

**DECISION RECORD**

**Devon Energy Production Company, L.P. Bison Appraisal Plan of Development (POD)  
Categorical Exclusion 3 (CX3), WY-070-390CX3-15-166 through WY-070-390CX3-15-170  
Bureau of Land Management, Buffalo Field Office, Wyoming**

**DECISION.** The BLM approves Devon Energy Production Company, L.P (Devon) Bison Appraisal POD gas and oil well applications for permit to drill (APDs) described in the Categorical Exclusion 3 (CX3), WY-070-390CX3-15-166 through WY-070-390CX3-15-170. 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.

**A summary of the details of the approval follows.** The consolidated CX3 analysis includes the project description, including site-specific mitigation measures. Mitigation measures will include the conditions of approval (COAs) in Appendix A of the CX3.

**Table 1.1.** The BLM approves the following APDs:

#	Name & Well #	Twp	Rng	Sec	Qtr	SHL Lease	LHL	BHL Lease	CX WY-070-
1	Durham Ranches Fed 23-264572-4XPH	45N	72W	14	SESE	FEE	FED, FEE	FEE	390CX3-15-167
2	Durham Ranches Fed 354572-4PH	45N	72W	35	SESE	FEE	FED, FEE	FED	390CX3-15-169
3	Flocchini Fed 35-264572-2XPH	45N	72W	35	SESW	FED	FED, FED, FEE	FED	390CX3-15-170
4	Durham Ranches Fed 03-104472-2XPH	44N	72W	3	NENW	FED	FED, FEE	FEE	390CX3-15-166
5	Durham Ranches Fed 324572-2PH	45N	72W	32	SWSW	FEE	FED	FED	390CX3-15-168

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

**THE FINDING OF NO SIGNIFICANT IMPACT (FONSI).** The US Congress, Department of Interior, and BLM affirmed there was no significant impact of a like-structured project when they created this CX3 and its limiting parameters so there is no requirement for a FONSI, EIS, or EA.

**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. BLM and Devon included design features and mitigation measures (conditions of approval (COAs)) to reduce environmental impacts while meeting the BLM's need. For a complete description of all site-specific COAs, see the COAs.
  - a. The impact of this development cumulatively contributes to the potential for local extirpation of the Greater Sage Grouse (GSG) yet its effect is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS/ROD and current BLM (WO-IM-2012-043) and Wyoming (WY-IM-2012-019) GSG conservation strategies.
  - b. With application of Standard Operating Procedures (SOPs), applied mitigation, Required Design Features, and COAs identified for Greater Sage-Grouse under the proposed action, impacts caused by surface-disturbing and disruptive activities would be minimized.
  - c. There are no conflicts anticipated or demonstrated with current uses in the area.
2. The Resource Management Plan (RMP) for the Buffalo Field Office is currently undergoing revision. The Draft RMP and Environmental Impact Statement was released in June 2013. The proposed action was screened against the Draft RMP to ensure that the proposed action would not preclude BLM's ability to select any alternative in a ROD. The proposed action was also determined to not be inconsistent with the direction outlined in the RMP's Preferred Alternative.
3. 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 well, 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).
4. Devon will conduct operations to minimize adverse effects to surface and subsurface resources, prevent unnecessary surface disturbance, and conform with currently available technology and practice.
5. The selected alternative 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.
  - Obtain necessary permits from agencies.
  - Offer water well agreements to the owners of record for permitted wells.
  - Incorporate several measures to alleviate resource impacts into their submitted surface use plan and drilling plan.
7. The operator certified it has a surface access agreement.
8. The project lacks wilderness characteristics. A wilderness characteristics inventory was completed in 2013; no lands with wilderness characteristics were identified outside the Big Horn Mountains. The inventory is available at: <http://www.blm.gov/wy/st/en/programs/Planning/rmps/buffalo/docs.html>.
9. These APDs are pursuant to the Mineral Leasing Act for developing oil or gas and do not satisfy the categorical exclusion directive of the Energy Policy Act of 2005, Section 390.
9. This decision does not foreclose the lessee or operator to propose a new or supplementary plan for developing the federal oil and gas lease(s) in this project area, including submission of additional APDs to drain minerals in accord with lease rights and law. This decision does not foreclose the lessee or operator to propose using external pumping units via a sundry application process.
10. Bison Appraisal POD Devon certified there is a surface use access agreement with the landowners.
11. This approval is subject to adherence with all of the operating plans, design features, and mitigation measures contained in the master surface use plan of operations, drilling plan, water management plan, and information in individual APDs.

**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:           May 21, 2015

**Categorical Exclusion 3 (CX3), WY-070-390CX3-15-166 through WY-070-390CX3-15-170**  
**Section 390, Energy Policy Act of 2005**  
**Devon Energy Production Company, L.P. Bison Appraisal Plan of Development (POD)**  
**Bureau of Land Management, Buffalo Field Office, Wyoming**

**Description of the Proposed Action.**

The applications for permit to drill (APDs) to explore for and possibly develop oil and gas reserves in geologic formations leased by Devon Energy Production Company, L.P. (Devon). The lease parcels are in Table 1.1. The proposal consists of drilling 5 horizontal oil and gas wells to the Parkman formation from 5 well pads; see the APDs and administrative record (AR) – all incorporated here by reference. Devon proposes to drill, complete, produce, and eventually reclaim all locations. Associated infrastructure will include tank batteries and access roads. Devon proposed no gathering pipelines. Any future gathering pipelines or other infrastructure will have a sundry submitted and analyzed in a separate NEPA document.

The BLM’s need for this project is to determine whether, and if so, under what conditions to support the Buffalo Resource Management Plan’s (RMP) goals, objectives, and management actions with permitting the operator’s exercising of conditional lease rights to develop federal fluid minerals. APD information is an integral part of this EA, which BLM incorporates here by reference. 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.

Devon submitted the Bison Appraisal POD notice of staking (NOS) on July 11, 2014 to the BLM. Onsites were held September 24 and October 14, 2014 to evaluate the proposal and modified it as necessary to mitigate environmental impacts. BLM received the APDs on December 2, 2014. The BLM sent Devon a post-onsite deficiency letter on December 23, 2014. Devon submitted deficiency responses on February 20, 2015. The POD was complete on April 20, 2015. Table 1.1 below is a summary of the APDs submitted by Devon.

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

#	Name & Well #	Twp	Rng	Sec	Qtr	SHL Lease	LHL	BHL Lease	CX WY-070-
1	Durham Ranches Fed 23-264572-4XPH	45N	72W	14	SESE	FEE	FED, FEE	FEE	390CX3-15-167
2	Durham Ranches Fed 354572-4PH	45N	72W	35	SESE	FEE	FED, FEE	FED	390CX3-15-169
3	Flocchini Fed 35-264572-2XPH	45N	72W	35	SESW	FED	FED, FED, FEE	FED	390CX3-15-170
4	Durham Ranches Fed 03-104472-2XPH	44N	72W	3	NENW	FED	FED, FEE	FEE	390CX3-15-166
5	Durham Ranches Fed 324572-2PH	45N	72W	32	SWSW	FEE	FED	FED	390CX3-15-168

The access is on fee surface above federal minerals (standard split jurisdiction for proposed the Flocchini Fed 35-264572-2XPH and Durham Ranches Fed 03-104472-2XPH wells, and reduced jurisdiction (downhole) for proposed the Durham Ranches Fed 23-264572-4XPH, Durham Ranches Fed 354572-4PH, and Durham Ranches Fed 324572-2PH wells). See generally, BLM Instruction Memorandum (IM), 2009-078.

To access the Bison Appraisal POD locations from Wright, Wyoming, travel North on Highway 59 approximately 9.1 miles, turn west onto a proposed improved access road traveling for approximately 514 feet to the proposed Durham Ranch Fed 23-264572-4XPH. To access the Durham Ranches Fed 354572-4PH , Flocchini Fed 35-264572-2XPH, Durham Ranches Fed 03-104472-2XPH, and the Durham Ranches Fed 324572-2PH from Wright, Wyoming, travel North on Highway 59 approximately 5.5 miles, turn west onto an existing improved access road. Continue on the access road to the proposed locations.

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

Activity	Length	Width	Disturbed	Interim Disturbance
Durham Ranches Fed 23-264572-4XPH	Varies	Varies	5.5	2.4
Durham Ranches Fed 354572-4PH	Varies	Varies	6.3	2.8
Flocchini Fed 35-264572-2XPH	Varies	Varies	5.6	2.6
Durham Ranches Fed 03-104472-2XPH	Varies	Varies	7.0	3.3
Durham Ranches Fed 324572-2PH	Varies	Varies	7.3	2.6
Access Road (new construction)	3,784	70	6.08	2.08
Proposed power Drops (6)	Varies	Varies	0.65	0.65
Proposed Temporary Surface Water Line	42,529	50	32.99	0.00
Total Disturbance			71.42	16.43

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.

Devon will construct approximately 3,784 feet of new access (road widening to 24 ft. running surface). Maintenance will be necessary to prevent soil erosion and accommodate year-round traffic.

If the wells are productive, oil and water (specifics regarding approved facilities are located in master surface use plan (MSUP, pp. 5-8)) will be stored on location in tank batteries and trucked off location.

For details on project area access, design features, construction practices of the proposal and details regarding reclamation refer to the (MSUP pp. 1-24) 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 estimated time to construct the well pad, roads, and other infrastructure is 14 to 21 days.

Devon estimates that during the drilling phase of each individual Bison Appraisal POD well will be 2 to 6 weeks per well and the average daily traffic (ADT) to and from the location is approximately two large trucks (water haulers, cement trucks, etc.) and six personal trucks per day.

Devon estimated that during the completion phase of each well will be 2 to 3 weeks per well and the average daily traffic to and from the location is approximately 6 large trucks and 6 personal trucks per day. See table 1.3 below for detailed summary of anticipated drilling and completion sequence and timing. During the production phase the ADT will decrease to one to two pickup trucks per day.

**Table 1.3. Anticipated Drilling and Completion Sequence and Timing (per well)**

Drilling and Completion Step	Approximate Duration
Build location (roads, pad, and other initial infrastructure)	14-21 days
Mob rig	5-9 days
Drilling (24/7)	20 days <sup>2</sup>
Schedule/logistics for completion	30 days <sup>2</sup>
Completion (set up, completion, demobilization)	7-14 days
1 Depending on distance and need to add supplemental drilling equipment, such as skidding plates.	
2 By comparison, approximately 2 days are required to drill a CBNG well. Source: ICF 2012	

The surface owners are Durham Ranches, Inc. and Flocchini Investments.

### **Methods for Handling Waste.**

The Bison Appraisal POD well will be drilled using a closed loop and a water based mud system. A third party service company will be contracted to manage, treat, and dispose of all drilling related wastes associated with the Bison Appraisal POD. As the drill cuttings move off the shaker; they will be screened, treated with Eco-Sponge to break down any hydrocarbons, and stored on location in a lined and bermed area. Once drilling is complete, cuttings will be tested for Diesel Range Organics (DRO), Total Extractable Hydrocarbons, and Sodium Absorption Ratio (SAR). If the above listed parameters are within tolerance, and Devon obtains WOGCC approval, the cuttings will be buried on location. The cuttings disposal pit be approximately 67 x 177 x 12 ft and will be lined with a 12 mil synthetic liner (BLM IM WY-2012-007). Cuttings will be buried at least 6 feet below re-contoured grade, a depth exceeding the minimum BLM requirements (BLM IM WY-2012-007). Soils that are moisture laden and saturated, partially or completely frozen will not be used for backfill or cover. The pit may require mounding to allow for settling. The cuttings disposal pit will be closed within 6 months of well completion. The BLM Authorized Officer may allow for an extension of that time under a written request describing reasonable circumstances. Additional cover will be placed over the pit during interim reclamation. In addition, Devon may want to construct a small 15 x 25 x 10 foot unlined cement pit. This small pit would only be used to test the cement used in drilling. Wet cement would be discharged to the pit, allowed to harden, and then broken up and hauled off location. The cement pit would then be backfilled following use.

### **Well Site Layout**

The sites will be fenced with 32 inch woven wire with 2 strand barbed wire. The fence will encompass a larger area than is required for surface disturbance for safe movement of equipment and personnel.

For specific disturbance for the Bison Appraisal POD; see the applications for permit to drill (APDs) (incorporated here be reference) in the Bison Appraisal POD, notably: Drilling/Completion Design (Cut and Fill Sheets); Interim Design (Well Site Layout). The proposed surface disturbances are within the PRB FEIS analysis parameters.

### **Plan Conformance, Compliance, and Justification with the Energy Policy Act of 2005.**

The Energy Policy Act of 2005, Section 390(a) subjects oil or gas exploration or development to a rebuttable presumption that the use of a categorical exclusion under the National Environmental Policy Act (NEPA) applies. Thus BLM must use an Energy Policy Act, Section 390(b), CX unless BLM rebuts the presumption. This consolidated CX analysis is NEPA compliance categorically excluded from an EA or EIS or their analysis; it is not an exclusion from all analysis. (40 CFR 1508.4 and BLM H-1790, p. 17.) The proposed action conforms with the terms and conditions of the Approved Resource Management Plan (RMP) for the public lands administered by the BLM, Buffalo Field Office (BFO), 1985, the PRB FEIS, 2003 (2011), and the Record of Decision (ROD) and Resource Management Amendments for the Powder River Oil and Gas Project, Amendments of 2001, 2011 as required by 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215). BLM finds that the conditions and environmental effects found in the senior EAs and PRB FEIS remain valid.

The applicable categorical exclusion from the Energy Policy Act of 2005, Section 390, is exclusion number (b)(3) which is *drilling an oil or gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed such drilling as a reasonably foreseeable activity, so long as such plan or document was approved within 5 years prior to the date of spudding the well.*

BLM has 3 requirements to use a Section 390 CX3, (BLM H-1790, Appendix 2, #3, p. 143):

- 1) The proposed APD is in a developed oil or gas field (any field with a completed confirmation well).

Table 1.4., is a list of existing/approved PODs that are within or adjacent to the Bison Appraisal POD project area. This information shows the reader that BLM conducted analysis.

**Table 1.4. Adjacent or Overlapping NEPA Analyses Incorporated Here by Reference**

#	POD / Well Name	NEPA Analysis #	# / Type Wells	Decision Mo/Yr
1	Cherokee Ridge Alpha	Petro-Hunt	WY-070-EA12-070	6/8/2012
2	WU 12-35	Southwestern	WY-070-390CX3-13-228	8/7/2013
3	Bison 3	Devon	WY-070-EA14-339	7/23/2014
4	Bison 1	Devon	WY-070-EA14-339	7/23/2014
5	Durham Ranches 12-34572-1XPH	Devon	WY-070-390CX2-15-31	12/19/2014
6	Sahara POD	Lance Oil and Gas Company, Inc.	, WY-070-EA13-72	3/5/2013

The reasonably foreseeable activity (RFA) for this and adjacent areas includes oil/gas exploration on 1280 acre spacing and possible 320 acre spacing. Devon’s RFA covered in this analysis is from a potential of 312 foreseeable wells – based on the preceding spacing. (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). Devon’s oil and gas development could occur in the following areas, subject to this and future analyses:

**Table 4: RFA**

T46N R71W Sec 17-21, 27-34	T45N R72W Sec 1-13, 15-22, 24-25, 27-31,36	T44N R72W Sec 1-9, 11-36
T46N R72W Sec 13-15, 21-24, 25-29,31-26	T45N R71W Sec 3-10, 15-22, 27-33	T44N R71W Sec 4-9, 16-20, 29-31
T45N R73W Sec 11-15,22-27, 337-36	T44N R73W Sec 1-4, 9-15, 23-25	T43N R72W Sec 2-4

The project analysis area is defined as the area within 4 miles of the proposed POD boundary. Well development could be 2 wells per section to the Parkman Formation, perhaps others. Future development may use existing well pads and infrastructure put in place for fee and/or federal mineral development. Potential APD submittals could also consist of multiple wells on an existing pad or tie into existing supporting infrastructure such as; tank batteries, pipelines, power lines, and transportation networks.

- 2) There is an existing NEPA document (and the RMP) containing reasonably foreseeable activity scenario for this action. There are several existing NEPA documents that reasonably foresaw activity to spud additional wells to fill in 80 acre well-spacing. BLM reviewed these documents and determined they considered the potential environmental effects associated with the proposed activity at a site specific level. In addition, all EAs, see Table 1.5, tier into the PRB FEIS. The PRB EIS, 2003 (2011) analyzed foreseeable development in the PRB. The PRB foreseeable development included 3,200 oil wells and drilling CBNG wells on 80 acre-spacing resulting in about 51,000 CBNG wells and 3,200 oil wells.

**Table 1.5. NEPA Analyses Accounting for Reasonably Foreseeable Activity Scenario**

#	POD / Well Name	NEPA Analysis #	# / Type Wells	Decision Mo/Yr
1	Cherokee Ridge Alpha	Petro-Hunt	WY-070-EA12-070	6/8/2012
2	WU 12-35	Southwestern	WY-070-390CX3-13-228	8/7/2013
3	Bison 3	Devon	WY-070-EA14-339	7/23/2014
4	Bison 1	Devon	WY-070-EA14-339	7/23/2014
5	Durham Ranches 12-34572-1XPH	Devon	WY-070-390CX2-15-31	12/19/2014

- 3) The tiered NEPA document was finalized or supplemented within 5 years of spudding (drilling) the proposed well.

The tiered NEPA document was finalized or supplemented within 5 years of spudding (drilling) the proposed well. The Bison Appraisal POD CX3 and its APDs tiers to the NEPA analyses in Table 1.5, above.

In summary, the NEPA analyses in Table 1.5, analyzed in detail the anticipated direct, indirect, residual, and cumulative effects that would result from the approval of these APDs and associated support structure in Bison Appraisal POD APDs is similar to both the qualitative and quantitative analysis in the above tiered-to and incorporated NEPA analysis. The BLM reviewed the analysis and found that the analysis considered potential environmental effects associated with the proposal at a site specific level. The Bison Appraisal POD APDs' surface use and drilling plans are incorporated here by reference and show adequate protection of surface lands and ground water, including the Fox Hills Formation. The proposal's acres of surface disturbances are within the analysis parameters of the PRB FEIS.

### **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 CX3 analysis also incorporates and analyzes the implementation of committed mitigation measures contained in the SUP, drilling plan, in addition to the Standard COAs found in the PRB FEIS ROD, Appendix A.

### **Soils/Vegetation**

BLM obtained detailed soils identification and data for the project area from the Campbell County South Survey Area, Wyoming Soil Survey Geographic (SSURGO) Database (WY605). NRCS performed the soil survey according to National Cooperative Soil Survey standards. The BLM uses county soil survey information to predict soil behavior, limitations, or suitability for a given activity or action. The agency's long term goal for soil resource management is to maintain, improve, or restore soil health and productivity, and to prevent or minimize soil erosion and compaction. Soil management objectives are to ensure that adequate soil protection is consistent with the resource capabilities. Many of the soils and landforms of this area present distinct challenges for development, and /or eventual site reclamation.

Ecological site descriptions provide site and vegetation information needed for resource identification, management and reclamation recommendations. BLM specialists used NRCS published soil survey information, verified through onsite field reconnaissance, to determine the appropriate ecological sites for this POD area.

Dominant ecological sites and plant communities identified in the project area are shallow loamy (10-14NP), loamy (10-14NP), and clayey (10-14NP). Refer to ecological site narrative sections below for description of vegetation species observed during onsite field visits. See the NRCS Soil Survey Campbell County (SSURGO) data. The Ecological Site interpretations include additional site-specific soil information.

*Loamy/Shallow Loamy Site description and Plant community.* This site occurs on steep slopes and ridge tops, but may occur on all slopes. Landform: hill sides, ridges, and escarpments. The soils of this site are shallow (less than 20 inches to bedrock) well-drained soils formed in alluvium over residuum or residuum. These soils have moderate permeability and may occur on all slopes. The bedrock may be any kind which is virtually impenetrable to plant roots, except igneous. The surface soil will have one or more of the following textures: very fine sandy loam, loam, silt loam, sandy clay loam, silty clay loam, and clay

loam. Thin ineffectual layers of other textures are disregarded. Layers of the soil most influential to the plant community vary from 3 to 6 inches thick. The main soil limitations include the depth to lithologic discontinuity, and fragmental (90% coarse fragments). The present plant community is a mixed sagebrush/grass. Wyoming big sagebrush is a significant component of this mixed sagebrush/grass plant community. Cool-season mid-grasses make up the majority of the understory with the balance made up of short warm-season grasses, annual cool-season grass, and miscellaneous forbs. Dominate grasses include: bluebunch wheatgrass, rhizomatous wheatgrass, blue grama, and little bluestem. Other grasses occurring on the state include Cusick's and Sandberg bluegrass, and prairie junegrass. Cheatgrass has invaded the state. Other vegetative species identified at onsite include: pricklypear and fringed sagewort.

*Clayey Site description and plant community.* Clayey Sites occur on nearly level to steep slopes on landforms which include hill sides, alluvial fans and stream terraces in the 10-14 inch precipitation zone. The soils of this site are moderately deep to very deep (greater than 20 inches to bedrock), well-drained soils that formed in alluvium or alluvium over residuum. These soils have slow permeability. The bedrock is clay shale which is virtually impenetrable to plant roots. The present plant community is a mixed sagebrush/grass. Wyoming big sagebrush is a significant component of this plant community. Big sagebrush is a significant component of this plant community. Cool-season grasses make up the majority of the understory with the balance made up of short warm-season grasses, annual cool-season grass, and miscellaneous forbs. Dominant grasses include rhizomatous wheatgrasses, green needlegrass, blue grama, and prairie junegrass. Forbs include Louisiana sagewort (cudweed), plains wallflower, hairy goldaster, and scarlet globemallow. Fringed sagewort and plains pricklypear also occur.

Using the same NRCS dataset the reclamation potential for the project area has category of "fair". Field observations of reclaimed oil/gas infrastructure and interim reclamation of active oil/gas infrastructure showed well established vegetation with stable cut/fill slopes.

### **Water Resources**

Devon plans to obtain fresh water from the City of Wright, WY municipal water source. Water for drilling will be obtained from the existing Enlargement of Buffalo #2 water well (SEO permit #P198780.0W, commonly known as the "Bean Field Well") located on private surface in the SENW of Section 34, T45N, R72W. Water will be hauled to location by transport truck. Devon estimates it requires an estimated 30,000 bbls (approximately 20-30 truckloads per day) of water for drilling of each of the extended reach lateral wells and 15,000bbls (approximately 10-15 truckloads per day) of water for drilling of each of the single reach lateral wells. Devon estimates 30,000 to 70,000bbls of water will be required to frac the Bison Appraisal POD wells.

Devon will require 12-20 500 bbls frac masters on location during well completion operations. The frac masters lay lengthwise on location and are used for the storage and mixing of chemicals, storage of flow frac water, and they are used as storage vessel to heat the water just prior to pumping it downhole.

Devon will utilize approximately 42,529 feet of 12 inch surface poly line to supply Bison Appraisal POD well locations of earthen fresh water storage pits for well completion. 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 SUPOs and Devon's Bison Appraisal POD maps A, C, and E. Devon has permitted and bonded all pits with the Wyoming Oil and Gas Conservation Commission (WOGCC). This water line is designated on the project facility and project work maps. The poly-line does not cause any surface disturbance and can be cut and moved to facilitate the movement of water to different locations. The surface polyline will only be in place for approximately 3 months in order to facilitate drilling and completion operations of the Powder-Belle Divide POD wells. When the pipe is empty, it will move

slightly, but will straighten again when water is pushed through it. To compensate for the slight movement of the line, Devon is estimating a large width of disturbance on the surface of 50 feet.

Devon will utilize two water supply pits to store the fresh water used in the HF of the wells. The Bison 1 Frac pit located in SESW of Sec. 1, T45N, R72W and the Durham Ranch 334572 Frac Pit located partially in SESE Sec. 33, T45N, R72W and partially in SESW Sec. 33, T44N, R72W. Devon has permitted and bonded all pits the with the WY Oil and Gas Conservation Commission (WOGCC).

BFO RMP, p. 26, has a reasonable foreseeable development scenario of 800 wells per year and projected water use of 2.8 acre feet (ac-ft) per well for the average oil well. The 2003 PRB ROD projected 3,200 oil wells which would include the use 8,960 ac-ft of water.

The WY Department of Environmental Quality (WDEQ) and WOGCC regulate waters and chemicals for drilling, “BLM may rely on the actions of state regulators. The IBLA and federal courts recognized it is appropriate for BLM to assume a proposed action complies with state permitting requirements, and rely on state analysis when evaluating the significance of effects. *Wyo. Outdoor Council v. U.S. Army Corps of Eng'rs*, 351 F. Supp. 2d 1232, 1244 (D. Wyo. 2005); PRBRC, 180 IBLA 32, 57 (2010); *Bristlecone Alliance*, 179 IBLA 51, 74-77 (2010).” In *Wyoming Outdoor Council*, the District Court held the Corps may rely on the WDEQ permitting process to “ameliorate any concerns that impacts to water quality will be significant.” Id.

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 zone. This will ensure that ground water will not be adversely impacted by well drilling and completion. The operator will run surface casing to 2,250 feet total vertical depth to protect shallow aquifers. Devon will protect the water bearing formation in the Fox Hills Formations with casing and cement. Devon will place centralizers on every joint throughout the Fox Hills Formation. Estimated depth of the Fox Hills is 5,170 feet to 5,834 feet (total vertical distance (TVD)). Compliance with the drilling and completion plans and Onshore Oil and Gas Orders Nos. 2 and 7 will ensure there is no adverse impact on ground water. The 2004 EPA study found it unlikely that HF wells would contaminate ground water. Studies from the University of Texas, Massachusetts Institute of Technology, echo decades of industry and regulatory experience that good casing, cement plans, and execution are keys to protect groundwater from hydrocarbon communication.

Devon will have to produce the wells for a time to be able to estimate the volume and quantity of water production. To comply with Onshore Order Oil and Gas Order No. 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 and the final proposal for water management. The quality of water produced in association with conventional oil and gas historically was such that surface discharge would not be possible without treatment. Initial water production is quite 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.

A search of the WY State Engineer Office (WSEO) Ground Water Rights Database showed 21 registered stock water wells with depths from 16 to 217 feet. See drilling plan for design features that address protection of any and all water sources. Refer to the PRB FEIS for additional information on groundwater, pp. 3-1 to 3-36. Existing conditions and uses were analyzed in the following EA, which is adjacent or overlapping to the Bison Appraisal POD and is incorporated here by reference: Bison 1 POD, WY-070-EA11-339 and Bison 3 POD, WY-070-EA14-339. The 2004 EPA study found it unlikely that HF wells would contaminate ground water. The EPA has an expansive, on-going study looking at more aspects of HF and has yet to issue findings. A 2011-2012 Geological Survey study found no groundwater

effects from thousands of deep horizontally fractured oil and gas wells. Another study found no direct link between HF and studied aquifers, Warner, 2012

### **Wetlands/Riparian**

No wetlands/riparian areas are in the project area.

### **Invasive Species**

Impacts anticipated occurring and mitigation considered will be similar to those analyzed in the following EAs which are adjacent or overlapping to the Bison Appraisal POD and are incorporated here by reference:

1. Devon's Bison 1 POD, WY-070-EA11-339
2. Devon's Bison 3 POD, WY-070-EA14-339

### **Wildlife**

BLM reviewed the APDs and determined that the proposal, combined with the COAs (and design features), is: (1) consistent with the FEIS and its supplements, the RMP and the above tiered EAs; and (2) consistent with the programmatic biological opinion (ES-6-WY-02-F006), which is an update from the PRB FEIS, Appendix K. The biologist performed an onsite inspection of the project area. The proposed wells and infrastructure are a result of attempts by Devon and the BLM to reduce impacts to identified wildlife resources. The affected environment and environmental effects for wildlife are discussed in, and anticipated to be similar to, the above tiered NEPA documents.

Two leases have Timing Limitations Stipulations for Raptor nesting habitat: WYW-134205 and WYW-130583 in W/SW part of Section 25. Both of these leases are down-hole leases (the well bore goes into or through them) and have no proposed surface use.

#### **Raptors.**

No nests were identified that would be disturbed if active. No mitigation is recommended.

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

Effects to GSG were analyzed in the above tiered and incorporated NEPA documents. The closest known lek is the NW Wright lek 2 ¼ miles to the south west.

GSG that use the project area may be affected by disruptive activities associated with construction, drilling, and completions. Timing limitations are not applied to the well locations on private surface over non-federal minerals. Suitable breeding and nesting habitat was identified around the Durham Ranches Fed 324572-2PH well location.

BLM requested a sage-grouse breeding survey for this location to be confident the well pad is outside any .25 mile lek buffer. That protocol survey was completed in April 2015, with negative results. No mitigation is recommended.

#### **Migratory Birds**

Impacts to migratory birds will be similar to those described in the Sahara POD EA, WY-070-EA13-72, 2013, Section 4.6.2.2.1, pp. 31-32, incorporated here by reference. Suitable habitat for migratory birds is present at the Durham Ranches Fed 324572-2PH well location. A restriction for habitat removal (no removal May 1 – July 31, unless cleared by survey) will be applied as a COA to reduce the possibility of killing BLM Sensitive Species such as Brewer's sparrow, sage thrasher, and loggerhead shrike.

The habitat at Fed 324572-2PH was suitable for sage-brush obligate migratory birds. Construction of the well pad and access road during the nesting season could destroy active nests.

To mitigate impacts to migratory birds, a restriction on removal of occupied habitat from May 1- July 31 will be applied to the well pad and access road. This restriction applies 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.

**Swift Fox**

The affected environment for swift fox is discussed in the PRB FEIS on pg. 3-189. In addition to being listed as a BLM WY sensitive species, swift fox is also listed as a WGFD SGCN, with a rating of NSS4, because population status and trends are unknown but are suspected to be stable, and habitat is vulnerable but is not undergoing substantial loss.

Impacts to swift fox are discussed in the PRB FEIS, p. 4-265. Cumulative impacts to sensitive species are discussed in the PRB FEIS on pp. 4-273.

Site-specifically, the project will impact swift foxes or their habitat. During construction there is the possibility that swift foxes may be killed by earth moving equipment. Constant noise, movement of equipment, and habitat alterations puts considerable stress on animals and is likely to cause a decrease in fox reproductive success. Construction can remove protective cover and expose individuals to predators. Project related traffic may result in swift fox road mortalities.

A potential swift fox den within the area to be disturbed by Fed 324572-2PH pad construction was observed on the onsite. A follow-up survey in April 2015 showed no swift fox use. No mitigation recommended.

**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 that are generally found within BFO the reader is referred to the *Draft Cultural Class I Regional Overview, Buffalo Field Office* (BLM, 2010). A Class III (intensive) cultural resource inventory (BFO project no. 700150031) was performed in order to locate specific historic properties which may be impacted by the proposed project. The following resources are located in or near the proposed project area.

**Cultural Resources Located In or Near the Project Area**

Site Number	Site Type	NRHP Eligibility
48CA5297	Historic Road	Not Eligible
48CA7215	Historic and Prehistoric Site	Not Eligible
48CA7216	Cairns	Unevaluated
48CA7217	Cairns	Unevaluated

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. Non eligible sites 48CA5297 and 48CA7215 will be impacted by the proposed project. No historic properties will be impacted by the proposed project. Following the State Protocol Between the Wyoming Bureau of Land Management State Director and The Wyoming State Historic Preservation Officer, Section V(E)(iv) the Bureau of Land Management electronically notified the Wyoming State Historic Preservation Officer (SHPO) on 4/7/15 that no historic properties exist

within 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 must be followed. Further discovery procedures are explained in Standard COA (General)(A)(1) and Appendix K of the Wyoming Protocol.

**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>
NRS/Team Lead	Meleah Corey	Archeologist	G. L. "Buck" Damone III
Supr NRS	Casey Freise	Wildlife Biologist	William Ostheimer
Petroleum Engineer	Will Robbie	Geologist	Kerry Aggen
LIE	Christine Tellock	Supr NRS	Kathy Brus
Assistant Field Manager	Clark Bennett	Assistant Field Manager	Chris Durham
NEPA Coordinator	Tom Bills	WY SHPO	Mary Hopkins

**Decision and Rationale on the Proposal.**

The COAs provide mitigation and further the justification for this decision and may not be segregated from project implementation without further NEPA review. I reviewed the plan conformance statement and determined that the proposed Bison Appraisal POD consolidated CX3 APDs and infrastructure conform to the applicable land use plan, 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215. I reviewed the proposal to ensure the appropriate exclusion category as described in Section 390 of the Energy Policy Act of 2005 is correct. I determined that there is no requirement for further environmental analysis.

Field Manager: \_\_\_\_\_/s/ Duane W. Spencer\_\_\_\_\_ Date: \_\_\_\_\_ May 21, 2015 \_\_\_\_\_

Contact Person, Meleah Corey, Natural Resource Specialist, Buffalo Field Office, 1425 Fort Street, Buffalo WY 82834,307-684-1100.