



PANEL:

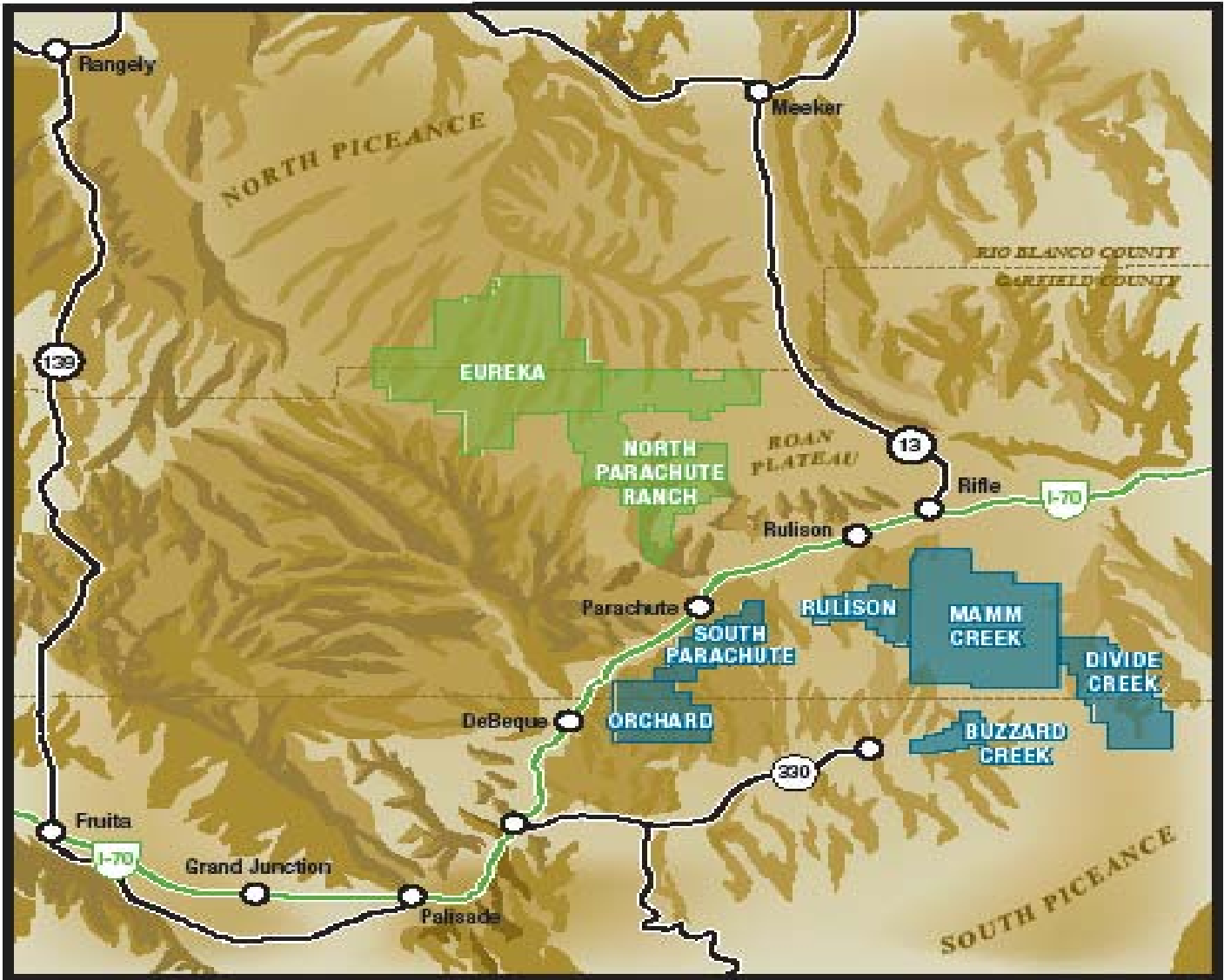
The Future of Mineral Development on  
Federal Lands in the United States  
**A Case Study of the Roan Plateau Area**

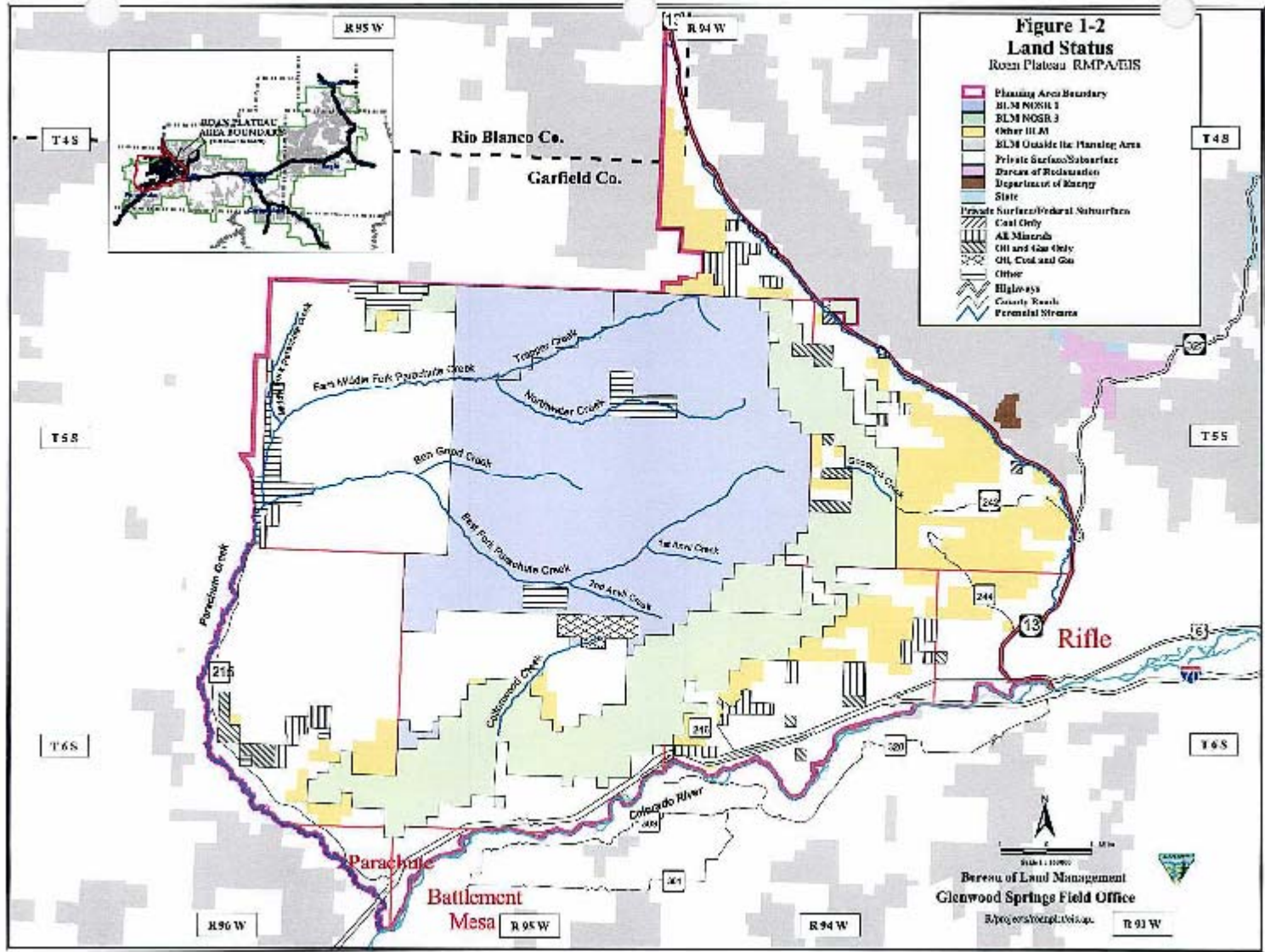
Mary Viviano

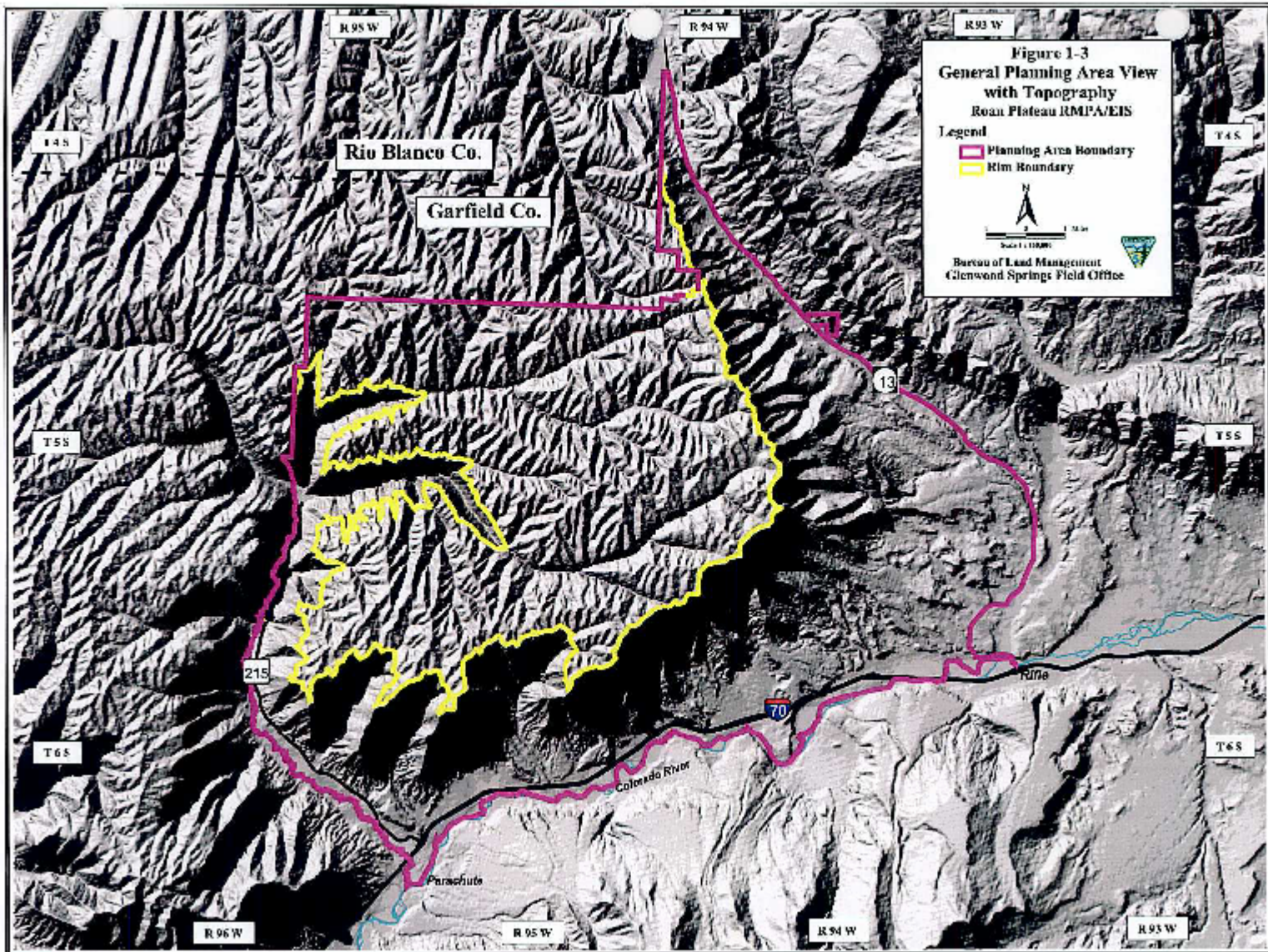
June 7, 2007

COLORADO OPERATIONS









# ENCANA NORTH PARACHUTE RANCH



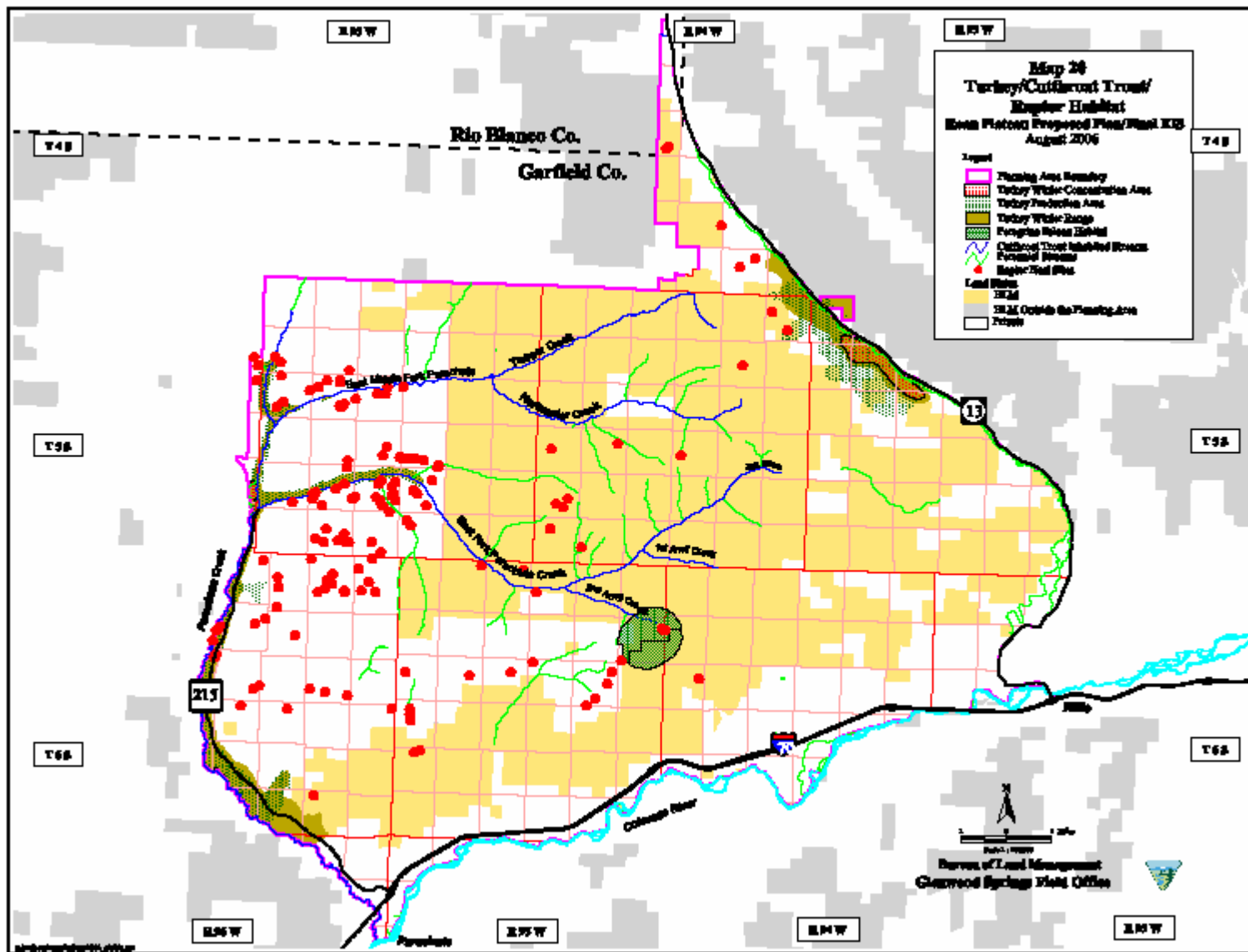
Western Portion of Roan Plateau Planning Area, includes upper and lower plateau topography; Already significant activity that is environmentally sound and designed to minimize impacts

- 46,145 surface acres
- 25,889 mineral acres, 20,000± leased acres
- 244 wells drilled to date
- Pad Drilling: Max. 28 wells/pad, located mostly in valleys

# ENVIRONMENTAL STUDIES AT NPR



- Water quality monitoring
  - 11 monitoring wells, 21 surface water locations, 24 springs sampled quarterly for compounds, metals, sediment
- 2 permanent air monitoring stations - real time data
- Biological studies on wildlife species w/DOW: greater sage grouse, raptors, mule deer, elk, peregrine falcon & owls
- Habitat improvement areas for sage grouse leks, deer & elk calving areas
- Baseline macro - invertebrate sampling for aquatic habitat and water quality
- Wildlife habitat/livestock grazing management plan
- Noxious weed control



# Colorado Outstanding Operator Awards 2006

- Given Annually by COGCC
- ECA recognized at NPR for:
  - 3-Phase Gathering System
  - Water Distribution System
  - Community Relations Efforts
- First Ever Joint Award Given by DOW & COGCC
  - ECA Sage Grouse Efforts at NPR



# OPERATIONS at NPR



- EnCana staff wildlife biologist
- Perform DOW baseline studies on all area wildlife
- Increase in sage grouse lek activity
- Raptor nests identified & monitored
- Perform onsite inspection – all locations
- Model many BLM/DOW BAPs

# 3 Phase Gathering



- Gas, oil, produced water gathered to central facility
- Water treatment and distribution system:
  - 2003 Mamm Creek; 2004 North Parachute Ranch; 2005 High Mesa Field
- Treats and recycles produced water for well drilling and completion operations
- Current capability 90% of all produced water is treated and recycled

# WATER DISTRIBUTION SYSTEM



- In 2006 7.7 million bbls. recycled
- Significant reduction of truck traffic, dust and noise
- 75% of water transports eliminated
- Working with DNR on beneficial use possibilities for excess water

# ENCANA COMMENTS ON BLM PROPOSED PLAN AMENDMENT for ROAN



- Undivided unit arrangement with clustered and sequential exploration rather than over entire area - one geographic area at a time
- Phased & limited development (production?) restrictions — 1% disturbance/350 acres
- Lease stipulations

BLM ANALYSIS WAS THOROUGH AND DEFENSIBLE  
UNDER NEPA AND RELATED STATUTES

# FUTURE FOR PUBLIC LANDS



- NPR shows mineral development can successfully occur in environmentally sensitive areas in partnership with Agency experts
- Appeals will continue of Agency's NEPA/Planning process, no matter how rigorous, reflecting national political/policy debates on Energy Policy
- Uncertainty/delay/pace of development restrictions all raise costs of exploration and ultimately, energy production