

DECISION RECORD

**Categorical Exclusion 3 (CX3), WY-070-390CX3-14-399, 400, 401, 402, 403, 404, 405 and 406
Section 390, Energy Policy Act of 2005, Applications for Permit to Drill (APDs)
Peak Powder River Resources, LLC, J-Cosner Fed 1 Plan of Development (POD)
Bureau of Land Management, Buffalo Field Office, Wyoming**

DECISION. The BLM approves 8 applications for permit to drill (APDs), two well pads, entrance roads, and infrastructure, and an existing improved access road right-of-way as described in the consolidated Categorical Exclusion 3 (CX3), WY-070-CX3-14-399, 400, 401, 402, 403, 404, 405, and 406 incorporated here by reference.

Compliance. This decision complies with or supports:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); DOI Order 3310.
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- National Historic Preservation Act of 1966 (16 USC 470).
- Endangered Species Act of 1974 (16 USC 1531).
- Buffalo and Powder River Basin Oil and Gas Project Final Environmental Impact Statement (FEISs) (2003).
- Buffalo Resource Management Plan (RMP) 1985, Amendments 2001, 2003, 2011.

A summary of the details of the approval follows. The CX3 for the oil and gas wells, above, includes the project description, and site-specific mitigation measures which are incorporated by reference into this CX3 from earlier analysis. The project area is 4 miles South of Wright, Campbell County, Wyoming. Peak’s proposal has 8 APDs with 2 associated pads, access roads and infrastructure, to develop and produce oil and gas from the Mowery, Niobrara, Parkman and Turner Formations. The wells are horizontal bores proposed on a 640 acre spacing pattern (Docket #'s: 601-2013 and 602-2013).

Approvals. BLM approves the following 8 APDs, associated infrastructure:

| # | Well Name & # | Qtr | Sec | Twp | Rng | SHL | LHL | BHL | CX # |
|---|---------------------|------|-----|-----|-----|------------|-----------|------------|----------------------|
| 1 | J COSNER FED 1-14MH | SESW | 14 | 43N | 72W | WYW0313182 | WYW107245 | FEE | WY-070-390CX3-14-399 |
| 2 | J COSNER FED 1-14NH | SESW | 14 | 43N | 72W | WYW0313182 | WYW107245 | FEE | WY-070-390CX3-14-400 |
| 3 | J COSNER FED 1-14PH | SESW | 14 | 43N | 72W | WYW0313182 | WYW107245 | FEE | WY-070-390CX3-14-401 |
| 4 | J COSNER FED 1-14TH | SESW | 14 | 43N | 72W | WYW0313182 | WYW107245 | FEE | WY-070-390CX3-14-402 |
| 5 | J COSNER FED 2-14MH | NENW | 14 | 43N | 72W | FEE | FEE | WYW0313182 | WY-070-390CX3-14-403 |
| 6 | J COSNER FED 2-14NH | NENW | 14 | 43N | 72W | FEE | FEE | WYW0313182 | WY-070-390CX3-14-404 |
| 7 | J COSNER FED 2-14PH | NENW | 14 | 43N | 72W | FEE | FEE | WYW0313182 | WY-070-390CX3-14-405 |
| 8 | J COSNER FED 2-14TH | NENW | 14 | 43N | 72W | FEE | FEE | WYW0313182 | WY-070-390CX3-14-406 |

SHL – Surface Hole Lease; LHL – Lateral Hole Lease; BHL – Bottom Hole Lease

Limitations. See conditions of approval (COAs) and lease stipulations.

THE FINDING OF NO SIGNIFICANT IMPACT (FONSI). Congress, the Department of Interior and BLM affirmed there was no significant impact of a like-structured project when they created this CX3 analysis process and its limiting parameters. This consolidated CX3 analysis tiers to NEPA analyses which received a FONSI, thus a new FONSI or EIS are not required.

Summary of New Information. BLM posted the APDs for 30 days and received no public comments. Since BLM received these APDs, it received no new clarifying policies for APD processing.

DECISION RATIONALE. The approval of this project is because:

1. Mitigation measures and COAs analyzed in the CX3 analysis, in environmental impact statements, or environmental analysis to which the CX3 analysis tiers or incorporates by reference, will reduce environmental impacts while meeting the BLM's need.
2. 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 GSG 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 GSG conservation strategies. There are no conflicts anticipated or demonstrated with current uses in the area. This decision approving this APD complies with the Energy Policy Act of 2005, Section 390, 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215.
3. To reduce the likelihood of a "take" under the Migratory Bird Treaty Act, BLM sensitive species nesting habitat removal will occur outside of the breeding season or be cleared by survey on the federal lease (WYW0313182, 1-14 location) and recommended for the pad over non-federal minerals (2-14 location).
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). This project complies with the breadth and constraints of CX3, Energy Policy Act of 2005, and subsequent policy.
5. The APDs will help meet the nation's energy need, revenues, and stimulate local economies by maintaining workforces.
6. The operator, in their 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 APD (PRB FEIS ROD, p. 7).
7. The project is clearly lacking in wilderness characteristics as it is on non-federal surface amidst existing developments.
8. 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. This decision does not foreclose the lessee or operator to propose using external pumping units via a sundry application process.
9. Peak certified it has an access agreement with the landowners or it posted a bond.
10. This approval is subject to adherence with all of the operating plans, design features, and mitigation measures contained in the surface use plan of operations and drilling plan information in the 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: 1/21/2015

**Categorical Exclusion 3 (CX3), WY-070-390CX3-14-399, 400, 401, 402, 403, 404, 405 and 406
Section 390, Energy Policy Act of 2005
Peak Powder River Resources, LLC; J-Cosner Fed 1 Plan of Development (POD)
Bureau of Land Management, Buffalo Field Office, Wyoming**

Description of the Proposed Action.

Peak Powder River Resources, LLC (Peak) proposes to drill 8 oil wells at 2 well pad locations and construct associated infrastructure as follows:

Table 1.1. Proposed Wells

| # | Well Name & # | Qtr | Sec | Twp | Rng | SHL | LHL | BHL | CX # |
|---|---------------------|------|-----|-----|-----|------------|-----------|------------|----------------------|
| 1 | J COSNER FED 1-14MH | SESW | 14 | 43N | 72W | WYW0313182 | WYW107245 | FEE | WY-070-390CX3-14-399 |
| 2 | J COSNER FED 1-14NH | SESW | 14 | 43N | 72W | WYW0313182 | WYW107245 | FEE | WY-070-390CX3-14-400 |
| 3 | J COSNER FED 1-14PH | SESW | 14 | 43N | 72W | WYW0313182 | WYW107245 | FEE | WY-070-390CX3-14-401 |
| 4 | J COSNER FED 1-14TH | SESW | 14 | 43N | 72W | WYW0313182 | WYW107245 | FEE | WY-070-390CX3-14-402 |
| 5 | J COSNER FED 2-14MH | NENW | 14 | 43N | 72W | FEE | FEE | WYW0313182 | WY-070-390CX3-14-403 |
| 6 | J COSNER FED 2-14NH | NENW | 14 | 43N | 72W | FEE | FEE | WYW0313182 | WY-070-390CX3-14-404 |
| 7 | J COSNER FED 2-14PH | NENW | 14 | 43N | 72W | FEE | FEE | WYW0313182 | WY-070-390CX3-14-405 |
| 8 | J COSNER FED 2-14TH | NENW | 14 | 43N | 72W | FEE | FEE | WYW0313182 | WY-070-390CX3-14-406 |

SHL – Surface Hole Lease; LHL – Lateral Hole Lease; BHL – Bottom Hole Lease

The proposed horizontal oil and gas wells are in the J-Cosner Fed 1 POD boundaries, which includes an area of 727 acres. The project area is approximately 4 miles South of Wright, Campbell County, Wyoming. Project elevation is 5,000 feet above sea level. The topography has gently sloped draws rising to rolling hills with mixed sagebrush and grassland uplands. Ephemeral tributaries of Little Thunder Creek drain the project area to the east. The climate in the area is semi-arid, averaging 10-14 inches of precipitation annually, about 60% of which occurs between April and September. The jurisdiction for the 2-14 wells is Fee surface overlying Fee minerals with the targeted formation being a Federal lease. The jurisdiction for the 1-14 wells is Fee surface overlying Federal minerals with the targeted formation being a Federal lease. Surface owners: John Cosner; see the Surface Use Plan of Operations (SUPO), page 22. The Administrative Record (AR) is available for public review at the Buffalo Field Office (BFO).

The BLM’s need for this project is to determine whether, and if so, and 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, which BLM incorporates here by reference, is an integral part of this CX. 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.

Peak submitted eight (8) notices of staking (NOSs) on September 12, 2013, to the BFO. Peak and BFO completed onsite inspections on November 13, 2013 and June 24, 2014. Peak filed eight (8) applications for permit to drill (APDs) which BLM received on November 26, 2014, incorporated here by reference. The onsites evaluated the proposal and modified it to mitigate environmental impacts. The BLM sent a post-onsite deficiency letter to Peak on September 17, 2014.

Full effects of the proposal and recommended mitigation measures (RMMs) are included in Peak’s J-Cosner Fed 1 POD SUPO and additional NEPA analyses which BLM incorporates by reference, and BLM’s Conditions of Approval (COAs) for Conventional Applications for Permit to Drill, Appendix A.

Drilling, Construction & Production design features include:

- Peak anticipates completing drilling and construction in 2 years. Drilling and construction is year-round in the region. Weather may cause delays, but delays rarely last multiple weeks. Timing limitations in the form of COAs and/or agreements with surface owners may impose longer temporal restrictions. For each well, the operator anticipates that estimated drilling duration will be 2-4 weeks. Approximately 15,000 barrels (bbls) of water will be needed to drill each well.
- A road network that will consist of upgrading (widening) 4,929 feet of existing improved road and 615 feet of newly proposed improved well access road. Roads will be constructed with a 24 foot running surface with surface disturbance not to exceed a width of 70 feet. The operator will use Wyoming State Highway 59 to enter the project area. A road maintenance agreement will be ratified on shared roads to maintain existing roads in a condition the same as or better than before operations began. Average daily traffic (ADT) will be greatest during the well pad construction and moving the drill rig on to location (ADT=45) decreasing sustainably when the wells are in production (ADT=3); see page 4 of the SUPO.
- A semi-closed loop mud system will be utilized for the well drilling and cuttings will be stored on location in bermed containment areas to dry.
- No off-site ancillary facilities are planned for this project. No staging areas, man camps/housing facilities are anticipated to be used off-site. Working trailers and sleeping trailers will be placed on the well pad during the drilling and completion of the well.
- If a well becomes a producer, production facilities will be located at the well site and will include a pumping unit, 7 oil storage tanks, 2 water storage tanks, metering building, oil-water separator (heater-treater) for each well on location in addition to a single power drop, flare stack and combustor. There will be no pits at producing oil well locations.
- An existing and proposed above ground powerline will be used if a well becomes a producer. Power will be provided by a 3rd party contactor. It is anticipated that new construction of power will begin at the existing 3-phase overhead lines adjacent to the well pads and continue to a power drop on the well pad.
- Well pad disturbance during construction and drilling will be 7.5 and 7.7 acres for the 1-14 and 2-14 well pads respectfully. Once the well is complete, Peak will reclaim any area of the well pad not needed for production as interim reclamation reducing the footprint by 50% or more.
- Hydraulic fracturing (HF) operations are planned as a ‘plug and perf’ operation done in stages. The process is anticipated to require 1-3 week per well to complete. Approximately 60,000 bbls of water will be needed to frac each well. All water used for HF will come from 1of 3 sources listed in the SUPO. All fresh water will be contained on location in single 40,000 bbl rental Poseidon tanks and no surface pits will be used to hold this water. No additional well pad disturbance is anticipated for HF operations. Completion flowback water will be held in tanks on location and trucked offsite to a disposal facility permitted by Wyoming Department of Environmental Quality (WDEQ); see page 12 of the SUPO.
 - Typically, once the Poseidon tank is set up, it takes 2 weeks to fill, prior to pumping the stimulation. All HF water, including excess, is present before starting.
 - Flowback equipment and tanks are spotted 2-3 days before pumping. Sand silos are spotted and filled 2-3 days prior to pumping.
 - Next pump trucks and chemical mixing equipment arrive and, when ready, operations continue for 36-48 hours or 3-5 days depending on the type of stimulation stage isolation (i.e. packers/sleeves or plug/perf respectively).
 - Sand is continuously brought on site in semi-truck loads during pumping. It is necessary to have a safe turning radius available for these trucks. Pumping water may require heating in the winter months.

Figure 1. Typical Equipment Onsite for a Multi-Horizontal Oil Well Drilling Operation.



The J-Conser Fed 1 POD uses existing roads and infrastructure associated with Devon Energy’s Cosner-Wright-Fuller 3 (9 APDs approved 6/14/14) and Cosner Wright 2 (18 APDs approved 2/27/14) PODs. For a detailed description of design features and construction practices associated with the proposed project, refer to the SUPO and drilling plan included with the APDs. Figure 1 above shows a typical horizontal well drilling operation. Also see the Exhibit 1 for the J-Cosner project map showing the proposed well locations and associated facilities described above. Total surface disturbance for the proposal is 24.8 acres.

Table 1.2. Disturbance Summary for Peak’s J-Cosner Fed 1 POD

| Facility | Number or Feet | Factor | Disturbance |
|--|----------------|---------|---|
| Engineered Well Pads J-Cosner Fed. 1-14 J-Cosner Fed 2-14 | 2 | Varies | 7.5 acres 7.7 acres (15.2 acres) |
| Existing Roads to be Upgraded 16 foot Improved Template Road | 4,929 | 70 feet | 7.9 acres |
| Proposed Roads 24 foot Improved Template Roads | 615 feet | 70feet | 1.0 acres |
| Proposed Overhead Power-3rd Party | 1,063 feet | 30 feet | 0.7 acres |
| Total Surface Disturbance | | | 24.8 acres |

Off Well Pad

Produced water from the 2 locations will be trucked to reinjection and disposal facilities. See p. 11-12 of the SUPO for the Operator’s plans for produced water.

There are existing gas gathering facilities in the vicinity of the project area. Peak did not include plans for gas pipelines with the APDs and it is anticipated that those will be submitted under sundry notice at a later date. Peak plans to move water needed for drilling and completion operations to the well locations via tanker trucks. Water will be trucked from 1 of 3 private water wells or an existing stock water reservoir; See page 9 of the SUPO. Filling the water storage tanks on location will be done prior to drilling and/or completion operations and may take up to 2 weeks.

Peak requires approximately 1,063 feet of 3rd party electrical power installation from existing utility lines to the proposed wells. The electric runs to the wells will be overhead powerlines to the edge of the pad and buried power to the pumping unit electric motor and other electrically powered devices on site to

power the wells. Where BLM authority applies, Peak will propose any alternation to the power route via sundry application or right-of-way application and BLM will analyze such proposal in a separate NEPA analysis. Peak does not anticipate requiring the use of generators for this project. See the project maps included in the SUPO for the layout of the wells road and overhead power lines proposed.

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 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 proposal conforms with the terms and conditions of the approved Resource Management Plan (RMP) for the public lands administered by the BLM, BFO, 1985, and Resource Management Amendments 2001, 2003, 2011 as required by 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215. The J-Cosner Fed 1 POD and area are clearly lacking in wilderness characteristics as they are on non-federal surface amidst existing oil and gas development and coal mining operations. BLM finds that the conditions and environmental effects found in the senior EA 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 1.3 is a list of NEPA analysis that are within or adjacent to the J-Cosner Fed 1 POD project area. This information shows that BLM conducted analyses and BLM incorporates these by reference.

Table 1.3. NEPA Analyses Which BLM Incorporates by Reference either as similar drilling analyses or as substantially similar analyses.

| # | | POD / Well Name | NEPA Analysis # | #/ Type Wells / Drilled | Mo/Yr |
|----------------|----------|------------------------|------------------|-------------------------|-----------|
| 1 | Devon | Cosner Wright 2 | WY-070-EA14-191 | 18/ Oil/ 18 | 2/27/2014 |
| 2 | Devon | Cosner-Wright-Fuller 3 | WY-070-EA14-225 | 9/ Oil/ 6 | 6/14/2014 |
| 3 ^b | Anadarko | Crazy Cat East | WY-070-EA13-028 | 36/ Oil/ 0 | 3/5/2013 |
| 4 | Yates | Porsche Wells | WY-070-EA-14-085 | 6/ Oil/ 2 | 2/3/2014 |
| 5 ^a | Lance | Mufasa Fed 11-31H | WY-070-EA12-062 | 1/ Oil/ 1 | 3/2012 |
| 6 ^b | Lance | Sahara POD | WY-070-EA13-72 | 21/Oil/ 4 | 3/2013 |

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

- a. While not overlapping, incorporate those sections describing and analyzing hydraulic fracturing, its supporting analysis, and the Greater Sage-grouse Section 3.7.12 and 4.8.2.
- b. While not overlapping, incorporate those sections describing and analyzing hydraulic fracturing and its supporting analysis to include but not limited to traffic, water, and air quality.

*Approved within 5 years and in the 4 miles analysis area of the J-Cosner Fed 1 POD (as of 12/15/2014).

** BLM only included the wells in the J-Cosner 4-mile analysis area.

*Well Status within these PODs: 18 Drilling, 212 Producing Gas, 6 Producing Oil (as of 12/15/2014).

- 2) Reasonably foreseeable activity (RFA) is found in the Crazy Cat East (EA), WY-070-EA13-028. This locality includes but is not limited to the approved Cosner-Wright 2 and will fill-in to 640 acre spacing. BLM also notes from Table 1.3, above, that of the 63 analyzed APDs, only 24 are drilled;

thus 39 undrilled, analyzed APDs contribute to the available RFA for this CX3 analysis. The RFA for this analysis area includes 73 sections, oil/gas exploration on 640 acre spacing and possible 320 acre spacing for horizontal wells and 40 acre spacing for vertical, conventional oil wells. (This does not preclude the spacing analysis in the PRB FEIS further reducing the surface disturbance per well.) The project analysis area is the area within 4 miles of the proposed well and includes only those federal projects approved within 5 years, as of December 2014.

- 3) The tiered NEPA document was finalized or supplemented within 5 years of spudding (drilling) the proposed wells. This J-Cosner Fed 1 POD CX3s tiers to the NEPA analyses in the Porsche Wells, WY-070-EA14-085 and the Crazy Cat East, WY-070-EA13-028.

In summary, the analyses in Table 1.3, 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 the J-Cosner Fed 1 POD. The BLM reviewed the analyses and found that the analyses considered potential environmental effects associated with the proposal at a site specific level. The J-Cosner Fed 1 POD SUPO 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 also incorporates 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 and Vegetation

The soil and ecological site descriptions prepared by the Natural Resources Conservation Service (NRCS) for the project area fall across the South Campbell County soil survey area. The descriptions show the project area is dominated by Loamy and Clayey soils in the 10-14 inch Northern Precipitation Zone. Other less prevalent soils in the project area are Sandy. The entire J-Cosner 1-14 well pad and access road fall across Loamy soils. The entire J-Cosner 2-14 well pad falls across Clayey soils with the access road being split in thirds across Clayey, Loamy, and Sandy soils. The interpretive vegetative plant community is a rhizomatous wheatgrass/needleandthread/blue gramma plant community in the Loamy soils and needleandthread/prairie sandreed plant community in the Clayey soil. Peak and Grouse Mountain Environmental Consultants (2014) prepared a reclamation plan that includes detailed soil, ecological site, and vegetative community descriptions of the project area, incorporated here by reference; see the administrative record (AR).

Forkwood loam, 0 to 6 percent slopes (Loamy) soils is rated as fair reclamation source material and dominate the J-Cosner 1-14 location . Heldt clay loam, 0 to 6 percent slopes (Clayey) soil, rated as poor reclamation source material, dominates the J-Cosner 2-14 location. Peak's reclamation plan specifies salvageable topsoil depth for the J-Cosner 2-14 well site at 8 inches. They have not performed the needed shovel tests to determine topsoil depth for the J-Cosner 1-14 site but BLM estimates salvageable soil depth across the disturbance area at 8-12 inches maintaining an organic component (plant roots) with the soil. This was confirmed by onsite field evaluation. The NRCS' SSURGO data shows the soil components of greatest concern being the lack of organic matter (1 to 2%), too clayey, high water erosion potential. Restrictive layers of the soils if any are at below 60 inches in depth. The soil is non-saline. The soil is poorly rated as suitable construction material due to low soil strength and high shrink/swell ratio. Additional information on the impacts to soils, and its influence on cumulative effects from energy

development are in the affected environment and environmental effects sections of the Porsche Wells EA, pages 7-8 and 13-15, incorporated here by reference.

Soils Susceptible to Erosion

Loss in productivity is likely to occur on most soils if erosion continues unchecked. Because soil formation is a very slow process, most soils cannot renew their eroded surface while erosion continues. The development of a favorable rooting zone by the weathering of parent rock is much slower than development of the surface horizon. One estimate of this renewal rate is 0.5 ton per acre per year for unconsolidated parent materials and much less for consolidated materials. These very slow renewal rates support the philosophy that any soil erosion is too much. Loss of organic matter, resulting from erosion and tillage, is one of the primary causes for reduction in production yields. When organic matter decreases, soil aggregate stability, the soil's ability to hold moisture, and the cation exchange capacity decline. (Soil Quality-Agronomy Technical Note #7, USDA, Aug 1998.)

Reclamation Suitability

Currently soil conditions in the project area are impacted by CBNG development as well as traditional activities, including livestock grazing. Much of the area is covered with soils that are easily damaged by use or disturbance or are difficult to re-vegetate or otherwise reclaim. Soil impacts (e.g., roads, linear pipeline scars, and artificial wet areas) can be readily observed in the area. In the absence of recoverable topsoil as is common throughout the project area, the surface organic matter in the form of vegetation, litter and biological crust are critical to maintaining the integrity and viability of the soil.

Reclamation potential of soils varies throughout the project area. The main soil limitations in the project area include: depth to bedrock, low organic matter content, and high erosion potential especially in areas of steep slopes. Many of the soils and landforms of this area present distinct challenges for development.

These impacts, singly or in combination, increase the potential for valuable soil loss due to increased water and wind erosion, invasive/noxious/poisonous plant spread, invasion and establishment, and increased sedimentation and salt loads to the watershed system, absent applicable mitigation measures.

The appropriate mitigation measures using BLM applied mitigation to reduce impacts to vegetation and soils from surface disturbance are well described in the Crazy Cat East Oil and Gas Proposal EA, incorporated here by reference as well as the BLM Wyoming Reclamation Policy. These practices, as well as other mitigation measures identified in the SUPO and COAs, will result in less surface disturbance and environmental impacts.

Water Resources.

The historical use for groundwater in this area was for stock or domestic water. A search of the WSEO Ground Water Rights Database showed 19 registered stock and domestic water wells and 7 ground water monitor well within 1 mile of the proposed wells in the project area with depths ranging from 8 to 513 feet. For additional information on groundwater, refer to the PRB FEIS, pp. 3-1 to 3-36. 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. This will ensure that ground water will not be adversely impacted by well drilling and completion operations. The depth to the Fox Hills Formation ranges from 5,671 to 5,592. The Fox Hills, the deepest penetrated fresh water zone in the PRB lies well above the target formation. Table 4 shows the depths where casing will be set and cemented in place. The operator will verify that there is competent cement across the aquifer, from approximately 200 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.

Table 1.4. Casing Set and Cementing Depths in relation to the Fox Hills

| # | Well Name/ Well # | Total Depth of Surface Casing (feet) | Total Depth of Intermediate Casing (feet) | Depth to Fox Hills (feet) | Top of Intermediate Casing Cement |
|---|-------------------------------|--------------------------------------|---|---------------------------|-----------------------------------|
| 1 | J-Cosner Fed 1-14 MH,NH,PH,TH | 3,200 | 9,998 | 5,692 | ~5,492 |
| 2 | J-Cosner Fed 2-14 MH,NH,PH,TH | 2,500 | 9,977 | 5,671 | ~5,471 |

At the time of permitting, the volume of water that will be produced in association with these federal minerals is unknown. The operator will have to produce a well for a time to be able to estimate the water production. In order to comply with the requirements of Onshore Oil and Gas Order #7, Disposal of Produced Water, the operator 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 quite low in most cases. There are three 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.

Wetlands/ Riparian.

A search of the National Wetland Inventory shows that there are 20 freshwater emergent wetlands and freshwater ponds within 0.5 mile of the 2 well locations. None of these 20 known wetlands will be impacted by surface disturbing activities associated with the construction of the well pads and associated access roads. Best management practices will be implemented to divert runoff that could carry sediment from the constructed features to a known wetland.

Other Leasable and Locatable Minerals.

The project area is located 2.6 miles west of lands leased for coal mining. Presently there are no planned uranium developments in this immediate area.

Invasive Species.

There are no known infestations of state listed noxious weed in the immediate area of the J-Cosner Fed 1 POD and no noxious weeds were observed by BLM during the onsite inspections. Peak and Grouse Mountain Environmental Consultants contacted the Campbell County Weed and Pest office about what noxious weed might be of concern in the immediate area. Dalmatian toad flax and Canada thistle have been found in the area in the past and treated. Peak has developed an integrated weed management plan to address noxious weed including but not limited to Dalmatian toad flax and Canada thistle.

Wildlife

Grouse Mountain Environmental Consultants (GMEC) completed a habitat assessment and wildlife surveys for Peak including raptor nest surveys between April 15 and June 15, 2014. They completed greater sage-grouse (GSG) surveys April 1-May7, 2014. No surveys were conducted for wintering bald eagles, prairie dog colonies, mountain plovers, Ute ladies' trusses orchids or nesting migratory birds. Surveys completed were conducted per the PRB Interagency Working Group's protocols; see: http://www.blm.gov/wy/st/en/field_offices/Buffalo/wildlife.html. The affected environment within 4 miles of the proposed wells (54.8 square miles) has 302 active oil and gas wells (in addition to 251 of plugged and abandoned wells) and associated access roads and infrastructure to support the production. There are also 45 pending APDs for new wells. Habitat quality in the area is highly impacted by oil and gas development with an average of 7.8 wells per square mile currently on the landscape.

BLM reviewed the proposed APDs and determined that the proposed APDs, combined with the COAs (and design features), are: (1) consistent with the FEIS and its supplements, the RMP and the above tiered NEPA analyses; and (2) consistent with the programmatic biological opinion (ES-6-WY-02-F006), which is an update from the PRB FEIS, Appendix K. The proposed well locations and infrastructure are a result of attempts by Peak and the BLM to reduce impacts to GSG, ferruginous hawks and other migratory birds, and incorporates recommendations provided to the BLM by the U.S. Fish and Wildlife Service (FWS). The affected environment and environmental effects for wildlife are discussed in, and anticipated to be similar to the Mufasa Fed 11-31H Well EA, WY-070-EA12-062 (pp. 7-11 and 16-21), the Sahara POD EA, WY-070-EA13-72, (pp. 16-17 and 31-33), and the Crazy Cat East EA, WY-070-EA13-028, (pp. 29-34 and 49-56), incorporated here by reference.

Raptors

There are 3 known raptor nests within 0.5 mile of the 2 proposed well locations, along with overhead powerlines, local access roads and WY State Highway 59. A fourth nest located less than 0.25 mile from the J-Cosner 1-14 well location is gone. All of the nests are in line of sight of both the well locations. Two nests are ferruginous hawk nests. Suitable nesting habitat and prey species are present throughout the area. The PRB FEIS analyzed direct and indirect effects to raptors, pp. 4-216 to 4-221. This project will result in a direct loss of foraging habitats (approximately 24.8 acres). The cumulative effects associated with the project are within the analysis parameters and impacts described in the PRB FEIS. Refer to the PRB FEIS for details on expected cumulative impacts, p. 4-221.

Effects to raptors were analyzed in the Crazy Cat East EA, pp. 51-52. Proposed surface disturbing activities within 0.5 miles to raptor nests (see administrative record) includes: J-Cosner 2-14 and J-Cosner 1-14 well pads and their associated access roads and overhead powerlines.

BLM will require known raptor nest locations to be surveyed following the current BLM protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist. A 0.5 mile timing restriction (February 1 through July 31) will be applied if a nest is identified as active. Measures intended to avoid, minimize, and mitigate impacts to raptors are outlined in the COAs, including operator committed measures and site-specific COAs. For example, to reduce the risk of adverse impacts to nesting raptors, no surface-disturbing activity will occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey. This will apply to all surface disturbing activities located within the Southwest of Section 14, T43N/R72W.

Greater Sage-Grouse (GSG)

General effects from oil and gas development to GSG in the vicinity of the project area were analyzed in the Crazy Cat East Oil and Gas Proposal EA, pp. 54-56 and the Sahara POD EA, WY-070-EA13-72, 2013, Section 4.6.4.1, pp. 34-37., both incorporated here by reference. The BLM typically applies a controlled surface use buffer of 0.25 miles for GSG leks but none of the wells or associated roads fall within 0.25 of a GSG lek. There is 1 unoccupied GSG lek within 2-miles of the proposed wells; the Stuart I Lek is the nearest lek at just under 1 mile from the J-Cosner 1-14 well location. The J-Cosner 2-14 well location is, also within 2-miles of the Stuart I Lek and is in sagebrush grassland habitat that is mapped and modeled (using a geospatial habitat model) as suitable GSG nesting and brood rearing habitat. The onsite inspection confirmed that the sagebrush habitat at the well location is of a stand height to meet the habitat needs of the species but its proximity to existing oil and gas wells and infrastructure as well as WY State Highway 59 makes it unlikely that the species would utilize the available habitat. Construction of the well pad, access road, and buried utilities will result in the removal of sagebrush. Drilling, HF activities and well production are also anticipated to negatively impact GSG nesting in suitable habitat within 0.6 mile of the proposed activities because nesting GSG avoid infrastructure by up to 0.6 miles.

In March, 2012, the BLM-contracted population viability analysis for the Northeast Wyoming GSG found there remains a viable population of GSG in the PRB (Taylor et al. 2012). Threats from energy

development and West Nile Virus (WNV) are impacting future viability (Taylor et al. 2012). The study indicated that effects from energy development, as measured by male lek attendance, are discernible out to a distance of 12.4 miles. There are 12 known GSG leks within 12.4 miles of the 8 proposed wells, 5 occupied and 7 unoccupied leks. None of these GSG leks lay inside GSG Priority Habitat. The distribution of existing and proposed wells in relation to those 12 leks that occur within 12.4 miles of the 8 wells proposed is 8.8 wells per square mile. Additional information regarding the population viability analysis, and its influence on cumulative effects from energy development is found in the affected environment and environmental effects sections (Section 3.7.12 and 4.8.2 – Candidate Species – Greater Sage-Grouse of the Mufasa Fed 11-31H Well EA, WY-070-EA12-062, incorporated here by reference.

To reduce the impacts to GSG associated with noise, construction, and human disturbance resulting from implementation of the proposals, BLM will implement a timing limitation (March 15-June 30) on surface-disturbing activities within 2 miles of known GSG leks. The intent of this timing restriction is to decrease the likelihood that GSG will avoid these areas and increase habitat quality by reducing noise and human activities during the nesting season. There are 2 unoccupied GSG leks within 4 miles of the proposals including Stuart I and Stuart II. The Crazy Cat East EA found that, “leks within a 4-mile buffer of the CCE area are extremely impacted by oil and gas development”, p. 55. The application of the timing limitation will minimize the impacts that would reduce connectivity between the 2 GSG leks within 4 miles and the 12 GSG leks within 12.4 miles of the proposals. A clearance survey for breeding and/or nesting GSG, within 0.5 of planned surface disturbance is required prior to surface disturbance. These conditions apply to surface disturbing activities located SESE Section 10, SW and SWSE Section 11, entire Section 14 except NENE and SENE, NENE, SESE and SENE Section 15, NW, NWNE and SWNW Section 23 T43NR72W. The Operator is required to ensure that noise from their facilities at any nearby GSG leks does not exceed 49 decibels (10 dBA above background noise) at the display grounds.

Migratory Birds

The PRB FEIS discussed direct and indirect effects to migratory birds on pp. 4-231 to 4-235. The PRB FEIS states on p. 4-231, “Surface disturbance associated with construction, operation, and abandonment of facilities, including roads, has the potential to result in direct mortality of migratory birds. Most birds would be able to avoid construction equipment; however, nests in locations subject to disturbance would be lost, as would any eggs or nestlings.” Direct mortality of a bird or destruction of an active nest due to construction activities could result in a “take” as defined (and prohibited) by the Migratory Bird Treaty Act (MBTA), a nondiscretionary statute. Additional information on the impacts to migratory birds, and its influence on cumulative effects from energy development can be found in the affected environment and environmental effects of the Sahara POD EA, WY-070-EA13-72, 2013, Sections 3.7.2.2 (p. 16-17) and 4.6.2.2 (p. 31-33) incorporated here by reference.

BLM identified suitable habitat for several BLM sensitive sagebrush obligates including loggerhead shrike, Brewer’s sparrow, and sage thrasher. Sagebrush habitat includes suitable nesting habitat, with shrubs in excess of 2 feet at proposed sites of surface disturbances. Brewer’s sparrows and sage thrashers both nest in sagebrush shrubs and occur in the area. Construction of the well pads, access roads and associated infrastructure will remove sagebrush habitat and could result in a “take” (as described above) of BLM sensitive migratory birds if removal occurs during the nesting season.

In an effort to apply the least restrictive measures to be in compliance with the MBTA, while still conforming to Executive Order (EO) 13186 and the BLM/FWS MOU regarding conservation of species of concern, the BLM prohibits habitat removal for only those habitats where BLM special status (sensitive) species (SSS) migratory birds are likely to occur. The BLM applies a conditional surface use stipulation for all special status species to all oil and gas leases since 2008 (IM WY-2013-005, p. 2). To reduce the likelihood of a “take” under the MBTA, the BLM biologist recommends that well pad, access road, and pipeline construction (vegetation removal) occur outside of the breeding season for the greatest

quantity of BLM SSS migratory birds (May 1- July 31) where suitable nesting habitat for sagebrush obligates is present. The restriction would apply to habitat removal, unless a pre-construction clearance survey (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 a protocol. At a minimum, the surveys will consist of nest searches in areas where vegetation will be removed or destroyed. The BLM recommends surveys prior to construction activities supporting the J-Cosner 2-14 well pads as well as the proposed access roads and overhead power. The BLM will require Surveys prior to construction activities supporting the J-Cosner 1-14 well pad, access road and overhead powerline. This condition applies to surface disturbing activities in located NENW, SENW, NESW and SESW Section 14, T43NR72W. Occupied habitat removal is prohibited during the nesting season for sagebrush obligate passerines (May 1 to July 31). Timing limitations for active raptor nests (Feb 1 to July 31) which begins prior to timing limitations for sagebrush obligates, may provide additional protection where migratory bird nesting periods and habitats overlap.

Peak proposes using heater treaters during the production phase of the 4, J-Cosner 1-14wells and the 4, J-Cosner 2-14wells. Heater treaters, and similar facilities with vertical open-topped stacks or pipes, can attract birds. Facilities without exclusionary devices pose a mortality risk. Once birds crawl into the stack, escape is difficult and the bird may become trapped (U.S. v. Apollo Energies Inc., 611 F.3d 679 (10th Cir. 2010); see also Colorado Oil and Gas Commission, Migratory Bird Policy, accessed February 13, 2012). The BLM recommends taking measures to ensure that migratory birds are excluded from all facilities that pose 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 toxic substances are present.

If the habitat removal restriction is applied, it is unlikely that active nests (of BLM sensitive species) will be destroyed, as most nestlings will have fledged by the beginning of August. Nests initiated after the first week in July may be destroyed by construction after August 1st. Ground nesting birds using grassland habitats in the proposed disturbance areas, may have nests or young destroyed if construction occurs during the nesting season; BLM sensitive migratory bird species are not anticipated to nest in the disturbance area for the well post construction. Migratory birds nesting adjacent to the well pad or road may be displaced, abandon nests, or suffer reduced reproductive success due to construction and production activities. Suitability of the project area for migratory birds will be negatively affected due to habitat loss and fragmentation, and proximity of human activities from oil and gas development.

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. 701400100) was performed in order to locate specific historic properties which may be impacted by the proposed project. Additionally, a previously accepted Class III inventory covered a portion of the proposed project area (BFO project no. 70030104). 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 |
|-------------|----------------------------|------------------|
| 48CA2358 | Prehistoric Lithic Scatter | Not Eligible |
| 48CA4536 | Prehistoric Lithic Scatter | Not Eligible |

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 proposed project. Following the *State Protocol Between the Wyoming Bureau of Land Management State Director and The Wyoming State Historic Preservation Officer*, Section V(D)(i) the Bureau of Land Management electronically notified the Wyoming State Historic Preservation Officer (SHPO) on 1/9/2015 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).

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

| Position/Organization | Name | Position/Organization | Name |
|------------------------------|----------------|------------------------------|----------------|
| NRS/Team Lead | Jim Verplancke | Archaeologist | Clint Crago |
| Supr NRS | Casey Freise | Wildlife Biologist | Jim Verplancke |
| Petroleum Engineer | Mat Warren | Geologist | Kerry Aggen |
| LIE | Sharon Soule | Supr NRS | Bill Ostheimer |
| Soils | Arnie Irwin | Assistant Field Manager | Chris Durham |
| Assistant Field Manager | Clark Bennett | NEPA Coordinator | Tom Bills |

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 J-Cosner Fed 1 POD CX3s, 8 APDs and associated 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: _____ 1/21/2015 _____

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

