposes drilling CBNG wells in the State of Montana, they are required to file an application before the MBOGC and present testimony on their application. The application provides required information identified in previous MBOGC Orders and also those identified under the Statewide FEIS and MBOGC's March 26, 2003, ROD. The MBOGC then makes a ruling regarding whether the POD is reasonable based on the evidence presented. This type of approval is contingent upon the MBOGC's administrative staff environmental review in accordance with the Montana Environmental Policy Act. The MBOGC Order No. 99-2003, dated May 15, 2003, states, "...this approval is effective upon the completion of an environmental assessment by Board staff." The MBOGC completed its process with approval of its EA on August 6, 2003.

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[b] Actually, these APDs were proposed by Fidelity's predecessors-in-interest. All references to the owner/operator of the Tongue River CBM Project and the Tongue River - Badger Hills Project will refer to Fidelity.

The MCFO completed a review of the Badger Hills POD and a deficiency letter was sent to Fidelity requesting additional information on July 7, 2003. Fidelity filed another packet of maps and information to correct deficiencies identified in the MCFO deficiency letter on August 11, 2003. Onsite inspections of the drilling proposals and associated development proposals were conducted on July 8, 2003. An EA was prepared and the FONSI was approved on September 16, 2003. The 85 APDs were also approved on September 16, 2003. The EA is a site-specific analysis that is tiered from and incorporates by reference the information and analysis contained in the Statewide FEIS. The EA addresses site-specific resources and/or site-specific impacts that are not covered with the Statewide FEIS (EA at page 2).

STATE DIRECTOR REVIEW POINTS

The issues raised by the appellants in their SDR requests are categorized and enumerated below, with the appellant's supporting arguments in italicized text. The BLM's response to these issues follows each argument in plain text. Many issues are raised in the four SDR requests. Several of these issues are not considered in this review because the deficiencies identified in our review of the Badger Hills POD EA warrant remanding the September 16, 2003, Decision Record/FONSI and EA. This SDR does consider additional issues that are not remand points because such issues are directly related to the items we conclude warrant a remand to the MCFO (e.g., analysis of cumulative impacts). All substantial issues from the four SDR requests will need to be considered by the MCFO upon remand.

In reviewing specific challenges to the EA, our review will rely on precedent governing the Interior Board of Land Appeal's (IBLA) review of EAs (Southern Utah Wilderness Alliance, 159 IBLA 220, 234, 235 (2003).

> "In preparing an EA to assess whether an EIS is required under section 102(2)(C) of NEPA, 42 U.S.C. §4332(2)(C) (2000), an agency must take a "hard look" at the proposal being addressed, identifying relevant areas of environmental concern, so that it can make an informed determination as to whether the environmental impact is insignificant or impacts will be reduced to insignificance by mitigation measures. See Colorado Environmental Commission, 142 IBLA 49, 52 (1997); Utah Wilderness Association, 80 IBLA 64, 78, 91 I.D. 165, 174 (1987). The Board will affirm a FONSI if the record establishes that BLM has engaged in a careful review of environmental consequences, all relevant environmental concerns have been identified, and the final determination is reasonable. Owen Severance, 118 IBLA 381, 392 (1991); Utah Wilderness Association, 80 IBLA at 78, 91 I.D. at 174.
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> A party challenging a FONSI must show that it was 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 action for which the analysis was prepared. Southern Utah Wilderness Alliance, 122 IBLA 6, 12 (1991); G. Jon & Katherine M. Roush, 112 IBLA 293, 297 (1990); Glacier-Two Medicine Alliance, 88 IBLA 133, 141 (1985); Utah Wilderness Association, 80 IBLA at 78, 91 I.D. at 174. "The ultimate burden of proof is on the challenging party and such burden must be satisfied by objective proof. Mere differences of opinion provide no basis for reversal." Rocky Mountain Trails Association, 156 IBLA 64, 71 (2001), citing Larry Thompson, 151 IBLA 208, 217 (1999)."

1. THE PLAN OF DEVELOPMENT WILL DIRECTLY VIOLATE TRIBAL WATER QUALITY STANDARDS

a) The Northern Cheyenne and Native Action argue:

The predicted sodium adsorption ratio (SAR) resulting from the POD under 7Q10 conditions will violate the Tribe's water quality standards. The Tribe's water quality standards set a maximum, not-to-be-exceeded limit for SAR of 2.0 at the southern boundary of the Reservation. The EA predicts a SAR of 2.1 in the Tongue River under 7Q10 flows as result of Fidelity's discharge. Although the discharge point is approximately 20 miles south of the Reservation's southern boundary, background SAR values only increase as the Tongue River flows north (SDR at p. 2).

The Northern Cheyenne also claim:

"The forecast value of 2.1 appears to be based on a miscalculation. If one assumes that the average SAR of the CBM water is 54 (see EA at 7) and the average SAR of the water prior to discharge is about 1 (see EA at 11), the resulting SAR level after discharge of 3.6 cfs of CBM water during 7Q10 flows should be around 5, not 2.1. This can be calculated using the following mass balance equation: ((43 cfs X 1 SAR)+(3.6 cfs X 54 SAR))/46.6 cfs = 5.09 SAR. An SAR of 5 would violate both Tribal and State water quality standards."(SDR at p.5, footnote 2)

We will first address the argument that the predicted SAR values were not calculated correctly since it is key to the discussion on water quality standards. It must be noted that SAR in mixed waters is not accurately calculated by using a simple mass balance approach as presented directly above in the Northern Cheyenne's argument. This inaccuracy occurs because SAR is actually a ratio with a square-root component (see the equation below). Attempting to calculate the SAR of mixed waters by averaging or weight-averaging such number will result in higher SAR values than actual conditions. While this simple mass balance mixing approach was used in the Surface Water Quality Analysis Technical Report (SWQATR) prepared in support of the Statewide FEIS, it was used in that case to ensure that the model would be appropriately conservative, given the uncertainties of a regional model. The conservative nature of this approach is discussed on page 4-1 of the SWQATR where it states:

> "Mixed SAR was estimated using a simple flow-weighted mass balance equation, assuming SAR behaves as a constituent of water. This assumption results in overestimation of SAR and, potentially, of impacts by a factor of about 2 (see Appendix B)."

Appendix B of the SWQATR provides a detailed discussion on why this approach was used in the SWQATR. Appendix B of the SWQATR also states:

> "Estimation of SAR in a river after mixing with CBM discharge ideally is calculated using a flow-weighted mass balance model to estimate mixed concentrations of the individual constituents – Ca, Mg, and Na." (SWQATR, page 1).

This is the approach that was used for the Badger Hills POD EA. Since reliable site-specific data was available, the conservative simple mass balance calculation used in the SWQATR was not appropriate.

The fact that this method was used is disclosed in the EA on page 12 where it states:

> "These values were calculated based upon a mass balance mixing model which determines the resultant values for EC, Na, Ca, and Mg, and then uses this information to determine the resultant EC and SAR."

This method uses a simple mass balance mixing approach to calculate the resultant calcium (Ca), magnesium (Mg), and sodium (Na), ion concentrations, then the SAR is calculated using the proper SAR equation, which is:

$$SAR = \frac{[Na]}{\sqrt{\frac{[Ca]+[Mg]}{2}}}$$

The Ca, Mg, and Na concentrations are in milliequivalents per liter (meq/L). This mathematically correct method predicts an SAR of 2.1, while the simple mixing approach used in the Northern Cheyenne request would result in an SAR of 5.3.

b) The Northern Cheyenne and Native Action argue:

The Tribe's water quality standards qualify as local law or requirement imposed for protection of the environment. 40 CFR §1508.27(b)(10). The Tribe's standards are legally effective regardless of whether they have been approved by the EPA under the Clean Water Act. Congress delegated authority to the Tribe to adopt water quality standards for the Tongue River in 1992. A threatened violation of these standards would be a "significant" impact requiring preparation of an EIS. Accordingly, the State Director should either order the preparation of an EIS, or impose additional conditions of approval that ensures the POD will not lead to a violation of the Tribe's water quality standards. (SDR at pp. 2-3).

In reviewing this argument, it is important to clarify the authorities applicable to the discharge under discussion. The Tongue River is not under the jurisdiction of the Northern Cheyenne at the point produced water is discharged from Badger Hills POD operations, and therefore, the Northern Cheyenne water quality standards do not apply to the Fidelity discharges. Such discharges are regulated under the Clean Water Act authority that has been delegated to the State of Montana, Department of Environmental Quality (MDEQ), and not by the BLM. However, BLM does have general authority under FLPMA to prevent unnecessary or undue degradation (43 U.S.C. 1732), and specific authority under the Mineral Leasing Act (30 U.S.C. 226(g)) and its oil and gas regulations to regulate all surface disturbing activities conducted pursuant to any federal lease. These authorities give the agency management discretion for the disposal of water produced from federal wells.

The Badger Hills POD EA did not consider the potential impacts to Tongue River water quality from the proposed action, connected actions, and reasonably foreseeable future actions at the southern boundary of the Northern Cheyenne Reservation (i.e, Birney Day School, U.S. Geological Survey Station 06307616). The question raised by the Northern Cheyenne and Native Action about potentially significant impacts under the National Environmental Policy Act (NEPA) is only ripe if the analysis demonstrates a potential to exceed the Tribe's water quality standards. Regardless of the relationship between the Tribe's water quality standards and significance under NEPA, we agree a determination of the water quality of the Tongue River at Birney Day School is a substantial environmental question that needs to be considered in

the Badger Hills POD EA. This is necessary because conditional mitigation measures may be required to ensure Tribal standards are not exceeded if: 1) the analysis demonstrates a potential to exceed Tribal water quality standards; and 2) the Environmental Protection Agency (EPA) grants the Tribe "treatment as a state" status and approves the Tribe's water quality standards. Therefore, the water quality analysis for the Badger Hills POD EA needs to determine potential direct, indirect and cumulative impacts (i.e., Tongue River SAR and EC values) at the southern boundary of the Northern Cheyenne Reservation.

2. THE EA FAILS TO DEMONSTRATE THAT AIR EMISSIONS RESULTING FROM THE PLAN OF DEVELOPMENT WILL NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE CLASS I INCREMENTS FOR THE NORTHERN CHEYENNE RESERVATION.

The Northern Cheyenne and Native Action argue:

The Statewide FEIS predicts that CBM development under the preferred alternative will result in threatened violations of the Reservation's Class I increments for 24-hour PM_{10} and annual NO_2 (FEIS at 4-26 – 4-27). Notably, however, the air quality analysis in the Statewide FEIS excludes existing increment consuming sources such as Campbell County coal mines and Colstrip Units 3 and 4 that were permitted after PSD baseline concentrations were established (1977 for PM_{10} and 1990 for NO_2 (FEIS at 4-19). The FEIS acknowledges that "a regulatory PD increment consumption analysis needs to identify and consider all PSD increment consuming sources to determine the level of PSD . . increment consumption." Because the Statewide FEIS does not contain a fully compliant regulatory increment consumption analysis, the EA for this project cannot "tier" off the FEIS analysis for the purpose of assessing compliance with the Reservation's Class I increments (SDR at p. 6).

The Statewide FEIS only noted the potential for impacts to the Reservation's Class I standards during the maximum impact period based on a 20-year RFD level of development, and stated that mitigating measures would have to be required at the project permitting stage in order to assure compliance with air quality requirements (Statewide FEIS at p. 4-36, ROD at p. 15). The Statewide FEIS specifically did not include a regulatory increment consumption analysis because: 1) the Prevention of Significant Deterioration (PSD) analyses is required when a proponent applies for a permit from the MDEQ or EPA involving a major source of emissions or when a permit application is submitted in an area near a major source of emissions, or, as is the case with the MDEQ as a result of the Statewide FEIS air quality analysis, a determination that CBNG compressor stations subject to air quality permits (Administrative Rule of Montana 17.8.743) must meet PSD increments for NO_X; and 2) BLM does not have the authority or responsibility to conduct such an analysis. The EPA and MDEQ have regulations specific to PSD analyses and permits (MDEQ PSD regulations, including increment analysis, are described in Rule 17.8.801 et al. and Federal PSD regulations at 40 CFR 51 Subpart I). The MDEQ and EPA regulations do not allow for violations of PSD increments or National Ambient Air Quality Standards (NAAQS)/Montana Ambient Air Quality Standards (MAAQS). Source emission threshold levels set for determining when an Air Quality Permit is necessary are also in place to make sure air quality impact contributing sources are reviewed for Best Available Control Technology (BACT) and compliance with applicable air quality standards.

The Badger Hills POD includes one sales compressor site and five field compressor locations[c] that would be used to process federal CBNG resources. The Statewide FEIS ROD, Appendix B, page NCT-1 states:

> "Operators will be required to provide the information necessary for BLM to conduct an analysis of air quality impacts for all relevant parameters when submitting their exploration APDs or field development project plans. The BLM will use the information to determine the individual and cumulative impact on the Reservation's air quality; disclose the analysis results in the appropriate NEPA document; and consult with the Tribe when the analysis shows impacts from a specific drilling or development proposal."

The Badger Hills POD EA does not properly consider the potential air quality impacts of the proposed action, connected actions, and cumulative actions, primarily those associated with construction, use and operation of compressor sites. We agree a determination of the air quality impacts relevant to Class I and II PSD increments and NAAQS/MAAQS is a substantial environmental question that needs to be considered in the Badger Hills POD EA.

3. BLM VIOLATED NEPA BY FAILING TO PERFORM CUMULATIVE IMPACTS ANALYSIS.

a) The NPRC argues:

"Neither the BLM EA or the Board EA list the Powder River Gas Company's proposed Coal Creek Project as a potential future action despite the fact that the company has submitted a Plan of Development for approval to both the BLM and Board." (SDR at p. 26)

The activity involved with existing CBNG development, the Badger Hills POD and the Coal Creek project combined make up a small portion of the wells and associated infrastructure included for cumulative effects analysis in the Statewide FEIS. We agree the Coal Creek project should be considered in the analysis of cumulative impacts completed for the Badger Hills POD if the impacts of the Coal Creek proposal are relevant to cumulative impacts not already described in the Statewide FEIS. The Coal Creek proposal was filed with the MCFO on August 18, 2003. We find the Badger Hills POD EA failed to completely consider and document the relationship between the Coal Creek project, the Badger Hills POD and the cumulative impact analysis included in the Statewide FEIS. The Badger Hills POD EA needs to consider and document if there are cumulative impacts of the Coal Creek project relevant to the disclosure of meaningful cumulative impacts that are not already included in the Statewide FEIS.

b) The NPRC argues:

"A map included in the POD entitled 'current CBNG Development' and labeled Exhibit H-12C shows pre-production zones and exploration zones extending over a much larger area then the CX Field and the Badger Hills Expansion area. On page 5 of the POD WMP, Fidelity states that the Badger Hills Project 'is part of a TRMP enlargement plan that is expected to take several years to complete.' Nonetheless, the BLM fails to discuss the fact that additional expansions are likely in the foreseeable future nor does the BLM discuss the cumulative impacts of such expansions." (SDR at p. 27)

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[c] Four of these five field compressors would process CBNG from federal wells. The Conner 33 Battery was originally permitted by the MDEQ on February 8, 2001 (#3140-00 and subsequently replaced by #3140-01 and #3140-02). This compressor station only processes CBNG from private wells.

Expanded CBNG development is acknowledged by BLM in the Statewide FEIS. In fact, the Statewide FEIS forecast up to 26,000 wells over the next 20 years (FEIS at 4-5). The 85 federal wells in the Badger Hills POD are well within the foreseeable future number of wells. However, until there is a site-specific proposal to consider in combination with other specific actions, the Statewide FEIS is the most appropriate cumulative impact analysis of potential future CBNG development. Future projects will be subject to environmental review and the need to disclose cumulative impacts that are not already discussed in the analysis conducted for the Statewide FEIS on a site-specific basis.

c) The NPRC argues:

Fidelity and others have CBM projects, with the same impacts as this project, that are being developed within the same watershed, just across the state line in Wyoming, yet BLM failed to consider those projects and their impacts. (SDR at p. 27)

Cumulative impacts from development in both Wyoming and Montana are addressed in the Statewide FEIS, including intensive analysis for critical resource issues including air and water quality. The SWQATR and the Air Quality Impact Assessment Technical Report were prepared in support of the Statewide FEIS to address these critical cumulative impact issues. The CBNG projects in Wyoming cannot discharge into surface waters in the Tongue River watershed; however, the water quality analysis in the Statewide FEIS considers a contribution of approximately 15 percent of the predicted produced water volume in Wyoming through accidental releases and recharge of the river from infiltration into shallow aquifers (Statewide FEIS at p. 4-52). The EA completed for the Badger Hills POD failed to completely consider and document the relationship between existing and proposed activity in Wyoming, the Badger Hills POD, and the cumulative impact analysis included in the Statewide FEIS. The Badger Hills POD EA needs to consider and document if there are cumulative impacts of Wyoming activity relevant to the disclosure of meaningful cumulative impacts that are not already included in the Statewide FEIS.

d) The NPRC argues:

Because the Statewide FEIS is inadequate for a variety of reasons listed in the SDR on pages 27 and 28, any reliance on the Statewide FEIS for cumulative impacts analysis is misplaced.

The Statewide FEIS is not intended to provide analysis at the project level for the Badger Hills POD or any other APD or POD. The Statewide FEIS is a land use plan and EIS that looks at broad regional issues, direct, indirect and cumulative impacts, including regional cumulative impacts and management requirements and mitigation measures for future, site-specific, CBNG projects. It evaluates the long-term cumulative impact of the management options for CBNG development and sets the stage for the site-specific analysis such as the EA completed for the Badger Hills POD.

In fact, the Statewide FEIS forecast up to 26,000 wells over the next 20 years (FEIS at 4-5). The 85 federal wells in the Fidelity POD are well within the foreseeable future number of wells. The Statewide FEIS is adequate for a regional cumulative impact analysis and is the appropriate base document for the EA to tier to when referencing the potential overall cumulative impacts of the CBNG management program (Statewide FEIS at 1-1). Numerous claims concerning inadequacies of the Statewide FEIS, including all of those listed by NPRC, were raised and dismissed in the NPRC Protest on the Statewide FEIS (Enclosure 7).

e) The NPRC argues:

The proposed Tongue River Railroad is not listed as reasonably foreseeable in the Statewide EIS despite the fact that it was identified in the draft EIS. Nor is the proposed Otter Creek coal mine and power plant listed as reasonably foreseeable in any of the environmental documents. (SDR at p. 26)

In preparing the Statewide FEIS, it was noted that there is no proposal under consideration to mine the Otter Creek coal tracts. In fact, the coal on these tracts, or essentially the same tracts, was first offered for lease during the 1982 Powder River Regional Coal Sale under the federal coal leasing program. No leases were issued as a result of this sale. The area has been available under BLM's lease by application process since the late 1980s and still no interest has risen to the level of lease acquisition. The Otter Creek coal tracts were recently transferred from federal to state ownership, but they have not been offered for lease by the State, a necessary action prior to even considering a mine permit application. Construction of the Tongue River Railroad and/or a power plant would depend upon successful leasing, permitting and development of the coal in the Otter Creek area. Economical mining of the Otter Creek coal tracts is probably also dependent on either the Tongue River Railroad or a mine mouth power plant. Because mining of the Otter Creek tracts is presently speculative at best, none of these actions were considered in the Statewide FEIS or the Badger Hills POD EA as reasonably foreseeable future actions.[d]

Therefore, the cumulative actions presented in the Statewide FEIS provided an adequate basis upon which to conduct the cumulative impacts analysis presented in the Statewide FEIS. Subsequent analysis, such as the Badger Hills POD EA, is appropriately tiered to the Statewide FEIS when considering cumulative impacts.

f) NPRC says:

"While the Statewide FEIS contained a 3-D model predicting drawdown impacts from a hypothetical field in Hanging Woman Watershed, BLM is not excused from its obligation to discuss the impacts of specific CBM projects." (SDR at p. 28)

On page 16 of the Badger Hills POD EA, it is stated that "Groundwater drawdown resulting from this proposal is anticipated to be similar to that depicted in the Statewide FEIS, with drawdown eventually extending 4-5 miles from the edge of production." Thus, the drawdown impacts from this specific CBNG project have been discussed.

Additionally, it is important to note that the modeling in the Hanging Woman Watershed was done for a hypothetical CBNG field; however, the hydrogeology of this area is well defined. The model was based upon the stratigraphic and hydrologic data obtained for this area during the 1970s-early 1980s. This area was selected particularly because of the well-defined nature of the hydrology. As is stated in the 3D

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[d] Such actions would not escape environmental review when and if they are eventually proposed (e.g., numerous environmental analyses documents have been prepared for the Tongue River Railroad). They are just too speculative for consideration at this time. The Tongue River Railroad Company filed the original application for Tongue River I with the Interstate Commerce Commission (ICC which is now the Surface Transportation Board) on June 2, 1983. Although both the Otter Creek coal tracts and Tongue River Railroad have been projects on the drawing board for many years, various factors, including market conditions and financing packages, have prevented these projects from moving forward to the point where it would be reasonable to consider them reasonably foreseeable future actions.

modeling report prepared in support of the Statewide FEIS "Hanging Woman Creek watershed, the object of modeling in this report is particularly well described in several studies, including: Ground-water Subgroup of Water Work Group Northern Great Plains Research Program (1974); US Bureau of Land Management (1975, 1977); Delk and Waldhaus (1977); Slagle and others (1983); McClymonds (1984, 1986); Daddow (1986); and Cannon (1989); and, Van Voast and Thale (2001). Data include aquifer test results, water-level measurements and lithologic descriptions." (Page 4 of Wheaton and Metesh, 2002; available at: http://www.mt.blm.gov/mcfo/cbm/eis/CBM3DGWReport.pdf)

The MCFO determined it was reasonable to base its analysis of potential drawdown impacts on the findings of the Hanging Woman Watershed 3D modeling completed for the Statewide FEIS. We find no compelling evidence in NPRC's arguments to conclude there is any definite error of fact involved with MCFO's determination to use the 3D model and its findings presented in the Statewide FEIS for the disclosure of environmental consequences in the EA prepared for the Badger Hills POD.

g) The NPRC argues:

In the Statewide FEIS, the BLM and other agencies deferred the analysis of the impacts of wastewater impoundments to the project level. However, neither the Board EA nor the BLM EA take a hard look at the potential impacts of such impoundments. Without any supporting data or information, the BLM EA concluded that such impoundments will not leak. Fidelity's existing impoundments have overflowed on at least two occasions yet the BLM EA does not discuss the impacts of such overflows, or the impacts of the impoundments such as the formation of saline seeps. (SDR at p. 32)

As is stated in the Badger Hills POD EA "... produced water would be stored in 5 lined impoundments...all of these impoundments would be located off-channel." (EA at p. 13)[e]. The Badger Hills POD EA concludes these impoundments will not have potential to impact underlying shallow aquifers since they are lined, and will not have potential to overflow and affect surface waters since they are located off-channel. The methods used to achieve this are discussed in the Badger Hills POD (See Badger Hills POD Water Management Plan replacement pages 16, 16a, 18, 18a, 18b filed in response to BLM's July 7, 2003 deficiency letter). The MCFO determined Fidelity's commitment to obtain permits for produced water storage impoundments (August 7, 2003 Fidelity deficiency response letter) from the MBOGC, and its independent review of the Badger Hills POD was adequate for approving the three water storage facilities located partially or entirely on federal leases and to approve the use of these ponds for storage of produced water from federal wells. Additional information has been obtained from Fidelity and the MBOGC during this SDR review concerning permit applications, construction and lining techniques, and monitoring requirements. We find the MCFO did not completely consider the methods planned by Fidelity to construct and line the impoundments, or construction and monitoring requirements imposed or conducted by the MBOGC, in its analysis of the Badger Hills POD. The Badger Hills POD EA needs to completely consider and document Fidelity's updated proposal, potential for leakage and overflow, potential mitigation measures and monitoring, and permitting requirements in consultation with the MBOGC.

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[e] Only three impoundments would store produced water from federal wells (See Badger Hills POD Water Management Plan replacement pages 7 and 8).

4. BLM VIOLATED NEPA WHERE NEITHER THE FEIS NOR THE EA ADEQUATELY DESCRIBE THE AFFECTED ENVIRONMENT AND A MEANINGFUL EVALUATION OF SITE SPECIFIC POTENTIAL ENVIRONMENTAL CONSEQUENCES OF METHANE DEVELOPMENT IS IMPOSSIBLE.

The NPRC argues:

The BLM EA does not include any information on springs and wells within the potential impact zone (4-5 miles) disclosed in the EA. (SDR at p.35)

The EA states on page 7; "A water rights search for this area showed 41 registered stock and domestic water wells within a 1-mile radius of the POD area with completion depths ranging from 15 to 620 feet below ground surface (ft-BGS)." It is also stated in the EA that "Groundwater drawdown resulting from this proposal is anticipated to be similar to that depicted in the Statewide FEIS, with drawdown eventually extending 4-5 miles from the edge of production." Wells and springs within the area identified for potential groundwater drawdown beyond a 1-mile radius were not identified or considered in the EA prepared for the Badger Hills POD.

The Director's decision for the NPRC protest filed on the Statewide FEIS states:

> "Information on the seeps, springs and water wells is discussed in the Final EIS (FEIS, page 3-15). According to the State Director, many wells in the CBM study area have already been identified through the requirement for filing a water right, and the requirement for water drillers to report where they have drilled wells. Specific seeps and springs that could be impacted by a CBM development proposal will be addressed in the site-specific analysis required for each proposed project. Seeps and springs are currently being inventoried in the CBM study area; this information will be used in the project level analysis."

Water mitigation agreements, required due to the designation of the Powder River Basin controlled groundwater area, will serve to mitigate the impact of water loss to the owners of wells and springs within the 4-5 mile impact zone if an impact does occur. The EA for the Badger Hills POD needs to identify existing wells and springs within the entire potential impact zone, the likelihood of impacts (i.e., groundwater drawdown or methane migration) to these water sources and the effectiveness of mitigation measures designed to replace water sources that could be impacted (*Northwest Indian Cemetery Protective Association v. Peterson,* 795 F.2d 288 (9th Cir. 1986)).

DECISION

The September 16, 2003, Decision to approve the Badger Hills POD is based on an EA. We find the Badger Hills POD EA failed to consider several environmental questions applicable to the action under review. The Decision Record, FONSI and Badger Hills POD EA are remanded to the MCFO to perform and document a reasoned environmental analysis. The MCFO must address the remand points related to analysis of potential water quality and quantity impacts (see SDR Review Points 1.b., and 4), potential air quality impacts (see SDR Review Point 2) and potential cumulative impacts (see SDR Review Points 3.a., 3.c. and 3.g.), and consider all substantial issues raised in the four SDR requests. Consequently, further review of all the issues raised by the appellants is not necessary for us to make a reasonable decision concerning the approval of the Badger Hills POD by the MCFO.

A stay is issued because the remand decision will effectively rescind the MCFO's approval of the Badger Hills POD. Federal lease operations cannot continue without BLM's approval. The MCFO must issue an order to Fidelity that effectively stays operations approved by its September 16, 2003, Decision including: 1) drilling of any new federal wells; 2) construction of any production related facilities on and for the benefit of federal leases; and 3) shutting in any existing production of federal wells. The stay will remain in effect until the MCFO completes the environmental analysis process and issues a new Badger Hills POD environmental analysis decision.

This Decision may be appealed to the Board of Land Appeals Office of the Secretary, in accordance with the regulations contained in 43 CFR 4.400 and Form 1842-1 (Enclosure 8). If an appeal is taken, a Notice of Appeal must be filed in this office at the aforementioned address within 30 days from receipt of this decision. A copy of the Notice of Appeal and of any statement of reasons, written arguments, or briefs must also be served on the Office of the Solicitor at the address shown on Form 1842-1. It is also requested that a copy of any statement of reasons, written arguments, or briefs be sent to this office. The appellant has the burden of showing that the Decision appealed from, is in error.

If you wish to file a Petition for a Stay of this Decision, pursuant to 43 CFR 3165.4(c), the Petition must accompany your Notice of Appeal. A Petition for a Stay is required to show sufficient justification based on the standards listed below. Copies of the Notice of Appeal and Petition for a Stay must also be submitted to each party named in this Decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied,
(2) The likelihood of the appellant's success on the merits,
(3) The likelihood of immediate and irreparable harm if the stay is not granted, and
(4) Whether the public interest favors granting the stay.

In case of an appeal, the adverse parties to be served are:

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Martin C. Ott
State Director