

DECISION RECORD

**Categorical Exclusion 3 (CX3), WY-070-390CX3-13-96 and WY-070-390CX3-13-97
Section 390, Energy Policy Act of 2005, Southwestern Production Corporation (SWP)
R2 44-19H and 44-30H Applications for Permit to Drill (APDs)
Bureau of Land Management, Buffalo Field Office, Wyoming**

DECISION: The BLM approves the applications for permit to drill (APDs) from Southwestern Production Corporation (SWP) to drill 2 horizontal oil and gas wells. SWP proposes to drill the wells and construct associated infrastructure, at the locations noted below. The wells will be drilled from a non-federal surface location into underlying federal minerals on lease numbers; WYW127121, WYW163518, and WYW59613– standard split jurisdiction.

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 and Amendments.

A summary of the details of the approval follows. The CX worksheet, WY-070-390CX3-13-96 and 13-97, includes the project description, including site-specific mitigation measures which are incorporated by reference into that worksheet from earlier analysis. The approved APDs are 40 miles northwest of Wright, Campbell County, Wyoming. The surface hole (drill sites) are in the SE ¼ SE ¼ of Section 19, Township 43 North, Range 75W and the SE ¼ SE ¼ of Section 30, Township 43 North, Range 75W.

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 a new Greater Sage-Grouse (GSG) policy and population viability analysis. BLM posted the APDs for 30-days and received no public comments on the proposals.

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.
 - A. The impact of this project cumulatively contributes to the potential for local extirpation of the GSG yet its effect is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS/ROD. In this case there is an existing improved road currently authorized and used to access 2 conventional oil wells. An alternate access to the R2 44-30H well was not considered because coordination with the Wyoming Game and Fish Department (WGFD) revealed that the WGFD preferred alternative was approving the existing road. The existing road will not receive substantial improvements and currently receives heavy truck traffic; thus, it would not be considered a new surface facility. Occupancy in the controlled surface use (CSU) of the lek will also be restricted during the GSG breeding season for the project's life. This decision

conforms to BLM and Wyoming GSG conservation strategies as it supports the recommendations and population objectives of the WGFD, and incorporates mitigation to reduce impacts to GSG.

- B. The main access road to the R2 44-30H well is an existing improved road servicing 2 conventional oil wells, passing within the 0.25 mile CSU on the South Butte and Pumpkin Leks. In addition to the existing improved road, an existing well and overhead power are in the CSU of the South Butte Lek. The leks are likely to currently be experiencing impacts from existing traffic noise authorized on the road. No alternate access road exists to access the R2 44-30H well. The WGFD recommended (letter of November 19, 2012) not to build a new access road to the well, as it would result in increased disturbance to nesting habitat and be more detrimental to GSG than using the existing road. They recommended timing limitations during the breeding season on improvements to the existing road. WGFD also recommended restricting vehicle traffic during the breeding season (March 15-June 30) from 6 PM to 8AM, daily. Compliance with the COAs should provide protection to the Pumpkin and South Butte GSG Lek sites during the breeding season. SWP committed to follow the road's traffic restriction, and will post signs alerting drivers. No improvements will occur outside the original disturbance area of the access road.
- C. 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.
- D. There are no conflicts anticipated or demonstrated with current uses in the area.
3. This decision approving the R2 44-19H and R2 44-30H APDs complies with the Energy Policy Act of 2005, Section 390, 43 CFR 1610.5, 40 CFR 1508.4, and 43 CFR 46.215.
 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 selected alternative 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).
 - The operator will collect a water sample representative of the water produced from this well for analysis within 90 days of initial production.
 7. The project is clearly lacking in wilderness characteristics as it is amidst oil and gas development.
 8. SWP certified there is a surface use access agreement with the landowners.
 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 the APD.

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.

Acting Field Manager:



Date:

3/27/13

Categorical Exclusion 3 (CX3), WY-070-390CX3-13-96 and WY-070-390CX3-13-97
Section 390, Energy Policy Act of 2005
Southwestern Production Corporation (SWP), R2 44-19H and R2 44-30H
Applications for Permit to Drill (APD)
Bureau of Land Management, Buffalo Field Office, Wyoming

Description of the Proposed Action.

Southwestern Production Corporation (SWP) requests BLM’s approval for 2 applications for permit to drill (APDs); the R2 44-19H and R2 44-30H horizontal oil and gas wells. BLM incorporates the APDs here by reference; see the administrative record. SWP proposes to drill the 2 wells on separate pads and construct associated infrastructure. The wells will be drilled from a non-federal surface location into underlying federal minerals – split estate or “public lands” jurisdiction, Federal Land Policy Management Act (FLPMA), Sec. 103(e). Well locations are in Table 1.1. SWP will drill the wells with an initial disturbance including: pad disturbance, cuts, fills, spoil and topsoil piles, access roads, and associated infrastructure, of approximately 17.68 acres. During interim reclamation, SWP will re-contour and reclaim the areas not required for production facilities.

Table 1.1. Proposed Well

#	Well Name/ Well #	QTR	Sec	TWP	RNG	Lease	CX Number
1	R2 44-19H	SESE	19	43N	75W	WYW127121 WYW163518	WY-070-CX3-13-96
2	R2 44-30H	SESE	30	43N	75W	WYW59613	WY-070-CX3-13-97

The BLM’s need for this project is to meet the management objectives of the Buffalo Resource Management Plan (RMP), 1985, 2001, 2003, and 2011. BLM must determine how and under what conditions to balance natural resource conservation with allowing the operator to exercise lease rights to develop fluid minerals, as described in their APDs, surface use, and drilling plans, incorporated here by reference. Jesse Dale Ruby Trust and Max L. Ruby Trust are the surface owners of the proposed wells.

The project area is approximately 40 miles Northwest of Wright, Campbell County, Wyoming. The proposed surface holes (drill sites) are in the SE ¼ SE ¼ of Section 19 of T43N-R75W and the SE ¼ SE ¼ of Section 30 of T43N-R75W. Elevation at the project is 5,066 feet and 4,993 feet respectively. The topography has gently sloped draws rising to mixed sagebrush and grassland uplands. Ephemeral tributaries of Cottonwood Creek drain the project area. 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 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.

Reasonably foreseeable development in the Dry Willow Phase 5 POD Environmental Assessment (EA), WY-070-EA10-186, 2010, and its locality to include but not limited to the approved R2 44-19H and 44-30H wells, will fill-in to 640-acre spacing. This supports the development anticipated in the PRB FEIS, (see Section 2, No Action Alternative). The proposal for the R2 44-19H is to explore by horizontal drilling for, and possibly develop, oil and gas reserves in the Lower Shannon Shale Formation at 9,957 feet, total vertical distance (TVD). The proposal for the R2 44-30H is to explore by horizontal drilling for, and possibly develop, oil and gas reserves in the Lower Shannon Shale Formation at 9,909 feet, (TVD) leased by SWP.

The R2 44-19H surface hole is on private surface located over federal minerals at 100 feet from South leaseline (FSL), 1050 feet from East leaseline (FEL), SE ¼ SE ¼ , Lot 4, Section 19, T43N R75W. The

bottom hole location is 470 feet from North lease line (FNL) and 2300 feet from east lease line (FEL), Lot 2, Section 19, T43N, R75W. The horizontal section is 4993.8 feet long. As shown in Figure 1.1 below, the surface hole location is on private surface over federal oil and gas mineral estate in federal lease, WYW127121. The horizontal bore terminates at the bottom hole in the federal oil and gas mineral estate, and is also in federal lease, WYW163518.

The R2 44-30H surface hole is on private surface located over federal minerals at 300 feet from south lease line (FSL), 460 feet from east lease line (FEL), SE ¼ SE ¼, Lot 4, Section 30, T43N R75W. The bottom hole location is 470 feet from north lease line (FNL) and 1000 feet from east lease line (FEL), Lot 2, Section 30, T43N, R75W. The horizontal section is 4653.6 feet long. As shown in Figure 1.1 below, the surface hole location is on private surface over federal oil and gas mineral estate in federal lease, WYW59613. The horizontal bore terminates at the bottom hole in the federal oil and gas mineral estate, and is also in federal lease, WYW59613. SWP submitted notices of staking (NOSs) on April 19, 2012, to the BFO. SWP and BFO completed onsite inspections on May 22, 2012. SWP converted its NOSs to applications for permit to drill (APDs) which BLM received on July 27, 2012. The onsites inspected the proposal and modified it to mitigate environmental impacts. The BLM sent a post-onsite deficiency letter to SWP on August 24, 2012.

Drilling, Construction & Production design features include:

Access and Utilities

- The main access to the wells is via Highway 50 and Van Buggenum Road.
- The power source has not been determined. A Sundry Notice will be submitted at the time of decision.
- Water for drilling and completion operations will be purchased from the Greasewood Water Plant Facility in the SE ¼ SE ¼ of Section 1, Township 44 North, Range 74 West. If an alternative source is needed a Sundry Notice will be submitted to the BLM authorized officer.
- Approximately 20,000 bbls of water will be used for drilling and completion operations for each well.

R2 44-19H Specific

- Approximately 1.5 miles of new access will be constructed as crown and ditch template road with spot engineering upgrades. Engineering plans are outlined in the designs included in the APD package.
- Roads will be constructed with an approximate running surface of 16-20 feet with a total disturbance of 30 feet.

R2 44-30H Specific

- Approximately 528 feet of new access will be constructed as crown and ditch template road.
- Roads will be constructed with an approximate running surface of 16-20 feet with a total disturbance of 30 feet.
- The existing access located in the SE ¼ SE ¼ of Section 20 and 29, Township 43 North, Range 75 W will be upgraded and improved to BLM standards with a crown and ditch template design.

Well Locations

- The pads will be constructed with cuts and fills and topsoil/spoil piles surrounding. Acreage is in Tables 1.3 and 1.4. Any area of the well pad not needed for production will be reclaimed for interim reclamation.
- The well location will be reduced to approximately 2.4 and 2.3 acres respectively, during interim reclamation.
- Drilling will be completed using a semi-closed loop system, with a cuttings collection pit, which will be constructed on the well pad. The pit will be closed as soon as possible after the well is completed.

Figure 1.1, R2 44-19H and R2 44-30H Top & Bottom Hole Locations

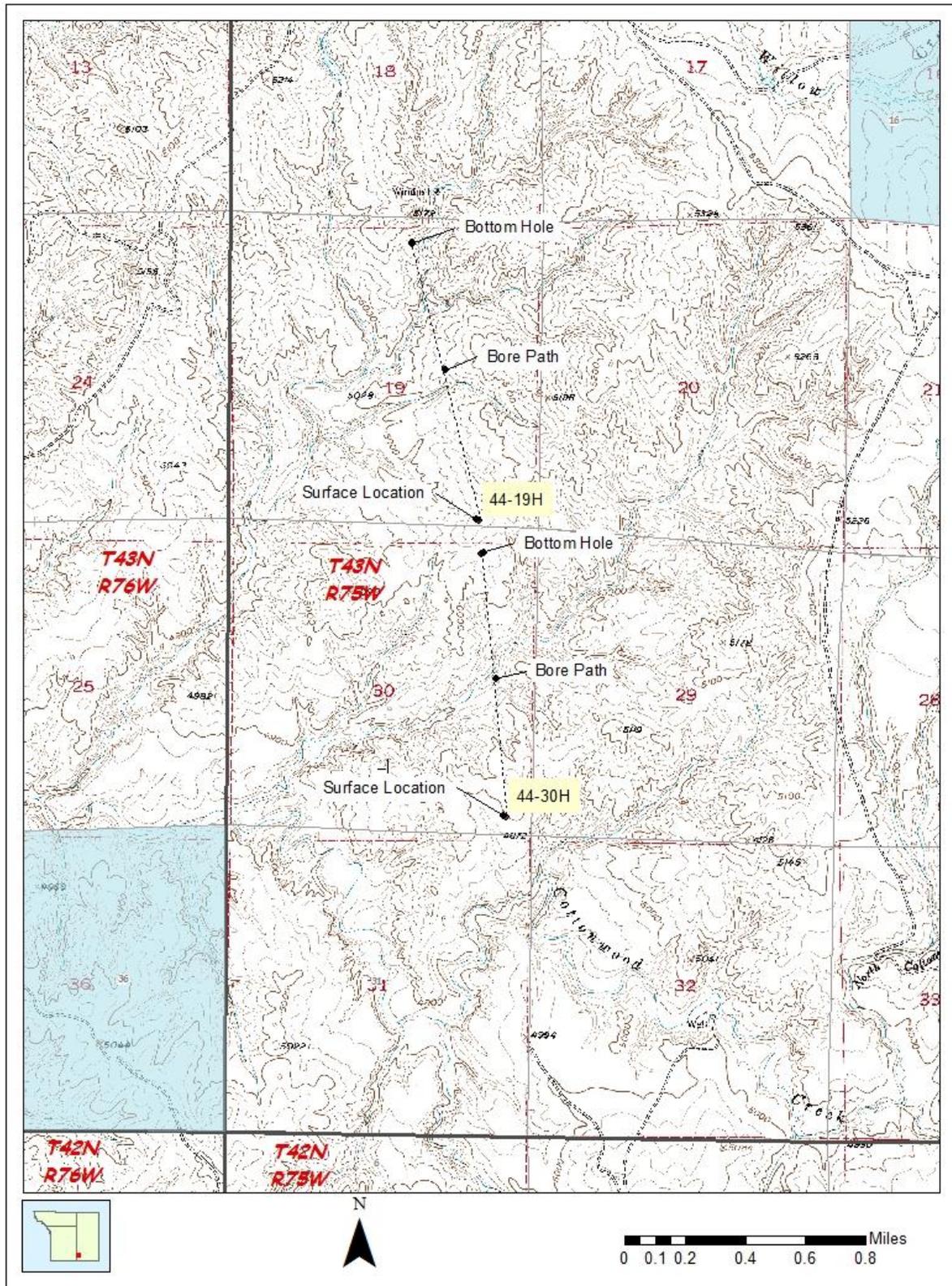
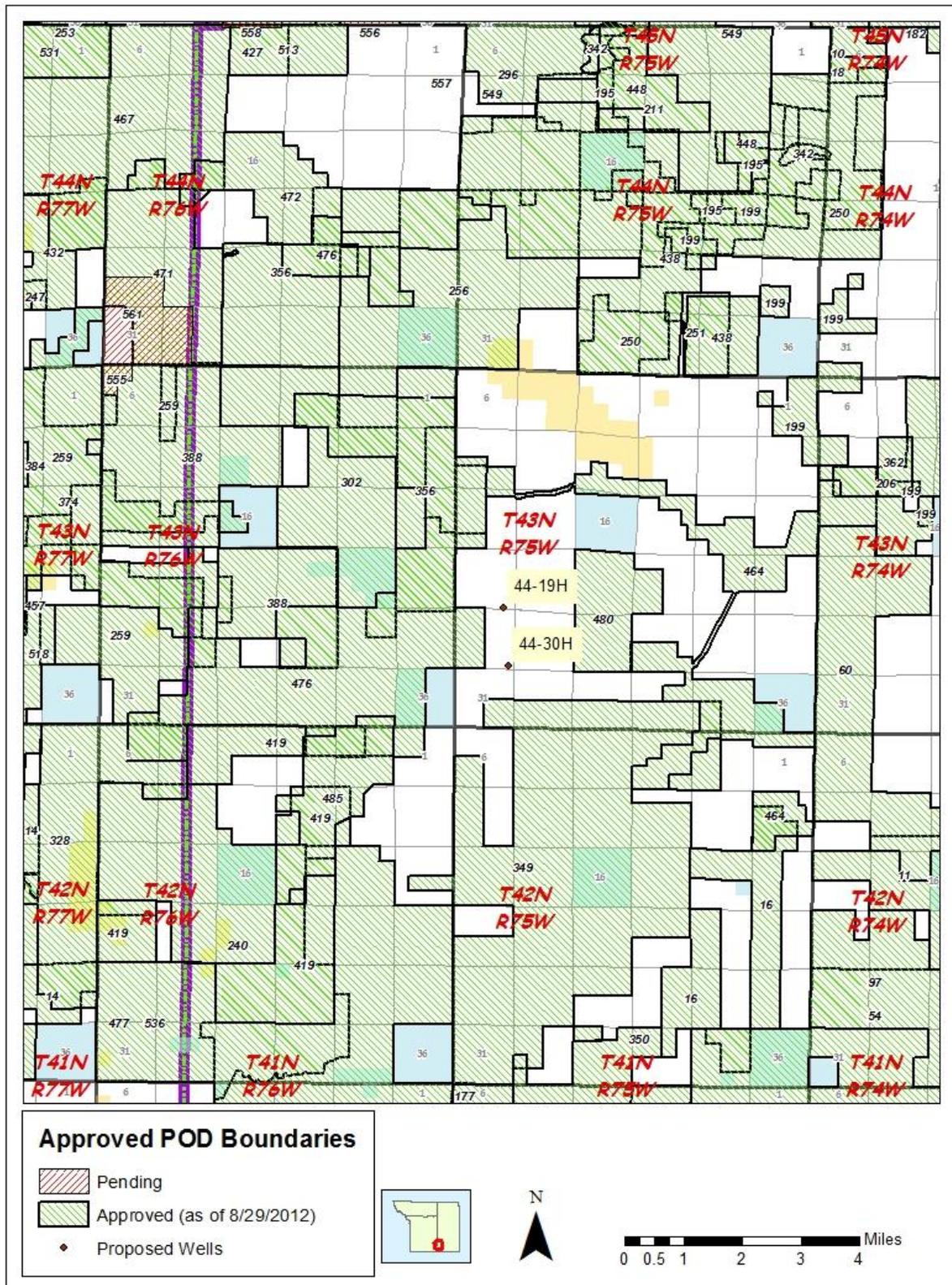


Figure 1.2 R2 44-19H and R2 44-30H Wells Adjacent to Approved POD Boundaries



- 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.

Sumarized Drilling and Completion Operations

- Hydraulic fracturing operations are planned as a ‘plug & perf’ operation done in stages. All fresh water will be contained in 400-500 bbl rental hydraulic fracturing tanks and no surface pits will be used to hold this water. No additional well pad disturbance is anticipated for hydraulic fracturing 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).
- Approximately 40-80 500-bbl hydraulic fracturing (HF) tanks are spotted, taking 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 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.

Table 1.2. Anticipated Drilling and Completion Sequence and Timing (per well)

Drilling and Completion Step	Approximate Duration
Build Location (roads, pad, and other initial infrastructure)	30 days
Mob Rig	2-4 days ¹
Drilling (24/7)	30 days ²
Schedule/logistics	30 days
Completion (setup, completion, demobilization)	5-8 days
¹ Depending on distance and needed to add supplemental drilling equipment, such as skidding plates.	
² By comparison, approximately 2 days are required to drill a CBM well. ICF 2012	

The following narrative explains why SWP requests approximately 6.0 acres for a bladed and level pad site. 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.

All locations require extensive earthwork for creating sufficient area to complete the well. SWP will then reduce the initial well site with interim reclamation. Individual well designs are in the individual APDs. The totality of the pads contribution to surface disturbance in the upper Powder River remains within the totality of the surface disturbance envisioned and analyzed in the PRB FEIS. The proposed size is necessary to safely accommodate the equipment necessary for an effective well completion. The proposed operational pad sizes are within the PRB FEIS analysis parameters.

Table 1.3. Disturbance Summary Project or Well Name: R2 44-19H

Facility	Number or Miles	Factor	Disturbance
Engineered Pad Including Cut & Fill and Topsoil/Spoil Piles	1 @ 341 ft x 360 ft x 270 ft x 460 ft	123,102 sq ft (pad)	5.58 acres (total) 2.83 acres (pad)
Improved Template Roads No Corridor	1.5 miles x 30 ft	237,600 sq ft	5.5 acres
Total Surface Disturbance			11.08 acres

Table 1.4. Disturbance Summary Project or Well Name: R2 44-30H

Facility	Number or Miles	Factor	Disturbance
Engineered Pad Including Cut & Fill and Topsoil/Spoil Piles	1 @ 316 ft x 445 ft x 341 ft x 460 ft	148,550 sq ft	6.24 acres (total) 3.4 acres (pad)
Improved Template Roads No Corridor	528 ft x 30	15,840 sq ft	0.36 acres
Total Surface Disturbance			6.6 acres

Off Well Pad

If gas or water gathering pipelines are needed, a buried 3 to 6 inch high-density polyethylene (HDPE) gas gathering pipeline of at least 125 psi rating from the producing well to transport natural gas from the well to a gas gathering trunkline and on to a compressor facility – or as designed by the operator. Gas gathering trunklines may typically consist of 6 to 24 inch HDPE buried lines of at least 125 psi rating. SWP may install a 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 to an approved water disposal well in the area. Water gathering trunklines may typically consist of 6 to 12 inch corrosion resistant buried lines of at least 150 psi rating.

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 to and tiers to 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, and 43 CFR 46.215. The R2 44-19H and 44-30H wells and area are clearly lacking in wilderness characteristics as they are amidst extensive natural 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 1.5 is a list of existing/approved PODs that are within or adjacent to the R2 44-19H and R2 44-30H wells project area. This information shows the reader that BLM conducted analysis.

Table 1.5. Adjacent or Overlapping Fluid Mineral POD Development NEPA, Accounting for Reasonably Foreseeable Development, and Finalized Within Anticipated Spud Date of this Project

#	POD / Well Name	NEPA Document #	# / Type Wells	Decision Date
1	All Day POD	WY-070-EA08-026	35 CBNG	8/28/2009
2	Dry Willow Phase 5	WY-070-EA10-186	27 CBNG	8/12/2010
3	Table Mountain Phase 4	WY-070-EA10-258	52 CBNG	9/30/2010
4	Dry Willow Phase 3	WY-070-EA08-036	43 CBNG	9/24/2008
5	Chasm	WY-070-EA11-050	11 CBNG	6/29/2011
6	South Butte	WY-070-CX3-12-(236-250)	15 CBNG	9/28/2012

- 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 3,000 oil wells. The R2 44-19H and 44-30H wells are in the foreseeable development scenario of 80 acre well-spacing that was analyzed in EAs in Table 1.4 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 wells. This CX3 tiers to the EAs listed above in Table 1.5.

In summary the EAs in Table 1.5 analyzed in detail the anticipated direct, indirect, residual, and cumulative effects that would result from the approval of these APDs and associated support structure in R2 44-19H and 44-30H wells is similar to both the qualitative and quantitative analysis in the above mentioned EAs. The BFO reviewed the EA and found that the EA considered potential environmental effects associated with the proposal at a site specific level. 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, located at 7268 and 7171 feet total vertical depth (TVD) respectively. The Wyoming Game and Fish Department's (WGFD's) Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats (2009), make no distinction between surface disturbance impacts per well type or drilling technology. BLM's position is there is a rare lack of distinction in surface disturbance impacts attributable to well type, subject to showing a distinction, not a mere difference, and this tracks to surface disturbance issues as with soils, vegetation, invasive species, wetlands, cultural resources, etc. See, State Director Reviews WY-2010-023, Part 2, p. 3, and fn. 7 and WY-2013-005, pp. 2-3. This supports national policy where no distinction exists in 43 CFR 3160 et. seq, leasing, APD Form 3160-3, and 2005's Energy Policy Act. (Kreckel 2007)

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.

Soils, Ecological Sites & Vegetation. Soils, Ecological Sites, and vegetation found in the areas of the R2 44-19H and R2 44-30H wells are similar to those occurring in All Day POD EA,2009, Dry Willow Phase 5 POD EA, 2010, and the Sahara POD EA, 2013. Impacts anticipated occurring and mitigation

considered with the implementation of the proposed action will be similar to those analyzed in the following EAs which are adjacent, overlapping, or have similar characteristics to the R2 44-19H and R2 44-30H wells and are incorporated here by reference:

1. All Day EA WY-070-EA08-026, Direct and Indirect, Cumulative, Residual Effects (pp. 29-32).
2. Dry Willow Phase 5 WY-070-EA10-186 Direct and Indirect, Cumulative, Residual Effects (pp. 29-33).
3. Sahara POD WY-070-EA13-72 Direct and Indirect, Cumulative, Residual Effects (pp. 23-25)

Wildlife. 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 EAs; and (2) consistent with the programmatic biological opinion (ES-6-WY-02-F006), from the PRB FEIS, Appendix K. The biologist performed onsite visits to the project area on May 22, 2012. The affected environment and environmental consequences for wildlife are discussed in, and anticipated to be similar to, the documents listed in Table 1.5 above. Additional information is discussed below.

Raptors

BLM recently analyzed effects to raptors from surface disturbing and disruptive activities associated with development of horizontal oil wells in the Sahara POD EA, WY-070-EA13-72, 2013, Section 4.6.2.1, pp. 28-31), incorporated here by reference. Development activities associated with the R2 44-19H and R2 44-30H wells are anticipated to be similar in nature, with the following additional site-specific information.

R2 44-19H well

Seven raptor nests occur within 0.5 mile of the proposed R2 44-19H well and associated infrastructure, BLM nest #: 3131, 12758, 12927, 12957, 12958, 12959, and 12960. Nest 12958 was active with red-tailed hawks in 2012 and is just over 0.25 miles from the well pad, the spatial buffer recommended by the U.S. Fish and Wildlife Service (FWS). Nest 3131 was active with great horned owls in 2012, and is approximately 0.48 miles, and out of the line of sight, from the well pad. None of the other nests were active in 2011 or 2012. 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 spatial and visual buffers 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 hydraulic fracturing are likely to impact raptors using the nests.

R2 44-30H well

Eleven raptor nests occur within 0.5 mile of the proposed R2 44-30H well and associated infrastructure, #: 3104, 3130, 4672, 4694, 12760, 12779, 12926, 12945, 12946, 13006, and 13319. Nest 13319 was active with great horned owls in 2012. All of the nests are out of the line of sight of the well pad or located further than the species specific spatial buffers recommended by the FWS. 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 spatial and visual buffers will mitigate impacts from human visitation during the production phase of the well; however, the disruptive activities associated with hydraulic fracturing are likely to impact raptors using the nests.

Greater Sage-Grouse (GSG)

BLM recently analyzed effects to GSG from surface disturbing and disruptive activities associated with development of horizontal oil wells in the Sahara POD EA, WY-070-EA13-72, 2013, Section 4.6.4.1, pp. 34-37), incorporated here by reference. Development activities associated with the R2 44-19H and R2 44-30H wells are anticipated to be similar in nature, with the following additional site-specific information. The well pads and access roads occur within 2 miles of the Pumpkin and South Butte Leaks. The above and this analyses considered policy goals in WY Instruction Memorandum (IM)-2012-019, BLM IMs-2013-043, and -044.

R2 44-19H well

The R2 44-19H well and proposed access road occurs in an area surrounded by suitable GSG nesting habitat. Disturbance is proposed in primarily grassy areas. 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).

R2 44-30H

The R2 44-30H well and proposed access road occurs within suitable GSG nesting habitat. Construction of the well pad will result the removal of approximately 6.2 acres of sagebrush habitat. 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).

The main access road to the well is an existing improved road servicing 2 conventional oil wells. The road passes within the 0.25 mile controlled surface use (CSU) on the South Butte and Pumpkin Leaks. The road occurs within approximately 10 feet of where the Wyoming Game and Fish Department (WGFD) reports the location of the South Butte Lek, and approximately 930 feet from the Pumpkin Lek. Both leks are classified as occupied by the WGFD. The South Butte Lek has not been active since 2009, and the Pumpkin Lek has not been active since 2007. In addition to the existing improved road, an existing coalbed natural gas well, and overhead power occur within the CSU, approximately 550 feet from the South Butte Lek. Increased traffic on the road is expected to occur with approval of the R2 44-30H well.

Effects to leks within this close of proximity to a road was analyzed in Yates' Caliente POD EA, WY-070-EA12-057, 2012, Section 4.8.1.2 Candidate Species p. 35-40, incorporated here by reference. In the Caliente project, a road accessing 7 wells was proposed through the Christensen Ranch 5 Lek. An alternate route was available to the company; however, the landowner refused access on the road. The proposed access road through the South Butte Lek is a similar situation; however, in this case there is not an alternate route available to the operator. Currently, the same effects from traffic noise on the road are anticipated to be occurring, and are likely to increase with approval of the project. The BLM biologist requested recommendations from the WGFD regarding the access road through the CSUs of the two leks. In their response letter dated November 19, 2012, the WGFD determines that use of the existing road would most likely be less detrimental to the GSG than building a new improved road through nesting habitats in the area, causing additional habitat loss. They recommended timing limitations during the breeding season on improvements to the existing road. In addition, they recommend restricting vehicle traffic during the breeding season (March 15-June 30) from 6 PM to 8AM, daily. SWP has committed to follow the traffic restriction on the road, and will post signs to alert drivers.

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 would result in a "take" as defined (and prohibited) by the MBTA, a nondiscretionary statute, and in turn a violation of the law. See also, FLPMA, Sec. 302(b).

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 revegetation 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 at the R2 44-30H well and access road. Brewer's sparrows and sage thrashers both nest in sagebrush shrubs and occur in the area. Construction of the R2 44-30H well pad and associated infrastructure will remove sagebrush habitat and could result in a "take" (as described above) of BLM sensitive migratory birds if habitat 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 the R2 44-19H and R2 44-30H well will have GSG and raptor limitations applied, thereby providing protection to migratory birds until June 30. If an active raptor nest is present within 0.5 miles, those timing limitations will provide protection until July 31.

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; see Brewer's sparrows, sage thrashers, and lark sparrows at: <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 MBTA violations, 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 help mitigate those impacts. The RMP is currently under revision, and a change in management for migratory birds is being considered among the alternatives. Until the revision is complete, the BFO will provide project level site-specific analysis of conservation measures implemented for migratory bird protection, and compliance with the MBTA.

BLM provided collateral protection for migratory bird nesting with timing limitations applied to CBNG PODs 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, in order to cut down on 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): R2 44-30H. Timing limitations for GSG and active raptor nests both begin prior to timing limitations for sagebrush obligates, and thus may provide additional protection where migratory bird nesting periods and habitats overlap.

SWP 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 both the R2 44-19H and R2 44-30H wells.

If timing limitations on habitat removal, or clearance surveys, are not applied to the R2 44-30H well, the BLM would not be in conformance with the MBTA, the BLM-FWS MOU, or BLM IM No. 2013-005. 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 using grassland habitats in the R2 44-19H 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 the 44-19H well. 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 11 registered stock and domestic wells within 1 mile of the R2 44-19H well and 18 registered stock and domestic water wells within 1 mile of the R2 44-30H well in the project area, with depths ranging from 232 to 800 feet. For additional information on groundwater, refer to the PRB FEIS, pp. 3-1 to 3-36.

The APDs' surface use and drilling plans show adequate protection of surface lands and ground water, including the Fox Hills Formation, located at 7268 feet (TVD) for the R2 44-19H well and 7171 feet (TVD) for the R2 44-30H well. 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.

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. 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.

Cultural. A Class III cultural resource inventory was conducted for the project prior to on-the-ground project work by BFO archaeologists on July 20, 2012 (BFO project no. 070120104). The inventory follows 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. BLM Archaeologist Doug Tingwall reviewed the report for technical adequacy and compliance with BLM standards and determined it adequate. Table 1.6 lists the archaeological resources located within a 1 mile radius of R2 44-19H or R2 Federal 44-30H.

Table 1.6. Cultural Resources Within a 1.0 mile Radius of R2 44-19H or R2Federal 44-30H.

Site#	Eligibility	Description
48CA103	Unevaluated	Lithic Scatter and Faunal remains
48CA302	Eligible	Prehistoric Bison Kill Site/Pound (Ruby Bison Pound)
48CA1568	Segment Not Eligible	Deadwood Road
48CA5330	Not eligible	Lithic Scatter and Historic Debris Scatter
48CA6920	Unevaluated	Prehistoric Camp

There are no eligible sites within the area of potential effect (APE) of the proposed project. Following the Wyoming State Protocol Section VI(B)(3) the BLM electronically notified the Wyoming State Historic Preservation Officer (SHPO) on October 9, 2012 of the finding of “no adverse effect” for the project. 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

Name	Agency	Title	Name	Agency	Title
Dustin Hill	BLM	NRS	John Bettridge	SWP	Operations Mngr.
Darci Stafford	BLM	Wildlife Biologist	Lisa Smith	Permitco	President
Douglas Tingwall	BLM	Archaeologist	Rachel Matchin	Bill Barrett	Env. Comp. Coord.
Matthew Warren	BLM	Petroleum Engineer	Tracey Fallang	Bill Barrett	Regulatory Mngr.
Mike Garrett	BLM	Geologist	Erin Joseph	Bill Barrett	Sr. Permit Analyst
Karen Klaahsen	BLM	LIE			

This CX Worksheet also Tiers to and Incorporates by Reference the following:

#	Project / POD / Well Name	NEPA Document #	# / Type Wells	Decision Date
1	W Pine Tree U-Kokanee	WY-070-EA06-114	31 CBNG	6/2007
2 ^a	Mufasa Fed 11-31H Well	WY-070-EA12-062	1 Oil	3/2012
3	Valerie POD	WY-070-EA12-68	9 Oil	3/2012
4	Spruce 1 POD	WY-070-CX3-12-95 & -107	2 Oil	5/2012
5 ^b	Crazy Cat East	WY-070-EA13-028	24 Oil Well Pads	2/2013
6	Sahara POD	WY-070-EA13-72	21 Oil (12 Pads)	3/05/13

- a. Sections describing and analyzing hydraulic fracturing, its analysis, and the GSG Section 3.7.12 and 4.8.2.
- b. Sections describing and analyzing hydraulic fracturing and its supporting analysis to include but not limited to traffic, water, and air quality.

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 R2 44-19H and R2 44-30H wells CX3 APD 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.

Acting 

 Field Manager

3/27/13

 Signature Date

Contact Person, Dustin Hill, Natural Resource Specialist, Buffalo Field Office, 1425 Fort Street, Buffalo WY 82834, 307-684-1059.