

Atlantic Rim Wildlife Monitoring Survey Report

August 2008

Prepared for:

Bureau of Land Management
Rawlins Field Office
1300 North Third
Rawlins, WY 82301

And

Anadarko Petroleum Corporation
1099 18th Street, Ste. 1200
Denver, CO 80202-1964

Prepared by:



Grasslands Consulting, Inc.
4800 Happy Canyon Road, Suite 110
Denver, CO 80237

Introduction

Anadarko Petroleum Corporation (Anadarko) is currently developing portions of the Atlantic Rim Natural Gas Project, which is located in Carbon County, Wyoming (See Appendix C). This project involves drilling coal bed natural gas and conventional natural gas wells, water reinjection wells, constructing pipelines and electrical infrastructure, and developing roads. Project activities are being conducted on private lands as well as lands administered by the Bureau of Land Management Rawlins Field Office (BLM). In support of this project, Anadarko contracted Grasslands Consulting, Inc. (Grasslands) to conduct biological field surveys as required in the Wildlife Protection and Monitoring Plan in the Atlantic Rim FEIS.

Prior to conducting surveys, Grasslands Biologists Chris Gayer and Nick Hall attended the Rawlins Field Office Oil and Gas Industry/Government Conference in February 2008 and the Wildlife Working Group Meeting in March 2008. These meetings addressed past biological surveys and data collection as well as implemented new standards for future work. The Atlantic Rim FEIS indicates that monitoring surveys and avoidance is required for Greater sage grouse (*Centrocercus urophasianus*), nesting raptor species, and mountain plover (*Charadrius montanus*). Grasslands conducted monitoring for these species in 2007 and again in 2008. Grasslands also conducted surveys for white-tailed prairie dog (*Cynomys leucurus*) burrows in portions of the Atlantic Rim Project. These surveys were conducted to facilitate avoidance of prairie dogs as requested by the BLM. In addition, four shrub-dependent songbird surveys were also conducted by Grasslands in 2008, and the field data and results were submitted in a separate report to the BLM in 2008. Known information regarding historic raptor nests, sage grouse leks, and mountain plover habitats have been obtained from the BLM and combined with Grasslands survey work that was completed in 2007.

Methods

Greater Sage Grouse Survey

Three surveys were conducted for breeding greater sage grouse within the Atlantic Rim Project Area from March through mid May 2008. All previously identified leks within 2-miles of proposed 2008 and 2009 project activities were observed. Initially Grasslands attempted conducting the surveys following the Wyoming Game and Fish Lek Count Protocol, but due to large amounts of snowfall, drifting, and unmaintained roads, these surveys could not be completed within the limited survey window. Therefore the surveys were conducted from fixed wing plane and consisted of three visits spaced 7 days apart. All observations were made between one hour before sunrise and one hour following sunrise. The known leks were uploaded to hand-held GPS units, which were used to navigate to the leks during the survey. One biologist was positioned on each side of the plane and the leks were observed at the slowest speed possible by the aircraft (generally 60-80 miles per hour). Multiple passes above the leks were flown to increase the accuracy of counts. Notes were taken during the flights and the data sheets located in Appendix B include specific lek locations, observations made, dates, and names of the biologists who conducted the surveys.

Nesting Raptor Survey

A nesting raptor inventory was conducted in the Atlantic Rim Project from April through July 2008. Locations of known nests were provided by the BLM and included observations that were made by BLM biologists and the Wyoming Game and Fish Department. These nests

were combined with the new nest locations identified by Grasslands during survey work in the Atlantic Rim project in 2007 and were used as baseline information for the inventory. During the survey, all known raptor nest locations and suitable raptor nesting habitats within 1-mile of proposed 2008 and 2009 developments were observed.

Grasslands biologists Nick Hall and Matthew South conducted raptor surveys throughout the proposed development areas during 2008. The nests were visited on foot and from ATVs in areas that were inaccessible by vehicle. To maintain a non-invasive, low stress presence, observations of nests were made following approved raptor survey methods from an appropriate distance using 10x42-power binoculars (Call 1978). In areas where no historic nests were identified, observations were made for new or undocumented nesting locations. All survey observations were recorded in field books and nests were documented with digital photos and raptor data sheets. Data sheets for all of the surveyed nests are located in Appendix A, and include the name of surveyor, date of survey, nest conditions, activity, and other notes.

Mountain Plover Survey

Three mountain plover surveys were conducted within the Atlantic Rim Project Area from May through June 2008. Habitat mapping that was conducted in support of the EIS, and other suitable mountain plover habitats that were identified in the field, were surveyed for the presence of mountain plover. Characteristics of suitable mountain plover habitat include level terrain, prairie dog colonies, short vegetation, grazing, and widely spaced plants as described in the mountain plover survey protocol (USFWS 2002). The updated Grasslands mountain plover habitat polygons are presented on the project maps in Appendix C, and have been submitted electronically as shapefiles to the BLM.

Grasslands biologists Nick Hall, Jeff Lyon, Grant Leadem, Alan Frey, Matthew South, Carrington Knox, and Laura Ford conducted the three mountain plover surveys in 2008. The surveys took place on May 4-7, May 26-29, and June 9-12, 2008. Surveys were conducted from sunrise to 1000 and from 1730 to sunset, making observations with 10X42-power binoculars from a vehicle or ATV within suitable habitat. The vehicle was stopped frequently and turned off to listen for vocalizations and to scan open terrain. All survey observations were recorded using hand-held GPS units, digital photographs, and field notebooks. All potential mountain plover habitats (shown in project maps) were thoroughly surveyed during each of the three visits which were spaced appropriately to span the nesting season.

White-Tailed Prairie Dog Mapping

White-tailed prairie dog colonies were mapped in the Jack Sparrow POD for 2008 developments. This survey took place prior to on-sites for the proposed wells to identify burrow density within areas of proposed disturbance. Grasslands biologists Nick Hall, Matthew South, Annie Cox, Carrington Knox, Laura Ford, Steven Stedille, and Sean Farris conducted the survey from May 26-29, 2008. The survey was conducted by systematically walking transects throughout the Jack Sparrow POD. Each biologist was responsible for a 200 foot swath in which he/she marked waypoints using a handheld GPS at all open burrows with a diameter greater than 10 cm. The waypoints were then uploaded in to ArcGIS and the extent and density of prairie dog colonies are observed.

Results

Greater Sage Grouse Survey

Breeding greater sage grouse lek surveys identified 9 active leks out of the 31 leks surveyed. The active leks included the Fillmore Ranch Lek, Willows 2 Lek, Willows 3 Lek, Dry Cow 4 Lek, Pipeline Lek, Upper Wild Cow Creek Lek, Cherokee Creek 2 Lek, Wild Horse Basin 2 Lek, and the New Lek. The New Lek was identified by BLM wildlife biologist Heath Cline during an on-site for the Doty Mountain C POD on June 8, 2008. This lek was visited on June 9, 2008 by Grasslands biologist Nick Hall and 30 male grouse were observed. The New Lek has been added to the project maps but was only surveyed once due to its late discovery. No grouse or other signs of recent activity were observed on any of the other leks. Data Sheets located in Appendix B include the field notes and survey dates for all of the surveys conducted. These field notes were submitted to the BLM and Wyoming Game and Fish in May of 2008.

Nesting Raptor Survey

99 nests were observed within 1 mile of proposed 2008 and 2009 well locations. 7 nests were identified as active or potentially active including the AFH14911201, PF17910401, RT14911503, RT16911401, RT17910401, UB15912801, and UR14911401. All other previously identified nests and nest identified during this survey were observed as inactive. 5 nests were identified as active; 2 were occupied by ferruginous hawks (*Buteo regalis*), 2 by red-tailed hawks (*Buteo jamaicensis*), and 1 prairie falcon (*Falco mexicanus*). 2 nests were identified as potentially active, one red-tailed hawk and one prairie falcon. Recently active nests and inactive nests were identified based on the presences of fresh white-wash, downy, and mature feathers. Conditions and photographs of all surveyed nests are located in Appendix A.

Mountain Plover

No mountain plover were observed during the three surveys in 2008. Habitat conditions within the Atlantic Rim Project Area are typically not ideal for mountain plover. While areas of suitable plover habitat are present, these areas are surrounded by sagebrush and moderate to steep terrain. No plover have been observed by Grasslands in 2007 or 2008 in any portion of the Atlantic Rim Project Area.

White-Tailed Prairie Dog

The entire Jack Sparrow POD for 2008 development was surveyed for white-tailed prairie dogs. 3,270 burrow locations were located during the survey. The surveyed area predominantly consisted of sagebrush with scattered burrows throughout. Prairie dog colonies and burrow locations are identified on the project map in Appendix C.

Conclusion

As a result of these wildlife surveys 9 greater sage grouse leks were documented as active. These leks include the Fillmore Ranch Lek, Willows 2 Lek, Willows 3 Lek, Dry Cow 4 Lek, Pipeline Lek, Upper Wild Cow Creek Lek, Cherokee Creek 2 Lek, Wild Horse Basin 2 Lek, and the New Lek. All of these leks have been observed in the past as historic leks except the lek that was discovered this year by Heath Cline on June 8, 2008.

99 raptor nests were observed within 1 mile of proposed 2008 and 2009 well locations. Data sheets for all nests are located in Appendix A.

Three mountain plover surveys were conducted within the Grasslands delineated potential habitats. No mountain plover were observed in the Atlantic Rim Project Area. Habitat conditions within these areas do not constitute good mountain plover habitats.

A white tail prairie dog mapping survey was conducted that identified 3,270 burrows. Results of the prairie dog mapping effort are located in Appendix C.

References

Bureau of Land Management. 2007. Digital Mapping Files of Raptor Nest Locations, Sage Grouse Lek Locations, and Mountain Plover Habitat. Provided by BLM Rawlins Field Office.

Call, Mayo W. 1978. Nesting Habitats and Surveying Techniques for Common Western Raptors. USBLM Technical Note TN-316. USBLM Denver Service Center; May 1978. 115pp.

U.S. Fish and Wildlife Service (USFWS). 2002. Mountain Plover Survey Guidelines-Montana. Accessed online from:
http://www.fws.gov/montanafieldoffice/Endangered_Species/Survey_Guidelines/Mountain_Plover_Survey_Guidelines.pdf accessed on August 15, 2008.