
MINERAL EXTRACTION PLAN



A SUB-ELEMENT OF THE COMPREHENSIVE MASTER PLAN

ACKNOWLEDGEMENTS

On behalf of the Douglas County Planning Commission, staff would like to thank all those who participated in this effort to aid in Douglas County's development well into the future.

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INTRODUCTION

The Mineral Extraction Plan (MEP) is a sub-element of the Douglas County Comprehensive Master Plan (CMP) that is focused specifically on mineral extraction. As a component of the CMP, the MEP reflects, acknowledges, and balances the common values, rights, and needs of all County residents and landowners and protects its unique and diverse resources.

BACKGROUND

On September 12, 1989, the Douglas County Board of Commissioners declared a moratorium on the issuance of mineral extraction permits. In declaring the moratorium, the Board called for a comprehensive, county-wide, mineral extraction plan to be developed and adopted before the moratorium expired on September 12, 1990. The Mineral Extraction Plan was prepared in accordance with the standards set forth in the Preservation of Mineral Deposits Act which was required of all counties upon the attainment of a population of 65,000. The Mineral Extraction Planning Task Force, the Planning Commission, and the Board of County Commissioners developed the County's mineral extraction policies. The Task Force sought to create a document that:

- Clearly asserted the County's land use jurisdiction over mineral extraction operations
- Enumerated the policies that should govern the approval of mineral extraction
- Discussed the full range of impacts created by extractive uses
- Contained criteria to be applied to applications for new or expanded operations
- Formed the basis for amendments to the Douglas County Zoning and Subdivision Resolutions
- Guided decision-makers in properly reviewing extraction applications

PURPOSE

The purpose of the MEP is to address the statutory requirements of the Preservation of Commercial Mineral Deposits Act, §34-1-301, et. seq., C.R.S. The MEP additionally recognizes the findings and interpretation stated by the Colorado Court of Appeals in C & M Sand & Gravel v. Board of County Commissioners, 1983. This document addresses commercial mineral deposits within Douglas County. It should be noted that the statute does not address oil and gas resources, so these are not included in this plan.

The plan attempts to balance the County's need for minerals against the potential impacts of extraction. Mineral extraction is necessary in the development of homes, roads, and office buildings and, therefore, contributes to the economic viability of the County. Reclaimed mineral extraction sites, moreover, provide opportunities for wildlife habitat, trail corridors, and other active and passive recreational uses.

The quality of life enjoyed by County residents also needs to be protected. The benefits of extraction must be balanced against those things that make Douglas County attractive, including, but not limited to, scenic values and wildlife habitat. Mineral extraction has the potential of disrupting urban and rural living. The County has a statutory responsibility to address mineral extraction to protect its resources while maintaining quality of life within Douglas County.

IMPLEMENTATION

Following adoption of the MEP in 1990 and in accordance with its stated intent, the County's Use by Special Review (USR) regulations were revised to reflect its recommended policies and procedures. The USR regulations in turn rely on 1) 12 approval criteria including consistency with the CMP and MEP, and 2) specific submittal requirements addressing MEP topics, as were established within its goals and policies. Submittal materials include a 12-point operational plan, narrative, plan exhibits, site evaluations, as well as detailed

plans addressing specific types of impacts including project phasing, transportation, blasting, and an “end-state land-use” plan. The USR approval criteria and submittal requirements are directly derived from the policies set forth in the 1990 Mineral Extraction Plan.

Other regulatory review processes supplement the goals and policies of the CMP and MEP. These include the Douglas County Roadway Design and Construction Manual, the Grading Erosion and Sediment Control Plan (GESD), traffic impact analyses, and water supply requirements established in DCZR Section 18A, Water Supply. Similarly, mineral extraction regulations were addressed in the Matters of State Interest regulations.

Notably, mineral extraction, which is listed as “mining, quarry, sand and gravel operation, or similar extractive operations,” is permitted only through the USR process within the Agriculture One (A-1) and General Industrial (GI) zone districts following a public hearing.

The framework and content of the USR mineral extraction review process, in conjunction with CMP goals, objectives, and policies, address and implement MEP goals and policies. For this reason, this 2019 Mineral Extraction Plan update represents a significant streamlining of the MEP. The MEP will be implemented substantially through the USR process and the goals, objectives and policies of the CMP.

GEOLOGY

The geology and physiography of Douglas County are results of natural processes that have been working for millions of years. A fundamental principle of geology is that it is constantly changing; although those changes seem immeasurably slow. Major geologic events such as floods, landslides, or earthquakes remind us that geologic processes are active, sometimes instantaneous and modify the earth on a geologic time scale rather than on a human scale. At the human scale, the features of the earth are for practical purposes permanent. Events on the earth’s surface may cause long-lasting changes that influence the appearance and utility of the land. Douglas

County contains geologic resources such as alluvial sand and gravel deposits; crystalline rocks for use as crushed construction aggregate or as decorative rubble walls or landscape stone; and refractory clay for manufacturing of bricks, tiles, and clay products.

Some geologic resources of the County are landmarks, such as Devils Head, Dawson Butte, Castle Rock, Roxborough State Park, and Castlewood Canyon State Park. These landmarks, and the rolling, ridge-and-valley landscape surmounted by its mountain backdrop are aesthetically important assets of the County and its people. The need to extract commercial minerals, therefore, must be balanced against the need to preserve the landforms and places that make Douglas County a desirable place to live.

REGIONAL SETTING

Douglas County straddles the boundary between the Denver Basin and the Front and Rampart Ranges of the Rocky Mountains. The boundary is sharply defined by the mountain front, an east-facing, slightly sinuous, north-trending escarpment that extends the length of the County. This escarpment divides the County into two distinct physiographic parts, the mountains on the west where the rocks are mostly Precambrian granite and gneiss, and the dissected Colorado Piedmont to the east where the rocks are mostly sedimentary formations (predominant), alluvium, and volcanic rocks (subordinate). This escarpment also coincides with a line of major faults along the boundary of the Front and Rampart Ranges. Precambrian rocks that crop out in the mountains are buried under more than two miles of sedimentary rocks in the Denver Basin, beneath the Colorado Piedmont east of the faults.

The rugged mountainous western part of the County eroded into varied ridges, peaks, ravines, and deep valleys. East of the mountains, the topography is characterized by a narrow and discontinuous belt of north-trending ridges, broad alluvial valleys, and steep-sided mesas. Topographic relief ranges from 9,748 feet at Devils Head to 5,360 feet where the South Platte River crosses the north boundary of the County.

Streams in Douglas County flow mostly northward from a major drainage divide that separates the South Platte River basin on the north from the Arkansas River basin on the south. Within the County, the South Platte has two significant tributaries: Cherry Creek and Plum Creek. Nearly all lesser streams and drainages in the County flow into one of these creeks, or directly into the South Platte River.

LEGAL CONSIDERATIONS

This master plan for Mineral Extraction was prepared in accordance with the standards set forth in §34-1-301, et. seq., C.R.S. (Preservation of Commercial Mineral Deposits Act). This Master Plan is also prepared pursuant to §30-28-108, C.R.S. and is a sub-element of the Douglas County Comprehensive Master Plan.

Colorado law vests broad authority in the Board of County Commissioners to regulate land use in the unincorporated areas of the County. A mineral extraction plan is one tool in land use regulation. Statutory authority providing directly or indirectly for the County's regulation of mineral extraction and related activities is vested in Article 28 of Title 30 (County Planning and Building Codes), Article 65 of Title 24 (Colorado Land Use Act), Article 20 of Title 29 (Local Land Use Control Enabling Act), Part 3, Article 1 of Title 34 (Preservation of Commercial Mineral Deposits Act), and Article 32 of Title 34 (Mined Land Reclamation Act).

The Preservation of Commercial Mineral Deposits Act (the "Preservation Act") requires counties having a population of 65,000 or more to develop a master plan for the extraction of commercial mineral deposits with the aid of maps prepared by the Colorado Geological Survey. The preservation act does not preclude a county from adopting a master plan and other land use regulations for the extraction of minerals before a county has reached a population of 65,000.

A "commercial mineral deposit" is defined under the Act as "...a natural mineral deposit of limestone used for construction purposes, coal, sand, gravel, and quarry aggregate, for

which extraction by an extractor is or will be commercially feasible and regarding which it can be demonstrated by geologic, mineralogic, or other scientific data that such deposit has significant economic or strategic value to the area, state, or nation."

Not all deposits in a county, or all deposits in the state, will necessarily attain the status of "commercial mineral deposit." Factors are used in evaluating whether a deposit is a "commercial mineral deposit." The factors identified below and established in the Mineral Preservation Act should be used to assess the value of a deposit and whether it is "significant" and should be preserved for eventual mining.

- Any Colorado Geological Survey system that grades commercial mineral deposits
- Multiple-sequential uses that results in the optimum benefit to the landowner, neighboring residents and the community
- The enhancement or preservation of physically attractive land on site
- Effects on quality of life of the residents
- Other master plans of the County
- Maximization of extraction of commercial mineral deposits
- Ability to reclaim after extraction

The C & M Sand & Gravel v. Board of County Commissioners case (Colorado Court of Appeals, 1983) case challenged the Preservation Act and provided clarification on its implementation. The Court interpretation of the Act is summarized:

- State statutes vest broad authority in local jurisdictions to establish general standards for evaluation of mineral extraction applications, inclusive of those established within use by special review regulations.
- Local land use regulation is not preempted by the statute and does not require local governments to allow mining in any areas where it is commercially practicable, but only to preserve access to the mineral deposits.
- Local governments are prohibited only from allowing a use, such as by erecting

permanent structures, in any areas known to contain a commercial mineral deposit which would interfere with the present or future extraction of a deposit. The Preservation Act permits local governments to pass zoning ordinances that forbid mining operations in areas containing commercial mineral deposits.

More broadly, the MEP establishes protections for the development of commercial mineral deposits so that the options of future decision makers will remain open in considering the demand for aggregate. It is not intended that an extractive land use shall automatically be assured of success in lieu of addressing environmental concerns through the land use review process.

GOAL

To protect commercial mineral deposits, while protecting the natural environment, existing and future uses, and the quality of life in Douglas County.

POLICIES

POLICY 1

In assessing deposits for preservation for future extraction, the County recognizes that not all mineral deposits are intended to be preserved.

POLICY 2

Consider the factors in §34-1-304 C.R.S. to determine whether a deposit is a “commercial mineral deposit.”

POLICY 3

County review of a new mining operation or the expansion of an existing operation should consider the factors set forth in §34-1-304 C.R.S., and applicable County, state, or federal criteria.

POLICY 4

If certain deposits in the County are designated for preservation, the County retains the authority to prohibit or regulate the mining of any mineral or earthen material, including quarry aggregate and sand and gravel. The County also retains authority to prohibit or regulate any accessory activities related to mining.

POLICY 5

Access will be preserved to a deposit that attains the status of “commercial mineral deposit.”

POLICY 6

The development of mineral resources shall be consistent with the provisions of the Douglas County Comprehensive Master Plan, as amended and applicable County regulations.

APPENDIX A - GLOSSARY

AGGREGATE

Any of several hard, inert materials, such as sand, gravel, slag, or crushed stone, used for mixing with a cementing or bituminous material to form concrete, mortar, or plaster.

COMMERCIAL MINERAL DEPOSIT

As defined in §34-1-302 C.R.S. - A natural mineral deposit of limestone used for construction purposes, coal, sand, gravel, and quarry aggregate, for which extraction by an extractor is or will be commercially feasible and regarding which it can be demonstrated by geologic, mineralogic or other scientific data that such deposit has significant economic or strategic value to the area, state, or nation.

MINERAL RESOURCES

Potential commercial mineral deposits limited to account for development and institutional constraints which might reasonably be anticipated to preclude extraction.

MINERAL RESOURCES MAP

The map within the MEP depicting areas of potential mineral deposits. The mineral resource map does not identify Commercial Mineral Deposits.

MINING OPERATION

An inclusive term referring to all aspects of extraction, including excavation, batching and processing, stockpiling, transporting, etc.

PHYSIOGRAPHY

A description of the surface features of the Earth.

SEDIMENT

Solid material that has settled down from a state of suspension in a liquid.

APPENDIX B - MINERAL RESOURCES MAP

