SLIDES: Coalbed Methane Water Quantity/Quality

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Coalbed Methane Water Quantity/Quality

June 17, 2004

Tom Darin, Public Lands Director & Staff Attorney

Jackson Hole Conservation Alliance
Outline

• CBM Overview

• Water Quantity Issues

• Water Quality Issues

• Who Owns the Water

• Adaptive Management

• Predicting the Future?
CBM Overview

• Production Techniques

• Common Impacts --
  – Roads
  – Pipelines
  – Powerlines
  – Air quality/compressors
  – Wells pads

• CBM Impacts
  – Groundwater
  – Surface Water
  – Subsidence
  – Increased air quality concerns
Roads, etc.

- 51,000 total wells
- 17,000 miles of new roads
- 20,000 miles of new pipelines
- 5,300 miles of overhead pipelines
CBM Unique Impacts

- Groundwater

- Surface Water
  - Quantity and Quality
RESERVOIRS

• By the numbers
• Concentration
• Groundwater/Surface Water Contamination
• Reclamation?
Aerial Spraying

- Land Application Devices (LADs)
- Point Source?
- Salt Accumulation
Quality

- Salts (EC/TDS)
- Sodium Adsorption Ratio
- Fisheries/Aquatic life
Native Vegetation
Who Owns This Water?

- State of Wyoming
- Wyoming State Engineer
- Waste?
- Wasted?
“Wastewater, salty and other impaired water, can be purified to increase their utility. . . . Recent reports to Congress on potential projects, along with a water desalinization research roadmap now under review by the National Research Council, should guide research. Reducing desalinization costs, for instance, could enable the cost-effective treatment of brackish groundwater in traditionally water-short areas. . . . Although one alternative is to pipe fresh water from rivers and reservoirs miles away to these water short areas, desalinization could offer less expansive and drought-proof alternative[s] while providing reliable and high quality water supplies to these communities.”
Adaptive Management

"It is speculative about the specifics of future development. Because of this uncertainty, a number of assumptions were necessary to predict the impacts associated with future development. Those assumptions may or may not be correct. Therefore, mitigation measures may need to be modified as development evolves."

Regarding all of the mitigation measures in the ROD, BLM further admitted it had not "determine[d] the effectiveness of the mitigation measures." FEIS at D-1, D-2.
Predicting the Future