

## **Air Quality Impact Analysis Supplement Q & As**

### **Why did the BLM supplement air quality information for Jonah Infill EIS?**

The description of current air quality was not adequately characterized in previous analysis. The BLM preferred alternative, which includes across-the-board emission reduction mitigation measures, and its effects were not adequately described. The BLM wanted to be sure that the Jonah Infill Drilling Project EIS is based on the best science and information available.

### **What has occurred since the previous air quality analysis was completed that would affect the air quality?**

The model used updated information that reflected increased drilling activities over the past few years. There was also a minor change in the numbers of compressors in production. Compressors are usually natural gas-powered and are used in production activities to move gas and other products through pipelines.

### **What does an air quality model do?**

A model estimates potential impacts to air quality from proposed activities and estimates current conditions from existing emission sources. The model uses both air quality data and estimations of emissions of pollutants to predict potential impacts. Models are deliberately designed to over-estimate potential impact, erring on the side of caution. The information generated by models is not a measurement. The air quality model used does not predict emissions; emission data is input into the model.

Air quality models estimate potential concentrations of air pollutants. This information may be compared against Federal and State of Wyoming standards and make estimates of potential impacts.

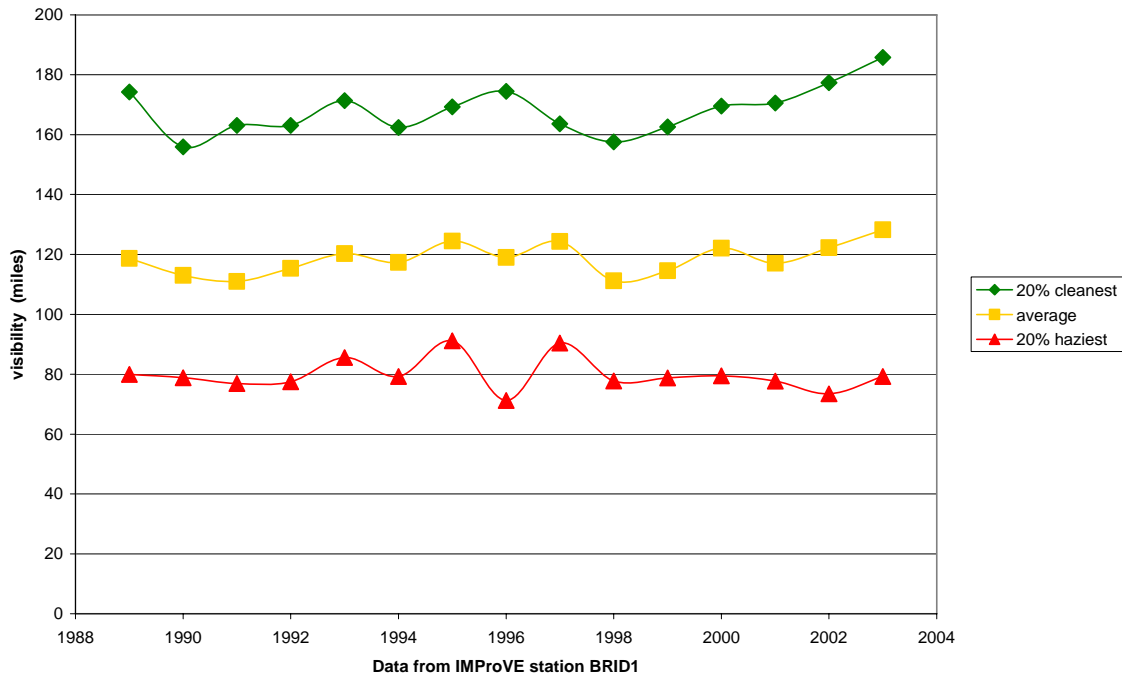
### **What is the quality of the air now?**

The model results that were prepared for this supplemental information indicate that the air quality in the Pinedale, WY region is good overall. This means that concentrations of particulate matter, nitrogen dioxide and sulfur dioxide are below federal and Wyoming air quality standards, and that potential atmospheric deposition is below levels of concern and levels of acceptable change.

Visibility is the area of concern. Visibility may be measured by the number of days the view is hazy. Another visibility measurement is the number of miles an observer can see.

Visibility monitoring indicates that visibility was fairly stable (little change) through 2003. The model results suggest that the Bridger Wilderness visibility may be significantly impacted in the future. Air quality and visibility monitoring instruments were recently installed near Pinedale and surrounding communities. The model results also indicate that visibility in those local communities may be significantly impacted in the future, as well as the Bridger and Fitzpatrick wilderness areas. "Significant" in this context means there may be a noticeable change in visibility over several days per year.

### Visibility in Bridger Wilderness



#### Why is “visibility” an issue?

Visibility is an issue from both the perspective of those who are concerned about the view from the mountains and wilderness or within a national park or the view of the mountains and surrounding landscape. Clarity is important and is often associated with the cleanliness of the air or its quality.

#### How do you mitigate impacts to visibility?

Impacts to visibility may be mitigated by encouraging oil and gas operators to use best available control technology (BACT). The WYDEQ may mandate that operators use BACT.

The BLM may include stipulations in a mineral lease or an application for permit to drill (APD) requiring the operator use best management practices (BMPs) that can reduce emissions and surface disturbance. BMPs involve state of the art technology and practices, including managing the pace and timing of the operator’s development and encouraging operators to centralize facilities, limit the amount of truck traffic and accelerate rehabilitation of disturbed sites.

Advances in technology and techniques may also lead to more efficient means of developing natural resources while lessening impacts.

#### What is the main source of emissions that impact visibility?

Two types of sources may affect visibility: local and regional. Local sources include diesel powered drill rig engines, wood stoves and fireplaces, and traffic on dirt and gravel roads. At the regional scale, visibility impact may be attributed to major sources, like power plants and petroleum refineries.

#### What areas may have impacted visibility?

EPA has established standards for visibility for Clean Air Act Class I areas. There are four Congressionally designated wilderness areas and two national parks that are to be managed as Class I areas and that are within the environment that may be affected by oil and gas activities within the Jonah Field. These are: Bridger Wilderness,

Fitzpatrick Wilderness, Washakie Wilderness, Teton Wilderness; Yellowstone National Park and Grand Teton National Park.

The following Wyoming communities that may be affected by changes in visibility and considered within the visibility modeling are: Pinedale, Big Piney, Boulder, Sandy, Cora, Farson, Merna, LaBarge and Daniel.

**How are the emissions estimated?**

Air quality specialists develop the emission inventory, a listing of emission sources in a given area and their permitted emissions. Estimated emissions information by source and guidelines are provided by the Environmental Protection Agency (EPA). Sources include diesel powered compressors, diesel powered drill rig engines, vehicle (truck) emissions, major point sources such as power plants and oil refineries.

**How are models and their results used?**

Models are used to make predictions. This information is used in the NEPA (National Environmental Policy Act) process to summarize the existing conditions and potential environmental consequences of implementing a proposed action and its alternatives. The NEPA process is documented in an Environmental Impact Statement (EIS). The information and potential consequences of proposed actions and alternatives developed through the NEPA process is considered by the BLM prior to selecting either the proposed action or an alternative.

**What is the Clear Air Act?**

The Clean Air Act of 1955 and its many amendments were enacted to ensure air pollution prevention and ensure that air pollution controls are established. The Clean Air Act described several classes of “airsheds” and goals for managing the air quality of those airsheds. “Class I areas” include national wilderness areas greater than 5,000 acres in size and national parks that are greater than 6,000 acres. EPA is the agency with primary responsibilities for ensuring that the goals and objectives of the Clean Air Act are met.

**Which agencies have a role in managing air quality?**

The Wyoming Dept. of Environmental Quality (WDEQ) has the primary role of regulating air quality within Wyoming. To do this WDEQ may require industry to apply specific practices and mitigation measures. To track emission sources WDEQ issues permits to industries that operate anything that might emit air pollutants. The WDEQ specifically grants permits to “stationary sources” such as compressor engines.

EPA sets federal standards for air quality and concentration standards for air pollutants. They also regulate emissions from mobile sources such as a car or truck and major sources like power-plants and oil refineries. States develop and implement procedures such as monitoring, permitting, control measures and enforcement to achieve and maintain air quality standards.

BLM’s primary role is to disclose to the public the current status of the air quality and potential impacts to air quality from proposed projects and alternatives. BLM also may analyze the effect of mitigation measures on air quality impacts. Obviously, actions the BLM allows on public lands may affect air quality.

**What will the BLM do with this new information?**

The BLM will use the information to complete the Final Environmental Impact Statement for the Jonah Infill Drilling Project. The model will predict the impacts to air quality under various management scenarios.

**What is BLM’s strategy to monitor impacts to air quality?**

The BLM plans to maintain air quality monitoring activities already in place. Current monitoring includes measuring concentrations of pollutants, visibility and atmospheric deposition. In partnership with EPA, National Park Service (NPS), U.S. Forest Service (USFS) and the WDEQ, BLM may enhance air quality monitoring by adding more equipment and site more air quality monitoring stations.

**What kinds of things does BLM monitor?**

Federal land management agencies, the EPA and WDEQ monitor concentrations of air pollutants, visibility and

atmospheric deposition.

Concentrations monitored include: nitrogen compounds (nitrogen dioxide, nitric acid, nitrate and ammonia) particulate matter, ozone and sulfur compounds (sulfur dioxide and sulfate).

Visibility monitoring includes communities as well as Class I airsheds like Yellowstone National Park and Bridger Wilderness. Atmospheric deposition monitoring includes nitrogen and sulfur deposition and the chemistry of sensitive alpine lakes.

**What does BLM do with the monitoring data?**

The BLM will use the information to characterize current air quality conditions and estimate potential impact from future proposed actions. The BLM will continue to work with NPS, USFS, EPA and WDEQ on changes in air quality.

**What happens if monitoring shows that conditions are degrading?**

If monitoring data indicates that the air quality is degrading the conditions are reviewed, and the agency with authority (BLM, WDEQ, or EPA) may then take action to remedy the situation.

**Who ran the air quality model and who prepared the results?**

An interagency team of air quality specialists developed the protocol, conducted the analysis, estimated the impacts and prepared the supplemental information report. In addition to BLM, the other agencies that made up the team were the USFS, NPS, WDEQ, and the EPA.

**Have there been any incidents when air quality or visibility was impacted in the area, and if so, how were the impacts resolved?**

The following are three examples of air quality and/or visibility impacts in recent years.

- In February 2004 flaring from the completion of a gas well occurred outside of Pinedale. The flare temporarily created visibility impacts to Pinedale and nearby communities. Industry resolved to employ “green” completions (flareless) and new technology as soon as practical.
- In late spring 2005 smoke from wildfires in Arizona, Nevada and Utah caused significant visibility impacts in Pinedale and surrounding communities.
- In February 2005 ozone levels monitored in the Jonah Field may have "exceeded" national health-based standards. Resolution and verification of monitored ozone thresholds has not yet been completed.

**Now that the BLM has this supplemental air quality information what happens next?**

The BLM will use the information to prepare the Final EIS. When the FEIS is available for public review and comment, the BLM will notify the public through the media and the Federal Register.