

**DRAFT
MESA COUNTY
ENERGY MASTER PLAN
OUTLINE**

JULY 2007

DRAFT ENERGY MASTER PLAN

OUTLINE

❖ INTRODUCTION

❖ HISTORY

- | ▪ Policies/Plans | Adopted by/date |
|---------------------------------------|---|
| ◆ Energy Policies #17 (MCPC)/1983 | MC Planning Commission |
| ◆ Environment #18 | MCPC/1983 |
| ◆ Energy Siting Policy #20 | MCPC/1983 |
| ◆ Transmission Lines Policy #21 | MCPC/1983 |
| ◆ Mineral Extraction Policies #29 | MCPC & Board of County Commissioners/1985 |
| ◆ Countywide Plan | MCPC/ 2006 |
| ▪ Booms & Busts | |
| ▪ State & Federal Agencies | |

❖ CHAPTERS – (TO COME)

A. General

B. Fuels (include inventories and maps)

1. Natural Gas
2. Oil
3. Coal
4. Oil Shale
5. Nuclear/Uranium
6. Ag Based
 - Ethanol
 - Other

C. Renewable Sources (include inventories and maps)

1. Solar
2. Wind
3. Geo-Exchange
4. Hydro

D. Energy Efficiency

- ◆ County Buildings/Facilities/Vehicles
- ◆ Building Codes

Each chapter will include and address

❖ ISSUES

- **Environmental**
- **Socio-Economic**
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- **Land Use Impacts**
- **Transportation**

❖ GOALS/POLICIES

❖ IMPLEMENTATION

- **Regulations**
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- **Communication/Coordination (Citizens, Industry, Governmental/regulatory Agencies)**

DRAFT ENERGY MASTER PLAN

❖ INTRODUCTION

Mesa County contains natural resources used in the development of energy for Colorado and the United States. The Board of County Commissioners has directed staff to prepare an Energy Master Plan to identify the location of these community resources, identify potential impacts to the community, and prepare policies and regulations to address these impacts.

Energy activity within Mesa County over the past year has grown significantly, particularly relating to natural gas. Six major Conditional Use Permit requests have been reviewed by the Board of County Commissioners this year for pipelines, compressor stations and processing facilities needed to refine and transport natural gas. Related issues, such as man-camps, waste disposal facilities and various ancillary industries are upcoming activities which will need to be addressed. Staff is currently actively involved in the BLM's "community development" process related to gas and oil exploration and extraction activity in the Palisade and Grand Junction watersheds.

Legal/ Contractual

- Mesa County Master Plan
 - Policy 18 Energy Policies.. efficient use of energy resources
 - Policy 19 Environment.... Maintain, improve and protect the quality of air, water and land resources
 - Policy 20 Energy Siting ... work cooperatively to locate new energy facilities and mitigate adverse impacts
- Colorado Oil and Gas Conservation Commission regulations rely on a County Local Designee to review oil and gas drilling requests and coordinate County interests with the oil and gas companies.
- Colorado Revised Statutes 30-28 County Planning and Building Codes ... process for adoption and implementation of the master plan. The "level of service" proposed is not mandated.

Planning staff, as the County's "Local Designee" to the Colorado Oil and Gas Conservation Commission and the oil and gas industry, processes approximately 15 drilling permits each month. Based on discussions with representatives from the gas industry this development activity is expected to continue to grow, impacting many aspects of Mesa County. Drilling permits have not yet been requested for large portions of areas containing this resource. A major interest in coal and uranium is also underway. Use of wind, solar and a variety of other alternative fuel resources... such as ethanol and bio-diesel, are suitable for development within the County's agricultural areas and should be encouraged.

Energy provides an excellent opportunity for economic growth within Mesa County in terms of jobs, capital investment, housing and secondary (spin-off) industries. However, the development of energy resources will also impact

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the community in terms of transportation, the environment, noise, view-sheds, wildlife, and watersheds. The master plan will identify those impacts and provide the bases for policies and regulations which either direct energy development away from sensitive areas and /or mitigate those impacts.

Addressing the impacts of energy development through policies, best management practices, and regulations adopted by the Board of County Commissioners will provide clear guidelines, requirements and expectations to the industry prior to application for development. Development and implementation of the Master Plan will allow the integration of Land Use, Transportation, Real Estate Development Processes and Fiscal Planning. It will provide clear direction to planning requirements, development of appropriate infrastructure, and tools to insure compatibility with the community.

The expected result is an energy master plan identifying:

- o energy resources within Mesa County
- o impacts on the community that comes with the development of those resources
- o a set of clear and understandable Policies and Regulations adopted by the Board of County Commissioners which provides for reasonable development of energy resources and mitigation of the impacts; and
- o Implementation of the Master Plan, policies and regulations through the development review process and coordination with the energy industry.

PHASE ONE DRAFT ENERGY MASTER PLAN

Plan Purpose: A policy document to be adopted by the Board of County Commissioners related to energy development. Phase 1 focuses on natural gas and is designed to have the following general applications:

1. *Guidance to:*

A. *the industry* (operators) to voluntarily follow when involved in exploration and development that may or may not be regulated directly by Mesa County – e.g., particularly applicable to APDs (applications to permit drilling) from Colorado Oil and Gas Conservation Commission and the Bureau of Land Management. Permitting agencies to implement the policies as stipulations (intended as a “heads-up” to operators);

B. *private landowners* as information on potential impacts and opportunities related to natural gas resource exploration and development. Applies to owners of private or split estate mineral rights; and

C. *county staff* during the review of Applications to Drill

2. *Policy direction for development activities/facilities regulated by Mesa County,*
Includes: Conditional Use Permits and Special Use Permits for pipelines, compressor stations, metering stations, ancillary/support services, waste sites, etc.

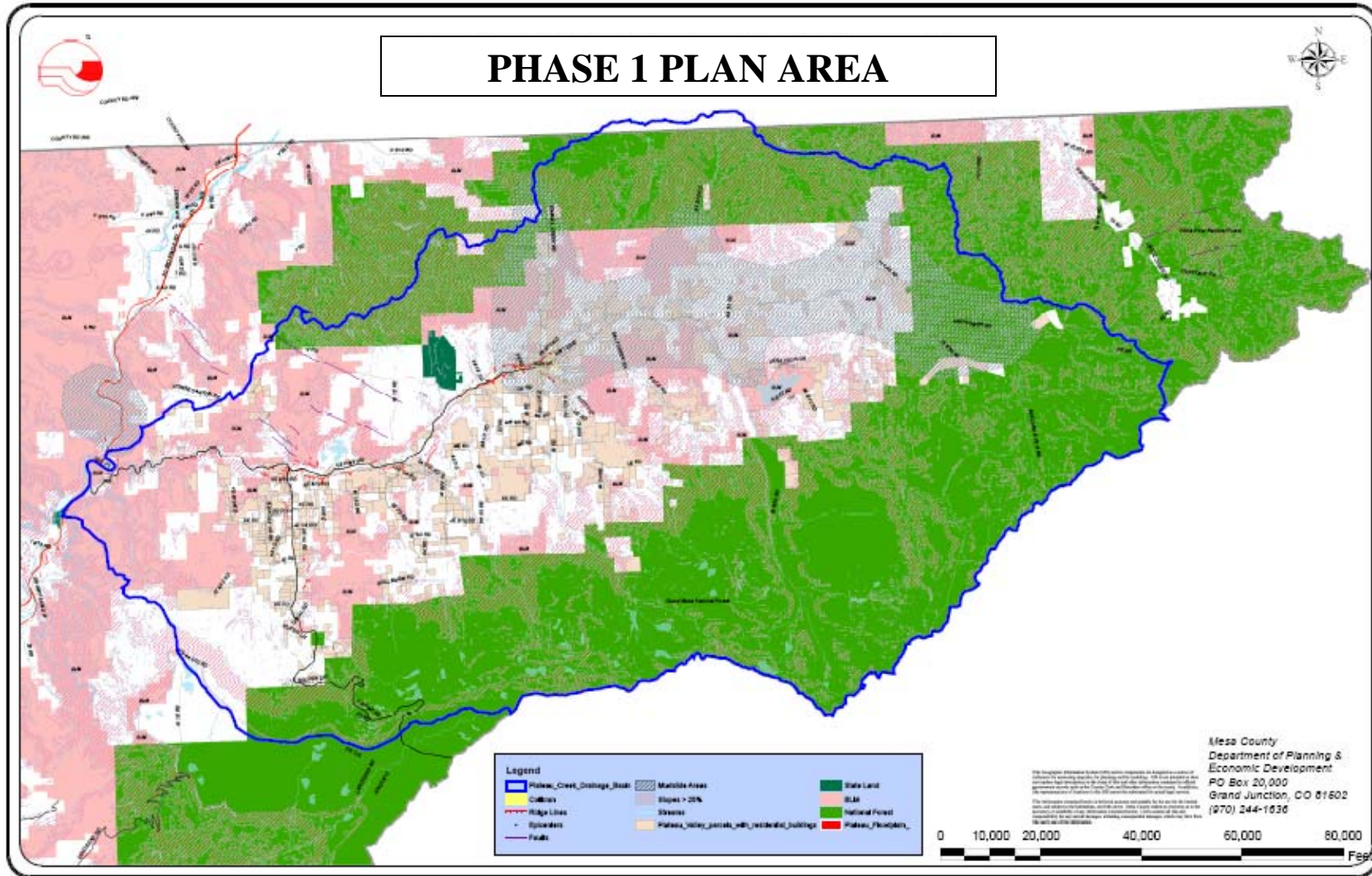
Policies will be implemented through County regulations, e.g., the Land Development Code, Road and Bridge Specifications/permits, weed ordinance, etc.

Plan Area – The first phase focuses on the Plateau Creek drainage basin plus the area extending to the eastern Mesa County border as this is where most natural gas activity is now and is expected to take place in the near future.

Energy Policy Opportunity Map

Mesa County’s website includes an on-line draft interactive map designed to allow the user to identify locations of: existing and proposed natural gas facilities, drilling pads, and wells; sensitive landscapes, transportation routes, emergency services, and residential structures. Draft 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 are linked to the mapped sensitivities.

PHASE ONE DRAFT ENERGY MASTER PLAN



DRAFT ENERGY MASTER PLAN

History –Adopted Plans and Policies

❖ HISTORY

The Mesa County Master Plan includes the following policies/plans adopted in the 1980s by Mesa County. Pursuant to Colorado state law, all of these were adopted by the Mesa County Planning Commission and the Mineral Extraction Policies were also adopted by the Mesa County Board of County Commissioners.

Policies/Plans

Energy Policies #18



18. ENERGY POLICIES

The costs of many forms of energy have risen greatly in the past few years and continued increases are expected. It is in the interest of Mesa County to encourage the efficient use of energy resources through the County. New development in the County should be carried out using energy saving techniques, make use of renewable energy resources, and use energy efficient construction methods. All types of projects (residential, commercial, industrial, and governmental) should have careful consideration of energy requirements. A program of energy conservation should be pursued with local residents, businesses, and governmental agencies.

Environment #19



19. ENVIRONMENT Environmental Resources and Hazards Policies

Mesa County has an abundance of natural resources, including: minerals, water, flora, fauna, and scenic landforms. It is the goal of the County to maintain, improve and protect the quality of air, water and land resources, while simultaneously minimizing the loss of life and property from natural hazards, To attempt to attain this overall goal for environmental resources and hazards, the County will encourage land uses that are consistent with the orderly development, use, and conservation of natural resources, This will involve: planning and conservation measures to reduce soil erosion; relating water resources and facilities to desired land use patterns; working with private and governmental entities to eliminate water use conflicts; taking measures that will help prevent contamination of groundwater; examining the extent of existing and anticipated air quality problems and measures that could lessen the impact on the local environment; consideration of the recommendation of State and Federal agencies on significant fish and wildlife areas; and identification of the general location and extent of natural hazard areas, It is the policy of Mesa County that:

A. Development will be discouraged in or near natural hazard areas to minimize the risk of injury to persons and loss of property, unless appropriate mitigating measures are taken,

B. Development in floodplains, drainage areas, steep slope areas, geological fault areas, and other areas hazardous to life or property will be controlled through local land use regulatory tools.

1. Proposed land uses will consider soil, erosion, and surface geologic characteristics of the development site through proper design, engineering and construction.

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2. Any proposed land use or development which may involve an identified natural hazard area will require an evaluation to determine the degree to which the proposed activity will:
 - a. Expose any person, including occupants or users of the proposed use or development, to any undue natural hazard.
 - b. Create or increase the effect of natural hazard areas on other improvements, activities or lands,
 - c. Impact the natural environment and be unduly destructive to the natural resources of an area. New development will meet reasonable air and water quality standards of the County, State and Federal governments. An active program of air pollution control and a development strategy will accompany growth of the valley to ensure a safe and health environment for existing and future residents.

Energy Siting Policy #20



The siting and construction of major energy facilities will have environmental and socioeconomic impacts that will profoundly affect this County. It is the policy of Mesa County to work cooperatively to locate new energy facilities including pipelines, power plants, oil shale facilities, and other similar major energy facilities. It is also the policy to mitigate adverse environmental impacts of such facilities by requiring energy companies to fully disclose details of proposed projects, conduct activities to mitigate their effect on the environment, and to help compensate for their fiscal impact on the County.

Transmission Lines Policy #21



Mesa County recognizes that electrical energy resources are necessary to maintain and continue the quality of life as we know it today. To assure that adequate amounts of electrical energy will be available to support existing and future development in Mesa County and local municipalities, and to assure that utility facilities are located so as to minimize detrimental environmental and land use impacts; and recognizing the jurisdiction of the Public Utilities Commission in regulating public utilities; this policy statement should be adhered to whenever practical, realizing that economic and technological factors must also be given due consideration.

A. The County will cooperate with public utilities in preparing forecasts of future growth and specific growth centers which may require new or increased electrical service; and

B. Mesa County will assist in locating transmission facilities and the upgrading of existing transmission lines to serve present and future development; and

C. Public utilities will provide information documenting the need for the facilities.

It is the policy of Mesa County to locate transmission lines on rights-of-way which have been determined through an open planning process on routes which minimize risks to public health, safety, and welfare and environmental impacts.

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History –Adopted Plans and Policies

A. Rights-of-way for transmission lines 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. It is the policy of Mesa County that the following factors which are listed, not as priorities nor as an exclusive listing of those factors, be considered in the siting of transmission facilities:

1. Undeveloped vacant land should be used whenever possible.
2. Local or minor collector road right-of-ways should be used when separate vacant right-of-ways are not feasible.
3. Major arterials 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.

B. 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: DeBeque Canyon, Mt. Garfield, Bookcliffs, Grand Mesa, Colorado National Monument and Gunnison and Colorado Rivers.

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

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 which would be acceptable to the P.U.C. and the affected parties. Design and route selection alternatives shall consider the economic impact on energy consumers.

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History –Adopted Plans and Policies**

Mineral Extraction Policies #29 Adopted 1985

MINERAL EXTRACTION

Mesa County Land Use and Development Policy #29



MESA COUNTY, COLORADO



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History - Adopted Plans and Policies

#MCM 85-88

RESOLUTION

1407083

09:47 AM

DEC 05, 1985 E.SAWYER, CLK&REC MESA CTY, CO

WHEREAS, a mineral study had been prepared for Mesa County entitled:

"Mineral Resources Survey of Mesa County - A Model Survey, by Steven D. Schwochow, 1978; Colorado Geological Survey, Department of Natural Resources, Denver, Colorado."

WHEREAS, the Mesa County Planning Commission held a public hearing on the proposed Mesa County Mineral Extraction Policy on June 20, 1985 and adopted it with certain amendments on the same date.

WHEREAS, CRS 34-1-304(3a) provides that "A county planning commission shall certify its master plan for extraction to the board of county commissioners"

WHEREAS, the County Planning Commission previously certified to the County Commissioners the document entitled, "Mesa County Mineral Extraction Policy #29 - As Approved by Mesa County Planning Commission on 6/20/85."

WHEREAS, the Board of County Commissioners held public hearings on the Mesa County Mineral Extraction Policy #29 as certified August 6, 1985 and August 20, 1985.

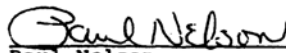
WHEREAS, the Board of County Commissioners voted to adopt the Mesa County Mineral Extraction Policy #29 as certified with the deletion of the Rapid Creek Road Area and East Orchard Mesa as "Areas of Special Importance" (page 4, paragraph 4 of Draft Approved by the Mesa County Planning Commission on 6/20/85.

WHEREAS, CRS 34-1-304 provides that the "board of county commissioners . . . may, after such public hearing, adopt the plan, revise the plan with the advice of the planning commission and adopt it, or return the plan to the planning commission for further study and rehearing before adoption";

WHEREAS, the Planning Commission has advised the County Commissioners that the version they have adopted is still the version they recommend to the Board of County Commissioners;

NOW THEREFORE, BE IT RESOLVED that the Mesa County Mineral Extraction Policy #29, consisting of (1) the Mineral Resources Survey of Mesa County - A Model Study by Stephen A. Schwochow, 1978, Colorado Geological Survey, Department of Natural Resources, Denver, Colorado, including plate 1 Mesa County - the geological setting and plate 2 Mineral Resources of Mesa County; (2) Mesa County Mineral Extraction Policy #29 consisting of seven pages and deleting on page 4, paragraph 4 the Rapid Creek Road Area and East Orchard Mesa Area as Areas of Special Importance, is hereby adopted as part of the County Master Plan and in accordance with CRS 34-1-301 et. seq.

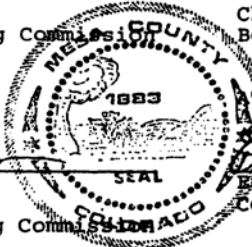
PASSED AND ADOPTED this 19th day of November, 1985.


Paul Nelson
Chairman
Mesa County Planning Commission


Richard C. Pond
Chairman
Board of County Commissioners

ATTEST:


Keith Owens
Secretary
Mesa County Planning Commission



ATTEST:


Earl Sawyer
County Clerk

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History –Adopted Plans and Policies

MESA COUNTY MINERAL EXTRACTION

POLICY #29

Findings and Conclusions

- Mesa County's mineral deposits are essential to the regional and state economy. (See Technical Note #2 for mineral types and abbreviations.)
- Permanent land development has and will continue to occur on commercially valuable mineral deposits, unless a Mineral Extraction Policy (Master Plan) is adopted.
- Permanent land development has restricted and will continue to restrict access to deposits for mineral extraction unless a Mineral Extraction Policy (Master Plan) is adopted.
- A mineral extraction plan is mandated by State Statute (C.R.S.34-1-301, 1973) for counties with a total population of 65,000.
- Mineral extraction, if not properly mitigated, can be a threat to the health, safety and welfare of citizens in residential and commercial developments, as well as the natural environment, including but not limited to air and water quality.
- Blasting is a common extraction method in mining. Both the shock movement through bedrock and superficial deposits and the air blast can effect the integrity of structures and the stability of other rock formations. These effects can be minimized by proper blasting techniques.
- The value of gravel and other minerals diminishes based on the distance of the source from the point of delivery. The cost of the resource increases as the distance from the source increases; this includes public cost since longer haulage routes mean increased impacts on public roads and bridges. Locating residential developments near mineral deposits increases conflicts and cost of resource removal.
- Mesa County Zoning Regulations regulate mineral extraction as a conditional use in the Agriculture Forestry, Transition Zone (AFT). Conditional uses are not considered a right by ownership. Conditional uses must meet certain established criteria, including compatibility with surrounding land uses, adequacy of design, and available public services (Mesa County Land Development Code).
- The Colorado Geologic Survey has published a Mineral Resource Survey for Mesa County Resource Series (1978) which provides a comprehensive mapped survey of major existing mineral resource deposits,
- Sand and gravel deposits are typically found in the river floodplain. The river floodplain has limited development due to the threat of flooding, however, areas adjacent to the floodplain experience extensive development that is affected by resource removal and haulage.

Policy

- Mesa County adopts the Mineral Resources Survey for Mesa County, Resource Series (1978), developed by the Colorado Geologic Survey, as the official map and study designating commercially valuable mineral resource deposits, This study and map may be modified by an applicant using reliable technical data (i.e. quality and quantity estimates) derived from a research method more specific than the Colorado Geologic Survey Study if it is researched and developed by a qualified professional geologist.
- Mesa County adopts a Policy for Mineral Extraction which places the burden of proof on the applicant for a proposed development to demonstrate that the proposed development will not interfere with mineral extraction,
 - Mineral resources as identified in the Mineral Resource Survey are essential to the economy of Mesa County. All commercially valuable mineral deposits should be protected by

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History –Adopted Plans and Policies

controlling land use on and around the deposits. Areas with commercially valuable mineral deposits have been identified on the Mineral Resources Survey Map of Mesa County (prepared by the Colorado Geologic Survey, 1978). Mesa County has a statutory duty (CRS 34-1-301) to protect all commercially valuable mineral deposits from limitations imposed due to permanent development on or near mineral deposits. Therefore, land development within a mineral resource boundary must be restricted for the duration necessary to remove a resource or to mitigate potential impacts that will affect future extraction.

- Access to commercially valuable mineral deposits should be preserved and protected from incompatible land uses such as residential and commercial land uses (see Technical Note #1),
- Residential developments -and other noncompatible land uses should maintain adequate setbacks, buffering and separate access to public roads.
- Mineral extraction in areas already developed with residential or commercial land uses must be buffered (in accord with Section 4-3 of the Land Use Code) from those uses that experience adverse impacts from the extraction and transport process,
- Public Roads should be rated for maximum load and/or protected or insured against damage from loaded vehicles, mining equipment, extraction equipment and exploration equipment.
 - Development proposals, located in the area of influence of a designated mineral which necessitates blasting for extraction, must be designed to mitigate the impacts of blasting, such as avoiding unstable geologic formations, avoiding cliffs and steep and rocky hillsides.

AREAS OF SPECIAL IMPORTANCE

Findings and Conclusions

Mesa County contains specific areas of national, state and regional importance- Many of these sites are public lands. Other areas can be directly affected by private landowners. An example of these areas are:

The Colorado National Monument

The Grand Mesa National Forest

The South Face of the Bookcliffs (but not including the Dorchester Coal Mine)

Uncompahgre National Forest

Unaweep Canyon

Ruby and Horsethief Canyons on the Colorado River

Dolores River Canyon

Black Ridge Wilderness Study Area

Areas of Special Importance are unique areas due to their geology, geography, history and their direct and significant impact on the economy of Mesa County. (For example, television commercials and feature length movies in Unaweep Canyon and Colorado National Monument, as well as seasonal inflows of tourists, hunters and fishermen.)

Policy

Areas of Special Importance in Mesa County should be protected from extensive mining development. In no case should the value of an area of special importance be threatened by mineral extractive operations. Mining in areas of special importance should be limited to low impact type mining (such as continuous and concurrent reclamation and limited disturbance to existing topography). Strip or surface mining should not be permitted in areas of high visibility or unique geological or topographic morphology, critical wildlife habitats, archaeological or paleontological importance. Underground mining should be limited in scale. Tailings disposal, stockpiling, and processing should occur offsite in areas outside of

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History –Adopted Plans and Policies

those cited in this section. The following areas should be considered areas of special interest due to their value to the tourism industry, as areas of unique geography, geology and history, their national or state importance, or their value in marketing Mesa County via product advertisement or in motion picture sets, and as recreation areas to the residents of Mesa County.

The Colorado National Monument

The Grand Mesa National Forest

The South Face of the Bookcliffs

Uncompahgre National Forest

Unaweep Canyon

Ruby and Horsethief Canyons on the Colorado River

Dolores River Canyon

Black Ridge Wilderness Study Area

TECHNICAL NOTE #1: A commercially valuable mineral or non mineral deposit is any deposit of suitable quality which, based upon information provided by a field investigation and report, could be developed and produce a given aggregate product at 300% of the current open market price of that product. Production cost shall be estimated by a Professional Engineer or competent professional in the industry using accepted production cost estimating procedures.

NOTE: 300% = 12% over 10 years.

Performance Standard - (Proposed Text Amendment)

(Chapter 4 Standards for Development Permits, Section 4.4 Standard for Mineral Extraction Related to Other Development) Applications for rezoning, subdivisions or development permits will not be approved in areas designated in the Mineral Resources Survey for Mesa County (for the purpose of this section, an area of one-half mile circumjacent to a mapped sand/aggregate resource shall be considered within the mineral deposit boundary) as Floodplain, Alluvial, Terrace or Upland gravel deposits with a resource classification of 1 or 2 (see technical note)-or other nongravel mineral deposits until one of the following is complied with:

- The commercially valuable portion of the deposit is removed and the site is reclaimed (see Technical Note # 2) .
 - The applicant demonstrates there are no commercially valuable deposits on the parcel.
- Applicants for rezoning, subdivisions or development permits on parcels within 1/2 mile, from any point, of areas designated as nongravel mineral deposits or gravel deposits designated Floodplain, Alluvial, Terrace or Upland with a resource classification of 1 or 2 should not be approved if access to commercially valuable deposits is denied, impeded, more circuitous or made more costly. Mesa County will conform with State Statute by requiring parcels with commercially valuable deposits to be removed for processing prior to development.
- Parcels without commercially valuable deposits in areas designated Floodplain, Alluvial, Terrace or Upland with a resource classification of 1 or 2 or nongravel minerals should prove access to potential deposits is not denied, impeded, more circuitous or more costly to develop than the existing access.
 - New residential developments and other uses which are not compatible with noise and dust generation, road destruction, mineral extraction or material hauling will not be located where they will block or impede the extraction and hauling of the mineral resource.
 - The burden of proof will be placed on new development to justify why it should be located near or adjacent to a proposed mineral resource.

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History –Adopted Plans and Policies

- New developments located within the area of influence of a mineral resource will be required to either:

- A. Remove the deposit before development proceeds.
- B. Demonstrate that the deposit is of no commercial value.
- C. Provide an adequate alternative haul route which –is sufficiently buffered- and separate from the proposed development to avoid future conflicts.

Areas exempt from this section are that portion of Orchard Mesa served by the Orchard Mesa Sanitation District and that portion of the Redlands within the Persigo service area.

TECHNICAL NOTE #2: Any criteria established to project the commercial value of a mineral deposit is difficult. The following criteria must be applied based on current market data:

Processing Cost
Site Development Cost
Load and Haul Cost
Quality of the Deposit
Market Value

TECHNICAL NOTE #3: The following table identifies typical mineral deposits found in Mesa County, The classifications and abbreviations were established by the Colorado Geologic Survey,

Metallics

Uranium and Vanadium (Uranium mineral belt):

UV-1 Salt Wash Member of Morrison Formation

UV-2 Brushy Basin Member of Morrison Formation

UV-3 Burro Canyon Formation and Dakota Group overlying the Morrison Formation

Copper (Unaweep and Dominguez districts):

Cu-1 mineralization in Precambrian rocks

Cu-2 mineralization in Chinle Formation and Wingate

Sandstone

Mineral Fuels

Coal (Bookcliffs and Grand Mesa fields, Gunnison River district):

CbB' high-volatile B bituminous

CbC high-volatile C bituminous

CsA subituminous A

Oil Shale (Battlement and Grand Mesas):

Os Parachute Creek Member of Green River Formation

OSm Mahogany zone in Parachute .-Creek Member (shown only on Battlement Mesa)

Natural Gas

Nonmetallics

Igneous rocks :

bs basalt

db diabase

gd granodiorite

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mzq quartz monzonite
pgz pegmatite, zoned
Sedimentary rocks:
cl claystone, shale
evaporites--
gY gypsum
ha halite
ls limestone
gemstones--
qag agate
qam amethyst
qch chalcedony
qp 0-1
sand and gravel

F1 F= landform

1 = resource classification

Landforms

F flood-plain deposits
V valley-fill deposits
T terrace deposits
A alluvial fan
U upland deposits
G glacial deposits
E wind-blown sand

Resource Classification

Unevaluated resource:

4 probable sand/gravel resource

Coarse aggregate (at least 30% retained on #4 screen, visual estimation):

1 gravel--relatively clean and sound

2 weak rock, and/or calcium carbonate

Fine aggregate (more than 70% passing #4 screen, 60% retained on #200 screen, visual estimation):

3 sand

◆ Countywide Plan Excerpts (to come)

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History –Booms and Busts

- **Booms & Busts – Section to come**

DRAFT

**DRAFT ENERGY MASTER PLAN
State and Federal Regulators**



COLORADO OIL AND GAS CONSERVATION COMMISSION

MISSION STATEMENT

The mission of the Colorado Oil and Gas Conservation Commission (COGCC) is to promote the responsible development of Colorado's oil and gas natural resources.

Responsible development results in:

- The efficient exploration and production of oil and gas resources in a manner consistent with the protection of public health, safety and welfare
- The prevention of waste
- The protection of mineral owners' correlative rights
- The prevention and mitigation of adverse environmental impacts

The COGCC seeks to serve, solicit participation from, and maintain working relationships with all those having an interest in Colorado's oil and gas natural resources.

COGCC DOES NOT REGULATE OR MAINTAIN INFORMATION ON THE FOLLOWING TOPICS PLEASE USE THE CONTACTS GIVEN FOR FURTHER INFORMATION			
TOPIC	AGENCY/WEBSITE	E-MAIL	PHONE #
Gas Pipelines	Public Utilities Commission	✉	(303) 894-2000
Geological Maps & Publications	Colorado Geological Survey	✉	(303) 866-2611
Mineral Ownership Records	Click here for County Contact Info		
Oil & Gas Severance Tax	Department of Revenue	✉	(303) 238-7378
Produced Water Discharge Permits	CDPHE/Water Quality Control Commission	✉	(303) 692-3469
Service Stations (inspections, complaints, etc.)	CDLE/Division of Oil & Public Safety	✉	(303) 318-8507
State Oil & Gas Leases/Auctions	State Land Board	✉	(303) 866-3454
Storage Tanks	CDLE/Division of Oil & Public Safety	✉	(303) 318-8507

DRAFT ENERGY MASTER PLAN
State and Federal Regulators













Colorado Geological Survey

Mineral & Energy Resources

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-  Minerals & Mining
-  Natural Gas
-  Oil
-  RockTalk Newsletters about



Colorado Geological Survey

1313 Sherman St., Rm 715, Denver, CO 80203

Local 303-866-2611 - Toll Free 800-945-0451



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State and Federal Regulators

BLM Colorado | Oil and Gas

http://www.blm.gov/co/st/en/BLM_Programs/oilandgas.html (5 of 5)06/07/2007

Colorado

Oil and Gas

[Leasing Acts, Regulations, Orders, NTLs Interagency Agreements](#)

[Office Contacts Inspection & Enforcement Contact Us](#)

[Split Estate Oil and Gas Operations Comment Card](#)

[I Permitting Oil and Gas on Split Estate Lands \(WO IM 2003-131\)](#)

[I Fluid Mineral Leasing and Related Planning and National Environmental Policy Act \(NEPA\) Processes \(WO IM 2004-110\)](#)

[I Oil and Gas Booklet in PDF format \(28 MB\) containing:](#)

1. BLM enabling acts (FOGRMA, FOGLRA, FOGRS&FA, FLPMA),
2. regulations (43 CFR 3100, 3200 (BLM), 38 CFR 228 (FS), 25 CFR 211, 212, 225 (BIA)), and
3. BLM Onshore Oil and Gas Orders and Notice to Lessees

[Oil and Gas Leasing Information](#)

[Sale Notices, Competitive Sale Results, General Leasing Information, forms, etc.](#)

Split Estate

Acts, Regulations, Orders, Notice to Lessees - Summary Booklet

Colorado Notice-to-Lessee(s) (CO-NTLs), and Information Bulletins

District and Field Office NTLs

[Surface Operating Standards \(Gold Book\)](#)

FORMS (Operational, Unit and Leasing)

Oil and Gas

Interagency Agreements

Oil & Gas Inspection & Enforcement

BLM Colorado Office Contacts

Field Office Contacts

DRAFT ENERGY MASTER PLAN State and Federal Regulators

Item	Permit/Regulatory Process Title	Agency	Description	Likelihood	Likelihood Explanation	Responsibilities / Tasks	Regulation Reference	Application / Other Fees	Tasks
Federal									
	NEPA	BLM	3 stage NEPA: First two EA's, Programmatic and the Pilot Scale Demonstration, Final EIS based on final Mining Plan	Underway	required by law	Coordinate with BLM as lead agency	NEPA-42 USC 4321; 40CFR 1500, et al	Varies but typically Project Proponent reimburses actual independent third party consultant fees	Prepare an Environmental Assessment or Environmental Impact Statement
	FLPMA	BLM	BLM Rights of Way	Likely	required by law	Coordinate with BLM as lead agency	43 CFR 2800, et al		Determine need at each location
	Mineral Leasing Act	BLM		Likely	required by law	Coordinate with BLM as lead agency	43 CFR 2800, et al		
	CWA Section 404	USACE	Regulates discharge of dredge and fill materials to waters of US. Can be avoided by not disrupting waters of the US. (1) Individual permits required for potentially significant impacts. (2) Regional general permits issued for minimal adverse effects. (3) Nationwide permits authorize categories of activities nationwide, allows utility line discharges without an EA or EIS. NWP #12 permits discharge for utility activities. (4) Ongoing farming & ranching activities are exempt from permits. (5) Certain gravel pits may be excluded from Corps jurisdiction.	Likely	Probably needed, but must meet with Corps to confirm project is in compliance w/ federal regulations (will the project fill avoid waters of the US, i.e., all jurisdictional wetlands)	(1) Confirm with USACE that certain waters and wetlands are jurisdictional.	CWA Section 404	no fees charges to other governmental bodies	time needed to prepare for meeting with Corps
	ESA Section 7 Compliance	FWS and any Federal permitting agency	Federal agencies must ensure that projects they operate, or for which they provide federal permits or funds, are not likely to jeopardize any T&E species or to adversely modify critical habitat.	Likely	required by law	FWS Biological Opinion	Endangered Species Act Section 7 / Cooperative Agreement for the Colorado River Endangered Species Recovery Plan	none	none
	ESA Section 9 Compliance- Colorado River depletions	FWS	Section 9 prohibits the "take" (including significant adverse habitat modification) of listed species. FWS could view Project depletions as contributing to the take of Nebraska-listed species.	Possible	FWS has included take statements in previous biological opinions.	(1) Meet with FWS after meeting with USACE. Obtain FWS confirmation that Colorado River RIP, will address possible depletive impacts on Colorado River listed species. (2) If Prairie dog holes present, ensure they are not occupied by T&E species prior to construction.	ESA Section 9	none	time to meet with FWS
	Nest Depredation Permit	FWS	Take permit could be needed for clearing of active nest sites of all Colorado birds except European starling, house sparrow, and rock dove (pigeon). The nest or nest trees cannot be removed during the breeding season (April to July) unless a permit is obtained.	Unlikely	conflicts can be avoided through appropriate scheduling, does not apply to construction in existing roads and developed areas	Ensure that construction near potential nest sites is scheduled between August and March. Survey prairie dog colonies (if any) nearby; confirm no burrowing owls.	Migratory Bird Treaty Act	Currently \$25, but there is a proposed fee increase to \$60-301	
	ESA Section 10 Incidental take permit - On-site species	FWS	Permit required when a non-federal party incidentally harasses or harms endangered species through their activities; Take should be avoided through coordination with FWS and avoiding documented habitat	Unlikely	coordination with FWS should avoid need to take T&E species.	Review Status of Federally Listed Species	Endangered Species Act Section 9 and Section 10	\$100 if permit is needed (with habitat conservation plan)	(1) time to conduct needed surveys (2) time to meet with FWS
	Conditional Letter of Map Revision (CLOMR) or Letter of Map Revision (LOMR)	FEMA	Needed if the floodplain is altered as a result of the project. Only needed if you raise 100-year water surface elevations due to the construction. Underground facilities do not require a CLOMR or LOMR.	Unlikely	floodplain will probably not be altered by the pipeline and pump stations	determine if any floodplains are altered by project	?	\$700 to 800, note if changes are due to berms, levees, or other structural measures, fees can be up to \$6,000	Up to 8 weeks to complete letter and submit to FEMA

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