

**DECISION RECORD**  
**Devon Energy Production Company, L.P., Cosner-Wright-Fuller 3 Plan of Development (POD)**  
**Environmental Assessment (EA), WY-070-EA14-225**  
**Bureau of Land Management, Buffalo Field Office, Wyoming**

**DECISION.** The BLM approves 9 gas and oil well applications for permit to drill (APDs) from Devon Energy Production Company, L.P. (Devon) in its Cosner-Wright-Fuller 3 POD, described in the EA, WY-070-EA14-225, all incorporated here by reference. This approval includes the wells' infrastructure.

**Compliance.** This decision complies with or supports:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); DOI Order 3310.
- Mineral Leasing Act of 1920 (MLA) (30 U.S.C. 181); including the Onshore Oil and Gas Orders.
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- National Historic Preservation Act of 1966 (NHPA) (16 USC 470).
- Buffalo and Powder River Basin Final Environmental Impact Statements (FEISs), 1985, 2003, 2011.
- Buffalo Resource Management Plan (RMP) 1985 and Amendments.

**Consultation.** This decision considered:

- BLM Washington Office Instruction Memorandum No. 2009-078, Processing Oil and Gas Application for Permit to Drill for Directional Drilling into Federal Mineral Estate from Multiple-Well Pads on Non-Federal Surface and Mineral Locations, 2009.
- Wyoming BLM State Director Review, SDR No. WY-2011-010, EOG Resources, Inc. v. Pinedale Field Office, 2011.

**BLM approves the following 9 APDs: Surface, Lateral, & Bottom Hole Leases (SHL, LL, BHL)**

#	Well Name, #	Pad	Location	SHL	LL	BHL
1	Wright Fed 05-084372-1XPH	A	T43N R72W S5 NENW	WYW0325474	FEE; WYW0325474; WYW80321	WYW107248
2	Wright Fed 05-084372-2XPH				FEE; WYW80321	
3	Wright Fed 05-084372-2XTH				FEE; WYW80321	
4	Wright Fed 05-084372-4XTH	B	T43N R72W S5 NWNE	WYW0325474	FEE; WYW0325474; WYW0103411	WYW0103411
5	Wright Fed 05-084372-3XPH				WYW0325474; WYW0103411; FEE	
6	Wright Fed 05-084372-4XPH				FEE; WYW0325474; WYW0103411	
7	Cosner Fed 08-054372-4XNH	C	T43N R72W S8 SESE	WYW0103411	WYW0103411; WYW0325474; FEE	WYW0325474
8	Fuller Fed 31-064372-2XTH	D	T44N R72W S31 NENW	FEE	WYW0195902; WYW0325474; FEE	FEE
9	Fuller Fed 31-064372-1XPH				WYW0195902; WYW0325474	

**Limitations.** See the conditions of approval (COAs) and recommended mitigation measures (RMMs).

**Deferrals.** BLM defers making a decision on 2 APDs, below, for the reasons that follow.

#	Well Name, #	Pad	Location	SHL	LL	BHL
10	Fuller Fed 31-064372-3XPH	E	T44N R72W S31 NENE	FEE	WYW107238; WYW0195902; WYW0325474; FEE	FEE
11	Fuller Fed 31-064372-4XTH					
APD Names, #s		Environmental Issue/Deficiency		Remedy		
Fuller Fed 31-064372-3XPH  Fuller Fed 31-064372-4XTH		The access road to well Pad E, which hosts these 2 proposed wells, remains unresolved. Devon's engineers requested and ordered a geotechnical engineering evaluation and engineering diagrams after a landowner requested that Devon re-route its proposed well access road to use the landowner's 12-foot wide existing road which, in part, is on top of a dam for a small reservoir. Devon also requested in the interim that BLM continue analyzing and processing the Cosner-Wright-Fuller 3 POD. BLM is presently unable to make a decision on these 2 APDs pending a final determination of access to the pad; Onshore Oil and Gas Order #1, III. D. 4.		Devon may resolve the access issue to the 2 APDs by: 1) completing its requested geotechnical analysis and submit any road designs as part of an updated surface use plan for these 2 APDs; or, 2) Devon may withdraw its requested geotechnical analysis and instruct BLM to make decisions on the APDs based on the access road plan submitted with the APDs; or 3) Devon may pursue another means to accommodate the landowner's concerns over the access road.		

**FINDING OF NO SIGNIFICANT IMPACT (FONSI).** BLM found this project has no significant effect on the human environment beyond those in the PRB FEIS; see the FONSI for EA, WY-070-EA14-225, incorporated here by reference. There is no requirement for an EIS.

**COMMENT OR NEW INFORMATION SUMMARY.** BLM publically posted the APDs for 30 days and received no comments. Since BLM's receipt of these APDs, BLM received no new clarifying policies or instructions.

**DECISION RATIONALE.** The approval of this project is because:

1. The approved project conditioned by its design features and COAs, 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 Greater Sage-Grouse (GSG) population. The impact of this development cumulatively contributes to the potential for local GSG extirpation yet its effect, for those wells on federal surface or mineral estate, is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS/ROD and current BLM and Wyoming GSG conservation strategies. There are no conflicts anticipated or demonstrated with current uses in the area.
2. Devon's request for a geotechnical engineering evaluation of a landowner's chosen access road over the dam of a small reservoir to well Pad E, above; combined with Devon's request that BLM continue its analysis and processing of the rest of the Cosner-Wright-Fuller 3 POD, is prudent and is a defacto request by Devon and the landowner that BLM defer a decision on APDs Fuller Fed 31-064372-3XPH and the Fuller Fed 31-064372-4XTH. BLM is temporarily unable to make a decision on APDs lacking a clear access plan; Onshore Oil and Gas Order #1, III. D. 4. Access plans may also affect surface access agreements. BLM's experience is that it is better to resolve issues prior to decision making; see WY SDR-2010-030, pp. 37-38, for the proposition that BLM cannot approve an APD without access to it.

3. To reduce the likelihood of a “take” under the Migratory Bird Treaty Act, BLM sensitive species nesting habitat removal for those locations and infrastructure on federal surface or mineral estate will occur outside of the breeding season or be cleared by survey.
4. Approval of this project conforms to the terms and the conditions of the 1985 Buffalo RMP (BLM 1985) and subsequent update (BLM 2001) and amendments (BLM 2003, 2011).
5. The operator provided the BLM a true and complete copy of a document in which the owner of the surface authorizes the operator to drill a federal wells from non-federal lands, and in which the surface owner or representative guarantees the Department of the Interior, including BLM, access to the non-federal lands to perform all necessary surveys and inspections. (See BLM Instruction Memorandum No. 2009-078, p. 2, para 6).
6. The selected alternative will help meet the nation’s energy needs, revenues, and stimulate local economies by maintaining workforces.
7. The operator, in their POD and APDs, shall:
  - Comply with all applicable federal, state, and local laws and regulations.
  - Offer water well agreements to the owners of record for permitted water wells within 0.5 mile of a federal producing well in the POD (PRB FEIS ROD, p. 7).
8. The project is clearly lacking in wilderness characteristics as it lacks federal surface.
9. This decision does not foreclose the lessee or operator to propose a new or supplementary plan for developing the federal oil and gas leases in this project area, including submission of additional APDs to drain minerals in accord with lease rights and law.

**ADMINISTRATIVE APPEAL.** This decision is subject to administrative appeal in accord with 43 CFR 3165. Request for administrative appeal 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:                   /s/ Duane W. Spencer                  

Date:                   6/4/14

**FINDING OF NO SIGNIFICANT IMPACT**  
**Environmental Analysis (EA), WY-070-EA14-225**  
**Devon Energy Production Company, L.P., Cosner-Wright-Fuller 3 Plan of Development (POD)**  
**Bureau of Land Management, Buffalo Field Office, Wyoming**

**FINDING OF NO SIGNIFICANT IMPACT (FONSI).** Based on the information in the EA, WY-070-EA14-225, which BLM incorporates here by reference; I find that: (1) the implementation of Alternative B will not have significant environmental impacts beyond those addressed in the Buffalo Final Environmental Impact Statement (FEIS) 1985, and the Powder River Basin (PRB) FEIS, 2003, 2011; (2) Alternative B conforms to the Buffalo Field Office (BFO) Resource Management Plan (RMP) (1985, 2001, 2003, 2011); and (3) Alternative B does not constitute a major federal action having a significant effect on the human environment. Thus an EIS is not required. I base this finding on consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27), with regard to the context and to the intensity of the impacts described in the EA, and Interior Department Order 3310.

**CONTEXT.** Mineral development is a common PRB land use, sourcing over 42% of the nation's coal. The PRB FEIS foreseeable development analyzed the development of 54,200 wells. The additional development analyzed in Alternative B is insignificant in the national, regional, and local context.

**INTENSITY.** The implementation of Alternative B will result in beneficial effects in the forms of energy and revenue production however; there will also be adverse effects to the environment. Design features and mitigation measures included in Alternative B will minimize adverse environmental effects. The preferred alternative does not pose a significant risk to public health and safety. The geographic area of project does not contain unique characteristics identified in the 1985 RMP, PRB FEIS, or other legislative or regulatory processes. BLM used relevant scientific literature and professional expertise in preparing the EA. 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 have minor controversy, are not highly uncertain, or do not involve unique or unknown risks. The PRB FEIS predicted and analyzed oil development of the nature proposed with this project and similar projects. The selected alternative does not establish a precedent for future actions with significant effects. The proposal may relate to the PRB Greater Sage-Grouse and its habitat decline having cumulative significant impacts; 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. The project area is clearly lacking in wilderness characteristics as it lacks federal surface. 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 the protection of the environment.

**ADMINISTRATIVE REVIEW AND APPEAL.** This finding is subject to administrative review according to 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. 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 FONSI is received or considered to have been received. Parties 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.

Field Manager: \_\_\_\_\_/s/ Duane W. Spencer\_\_\_\_\_ Date: \_\_\_\_\_6/4/14\_\_\_\_\_

**ENVIRONMENTAL ASSESSMENT (EA), WY-070-EA14-225**  
**Devon Energy Production Company, L.P., Cosner-Wright-Fuller 3 Plan of Development (POD)**  
**Bureau of Land Management, Buffalo Field Office, Wyoming**

**1. INTRODUCTION**

Devon Energy Production Company, L.P. (Devon) filed applications for permit to drill (APDs) to explore for and possibly develop oil and gas reserves in geologic formations Devon leased. The lease parcels are in Table 1.1. The proposals consist of drilling 11 horizontal oil and gas wells to the Parkman, Niobrara, and Turner Formations from 5 well pads; see the APDs and administrative record (AR) – all incorporated here by reference. BLM has split jurisdiction via federal lands over APD administrative numbers 1-7, and Pads A-C, below. BLM exercises reduced jurisdiction over the 4 APDs on 2 pads overlying fee minerals; see administrative numbers 8-11, and Pads D and E, below. Therefore, BLM’s Instruction Memorandum No. 2009-078 entitled *Processing Oil and Gas Applications for Permit to Drill for Directional Drilling into Federal Mineral Estate from Multiple-Well Pads on Non-Federal Surface and Mineral Estate Locations* applies to the 4 APDs on 2 pads overlying fee minerals; see administrative numbers 8-11, and Pads D and E. Devon proposes to drill, complete, produce, and eventually reclaim the locations. Associated infrastructure will include tank batteries and access roads. Any future gathering pipelines or other infrastructure will have a sundry submitted and be subject to separate NEPA analysis.

**Table 1.1. Proposed Wells with Surface, Lateral, & Bottom Hole Leases (SHL, LL, BHL)**

#	Well Name, #	Pad	Location	SHL	LL	BHL
1	Wright Fed 05-084372-1XPH	A	T43N R72W S5 NENW	WYW0325474	FEE; WYW0325474; WYW80321	WYW107248
2	Wright Fed 05-084372-2XPH				FEE; WYW80321	
3	Wright Fed 05-084372-2XTH				FEE; WYW80321	
4	Wright Fed 05-084372-4XTH	B	T43N R72W S5 NWNE	WYW0325474	FEE; WYW0325474; WYW0103411	WYW0103411
5	Wright Fed 05-084372-3XPH				WYW0325474; WYW0103411; FEE	
6	Wright Fed 05-084372-4XPH				FEE; WYW0325474; WYW0103411	
7	Cosner Fed 08-054372-4XNH	C	T43N R72W S8 SESE	WYW0103411	WYW0103411; WYW0325474; FEE	WYW0325474
8	Fuller Fed 31-064372-2XTH	D	T44N R72W S31 NENW	FEE	WYW0195902; WYW0325474; FEE	FEE
9	Fuller Fed 31-064372-1XPH				WYW0195902; WYW0325474	
10	Fuller Fed 31-064372-3XPH	E	T44N R72W S31 NENE	FEE	WYW107238; WYW0195902;	FEE
11	Fuller Fed 31-064372-4XTH				WYW0325474; FEE	

**1.1. Background**

Devon submitted the Cosner-Wright-Fuller 3 POD notices of staking (NOSs) POD - originally from the Cosner 2 POD and the Wright 1 and 2 PODs - on August 28, September 30, and October 17, 2013 to the BLM. Onsite inspections were held September 22 and 23, 2013 and March 7 and 27, 2014 to evaluate the proposals and modified them to mitigate environmental impacts. BLM received the APDs on January 17, 2014. The BLM sent Devon a post-onsite deficiency letter on February 7, 2017. Devon submitted

deficiency responses by April 25, 2014. The POD was complete on April 25, 2014 -- excluding engineered designs and/or alternative access for the Fuller Fed 31-064372-3XPH and the Fuller Fed 31-064372-4XTH well pad (Well Pad E). Devon's engineers requested and ordered a geotechnical engineering evaluation and engineering diagrams after a landowner requested that Devon re-route its proposed well access to use the landowner's 12-foot wide existing road which, in part, is on top of a dam for a small reservoir. Devon also requested in the interim that BLM continue analyzing and processing the Cosner-Wright-Fuller 3 POD; see Letter of Deficiency, Devon's reply to Letter of Deficiency, notes from the March 27, 2014 onsite inspection, and the AR of communications.

### **1.2. Need for the Proposed Project**

The BLM's need for this project is to meet the management objectives of the Buffalo Resource Management Plan (RMP), 1985, 2001, 2003, and 2011 (to which this EA tiers). BLM must determine how and under what conditions to balance natural resource conservation with allowing Devon to exercise lease rights to develop fluid minerals, as described in their APDs associated plans. Conditional fluid mineral development supports the RMP, the Mineral Leasing Act of 1920, the Federal Land Policy Management Act (FLPMA), and other laws and regulations.

### **1.3. Decision to be Made**

The BLM will decide whether or not to approve the proposed development, and if so, under what terms and conditions agreeing with the Bureau's multiple use mandate, environmental protection, and RMP.

In the case of the 4 APDs located over non-federal minerals, BLM Washington Office Instruction Memorandum (IM) No. 2009-078 established policy and procedures for processing federal applications for permit to drill (APD) for directional drilling into federal mineral estate from multiple well pads on non-federal locations. In accordance with IM No. 2009-078 drilling, and producing the subject wells is a federal action. Construction, operation, and reclamation of infrastructure on non-federal land are not federal actions. Drilling and producing mitigations are in Conditions of Approval (COAs) for Conventional Application for Permit to Drill. In accord with IM No. 2009-078 an APD approval is a federal undertaking under Section 106 of the National Historic Preservation Act (NHPA), even when the resulting impacts are non-federal land. Actions that intentionally, significantly, and adversely affect a historic property with the intent to avoid the requirements of NHPA Section 106 are in violation of NHPA Section 110(k) and require the field office to deny the APD. The BLM's inspection and enforcement authority and responsibility would include compliance with any mitigation or other conditions established for approval of the APD as a result of the NHPA and Endangered Species Act (ESA) consultation. Find cultural mitigation in COAs for Conventional Application for Permit to Drill.

It is the BLM's responsibility and obligation to analyze the full effects of the action, and identify mitigation measures, regardless of the BLM's authority to enforce the mitigation. The BLM must identify mitigation measures that would reduce or eliminate the effects of a non-federal action when it is a connected action to the BLM proposed action (see the NEPA handbook, section 6.8.2.1.1, connected Non-federal Actions). Identifying mitigation outside of the BLM's jurisdiction alerts other agencies that can implement the mitigation. The probability of the other agencies implementing the mitigation measures is likely to occur, although those agencies may vary parameters recommended by the BLM. BLM must also be assured of access to the well location for inspections related to the production of federal oil and gas minerals. Full effects of the action and recommended mitigation measures are found in the project Surface Use Plan and BLM Recommended Mitigation Measures (RMM) for Conventional Application for Permit to Drill in Appendix B.

### **1.4. Scoping and Issues**

BLM posted the proposed APDs for 30 days and will timely publish the EA, any finding, and decision on the BFO website. This project is similar in scope to other fluid mineral development the BFO analyzed.

External scoping is unlikely to identify new issues, as verified with recent fluid mineral EAs that BLM externally scoped. External scoping of the horizontal drilling in Crazy Cat East EA, WY-070-EA13-028, 2013, in the PRB area received 3 comments, revealing no new issues. The BFO interdisciplinary team (ID team) conducted internal scoping by reviewing the proposal, its location, and a resource (issue) list (see, AR), to identify potentially significantly affected resources, land uses, resource issues, regulations, and site-specific circumstances not addressed in the analyses incorporated by reference. This EA will not discuss resources and land uses that are not present, unlikely to receive significant or material affects, or that the PRB FEIS or other analyses adequately addressed. The extensive development in the area was material to this scoping; see Section 3, below.

## **2. PROPOSED PROJECT AND ALTERNATIVES**

### **2.1. Alternative A – No Action**

The no action alternative would deny these APDs requiring the operator to resubmit APDs that comply with statutes and the reasonable measures in the PRB RMP Record of Decision (ROD) in order to lawfully exercise conditional lease rights. The PRB FEIS considered a no action alternative, pp. 2-54 to 2-62. The BLM keeps the no action alternative current using the aggregated effects analysis approach – incorporating by reference the analyses and developments approved by the subsequent NEPA analyses for overlapping and intermingled developments to the proposal area. See, Table 3.1.

### **2.2. Alternative B Proposed Action (Proposal)**

**Overview.** Devon requests BLM’s approval for 11 APDs from 5 pads and supporting infrastructure; see Table 1.1. The wells will be drilled from a non-federal surface into underlying fee or federal minerals on lease numbers listed in Table 1.1.

#### **Drilling, Construction, and Production design features include:**

- Construction of 5 drilling pads with variable dimensions, accounting for 40.88 acres of initial disturbance. Pad disturbance will be reduced to approximately 12.69 acres after interim reclamation.
- After drilling and completion, the well pad areas will be reduced for the production phase by reclamation of disturbed areas created during construction not needed during the production phase.
- Once drilling begins, the operator anticipates drilling times of 3 to 6 weeks for each of the 11 horizontal wells. The completion process for the horizontal wells will take an additional 2 to 3 weeks.
- A road network consisting of proposed improved roads 23.33 acres/2.75 miles of crown and ditch template road as access of the well pads. Road disturbance will be reduced to approximately 8.01 acres after interim reclamation. Approximately 23.32 acres/8.02 miles of existing improved access used for coalbed natural gas (CBNG) and oil field traffic will be used in addition to the proposed crown and ditch template road as access to the well pads. Additionally, 1.69 acres/0.87 miles of unimproved road as access for the landowner to his ranching operations. Road disturbance will be reduced to approximately 1.27 acres after interim reclamation.
- During construction and drilling phases, truck traffic will include rig and ancillary equipment mobilization and delivery of large production facility equipment such as 400 bbl. tanks, etc.
- Estimated average daily traffic (ADT) on existing and improved roads during production activities is 1 large truck (oil tanker) and 1 personal pickup truck per day.
- ADT during the drilling phase (3 to 6 weeks) of each individual well is estimated to be 2 large trucks and 6 pickups trucks per day.
- ADT during the completion phase of each individual well (2 to 3 weeks) is estimated to be 6 large trucks and 6 pickups trucks per day.
- There is existing 3-phase overhead power in the project area. Devon proposed 5 power drops as shown on Devon’s maps A and C. Each power drop will disturb 0.13 acres for a total of 0.65 acres.
- For well pads C and D, if determined to be economically viable, the well would be put into production. Production facilities that would be placed on the site include one electric pumping unit

per well, combustor/flare, gas sales meter, and one treater per well, a total of 8 x 400 bbl. tanks per well, (6 x 400 bbl. oil tanks and 2 x 400 bbl. water tanks), one combustor/ flare per well, and one gas sales meter per well.

- For Production Pad A (for well pads A and B), if determined to be economically viable, the well would be put into production. Production facilities that would be placed on the site include one electric pumping unit per well, one combustor/flare per well, gas sales meter per well, and one treater per well, a total of 102 x 400 bbl. tanks per 6 well production pad, (90 x 400 bbl. oil tanks and 12 x 400 bbl. water tanks), one combustor per well, one flare per 2 wells, and one gas sales meter per well.
- There will be Four - 4 inch steel production flow lines laid in a 70 foot corridor approximately 960 feet long from Pad A to Production Pad A and additional 1445 foot long 4 inch steel production flow lines from Pad B to Production Pad A.
- All project facilities/buildings will be painted Covert Green within 6 months of completion.
- The Cosner-Wright-Fuller 3 POD will be drilled using a semi-closed loop system. Devon will construct a cuttings disposal pit approximately 67 ft. by 177 ft., with a depth of 12 feet. This pit would be lined and used to hold drill cuttings generated as a result of semi-closed loop drilling. There will be no production pits at these producing well locations.
- All 11 wells will be extended reach lateral wells drilled to about 10,000 feet. These require 30,000 bbls of water for drilling and 70,000 bbls for completion.
- DEP will procure drilling water from the House Creek Plant Industrial Well (SEO Permit P82755W).
- Twelve to 20 x 500-bbls frac masters on location will be needed during well completion operations.
- All produced water will be disposed of at one of the Class II WDEQ permitted disposal wells or evaporation facilities listed on pp. 9 and 10 of the Cosner-Wright-Fuller 3 POD SUPO.
- Devon will use 1 proposed frac pit (Section 23 Fuller Frac Pit) and 2 proposed frac pits (Section 7 Wright & Section 9 Cosner Frac pits) to store the fresh water used in the hydraulic stimulation and completion operations. These frac pits have been evaluated in the Cosner-Wright 2 POD.
- A temporary 12 inch polyline will be laid across the surface from these lined earthen pits to the location during hydraulic fracturing (HF) and completion operations in order to transfer the water. The location and distances of the lines and pits are found in the surface use plan of operations and Devon's maps A, C, and D. Devon has permitted and bonded all pits with the Wyoming Oil and Gas Conservation Commission (WOGCC).
- If a well is not found to be economically viable, all areas disturbed during construction would be reclaimed to approximate pre-disturbance condition, and the well bore would be plugged per State of Wyoming and BLM policy and regulations.

**Table 1.2. Summary of Surface Disturbance (Length and Width in Feet; Disturbance in Acres)**

Activity	Length	Width	Disturbed	Interim Disturbance
Pad A	Varies	Varies	9.50	1.82
Pad B	Varies	Varies	8.19	1.77
Pad C	Varies	Varies	6.54	2.43
Pad D	Varies	Varies	8.07	2.52
Pad E	Varies	Varies	8.58	4.15
Production Pad A	Varies	Varies	6.67	6.67
Unimproved Access Road (new construction)	4600	16	1.69	1.27
Improved Access Road (new construction)	14523	24	23.33	8.01
Pipelines not within in a corridor (Surface water line)	90540	10	20.97	0
Proposed power Drops (5)	75	75	0.65	0.65
<b>Total Disturbance</b>			<b>94.19</b>	<b>29.29</b>

NOTE: surface line disturbance is Devon's estimate for placement; actual movement of surface line once in place is anticipated to be less. Interim reclamation, for access, numbers calculated w/ 24' width road running surface.

For details on project area access, design features, construction practices of the proposal and details regarding reclamation refer to the (MSUP pp. 1-28) in the POD; see AR. The plan was written and reviewed to minimize environmental impacts to both surface and subsurface resources. See the individual APDs for a map showing the proposed access road, existing roads, and pad location. The surface owners are Hay Creek Surfaces- LLC., Nolene Wright, Fuller Ranch LLC., and the State of Wyoming.

### **Plan of Operations.**

The proposal conforms to all Bureau standards and incorporates appropriate best management practices, required and designed mitigation measures determined to reduce the effects on the environment. BLM reviewed and approved a surface use plan of operations describing all proposed surface-disturbing activities pursuant to Section 17 of the Mineral Leasing Act, as amended. This analysis also incorporates and analyzes the implementation of committed mitigation measures in the SUP, drilling plan, and the standard COAs found in the PRB FEIS ROD, Appendix A.

### **Reasonably Foreseeable Activity.**

The reasonably foreseeable activity (RFA) for this analysis area includes 31 sections (see Figure 1.1), oil/gas exploration on 640 acre spacing and possible 320 acre spacing for horizontal wells and 80 acre spacing for vertical wells. (This does not preclude the RFA spacing analysis in the PRB FEIS or applying to drill multiple wells from this pad further reducing the surface disturbance per well.) The RFA in the project analysis area is 44 proposed NOSs and APDs. The project analysis area is the area within 1 mile of these 44 proposed wells. The reasonably foreseeable activity included in this analysis could consist of multiple wells on an existing pads or tying into existing supporting infrastructure; tank batteries, pipelines, power lines, and transportation networks.

### **2.3. Conformance to the Land Use Plan and Other Environmental Assessments**

This proposal does not diverge from the goals and objectives in the Buffalo Resource Management Plan (RMP), 1985, 2001, 2003, 2011, and generally conforms to the terms and conditions of that land use plan, its amendments, supporting FEISs, 1985, 2003 (2011), and laws including the Clean Air Act, 42 USC 7401-7671q (2006), the Clean Water Act, 33 USC 1251 et seq. (1972), etc.

## **3. AFFECTED ENVIRONMENT**

This section briefly describes the physical and regulatory environment that may be significantly affected by the alternatives in Section 2, or where changes in circumstances or regulations occurred since the approval of analyses to which this EA incorporates by reference; see Table 3.1. The PRB FEIS considered a no action alternative (pp. 2-54 to 2-62) in evaluating a development of up to 54,200 fluid mineral wells. Nearly 60% of the deep oil and gas wells are hydraulically fractured; BLM and Goolsby 2012. The BLM uses the aggregated effects analysis approach - incorporating by reference the circumstances and developments approved via the subsequent NEPA analyses for overlapping and intermingled developments coincident to this proposal area to retain currency in the no action alternative. 615 F. 3d 1122 (9th Cir. 2010).

The project area is adjacent to or inside the boundaries of 14 oil and gas plans of development (PODs) that include 64 wells. There are 18 producing CBNG wells and 59 producing oil wells within a 1 mile radius of an analysis area for this proposal (WOGCC as of March 6, 2014). BLM currently has 44 NOSs/APDs adjacent and overlapping the Cosner-Wright-Fuller 3 POD area. The number of conventional wells in the Buffalo planning area is 1313, which includes 783 horizontal wells (federal, fee, and state) (as of April 2013). This represents 41% of the projected 3,200 in the 2003 PRB ROD. This agrees with the PRB FEIS which analyzed the reasonably foreseeable development rolling across the PRB of 51,000 CBNG and 3,200 natural gas and oil wells. BLM determined a minimum of 115 townships from the northern borders of Sheridan and Campbell Counties to the southern border of Campbell County

are a developed field for fluid minerals because of the existing federal developments. These APD proposals are in the PRB developed field.

**Table 3.1. Overlapping NEPA Analyses Which BLM Incorporates by Reference either as similar drilling analyses or as substantially similar analyses in the semi-arid sage-brush, short grass prairie**

<b>Project or Well Name</b>	<b>NEPA Analysis</b>	<b># / Type of Well</b>	<b>Approved</b>
House Creek Sandy H	WY-070-EA02-179	31 / CBNG	7/2002
House Creek Sandy G	WY-070-EA03-103	20 / CBNG	8/2003
House Creek Sandy	WY-070-EA11-144	5 / Oil and Gas	2/2011
Valerie	WY-070-EA12-68	9 / Oil and Gas	3/2012
Cherokee Ridge Alpha	WY-070-EA12-070	6 / Oil and Gas	6/2012
Bonita Fed Com 11H	WY-070-390CX3-13-41	1/ Oil and Gas	9/2012
Thrush Com 20H	WY-070-390CX3-13-46	1/ Oil and Gas	6/2013
Green Federal Com 8H	WY-070-390CX3-13-47	1/ Oil and Gas	6/2013
Thrush Com 21H	WY-070-CX3-13-249	1/ Oil and Gas	9/2013
Cosner	WY-070-390CX3-13-229 to -236	8 / Oil and Gas	8/2013
Rocky Butte 31H	WY-070-CX3-14-189	1/ Oil and Gas	4/2014
Challenger POD True	WY-070-390CX3-14-101 to 14-105	5 / Oil and Gas	4/2014
Cosner-Wright 2 POD	WY-070-EA14-191	18 / Oil and Gas	2/2014
Monte Fed 60H	WY-070-CX3-14-160	1/ Oil and Gas	2/2014

See also: SDR WY-2013-005, particularly noting pp. 2-3, incorporating the SDR here by reference.

### **3.1. Air Quality**

BLM incorporates by reference the updated air quality affected environment section from the nearby Cosner-Wright 2 POD EA, WY-070-EA14-191, Section 3.1.

### **3.2. Soils, Ecological Sites, and Vegetation**

BLM incorporates by reference the soils and vegetation sections in the Cosner-Wright 2 POD EA, WY-070-EA14-191, Section 3.2; House Creek Sandy G EA, WY-070-EA03-103, pp. 5; and House Creek Sandy H EA, WY-070-EA02-179, Section, Vegetation & Soils. Soils, ecological sites, and vegetation found in the areas of the Cosner-Wright-Fuller 3 POD are similar to those occurring in the aforementioned EAs.

### **3.3. Water Resources**

The Wyoming State Engineer’s Office (WSEO) has authority for regulating water rights issues and permitting impoundments for the containment of the State’s surface waters. The WOGCC has authority for permitting and bonding off channel pits located over state and fee minerals. BLM incorporates by reference the regulatory scheme, topography, and waters description from the Cosner-Wright 2 EA WY-070-EA14-191, Waters Sections 3.3. The area’s historical use for groundwater was for stock or domestic water. A search of the WSEO Ground Water Rights Database showed 20 registered stock and domestic water wells within 1 mile of the proposed wells with depths ranging from 20 to 928 feet. Adherence to the drilling COAs, the setting of casing at appropriate depths, following safe remedial procedures in the event of casing failure, and using proper cementing procedures should protect any fresh water aquifers above the target coal zone. The Fox Hills Formation (water-bearing formation) is expected between 5931 feet and 6420feet. The Fox Hills, the deepest penetrated fresh water zone in the PRB lies well above the target mineral formation. This proposal will not impact any of the existing wetlands or surface water resources.

### **3.4. Invasive or Noxious Species**

BLM incorporates by reference the invasive species subsections from the Cosner-Wright 2 EA WY-070-EA14-191, Section 3.4. Field conditions remain materially similar to these analyses.

### 3.5. Wildlife

The project area is adjacent to or inside the boundaries of 14 oil and gas PODs that include 64 wells. There are 18 producing CBNG wells and 59 producing oil wells within a 1 mile radius of an analysis area for this proposal (WOGCC as of March 6, 2014). BLM currently has 44 NOSs/APDs adjacent and overlapping the Cosner-Wright-Fuller 3 POD area. The affected environment are discussed in, and anticipated to be similar to the Sahara POD EA, WY-070-EA13-72, incorporated here by reference. A wildlife survey report was submitted by the operator which was performed by Big Horn Environmental Consultants during 2013. Site specific information is described below for known species suspected to occur in the project area as depicted in Table W.1.(Summary of Sensitive Species Habitat and Project Effects) and Table W.2. (Summary of Threatened and Endangered Species Habitat and Project Effects) (See AR).

#### 3.5.1. Threatened, Endangered, Candidate, Special Status (Sensitive) Species

The Buffalo BLM receives a species list periodically from the FWS concerning threatened, endangered, proposed, and candidate species. Species included on that list that would be impacted by the proposed project will be discussed below.

##### 3.5.1.1. Greater Sage-Grouse (GSG)

No leks are in the project area. The project area is not in GSG core population areas.

##### 3.5.1.2. Migratory Birds

Migratory bird habitat for sage-brush obligate species is present in the project area.

##### 3.5.1.3. Raptors.

The affected environment for raptors will be similar to those analyzed in Section 3.7.2.1, from the Sahara POD EA, WY-070-EA13-72, Section 3.6.2.2 from the Porsche EA, WY-070-EA14-85, and Section 3.3.4 from the Tuit Federal EA, WY-070-EA04-098 - all incorporated here by reference. Seven raptor nests (see Map D, 12/19/2013 in the AR) used by red-tailed hawks, ferruginous hawks, and long eared owls are located in the project area.

### 3.6. Cultural.

In accordance with Section 106 of the National Historic Preservation Act, BLM must consider impacts to historic properties (sites that are eligible for or listed on the National Register of Historic Places (NRHP)). For an overview of cultural resources found in area, refer to the *Draft Cultural Class I Regional Overview, Buffalo Field Office* (BLM, 2010). A Class III (intensive) cultural resource inventory (BFO project no. 70140038) was performed to locate specific historic properties which may be impacted by the proposal. The following resources are near the proposal area.

#### Cultural Resources Near the Proposal & National Register of Historic Places (NRHP) Eligibility

Site #	Site Type	NRHP Eligibility	Site #	Site Type	NRHP Eligibility
48CA4868	Historic Road	Not Eligible	48CA5433	Prehistoric Site	Not Eligible
48CA5431	Prehistoric & Historic Site	Not Eligible			

## 4. ENVIRONMENTAL EFFECTS

**No Action Alternative.** BLM analyzed the no action alternative as Alternative 3 in the PRB FEIS and it subsequently received augmentation of the effects analysis in this EA through the analysis of mineral projects, their approval, and construction; and through the analysis and approval of other projects. BLM incorporates by reference these analyses in this EA; see Table 3.1. This updated the no action alternative and cumulative effects. The project area has surface disturbance from existing roads, well pads, and oil and gas facilities. Under the no action alternative, on-going well field operations would continue as would

the development of approved single and multi-well pads, consisting of horizontal wells with approved APDs and other approved APDs. The production and the drilling and completion of these new wells would result in noise and human presence that could affect resources in the project area; these effects could include the disruption of wildlife, the dispersal of noxious and invasive weed species, and dust effects from traffic on unpaved roads. Present fluid mineral development in the PRB is under half of that envisioned and analyzed in the PRB FEIS. There is only a remote potential for significant effects above those identified in the PRB FEIS to resource issues as a result of implementing the no action alternative.

## **Alternative B, Proposed Action (Proposal)**

### **4.1. Air Quality**

BLM incorporates by reference the air quality direct, indirect, cumulative, and residual effects from the analyses in Table 3.1, above as they are materially similar to those for these proposals. BLM incorporates by reference the analysis found in the August 2012 Lease Sale EA, WY-070-EA12-44, pp. 45-51 (air quality, greenhouse gas emissions, and visibility). Air quality impacts modeled in the PRB FEIS and Cumulative Air Quality Effects, 2009 concluded that PRB projected fluid and solid development would not violate state, or federal air quality standards and this project is within the development parameters.

### **4.2. Soils, Ecological Sites, and Vegetation**

Impacts anticipated occurring and mitigation considered with this proposal will be similar to those analyzed in the following EAs which have similar characteristics to this proposal area: Cosner-Wright 2 EA WY-070-EA14-191, Section 4.1, and Section 4.2; House Creek Sandy G EA, WY-070-EA03-103, pp. 13-14, 19 ; House Creek Sandy H EA, WY-070-EA02-179, Section, Vegetation & Soils; and Tuit POD EA, WY-070-EA-04-098, pp. 7-9, 18-19, all incorporated here by reference. These incorporated EA sections analyze the historical values and settings for soils, ecological sites, and vegetation. This proposal clearly lacks wilderness characteristics as it lacks federal surface. The road designs and/or alternative access for the Fuller Fed 31-064372-3XPH and the Fuller Fed 31-064372-4XTH well pad (Pad E) remain a work in progress; thus BLM is unable to presently analyze the access to Pad E, see; Section 1.1.

### **4.3. Water Resources**

The Cosner-Wright-Fuller 3 POD will be drilled to the Turner, Niobrara, and Parkman Formations at depths of 7150 and 10087 feet, respectively. Devon will run surface casing to 2250 feet. Devon will verify that there is competent cement across the zone, from 100 feet above to 100 feet below the Fox Hills Formation. This will ensure that ground water will not be adversely impacted by well drilling and completion operations. At the time of permitting, the volume of water that will be produced in association with these federal minerals is unknown. Devon will have to produce a well for a time to be able to estimate the water production. To comply with the Onshore Oil and Gas Order #7, Disposal of Produced Water, Devon will submit a Sundry to the BLM within 90 days of first production which includes a representative water analysis as well as the proposal for water management. Historically, the quality of water produced in association with conventional oil and gas has been such that surface discharge would not be possible without treatment. Initial water production is low in most cases. There are 3 common alternatives for water management: re-injection, deep disposal or disposal into pits. All alternatives would be protective of groundwater resources when performed in compliance with state and federal regulations.

Adherence to the drilling COAs, the setting of casing at appropriate depths, following safe remedial procedures in the event of casing failure, and using proper cementing procedures should protect fresh water aquifers above the drilling target zone. Compliance with the drilling and completion plans and Onshore Oil and Gas Orders Nos. 2 and 7 minimize an adverse impact on ground water. The volume of water produced by this federal mineral development is unknowable at the time of permitting. BLM incorporates by reference the surface water resources direct, indirect, cumulative, and residual effects from the Cosner-Wright 2 EA WY-070-EA14-191, Section 4.3(all), and the surface and ground water from the Cosner-Wright 2 EA WY-070-EA14-191, Section 4.3 (all).

#### **4.4. Invasive Species**

BLM anticipates the proposal's direct, indirect, residual, and cumulative effects to invasive species proliferation will be materially similar to those found in the Cosner-Wright 2 EA WY-070-EA14-191, Section 4.4 (all), incorporated here by reference. Devon's committed measures negate a need for mitigation.

#### **4.5. Wildlife**

Alternative B – the Proposal: The impacts associated with alternative B are discussed below. A BLM wildlife biologist reviewed the proposed APDs and determined that the proposals, combined with the COAs (and design features), are consistent with the programmatic biological opinion (ES-6-WY-02-F006), which is an update from the PRB FEIS, Appendix K. The affected environment for wildlife are discussed in, and anticipated to be similar to that analyzed in the EAs in Table 3.1. The environmental effects for wildlife are discussed in, and anticipated to be similar to the Sahara POD EA, WY-070-EA13-72, incorporated here by reference. Due to the minimal federal jurisdiction over the wells on pads D and E (see Table 1.1.), BLM is unable to condition mitigation measures for wildlife. BLM does recommend mitigation measures (RMMs) to reduce impacts; however, direct and indirect impacts to wildlife may occur if the operator does not adopt the BLM RMMs.

##### **4.5.1. Wildlife Threatened, Endangered, Proposed and Candidate Species**

###### **4.5.1.1. Greater Sage-Grouse (GSG)**

BLM analyzed GSG in the Sahara POD EA, WY-070-EA13-72 and this analysis is incorporated here by reference: Direct and Indirect Effects (Section 4.6.4.1.1, p. 34-39); Cumulative Effects (Section 4.6.4.1.2, pp.49-50); Mitigation (Section 4.6.4.1.3, p. 37); Residual Effects (Section 4.6.4.1.4, p. 37). The proposed project will remove approximately 30 acres of GSG seasonal habitat (winter and nesting).

###### **4.5.2. Special Status (Sensitive) Species (SSS)**

BLM anticipates no direct, indirect, residual, or cumulative effects to SSS (aside from some passerines discussed below). BLM requires no mitigation for SSS.

###### **4.5.3. Migratory Birds**

Effects to migratory birds from surface disturbing and disruptive activities associated with development of the proposed wells are similar to the wells analyzed in the CX3 for Bonita Federal Com. 11H-WY-070-390CX3-13-41, on pp. 6-9 (a consolidated CX3 NEPA analysis), incorporated here by reference. The BLM determined that the proposal complies with Instruction Memorandum No. WY-2013-005 Interim Management Guidance for Migratory Bird Conservation Policy on Wyoming Bureau of Land Management (BLM) Administered Public Lands Including the Federal Mineral Estate. BLM will apply a survey and timing limitation that pad construction (vegetation removal) occur outside of the breeding season for the greatest quantity of BLM sensitive passerines (May 1- July 31) where suitable nesting habitat (and where jurisdiction allows) for sagebrush obligates is present. This restriction would apply to habitat removal, unless a pre-construction nest search (within approximately 10 days of construction planned May 1-July 31) is completed. If surveys will be conducted, the operator will coordinate with BLM biologists to determine protocol. The nest search will be performed in areas where vegetation will be removed or destroyed. BLM also recommends taking measures to ensure excluding migratory birds from facilities posing a mortality risk, including, but not limited to, heater treaters, flare stacks, secondary containment, and standing water or chemicals where escape may be difficult or hydrocarbons or toxic substances are present.

###### **4.5.4. Raptors**

Nests within 0.5 miles of well Pads B, C, D, and E are outside the biological buffer (a biologic buffer is a combination of distance and visual screening that provides nesting raptors with security such that they will not be flushed by routine activities). Impacts anticipated to occur toward the nesting pairs of raptors

and mitigation will be similar to those analyzed in the Sahara POD EA, WY-070-EA13-72, incorporated here by reference: Direct and Indirect Effects (Section 4.6.2.1.1, p. 2830); Cumulative Effects (Section 4.6.2.1.2, pp.30); Mitigation (Section 4.6.2.1.3, p. 30); Residual Effects (Section 4.6.2.1.4, p. 30). To reduce the risk of decreased productivity or nest failure, the BLM BFO recommends a 0.5-mile radius timing limitation during the breeding season (February 1 – July 31) around active raptor nests for surface disturbing activities associated with construction of the proposed well Pads B, C, D, and E as well as their access roads.

**4.6. Cultural Resources**

BLM policy states that a decision maker’s first choice should be avoidance of historic properties (BLM Manual 8140.06(C)). If historic properties cannot be avoided, mitigation measures must be applied to resolve the adverse effect. No historic properties will be impacted by the proposal. Following the 2006 *State Protocol Between the Wyoming Bureau of Land Management State Director and The Wyoming State Historic Preservation Officer*, Section VI(A)(1), the BLM notified the Wyoming State Historic Preservation Officer (SHPO) on June 2, 2014, that no historic properties exist in the area of potential effect (APE). If any cultural values (sites, features or artifacts) are observed during operation, they will be left intact and the Buffalo Field Manager notified. If human remains are noted, the procedures described in Appendix L of the PRB FEIS and ROD must be followed. Further discovery procedures are explained in Standard COA (General)(A)(1).

**Section 4 Summary**

BLM used the aggregate effects method in updating the cumulative effects for this EA; see Table 3.1. Any and all foreseeable effects from not following the recommended mitigation measures will not rise to significance, though such omissions may cause an increase in erosion, runoff, or impacts to passerines.

**List of Preparers: Persons and Agencies Consulted (BFO unless otherwise noted)**

<b>Position/Organization</b>	<b>Name</b>	<b>Position/Organization</b>	<b>Name</b>
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LIE	Christine Tellock	Supr NRS	Kathy Brus
Assistant Field Manager	Clark Bennett	Assistant Field Manager	Chris Durham
NEPA Coordinator	John Kelley	WY SHPO	Mary Hopkins

**5. References and Authorities** (BLM incorporates by reference here the references and authorities from the Porsche Wells EA, WY-070-EA14-84, pp. 29-33.)

Cardno ENTRIX, Hydraulic Fracturing Study: PXP Inglewood Oil Field, [http://www.eenews.net/assets/2012/10/11/document\\_ew\\_01.pdf](http://www.eenews.net/assets/2012/10/11/document_ew_01.pdf), October 2012.