

## DECISION RECORD

**Categorical Exclusion 3 (CX3), Covering Bonita Federal Com. 11H-WY-070-390CX3-13-41, Lone Moose Federal Com. 13H-WY-070-390CX3-13-73, Cousins Federal Com. 22H-WY-070-390CX3-13-74 and Rocky Butte Federal Com. 29H-WY-070-390CX3-13-75 (horizontal wells) Applications for Permit to Drill (APDs,) Section 390, Energy Policy Act of 2005  
Bureau of Land Management, Buffalo Field Office, Wyoming**

**DECISION:** The BLM approves the applications for permit to drill (APDs) from Yates Petroleum to drill 4 horizontal oil and gas wells and construct their associated infrastructure as described in the CX3 worksheet, for the 390 CX3 numbers listed above, incorporated here by reference.

**Compliance:** This decision complies with:

- 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 (PRB) Final Environmental Impact Statement (FEIS), 1985, 2003.
- Buffalo Resource Management Plan (RMP) 1985, Amendments 2001, 2003, 2011.

**A summary of the details of the approval follows.** The CX worksheet, WY-070-390CX3, for the 4 oil and gas wells, above, includes the project description, including site-specific mitigation measures which are incorporated by reference into that worksheet from earlier analysis. The proposed wells are between the towns of Gillette and Wright, in Campbell County, Wyoming. These Yates well proposals have 1 APD each, along with associated infrastructure, to develop and produce oil and gas from the Turner Formation of the PRB. All wells are horizontal bores proposed on an 80 acre spacing pattern with 1 well per location.

**Approvals:** BLM approves the following APDs and associated infrastructure:

#	Well Name & #	Qtr	Sec	Twp	Rng	Lease	CX Number
1	Bonita Federal Com 11H	NENE	10	43N	73W	WYW105947	WY-070-390CX3-13-41
2	Cousins Federal Com 22H	SWSE	2	43N	74W	WYW139670	WY-070-390CX3-13-74
3	Lone Moose Federal Com 13H	NWNW	26	44N	74W	WYW134893	WY-070-390CX3-13-73
4	Rocky Butte Federal Com 29H	NENW	4	43N	73W	WYW120439	WY-070-390CX3-13-75

**Limitations.** See conditions of approval (COAs).

**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 worksheet process and its limiting parameters. Thus a FONSI and an EIS is not required.

**COMMENT OR NEW INFORMATION SUMMARY.** Since implementation of this CX3 proposal BFO received updated policies on Greater Sage-Grouse (GSG) and migratory bird conservation.

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

1. Mitigation measures and conditions of approval (COAs), analyzed in the CX3 worksheet, in environmental impact statements or environmental analysis to which the CX3 worksheet tiers or incorporates by reference, will reduce environmental impacts while meeting the project's need.
2. The approved project conditioned by its design features and COAs, will not result in any undue or unnecessary environmental degradation. The impact of this development cumulatively contributes to

the potential for local extirpation yet its effect is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS/ROD and current BLM and Wyoming GSG conservation strategies. There are no conflicts anticipated or demonstrated with current uses in the area. This decision approving these APDs complies with the Energy Policy Act of 2005, Section 390, 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215.

3. 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.
4. The selected alternative will help meet the nation's energy need, revenues, and stimulate local economies by maintaining workforces.
5. The operator, in their APD/POD, 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).
  - Provide water analysis from a designated reference well in each coal zone.
6. The project is clearly lacking in wilderness characteristics because it is amidst mineral development.
7. 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.
8. The operator certified there is a surface use access agreement with the landowners it posted a bond.
9. 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: 

Date: 3/29/13

**Categorical Exclusion 3 (CX3), Covering Bonita Federal Com. 11H-WY-070-390CX3-13-41, Lone Moose Federal Com. 13H-WY-070-390CX3-13-73, Cousins Federal Com. 22H-WY-070-390CX3-13-74 and Rocky Butte Federal Com. 29H-WY-070-390CX3-13-75 (all horizontal wells) Application for Permit to Drill (APDs) Section 390, Energy Policy Act of 2005  
Bureau of Land Management, Buffalo Field Office, Wyoming**

**Description of the Proposed Action.** Yates Petroleum Corporation (Yates) proposes to drill 4 horizontal oil and gas wells and construct associated infrastructure as follows:

**Table 1.1. Proposed Well**

#	Well Name & #	Qtr	Sec	Twp	Rng	Lease	CX Number
1	Bonita Federal Com 11H	NENE	10	43N	73W	WYW105947	WY-070-390CX3-13-41
2	Cousins Federal Com 22H	SWSE	2	43N	74W	WYW139670	WY-070-390CX3-13-74
3	Lone Moose Federal Com 13H	NWNW	26	44N	74W	WYW134893	WY-070-390CX3-13-73
4	Rocky Butte Federal Com 29H	NENW	4	43N	73W	WYW120439	WY-070-390CX3-13-75

The proposed horizontal wells are within historic and current oil and gas and coalbed natural gas (CBNG) development. The Bonita Federal Com 11H and the Cousins Federal Com 22H wells are on private surface, over federal minerals. The Lone Moose Federal Com 13H and the Rocky Butte Federal Com 29H are on private surface over fee minerals then horizontally draining federal minerals. The project area is between the towns of Gillette and Wright, in Campbell County, Wyoming. Elevation of these projects is close to 5000 feet. The topography has gently sloped draws rising to mixed sagebrush and grassland uplands, with some areas of developed farming and ranching lands. Ephemeral tributaries are common in the area. Main drainages in the area are the Belle Fourche River, All Night and Fourmile Creeks. The climate is semi-arid, averaging 10-14 inches of precipitation annually, about 60% of which occurs between April and September. The proposal targets draining minerals from the Turner Formation.

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. BLM Washington Office Instruction Memorandum (IM) No. 2009-078 established policy and procedures for processing federal applications for permit to drill (APDs) for horizontal drilling into federal mineral estate from multiple well pads on non-federal locations. 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 mitigation is in the Conditions of Approval for Conventional Application for Permit to Drill.

Reasonably foreseeable development in the Raging Bull Com. 2H APD/POD (plan of development) environmental assessment (EA), WY-070-EA12-207, 2012, is in the area of to these proposals and addressed filling-in to 80-acre spacing. This supports the development anticipated in the Powder River Basin Final Environmental Impact Statement (PRB FEIS), (see narrative in Section 2, No Action Alternative).

The surface owners are all private: Bernice Groves, Mike Moore, Robert Roush, Patricia J. Moore Revocable Trust, JJLM Land-LLC, State Lands & Investments, Drake Family Revocable Land Trust and Wilson Family Trust.

The proposal is to explore by horizontal drilling for, and possibly develop oil and gas reserves in the Turner Formation at approximately 10,700 feet, total vertical distance (TVD). Yates proposes drilling and developing these wells into federal mineral estate. The bottom hole locations are about 1 mile away from

the vertical bores (See well maps and APDs for exact locations and footages). The horizontal bores terminate at the bottom holes.

Yates submitted notices of staking (NOSs) in May, June, and July of 2012, to the BFO. Yates and BFO completed onsite inspections on October 17, 2012 for these wells. Yates converted the NOSs to applications for permit to drill (APDs) which BLM received in December of 2012. The onsites evaluated the proposal and modified it to mitigate environmental impacts. The BLM sent a post-onsite deficiency letter to Yates on November 15, 2012 and a “revised” post-onsite deficiency letter on January 9, 2013.

Full effects of the action and recommended mitigation measures are in the 4 proposed project APDs and surface use plans, as listed in Table 1.1 above and BLM Conditions of Approval (COAs) for Conventional Application for Permit to Drill, in Appendices B and C.

Drilling, Construction & Production design features include:

- The operator 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. The operator anticipates that estimated drilling duration will be 60 days and 90 day for completion, depending on circumstances.
- A road network that will consist of existing improved all-weather roads; existing primitive (2-track) roads to be upgraded to all-weather improved roads; and a proposed improved well access roads. The operator will use existing roads as much as possible, whether public or private.
- There will be a reserve pit at this oil well location during drilling and completion.
- Hydraulic fracturing operations are planned as a ‘plug & perf’ operation done in stages. The process is anticipated require 14 days to complete. Drilling and completion water will come from either municipal water supplies from Wright or Gillette, Wyoming, permitted water wells, produced water directly from a CBNG well, or treated water collected in lined pits or reservoirs. The water will be contained in either a lined pit or 400-500 bbl hydraulic fracturing tanks. No additional well pad disturbance is anticipated for hydraulic fracturing operations. Completion flowback water will be held in either the lined reserve pit or in tanks on location, until it can be either trucked or piped offsite to a disposal facility permitted by Wyoming Department of Environmental Quality (WDEQ).
- Temporary, surface water lines for drilling and completion may be used. The surface lines will be removed when all wells have been drilled and completed.
- 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 the well becomes a producer, production facilities will be located at the well site and will include a pumping unit, storage tanks, buildings, oil-water separator (heater-treater). There will be no pits at this producing oil well location.
- Dikes will be constructed completely around production facilities, i.e. production tanks, water tanks, and heater treater. The dikes will be constructed of corrugated steel, approximately 3 feet high, and hold capacity of the largest tank plus 10%. The load-out line will be outside of the dike area. A drip barrel or “Getty-Box” will be installed under the end of all load-out lines.
- An existing and proposed above ground power line will be utilized if the well becomes a producer. Power will be provided by 3<sup>rd</sup> party contactor. Generators will be used for power until permanent power is obtained. It is anticipated that new construction of power will begin at existing 3-phase overhead lines or buried power lines closest to the well and continue adjacent to the well pad.
- Well pad disturbance during construction and drilling will be approximately 5 to 6 acres (this includes cut and fill and soil stock pile areas) for each of the proposed wells. Once the well is completed, any area of the well pad not needed for production will be reclaimed, reducing the pad area for each of the wells by 0.86 acres, for interim reclamation.

- Typically 170 500-bbl hydraulically fracturing (HF) tanks are spotted, taking 2 weeks to fill (approx.12 tanker loads/day), 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 arrives 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.

The following narrative explains why the operator requests a 400 x 400 foot well pad, which is 3.67 acres for the bladed and level pad site. Each well pad will be reduced to 2.81 acres, when interim reclamation is complete, in the production phase of the wells. Total disturbance for pad cut and fill, road and utility disturbance will also be reduced with interim reclamation of the road ditches, pipelines and cut and fill areas. Multi-stage horizontal completions require all equipment and materials to be present before beginning operations. Necessary space must be available to work safely around all the equipment. These proposed well pad surface disturbances are within the PRB FEIS analysis parameters; see description and analysis in Crazy Cat East EA, WY-070-EA13-028, incorporated here by reference, along with its analysis of hydraulic fracturing, its effects on water, and traffic.

Additionally, these proposed wells will use existing infrastructure from existing disturbances as much as possible. For a detailed description of design features and construction practices associated with the proposed project, refer to the surface use plan (SUP) and drilling plan included with the APD. Also see the subject APD for maps showing the proposed well location and associated facilities described above. Total surface disturbance for the proposed action is 80.7 acres, (most of which comes from improving existing roads) for the 4 wells and associated infrastructure.

**Table1.2. Disturbance Summary for the 4 well projects:**

<b>Proposed Facility</b>	<b>Number or Miles</b>	<b>Factor</b>	<b>Disturbance</b>
Engineered Pad	4 well Pads	400 ft. x 400 ft. per Pad	14.8 acres
Engineered Pad Cut & Fill (additional to the Engineered Pad acres)	4	varies	6.2 acres
Improved Roads with Corridor	2.9 mile	50 ft. to 85 ft. 68 ft. average width	22.2 acres
Improved Roads no Corridor	3.2 mile	50 ft. to 60 ft. wide	20.7 acres
2 Track Road and Utility Corridor	0.4 mile	25 ft. wide	1.2 acres
Water, Gas Pipeline and Buried Power	4.6 mile	25ft. to 35 ft. width	15.6 acres
<b>Total Existing &amp; Proposed Surface Disturbance Before Interim Reclamation</b>			<b>80.7 acres</b>

**Off Well Pad**

Yates will install a buried 3 to 6 inch high-density polyethylene (HDPE) gas gathering pipeline of at least 125 psi rating from some of the producing wells to transport natural gas from the well to a gas gathering trunkline and on to a compressor facility. Gas gathering trunklines will typically consist of 6 to 24 inch HDPE buried lines of at least 125 psi rating. Yates will install an above ground and or buried 2 to 6 inch corrosion resistant water gathering pipeline of at least 150 psi rating from the well to transport water to a water gathering trunkline and/or to an approved water disposal well in the area.

The operator requires minimal overhead power installation from existing utility lines for the proposed

POD. The electric provider will run overhead lines near the edge of the pad and underground power will run to the pumping unit electric motor and other electrically powered devices on site to power the well.

**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 worksheet 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, the PRB FEIS, 2003, 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, 43 CFR 46.215, and the Federal Land Policy and Management Act (FLPMA). The projects areas are clearly lacking in wilderness characteristics as they are amidst extensive oil and gas development. 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 existing/approved APDs/PODs that are within, adjacent, and/or tier to the proposed wells project area. This information shows the reader that BLM conducted analysis.

**Table 1.3.**

#	POD / Well Name	NEPA Document #	# / Type Wells	Decision Date
1	Yates: Sunrise Federal 32	WY-070-EA11-287	1/Oil	8/12/2011
2	Samson: Hornbuckle	WY-060-EA11-181	48 pads/Oil	8/26/2011
3	Yates: Verde	WY-070-08-177	11/CBNG	9/12/2008
4	Yates: Raging Bull Com. 2H	WY-070-EA12-207	1/Oil	9/27/12

- 2) There is an existing NEPA document (and the RMP) containing reasonably foreseeable development scenario for this action. There are several existing NEPA documents that reasonably foresaw development 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 approved EAs tier into the PRB FEIS. The PRB EIS 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 over 3,200 oil wells. The project wells are in the foreseeable development scenario of 80 acre well-spacing that was analyzed in EAs in Table 1.3 and in the PRB FEIS’s Appendix A.
- 3) The tiered NEPA document was finalized or supplemented within 5 years of spudding (drilling) the proposed well. The proposed wells tier to the APDs/PODs listed in Table 1.3.

In summary the EAs in Tables 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 of

the proposed wells projects. These oil well projects are similar to both the qualitative and quantitative analysis in the above mentioned EAs, in Table 1.3. The BFO reviewed the EA and found that the EA considered potential environmental effects associated with the proposal at a site specific level. The project wells will share existing infrastructure where possible. Confirmation wells for this 4 well project are those wells drilled and completed in the APDs/PODs in Table 1.3. The APD's 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.

### **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 worksheet 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.

### **Wildlife**

BLM reviewed the proposals and determined that the proposed APD, 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), from the PRB FEIS, Appendix K. The biologist performed onsite inspections to the project area on October 17, 2012. The affected environment and environmental consequences for wildlife are discussed in, and anticipated to be similar to, the documents listed in Table 1.3 above. Additional information is discussed below.

#### **Raptors**

Effects to raptors from surface disturbing and disruptive activities associated with development of horizontal oil wells were analyzed in the Sahara POD EA, WY-070-EA13-72, 2013, Section 4.6.2.1, pp. 28-31, incorporated here by reference. Activities associated with development of Yates' 4 wells listed in Table 1.1 are anticipated to be similar in nature, with the following additional site-specific information.

#### Cousins Federal Com 22H well

The U.S. Fish and Wildlife Service (FWS) recommends a 1-mile spatial buffer to protect ferruginous hawk nests. Three ferruginous hawk nests occur within 1 mile of the proposed Cousins Federal Com 22H well and associated infrastructure, nest #s: 2438, 2439, and 13332. All 3 nests are out of the line of sight of the well pad. Nest 2439 is approximately 0.4 miles from the proposed well pad, and within 0.25 miles, and line of sight, of a proposed underground electric line. Nest 2438 also occurs within 0.25 miles of the proposed underground electric line. Both nests had not been surveyed for at least 5 years prior to 2012 and were reported in remnant condition. To reduce the risk of decreased productivity or nest failure, the BLM BFO applies a 0.5-mile radius timing limitation for surface disturbance during the breeding season around active raptor nests. The visual buffer between the nests and the well pad should mitigate impacts from daily activities at the well once it is in production; however, the disruptive activities associated with construction, drilling, and hydraulic fracturing are likely to impact hawks using the nests.

#### Lone Moose Federal Com 13H well

The FWS recommends a 0.5 mile spatial buffer to protect golden eagle nests. Golden eagle nest 10918 occurs approximately 0.5 miles from a small portion of the Lone Moose Federal Com 13H well pad. The nest was discovered in 2012 and is active. A fee well was built within 0.4 miles of the nest in 2012, and occurs between the nest tree and the proposed Lone Moose well. To reduce the risk of decreased productivity or nest failure, the BLM BFO recommends a 0.5-mile radius timing limitation for surface disturbance during the breeding season around active raptor nests. The nest may be far enough from the proposed well to mitigate impacts from human disturbance associated with production at the well;

however, the disruptive activities associated with drilling and hydraulic fracturing are likely to impact eagles using the nest.

#### Rocky Butte Federal Com 29H

There are no known raptor nests present within 0.5 miles of the Rocky Butte Federal Com 29H well pad. Golden eagle nest 12685, built in 2011 and active in 2012, and ferruginous hawk nest 2435 are within 0.25 miles of the main existing access road in the area. Increased traffic on the road associated with drilling and hydraulic fracturing at the proposed Rocky Butte Federal Com 29H may impact raptors if those activities occur during the nesting season.

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

Effects to GSG from surface disturbing and disruptive activities associated with development of horizontal oil wells were analyzed in the Sahara POD EA, WY-070-EA13-72, 2013, Section 4.6.4.1, pp. 34-37, incorporated here by reference. Activities associated with development of Yates' 4 wells listed in Table 1.1 are anticipated to be similar in nature, with the following additional site-specific information.

#### Bonita Federal Com 11H well

The Bonita Federal Com 11H well and proposed access road occurs within suitable nesting habitat for GSG. Construction of the well pad and access road will result in the removal of sagebrush. The surrounding area is comprised of moderately dense sagebrush stands and rolling topography. The BLM biologist also observed GSG scat in the area. The well is proposed approximately 1.3 miles from the Billie Creek Lek, discovered in 2012. Construction, drilling, and hydraulic fracturing activities are anticipated to negatively impact GSG nesting in suitable habitat in the project area. To decrease the likelihood that GSG will avoid the project area, and increase habitat quality by reducing noise and human activities during the breeding season, the BLM applies a 2 mile timing limitation for surface disturbance (construction and drilling) during the breeding season (March 15-June 30).

#### Rocky Butte Federal Com 29H

The Rocky Butte Federal Com 29H well and proposed access road occurs within suitable nesting habitat for GSG. Although construction of the well pad will result in minimal removal of sagebrush, rolling topography with moderately dense sagebrush stands surround the area. The well is proposed approximately 1.7 miles from the Billie Creek Lek, discovered in 2012. Construction, drilling, and hydraulic fracturing activities are anticipated to negatively impact GSG nesting in suitable habitat in the project area. To decrease the likelihood that GSG will avoid the project area, and increase habitat quality by reducing noise and human activities during the breeding season, the BLM recommends a 2 mile timing limitation during the breeding season (March 15-June 30).

#### **Migratory Birds**

The PRB FEIS discussed direct and indirect effects to migratory birds, pp. 4-231 to 4-235. The PRB FEIS states, 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 MBTA (Migratory Bird Treaty Act), a nondiscretionary statute.

Habitat disturbance and disruptive activities (i.e. drilling, construction, completion, operations, and maintenance) resulting from implementation of the wells listed in Table 1.1 is likely to affect migratory birds. Native habitats will be lost directly with the construction of well pads, access roads, and power lines. Surface disturbing activities that occur in the nesting season may kill migratory birds. Prompt re-vegetation of short-term disturbance areas should reduce habitat loss impacts. Pad construction, drilling,

and to a lesser degree production, will displace edge-sensitive migratory birds from otherwise suitable habitat adjacent to the well pads. Drilling and construction noise can be troublesome for songbirds by interfering with the males' ability to attract mates and defend territory, and the ability to recognize calls from conspecifics (BLM 2003). Habitat fragmentation will result in more than just a quantitative loss in the total area of habitat available; the remaining habitat area will also be qualitatively altered (Temple and Wilcox 1986). Ingelfinger and Anderson (2004) identified that the density of breeding Brewer's sparrows declined by 36% and breeding sage sparrows declined by 57% within 100 meters of dirt roads in a natural gas field. Effects occurred along roads with light traffic volume (less than 12 vehicles per day). The increasing density of roads constructed in developing natural gas fields exacerbated the problem creating substantial areas of impact where indirect habitat losses through displacement were much greater than the direct physical habitat losses.

Those species that are edge-sensitive will be displaced further away from vegetative edges due to increased human activity, causing otherwise suitable habitat to be abandoned. If the interior habitat is at carrying capacity, then birds displaced from the edges will have no place to relocate. One consequence of habitat fragmentation is a geometric increase in the proportion of the remaining habitat that is near edges (Temple 1986). In severely fragmented habitats, all of the remaining habitat may be so close to edges that no interior habitat remains (Temple and Cary 1988). Over time, this leads to a loss of interior habitat species in favor of edge habitat species. Other migratory bird species that use the disturbed areas for nesting may be disrupted by the human activity, and nests may be destroyed by equipment.

During the onsite, the BLM biologist identified suitable nesting habitat present for several BLM sensitive sagebrush obligates. The BLM confirmed sagebrush habitat, with shrubs in excess of 2 feet, at the proposed Bonita Federal Com 11H well pad. BLM also confirmed sagebrush habitat at the proposed Lone Moose Federal Com 13H well pad. Brewer's sparrows and sage thrashers both nest in sagebrush shrubs and occur in the area. Construction of the Bonita Federal Com 11H and Lone Moose Federal Com 13H well pads 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.

Migratory bird species in the PRB nest in the spring and summer and are vulnerable to the same effects as GSG and raptor species. Though no timing restrictions are typically applied specifically to protect migratory bird breeding or nesting, where GSG or raptor nesting timing limitations are applied, nesting migratory birds are also protected. Where these timing limitations are not applied and migratory bird species are nesting, migratory birds remain vulnerable. Surface disturbing activities associated with portions the Bonita Federal Com 11H well will have GSG limitations applied, thereby providing protection to migratory birds until June 30. The BLM does not have authority over surface use at the Lone Moose Federal Com 13H well, therefore, the permit will not receive timing limitations.

Nesting in Brewer's sparrows (a BLM sensitive species) typically occurs mid-May to mid-July. Some young fledge in late July. Sage thrashers (BLM sensitive species) may lay a second clutch of eggs as late as mid-July. Lark sparrows in northern latitudes lay eggs from early May to mid-July (information on breeding habits available on the Birds of North America Online website: <http://bna.birds.cornell.edu/bna>). GSG timing limitations on surface disturbing activities will mitigate impacts to nesting migratory birds from March 15 to June 30. However, several species of birds, listed above, are likely to still have eggs or nestlings into July. BLM biologists have observed active Brewer's sparrow nests containing eggs during the last week of June. The least restrictive measures (in this case only applying GSG timing limitations) are inadequate to protect BLM sensitive migratory birds that may inhabit the project area.

Raptor protections are put in place to avoid potential violations of the MBTA, making the guidance for seasonal timing relevant to the migratory bird issue as well. Specific conservation measures to protect migratory birds are not included in the current land use plan, as updated and amended. Although the PRB

FEIS ROD addressed the potential impacts from oil and gas development to migratory birds, it did not specifically identify timing limitations on surface disturbing activities to mitigate those impacts. The RMP is currently under revision, and BLM is considering a change in management for migratory birds among the alternatives. Until the revision is complete, the BFO will provide project site-specific analysis of conservation measures implemented for migratory bird protection, and compliance with the MBTA.

BLM provided some level of protection for migratory bird nesting through timing limitations applied to CBNG plans of development for GSG and raptor nesting. Many CBNG projects (consisting of multiple wells) covered large areas that either encompassed GSG nesting habitat or raptor nests. Timing limitations applied as COAs for those projects were likely to also protect migratory birds during the nesting season by effectively limiting the development in a project area during grouse and raptor breeding seasons. Operators were likely to wait to construct facilities until limitations had been lifted for the entire area, to conserve labor costs and difficulties from completing only small portions of the project at a time. With conventional oil projects, where fewer wells are proposed and development is more complicated, operators will most likely start construction as soon as possible, which could be during the migratory bird nesting season if the proposed area is not within 2 miles of a GSG lek or no active raptor nests are located. The shift in proposed projects from multi-well CBNG projects to single conventional wells, and in turn reducing secondary protections to migratory birds, constitutes a “change in circumstances” (43 CFR 1610.5-6) that should be addressed at the project level until issues can be resolved in a land use plan. WY BLM IM WY-2013-005 provides guidance regarding migratory birds and compliance with MBTA. The IM states on page 2 that, “For permitted activities, if voluntary or applicant committed measures are not adequate to insure that known risks can be mitigated or minimized and MBTA violations are likely to occur, then BLM shall apply stipulations or conditions of approval that would ensure that actions are in compliance with MBTA, EO [Executive Order] 13186, and the MOU between BLM and USFWS.”

In an effort to apply the least restrictive measures to be in compliance with the MBTA, while still conforming to EO 13186 and the BLM/FWS MOU regarding conservation of species of concern, the BLM prohibits habitat removal for only those habitats where BLM sensitive migratory birds are likely to occur. The BLM has been applying 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 pad construction (vegetation removal) occur outside of the breeding season for the greatest quantity of BLM sensitive migratory birds (May 1- July 31) where suitable nesting habitat for sagebrush obligates is present. The timing limitation 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 the following well pads and associated infrastructure have timing limitations applied for well pad construction during the nesting season for sagebrush obligate passerines (May 1 to July 31): Bonita Federal Com 11H and Lone Moose Federal Com 13H. Timing limitations for GSG (Bonita Fed Com 11H; March 15 to June 30) and active raptor nests (Cousins Federal Com 22H; Feb 1 to July 31) both begin prior to timing limitations for sagebrush obligates, and thus may provide additional protection where migratory bird nesting periods and habitats overlap.

Yates proposes using heater treaters in the production phase of the wells listed in Table 1.1. 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 that measures are taken 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 hydrocarbons or toxic substances are present at the following wells: Bonita Federal Com 11H, Cousins Federal Com 22H, Lone Moose Federal Com 13H, and Rocky Butte Federal Com 29H.

If the timing limitation on habitat removal 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 utilizing grassland habitats in the Cousins Federal Com 22H and the Rocky Butte Federal Com 29 H 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 proposed disturbance areas for these two wells. 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. A timing limitation does nothing to mitigate loss and fragmentation of habitat. Suitability of the project area for migratory birds will be negatively affected due to habitat loss and fragmentation and proximity of human activities associated with oil and gas development.

### **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 15 registered stock and domestic water wells within 1 mile of the proposed wells vertical bore shafts in the project areas with depths ranging from 50 to 376 feet. For additional information on groundwater, refer to the PRB FEIS, pp. 3-1 to 3-36.

Yates proposed several sources for their water needed to drill and develop the wells. The water will either be trucked or piped via temporary surface lines to the well pads and stored in tanks and/or a pit to be used as needed. They propose that 40,000 bbls /day per well will be used for the drilling and development of each well. For more detailed information refer to the MSUP for each proposed well to be drilled.

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. The anticipated depths of the Fox Hills Formation are between 6,400 to 6,815 ft bgs. The operator will use centralizing stabilizers on each casing joint through the depths of the Fox Hills Formation to insure the cementing encapsulates the casing and seals the formation off from contamination. The cementing off of the formation will extend 50 feet above and below the formation. The operator committed in the MSUP to abide to the state and federal regulations for the drilling and production of the well. Therefore, no direct or indirect adverse effects are anticipated. 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. The operator will have to produce the wells 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.

The WOGCC monitor and regulate the chemicals for drilling and completion as well as Class II underground injection disposal. "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.*

During construction and subsequent production of these wells, Yates committed to stabilize the constructed area to reduce the risk of sediment transport due to erosion. This and complying with WDEQ Storm Water Pollution Prevention criteria will minimize impacts to surface water resources in the area.

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. Yates has proposed to dispose of the produced and flow back water to state permitted facilities by either deep re-injection (7,534-8,762 ft. below ground surface) or storage and evaporation in lined pits. Either alternative would be protective of groundwater resources when performed in compliance with state and federal regulations. The water will either be trucked or piped via underground water lines to the locations from the storage tanks and/or reserve pit located on the well pad. For more detailed information, refer to the MSUP for each proposed well.

**Cultural.**

Class III cultural resource inventory was performed for the Bonita Federal Com 13H, Cousins Federal Com 22H, Lone Moose Federal Com 13H, and Rocky Butte Federal Com 29H wells prior to on-the-ground project work (BFO project no.70120036, 70120037, 70120052). Class III cultural resource inventory following the Archeology and Historic Preservation, Secretary of the Interior's Standards and Guidelines (48CFR190) and the *Wyoming State Historic Preservation Office Format, Guidelines, and Standards for Class II and III Reports* was provided to BFO by Yates. BLM archaeologist reviewed the reports for technical adequacy and compliance with BLM standards, and determined them to be adequate. Previously reviewed and accepted cultural reports (70990332, 70020188, 70030020, 70040053) covered the remainder of the project areas. The following resources are in or near the project area.

Site Number	Site Type	Eligibility	Impact
48CA1568	Historic	Eligible	No Impact
48CA1570	Historic	Eligible	No Impact
48CA4260	Prehistoric	Not Eligible	No Impact
48CA4262	Historic and Prehistoric	Not Eligible	Impact
48CA4417	Prehistoric	Not Eligible	Impact
48CA4975	Historic	Eligible	No Impact
48CA7126	Historic	Not Eligible	No Impact
48CA7127	Historic	Not Eligible	Impact
48CA7128	Historic	Not Eligible	Impact

No historic properties will be impacted by the proposed project. Following the Wyoming State Protocol Section VI(A)(1) the BLM electronically notified the Wyoming State Historic Preservation Officer (SHPO) on February 4, 2013 that no historic properties exist within the area of potential effects. If any cultural values [sites, artifacts, human remains (Appendix L PRB FEIS and ROD)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. Further discovery procedures are explained in the Standard COA (General)(A)(1).

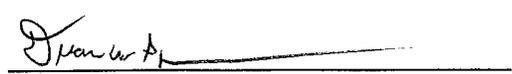
**List of Preparers: Persons and Agencies Consulted (BFO unless otherwise noted)**

Position/Organization	Name	Position/Organization	Name
NRS/Team Lead	Dan Sellers	Archaeologist	Seth Lambert
Supr NRS	Casey Freise	Wildlife Biologist	Darci Stafford
Petroleum Engineer	Will Robbie	Geologist	Warren Garrett
LIE	Karen Klaahsen, Sharon Soule & Kristine Phillips	Grazing Management	Dan Sellers
Soils	Dan Sellers	Supr NRS	Bill Ostheimer

<b>Position/Organization</b>	<b>Name</b>	<b>Position/Organization</b>	<b>Name</b>
Hydrologist	Keith A. Anderson	Assistant Field Manager	Chris Durham
Assistant Field Manager	Clark Bennett	NEPA Coordinator	John Kelley

**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, 4 well projects, covered in these 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

3/29/13  
 \_\_\_\_\_  
 Signature Date

Contact Person, Dan Sellers, Natural Resource Specialist, Buffalo Field Office, 1425 Fort Street, Buffalo WY 82834, 307-684-1100