FINDING OF NO SIGNIFICANT IMPACT & DECISION RECORD
FOR
Williams Production RMT Company
Carr Draw III East Remand
ENVIRONMENTAL ASSESSMENT - WY-070-09-078

On March 4, 2008, the Buffalo Field Office (BFO) Manager issued the Carr Draw III East (CD3-E) Environmental Assessment (EA), #WY-070-080-029, and Finding of No Significant Impact (FONSI)/Decision Record (DR). William P. Maycock and Powder River Basin Resource Council filed two separate requests for State Director Review stating BLM failed to consider impacts to several important sensitive species (burrowing owl, black-tailed prairie dog, elk, and sage grouse) when the CD3-E Plan of Development (POD) was approved. The BLM Acting Deputy State Director (DSD) affirmed the decision of the Buffalo Field Office Manager in approving 82 wells on 41 locations in the CD3-E POD. The parties appealed the DSD's decision to the Interior Board of Land Appeals (IBLA). On March 16, 2009, the IBLA issued their decision which set aside and remanded BLM's decision to authorize coal bed natural gas (CBNG) development within the CD3-E POD. *William P. Maycock et al.* (177 IBLA 1) The IBLA was unable to conclude why sage-grouse mitigation applied to the CD3-E POD should be different than that applied in a case recently decided by the IBLA (*Yates Petroleum;* 176 IBLA 144). The IBLA noted the BLM, in approving activities in the CD3-E POD, tiered environmental analyses to the same planning document as used in *Yates.*

In *Maycock* the IBLA rejected arguments that the BLM could rely on existing NEPA analysis under the 1985 Buffalo Resource Management Plan (RMP) and 2003 Powder River Basin Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) until further research provides better guidance regarding appropriate sage-grouse protection measures. The protection measures for sage-grouse that were applied to the original approval for the CD3-E POD are identical or substantially similar to the protection measures that have been applied on most of the BLM-administered lands in Wyoming.

DECISION

After consideration of the issues raised by the IBLA remand, BLM's decision is to approve a combination of alternatives C and D as summarized below and described in the attached EA and authorize Williams's Carr Draw III East Coal Bed Natural Gas (CBNG) POD comprised of the following 82 applications for permit to drill (APDs):

	Well Name	Well #	Qtr/Qtr	Sec	TWP	RNG	Lease #
1	CARR DRAW III E CARU	11-18BG*	NWNW	18	50N	75W	WYW146811
2	CARR DRAW III E CARU	11-18W	NWNW	18	50N	75W	WYW146811
3	CARR DRAW III E CARU	12-19BG	SWNW	19	50N	75W	WYW154404
4	CARR DRAW III E CARU	12-19W	SWNW	19	50N	75W	WYW154404
5	CARR DRAW III E CARU	14-19BG	SWSW	19	50N	75W	WYW154404
6	CARR DRAW III E CARU	14-19W	SWSW	19	50N	75W	WYW154404
7	CARR DRAW III E CARU	21-19BG	NENW	19	50N	75W	WYW146811
8	CARR DRAW III E CARU	21-19W	NENW	19	50N	75W	WYW146811
9	CARR DRAW III E CARU	23-19BG	NESW	19	50N	75W	WYW146811
10	CARR DRAW III E CARU	23-19W	NESW	19	50N	75W	WYW146811
11	CARR DRAW III E CARU	32-19BG	SWNE	19	50N	75W	WYW146811
12	CARR DRAW III E CARU	32-19W	SWNE	19	50N	75W	WYW146811
13	CARR DRAW III E CARU	34-19BG	SWSE	19	50N	75W	WYW146811

	Well Name	Well #	Qtr/Qtr	Sec	TWP	RNG	Lease #
14	CARR DRAW III E CARU	34-19W	SWSE	19	50N	75W	WYW146811
15	CARR DRAW III E CARU	41-19BG	NENE	19	50N	75W	WYW146811
16	CARR DRAW III E CARU	41-19W	NENE	19	50N	75W	WYW146811
17	CARR DRAW III E CARU	43-19BG	NESE	19	50N	75W	WYW146811
18	CARR DRAW III E CARU	43-19W	NESE	19	50N	75W	WYW146811
19	CARR DRAW III E CARU	12-20BG	SWNW	20	50N	75W	WYW146811
20	CARR DRAW III E CARU	12-20W	SWNW	20	50N	75W	WYW146811
21	CARR DRAW III E CARU	14-20BG	SWSW	20	50N	75W	WYW146811
22	CARR DRAW III E CARU	14-20W	SWSW	20	50N	75W	WYW146811
23	CARR DRAW III E CARU	22-20BG	SENW	20	50N	75W	WYW146811
24	CARR DRAW III E CARU	22-20W	SENW	20	50N	75W	WYW146811
25	CARR DRAW III E CARU	34-20BG	SWSE	20	50N	75W	WYW129538
26	CARR DRAW III E CARU	34-20W	SWSE	20	50N	75W	WYW129538
27	CARR DRAW III E CARU	43-20BG	NESE	20	50N	75W	WYW146811
28	CARR DRAW III E CARU	43-20W	NESE	20	50N	75W	WYW146811
29	CARR DRAW III E CARU	21-29BG	NENW	29	50N	75W	WYW129538
30	CARR DRAW III E CARU	21-29W	NENW	29	50N	75W	WYW129538
31	CARR DRAW III E CARU	41-29BG	NENE	29	50N	75W	WYW129538
32	CARR DRAW III E CARU	41-29W	NENE	29	50N	75W	WYW129538
33	CARR DRAW III E CARU	14-30BG	SWSW	30	50N	75W	WYW146812
34	CARR DRAW III E CARU	14-30W	SWSW	30	50N	75W	WYW146812
35	CARR DRAW III E CARU	21-30BG	NENW	30	50N	75W	WYW146812
36	CARR DRAW III E CARU	21-30W	NENW	30	50N	75W	WYW146812
37	CARR DRAW III E CARU	31-30BG	NWNE	30	50N	75W	WYW146812
38	CARR DRAW III E CARU	31-30W	NWNE	30	50N	75W	WYW146812
39	CARR DRAW III E CARU	34-30BG	SWSE	30	50N	75W	WYW146812
40	CARR DRAW III E CARU	34-30W	SWSE	30	50N	75W	WYW146812
41	CARR DRAW III E CARU	41-30BG	NENE	30	50N	75W	WYW146812
42	CARR DRAW III E CARU	41-30W	NENE	30	50N	75W	WYW146812
43	CARR DRAW III E CARU	42-30BG	NESE	30	50N	75W	WYW146812
44	CARR DRAW III E CARU	42-30W	NESE	30	50N	75W	WYW146812
45	CARR DRAW III E CARU	21-31BG	NENW	31	50N	75W	WYW146812
46	CARR DRAW III E CARU	21-31W	NENW	31	50N	75W	WYW146812
47	CARR DRAW III E CARU	14-13BG	SWSW	13	50N	76W	WYW146290
48	CARR DRAW III E CARU	14-13W	SWSW	13	50N	76W	WYW146290
49	CARR DRAW III E CARU	23-13BG	NESW	13	50N	76W	WYW146290
50	CARR DRAW III E CARU	23-13W	NESW	13	50N	76W	WYW146290
51	CARR DRAW III E CARU	32-13BG	SWNE	13	50N	76W	WYW146290
52	CARR DRAW III E CARU	32-13W	SWNE	13	50N	76W	WYW146290
53	CARR DRAW III E CARU	34-13BG	SWSE	13	50N	76W	WYW146290
54	CARR DRAW III E CARU	34-13W	SWSE	13	50N	76W	WYW146290
55	CARR DRAW III E CARU	43-13BG	NESE	13	50N	76W	WYW146290

	Well Name	Well #	Qtr/Qtr	Sec	TWP	RNG	Lease #
56	CARR DRAW III E CARU	43-13W	NESE	13	50N	76W	WYW146290
57	CARR DRAW III E CARU	34-23BG	SWSE	23	50N	76W	WYW146290
58	CARR DRAW III E CARU	34-23W	SWSE	23	50N	76W	WYW146290
59	CARR DRAW III E CARU	44-23BG	SESE	23	50N	76W	WYW146290
60	CARR DRAW III E CARU	44-23W	SESE	23	50N	76W	WYW146290
61	CARR DRAW III E CARU	14-24BG	SWSW	24	50N	76W	WYW146290
62	CARR DRAW III E CARU	14-24W	SWSW	24	50N	76W	WYW146290
63	CARR DRAW III E CARU	21-24BG	NENW	24	50N	76W	WYW146290
64	CARR DRAW III E CARU	21-24W	NENW	24	50N	76W	WYW146290
65	CARR DRAW III E CARU	23-24BG	NESW	24	50N	76W	WYW146290
66	CARR DRAW III E CARU	23-24W	NESW	24	50N	76W	WYW146290
67	CARR DRAW III E CARU	12-25BG	SWNW	25	50N	76W	WYW147335
68	CARR DRAW III E CARU	12-25W	SWNW	25	50N	76W	WYW147335
69	CARR DRAW III E CARU	22-25BG	SENW	25	50N	76W	WYW146290
70	CARR DRAW III E CARU	22-25W	SENW	25	50N	76W	WYW146290
71	CARR DRAW III E CARU	23-25BG	NESW	25	50N	76W	WYW146290
72	CARR DRAW III E CARU	23-25W	NESW	25	50N	76W	WYW146290
73	CARR DRAW III E CARU	32-25BG	SWNE	25	50N	76W	WYW146290
74	CARR DRAW III E CARU	32-25W	SWNE	25	50N	76W	WYW146290
75	CARR DRAW III E CARU	34-25BG	SWSE	25	50N	76W	WYW147335
76	CARR DRAW III E CARU	34-25W	SWSE	25	50N	76W	WYW147335
77	CARR DRAW III E CARU	43-25BG	NESE	25	50N	76W	WYW147335
78	CARR DRAW III E CARU	43-25W	NESE	25	50N	76W	WYW147335
79	CARR DRAW III E CARU	21-26BG	NENW	26	50N	76W	WYW33138
80	CARR DRAW III E CARU	21-26W	NENW	26	50N	76W	WYW33138
81	CARR DRAW III E CARU	41-26BG	NENE	26	50N	76W	WYW33138
82	CARR DRAW III E CARU	41-26W	NENE	26	50N	76W	WYW33138

This approval is subject to adherence with all of the operating plans and mitigating measures contained in the master surface use plan of operations, drilling plan, water management plan, and information in individual APDs. This approval is also subject to operator compliance with all mitigation and monitoring requirements contained within the Powder River Oil and Gas Project Final Environmental Impact Statement and Resource Management Plan Amendment (PRB FEIS) approved April 30, 2003. The proposed water line that will transport water off location was inspected and approved for use in EA WY-070-08-013.

SUMMARY OF SELECTED ALTERNATIVE

The selected alternative includes appropriate components of alternatives C and D as described in the EA. Timing restrictions on surface-disturbing activities are incorporated from Alternative C, and will mitigate project-specific impacts to sage-grouse habitat, and address previously identified inconsistencies in the application of distance and timing restrictions within the PRB. While portions of Alternative D were considered in the analysis, BFO recognizes that the majority of project components have already been constructed prior to the IBLA remand. In this context, the following items summarize actions in the selected alternative:

- Mapped sage-grouse habitat and site-specific habitat evaluation indicate that seasonal restrictions on surface-disturbing activities are appropriate for all locations in the Carr Draw III East POD *except* locations 21-26 and 34-30.

- New information received during the comment period indicates a potential lek in section 20 of T50N, R75W. The proposed power line in that section will be buried. All surface-disturbing and disruptive activities associated with the 22-20-5075BG/W well will be restricted between 6 pm and 8 am from March 1 to May 15 for the life of the project.

- Multiple project site visits will be allowed monthly, 3 per week for the first six months after the wells are completed. The operator will be required to monitor frequency of site visits along with repairs made and problems identified resulting from the visits. These reports will be submitted to BLM at the end of every month. The BLM will use the data to determine the necessity of multiple monthly site visits.

- All other operator committed measures and conditions of approval addressed in the original Carr Draw III POD approval are still in effect, unless superseded by this decision.

RESPONSE TO COMMENTS

The EA and FONSI were mailed to interested parties on May 8, 2009 and posted to the Buffalo Field Office web site on May 11, 2009. An announcement of the comment period was published in the May 12, 2009 *Buffalo Bulletin.* The comment period ended on May 25, 2009. Six letters were received. A summary of the substantive comments and how they were addressed follows.

- *The proposed habitat based mitigation approach is not consistent with the core/focus area direction. Why is BLM recognizing high quality habitat outside the core/focus areas?*

  There seems to be a misconception that the core/focus areas would be the only areas where heightened sage-grouse mitigation would be applied. The BLM references quotes made by Governor Freudenthal and the Fish and Wildlife Service when a joint BLM /WY news release regarding the core area approach was issued on June 12, 2008.

  The Governor said, "With the funding that was approved by the Legislature and efforts of the Game and Fish Department, we will have a pretty good handle on where sage-grouse feed, live and breed by December of this year. In the meantime, we need to roll up our sleeves and work with state, federal agencies and private landowners to define how we will manage both inside **and adjacent to** the core areas to demonstrate that Wyoming has and will maintain healthy grouse populations and habitat." The Governor's executive order (2008-2) also states, "…development scenarios should be designed and managed to maintain populations, habitats and essential migration routes outside Core Population Areas." The Fish and Wildlife Service, in a letter responding to the Governor's announcement of the core areas, stated, "The Service does believe the "core population strategy" is a sound framework for a policy by which to conserve greater sage-grouse in Wyoming." The Service encouraged that "all seasonal habitats to sustain core population areas be identified and incorporated into the strategy, and associated maps, once the state's mapping project is complete."

  The Wyoming Game and Fish Department's, "Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats," further describes management objectives for sage-grouse outside core areas; "Non-core areas should not be construed as "sacrifice areas" since this conservation strategy requires habitat connectivity and movement between populations

in core areas. The goal in non-core areas is to maintain habitat conditions that will sustain at least a 50% probability of lek persistence over the long term."

The state's habitat mapping has not been completed. Habitat in the BFO has been mapped. As described in the EA, the BFO has determined that habitats identified by the model, breeding, brood rearing, and winter, whether inside or outside of core/focus areas, be managed at a level that will meet the objectives referenced above by the Governor and the Service.

The BFO considers high quality habitat to be those identified through the use of the University of Montana developed models. The models are divided into habitat categories of 1-5. Categories 1 & 2 are not considered suitable habitat. Category 3 may have the vegetative components necessary for suitable habitat. Categories 4 & 5 have the vegetative components for suitable habitat, and meet criteria for topography, slope and other landscape level characteristics that were indicated through analysis of radio-collared sage-grouse. . The 4 and 5 categories of habitats are considered "high-quality".

Specific sections of the EA and FONSI have been revised to address the distinction between management application inside and outside of the core/focus areas based on habitat quality, and can be found in the Introduction and sections 1.1, & 3.1.1.1.

- *Proposed condition of approval that limits site visits to one visit per month is unduly burdensome and unfeasible.*

  Williams, provided the following information to support their claim. "From an operational and safety standpoint, multiple visits per month are required to identify needed repairs. Make plans for addressing any problems, and then perform any required repairs or maintenance. Not all problems can be detected by remote sensing equipment, e.g. pipeline/flowline leaks (both gas and water) along with electrical problems, or hazards that could ultimately result in fire or injury. Only by site visits will Williams be able to ensure that its equipment is in working order and no leaks or other problems have developed on the POD. Identifying problems early is critical in avoiding larger safety and environmental hazards, and wildlife issues. Further, if Williams does identify a problem, it is not likely that the necessary repair can be accomplished during the same visit. Multiple visits may be required to address the issue."

  BFO has coordinated with operators for other projects to reduce routine site visits by "at least 50%" by limiting site visits during the first two months of operation to once a week.

  To address this concern, multiple visits will be allowed monthly, 3 per week for the first six months, after the wells are completed. The company will be required to monitor frequency of site visits along with repairs made and problems identified resulting from the visits. The company will submit these reports to BLM at the end of every month. The BLM will use this data to determine the necessity of multiple monthly site visits.

- *There is not a sufficient range of alternatives relative to the extent the new science and BLMs acknowledgement of the science. An alternative with mitigation more in line with the science is needed.*

  See alternative D in the EA.

- *Mitigation applied is not consistent with that applied by BFO in other PODs and actions taken by BLM elsewhere in the state.*

See "Environmental Consequences" section and Alternative D in the EA.

- *Can't rely on the focus area approach to maintain population viability.*

  BLM's assumption of the adequacy of "focus areas" to maintain population viability is based on a number of factors, including:

  1. Focus areas combined the originally proposed state core population areas with some mapped seasonal habitats to significantly enlarge the proposed areas of protection. (The areas expanded from 400,000 acres to one million acres.)

  2. Appropriate, site-specific mitigation being implemented outside of focus areas will enhance the potential for population persistence through the "life of the project."

- *BLM must conduct an EIS for this action*

  The IBLA, in their decision, did not conclude that the effects to sage-grouse disclosed in the original EA were significant and therefore required an EIS. They focused primarily on the contradiction in application of the timing limitations applied between Carr Draw 3 East (a 2-mile buffer) versus the previously approved Yates Nemesis POD (3-mile buffer).

  Similar to the IBLA's acknowledgement in the recent Sorenson Ranch Company decision (IBLA 2008-236), they "found no evidence to support the view that the POD is likely, by itself, to cause the extirpation of sage-grouse in the Plan area, let alone in the Powder River Basin. "

- *BLM needs to disclose the documented difficulty in reclaiming sagebrush shrub lands and known and documented failure of reclamation in the CBM fields.*

  In addition to the standard reclamation conditions of approval contained in the original POD authorization, Alternative D incorporates mitigating measures designed around site-specific habitat characteristics to minimize habitat fragmentation and accelerate return to habitat effectiveness at reclamation.

- *Video and pictures received of grouse on a potential new lek.*

  In response to comments received that indicated a potential lek in section 20 of T50N, R75W, the proposed power line in that section will be buried. All activities associated with the 22-20-5075BG/W well will be restricted between 6 pm and 8 am from March 1 to May 15 for the life of the project.

RATIONALE

The decision to authorize the selected alternative, as summarized above, is based on the following:

1. The Operator, in their POD, has committed to:

   - Complying with all applicable federal, state and local laws and regulations.

   - Obtaining the necessary permits from other agencies for drilling, completion and production of these wells including water rights appropriations, the installation of water management facilities, water discharge permits, and relevant air quality permits.

- Offering water well agreements to the owners of record for permitted water wells within ½ mile of a federal CBNG producing well in the POD.

- Providing water analysis from a designated reference well in each coal zone.

2. This decision addresses IBLA's remand to explain why sage-grouse mitigation applied to the CD3-E POD should be different than that applied in a case recently decided *Yates Petroleum* (176 IBLA 144).

3. The selected alternative was developed with the recognition that the majority of project components have already been constructed. Mitigating measures from the range of alternatives were selected in this context to best meet the purpose and need.

4. The selected alternative will not result in any undue or unnecessary environmental degradation.

5. It is in the public interest to approve this development to help meet the nation's future needs for energy reserves and reduce the U.S. dependence on foreign sources of energy. It also helps to stimulate local economies by maintaining stability for the workforce.

6. The selected alternative incorporates appropriate local sage-grouse research and the best available science from across the species' range in development of conditions of approval attached.

   Mitigating measures applied by the BLM will lessen environmental impacts.

   - Surface-disturbing activities will be restricted during sage-grouse breeding and nesting periods (March 1 to June 15) for 39 of the 41 locations and accesses located high-quality sage-grouse habitat for the life of the project. Locations 21-26 and 34-30 were co-located with existing disturbance outside of sage-grouse habitat.

   - All surface-disturbing and disruptive activities associated with the 22-20-5075BG/W well will be prohibited between 6 pm and 8am from March 1 to May 15 for the life of the project.

   - Multiple visits will be allowed monthly, 3 per week for the first six months and after the wells are completed. The company will be required to monitor frequency of site visits along with repairs made and problems identified resulting from the visits. These reports will be submitted to BLM at the end of every month. The BLM will use this data to determine the necessity of multiple monthly site visits.

7. Approval of this alternative is in conformance with the PRB FEIS, and the Approved Resource Management Plan for the Public Lands Administered by the Bureau of Land Management, Buffalo Field Office, April 2001 (refer to Appendix E of that document relative to adaptive management).

8. The selected alternative incorporates components of the Wyoming Governor's Sage Grouse Implementation Team's "core population area" strategy and executive order and local research to provide appropriate protections for sage-grouse, while meeting the purpose and need for the Carr Draw III East project (WYGF, 2009).

FINDING OF NO SIGNIFICANT IMPACT

Based on the analysis of the potential environmental impacts, I have determined that NO significant impacts are expected from the implementation of the selected alternative and, therefore, an environmental impact statement is not required.

In conformance with Appendix E, *Record of Decision, Powder River Oil and Gas Project Environmental Impact Statement and Resource Management Plan Amendment* BLM Buffalo Field Office has initiated actions within the PRB FEIS analysis area in response to additional information regarding impacts to sage-grouse. These measures include:

1. Early initiation of a Resource Management Plan (RMP) revision, based on the evaluation of monitoring data generated under the mitigation monitoring and reporting plan (MMRP) in the PRB FEIS Record of Decision

2. Establishment of sage-grouse "focus" areas, encompassing approximately 1 million acres of sage-grouse habitat. These areas are managed under strict guidelines designed to preserve sage-grouse habitat for development of alternatives during the RMP process (Appendix 1).

3. Initiation of a population viability analysis in the Powder River Basin. This is a 24-month project involving the USGS, BLM Miles City Field Office, BLM Buffalo Field Office, and the University of Montana.

4. Development of alternatives that modify the proposed action to reflect the best available science in sage-grouse management.

5. Development of conditions of approval, specific to sage-grouse management, that incorporate some recommendations from recent research, the NE Local Sage-grouse Working Group, and the Petroleum Association of Wyoming.

The implementation of the selected alternative best meets the stated purpose and need for the proposed action. With the application of mitigating measures selected from alternatives C and D, sage-grouse population viability in the Powder River Basin will not be compromised due to the larger scope of planning actions and research initiated by the BLM, Buffalo Field Office.

ADMINISTRATIVE REVIEW AND APPEAL: Under BLM regulations, this decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of this decision must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, P.O. Box 1828, Cheyenne, Wyoming 82003, no later than 20 business days after this Decision Record is received or considered to have been received.

Any party who is adversely affected by the State Director's decision may appeal that decision to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.

Field Manager, Buffalo Field Office

7/1/09
Date

BUREAU OF LAND MANAGEMENT
BUFFALO FIELD OFFICE
ENVIRONMENTAL ASSESSMENT
FOR
Williams
Carr Draw III East Remand
PLAN OF DEVELOPMENT
WY-070-EA09-078

INTRODUCTION

On March 4, 2008, the Buffalo Field Office (BFO) Manager issued the Carr Draw III East (CD3-E) Environmental Assessment (EA), #WY-070-080-029, and Finding of No Significant Impact (FONSI)/Decision Record (DR). William P. Maycock and Powder River Basin Resource Council filed two separate requests for State Director Review stating the Bureau of Land Management (BLM) failed to consider impacts to several important sensitive species (burrowing owl, black-tailed prairie dog, elk, and sage grous)e when approving the CD3-E Plan of Development (POD). The BLM Acting Deputy State Director (DSD) affirmed the decision of the BFO Manager in approving 82 wells on 41 locations in the CD3-E POD. The parties filed appeals of the DSD's decision with the Interior Board of Land Appeals (IBLA). On March 16, 2009, the IBLA issued their decision in *Maycock et al.* (177 IBLA 1) setting aside and remanding BLM's decision to authorize coal bed natural gas (CBNG) development within the CD3-E POD. The IBLA was unable to conclude why sage-grouse mitigation applied to the CD3-E POD should be different than that applied in a case they recently decided (*Yates Petroleum;* 176 IBLA 144). The IBLA noted the BLM, in approving activities in the CD3-E POD, tiered environmental analyses to the same planning document as used in *Yates.*

In May 2006, Yates Petroleum Company appealed BLM's application of a condition of approval (COA) prohibiting surface-disturbing activities from March 1 through June 15 within 3 miles of active sage-grouse leks in two Powder River Basin (PRB) PODs. Yates believed the requirement was inconsistent with sage-grouse mitigation presented in the 1985 Buffalo Resource Management Plan (RMP) and the 2003 Powder River Basin oil and gas project ROD. In *Yates* the IBLA ruled that when making a decision regarding discrete surface-disturbing oil and gas development activities, BLM has the authority to impose reasonable measures which include restricting the siting or timing of lease activities. The decision to impose a 3-mile timing restriction to protect sage-grouse and its habitat was supported by the record and by the then in effect BLM Wyoming sage-grouse policy.

The Wyoming sage-grouse policy referred to by the IBLA in *Yates* is Instruction Memorandum (IM) WY -2004-057, "Statement of Policy Regarding Sage-Grouse Management Definitions, and Use of Protective Stipulations, and Conditions of Approval (COAs)". The BLM Wyoming State Director issued this policy on August 16, 2004 to Field Managers and Deputy State Directors.

The IM concluded that it had become necessary for BLM Wyoming to "…establish consistent policy and management direction for sage-grouse management on BLM administered Public Lands…" The policy set a priority for BLM Wyoming Field Offices (FOs) to map sagebrush ecosystems and sage-grouse seasonal habitats. Until these habitats were mapped, BLM Wyoming Field Offices were to continue to use the 2-mile radius circle surrounding a sage-grouse lek as a "flagging device" for applying stipulations or COAs to disturbance and disruptive activities, where appropriate. The policy acknowledges not all sagebrush habitats within the 2-mile radius may be suitable nesting habitat. Where FOs had completed the identification and mapping of sage-grouse nesting habitat they were to consider applying appropriate stipulations or COAs beyond the 2-mile radius, after site-specific evaluation. All recommendations, mitigation, and conservation measures were to be analyzed in a site-specific NEPA document and be

incorporated, as appropriate, as conditions of approval for permits, plans of development, and other use authorizations.

On September 29, 2005, BLM Wyoming FO Managers were notified that IM 2004-057 would expire at the end of the fiscal year and would not be extended in its present form. The notification, however, states BLM Wyoming will work with the Washington Office (WO) in updating this guidance, and until such time a new policy is developed for sage-grouse management, the FOs should provide sage-grouse protection using information developed in their Resource Management Plans.

Since the expiration of IM 2004-057, new information has been provided through on-going research which gives in more detail the potential impacts from CBNG development to sage-grouse species in the PRB. In early 2008, BFO staff identified, based on the recent studies, sage-grouse protection in the 2003 Powder River Basin Final Environmental Impact Statement (PRB FEIS) and the 1985 Buffalo RMP may not be adequate to protect the species in the Basin.

The BFO RMP (BLM 2001) and the Powder River Basin Oil and Gas Project Record of Decision (BLM 2003) include a 2-mile timing limitation within sage-grouse nesting habitat. The 2-mile measure originated with the Western Association of Fish and Wildlife Agencies (WAFWA) (BLM 2004). BLM Wyoming adopted the 2-mile recommendation in 1990 (BLM 1990). The 2-mile recommendation was based on early research which indicated between 59% and 87% of sage-grouse nests were located within 2 miles of a lek (BLM 2004). These studies were conducted within prime, contiguous sage-grouse habitat such as Idaho's Snake River plain.

Additional studies across more of the sage-grouse's range indicate that many populations nest much farther than 2 miles from the breeding lek (BLM 2004). Holloran and Anderson (2005), in their Upper Green River Basin study area, reported only 45% of their sage-grouse hens nested within 3 km (1.86 mi) of the capture lek. Moynahan and Lindberg (2004) found only 36% of their grouse nesting within 3 km of the capture lek. Moynahan's study area was north-central Montana in an area of mixed-grass prairie and sagebrush steppe, with Wyoming big sagebrush (*Artemisia tridentata wyomingensis*) being the dominant shrub species (Moynahan et al. 2007). Habitat conditions and sage-grouse biology within the BFO are similar to Moynahan's north-central Montana study area than the Upper Green River area.

The BFO has taken several steps to consider the evolving information on impacts to sage-grouse which could result from development activities on federal lands. These steps include:

February 2008: BFO consolidates research and data to identify high-quality sage-grouse habitat in the basin. BFO, in conjunction with the University of Montana, developed models indicating "high-quality" habitat using topographic and vegetative criteria and habitat selection by radio-collared birds to identify areas with high potential for use by nesting/wintering birds. The models are divided into habitat categories of 1 through 5, with 5 being "excellent" habitat. Categories 1 & 2 are not considered suitable habitat. Category 3 may have the vegetative components necessary for suitable habitat. Categories 4 & 5 have the vegetative components for suitable habitat, and meet criteria for topography, slope and other landscape level characteristics that were indicated through analysis of radio-collared sage-grouse. . The 4 and 5 categories of habitats are considered "high-quality".

- March, 2008: BFO, Wyoming State Office (WYSO) and WO establish the need for a Resource Management Plan (RMP) approach to evaluate impacts to sage-grouse and habitat; RMP amendment or revision discussed. Decision to begin a RMP revision is approved two years ahead of original schedule.

- May 28, 2008: BFO conducts public meeting to present habitat information developed through research in the Powder River Basin. BFO solicits additional information from the public and

interested energy development companies to refine sage-grouse habitat maps. Objective is to establish areas of interim management for sage-grouse to preserve "decision space" during the RMP process.

- August 13, 2008: BFO releases "Guidance for general management actions during BFO Resource Management Plan Revision" and a map identifying the "focus areas". The guidance contains criteria for any proposed development in focus areas (Appendix 1). For fluid minerals, this guidance includes the following requirement; "The proponent will be asked to demonstrate that the proposal can be managed in a manner that effectively conserves sage-grouse habitats (in focus areas) affected by the proposal." The guidance also states that "Efforts will be made to assure that the impacts of surface disturbing projects will be consistent with a well pad density of 640 acres."

  Efforts to minimize impacts to high-quality sage-grouse habitats outside the focus areas will be far less restrictive, with well densities up to 80-acre spacing, but may include site-specific mitigating measures suggested by the best available science.

- Concurrent with BFO efforts, on August 1, 2008, the Governor of the State of Wyoming issued an Executive Order (EO 2008-2) mandating special management for all lands within sage-grouse "core population areas." Lands for special management were identified by the Wyoming Governor's Sage-Grouse Implementation Team, and generally follow the boundaries of the majority of the focus areas identified by the BFO. This team also recommended stipulations to be placed on development activities on state lands to ensure existing habitat function is maintained within those areas. EO 2008-2 also identifies objectives outside of core areas, "…development scenarios should be designed and managed to maintain populations, habitats and essential migration routes outside core population areas."

- August 13, 2008 – Present: BFO crafts updated impacts assessment to be included in all project analysis affecting sage-grouse habitat. This analysis includes research conducted in the Powder River Basin and other sage-grouse research published since the 2003 PRB EIS ROD. Analysis explicitly tied impacts to the impacts accepted under the 2003 ROD.

- October 1, 2008: BFO officially begins the RMP revision. This process was accelerated by two years to more rapidly assess impacts to sage-grouse.

- April 14, 2009: BFO/WYSO enters into agreement with University of Montana and the Miles City FO to conduct a population viability analysis in the PRB. Emphasis will be on the adequacy of BFO focus areas for maintenance of a persistent sage-grouse population. Information gathered will be used in developing alternatives for the RMP revision.

- May, 2009: The Wyoming Game and Fish Department releases, " Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats", which further describes management objectives for sage-grouse outside core areas; "Non-core areas should not be construed as "sacrifice areas" since this conservation strategy requires habitat connectivity and movement between populations in core areas. The goal in non-core areas is to maintain habitat conditions that will sustain at least a 50% probability of lek persistence over the long term."

- The EA and FONSI was mailed to interested parties on May 8, 2009 and posted to the Buffalo Field Office web site on May 11, 2009. An announcement of the comment period was published in the May 12, 2009 *Buffalo Bulletin.* The comment period ended on May 25, 2009. Six letters were received. During the comment period for the Carr Draw III Revised EA and FONSI, information was submitted in the form of photographs and video that indicated a potential lek location in section 20 of T50N, R75W. Strutting male sage-grouse were recorded as well as

heavy use by sage-grouse in habitat adjacent to the potential lek location. WYGF or industry consultants have not previously documented this location.

Based on the IBLA remand, this site-specific analysis addresses only the proposed action as it relates to impacts to sage-grouse and sage-grouse habitat. While this document tiers into and incorporates by reference the original Carr Draw III East EA, this project EA addresses only site-specific impacts to, and new information concerning, sage-grouse that were not covered within the BFO planning documents or the CD3-E EA.

1. PURPOSE AND NEED

One of the primary purposes of this EA is to address those issues identified by the IBLA in their decision (177 IBLA 1), specifically to those portions of the original EA with respect to sage-grouse.

An additional purpose and need is to determine how and under what conditions to allow Williams to exercise lease rights granted by the United States to develop the oil and gas resources on federal leaseholds as described in their proposed action.

Development of the Carr Draw III East POD wells would return royalties to the federal Treasury as well as stimulate local economies.

The BLM recognizes the extraction of natural gas is essential to meeting the nation's future needs for energy. As a result, private exploration and development of federal gas reserves are integral to the agencies' oil and gas leasing programs under the authority of the Mineral Leasing Act of 1920, as amended, and the Federal Land Policy Management Act (FLPMA) of 1976. The oil and gas leasing program managed by BLM encourages the development of domestic oil and gas reserves and reduction of the U.S. dependence on foreign sources of energy.

This action responds to the goals and objectives outlined in the 1985 Buffalo RMP and the PRB FEIS. This action helps move the project area toward desired conditions for mineral development with appropriate mitigation consistent with the goals, objectives and decisions outlined in these two documents.

1.1. Conformance with Applicable Resource Management Plan and Other Environmental Assessments

The proposed action conforms to the terms and the conditions of the 1985 Buffalo RMP and the PRB FEIS, as required by 43 CFR 1610.5. The BFO RMP is currently under revision.

For the RMP revision, BFO established focus areas with rigorous interim protections in order to preserve "decision space" during the revision process. Outside the focus areas, BFO continues to apply appropriate, but far less rigorous, site-specific mitigating measures for high-quality sage-grouse habitat with well densities up to 80-acre spacing and may include site-specific mitigating measures suggested by the best available science. Actions within BFO focus areas will be limited to impacts consistent with 640 acre spacing, and must have a plan of development that demonstrates that the proposal can be managed in a manner that effectively conserves sage-grouse habitats (in focus areas) affected by the proposal.

The CD3-E POD does not occur within a core or focus area. However, high quality sage-grouse habitat, as indicated by the University of Montana model, occurs throughout the project area.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Alternative A - No Action

A No Action Alternative was considered in the PRB FEIS, Volume 1, pages 2-54 through 2-62. This alternative would consist of no new federal wells. An oil and gas lease grants the lessee the "right and privilege to drill for, mine, extract, remove, and dispose of all oil and gas deposits" in the lease lands, "subject to the terms and conditions incorporated in the lease." Thus, under this alternative, the operator's proposal would be denied.

2.2 Alternative B - Proposed Action

Proposed Action Title/Type: Williams's Carr Draw III East POD for 82 coal bed natural gas well application for permit to drill (APD) and associated infrastructure.

Proposed Well Information: There are 82 wells proposed within this POD. The wells are vertical bores proposed on an 80-acre spacing pattern with two wells per location. Each well will produce from the Big George or Wall coal seam. Proposed well house dimensions are 6 ft wide x 10 ft long x 6 ft high. Well house color is Carlsbad Canyon, 2.5Y 6/2, selected to blend with the surrounding vegetation. Wells are located as follows:

	Well Name	Well #	Qtr/Qtr	Sec	TWP	RNG	Lease #
1	CARR DRAW III E CARU	11-18BG*	NWNW	18	50N	75W	WYW146811
2	CARR DRAW III E CARU	11-18W	NWNW	18	50N	75W	WYW146811
3	CARR DRAW III E CARU	12-19BG	SWNW	19	50N	75W	WYW154404
4	CARR DRAW III E CARU	12-19W	SWNW	19	50N	75W	WYW154404
5	CARR DRAW III E CARU	14-19BG	SWSW	19	50N	75W	WYW154404
6	CARR DRAW III E CARU	14-19W	SWSW	19	50N	75W	WYW154404
7	CARR DRAW III E CARU	21-19BG	NENW	19	50N	75W	WYW146811
8	CARR DRAW III E CARU	21-19W	NENW	19	50N	75W	WYW146811
9	CARR DRAW III E CARU	23-19BG	NESW	19	50N	75W	WYW146811
10	CARR DRAW III E CARU	23-19W	NESW	19	50N	75W	WYW146811
11	CARR DRAW III E CARU	32-19BG	SWNE	19	50N	75W	WYW146811
12	CARR DRAW III E CARU	32-19W	SWNE	19	50N	75W	WYW146811
13	CARR DRAW III E CARU	34-19BG	SWSE	19	50N	75W	WYW146811
14	CARR DRAW III E CARU	34-19W	SWSE	19	50N	75W	WYW146811
15	CARR DRAW III E CARU	41-19BG	NENE	19	50N	75W	WYW146811
16	CARR DRAW III E CARU	41-19W	NENE	19	50N	75W	WYW146811
17	CARR DRAW III E CARU	43-19BG	NESE	19	50N	75W	WYW146811
18	CARR DRAW III E CARU	43-19W	NESE	19	50N	75W	WYW146811
19	CARR DRAW III E CARU	12-20BG	SWNW	20	50N	75W	WYW146811
20	CARR DRAW III E CARU	12-20W	SWNW	20	50N	75W	WYW146811
21	CARR DRAW III E CARU	14-20BG	SWSW	20	50N	75W	WYW146811
22	CARR DRAW III E CARU	14-20W	SWSW	20	50N	75W	WYW146811
23	CARR DRAW III E CARU	22-20BG	SENW	20	50N	75W	WYW146811
24	CARR DRAW III E CARU	22-20W	SENW	20	50N	75W	WYW146811
25	CARR DRAW III E CARU	34-20BG	SWSE	20	50N	75W	WYW129538

	Well Name	Well #	Qtr/Qtr	Sec	TWP	RNG	Lease #
26	CARR DRAW III E CARU	34-20W	SWSE	20	50N	75W	WYW129538
27	CARR DRAW III E CARU	43-20BG	NESE	20	50N	75W	WYW146811
28	CARR DRAW III E CARU	43-20W	NESE	20	50N	75W	WYW146811
29	CARR DRAW III E CARU	21-29BG	NENW	29	50N	75W	WYW129538
30	CARR DRAW III E CARU	21-29W	NENW	29	50N	75W	WYW129538
31	CARR DRAW III E CARU	41-29BG	NENE	29	50N	75W	WYW129538
32	CARR DRAW III E CARU	41-29W	NENE	29	50N	75W	WYW129538
33	CARR DRAW III E CARU	14-30BG	SWSW	30	50N	75W	WYW146812
34	CARR DRAW III E CARU	14-30W	SWSW	30	50N	75W	WYW146812
35	CARR DRAW III E CARU	21-30BG	NENW	30	50N	75W	WYW146812
36	CARR DRAW III E CARU	21-30W	NENW	30	50N	75W	WYW146812
37	CARR DRAW III E CARU	31-30BG	NWNE	30	50N	75W	WYW146812
38	CARR DRAW III E CARU	31-30W	NWNE	30	50N	75W	WYW146812
39	CARR DRAW III E CARU	34-30BG	SWSE	30	50N	75W	WYW146812
40	CARR DRAW III E CARU	34-30W	SWSE	30	50N	75W	WYW146812
41	CARR DRAW III E CARU	41-30BG	NENE	30	50N	75W	WYW146812
42	CARR DRAW III E CARU	41-30W	NENE	30	50N	75W	WYW146812
43	CARR DRAW III E CARU	42-30BG	NESE	30	50N	75W	WYW146812
44	CARR DRAW III E CARU	42-30W	NESE	30	50N	75W	WYW146812
45	CARR DRAW III E CARU	21-31BG	NENW	31	50N	75W	WYW146812
46	CARR DRAW III E CARU	21-31W	NENW	31	50N	75W	WYW146812
47	CARR DRAW III E CARU	14-13BG	SWSW	13	50N	76W	WYW146290
48	CARR DRAW III E CARU	14-13W	SWSW	13	50N	76W	WYW146290
49	CARR DRAW III E CARU	23-13BG	NESW	13	50N	76W	WYW146290
50	CARR DRAW III E CARU	23-13W	NESW	13	50N	76W	WYW146290
51	CARR DRAW III E CARU	32-13BG	SWNE	13	50N	76W	WYW146290
52	CARR DRAW III E CARU	32-13W	SWNE	13	50N	76W	WYW146290
53	CARR DRAW III E CARU	34-13BG	SWSE	13	50N	76W	WYW146290
54	CARR DRAW III E CARU	34-13W	SWSE	13	50N	76W	WYW146290
55	CARR DRAW III E CARU	43-13BG	NESE	13	50N	76W	WYW146290
56	CARR DRAW III E CARU	43-13W	NESE	13	50N	76W	WYW146290
57	CARR DRAW III E CARU	34-23BG	SWSE	23	50N	76W	WYW146290
58	CARR DRAW III E CARU	34-23W	SWSE	23	50N	76W	WYW146290
59	CARR DRAW III E CARU	44-23BG	SESE	23	50N	76W	WYW146290
60	CARR DRAW III E CARU	44-23W	SESE	23	50N	76W	WYW146290
61	CARR DRAW III E CARU	14-24BG	SWSW	24	50N	76W	WYW146290
62	CARR DRAW III E CARU	14-24W	SWSW	24	50N	76W	WYW146290
63	CARR DRAW III E CARU	21-24BG	NENW	24	50N	76W	WYW146290
64	CARR DRAW III E CARU	21-24W	NENW	24	50N	76W	WYW146290
65	CARR DRAW III E CARU	23-24BG	NESW	24	50N	76W	WYW146290
66	CARR DRAW III E CARU	23-24W	NESW	24	50N	76W	WYW146290
67	CARR DRAW III E CARU	12-25BG	SWNW	25	50N	76W	WYW147335

	Well Name	Well #	Qtr/Qtr	Sec	TWP	RNG	Lease #
68	CARR DRAW III E CARU	12-25W	SWNW	25	50N	76W	WYW147335
69	CARR DRAW III E CARU	22-25BG	SENW	25	50N	76W	WYW147335
70	CARR DRAW III E CARU	22-25W	SENW	25	50N	76W	WYW147335
71	CARR DRAW III E CARU	23-25BG	NESW	25	50N	76W	WYW146290
72	CARR DRAW III E CARU	23-25W	NESW	25	50N	76W	WYW146290
73	CARR DRAW III E CARU	32-25BG	SWNE	25	50N	76W	WYW146290
74	CARR DRAW III E CARU	32-25W	SWNE	25	50N	76W	WYW146290
75	CARR DRAW III E CARU	34-25BG	SWSE	25	50N	76W	WYW147335
76	CARR DRAW III E CARU	34-25W	SWSE	25	50N	76W	WYW147335
77	CARR DRAW III E CARU	43-25BG	NESE	25	50N	76W	WYW147335
78	CARR DRAW III E CARU	43-25W	NESE	25	50N	76W	WYW147335
79	CARR DRAW III E CARU	21-26BG	NENW	26	50N	76W	WYW33138
80	CARR DRAW III E CARU	21-26W	NENW	26	50N	76W	WYW33138
81	CARR DRAW III E CARU	41-26BG	NENE	26	50N	76W	WYW33138
82	CARR DRAW III E CARU	41-26W	NENE	26	50N	76W	WYW33138

County: Campbell

Applicant: Williams, United States

Surface Owners: William P. Maycock

Project Description:

The proposed action involves drilling 82 federal coal bed methane (CBM) wells (41 to Big George and 41 to Wall coal zones) to depths of approximately 1,200 and 2,200 feet respectively. Drilling and construction activities are anticipated to be completed within two years, the term of an APD. Drilling and construction occur year-round in the PRB. Weather may cause delays lasting several days but rarely do delays last multiple weeks. Timing limitations in the form of COAs may impose longer temporal restrictions on portions of this POD.

Well metering shall be accomplished by telemetry at the well head. Routine well visits would be limited to an average of once a week.

A water management plan (WMP) was submitted that involves the following infrastructure and strategy: Use of existing discharge points and stock water reservoirs within these previously approved PODs: Schoonover Road Unit #1, 2, 3, and 5; and South Prong Unit 3. A waterline was approved through sundry (EA# WY-070-08-013) on 10/19/2007 which transports the produced water south to the aforementioned PODs. No water, produced in association with a federal action, is approved to be discharged within the Carr Draw III East POD.

The construction and use of an unimproved and improved road will be built and used, along with buried gas, water, and a power line network.

A contractor will construct an above-ground power line network. If the proposed route is altered, the new route will be proposed via sundry application and analyzed in a separate NEPA action. Power line construction has not been scheduled and will not be completed before the CBNG wells are producing. Temporary diesel generators will be placed at the power drops.

A 500 to 1,000 gallon capacity fuel storage tank will be located with each diesel generator. Generators are projected to be in operation for six months. Fuel deliveries are anticipated to be one time per week. Noise level is expected to be 100 decibels at 1 meter distance.

For a detailed description of design features, construction practices, and water management strategies associated with the proposed action, refer to the master surface use plan (MSUP), drilling plan, and WMP in the POD and individual APDs. Also see the subject POD and APDs for maps showing the proposed well locations and associated facilities described above. More information on CBNG well drilling, production and standard practices is also available in the PRB FEIS, Volume 1, pages 2-9 through 2-40 (2003).

Implementation of committed mitigating measures contained in the MSUP, drilling plan, and WMP, in addition to the standard COA contained in Appendix A of the PRB FEIS Record of Decision, are incorporated and analyzed in this alternative.

Additionally, the Operator, in their POD, has committed to:

- Complying with all applicable federal, state and local laws and regulations.
- Obtaining the necessary permits for drilling, completing, and producing the wells including water rights appropriations, the installation of water management facilities, water discharge permits, and relevant air quality permits.
- Offering water well agreements to the owners of record for permitted water wells within ½ mile of a federal CBNG producing well in the POD.
- Providing water analysis from a designated reference well in each coal zone.

After good faith efforts failed to reach a surface use agreement, the Operator has submitted a good and sufficient bond in accordance with 43 CFR 3814.

2.3 Alternative C – Modified Proposed Action

Alternative C represents a modification of Alternative B based on the operator and BLM working cooperatively to reduce environmental impacts. Alternative C is the same as Alternative B with the addition of the project modifications identified by BLM and the operator following the initial project proposal (Alternative B). At the on-sites, all areas of proposed surface disturbance were inspected to insure that the project would meet BLM multiple use objectives to conserve natural resources while allowing for the extraction of federal minerals. In some cases, access roads were re-routed, and well locations, pipelines, discharge points and other water management control structures were moved, modified, mitigated, or dropped from further consideration to alleviate environmental impacts. Alternatives to the different aspects of the proposed action are considered and applied as pre-approval changes, site-specific mitigation and COAs, if they will alleviate environmental effects of the operator's proposal.

Alternative C also incorporates the results of sage-grouse habitat mapping efforts in the project area and on-site verification of habitat suitability. This alternative represents BFO efforts to mitigate project-specific impacts to sage-grouse habitat, while maintaining proposed spacing and infrastructure requirements consistent with the purpose and need of the proposed action.

Issues raised in the IBLA decision indicated inconsistency in the application of distance and timing restrictions within the PRB. This alternative addresses the inconsistencies identified by the IBLA, by changing the 2-mile RMP recommended timing restrictions to timing limits based on habitat. While Alternative C addresses the specific issues raised in the IBLA decision, it does not address further minimization of habitat fragmentation or accelerate return to habitat effectiveness at reclamation. Alternative D addresses actions that would minimize fragmentation and accelerate habitat effectiveness post development.

Mapped sage-grouse habitat and site-specific habitat evaluation indicate that seasonal restrictions on surface-disturbing activities are appropriate for all locations in the Carr Draw III East POD *except* locations 21-26 and 34-30.

Because of the nearness to a newly discovered lek, all activities associated with the 22-20-5075BG/W well will be prohibited between 6 pm and 8am from March 1 to May 15 for the life of the project.

Multiple visits will be allowed monthly, 3 per week for the first six months after well completion. The company will be required to monitor frequency of site visits along with repairs made and problems identified resulting from the visits. These reports will be submitted to BLM at the end of every month. The BLM will use the data to determine the necessity of multiple monthly site visits.

The following specific changes are identified for each location in the Carr Draw III East POD resulting from the on-site visits.

Well #	Location	Access	Changes on-sites
12-13	Sagebrush slope	Unstable soils, large cut and fill, erosion on road; adjust alignment and grade	Dropped due to inability to reclaim access.

Well #	Location	Access	Changes on-sites
14-13	Saddle	a) Use dam for access; b) Move road away from knob @ 30 M west of proposed road	No need for SSRP (site-specific reclamation plan) with a commitment to 20-foot maximum width on ridges; second ridge line after drop stay to west (off crest).
23-13	East-facing slope	Main road	Main utilities line, pad, pull-through design.
32-13	BLM ridge	Ridge	Moved well up ridge to flatter spot, out of sage-grouse habitat; pipeline in road drop road off west side of ridge to slope; use old cow trail on main ridge road where it turns south after the 32-13 turn-off.
34-13	West sage slope	Main road	Change to pull through.
43-13	Side hill	Ridge road on BLM; use existing 2-track	Put pipeline in road; no need for SSRP with a commitment to 20-foot maximum width on ridges.
12-18	Sage slope	New; steep; needs engineering	Move well to Hayden surface; avoid raptor nest; reduce surface disturbance; avoid site-specific reclamation plan.
12-19	Sage slope	New	Moved 100 feet closer to fence out of best sage and grass.
14-19	Prairie dog town		Moved south to edge of prairie dog town.
21-19	Sage ridge	Ridge	Minimize corridor along ridge (20 feet).
23-19	Swale		Pad moved southeast toward road and fence.
32-19	Ridge access to old oil location		Moved to northwest for CBNG drainage.
41-19	Sage and juniper slope	New	Moved east 100 feet.
43-19	Sage slope		Move closer to road.
12-20	Sage slope	Road template culvert	Moved 100 meters closer to main road.
23-20	Sage bench	New	Moved to road; moved away from nest.
34-20	bench	New	Discussed size of needed work area; needs addressed on all locations.
43-20	Gentle sage slope	New	Move toward road.
43-23	Swale	New; needs engineering	Very loose soils at location; very poor reclamation potential; moved location south to 44-23
12-24	Steep canyon	20 foot cut; road cannot be reclaimed to contour	Dropped well due to inability to reclaim.

Well #	Location	Access	Changes on-sites
14-24	Barber Creek	Along bottoms, pipeline needs assurance that it will stay in the ground along the creek. Test compaction? Fabric?	Water well close 150 feet; moved well up off the creek bottom; water well agreement needed.
12-25	Sage hump		Pipeline down ridge to Barber Creek; pull well back to grassy spot.
21-25	Gentle sage slope	Sandy ridge	Move south 500 feet; need pad; now the 41-26.
23-25	Ridge	Sandy ridge	Move road off ridge on west side to edge of sage to avoid sandy soils.
43-25	Slope	Sandy road	Pad; move 300 feet south; thin soils; minimize blading.
41-26	South side of Barber Creek	Need to design crossing for Barber Creek	Move to the north; landowner wants access from south.
21-29	Sage slope	New	Minimal blading.
41-29	Old oil road and location		No blade work needed on road in; move wells toward old hole.
21-30	Slope	New	Move southeast 100 feet; move road south of sand knob.
32-30	Slope	New	Moved out of view of ranch house.
34-30	Ridge	Existing BLM	Place pipeline in road where needed; no spillage; 25 feet disturbance on ridge lines; no blade work where it's not needed.
41-30	Sage slope	New; proposed new corridor across Barber Creek	Access from the east; move well east across draw; stay east of sagebrush on access.
43-30	Sage slope can be seen from ranch house	New; really long access for single well	Moved across drainage to west to reduce access and hide well.
21-31	Slope	Pipeline road; no spillage; 25 feet disturbance; need pad	Moved gate down fence line to avoid parallel roads; avoid corner posts; moved well to top of hill – no pad; avoid power lines.

2.4 Alternative D – Sage-grouse Emphasis

Alternative D represents a modification of Alternative C based on the application of mitigating measures designed to reduce impacts to sage-grouse and sage-grouse habitat. Alternative D is the same as Alternative C with the addition of the project modifications identified by BLM, guided by seven years of sage-grouse research in the project area. Alternative D represents BFO efforts to mitigate project-specific impacts to sage-grouse habitat, while maintaining proposed spacing and infrastructure requirements consistent with the purpose and need of the proposed action.

This alternative incorporates mitigating measures designed around site-specific habitat characteristics to minimize habitat fragmentation and accelerate return to habitat effectiveness at reclamation. In order to best meet this objective, the changes from Alternative C follow.

1. All proposed overhead power will be buried.

2. All existing power that will service the federal action will be buried.

3. All linear infrastructure with access roads will be consolidated.

4. Production visits will be limited to once per month.

5. There will be no surface-disturbing or disruptive activity from March 15 to July 15 for the life of the project.

6. Reclamation activities, including seeding, will take place in the fall.

7. If project construction continues for more than one year, the project will be phased to leave undisturbed habitat available to nesting sage-grouse during the season following the first year of construction.

8. Dust control measures will be implemented.

9. All activities associated with the 22-20-5075BG/W well will be restricted between 6 pm and 8 am, from March 1 to May 15, for the life of the project.

In addition to the general measures above, the following site-specific mitigating measures applied for the following proposed wells and infrastructure would maintain open corridors for sage-grouse, provide contiguous habitat patches, and reduce disturbance in and adjacent to sage-grouse habitat.

1. Access would be modified to the 41-25 wells to come from the existing road to the north.

2. The 22-25 wells would be relocated approximately 0.13 mile south to the existing water well ranch road.

3. The 32-25 wells would be relocated approximately 0.22 mile south southeast to the existing water well ranch road.

4. The 34-25 wells would be relocated approximately 0.10 mile south along the existing water well ranch road (to balance drainage).

5. The 43-25 wells would be relocated approximately 0.22 mile south to the exiting fence line.

6. The 34-19 wells would be relocated approximately 0.16 mile north to the existing improved road.

7. The 34-20 wells would be relocated approximately 0.22 mile northeast to the existing oil well road.

8. A well location would be added approximately 0.32 mile directly west of the proposed 42-30 well location along the existing ranch road (to balance drainage).

9. Wells 12-25, 23-25, 21-29, 14-30, 31-30, 41-30, and 42-30 would be removed from the project plan.

10. All overhead power would be removed from the project plan.

3. DESCRIPTION OF AFFECTED ENVIRONMENT

3.1 Threatened and Endangered and Sensitive Species

3.1.1 Sensitive Species

3.1.1.1 Greater sage-grouse

The greater sage-grouse is listed as a sensitive species by BLM (Wyoming). In recent years, several petitions have been submitted to the United States Fish and Wildlife Services (USFWS) to list greater sage-grouse as threatened or endangered. On January 12, 2005, the USFWS issued a decision that stated that listing the greater sage-grouse was “not warranted” following a status review. The decision document supporting this outcome noted the need to continue or expand all conservation efforts to conserve sage-grouse. In 2007, the U.S. District Court remanded that decision, stating that the USFWS’ decision-making process was flawed and ordered the USFWS to conduct a new status review as a result of a lawsuit and questions surrounding the 2005 review). Western Watersheds Project V. United States Forest Service, 535 F. Supp. 2d 1173 (D. Id. 2007)

The 2003 PRB EIS significance threshold and population viability assumptions are based on the analysis that sufficient functioning habitat for sage grouse will remain to support population viability within the project area. The six areas identified as BFO sage-grouse focus areas (discussed in the “Introduction” section), assumes that adequate amounts of sage-grouse habitat remains unfragmented by energy or other man-made infrastructure. That document also assumes that the fragmented portions in the “energy areas” of sage-grouse habitat provide the necessary breeding, feeding, and sheltering components to sustain sage-grouse habitat connectivity between the six focus areas.

Greater sage-grouse are found in prairie, sagebrush shrublands, other shrublands, wet meadows, and agricultural areas; they depend on substantial sagebrush stands for nesting and winter survival (BLM 2003). Although not in a focus or core area, high-quality sage-grouse habitat is present throughout the project area. According to habitat maps and site-specific assessment, moderately dense to dense sagebrush can be found throughout the southern half of the project area. Sections 25 and 26, T50N, R76W and sections 20, 29, 30 and 31, T50N, R75W contain large stands of sagebrush and moderate topography. Sagebrush communities within the northern half of the project area contain areas of shorter, more dispersed sagebrush. Approximately 88% of the project area meets seasonal habitat requirements and are large enough to meet the landscape scale requirements of the bird (BLM 2008). Sage-grouse habitat models indicate that 61% of the project area contains high quality sage-grouse nesting habitat and 57% contains high quality sage-grouse wintering habitat (Walker et al. 2007). Old and fresh sign was observed in the project area primarily in the southern and southeastern portion in sections 19, 20 and 30, T50N, R75W as well as in sections 25, 26, and 36, T50N, R76W. Western Land Services personnel observed individual sage-grouse in NESE Section 19 (Aksamit 2007). The BLM biologist observed a hen and brood among the sagebrush and greasewood in the floodplain of North Prong of Barber Creek in NENE Section 26, T50N, R76W. BLM records identified 10 sage-grouse leks within 4 miles of the project area. The WGFD's ad hoc committee recommended the 4-mile distance for consideration of oil and gas development effects to nesting habitat (WGFD 2008). These lek sites are identified in the following table.

Table 3.1. Sage-grouse Leks Surrounding the Carr Draw III East Project Area

Lek Name	Legal Location	Status In (year - peak males)	Distance from Project Area (miles)
Hayden I	SWSE Sec. 17 T50N, R75W	'79 – 39, '80 – 73, '82 – 24, '85 – 14, '88 – 44, '89 – 10, '92 – 4, '95 – 7, '98 – 0, '01 – 32, '02 – 17, '03 – 21, '04 – 17, '05 – 17, '06 – 27, '07 – 22, '08 - 19	0.33
Hayden II	SESW Sec. 31 T51N, R75W	'79 – 39, '80 – 23, '83 – 8, '85 – 0, '88 - 8, '91 – 13, '92 – 7, '95 – 0, '98 – 0, '00 – 0, '01 – 7, '02 – 3 '03&'04 – 2, '05 – 0, '06-'08 - 2	2.76
Hayden Satellite A	SWNE Sec. 22 T50N, R75W	'80 – 9, '85 – 18, '88 – 23, '89 – 12, '92 – 5, '95 – 23, '98 – 0, '00 – 40, '01 – 1, '02-'04 – 0, '05 – 2, '06 – 4, '07 – 2, '08 - 0	1.03
Hayden Satellite B	NENW Sec. 27 T50N, R75W	'80 – 7, '85 – 0, '88 – 0, '91 – 4, '92 – 0, '95 – 0, '98 – 30, '00 – 20, '01&'02 – 0, '03 – 22, '04 – 12, '05 – 63, '06 – 33, '07 – 30, '08 - 29	1.84
Barber Creek South Prong	NWSE Sec. 1 T49N, R76W	'06 – 8, '07 – 0, '08 - 4	1.32
Watsabaugh IV	NENE Sec. 17 T49N, R75W	'04 – 7, '05 – 34, '06 – 51, '07 – 45, '08 - 44	2.72
Laskie Draw	SESW Sec. 4 T49N, R76W	'04 – 3, '05 – 6, '06 – 4, '07 – 19, '08 - 0	2.82
Laskie Draw	NENW Sec. 3	'05 – 20, '06 – 23,	1.61

Lek Name	Legal Location	Status In (year - peak males)	Distance from Project Area (miles)
East	T49N, R76W	’07 – 24, ’08- 11	
Fortification	SWNW Sec. 25, T51N, R76W	’98 - 0, ’00-’04 - 0, ’05 – 1, ’06-‘08 – 0,	3.05
Watsabaugh I	NESW Sec. 36 T50N, R75W	’97 – 0, ’00 – 45, ’01 – 20, ’02 – 0, ’03 – 15, ’04 – 0, ’05 – 20, ’06 – 34, ’07 – 38, ’08 - 31	3.57

During the comment period for the Carr Draw III Revised EA and FONSI, photographs and video were submitted that indicates a potential lek location in section 20 of T50N, R75W. Strutting male sage-grouse were recorded as well as heavy use by sage-grouse in habitat adjacent to the potential lek location. This location has not been previously documented by WYGF or industry consultants.

4.0 ENVIRONMENTAL CONSEQUENCES

Environmental consequences for Alternative C and Alternative D only will be addressed as there are no changes from effects for Alternatives A and B from the original EA.

Alternative C

4.1 Sensitive Species Direct and Indirect Effects

4.1.1 Greater sage-grouse Direct and Indirect Effects

There are 10 occupied leks within 4 miles of the Carr Draw III East POD boundary. The proposed action will adversely impact sage-grouse through direct loss, reduced effectiveness, and disturbance to brood-rearing, nesting, and winter habitat.

Elements of the proposed project that are anticipated to negatively impact grouse, in approximate numbers, are: CBNG wells on 41 locations, 18.3 miles of new roads, 28 miles of new pipelines, 4.2 miles of new 3-phase overhead power, increased vehicle traffic on established roads, and increased noise. Using 0.6 mile as a distance at which sage-grouse will avoid otherwise suitable habitat (Holloran et al. 2007, Aldridge and Boyce 2007), effective sage-grouse habitat loss will be 15.6 square miles from overhead power, 20.8 square miles from roads, 35.5 square miles from pipelines, and 14.5 square miles from 32 well locations. These numbers are not additive because each well location has an associated road and power, and in many cases, wells are closer than 0.6 mile to each other. Therefore, the above numbers over-represent anticipated impacts within the project area. However, if totaled, since most well locations are within 0.6 mile of each other, the entire project area (approximately 8.6 square miles within the POD boundaries) can be considered affected.

Noise can affect sage-grouse by preventing vocalizations that influence reproduction and other behaviors (WGFD 2003). In a study of greater sage-grouse population response to natural gas field development in western Wyoming, Holloran (2005) concluded that increased noise intensity, associated with active drilling rigs within 5 km (3.1 miles) of leks, negatively influenced male lek attendance. In 2002, Braun et al. documented approximately 200 CBNG facilities within 1 mile of sage-grouse leks. Sage-grouse numbers for these leks were found to be consistently lower than for leks without this disturbance. It was concluded that direct habitat losses from the facilities, roads, traffic, and the associated noise were the likely reason for this finding.

Walker et al. 2007 indicates the size of a no-development buffer sufficient to protect leks would depend

on the amount of suitable habitat around the lek and the population impact deemed acceptable. Also, rather than limiting mitigation to only timing restrictions, research suggests more effective mitigation strategies include, at a minimum, burying power lines (Connelly et al. 2000 b); minimizing road and well pad construction, vehicle traffic, and industrial noise (Lyon and Anderson 2003, Holloran 2005); and, managing produced water to prevent the spread of mosquitoes with the potential to vector West Nile Virus in sage grouse habitat (Walker et al. 2007).

The proponents suggested one site visit per week in their proposed action. Experience over the years with development in the PRB indicates those site visits are more frequent than once per week in the initial stages after the wells are drilled. As indicated above, this degree of disruptive activity will impact habitat effectiveness.

To reduce disruptive activity over the life of the project, multiple visits will be allowed monthly, 3 per week for the first six months, after completion of the wells. BLM will require the company to monitor frequency of site visits along with repairs made and problems identified resulting from the visits. These reports will be submitted to BLM at the end of every month. After six month of reporting, BLM will use this data to determine the necessity of multiple monthly site visits.

During the on-site, Williams' representatives and the BLM biologist negotiated modifications to the proposed action to minimize impacts to sage-grouse and habitat. The changes, incorporated into Alternative C, are identified below:

1. To reduce disturbance to sage-grouse habitat, the 43-25 wells were relocated approximately 150 feet south out of sagebrush.

2. To reduce disturbance to sage-grouse habitat, the 43-20 wells were relocated approximately 440 feet northwest to an area of less dense sagebrush.

3. To avoid increased fragmentation of sage-grouse habitat, the 41-29 wells were relocated approximately 150 feet southwest to an existing plugged and abandoned oil well location.

4. To reduce disturbance to sage-grouse habitat, the access route to the 34-20 well was realigned to go around a hill and stay on the edge of dense sagebrush.

5. To reduce increased fragmentation of sage-grouse habitat, the 23-20 wells were relocated to within 200 feet of the county road and out of dense sagebrush.
6. To reduce increased fragmentation of sage-grouse habitat, the 12-19 wells were relocated approximately 200 feet south to an existing fence line.

7. To reduce increased fragmentation of sage-grouse habitat, the 23-19 wells were relocated approximately 300 feet southeast to an existing fence line and out of dense sagebrush.

8. To reduce increased fragmentation of sage-grouse habitat, the 43-30 wells (now 42-30) were relocated approximately 500 feet northwest to an existing road and fence line.

9. To reduce disturbance to sage-grouse, the 41-30 wells were relocated approximately 350 feet east to a ridge top and out of dense sagebrush.

10. To help reduce increased fragmentation of sage-grouse habitat, the 14-20 wells were relocated to the existing dry hole.

11. To reduce increased fragmentation of sage-grouse habitat, the 21-31 wells were relocated approximately 480 feet southeast near existing power lines.

12. To reduce disturbance to sage-grouse habitat, the 14-30 wells were relocated approximately 250 feet south and out of dense sagebrush.

13. To reduce increased fragmentation of sage-grouse habitat, the 32-25 wells were relocated approximately 125 feet to an existing fence line.

14. To reduce disturbance to sage-grouse habitat, the 21-25 wells were relocated approximately 600 feet southeast to the ridge top and out of dense sagebrush.

15. To reduce disturbance to sage-grouse habitat, the 12-25 wells were relocated approximately 250 feet east, out of dense sagebrush.

16. To reduce disturbance to sage-grouse habitat, the 41-19 wells were relocated approximately 150 feet east, out of dense sagebrush.

To further minimize impacts to sage-grouse using habitat affected by the proposed action, surface-disturbing activities will be restricted during sage-grouse breeding and nesting periods (March 1 to June 15) for project components located in sage-grouse habitat for the life of the project. These restrictions will affect all locations and accesses *except* the 21-26 and 34-30 locations, which were consolidated with existing disturbance outside of sage-grouse habitat. This restriction provides a more accurate application of protection than the 2-mile timing restriction from the BFO RMP and the 2003 PRB Oil & Gas Project EIS.

In response to comments received that indicated a potential lek in section 20 of T50N, R75W, the proposed power line in that section will be buried. All activities associated with the 22-20-5075BG/W well will be prohibited between 6 pm and 8am from March 1 to May 15 for the life of the project..

Alternative D

4.1 Greater sage-grouse Direct and Indirect Effects

Alternative D, as described would use findings from the best available science to maintain open corridors for sage-grouse, provide contiguous habitat patches, and reduce disturbance in and adjacent to sage-grouse habitat. The measures described would also accelerate the return of habitat effectiveness upon project reclamation. Components of Alternative D may not meet the purpose and need of the proposed action relative to development of the fluid minerals resource.

4.3 Greater sage-grouse Cumulative Effects

In addition to the direct impacts to sage-grouse habitat that would be created by the federal wells and associated infrastructure, the project area contains existing fee, state, and federal fluid mineral development. The sage-grouse cumulative impact assessment area for this project encompasses a 4-mile radius from the following leks: Hayden I, Hayden II, Hayden Satellite A, Hayden Satellite B, Barber Creek South Prong, Watsabaugh IV, Laskie Draw, Laskie Draw East, Fortification, and Watsabaugh I.

As of April 13, 2009, there are approximately 1,194 **existing** wells and associated infrastructure within 4 miles of the ten leks--an area of 198 square miles. The existing well density is approximately 6.0 wells per square mile. With this level of development, there is a high probability that the population(s) breeding

at these leks may become extirpated without the federal development.

As of April 7, 2009, there are 1457 **proposed** federal wells (according to the Automated Fluid Mineral Support System database) (82 are the wells from this project) and 975 additional proposed wells (according to the April 13, 2009, Wyoming Oil and Gas Conservation Commission database) proposed within four miles of the ten leks. With the addition of the proposed wells that are not associated with this proposed action, the well density within four miles of the leks increases to 12.1 wells/section. With the additional approval of (41 proposed well locations), the well density increases to 12.3 wells/section.

CBNG in the Basin is a relatively recent development, with the first well drilled in 1987 (Braun et al. 2002). In February 1998, there were 420 producing wells primarily restricted to eastern Campbell County (BFO 1999). By May 2003, 26,718 CBNG wells had been permitted within the BFO area (WGFD 2004). The PRB FEIS estimated 51,000 additional CBNG wells would be drilled over a ten- year period beginning in 2003 (BFO 2003).

Greater sage-grouse habitat will be lost with the addition of well sites, roads, pipelines, power lines, reservoirs and other infrastructure (WGFD 2004, 2005). Sage-grouse avoidance of CBNG infrastructure will result in even greater indirect habitat loss. In southwestern Wyoming, yearling female greater sage-grouse avoid nesting in areas within 0.6 mile of producing well pads (Holloran et al. 2007). In southern Alberta, brood-rearing females avoid areas within 0.6 mile of producing wells (Aldridge and Boyce 2007). Doherty et al. (2008) demonstrated that sage-grouse in the PRB avoided suitable wintering habitats once they have been developed for energy production, even after timing and lek buffer stipulations had been applied. The WGFD finds a well density of eight wells per section creates a high level of impact for sage-grouse, and that sage-grouse avoidance zones around mineral facilities overlap creating contiguous avoidance areas (WGFD 2004). As interpreted by coordinated effort with state fish and wildlife agencies from Montana, Colorado, Utah, South Dakota, North Dakota and Wyoming, (state wildlife agencies' ad hoc committee for sage-grouse and oil and gas development 2008), research indicates that oil or gas development exceeding approximately one well pad per square mile with the associated infrastructure results in calculable impacts on breeding populations, as measured by the number of male sage-grouse attending leks (Holloran 2005, Walker et al. 2007)

The PRB oil and gas project FEIS (BLM 2003) concluded that "Activities associated with the proposed project would affect sage-grouse in several ways. These effects may include: (1) increased direct mortality (including legal hunting, poaching, and collision with power lines and vehicles); (2) the introduction of new perches for raptors and thus the potential change in rate of predation; (3) direct loss or degradation of habitats; (4) indirect disturbance resulting from human activity (including harassment, displacement, and noise); (5) habitat fragmentation (particularly through construction of roads); and (6) changes in population (pg. 4-257)." The FEIS goes on to state that "implementation of several mitigating measures would reduce the extent of each impact addressed by those measures. Despite these measures, the synergistic effect of several impacts would likely result in a downward trend for the sage-grouse population, and may contribute to the array of cumulative effects that may lead to its federal listing. Local populations may be extirpated in areas of concentrated development, but viability across the Project Area (Powder River Basin) or the entire range of the species is not likely to be compromised (pg. 4-270)."

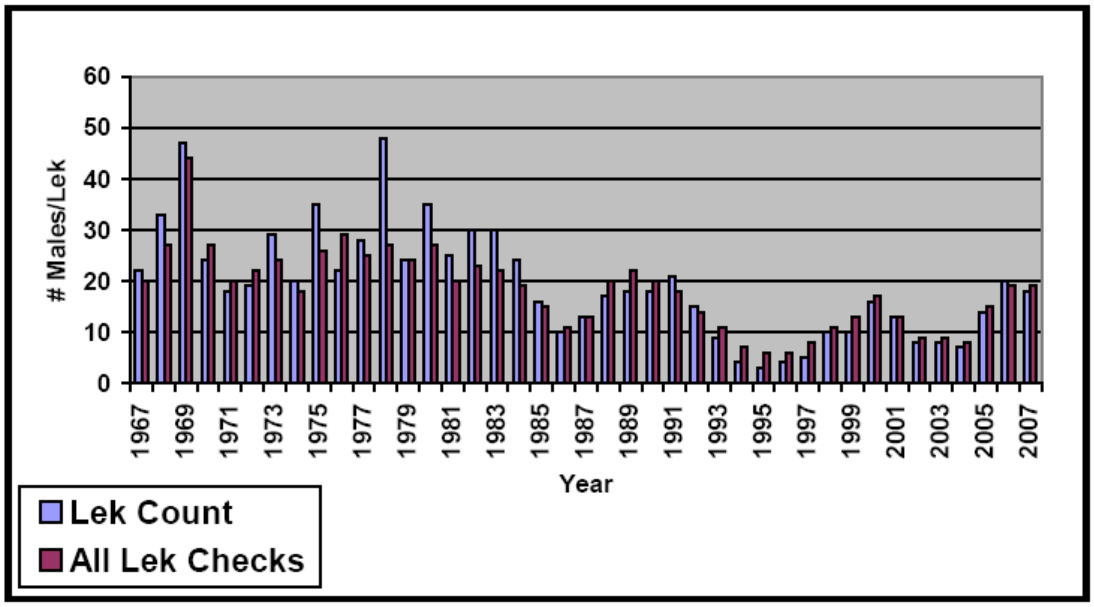
The PRB oil and gas project ROD (BLM 2003) included an MMRP. "The uncertainties as to where and at what level development was to proceed as well as the uncertainties associated with the assumptions that were used to predict impacts suggest that the one-time determination of impacts that is included in the EIS may not occur as projected. The MMRP helps to continually assess the effects of the project and the adequacy of the mitigation. Such a plan/process provides a mechanism to continuously modify management practices in order to allow development while continuing to protect the environment (E-1)." In other words, development pace and patterns may not occur as predicted; therefore, BLM may use the

adaptive management process provided for in the BFO RMP.

Vegetation communities within the PRB are naturally fragmented, as they represent a transition between the intermountain basin sagebrush communities to the west and the prairie communities to the east. The area is also near the eastern edge of greater sage-grouse range. A sagebrush cover assessment within Wyoming basins estimated sagebrush coverage within the PRB to be 35% with an average patch size less than 300 acres (Rowland et al. 2005). Over the last 40 years, patch size has decreased by more than 63%, from 820-acre patches and an overall coverage of 41% in 1964 (Rowland et al. 2005). The existing development within the cumulative impacts assessment area has further fragmented the sage-grouse habitat. Disturbance created by this project will contribute to additional fragmentation.

The sage-grouse population within northeast Wyoming is exhibiting a steady long-term downward trend (figure 1) (WGFD 2005). The figure illustrates a ten-year cycle of periodic highs and lows. Each subsequent population peak is lower than the previous peak. Long-term harvest trends are similar to that of lek attendance (WGFD 2005).

Figure 1
Male Sage-grouse Lek Attendance within Northeastern Wyoming (1967-2007)



A 2-mile timing limitation, given the long-term population decline and that less than 50% of sage-grouse are expected to nest within the limitation area, is insufficient to address population impacts. Moynahan and Lindberg (2004) like WAFWA (Connelly et al. 2000), recommend increasing the protective distance around sage-grouse leks. The BLM and University of Montana are researching nest location, habitat utilization and relationships between grouse and coalbed natural gas development. Thus far, this research suggests that impacts to leks from energy development are discernable out to a minimum of 4 miles. Some leks within this radius have been extirpated as a direct result of energy development (state wildlife agencies' ad hoc committee for sage-grouse and oil and gas development 2008). Even with a timing limitation on construction activities, sage-grouse may avoid nesting within CBNG fields because of the activities associated with operation and production (WGFD 2004; Aldridge and Boyce 2007; Holloran et al. 2007; Doherty et al. 2008). In a typical landscape in the Powder River Basin, energy development within 2 miles of leks is projected to reduce the average probability of lek persistence from 87% to 5% (Walker et al. 2007).

The multi-state recommendations presented to the WGFD for identification of core sage grouse areas acknowledges there may be times when development in important sage grouse breeding, summer, and winter habitats cannot be avoided. In those instances they recommend that, "…infrastructure should be minimized and the area should be managed in a manner that effectively conserves sagebrush habitats (state wildlife agencies' ad hoc committee for sage-grouse and oil and gas development 2008).

In January 2008, BFO staff acknowledged that sage-grouse protections in the 2003 PRB EIS may not adequately preserve sage-grouse population viability in the Powder River Basin. BFO consolidated research and data to identify high-quality sage-grouse habitat in the basin and developed a map of sage-grouse "focus areas" (Doherty, 2008)
.

These areas encompass approximately 1 million acres of habitat and are managed under strict criteria established in "Guidance for general management actions during BFO Resource Management Plan Revision" (appendix 1). This general guidance includes the requirement that, "The proponent will be asked to demonstrate that the proposal can be managed in a manner that effectively conserves sage-grouse habitats affected by the proposal." An effective well spacing of 1 well per 640 acres is also required for projects proposed inside BFO focus areas.

The CD3-E POD is not located within a focus area. Development in high-quality sage-grouse habitat outside of these focus areas will not be subject to the rigorous criteria indicated above (well densities up to 80-acres spacing). It may include site-specific mitigation measures, suggested by the best available science and supported by the Wyoming Governor's Executive Order (2008-2) that states, "…development scenarios should be designed and managed to maintain populations, habitats and essential migration routes outside Core Population Areas."

Based on the best available science presented above, the proposed action will most likely contribute to the abandonment of the ten leks within 4 miles of the project area. However, given the ongoing planning actions specific to sage-grouse, changes identified to the proposed action, and timing limitations applied, the proposed action should not affect population viability in the Powder River Basin or the species' range.

5 CONSULTATION/COORDINATION

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6 REFERENCES AND AUTHORITIES

All documents cited are the same as those cited in the original EA with the exception of the following:

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