



Office News — February 2008

*Bureau of Land Management * Wyoming Department of Agriculture *
Wyoming Game & Fish * Wyoming Department of Environmental Quality*

JIO Welcomes Ted Rentmeiser, BLM Project Coordinator

The Bureau of Land Management's Pinedale Field Office named Ted Rentmeister as the new JIO Project Coordinator. Rentmeister reported for duty on January 22, 2008.

"We are very fortunate to have Ted as the Project Manager for the JIO. He brings a wealth of experience and is a tremendous asset to everyone using and taking care of our public lands," said Chuck Otto, Pinedale Field Office Manager. "During his federal service, he has clearly demonstrated the ability to bring people and agencies together to work toward a common goal."

Prior to the JIO, Rentmeister served with the US Fish and Wildlife Service as the Refuge Manager for the Mississippi Sandhill Crane National Wildlife Refuge. As the wildlife refuge manager, Rentmeister was responsible for fire management, law enforcement, biological, maintenance, and administrative programs. Rentmeister has also served as the assistant manager of the Bill Williams River National Wildlife Refuge in Parker, Arizona.

Rentmeister states he is looking forward to learning the processes and meeting the people that make this project so unique. "I hope to enhance the successes attained thus far and adaptively build upon the lessons learned from yesterday and today with a commitment to improve tomorrow," he said. Rentmeister, his wife, and two sons-ages 12 and 13, look forward to getting to know the people in the community. They enjoy fishing and camping and are excited to spend time together enjoying all the outdoor recreational activities that Sublette County has to offer.

Ted Rentmeister



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Jonah Field Wildlife Species and Their Relationship to Mitigation

By Dan Stroud

The JIO gets a lot of questions regarding what wildlife species are addressed in our off-site mitigation efforts. To be very specific, we look at those species using the Jonah Field as well as those species that are either obligates or dependents in sagebrush communities.

According to an article on the Wyoming Game and Fish website entitled **Sagebrush Ecosystems and Species** (<http://gf.state.wy.us/wildlife/nongame/LIP/Sagebrush/index.asp>), sagebrush communities and associated vegetation types provide habitat for approximately “87 species of mammals, 297 species of birds and 63 species of fish, reptiles and amphibians; and these have been influenced by historic fire intervals and both domestic and wild ungulate grazing.” In addition, many species currently designated as species of greatest conservation need depend upon healthy sagebrush communities during some part or all of their lives.

If we break this down to the Jonah, and revisit the Environmental Impact Statement (EIS) prepared for the Jonah Infill Project, we can get a bit closer to what actual species may occur in this area. The EIS breaks this out into several categories, including Big Game/Other Mammals, Birds (including raptors, game birds and other birds), Amphibians and Reptiles, Fisheries, and those species listed under Threatened, Endangered, Proposed, and Candidate Species and BLM Wyoming Sensitive Species. The following categories give an idea of potential wildlife species that were probably impacted in one fashion or another:

Big Game – Pronghorn Antelope is the primary big game species inhabiting this area, although a few mule deer reports are on record.



Other Mammals – This is a big list and includes the following that are listed as “known or likely to occur in the Jonah Infill Development Project Area (JIDPA) based on observations and range and habitat preferences:” dwarf shrew, 10 bat species (California myotis, small-footed myotis, Yuma myotis, little brown myotis, long-legged myotis, silver-haired bat, big brown bat, hoary bat, Townsends’s big-eared bat, and pallid bat); four species of hares and rabbits (pygmy rabbit, Nuttall’s cottontail, desert cottontail, and white-tailed jackrabbit); five squirrel species (least chipmunk, Uinta ground squirrel, Wyoming ground squirrel, thirteen-lined ground squirrel, and white-tailed prairie dog); northern and Idaho pocket gophers; six species of new world rats and mice (Ord’s kangaroo rat, deer mouse, grasshopper mouse, bushy-tailed woodrat, sagebrush vole, and long-tailed vole); coyote and red fox; four mustelid species (long-tailed weasel, badger, western spotted skunk, and striped skunk); and bobcat. Porcupines have been observed in the vicinity of the project area but are uncommon.



Game Birds – The principle game bird occupying the Jonah Field is the sage-grouse, which has been getting a lot of publicity lately due to its rangewide declines. The only other game bird likely to occur in Jonah is the mourning dove.

Other Birds – Other bird species known or likely to occur in the JIDPA include: common raven, horned lark, lark bunting, loggerhead shrike, sage sparrow, sage thrasher, Brewer’s sparrow, cliff swallow, barn swallow, mountain bluebird, western kingbird, grasshopper sparrow, killdeer, common nighthawk, black-billed magpie, American crow, canyon wren, western meadowlark, Brewer’s blackbird, common grackle, and brown-headed cowbird. There may also be several species of shorebirds occupying areas on or near reservoirs, including such birds as the black-

necked stilt, willet, Wilson's phalarope, common snipe, great blue heron, snowy egret, long-billed dowitcher, black-crowned night heron, piedbilled grebe, eared grebe, western grebe, green-winged teal, blue-winged teal, cinnamon teal, mallard, northern pintail, northern shoveler, gadwall, American wigeon, and ruddy duck.

Amphibians and Reptiles – Based on range and habitat preferences, two amphibian and four reptile species are likely to occur. Amphibians include the Great Basin spadefoot and northern leopard frog, and reptiles include the northern sagebrush lizard, eastern short-horned lizard, bullsnake, and wandering garter snake.

Fisheries – There are no known fisheries that occur in JIDPA

Threatened, Endangered, Proposed, and Candidate Species and BLM Wyoming Sensitive Species – Species which fall under the category of TEP&C include seven federally listed species which could potentially occur in the vicinity of the JIDPA or could otherwise be potentially affected by the proposed project include: the black-footed ferret, bald eagle, four Colorado River endangered fish species (Colorado pikeminnow, humpback chub, razorback sucker, and bonytail chub), and one plant species (Ute ladies'-tresses). Fish species are listed due to specific acts that are in place regarding water input or reduction into the Colorado River system. Regarding the BLM Sensitive Species, there are 28 identified animal and 25 identified plant species that may occur in the JIDPA. These are listed in the EIS, and some are duplicates of what has already been mentioned here, so refer to the EIS.

Off-Site Mitigation Targets

So, with those categories of species, how do we determine how or what to mitigate for? That is a great question, and perhaps one we tend to wrestle with quite frequently. One way is to identify major vegetation communities in the area and look at the health of these communities. Let's say we select sagebrush communities and ask what is a healthy plant community? There are a variety of ways to determine "health", including my favorite, which is the use of Ecological Site Descriptions (ESD's) which are based on soil, vegetation and climatic factors.

Another option is to select several of the primary wildlife species that are either sagebrush obligates or dependents and represent various successional stages within these plant communities. You then determine what comprises those species needs, or habitat suitability. Using a Habitat Suitability Index or HSI (an index that contains necessary habitat components for an individual wildlife species) and Habitat Evaluation Procedures or HEP (an assessment method used to aid in identifying where specific habitats are in relationship to the index) are options listed in the JIDPA Record of Decision and are still under consideration for future targets regarding both mitigation and reclamation; and for aiding in the assessment and monitoring efforts.

Currently we are targeting the use of Ecological Site Descriptions to collect a baseline inventory of our local vegetation and habitats. Once completed, if we plan on looking at the HSI/HEP methodologies, this baseline will be invaluable for as an assessment tool.

An old saying perhaps best explains where we currently are "***The significant problems we face cannot be solved with same level of thinking we were at when they were created***"

-Albert Einstein



2007 4th Quarter Jonah Disturbance Report

One of the many innovations in the Jonah Record of Decision was the establishment of an acreage “roll-over” credit. What that means is although a total of 20,334 acres are allowed to be disturbed in Jonah, only 14,030 (46% of the 30,500 ac. field) can be disturbed at any given time. Therefore, once the 14,030 mark is reached, land must be successfully reclaimed in order for more acreage to be disturbed. This “roll-over” caveat gives an incentive for gas operators to restore the land to a functioning ecosystem as quickly as possible. This requirement also demands close attention to surface disturbance tracking.

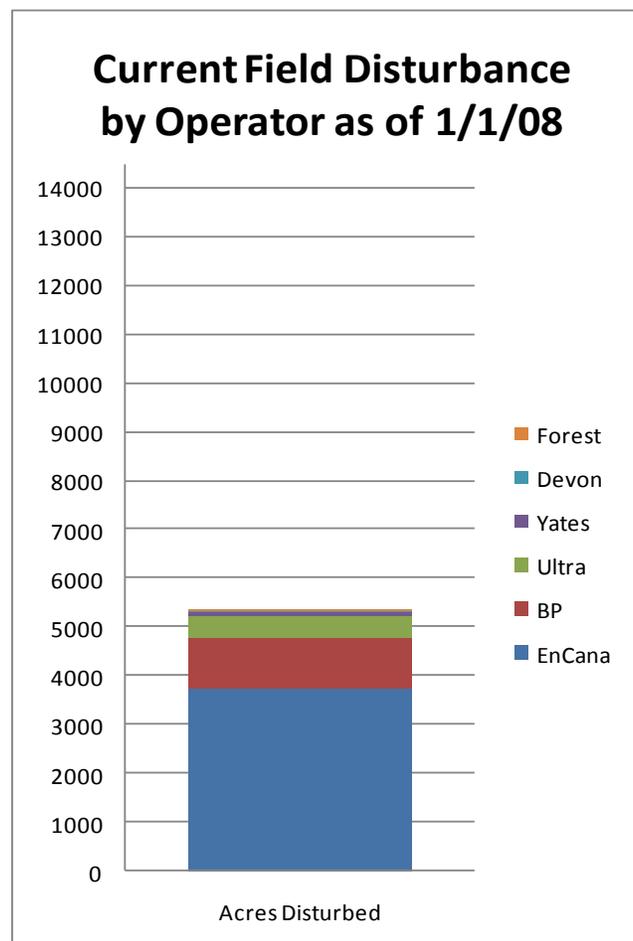
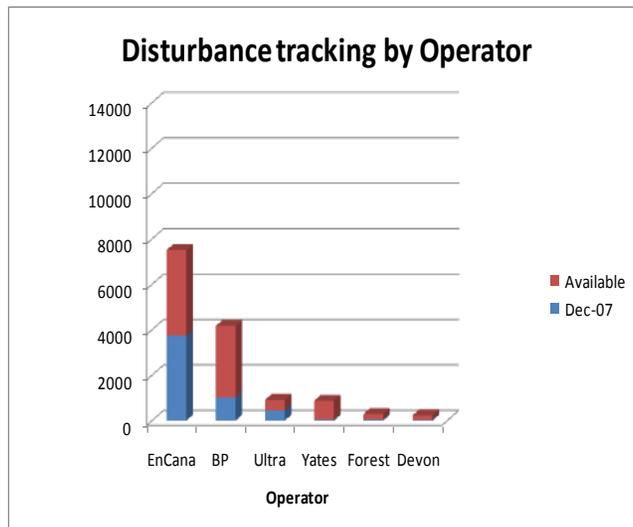
The graph on the upper right shows field disturbance by operator at the end of December, 2007. The column in blue indicates the number of acres disturbed, the column in red indicates how many acres are allowed before requiring roll-over for additional disturbance.

The graph on the bottom right shows total field disturbance by operator. Notice, total field disturbance at the end of December 2007 was 5,394 acres.

You may review the Reclamation Criteria at: http://www.wy.blm.gov/jonah_office/docs/reclamation_criteria_020807.pdf

STAY TUNED

Disturbance is tracked on a bi-annual basis and updated versions will be available in following newsletters.



Project Update: Wardell Buffalo Trap

Cultural Mitigation Project

The Wardell Buffalo Trap, Smithsonian Site Number 48SU301, is the earliest known evidence of a communal bison kill and trap involving the use of the bow and arrow on the Northwestern Plains (Frison 1978), and was subject to excavations by the Anthropology Department of the University of Wyoming during 1971 and 1972. Research conducted at the site resulted in the discovery of post holes defining a trap perimeter, various hearth structures both within the bone bed and adjacent processing area, approximately 470 projectile points, pottery sherds, ground stone, the remains of over 230 individual bison, hundreds of tools (crafted from both stone and bone), and radiocarbon dates representing three distinct stratigraphic levels was all part of the work in the 1970's. In total, over 4 tons of archaeological material was recovered. These findings highlight the site's significance and were the basis for a National Register of Historic Places listing (NRHP registered property number 49). Additional information concerning the excavations of this NRHP eligible and listed historic property can be found in Prehistoric Hunters of the High Plains (1978 1st Ed., 2nd Ed. 1991) and The Wardell Buffalo Trap 48 SU 301: Communal Procurement in the Upper Green River Basin, Wyoming (1973) both written by Dr. George Frison.



Previous erosion on the site



View of erosion barrier

From the naturally occurring adverse affect of torrential rains and flooding in 2004, a vast amount of knowledge can be learned concerning the effects of flash floods on culturally significant prehistoric sites. By analyzing the fluvial dispersal of bone, stone and vegetation associated with 48SU301, more can be learned about size, shape and weight sorting by fluvial transport potentially important to investigators across the country and in other disciplines. Patterned orientation of bones in association with fluvial dispersal can help determine the formation of sealed sites in other areas of the nation proving to be highly useful to scientists across many disciplinary lines.

Stemming from the erosional episode came several instances of vandalism including the removal of at least four bison skulls. Combining the effects of erosion and vandalism led to the excavation of 18 square meters, ~2 meters deep, south of the original kill area. Approximately ¾ ton of bison remains and 30 projectile points have been identified and recovered. Additional areas of exposed cultural materials have been located both within the established site boundary and in adjacent drainages. From this new data updated bone counts, seasonality confirmation and overviews will be rendered. Wardell is a world renowned prehistoric site and is continually referenced in archaeological articles.

The JIO funded \$40,000 for this project to preserve such a significant archeological site. During the fall of 2007 the final stabilization work of the bison kill site was completed. This involved the placement of an erosion barrier, topped with washed river cobble and covered with a shale rip rap that matches the local colors of the area. Also the old chainlink fence, which not only drew people to the site and added to the erosion problem, was removed. Use of a composite plastic material created the core to several small stilling basin dams and also matches the coloration of the natural soils and stone. This work was completed in mid November by the contractor selected to do this work (Marchette Construction). We look forward to a site visit this spring to inspect the site after what is turning out to be a pretty rough winter.



Open Burning By Jennifer Frazier

Chapter 10, Section 2, Open burning restrictions addresses restrictions and requirements on specific burning practices such as unlawful open burning; emergency open burning; refuse burning; open burning of trade wastes, for salvage operations, for fire hazards, and for firefighter training; and vegetative material open burning. Section 2 is not applicable to burns for recreational purposes, cooking of food, providing warmth for human beings, branding of animals, and handheld fire extinguisher training.

If you have any questions concerning open burning in Sublette County, you may contact Jennifer Frazier at the Wyoming Department of Environmental Quality, Air Quality Division at 307.231.2387.

There are some extra things that may/may not be regulatory requirements that you can do to help your neighbors breathe more easily when conducting open burning:

- *Contact neighboring residence(s), workplace(s), or other place(s) where people congregate prior to igniting the open burn.*
- *Do not burn closer than 500 feet on other property to a neighboring residence, workplace, or other place where people congregate to minimize the impacts from smoke.*
- *Burn only clean, untreated, vegetative material (less than 1250 ft³)*
- *Contact the local fire authority*
- *Conduct burning during the daytime hours between one hour after sunrise and two hours before sunset to minimize the impacts from smoke.*
- *Don't burn if the wind direction would cause smoke to blow toward a neighboring residence, workplace, or other place where people congregate.*
- *Don't burn on very calm or cold days, when there is likely to be an atmospheric inversion that will trap smoke near the ground.*
- *Burn in the morning when the winds are minimal, so smoke will blow away with higher afternoon winds.*
- *Attend and observe the open burn at all times and take corrective action (e.g., notify those nearby that will be impacted by the smoke and/or extinguish the burn) if the observed smoke dispersion and direction change causing the smoke to impact a neighboring residence, workplace, or other place where people congregate.*



REFUSE BURNING GUIDE

Refuse associated with dwelling units, farmsteads, or ranch headquarters may be burned only when all of the following conditions are met:

- *The refuse is burned only on the property where it was generated.*
- *No refuse burning closer than 500 feet on other property to a neighboring residence, workplace, or other place where people congregate to minimize the impacts from smoke.*
- *Only burn during the daytime hours to minimize the impacts from smoke.*
- *Comply with all local (city and county), state, and federal laws, regulations and ordinances relating to refuse burning.*
- *Comply with any restriction on burning issued by the city, county or state.*
- *By conducting a refuse burn, you shall give permission to WDEQ-AQD staff to enter and inspect the refuse burn location for the purpose of a burn inspection. This permission extends for a maximum time of ten business days after the refuse burn is completed. Inspections during this period are to be conducted only after notification of the burner.*



The WDEQ-AQD does not require persons burning refuse from a household, farmstead or ranch headquarters to sort through the garbage prior to ignition of the burn. Nevertheless, the intent of this section of the regulation is to allow the burning of typical refuse, not to sanction burning of prohibited materials¹, as defined in the footnote below.

Smoke and fumes from refuse burns are not just a nuisance, they can be extremely hazardous to your and your neighbors' health as well as the environment. Wyoming's residents are encouraged to explore other options than refuse burning available for refuse disposal.

To learn more about the dangers of refuse burning and disposal alternatives, visit EPA's Backyard Burning website at <http://www.epa.gov/msw/backyard>.

¹WAQSR Chapter 10, Section 2(a)(v) "Prohibited materials" means substances including, but not limited to; natural or synthetic rubber products, including tires; waste petroleum products, such as oil or used oil filters; insulated wire; plastic products, including polyvinyl chloride ("PVC") pipe, tubing and connectors; tar, asphalt, asphalt shingles, or tar paper; railroad ties; wood, wood waste, or lumber that is painted or chemically treated; explosives or ammunition; batteries; hazardous waste products; asbestos or asbestos containing materials; or materials which cause dense smoke discharges, excluding refuse and flaring associated with oil and gas well testing, completions and well workovers.

What is the Jonah Interagency Office?



The Jonah Natural Gas Field is an area of west central Wyoming, south of the town of Pinedale in the Upper Green River Basin, and has one of the richest concentrations of natural gas in the United States. Several unique approaches were instituted in the Jonah Infill Development Project Record of Decision (ROD), to include funding by EnCana Oil and Gas (USA), Inc. and BP America Production to a \$24.5 million fund. This fund established the Jonah Interagency Mitigation and Reclamation Office (JIO) to provide overall management of on-site field monitoring and off-site mitigation activities.

The JIO is staffed with a full-time person from each of the Wyoming Department of Agriculture, Wyoming Game & Fish Department, Wyoming Department of Environmental Quality and the Department of the Interior/Bureau of Land Management.

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