

**MODIFIED DECISION RECORD**  
**Yates Petroleum Corporation, Storm Plan of Development (POD)**  
**Categorical Exclusion (CX) –WY-070-CX10-327 to -330**  
**Bureau of Land Management, Buffalo Field Office**

This is a modified decision record; it is not a new decision record (DR). This modified decision record augments the DR for 10 specific issues. BLM supports this modified decision record through its DR of August 31, 2010 for categorical exclusion (CX), WY-070-CX10-327 to -330, which tiers to Vista EA, WY-070-EA08-34 (February 2008, updated June 2009, and April 2010, the Powder River Basin Final Environmental Impact Statement (PRB FEIS), and incorporates by reference Congaree EA's Modified DR with Appendix 1 and Attachment, WY-070-EA10-195, state director review (SDR) WY-2011-029, pp. 13-16, Neo EA's Modified DR, WY-070-EA10-331, and SDR WY-2011-022, pp. 12-15.

The Buffalo Field Office (BFO) received new information warranting completing the environmental record of review, including: 1) a resource management plan (RMP) Amendment; 2) US Geological Survey (GS) study on Powder River water quality; 3) directives for sage-grouse: Instruction Memorandum. WY-2012-019, and the population viability analysis; 4) guidance in SDRs (State Director Review) WY-2010-008 and WY-2011-001; and 5) the return of jurisdiction via SDR WY-070-2012-007.

**Compliance.** This decision complies with:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); DOI Order 3310.
- Mineral Leasing Act of 1920 (30 U.S.C. 181) and 43 CFR Part 3160 to include On Shore Order No. 1.
- Energy Policy Act of 2005, Section 390.
- Buffalo FEIS (1985), and PRB FEIS and Record of Decision (ROD) 2003.
- Buffalo Resource Management Plan (RMP), 1985, Amendments 2001, 2003, 2011.

**The Selected Alternative.**

**Features.** BLM's decision approved the CX as summarized in the earlier decision record, as augmented below in this modified decision record, and as described in the CX and Appendix 1, below. The BLM approved 4 coalbed natural gas (CBNG) wells and a water management plan (WMP).

**Limitations:** The limitations are the POD design features and conditions of approval (COAs).

**THE MODIFIED FINDING OF NO SIGNIFICANT IMPACT (FONSI).** Congress determined that a CX in the narrow parameters established in the 2005 Energy Policy Act, Section 390, did not significantly impact the human environment so there is no requirement for a FONSI or an environmental assessment or impact statement. The CX tiered to Vista EA, WY-070-EA08-032 that also received a FONSI.

**COMMENT OR NEW INFORMATION SUMMARY.** Critical items of new or additional information became available requiring augmenting the environmental record of review through this modified decision record, in accord with BLM NEPA Handbook, 8.5.1, Documenting the Decision, and web guide examples (last updated July 29, 2010). This modified decision record is not impermissible supplementation of an EA (Id. 5.3). The most important information was incorporating by reference earlier analysis and decisions. Other new information has no effect to the analysis for this modified decision, as shown here. 1) The RMP Amendment was for the Fortification Creek Planning Area, which is outside the area of the Storm POD. 2) The GS report contributed to the knowledge of water quality in the Powder River but was short of scientifically attributing causes to minor water quality decreases, and thus was unable to recommend scientifically-backed measures to improve the water quality. See: U.S. Department of the Interior, Geological Survey. 2011. Assessment of Potential Effects of Water Produced from Coalbed Methane Natural Gas Development on Macroinvertebrate and Algal Communities in the

Powder River and Tongue River, Wyoming and Montana, 2010. 3) BLM proactively addressed the sage – grouse directive and population viability analysis results in formulating conservation measures for the Storm POD, prior to approval of WY IM-2012-019.

**DECISION RATIONALE.** The pertinent additional information includes guidance in SDRs (State Director Reviews) WY-2010-008, 2011-001, -022, and -029; Congaree EA's Modified DR with Appendix 1 and Attachment, WY-070-EA10-195; and the return of jurisdiction via SDR WY-2012-007. BLM bases this modified decision record on:

1. BLM and Yates included mitigation measures to reduce environmental impacts while meeting the project's need. See Appendix 2's Modified COAs for a description of all site-specific COAs. BLM voids earlier versions of COAs for the Storm POD and substitutes the modified COAs in their place. BLM incorporates by reference pertinent parts of the SDRs and modified Decision Record – and its appendix and attachment, cited in the lead paragraph of this modified Decision Record.
2. BLM engineers analyzed road surfacing materials and conditions in and available near the POD area, and considered the input from a resident landowner.
3. Approval of the Storm POD will not result in any undue or unnecessary environmental degradation. The PRB FEIS analyzed and predicted that the PRB oil and gas development would have significant impacts to the region's sage-grouse population. The impact of the Storm development cumulatively contributes to the potential for local extirpation yet its effect is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS/ROD and current BLM and Wyoming sage-grouse conservation strategies.
4. This federal action is clearly lacking wilderness characteristics because it has surface areas with infrastructure from extensive CBNG development.
5. The approval of Storm POD will help meet the nation's energy needs, and help stimulate local economies by maintaining workforce stability.
6. The Operator committed to:
  - Comply with the approved APD, applicable laws, regulations, orders, and notices to lessees.
  - Offer water well agreements to the owners of record for permitted wells.
  - Provide water well analysis from a known reference point.
  - Incorporate measures to alleviate resource impacts into their surface use plan and drilling plan.
7. The Operator certified it has a surface access agreement or posted a 43 CFR 3814.1 bond.

**ADMINISTRATIVE REVIEW AND APPEAL:** This decision is subject to administrative review in accordance with 43 CFR 3165. Request for administrative review of this decision must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. 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: \_\_\_\_\_

Date: 5/9/12

**Appendix 1, Details of the New / Additional Information and Analysis, Modified Decision Record, Storm Plan of Development (POD), Categorical Exclusion (CX), WY-070-CX10-327 to -330.**

The information warranting BLM's Buffalo Field Office's (BFO) completing the environmental record of review includes: 1) an RMP Amendment; 2) US Geological Survey (GS) study on Powder River water quality; 3) directives for sage-grouse; 4) Instruction Memorandum No. WY-2012-019, and the population viability analysis; guidance in SDRs WY-2010-008 and WY-2011-001; and 5) the return of jurisdiction via SDR WY-070-2012-007. The 10 issues, below, correspond to those in the SDR decision and frame this reply with the new information and its analysis. The bold page numbers refer to where the issue appears in the SDR decision.

**1. COA (condition of approval) requiring prior approval by Sundry Notice for facilities (pp. 2-5).**

WY BLM State Office (WYSO): affirmed.

BFO reply and rationale: not applicable (NA).

**2. COA limiting "disturbance activities" (pp. 5-6).**

WYSO: affirmed; clarifying "disturbance activities" is analogous with "surface disturbing activities" and encouraging direct contact with the field manager to clear "uncertainty and seek resolution".

BFO reply and rationale: NA.

**3. COA requiring submission of survey results prior to "disturbance activities" (p. 6).**

WYSO: affirmed; clarifying "disturbance activities" is analogous with "surface disturbing activities".

BFO reply and rationale: NA.

**4. COA imposing bald eagle protection measures (Site Specific #5) (pp. 6-8).**

WYSO: remanded to augment the environmental record of review and issue a revised COA with either (1) the programmatic COA in the Powder River Basin (PRB) Record of Decision (ROD), p. A-35, or (2) protection measures applicable to the site-specific circumstances and with written concurrence by the Fish and Wildlife Service (FWS), p. 14.

BFO reply and rationale: BLM resolved this issue in SDR WY-2011-001 and its Modified Decision Record: Programmatic COAs will replace Site Specific #5.

**5. COA notifying that bald eagle protection measures may be "adjusted" (pp. 8-9).**

WYSO: affirmed; lack of standing – no injury-in-fact and unripe.

BFO reply and rationale: NA.

**6. COA limiting use of "off lease federal lands . . . on affected leases" (p. 9).**

WYSO: remanded; remove COA and issue modified COAs, per SDR 2011-001.

BFO reply and rationale: COA removed; modified COAs issued, see Appendix 2.

**7. COA limiting the period of POD approval (Standard COAs, General #6) (pp. 9-11).**

WYSO: affirmed; as modified, see SDR, p. 11.

BFO reply and rationale: COA modified, see Appendix 2, below.

**8. COA requiring compliance with FWS BO (Standard COAs, General #21) (pp. 11-12).**

WYSO: remanded; remove COA as per SDR WY-2011-001.

BFO reply and rationale: COA removed, see Modified COAs, Appendix 2, below.

**9. COA notifying that BLM may modify requirements (p. 12).**

WYSO: affirmed; clarified.

BFO reply and rationale: NA.

**10. Grading W road surface aggregate (Surface Use Standard COA #11) (pp. 12-15).**

WYSO: remanded; to evaluate whether: (1) adverse impacts will occur under the alternative proposed by Yates; (2) verify and consider the views of the surface owners when considering road surface material on private surface; and (3) require appropriate, reasonable aggregate specifications on private surface.

BFO reply and rationale: See Modified COAs, and below. The BFO would be remiss if it did not incorporate by reference both the guidance from SDR WY-2010-008, and the clarifying guidance from SDR WY-2011-022, pp. 12-15. The former directed modified the COA a minimum of aggregate on some road segments, while the later directed that such a minimum be an average minimum. Through incorporating the guidance in both, BFO complies with WY State Office directives.

The modified COA now reads: “Place a minimum average of 4 inches of gravel aggregate on road segments where grades exceed 8% on federal surface roads. Surface material must meet requirements of Gradation W as set forth in Wyoming Supplement to BLM Road Manual 9113. Place a minimum average of 4 inches of gravel aggregate on road segments where grades exceed 8% on private surface roads.”

This reply combines the direction from the WY State Office in 8, above, direction from SDR WY-2010-008, pp. 9-14, clarifying guidance in SDR WY-2011-029, pp.13-16, and a landowner’s express desire. The BFO field office incorporates by reference, Congaree EA’s Modified Decision Record, Appendix 1, #8, and Attachment, EA WY-070-EA10-195 in order to fully capture the past analysis in this location and from a landowner, John Christensen. BFO provides the pertinent extract here for clarity.

-from Modified Decision Record, Appendix 1, #8, EA WY-070-EA10-195, reply to SDR WY-2011-029:

**“Grading W road surfacing aggregate (Surface Use Standard COAs #11) (pp. 13-16)**

WYSO reversed and remanded: “We remand the BFO’s requirement that, effectively, Grading W aggregate be used within Congaree POD. The BFO did not demonstrate (or evaluate) whether adverse impacts would occur under the alternative proposed by Yates. We instruct the BFO to verify and carefully consider the views of the surface owner when considering road surfacing material located on private surface. Should the benefits of Grading W be determined to outweigh the potential adverse consequences, and upon consideration of the views of the surface owner, the BFO is not constrained from requiring appropriate, reasonable aggregate specifications on private surface.”

BFO reply and rationale: COA modified with guidance from Issue 2, SDR WY-2011-029. “Provide a minimum average of 4 inches of gravel aggregate where grades exceed 8%.”

The Buffalo Field Office has the authority to require site specific use of gravel aggregate per the BLM Manual Supplement WYSO for 9113 and the BFO Oil and Gas Road Guidelines for APDs.

The two main surfacing materials used in the PRB are gravel or clinker rock (sometimes referenced as scoria). Gravel is a hard durable material and by definition it is loose rock that has a particle distribution from 1/12 to 2.5 inch in diameter. One cubic yard of gravel typically weighs around 3000 pounds. Clinker rock is a red-brown shale that has been baked and fused by in situ burning of underlying coal. Clinker rock found in the PRB (called porcelanite) has similar properties to ceramic; it readily breaks down into smaller fragments and has sharp edges when broken. Its weight varies depending upon the parent material but it usually is fairly light and has a specific gravity greater than one.

The benefit of crushed gravel is that it is a hard durable material that can be compacted, has minimal dust and requires minimal maintenance. Whereas clinker rock (scoria) is a soft, non-durable material that lacks a distribution of particle sizes. Vehicles have better traction with a road when the surfacing material is compacted, creating a safer driving surface. Because clinker rock is a soft material, during compaction, it breaks down into dust rather than being compacted whereas crushed gravel has a distribution of particle sizes that are designed to interlock when compacted - creating a solid driving surface. A solid driving surface also promotes sheet flow of surface run-off directing water away from the road; whereas scoria tends to promote infiltration into the road bed due to the porosity of burnt shale. The benefit of keeping water off or away from the road is to lessen maintenance costs. The benefit of scoria is that it is initially more economical – only in the short term.

The sole landowner was contacted by the BLM District Engineer (see attached Conversation Record), who expressed his preference of the use of gravel on his surface within the Congaree POD boundary. Mr. John Christensen stated that he preferred crushed gravel or crushed limestone, discouraged any use of scoria on his surface as it is not native to that area and requires too much maintenance, and that gravel was readily available in the immediate area.

Due to the adverse impacts of clinker rock (scoria), to include but not limited to: its porosity that contributes to increased road erosion; its lack of a distribution of particle size which reduces compaction and thus vehicle traction; its higher maintenance cost as a road surface; its non-availability in the immediate area; the availability of gravel in the immediate area, and the private land owner’s preference of crushed gravel, the BLM requires that road surfacing material in the POD be crushed gravel where road grades exceed 8%. Nothing in this analysis or rationale precludes the use of gravel road surfacing other than those meeting Grade W specification, except for clinker (scoria).”

Here in Storm POD, the roads in the POD boundary are unpaved and are constructed of native soils rated as marginal construction material. Mobilization of drilling and construction equipment relies on semi-trucks with trailers typically designed for use on paved roads and highways. The gross vehicle weight of these combination vehicles often exceeds 80,000 pounds with drilling rigs exceeding 100,000 pounds. There is concern that the use of these vehicles, especially when loaded, on roads constructed of marginal to poor construction material will lead to a higher than average potential for motor-vehicle accidents.

Due to the adverse impacts of clinker rock, the BLM requires that surfacing material on federal land be gravel, Gradation W per the Wyoming Supplement to BLM Road Manual 9113. BLM will support the landowner’s acceptance of a lesser gravel on private surface – but clinker (scoria) will not be used.

**Attachment 1 to Appendix 1: Conversation Record; September 8, 2011.**

CONVERSATION RECORD			TIME	DATE
TYPE			9:48am	9.8.2011
<input type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE <input checked="" type="checkbox"/> TELEPHONE			<input type="checkbox"/> INCOMING <input checked="" type="checkbox"/> OUTGOING	
Location of Visit/Conference:				
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU		ORGANIZATION (OFFICE, AGENCY, BUSINESS)	TELEPHONE NO.	
John Christensen		Land Owner	307-939-1361	
SUBJECT				
Surfacing Material for Roads on John's Private Surface for the Yates Congaree POD				
SUMMARY				
Discussed Surfacing material for roads on John's private surface within the Congaree Pod Boundary. John stated that he preferred local gravel, either crushed limestone or crushed gravel. He stated that 'scoria' was not native to that area + required too much maintenance. Did not have a preference to gradation but preferred to have it crushed. He did not want 'scoria' or pit run gravel. He stated there was a gravel pit on his surface (Section 34 Township 45N Range 77W).				
ACTION REQUIRED				
mail a copy to JOHN CHRISTENSEN				
NAME OF PERSON DOCUMENTING CONVERSATION		SIGNATURE	DATE	
Sally Enderison		[Signature]	9.8.2011	
ACTION TAKEN				
mailed 9.8.2011				
SIGNATURE		TITLE	DATE	
[Signature]		CIVIL ENGINEER	9.8.2011	
00271-101 0 070-1304 0 - 461-275 (336)			OPTIONAL FORM 271 (11-79) DEPARTMENT OF DEFENSE	

In addition to Attachment 1 from Appendix 1, Modified Decision Record of EA, WY-070-EA10-195, the BFO administrative record for the similar Lancer 1 POD contains the following:

February 9, 2010 Onsite for Congaree with NRS Dan Sellers and landowner John Christensen. Had a conversation with John Christensen, Bob Irwin, and Dan Sellers regarding roads on John's surface. John stated in front of Yates that he does not want scoria [clinker rock] on his surface and that he preferred gravel due to it having less maintenance, local to the area, and a gravel pit on his surface.

The landowners available to be contacted want gravel on their road surfaces and vetoed the use of scoria on their road surfaces. The BLM BFO, in consideration of the above analysis and landowner input adopts the COA, from the Modified Decision Record, Appendix 1, #8, EA WY-070-EA10-195, reply to SDR WY-2011-029: above, for private surface on the Storm POD.

This concludes Appendix 1.

**Appendix 2, Modified Conditions of Approval, Modified Decision Record, Storm Plan of Development (POD), Categorical Exclusion (CX), WY-070-CX10-327 to -330.**

**These Modified Conditions of Approval supersede and replace the Conditions of Approval issued August 31, 2010.**

**MODIFIED FINDING OF NO SIGNIFICANT IMPACT (FONSI)**  
**Yates Petroleum Corporation, Storm Plan of Development (POD)**  
**Categorical Exclusion (CX) –WY-070-CX10-327 to -330**  
**Bureau of Land Management, Buffalo Field Office**

**FINDING OF NO SIGNIFICANT IMPACT.** On the basis of the information in the consolidated CX worksheet, WY-070-CX10-327 to - 330 and Appendix 1 of the Modified Decision Record, both incorporated here by reference, I find that: (1) the decision approving the development of the Yates Petroleum Corporation (YPC) Storm coalbed natural gas (CBNG) POD will not have significant environmental impacts beyond those addressed in the Powder River Basin Final Environmental Impact Statement (PRB FEIS) and the Vista POD EA, WY-070-EA08-034, to which this CX tiers; (2) this finding conforms to the Buffalo Field Office (BFO) Resource Management Plan (RMP) (1985, 2001, 2003, 2011); and (3) this finding does not constitute a major federal action having a significant effect on the human environment. There is no requirement for an environmental impact statement. I base this finding on consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27) and Interior Department Order 3310, with regard to the context and to the intensity of the impacts described in the CX worksheet and Appendix 1 of this Modified Decision Record.

**CONTEXT.** Mineral development is a common PRB land use – which sources 42% of the nation's coal. The PRB FEIS reasonably foreseeable development analyzed the development of 54,200 fluid mineral wells. The development described in CX worksheet is insignificant in the national and local context.

**INTENSITY.** The implementation of Storm POD will result in beneficial effects of energy and revenue production however; there will also be adverse effects to the environment. YPC and BLM included design features and mitigation measures in Storm POD to minimize adverse environmental effects. Storm POD clearly lacks wilderness characteristics as it's in the midst of CBNG development. The preferred alternative does not pose a significant risk to public health and safety. The POD's geographic area does not contain unique characteristics identified in the 1985 RMP, 2003 PRB FEIS, or other legislative or regulatory processes. BLM used relevant scientific literature and professional expertise in preparing the CX. The scientific community is reasonably consistent with their conclusions on environmental effects relative to oil and gas development. Research findings on the nature of the environmental effects are not highly controversial, highly uncertain, or involve unique or unknown risks. BLM predicted and analyzed CBNG development of the nature proposed with this POD and similar PODs in the PRB FEIS. The selected alternative does not establish a precedent for future actions with significant effects. The analysis notes the proposal's cumulative significant impacts to the PRB sage-grouse and its habitat decline; yet the small size of this project is within the parameters of the impacts in the PRB FEIS. There are no cultural or historical resources present that will be adversely affected by the selected alternative. No species listed under the Endangered Species Act or their designated critical habitat will be adversely affected. The selected alternative will not have any anticipated effects that would threaten a violation of federal, state, or local law or requirements imposed for environmental protection.

**ADMINISTRATIVE REVIEW AND APPEAL.** This finding is subject to administrative review in accordance with 43 CFR 3165. Request for administrative review of this finding must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. 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 finding may appeal that finding to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.

For Field Manager:  Date: 5/1/12