



MESA COUNTY MINERAL & ENERGY RESOURCES MASTER PLAN

February 2011



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1. RESOURCES

Mapped Resources

[1978 Mineral Resources Survey of Mesa County – A Model Study – Colorado Geological Survey](#)

(On File at Mesa County Planning and Economic Development Department)

[Energy Atlas June 2009](#)

(http://imap.mesacounty.us/EPOM/EMP_Docs/Mesa_County_Energy_Atlas_Interactive_72dpi%5B1%5D.pdf)

2. GOALS AND POLICIES

2.1 Exploration and Development

Mineral and Energy Resources (“Resources” hereafter)

GUIDING GOAL

Create and maintain a balance between present and future Resource development and use.

GOALS:

- G1. Mesa County will be a leader in the stewardship of natural, social, environmental, and economic assets of Mesa County, which will assure prosperity and quality of life into the future while minimizing impacts of development and use of Resources.
- G2. Balance new and traditional technologies related to exploration, development, conservation, and use of Resources in a way that will strengthen economic growth, provide safe and reliable use of Resources, and mitigate environmental impacts.
- G3. Minimize potential impacts from all exploration, development, and use of Resources on lands, land uses, residents, and communities, recognizing the location of the Resources and current land use patterns.
- G4. Protect Resources and existing Resource-related facilities from incompatible land uses.
- G5. Minimize potential conflicting land uses that may adversely impair or prevent the exploration, development, and use of commercially valuable Resources, recognizing the location of the Resources and current land use patterns.
- G6. Permit Resource development in a safe and environmentally sound fashion.

G7. No duplication of regulatory oversight.

G8. Make publicly available any scientifically valid studies and/or databases of knowledge related to human health risks associated with Resource exploration, development, and use, including opportunities to minimize any such risks.

G9. All exploration, development, and use of Resources will be done in manner in which everyone enjoys the same degree of protection from environmental and health hazards and equal access to the information and decision-making process to have a healthy environment in which to live, learn, and work.

G10. Keep mitigation measures as current as possible through annual review with industry stakeholders.

POLICIES:

P1. Participate in regulatory rule-making of the appropriate State regulatory agencies, e.g., Colorado Department of Natural Resources (DNR), Colorado Department of Public Health and Environment (CDPHE), Colorado Oil and Gas Conservation Commission (COGCC), Colorado Geological Survey (CGS), Colorado Division of Wildlife (CDOW), Colorado Department of Transportation (CDOT), Public Utilities Commission (PUC), etc.

P2. Participate as a cooperating agency with Federal regulatory and land management agencies, e.g., Bureau of Land Management (BLM), United States Forest Service (USFS), United States Fish and Wildlife Service (USFWS), Bureau of Reclamation (BOR), Federal Energy Regulatory Commission (FERC), etc.

P3. Provide tools for use by landowners, Resource industry interests, the public and county staff to minimize and mitigate impacts of Resource exploration and development addressing (but not limited to): Sensory Impacts (odor/visibility), Water-Related Sensitivities, Biological Sensitivities, Transportation, and Hazards and Mineral Resources. (e.g., the interactive Geographic Information System (GIS) map on the Mesa County website known as the Energy Policy Opportunity Map - EPOM).

[Energy Policy Opportunity Map](#) Mesa County's website includes an on-line interactive map designed to allow the user to identify locations of: known Resources, known constraints and opportunity areas for developing Resources such as sensitive landscapes, transportation routes, emergency services, and residential structures; existing and proposed Resource-related facilities, such as natural gas facilities, drilling pads, and wells; mitigation measures or best management practices for potential impacts related to scenic corridors, noise, odor, geotechnical constraints, proximity to residential areas, transportation, roads, bridges, water resources, biological resources, and wildfire, all of which are linked to the mapped sensitivities.

P4. Provide comments to State and Federal regulatory agencies on proposed Resource exploration and development projects such as Environmental Assessments, Environmental Impact Statements, Plans of Development and Applications for Permits to Drill (APD), based on the EPOM and to include in permits that are enforced by the appropriate regulatory agencies.

P5. Advise Resource developers to demonstrate their use of applicable mitigation measures, best management practices, and best available technology in their applications to Mesa County for appropriate permits through means such as the EPOM tool.

ACTION ITEMS:

1. The Mesa County Land Development Code will be revised to reflect these Goals and Policies regarding Resource exploration and development. It is suggested subdivision developers obtain all subsurface rights (mineral rights) associated with the land proposed for subdivision prior to Final Plat approval. All mineral leases and owners of record of the platted property shall be identified on the Final Plat.

2. Revise the Mesa County Land Development Code, including but not limited to the Conditional Use Permit process, policies and standards, to reflect the need to ensure compatibility of Resource exploration and development activities with potentially impacted land uses.

3. Revise the Mesa County Land Development Code, including but not limited to the Conditional Use Permit process, policies and standards, to reflect the need to ensure compatibility of other land uses with Resource exploration and development activities.

Mitigation Tools

[Energy Policy Opportunity Map EPOM](http://imap.mesacounty.us/epom/) – on-line tool - <http://imap.mesacounty.us/epom/>

[Mitigation Measures](#) ¹

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Visual, Transportation, Surface Water	Directional/Horizontal Drilling	<p>Directional/Horizontal Drilling allows for multiple wells to be drilled from a common well pad.</p> <ul style="list-style-type: none"> • Greatly reduces surface-related impacts by minimizing the number of well locations and surface equipment necessary to service greater volumes of production, especially when employed with Consolidated Production Facilities techniques. • The geology and target production zone determines which drilling technology (directional or horizontal) will be employed. • Both technologies mitigate surface-related impacts similarly. 	RECOMMENDED

¹ "These mitigation measures are not all inclusive. Mitigation may involve best available technology not herein included and should be kept current pursuant to Goal G10 and Policy P5 of this Plan. "

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Visual, Transportation, Surface Water	Three-Phase Gathering	<p>Three-Phase Gathering allows for pipelines to be installed parallel to the natural gas gathering lines to take production liquids to centralized storage points rather than employ storage tanks at all well pad locations.</p> <ul style="list-style-type: none"> • Can be used in conjunction with Consolidated Production Facilities to minimize the amount of production surface equipment in various locations in a specific area. 	RECOMMENDED
Visual, Transportation	Consolidated Production Facilities	<p>Consolidated Production Facilities techniques consolidate production units and appurtenances on one well pad with common storage tanks.</p> <ul style="list-style-type: none"> • Largely employed when directional or horizontal drilling is used to complete multiple wells from a common well pad. • In certain circumstances, even directional well pads may be further consolidated with others to allow for a common production facility to service several well pads. 	RECOMMENDED

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Transportation, Odor, Noise, Visual, Surface Water	SCADA/Telemetry	<p>Supervisory Control and Data Acquisition (SCADA)/Telemetry systems are used to remotely monitor and/or control processes within facilities.</p> <ul style="list-style-type: none"> • Can be employed at production, gathering and processing facilities to minimize transportation impacts due to personnel needed for typical facility monitoring and control. • Allows for a rapid and remote response in the event of an adverse incident, minimizing potential impacts while protecting the community and potential emergency response or company personnel. • Field activities can be better planned and more efficient due to remote monitoring capabilities. • Communication with cell towers, satellites, and other transmitters may limit employing this technology. (NOTE: locating new cell towers may require a Conditional Use Permit) 	RECOMMENDED
Visual	Color Selection	<p>Color Selection of Equipment can mitigate visual impacts by blending in with the natural environment</p> <ul style="list-style-type: none"> • Limited to areas with low to moderate visual impact potential. • A minimum requirement for all drilling and conditional use permits to mitigate visual impacts in Mesa County. 	MANDATORY minimum standard

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Visual	Camouflage	<p>Camouflage techniques include, but are not limited to, constructing outbuilding structures around production or pipeline-related equipment to blend in with the predominantly rural/agricultural setting.</p> <ul style="list-style-type: none"> • Can be employed to minimize scenic impacts in highly sensitive visual resource areas. • Structures must be designed and built to not only conceal the equipment they are housing but to ensure that the materials used for the construction do not pose a fire or safety risk to personnel, the environment or community. 	REQUIRES ON-SITE INSPECTION TO DETERMINE APPLICABILITY
Visual, Noise	Screening/Barriers	<p>Screening/Barriers include natural or constructed barriers to screen visibility of facilities and/or odor impacts.</p> <ul style="list-style-type: none"> • Employed in area with moderate to high sensitivity for visual or noise impacts. • May be most appropriate in locations when tied to Directional or Horizontal Drilling where surface locations can be located to account for topography and other variance in the landscape. 	REQUIRES ON-SITE INSPECTION TO DETERMINE APPLICABILITY
Odor, Visual, Air Quality, Wildfire, Noise	Flowback Units	<p>Flowback Units are used following the well enhancement or frac operations to remove water and frac sand from the production gas stream prior to tying the well into the gas gathering system.</p> <ul style="list-style-type: none"> • Eliminates the need for open flaring into a flare pit or equivalent. • Allows for the natural gas to be captured rather than vented or flared into the atmosphere. 	RECOMMENDED

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Ground Water, Surface Water	Frac Tracing	<p>Frac Tracing allows for the material used in the well frac operations to be traced to ensure that frac materials do not penetrate or impact an unplanned geological zone, especially areas of ground water. Well fracing is performed in order to stimulate the production of natural gas.</p> <ul style="list-style-type: none"> • Widely used and necessary in much of the Piceance Basin due to the very tight gas sands that contain the natural gas resource. • Most applicable in areas highly sensitive to potential ground water impacts. 	RECOMMENDED
Ground Water	Well Casing	<p>Well Casing design and integrity is paramount in the protection of ground water resources.</p> <ul style="list-style-type: none"> • Surface casing should be set at a depth to ensure protection and isolation of ground water resources. • Intermediate casing strings will be used if additional water zones are found to exist during drilling activities in order to isolate these zones from production zones. • Bradenhead gas monitoring of annulus in conjunction with a properly engineered casing ensures the mechanical integrity of the well and the isolation of production from other subsurface resources. 	RECOMMENDED
Ground Water	Cement Bond Logs	<p>Cement Bond Logs are a written record to validate the integrity of well cement jobs to protect subsurface resources from production or well completion impacts (muds, fluids, gases, etc.).</p> <ul style="list-style-type: none"> • A proper cement job in conjunction with a properly engineered well casing can essentially eliminate the probability of commingling of resource zones (gas, water, etc.). 	RECOMMENDED

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Surface Water, Ground Water	Lined Reserve Pit	<p>Lined Reserve Pits are synthetically lined reserve pits for drilling and production fluids, used to minimize potential unforeseen impacts to surface or ground water resources.</p> <ul style="list-style-type: none"> An additional level of protection compared to common unlined earthen reserve pits. 	MANDATORY minimum standard
Surface Water, Ground Water	Closed Loop Drilling	<p>Closed Loop Drilling eliminates the need for a reserve pit for circulation water and drilling mud.</p> <ul style="list-style-type: none"> Most applicable in areas highly sensitive to potential ground water impacts 	RECOMMENDED
Noise	Insulated Enclosures	<p>Insulated Buildings or Enclosures muffle noise from compression or processing facilities.</p> <ul style="list-style-type: none"> Required if a facility that generates noise cannot meet Colorado Oil and Gas Conservation Commission noise level standards. Also provides added protection from the elements and can increase equipment service life. 	RECOMMENDED
Noise	Hospital Grade Mufflers	<p>Hospital-Grade Mufflers or equivalent are encouraged to minimize noise impacts to neighboring landowners.</p> <ul style="list-style-type: none"> Colorado Oil and Gas Conservation Commission applicable noise standards will be strictly enforced. 	RECOMMENDED

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Odor	Combustion Units	<p>Combustion Units are used at production facilities to minimize volatile emissions from locations but also work well at controlling potential odor impacts to nearby surface occupants.</p> <ul style="list-style-type: none"> • Any well location with on-site production units and liquids storage within 1,000 feet of an occupied surface facility should employ this type of device to prevent potential odor-related impacts. 	MANDATORY minimum standard
Ground Water, Surface Water	Secondary Containment	<p>Secondary Containment systems are engineered systems with synthetic liners, used to minimize potential impacts to surface or ground water from possible spill or releases of materials at drilling and operations sites.</p> <ul style="list-style-type: none"> • This is a standard operating procedure associated with energy development and production activities. • Type of secondary containment is optional, e.g. properly installed Sioux Steel Containment units or equivalent. 	RECOMMENDED
Ground Water, Surface Water	Loadout Containment	<p>Loadout Containment involves capturing residual material that may be left in the loadout lines or hoses used for transferring liquids from storage tanks to a water or condensate truck for site removal.</p> <ul style="list-style-type: none"> • Production, compression and processing facilities generally contain storage tanks for production water and condensate. • Minimizes potential cumulative impacts associated with multiple spill events. 	MANDATORY minimum standard

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Ground Water, Surface Water	Baseline Water Quality Surveys	<p>Baseline Water Quality Surveys quantify water quality conditions prior to development activities.</p> <ul style="list-style-type: none"> Water quality surveys serve all parties beneficially to quantify water quality conditions prior to, during and following development activities. 	MANDATORY minimum standard
Visual, Wildlife, Surface Water	Reclamation	<p>Reclamation using native, weed-free seed mixes should be employed with all surface-disturbing activities to prevent the spread of undesirable or noxious plant species and to minimize visual, wildlife, and stormwater impacts caused from any kind of surface-disturbing activity.</p>	MANDATORY minimum standard
Geotechnical Hazard Constraints (Steep slopes, mud slides, unstable slopes/soils, faults, earthquake epicenters, etc.)	Relocation of Development Site	<p>Relocation of Development Site is often necessary to avoid geohazard areas.</p>	REQUIRES ON-SITE INSPECTION TO DETERMINE APPROPRIATE LOCATION
Wildfire Hazards	Consultation with State Forest Service	<p>Consultation with the Colorado State Forest Service on techniques to minimize the potential for facilities to be ignited by wild fire and for development activities and facilities to ignite surrounding vegetation.</p> <ul style="list-style-type: none"> Creation of defensible space around development sites and facilities is minimum treatment in most cases. Applies to all lands rated as being medium or higher wildfire hazard areas. 	MANDATORY minimum standard

Sensitivity	Mitigation Measure	Description	Recommended or Mandatory
Wildlife	Consultation with DOW	Consultation with the Colorado Division of Wildlife and/or the US Fish and Wildlife Service is required by the Colorado Oil and Gas Conservation Commission's rules and regulations.	MANDATORY minimum standard
Biological Resources	Consultation with Colorado Natural Heritage Program and/or The Nature Conservancy	Consultation with Colorado Natural Heritage Program and/or The Nature Conservancy is recommended to avoid, minimize or restore important biological resources (plant or animal).	RECOMMENDED

Mitigation Tools

Support Services – Mesa County Land Development Code (as may be amended) Section 5.2.22 Oil and Gas Support Services

Introduction excerpt:

“Land uses that provide support service for oil and gas drilling operations, including parking, storage and maintenance of exploration, production or workover equipment, pipe and production equipment, equipment and storage yards for road and pipeline construction contractors and production unit set-up and maintenance contractors; and non-permanent field offices used by production related personnel shall be subject to Conditional Use Permit review. If the use is requested for a period of less than one (1) year, a Temporary Use Permit shall be applied for with a Major Site Plan application. These land uses are intended for locations in the more remote rural areas of Mesa County. They are not intended to be permitted near municipalities or rural communities where location within urban zone districts is preferable.

Exception: The requirements of this Section do not apply to activities that occur on well pads that are subject to approval by the Colorado Oil and Gas Conservation Commission.”

Temporary Housing – Mesa County Land Development Code (as may be amended) Section 5.2.23 Temporary Employee Housing

Introduction excerpt:

“All Temporary Employee Housing (TEH) constructed or installed in Mesa County related to commercial, industrial, transportation, oil and gas or mineral extraction projects requires a permit. Temporary Employee Housing is subject to Conditional Use Permit review pursuant to the applicable requirements in Chapter 3 of this Code....”

Evaporative Ponds Policy – Revised Policies Adopted 9/27/2010



R 2010-024

MESA COUNTY PLANNING AND ECONOMIC DEVELOPMENT DEPARTMENT
MESA COUNTY, COLORADO

EVAPORATION POND FACILITIES/LAND FARMS
POLICIES

(A Component of the Energy Master Plan)

February 25, 2008

**Revised Policy Adopted 27 September 2010
by the Mesa County Board of County Commissioners**

Purpose

Mesa County shall require that exploration and production waste disposal facilities and other evaporation pond uses minimize or eliminate potential adverse impacts. These facilities are regulated as Conditional Use Permits in Mesa County, and these Policies provide guidance to the applicants, citizens and staff. These facilities, known herein as evaporation pond facilities (EPF's), shall be planned, located, designed and operated to facilitate compatibility with surrounding land uses in terms of, but not limited to, general use, scale, traffic, dust, noise, odor, and pollution. EPF's will be allowed for the purpose of disposing of produced water from gas or oil drilling operations. If drilling mud is accepted at the facility, it must be disposed of, treated, or re-used in compliance with applicable State and Federal regulations.

All proposed facilities will be reviewed by the appropriate regulatory agencies for compliance with state, local and federal regulations including: specifications in the Colorado Department of Public Health and Environment (CDPHE) **Section 17 Commercial Exploration & Production Waste Impoundments and the Colorado Oil and Gas Conservation Commission rules and regulations**. Conditional Use Permits for EPFs shall require applicants to obtain all applicable State, Local and Federal permits prior to construction and operation of the EPF.

I. Location:

- A. New EPF storage and treatment structures shall be located and operated in such a manner that no adverse impacts shall result off-site.
- B. In locating EPF storage and treatment facilities the following shall be considered at a minimum:
 - **Mandatory Setbacks required by the CDPHE¹**
 - distance from perennial, intermittent and ephemeral streams. Fluids from these facilities will not at any time neither contaminate such waters nor discharge without prior written permission from the applicable authorities.

¹ "17.3.1(B) **Mandatory Set-Backs:** For EP waste disposal facilities whose application for certificate of designation is submitted to the local governing authority after the effective date of this Section 17, the facility must have a mandatory set-back of one-half mile from all residences, educational facilities, day-care centers, hospitals, nursing homes, jails, hotels, motels, other occupied structures, or outside activity areas such as parks and playing fields."

- distance to a municipal boundary or any rural community (as delineated on the Mesa County Master Plan Future Land Use Map).
- distance from any existing dwellings (see footnote on page 1).
- best available technologies to mitigate odors, visibility and noise from the facility on adjacent and/or surrounding properties.
- size of the site

II. Site Analysis:

Baseline data collected in compliance with Section 17 of the CDPHE regulations prior to operations shall be submitted with the Site Plan application after a Conditional Use Permit for an EPF is approved.

III. Site Planning:

- A. The findings from analysis of the site characteristics must be incorporated into the site design and location of the evaporation ponds on the property.
- B. Adverse impacts due to wind speed and wind direction must be satisfactorily mitigated.
- C. The following Transportation Impact Study (TIS) is required:
 - 1) Where TIS requirements in the Road Access Policy (RAP) and the Evaporation Pond Facilities Policy differ, the more stringent requirement shall apply.
 - 2) A pre-study conference with the Road Access Policy Administrator and a Mesa County Development Engineer is mandatory.
 - 3) All proposed public road (not just publicly maintained) travel routes to the proposed site, from point(s) of origin or 5 miles, whichever is less shall be included in the TIS.
 - 4) In addition, a narrative statement shall be submitted by the project's traffic engineer that discusses the travel route anticipated to be taken by project traffic beyond the limits of the study area, including identification of any potential adverse impacts associated with the project traffic.
 - 5) When any proposed travel corridor includes streets or roads within the jurisdiction of other government agencies, Mesa County's TIS requirements shall be the minimum required and shall be included in the TIS submitted to Mesa County. Such other government agencies may have additional requirements that shall be adhered to.
 - 6) In addition to the RAP requirements, and at Mesa County's discretion, the applicant may be required to analyze segments of any public road travel route to determine its suitability for the proposed traffic generated by the evaporation pond facility. This requirement may include but is not limited to:
 - Pavement and subsurface investigation and load certification
 - Roadway structures investigation and load certification
 - Verification of design vehicle path and clearances
- D. Safety considerations shall be employed addressing the following at a minimum:
 - 1) Signs warning of potential drowning hazard
 - 2) Emergency escape routes and mechanisms such as ropes or ladders extending below the surface of the pond to allow a person to climb out of a pond in the event of an accident.
 - 3) Emergency contact information at the entrance to the facility and within the site.

- E. Odors and other emissions shall be contained on site and controlled in a manner to prevent nuisance levels from occurring off site.

IV. Bonding

The facility will be sufficiently bonded according to CDPHE or COGCC requirements at a minimum to insure that the reclamation plan, remediation plan and post closure water monitoring can be completed. Bonding estimates will be prepared by a professional engineer and submitted for review and approval by Mesa County, and the bond will be recalculated every 5 years. The bond will be sufficient to cover reclamation and, if needed, remediation of adverse environmental impacts. The bond will be required to adequately cover road maintenance costs and remediation of occurrences as well.

V. Operational Status

Mesa County shall be notified prior to any change of ownership/operator status at the facility and/or of any permit revisions or equipment upgrade/process change integral to the operation of the facility. If the EPF is sold to a different owner, that new owner assumes all the requirements of the permitted use.

VI. Closure and Reclamation

A. All EPF facilities and sites shall be reclaimed to the pre-development state. The facility will submit, as part of the Conditional Use Permit application, a closure plan approved by CDPHE and reclamation plan that will include but not be limited to the following:

1. Removal of the structures at the facility.
2. Removal and disposal of the remaining waste including sludge and contaminated soil and pond liner.
3. Re-grading the site to the approximate original contour.
4. Erosion control and revegetation of the disturbed area. Revegetation plans shall be approved by the Tri-River Extension Service.
5. A post-closure plan as required by CDPHE which includes future land use for the site.

B. After closure of the EPF the CUP must be amended to prohibit the EPF from operating as such a facility. Accordingly, prior to amending the CUP, a letter shall be submitted to Mesa County Planning and Economic Development Department certifying the State has approved the closure of the facility.

VII. Definitions

Produced water – the water (brine) brought up from the hydrocarbon bearing formation strata during the extraction of oil and gas, and can include formation water, injection water, and any chemicals added down hole or during the oil/water separation process. (Source: EPA)

Occurrence – Leak, spill, overflow, accident or other spill of a reportable quantity as defined by local, state and federal requirements and permits.

Evaporation pond – surface impoundment used for the purpose of containing, treating and evaporating produced water.

Evaporation Pond Facility – both private and commercial centralized facilities not including individual reserve pits at well locations.

2.2 Major Energy Facility Siting Policy (Proposed to replace Policy #20)

Goal:

GM1: To minimize the environmental and socioeconomic impacts from the siting and construction of major energy facilities.

Policies:

PM 1. Mesa County will work cooperatively to locate new major energy facilities including transmission pipelines subject to State and/or Federal regulations (FERC), power plants subject to PUC regulation, oil shale facilities, and other similar major energy facilities

PM 2. Mesa County will require developers to fully disclose details of proposed projects and conduct activities to mitigate their adverse effect on the environment.

2.3 Public Utility Transmission Facilities (Proposed to replace Policy #21)

Goals:

GT1: To assure that adequate amounts of energy will be available to support existing and future development in Mesa County and local municipalities.

GT2: To assure that utility facilities are located so as to minimize detrimental environmental and land use impacts while recognizing the jurisdiction of the Public Utilities Commission (PUC) in regulating public utilities.

Policies:

PT1: The County will cooperate with public utilities in preparing forecasts of future growth and specific growth centers that may require new or increased service.

PT2: Mesa County will assist in determining the location of transmission facilities and the upgrading of existing transmission lines to serve present and future development.

PT3: Public utilities should provide information documenting the need for the facilities.

PT4: Locate transmission lines on rights-of-way that have been determined through an open planning process on routes that minimize risks to public health, safety, welfare, and environmental impacts.

PT5: Rights-of-way for transmission lines (electrical, gas, fluids, etc.) should be located to minimize impacts on agricultural, residential, commercial, industrial and recreational land uses to the greatest extent practical, with due consideration for economic, technical, environmental, safety, maintenance and legal requirements.

PT6: The following factors, which are not an exclusive list, shall be considered in the siting of transmission facilities:

1. Undeveloped vacant land should be used whenever possible.
2. Local or minor collector road rights-of-way should be used when separate vacant rights-of-way are not feasible.
3. Major arterial road rights-of-way shall be used in such manner as not to obstruct or hinder the usual travel on such arterials.
4. Existing utility and transportation or irrigation corridors shall be used whenever such uses are compatible.
5. Placement of future transmission lines into shared right-of-way corridors and/or facilities shall be considered whenever practical.

PT7: Transmission lines will be designed, with due consideration for economic, technical, environmental, safety, maintenance and legal requirements, to have the least adverse visual impact on the physical beauty of the mountain/valley terrain of Mesa County, including but not limited to such outstanding features as: Unaweep Canyon, DeBeque Canyon, Mt. Garfield, Bookcliffs, Grand Mesa, Colorado National Monument and Gunnison and Colorado Rivers.

PT8: Public utilities shall use best management techniques that are mutually acceptable for mitigating environmental impacts, such as color selection, structure designs, structure locations, revegetation and selective right-of-way clearing.

PT9: Locating transmission lines underground will be considered as an alternative when technically feasible and where location of overhead transmission lines could impact scenic views, residential neighborhoods or cause significant public safety hazards, recognizing that the selection of the underground alternative would require a financial arrangement that would be acceptable to the PUC and the affected parties.

PT10: Design and route selection alternatives shall consider the economic impact on energy consumers.