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## 4.0 CONSULTATION AND COORDINATION

This section summarizes the communication among agencies and with the public relative to the environmental analysis of the proposed exploratory gas drilling project.

### 4.1 Public Involvement and Scoping

Key elements of the public involvement process include public scoping, a project web site, and announcement of the project decision.

#### 4.1.1 Public Scoping

The USFS and BLM conducted a public scoping process to solicit input on the proposed project. The scoping period began December 30, 2002, and ended January 31, 2003. The scoping process included the following components.

##### 4.1.1.1 Scoping Notification

A legal notice of the scoping period appeared in the *Grand Junction Daily Sentinel* on December 28, 29, and 30, 2002.

News releases announcing the scoping period and scoping open house were submitted to:

- *Grand Junction Daily Sentinel*;
- *Mountain Valley News* (weekly);
- *Delta County Independent* (weekly); and
- *Montrose Daily Press*.

The scoping open house also was announced on public radio station KVNF, which broadcasts from Paonia, Colorado.

A scoping letter, including a project map, was mailed to approximately 950 addressees on USFS/BLM mailing lists. The scoping letter was dated December 30, 2002.

##### 4.1.1.2 Public Scoping Open House

On January 22, 2003, the USFS and BLM held a public scoping open house at Heritage Hall in Hotchkiss, Colorado. The objectives of the meeting were to provide information to the public regarding the proposed project as well as to solicit written input. A total of 38 individuals signed the attendance record for the scoping open house.

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#### **4.1.1.3 Summary of Scoping**

The USFS received a total of 279 comments during the public scoping period. The public submitted written comments at the scoping meeting and by mail, e-mail, and telephone. The USFS and BLM have reviewed all written comments to identify issues that are relevant to the environmental analysis. The comments have been sorted by environmental resource and by specific issue within each resource to assess the agency and public concerns relative to the proposed project. The key issues raised in the scoping comments are summarized in Section 2.3 of this EA.

#### **4.2 Schedule of Proposed Actions**

The proposed project also is included in the GMUG SOPA. The SOPA is updated quarterly; it is distributed via mail and is available on the GMUG web site.

##### **Project Web Site**

A project Internet web site is available, which is updated approximately monthly. The web site includes:

- Project summary and map;
- NEPA process;
- Public participation opportunities;
- Scoping summary;
- Status of EA preparation;
- Agency contacts for the EA; and
- Memorandum of understanding.

##### **4.2.1 Announcement of Decision**

The USFS and BLM will prepare and submit a news release to local newspapers summarizing the agencies' decisions. The decisions also will be announced on the project web site. A legal notice identifying the Forest Supervisor's decision will be published in the Grand Junction Daily Sentinel.

#### **4.3 Coordination**

The following federal, state, and local agencies; organizations; and businesses that were contacted and have provided input and/or are receiving copies of this EA.

##### **4.3.1 Federal Agencies**

- Bureau of Reclamation
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

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- Western Area Power Administration

#### **4.3.2 State Agencies**

- Colorado Department of Natural Resources, Division of Minerals and Geology
- Colorado Division of Water Resources
- Colorado Division of Wildlife
- Colorado Natural Heritage Program
- Colorado Oil and Gas Conservation Commission
- Colorado State University Cooperative Extension

#### **4.3.3 Local Agencies**

- City of Delta
- Delta County Board of Commissioners
- Delta County Health Department
- Delta County Planning Department
- Delta County Tourism Council
- Gunnison County Commissioners
- Gunnison County Planning Commission
- Gunnison County Planning Department
- Gunnison County Public Works Department
- Montrose County Commissioners
- Montrose County Public Works Department
- Town of Crawford
- Town of Cedaredge
- Town of Hotchkiss
- Town of Paonia
- Town of Orchard City

#### **4.3.4 Tribal Organizations**

- Northern Ute Tribe
- Southern Ute Tribe
- Ute Mountain Ute Tribe

#### **4.3.5 Other Organizations and Companies**

- 4J Ranch
- Beartooth Oil and Gas Company
- Colorado Environmental Coalition
- Colorado Wild

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- Colorado Wildlife Federation
  - Concerned Citizens of Delta County
  - Delta County Livestock Association
  - Earthbound
  - Fairlamb Law Office
  - Forest Conservation Council
  - Grand Mesa Citizens Alliance
  - Grand Mesa Water Users Association
  - Gunnison Basin Biodiversity Project
  - Gunnison Basin Selenium Task Force
  - Gunnison Energy Corporation
  - High Country Citizen's Alliance
  - John Bunning Transfer
  - Lamborn Valley School and Farm
  - Land and Water Fund of the Rockies
  - Leroux Creek Inn
  - McPherson Geologic Consulting
  - Mercedes Medical
  - Mooney Ranch
  - National Wildlife Federation
  - Natural Resource Defense Council, Inc.
  - Overland Ditch and Reservoir Company
  - Red Canyon Ranch
  - Rocky Mountain Ecosystem Defense
  - Rocky Mountain Farmers Union and Valley Organic Growers Association
  - Sierra Club
  - Sinapu
  - Sunshine Springs Water Company, LLC
  - Temple and Petty Construction Company, LLC
  - Terror Ditch and Reservoir Company
  - The Wilderness Society
  - Vaughan Ranches, Inc.
  - Western Slope Environmental Resource Council

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## 6.0 GLOSSARY

Air Drilled	Drilling that uses air as the circulating medium to lubricate and cool the bit and flush the rock cuttings to the surface.
Ambient Noise	Total, all-encompassing noise associated with a given environment and time.
Annulus	The space around a pipe suspended in a wellbore. The outer wall of the annulus may be either the wall of the borehole or the casing.
Aquifer	A body of rock that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells and springs.
Artesian	An artesian aquifer has a pressure head that is above ground level. A well in an artesian aquifer will flow water without any pumping.
Bentonite	A colloidal clay composed of the mineral montmorillonite that is used in drilling mud.
Bloolie Line	A discharge pipe from a well being drilled using air drilling methods. Used to conduct the air or gas used for circulation away from the rig to reduce the fire hazard as well as to transport the cuttings to an appropriate location (e.g., flare pit).
Blowout Preventer	Equipment installed at the wellhead for the purpose of controlling pressures in the annular space between the casing and drill pipe or in an open hole during drilling and completion operations.
Bottomhole	The lowest or deepest part of the well.
Closing Unit	The hydraulic power pack and accumulators used to control the blowout preventers on a drilling or completion rig.
Conductor Pipe	A short string of casing of large diameter that is used to keep the top of the wellbore open and to provide a means of conveying the upflowing drilling fluid from the wellbore to the reserve pit.
Controlled Surface Unit	Allowed use and occupancy (unless restricted by another stipulation) with identified resource values requiring special operational constraints that may modify the lease rights. Controlled Surface Unit is used as an operating guideline, not as a substitute for No Surface Occupancy or Timing stipulations.

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Critical Habitat	Habitat that is present in minimum amounts and is the determining factor in the potential for population maintenance and growth.
Cumulative Effects	The combined environmental impacts that accrue over time and space from a series of similar or related individual actions, contaminants, or projects. Although each action may seem to have a negligible impact, the combined effect can be significant. Included are activities of the past, present, and reasonably foreseeable future; synonymous with cumulative impacts.
dBA	A-weighting. The most commonly used frequency weighting measure; simulates human sound perception and correlates well with human perception of the annoying aspects of noise.
Directional Drilling	Drilling at an angle from the vertical.
Disturbed Area	An area where natural vegetation and soils have been removed.
Drilling Mud	A preparation of water, clay, and chemicals circulated in a well during drilling to lubricate and cool the bit, flush the rock cuttings to the surface, and plaster the side of the well to prevent cave-ins.
Duplex Pump	A reciprocating pump having two pistons or plungers that is most commonly used for pumping drilling mud.
Endangered Species	Any species in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.
Ephemeral Stream	A stream or portion of a stream that flows briefly in direct response to precipitation in the immediate vicinity and whose channel is at all times above the water table.
Fault	A fracture in rock units along which there has been displacement.
Flaring	The process by which surplus combustible vapors are disposed using an arrangement of piping and a burner.
Flare Pit	A pit surrounded by an earthen berm into which the blowout line is directed during drilling for containment of a flare.
Forage	Vegetation used for food by wildlife, particularly big game wildlife, and domestic livestock.

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Fugitive Dust	Dust particles suspended randomly in the air from road travel, excavation, and rock loading operations.
Horizontal Drilling	A drilling method used for completion of a well. Drilling is conducted horizontally within the plane of the target formation to maximize the exposed surface area.
Hydraulic Fracturing	A process of forcing liquid into a formation to open passages (cracks) within the rock to facilitate extraction of hydrocarbons.
Hydraulic Stimulation	See hydraulic fracturing.
Hydrocarbon	An organic compound of hydrogen and carbon whose density, boiling point, and freezing point increase as its molecular weight increases. The smallest molecules are gaseous; the largest are solids.
Impact	A modification in the status of the environment brought about by the Proposed Action or an alternative.
Indirect Impacts	Impacts that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable (40 CFR 1508.8); synonymous with indirect effects.
Interzonal Communication	When fluids from different formations are allowed to intermingle, a condition that may occur if there is a bad casing cement job.
Irrecoverable	Applies primarily to the lost production of renewable natural resources during the life of the project.
Irreversible	Applies primarily to the use of nonrenewable resources, such as minerals, cultural resources, wetlands, or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.
Lenticular	Lens-like in geometric form.
Lithic Scatter (Archaeology)	A discrete grouping of flakes of stone created as a byproduct in the tool making process. Often includes flakes used as tools as well as formal stone tools, such as projectile points, knives, or scrapers.
Micromhos per centimeter	A unit of measure for electrical conductivity in water. Higher values reflect greater levels of dissolved conductors, such as sodium, calcium, or magnesium salts.

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Mitigate, Mitigation	To cause to become less severe or harmful; actions to avoid, minimize rectify, reduce or eliminate, and compensate for impacts to environmental resources.
Monitor	To systematically and repeatedly watch, observe, or measure environmental conditions in order to track changes.
Mud Tank Shale Shaker	A vibrating screen that removes the larger rock cuttings from the circulating drilling fluid stream as it exits the hole.
National Environmental Policy Act	The National Environmental Policy Act (NEPA) of 1969; the national charter for Protection Act protecting the environment. NEPA establishes policy, sets goals, and provides means for carrying out the policy. Regulations from 40 CFR 1500-1508 implement the act.
National Register of Hisoric Places	A list, maintained by the National Park Service, of areas that have been designated as being of historical significance.
Native Species	Plants that originated in the area in which they are found (i.e., they naturally occur in that area).
No Surface Occupancy	A fluid mineral leasing stipulation that prohibits occupancy or disturbance on all or part of the land surface to protect special values or uses. The No Surface Occupancy stipulation includes stipulations which may have been worded as "No Surface Use/Occupancy," "No Surface Disturbance," "Conditional NSO," and "Surface Disturbance or Surface Occupancy Restriction by location." Lessees may exploit the oil and gas or geothermal resources under leases restricted by this stipulation through use of directional drilling from sites outside the No Surface Occupancy area.
Noise	Unwanted sound; one that interferes with one's hearing of something; a sound that lacks agreeable musical quality or is noticeably unpleasant.
Normal Fault	A dip-slip fault in which the block above the fault has moved downward relative to the block below.
Packer	A device used for blocking communication through the annular space between two strings of pipe or between the pipe and the wall of the borehole.
Perennial Stream	A stream or reach of a stream that flows throughout the year.

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Permeability	Ability to transmit water.
pH	The measure of the acidity or basicity of a solution.
Porosity	Ratio of void spaces to total rock volume.
Producing Zone	The zone or formation from which oil or gas is produced.
Proppant	A granular substance, such as sand, which is carried in suspension by the fracturing fluid and serves to keep the fracture open when the fracturing fluid is withdrawn.
Reserve Pit	An earthen or lined pit used to store water and receive drill cuttings and drilling fluids.
Right-of-Way	Strip of land or corridor through which a powerline, access road, or maintenance road would pass.
Riparian	Situated on or pertaining to the bank of a river, stream, or other body of water. Riparian is normally used to refer to plants of all types that grow along streams, rivers, or at spring and seep sites.
Screened	The term applies to the open interval of a well. A well is screened in a sandstone if the open interval of the well is limited to the sandstone.
Sediment	Material suspended in or settling to the bottom of a liquid. Sediment input comes from natural sources, such as soil erosion and rock weathering, as well as construction activities or anthropogenic sources, such as forest or agricultural practices.
Sidetrack Drilling	Drilling around a portion of a hole because of broken drill pipe or casing that has become permanently lodged in the hole.
Storage Coefficient	A term that relates to a rock's ability to release water by compaction or compression. The term applies to the ability of a permeable rock to take in or release water per unit area and per unit change in head. A rock with a high storage coefficient can store or release more water than one with a low storage coefficient.
Threatened Species	Any species of plant or animal that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
Total Dissolved Solids	Total amount of dissolved material, organic or inorganic, contained in a sample of water.

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Triplex Pump	A positive-displacement reciprocating pump that is configured with three plungers. Triplex pumps are the most common configuration of pump used in both drilling and well service operations. Pumps are capable of handling a wide range of fluid types, including abrasive fluids (such as drilling fluids) and slurries containing relatively large particulates.
Turbulent Centralizers	Equipment used during cementing of the well casing to keep the casing centered in the hole and to evenly distribute the cement around the outside of the casing.
Visual Resource	The composite of basic terrain, geologic features, water features, vegetation patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for viewers.
Waters of the U.S.	A jurisdictional term from Section 404 of the Clean Water Act referring to water bodies such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The use, degradation, or destruction of these waters could affect interstate or foreign commerce.
Well Logging	The recording of information about subsurface geologic formations. Logging methods may include records kept by the driller, mud and drill cutting description and analyses, drill-stem tests, and geophysical measurements using electricity and radioactivity to measure rock properties.
Well Stimulation	Any of several operations employed to increase the production of a well.
Wetlands	Areas that are inundated by surfacewater or groundwater with a frequency sufficient to support (and under normal circumstances do or would support) a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.