



## Office News

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

### Project Updates!

#### Square Top Wildlife/Livestock Project

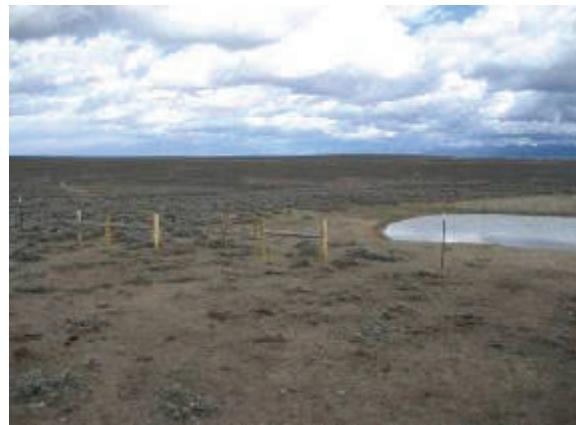
This project includes the upgrade of 3 watering facilities on the Square Top Allotment. Each of these watering facilities provide high quality drinking water to both wildlife and livestock. Each facility has a water overflow into a fenced area known as the "Wildlife Area". These wildlife areas provide for sage-grouse brood rearing as the run-off creates a "green zone" providing needed forbs (broad-leaf plants) and insects for chicks. The fencing on these projects have recently been completed and next years photos will show "green-up" zones created by the overflows. Note that during field visits in the summer of 2006 abundant sage-grouse tracks were found in the current run-off areas.

The photos to the right show a "wildlife area" and "green zone". Two fences are equipped with reflectors to avoid bird/wire collisions and one pole top fence was installed. The different types of fence will aid determination of best fencing for these types of projects. The bottom photo shows a portion of the Square Top Well. The actual enclosed area is approximately 12 acres in size (the largest of the three). Next summer a "drip irrigation" system is anticipated to be installed.

This project was implemented by members of the Square Top Grazing Association.

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## Elk Mountain/Red Canyon Prescribed Burn

JIO partnered on this prescribed burn with 8 other groups, including Kemmerer BLM, Bear River Divide Coordinated Resources Management Group, State of Wyoming, Wyo. Game and Fish Dept., SW Wyo. Sage-grouse Working Group, private landowners, Rocky Mountain Elk Foundation, and the State of Wyoming Wildlife and Natural Resources Trust.

The burn provides a mosaic landscape of burned-unburned vegetation on 20,000 acres. The burned areas are regenerated and stimulate growth of new healthy sagebrush and herbaceous vegetation. Future monitoring efforts are in place and will aid in the evaluation of the treatment. Additional similar treatments have been done in this area, mostly in conjunction with the Cumberland Allotment Plan. These treatments have shown a positive result at regenerating sage grouse habitats. A previous master's thesis on the affects on sage-grouse was also completed on one of these areas. The research indicated no detrimental and some positive affects from the burns to sage-grouse habitat needs and use.



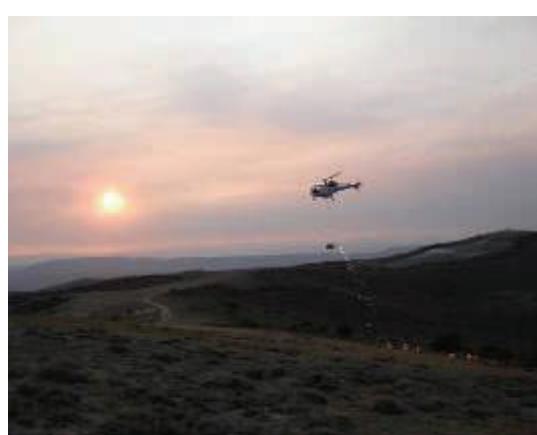
Black-lining prior to treatment



Additional black-lining using the Worland Torch



Most prescribed burning was done with a Heli-torch.



Some efforts went until late in the day



## 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.

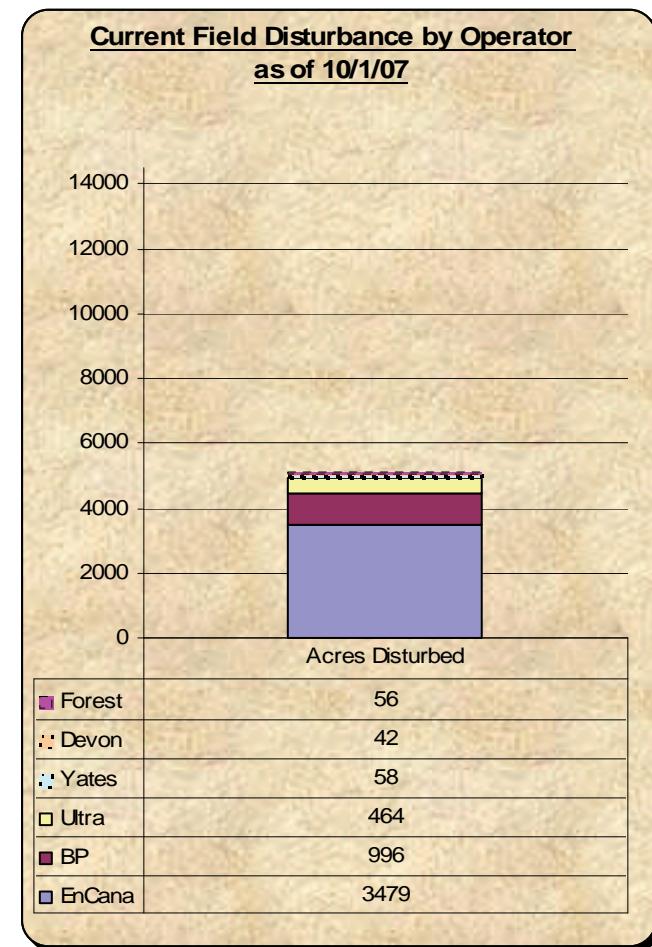
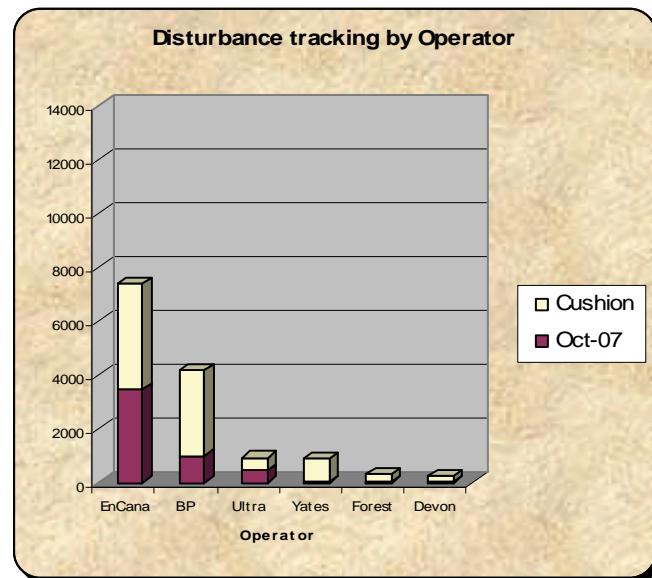
The graph on the upper right shows total allocated field disturbance by operator as of October 1st, 2007. The column in red indicates the number of acres disturbed, the column in yellow indicates how many acres are allowed prior to requiring roll-over for additional acreage.

The graph on the bottom right shows total field disturbance by operator. Notice, total field disturbance as of October 1st was 5,222 acres.

In 2007, EnCana had two mat pads meet the roll-over criteria and they were granted 2.7 acres in roll-over release. It is anticipated many more mat pads will meet roll-over in 2008.

You may review the Reclamation Criteria at:  
[http://www.wy.blm.gov/jonah\\_office/docs/reclamation\\_criteria\\_020807.pdf](http://www.wy.blm.gov/jonah_office/docs/reclamation_criteria_020807.pdf)

**STAY TUNED**  
Disturbance is tracked on a quarterly basis  
and updated versions will be available in following newsletters.





## JIO Mitigation Plan and Focus Areas

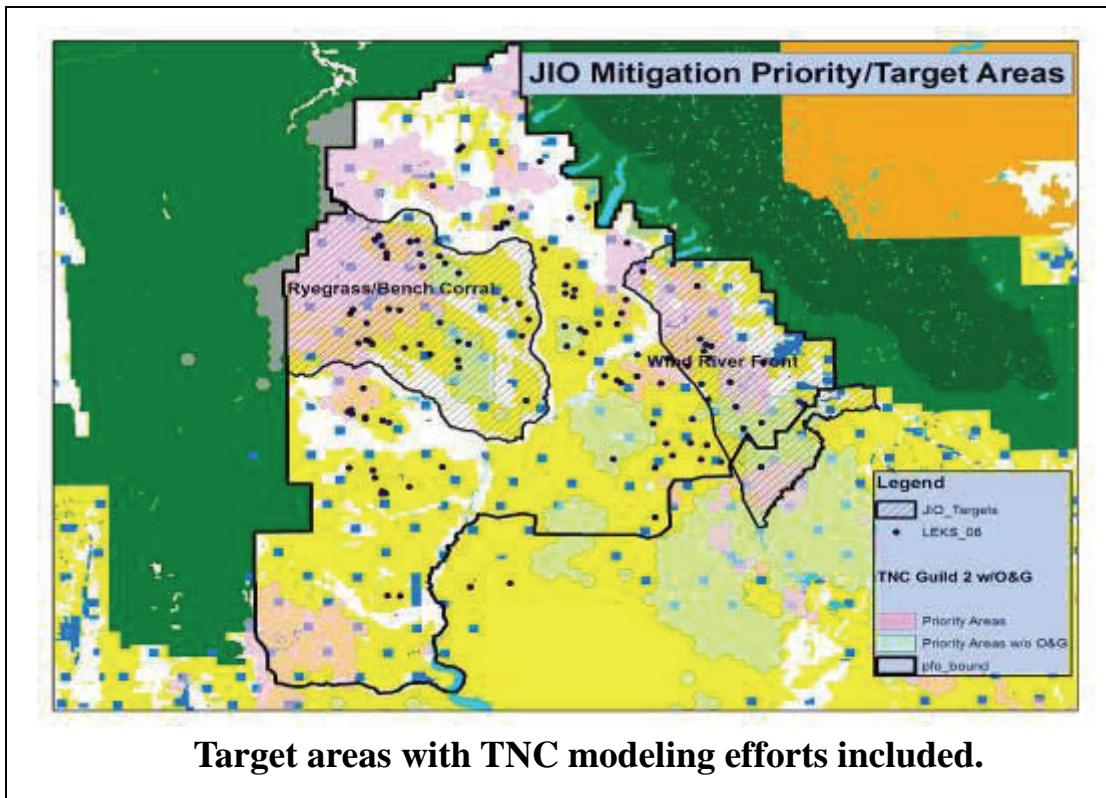
A new effort JIO is embarking on is the formulation of a strategic plan and the identification of specific mitigation focus areas. The plan will better guide JIO mitigation activities towards areas of importance for wildlife species impacted from the Jonah Field. Another purpose of the plan is to answer some very common questions including:

- 1) What kind of vegetative communities/habitat are on the ground now?
- 2) What kind of vegetative communities/habitat do we want to see on the ground in the future?
- 3) How can we achieve those communities/habitats through mitigation efforts?
- 4) What was the response of mitigation efforts?

Focus or “target” areas have been delineated from a review of other efforts including: The Nature Conservancy prioritization modeling; The Upper Green River Sage-Grouse Conservation Plan; discussions with local biologists; and the Wyoming Game and Fish Department’s Strategic Habitat Plan.

The Strategic Plan will be developed over the upcoming winter and will address a large number of topics including sage-grouse biology, other “guild” species biology, pronghorn migratory routes, mitigation project options available for JIO mitigation, baseline data collection (what and how), and how JIO will oversee implementation of projects within these areas.

The plan should be available by next spring/summer so stay tuned.





## Don't wait till March to submit projects, contact us today if you have an idea!

The JIO will be accepting project proposals in March 2008. If you have an interest in applying for funding, please visit our website at: [http://www.wy.blm.gov/jonah\\_office/index.htm](http://www.wy.blm.gov/jonah_office/index.htm). Our website has links to the JIO Mitigation Goals and Strategies as well as an on-line application. You can also take a look at the projects we have funded in the past (as well as those we did not fund) by clicking on the projects link.

Prior to preparing a project application, see the JIO Goals and Strategies listed on our website: [http://www.wy.blm.gov/jonah\\_office/docs/OffSite\\_Mitigation\\_Strategy.pdf](http://www.wy.blm.gov/jonah_office/docs/OffSite_Mitigation_Strategy.pdf). Here you will find specific examples of the types of projects we are interested in funding. Projects focused on collection of data, research, reclamation, or monitoring usually are not within the purview of JIO funding capabilities. Our Mitigation projects are specific to off-set impacts from Jonah Field development. This includes impacts to: Wildlife (specifically sage-grouse and pronghorn), livestock, recreation, and air quality. The JIO reviews projects on a competitive level, and not all projects may be funded. Before you invest a lot of time in application development, give us a call and see how we can help. We are more than happy to work with you in setting project goals and objectives if you would like assistance.



### JIO Needs Forage

As most know, many JIO projects occur on rangelands where livestock grazing occurs. Most range enhancement projects that create substantial disturbance of the range (fire, spike, mowing) require some kind of "rest" period to ensure the best chances of desirable vegetative response. In many cases, there is little flexibility to allow adequate rest, other than perhaps fencing or hiring herders (which are also options). We are interested in hearing from anyone who may have pasture available for leasing. This leased pasture will be used for livestock grazing purposes while a treatment area recovers. Having available forage for lease will allow JIO to address potential projects over a much larger area, and bring one more level of opportunity to the table.



If you have any interest in leasing pasture for JIO projects, please contact us at one of the following numbers: Lisa Reinhart 367-5386 or Dan Stroud 367-5387





## Upper Green Winter Ozone Study – Preliminary Results



Elevated ozone concentrations were recorded in the winter months during 2005 and 2006 in the Pinedale area. The most plausible theory presently is that the ozone was locally formed, citing precursors emitted in the area (such as NO<sub>x</sub> [nitrogen oxides] emitted by engines and VOCs [volatile organic compounds] emitted by production equipment) and favorable weather conditions (suspected tight inversions, stagnant conditions, and sufficient snow cover).

The Wyoming Department of Environmental Quality is concerned about elevated ozone concentrations due to the health effects on the local public (ozone primarily irritates the respiratory system). The WDEQ reacted by launching a special study called “Upper Green Winter Ozone Study” in order to better understand and manage ozone formation in the area.

Conditions during the February and March 2007 study were quite different from those in 2005 and 2006. During the 2007 study, there were substantially stronger upper level winds (meaning morning surface inversions did not persist), warmer temperatures, and deficient snow cover. Although ozone concentrations did not become elevated during the 2007 study, valuable data was collected that will allow scientists to further understand the ozone formation process in the Upper Green River Basin.

In addition to the abundant meteorological conditions recorded, VOC and carbonyl sampling occurred in the ambient air. Prior to the study, there was no previous information of these concentrations in the area. Typical gas field VOCs were found (ethane, propane, n-butane, i-butane, i-pentane, and n-pentane). Twelve carbonyl samples were analyzed at each station (Jonah, Boulder, and Daniel) as well. Acetaldehyde, acetone, benzaldehyde, and formaldehyde were detected in all or nearly all of the samples. The presence of formaldehyde could be due to 1) several sources of formaldehyde production near the Jonah Station, and 2) midday photochemical production at the Boulder Station.

Again, valuable data has been collected allowing scientists to further understand the ozone formation process in the Upper Green River Basin. The WDEQ will likely be continuing the field study into the winter of 2008. The efforts will be better focused by applying lessons learned from the previous years.



Scientists prepare to launch a weather balloon at the airport.





# 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 a commitment by EnCana Oil and Gas (USA), Inc. to a \$24.5 million off-site mitigation fund and establishment of the Jonah Interagency Mitigation and Reclamation Office (JIO) to provide overall management of field 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.

Oversight of the JIO is provided by an Agency Managers Committee, composed of participating agency directors or their representatives. This committee meets periodically to provide senior-level guidance, evaluate past performance, review large-scale off-site mitigation projects (>\$100,000) and review future needs and planned activities.

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