

Colorado Oil and Gas Development in the 21st Century: Trends and New Rules

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Zeke Williams
Faegre & Benson LLP
Denver, Colorado
303 607 3665
zwilliams@faegre.com

1. Colorado Oil and Gas Development Facts

Colorado Oil and Gas Drilling Permits for the Top Seven Counties by Year (Garfield, Weld, Mesa, Rio Blanco, Yuma, La Plata, Las Animas) Source: Colorado Oil and Gas Conservation Commission, Staff Report (August 19, 2008)			
2008 (As of August 7, 2008)	2007	2006	2005
4,625	6,368	5,904	4,364

Colorado Oil and Gas Well Permits for New Well Locations Source: Colorado Oil and Gas Conservation Commission, Staff Report (August 19, 2008)				
Year	Permits for New Oil and Gas Wells	Surface Owner Party to a Mineral Lease	Surface Owner is Not a Party to a Mineral Lease	Surface Use Agreements
2006	5,848	3,933 (67%)	1,915 (33%)	1,233 (21%)
2007	6,335	3,876 (61%)	2,459 (39%)	1,558 (25%)
2008	4,580	2,864 (63%)	1,716 (37%)	1,159 (27%)

- a. Unconventional gas production is a growing source of the U.S. natural gas supply.
 - i. Unconventional natural gas resources: coalbed methane, tight sands, and gas shales.
 - ii. The Department of Energy projects that unconventional natural gas resources in the lower 48 states will provide the primary increasing sources of supply. Total lower 48 onshore *conventional* natural gas production is expected to decrease from 6.6 Tcf in 2006 to 4.4 Tcf in 2030. *Unconventional* supplies, however, are projected to increase from 8.5 Tcf in 2006 to 9.5 Tcf in 2030. Source: Annual Energy Outlook 2008 at 77, Energy Information Administration (2008).
 - iii. Colorado is rich in unconventional natural gas resources, including shale, tight sands, and coalbed methane.

- iv. Colorado, and the Rocky Mountain Region as a whole, are projected to supply increasing amounts of natural gas over the next two decades.

2. The New Rules of the Road: The Colorado Oil and Gas Commission (“COGCC”) Rule Making

- a. As of September 11, 2008, the COGCC’s rulemaking is not complete. Deliberations will continue on September 22-23, 2008
- b. The rule making generated substantial controversy.
- c. All rule making proposals, drafts, counterproposals, comments, and related documents are available at <http://oil-gas.state.co.us/RuleMaking/2007RuleMaking.cfm>
- d. The rule making was triggered by two bills signed by Governor Bill Ritter in 2007
 - i. HB 07-1341 – Transformation of the COGCC
 - 1. Effective July 1, 2007.
 - 2. The amendments transformed the COGCC from a seven-person body with five industry representatives into a nine-person body with three industry representatives.
 - 3. Three members of the COGCC must be, respectively, a local government official, an individual with experience in environmental or wildlife protection, and a royalty owner engaged in agricultural production.
 - 4. The legislation amended the Colorado Oil and Gas Conservation Act. The amendments are indicated with new language underscored and deleted language ~~stricken~~.
 - a. “It is declared to be in the public interest to foster ~~encourage, and promote~~ the responsible, balanced development, production, and utilization of the natural resources of oil and in the state of Colorado in a manner consistent with protection of public health, safety, and welfare, including protection of the environment and wildlife resources ...” Colo. Rev. Stat. § 34-60-102(1).
 - b. The COGCC shall “promulgate rules to establish a timely and efficient procedure for the review of applications for a permit to drill and applications for an order establishing or

amending a drilling and spacing unit.” Colo. Rev. Stat. § 34-60-106(I)(A).

- c. The COGCC must promulgate rules for review of APDs “in consultation with the Department of Public Health and Environment, to protect the health, safety, and welfare of the general public in the conduct of oil and gas operations.” Colo. Rev. Stat. § 34-60-106(II).

ii. HB 07-1298 – Colorado Habitat Stewardship Act of 2007

1. Requires a rule making by July 1, 2008 (later extended).
2. HB 07-1298 directs the COGCC to enact regulations to minimize adverse effects to wildlife in oil and gas operations and to develop a consultation process with the Division of Wildlife.
3. The legislation requires wildlife conditions in drilling permits, drilling unit orders, and other decisions by the COGCC.
4. The legislation amended the Act. New language underscored:
 - a. “The Commission shall administer this article so as to minimize adverse impacts to wildlife resources affected by oil and gas operations.” Colo. Rev. Stat. § 34-60-128(2).
 - b. The COGCC must “provide for Commission consultation and consent of the affected surface owner, or the surface owner’s appointed tenant, on permit-specific conditions for wildlife habitat protection.” Colo. Rev. Stat. § 34-60-128(3)(b).
 - c. The COGCC must promulgate regulations, in consultation with the Colorado Wildlife Commission, which, among other things, encourage “operators to utilize comprehensive drilling plans and geographic area analysis strategies to provide for orderly development of oil and gas fields” and which minimize “surface disturbance and fragmentation in important wildlife habitat by incorporating appropriate best management strategies.” Colo. Rev. Stat. § 34-60-128(3)(d)(II) and (III).

e. Draft Rules for Oil and Gas Development in Colorado

- i. Initial Pre-Draft Rule Making Proposal, November 27, 2007.

- ii. Draft Rules for Oil and Gas Development in Colorado, March 31, 2008. See <http://oil-gas.state.co.us/RuleMaking/2007RuleMaking.cfm>
 - iii. The COGCC rule making process involved considerable public comment, facilitated sessions, and multiple hearing days.
- f. Issues Raised in Comments on Draft Rules for Oil and Gas Development in Colorado
- i. Rule Making Process and Procedures. Is the COGCC complying with the requirements of the Colorado Administrative Procedures Act, Colo. Rev. Stat. § 24-4-103?
 - 1. Under the APA, no rule may be adopted unless:
 - a. the “record demonstrates the need for the regulation;”
 - b. proper statutory authority exists for the agency to promulgate the regulation;
 - c. the rule does not conflict with other laws; and
 - d. the rule is not duplicative of other regulations. Colo. Rev. Stat. § 24-4-103(4)(b).
 - 2. It “is the continuing responsibility of agencies to analyze the economic impact of agency actions and reevaluate the economic impact of continuing agency actions to determine whether the actions promote the public interest.” Colo. Rev. Stat. § 24-4-101.5.
 - 3. The APA requires an agency to analyze the impacts and costs of a proposed rule, the benefits of adopting the rule, potential alternatives, and for scientific or technical issues, the agency must evaluate the scientific or technical rational for the rule. Colo. Rev. Stat. § 24-4-103(4), (4.5).
 - ii. Statutory Authority of the COGCC. How broadly should the COGCC interpret its authority in the Oil and Gas Conservation Act over “oil and gas operations” and its mandate to issue regulations for the “review of applications for a permit to drill”? See Colo. Rev. Stat. §§ 34-60-102, 106. Should the COGCC regulate oil and gas development in a limited manner, or should it regulate the land use and multiple use issues that are associated with oil and gas development? Are the regulations ultra vires the agency’s statutory authority?

- iii. Mission of the COGCC. Is it the mission of the COGCC to foster oil and gas development in a manner that is “consistent” with the protection of public health, safety and welfare, or should it regulate oil and gas development in a manner that “ensures” the protection of public health, safety and welfare? See Colo. Rev. Stat. § 34-60-102 (uses the word “consistent” rather than “ensures”). Is there a difference?
- iv. Regulatory Burden & Takings. Do the regulations – such as the 300 and 500 foot watershed setbacks – actually prevent the recovery of oil and gas? Do the regulations amount to a regulatory taking of Colorado oil and gas reserves owned by fee mineral owners and their lessees?
- v. Form 2A. Form 2A was proposed for “oil and gas locations” rather than “applications for permits to drill” as identified in HB 1341. The Director may withhold approval of a Form 2A based on the failure “to minimize adverse impacts.” Does this expand the COGCC’s authority?
- vi. Wildlife Protection Measures. Are the regulations necessary to ensure the protection of wildlife species or is the concern over the effects of oil and gas development on elk, grouse, and other species overblown?
- vii. Timing Limitation Areas. The regulations propose seasonal timing limitation areas and restricted surface occupancy areas to protect wildlife. Are they necessary? Do the default rules violate the requirement in HB 07-1298 that permit-specific wildlife conditions be imposed with surface owner consent?
- viii. Drilling Moratorium. Will the timing limitation areas and other wildlife timing regulations lead to a drilling moratorium in large parts of Colorado, impairing local economies, putting people out of work, and driving the industry out of the state?
- ix. Application to Federal Lands. Do the regulations apply to oil and gas development on federal minerals under fee surface, and federal minerals under federal surface? Is the application of the regulations preempted in whole or in part by the supremacy clause of the United States Constitution? See California Coastal Comm’n v. Granite Rock, 480 U.S. 572, 580 (1987) (recognizing that state law applies to development of federal lands and minerals unless preempted by federal law).
- x. Watershed Setbacks. Does the 300 foot drinking water set back of proposed Rule 317B go too far? It prohibits all “oil and gas operations” within 500 feet of any classified surface water supply segment” for five miles upstream of a public water system intake or spring or well. What about the 300 foot high water mark setback of proposed Rule 1209.b.(16)? It prohibits “oil and gas operations” in areas within “300 feet of the

ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.”

3. Trend: Evolving Surface Use and Surface Owner Standards

a. In general, two types of severed minerals:

i. Fee minerals under fee surface.

1. “We have long recognized that a conveyance which severs a mineral interest from the surface estate creates a separate and distinct estate.” Notch Mountain Corp. v. Elliott, 898 P.2d 550, 556 (Colo. 1995).

ii. Federal minerals under privately-owned surface.

1. Split-estate federal minerals administered by the Bureau of Land Management
2. Lands patented under Coal Lands Acts, Stock Raising Homestead Act, Desert Lands Entry Act, etc. in which federal government retained some or all mineral ownership.
3. About 57 million acres of split estate lands in western U.S. – an area larger than Kansas (52 million acres). Source: Bureau of Land Management, Oil & Gas Activity on Public Lands, Wyoming & The United States, Fig. 32 (May 2005).

Split-Estate Federal Minerals Under Private Surface (Millions of Acres)	
Montana	11.7
Wyoming	11.6
New Mexico	9.5
Colorado	5.2
North Dakota	4.5
Idaho	3.4
Arizona	3
California	2.5
South Dakota	1.6
Oregon	1.5
Utah	1.2

b. Traditional Rule – Dominance of the Mineral Estate

- i. Under the traditional rule, the mineral estate is dominant; the surface estate is servient. E.g., John F. Welborn, New Rights of Surface Owners: Changes in the Dominant/Servient Relationship Between the Mineral and Surface Estates, 40 Rocky Mtn. Min. L. Inst. at 22-5 to 22-6 (1994).
- ii. “[T]raditionally in the law the mineral estate was identified as the dominant estate with respect to the ownership of the surface, and the incidents of ownership of a mineral estate included certain inherent surface rights.” Belle Fourche Pipeline Co. v. State of Wyoming, 766 P.2d 537, 544 (Wyo. 1988).
- iii. Under an oil and gas “lease, the lessee holds the dominant estate and the lessor holds the servient estate.” XTO Energy, Inc. v. Armenta, 185 P.3d 383, 386 (N.M. Ct. App. 2008).
- iv. “In Oklahoma, the surface estate is servient to the dominant mineral estate for the purposes of the oil and gas lease.” Thompson v. Andover Oil Co., 691 P.2d 77, 81 (Okla. Ct. App. 1984).

c. Rule of Reasonable Surface Use

- i. The Colorado Supreme Court arguably never adopted the dominant mineral estate principle. It adopted instead a rule of reasonable surface use.
- ii. “Although [the appellant] alleges that, upon severance, a mineral leasehold becomes the dominant estate while the surface becomes servient to the reasonable requirements of exploration and development, it is not necessary to classify these property rights so categorically. The rule is clear that a mineral lessee has a right to use so much of the surface as may be reasonably necessary for operation.” Frankfort Oil Co. v. Abrams, 413 P.2d 190, 193 (Colo. 1966) (citations and quotations omitted).
- iii. “[A] severed mineral owner has the right to use that portion of the surface estate that is reasonably necessary to develop the severed mineral interest. The right to use the surface, commonly referred to as the rule of reasonable surface use, merely acknowledges that absent a right to access, the mineral interest would lie dormant.” Notch Mountain Corp. v. Elliott, 898 P.2d 550, 556 (Colo. 1995).

d. The Gerrity Rule & the Accommodation Doctrine

- i. Gerrity Oil & Gas Corp. v. Magness, 946 P.2d 913 (Colo. 1997).
- ii. The Colorado Supreme Court rejected the dominant mineral estate principle.

- iii. “Although we have referred to the mineral estate as the dominant estate and the surface estate as the servient estate, our cases have consistently emphasized that both estates must exercise their rights in a manner consistent with the other. Hence, in a practical sense, both estates are mutually dominant and mutually servient because each is burdened with the rights of the other.” Gerrity, 946 P.2d at 927 n.8.
 - iv. Each owner – surface and mineral – must have “due regard” for the rights of the other in making use of the estate in question.
 - v. The mineral rights owner must undertake “reasonable alternatives” for development if the operations “would preclude or impair use by the surface owner.” Gerrity, 946 P.2d at 927.
 - vi. “[A] mineral owner or lessee that violates this rule of reasonable surface use commits a trespass.” Gerrity, 946 P.2d at 928 n.9.
- e. HB 07-1252 – Surface Owner Standards
- i. Colo. Rev. Stat. § 34-60-127.
 - ii. Effective September 1, 2007.
 - iii. Objective: “codify the reasonable accommodation doctrine” of Gerrity. Colo. Rev. Stat. § 34-60-127.
 - iv. “An operator shall conduct oil and gas operations in a manner that accommodates the surface owner by minimizing intrusion upon and damage to the surface of the land.” Colo. Rev. Stat. § 34-60-127(1)(a).
 - v. “minimizing intrusion” defined to mean selecting alternative locations for surface facilities that “prevent, reduce, or mitigate the impacts” on the surface owner where such alternatives are “technologically sound, economically practicable, and reasonably available.”
 - vi. The surface owner has a statutory cause of action for an operator’s failure to meet the statutory requirements. Once the surface owner shows material interference with the surface by the operator, the operator bears the burden of showing that it complied with the statute – i.e., minimized intrusion on the land by selecting alternative locations and employing alternative means to prevent, reduce, or mitigate impacts. The surface owner may be entitled to damages or equitable relief if the trier of fact determines that the operator did not comply with the statute.

- vii. Freedom of contract continues to apply; surface owners and lessees may contract away from HB 07-1252.

f. Colorado Surface Owner Issues

- i. Does HB 07-1252 apply to split estate federal minerals under fee surface and if so, to what extent? What about federal preemption? See California Coastal Comm’n v. Granite Rock, 480 U.S. 572, 580 (1987) (recognizing that state law applies to development of federal lands and minerals unless preempted by federal law).
- ii. Gerrity requires reciprocal accommodation – “due regard” by the mineral and surface estate owners for one another. HB 07-1252 appears to favor one-way accommodation by the mineral owner of the surface owner. Is that appropriate?
- iii. HB 07-1252 does not give mineral owners a cause of action for damages against a surface owner for violating the statutory standards.
- iv. Does HB 07-1252 give *adjoining* surface owners any rights, as the COGCC is proposing in its draft rules?
- v. Practical effect: the statute creates an incentive for the severed oil and gas mineral owner or lessee to enter into a surface use agreement with surface owner to “contract away from” the statute.

4. Trend: The Evolving Role of Federal Land Use Plans and Policies in Rocky Mountain Oil and Gas Development

a. Rocky Mountain Federal Mineral Ownership.

- i. The United States owns significant amounts of Rocky Mountain minerals, including oil and gas.

State	Total Acreage of State	Percent Federal Lands
Colorado	66,485,760	36%
New Mexico	77,766,400	34%
Montana	93,271,040	28%
Utah	52,696,960	64%
Wyoming	62,343,040	50%

- ii. Source: United States Department of the Interior, Public Land Statistics, Table 1-3, (1999), *available at* <http://www.blm.gov/natacq/pls99home.html>.

b. Federal Mineral Production

- i. 38% of all fossil fuels produced in the U.S. in 2003 (includes offshore federal outer continental shelf oil and gas production).
- ii. 2003 federal production yielded more than \$1 billion in onshore federal royalty payments to thirty-six states, including \$503 million to Wyoming and \$318 million to New Mexico.

Fossil Fuel Production on Federal Lands, Percent of Total U.S. Production					
Year	Crude Oil and Lease Condensate	Natural Gas Liquids	Natural Gas	Coal	Total Fossil Fuels
1970	17.2	6.7	16.9	2.0	12.9
1980	16.2	1.8	30.2	11.2	18.8
1990	19.2	8.9	36.8	27.3	27.4
2003	20.4	16	31.5	41.3	32
2007	31.3	14.8	30.2	40.4	34

- iii. Source: Energy Information Administration, Annual Energy Review, Table 1.14 (2007), available at <http://www.eia.doe.gov/emeu/aer/overview.html>
 - iv. Onshore public lands (BLM, Forest Service, split estate) accounted for 11% (2.1 Tcf) of domestic natural gas production in 2002. Source: Bureau of Land Management, Energy Facts – Onshore Public Lands at 1, *available at* www.blm.gov/energy/. Wyoming and New Mexico, respectively, accounted for 42% and 41% of that production.
 - v. The Department of the Interior has estimated that 50% of future natural gas supplies will come from minerals managed by the BLM. Source: Kermit G. Witherbee, Bureau of Land Management, Federal Land Manager’s Perspective on Natural Gas Supply, Natural Gas Technologies II Conference, Phoenix, Arizona (Feb. 10, 2004), *available at* <http://www.netl.doe.gov/publications/proceedings/04/LNG/KermitWitherbee.pdf>.
- c. Federal Land Use Planning and Colorado Natural Gas Production
- 1. Natural resource development on federal lands is subject to federal land use planning, and must conform to the applicable BLM Resource Management Plan or Forest Service Forest Plan.
 - 2. The programmatic plans apply for a decade or more, allocate lands to uses such as oil and gas development, and set forth the conditions of approval and mitigation measures that are used to authorize site-specific development.

3. BLM Resource Management Plans (“RMPs”)
 - a. 43 U.S.C. § 1712; 43 C.F.R. pt. 1600 (2005).
 - b. 162 Resource Management Plans nationwide for 262 million acres of surface lands and 700 million acres of federal minerals
 - c. All activities on BLM lands and minerals must conform to the applicable RMP. 43 U.S.C. § 1732(a); Norton v. Southern Utah Wilderness Alliance, 124 S. Ct. 2373, 2377 (2004).
 - d. BLM prepares an environmental impact statement (“EIS”) under the National Environmental Policy Act to evaluate the direct, indirect, and cumulative effects of the proposed plan and alternatives. See 43 C.F.R. § 1601.0-6; Ezekiel J. Williams and Carolyn L. McIntosh, The Growing Phenomenon of Challenges to Federal Land Use Plans in Natural Resources Development Litigation, 51 Rocky Mtn. Min. L. Inst. at 11-9 (2005).
 - e. BLM intends to revise all 162 RMPs by 2013. BLM RMPs have emerged as targets of litigation and controversy.
 - f. The revision of BLM RMPs can create management conflicts that arise as a result of oil and gas leasing and development decisions made under old RMPs which may be subject to new standards, conditions of approval, and requirements under new RMPs.
4. Forest Service Land and Resource Management Plans (“Forest Plans”)
 - a. 16 U.S.C. § 1604(a); 36 C.F.R. pt. 219 (2005).
 - b. 126 Forest Plans for 155 National Forests and 20 National Grasslands nationwide.
 - c. All activities on National Forest System lands, including oil and gas development, must comply with the applicable Forest Plan. 16 U.S.C. § 1604(i); Ohio Forestry Assoc., Inc. v. Sierra Club, 523 U.S. 726, 728-30 (1998).
 - d. The Forest Service issued forest planning regulations on January 5, 2005. 70 Fed. Reg. 1,023 (Jan. 5, 2005), codified at 36 C.F.R. pt. 219 (2005). The regulations were controversial in certain sectors because the Forest Service determined that

because Forest Plans do not typically authorize any particular site specific action, it would not prepare an EIS to accompany a revised Forest Plan. Several environmental groups sued the Forest Service, and obtained an injunction from the Northern District of California until the Forest Service prepares an environmental impact statement to address the effect of the regulations. See Citizens for Better Forestry v. United States Dep't of Agriculture, 481 F. Supp.2d 1059 (N.D. Calif. 2007).

- e. The Forest Service released revised planning regulations in April 2008 along with an environmental impact statement in response to the court ruling. See 73 Fed. Reg. 21,468 (April 21, 2008). The 2008 regulations, which are overwhelmingly the same as the 2005 regulations (including by providing that EISs will not be prepared for most Forest Plans) have been challenged in litigation pending in the Northern District of California.
- f. The agency's Forest Plan revision process has been effectively stalled by the litigation over the 2005 regulations. Expect Forest Plan revisions to begin, or continue, as a result of the 2008 regulations including, for example in the Grand Mesa, Uncompahgre and Gunnison National Forests. The San Juan National Forest is currently revising its Forest Plan.

d. How Federal Land Use Plans Affect Colorado Oil and Gas Development

- i. Conditions of Approval. Plans may set forth mitigation measures, standards and guidelines, and other conditions of approval that are binding, and that are applied in project level oil and gas development decisions.
- ii. Leasing. EISs which accompany BLM RMPs conduct federal oil and gas leasing analyses, and are the basis for BLM and Forest Service leasing availability decisions.
- iii. Reasonably Foreseeable Development Scenario. In the EIS which accompanies an RMP, the BLM estimates future oil and gas development to satisfy its obligation under NEPA to identify the reasonably foreseeable effects of authorizing oil and gas development over the life of the plan.
- iv. Management Conflicts. New plans may pose management conflicts when applied to decisions made under new plans.

1. Visual resource standards

2. Cultural resources standards
 3. Valid existing rights
- v. Tiering. EISs which accompany BLM RMPs and Forest Service Forest Plans contain direct, indirect, and cumulative effects analyses which, as development evolves during the life of the plan, may not adequately provide a NEPA analysis to which to tier project level environmental assessments. E.g., Kern v. United States Bureau of Land Management, 284 F.3d 1062, 1072 (9th Cir. 2002) (setting aside BLM decision based on EA tiered to an EIS which itself did not contain any analysis of the significant effects of the action analyzed in the EA).
- e. The National Environmental Policy Act and Colorado Oil and Gas Development
- i. A federal agency's statutory obligation to comply with NEPA is triggered by:
 1. any "proposals" for
 2. "major Federal actions"
 3. "significantly"
 4. "affecting"
 5. "the quality of the human environment." 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1502.3.
 6. See generally Ezekiel J. Williams, The National Environmental Policy Act at pp. 339 to 350, in Environmental Regulation of Colorado Real Property (Steve A. Bain, ed., Bradford Publishing Co. 2007).
 - ii. Agencies fulfill their NEPA obligations in one of three ways based upon whether a particular proposed action may produce significant environmental impacts.
 1. Categorical Exclusion. For actions that do not individually or collectively have significant impacts, an agency may rely upon a categorical exclusion from NEPA if the agency has established such an exclusion in its procedures. 40 C.F.R. §§ 1508.4, 1500.4(p).
 2. Environmental Assessment. For actions that do not fit within a categorical exclusion and that do not cause a significant impact to

the environment, an agency may prepare a concise environmental assessment and finding of no significant impact. 40 C.F.R. § 1508.9(a)(1).

3. Environmental Impact Statement. For actions that may cause a significant impact to the environment, an agency must prepare an environmental impact statement. 42 U.S.C. § 4332(2)(c); 40 C.F.R. §§ 1501.4(c), (d), 1508.3, 1508.11.

iii. Categorical Exclusions From NEPA for Oil and Gas Development on Federal Lands

1. Established by Section 390 of the Energy Policy Act of 2005, 42 U.S.C. § 15942. See generally Ezekiel J. Williams & Kathy L. Schaeffer, What Every Land Professional Should Know About NEPA, 53 Rocky Mtn. Min. L. Inst. at 4-21 to 4-30 (2007).
 - a. The categorical exclusions apply to development of federal oil and gas resources leased under the Mineral Leasing Act of 1920. If an exclusion applies, no EA or EIS is required.
 - b. See BLM and Forest Service Guidance Documents, Forest Serv. Nov. 22, 2005, Letter to Regional Foresters, *available at* http://www.fs.fed.us/geology/mgm_energy.html; BLM Inst. Mem. No. 2005-247, att. 2 (Sept. 30, 2005), *available at* http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2005/IM_2005_247.html.
 - c. The exclusions do not exempt the BLM or Forest Service from fulfilling their other statutory obligations, including under the Endangered Species Act or National Historic Preservation Act.

2. Five Statutory Categorical Exclusions

- a. Categorical Exclusion 1 – Individual Surface Disturbance of Less than Five Acres. “Individual surface disturbance of less than 5 acres [is excluded] so long as the total surface disturbance on the lease is not greater than 150 acres and site-specific analysis in a document prepared pursuant to NEPA has been previously completed.” 42 U.S.C. § 15942(b)(1).

- b. Categorical Exclusion 2 – Drilling at an Existing Well Location. “Drilling an oil and gas well at a location or well pad at which drilling has occurred previously within 5 years prior to the date of spudding the well [is excluded].” 42 U.S.C. § 15942(b)(2).
- c. Categorical Exclusion 3 – Drilling Within a Developed Field. “Drilling an oil or gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed such drilling as a reasonably foreseeable activity [is excluded], so long as such plan or document was approved within 5 years prior to the date of spudding the well.” 42 U.S.C. § 15942(b)(3).
- d. Categorical Exclusion 4 – Placement of a Pipeline in an Approved Right of Way. “Placement of a pipeline in an approved right-of-way corridor [is excluded], so long as the corridor was approved within 5 years prior to the date of placement of the pipeline.” 42 U.S.C. § 15942(b)(4).
- e. Categorical Exclusion 5 – Minor Maintenance. “Maintenance of a minor activity, other than any construction or major renovation [of] a building [is excluded].” 42 U.S.C. § 15942(b)(5).

5. Additional Trends in Colorado Oil and Gas Development

- a. Role of natural gas in meeting demand for electricity and in supplying alternative transportation fuel source – see, for example, the “T. Boone Pickens Plan,” <http://www.pickensplan.com/>
- b. Climate Change.
 - i. benefits of natural gas vs. coal
 - ii. importance of natural gas to wind generated electricity
 - iii. carbon sequestration
 - iv. Who owns the pore space?
- c. Cultural and Historic Resources Regulation

- i. There is a growing concern with preserving cultural and historic resources in connection with oil and gas development pursuant to the National Historic Preservation Act, 16 U.S.C. § 470f.
- ii. Should agencies protect “cultural landscapes” and “cultural communities” or discrete objects and sites? Is the mere presence of oil and gas facilities an adverse effect to historic properties under the National Historic Preservation Act? Is presence itself the adverse effect or is a direct physical impact to an eligible object or site necessary?
- iii. Cultural Resources on Private Lands.
 1. Under the National Historic Preservation Act, federal agencies are required to consider the effect of “federal undertakings” on cultural resources and historic sites. See 16 U.S.C. § 470f. A federal undertaking is defined as a federal license or permit, or a federally funded or federally assisted project. See 16 U.S.C. § 470w(7); 36 C.F.R. § 800.16(y).
 2. Federal agencies do not have direct authority to regulate cultural resources or historic sites on private or non-federal lands. See 36 C.F.R. § 60.2; Ridgeland v. Nat’l Park Servs., 253 F. Supp. 2d 888, 912 n.28 (D. Miss. 2002); Mount Olivet Cemetery Ass’n v. Salt Lake City, 961 F. Supp. 1547, 1553 (D. Utah 1997). Cultural resources located on private lands are the property of the landowner and are subject to the landowner’s control. See 36 C.F.R. § 60.2; Ridgeland, 253 F. Supp. 2d at 912 n.28 (“Listing of private property on the National Register does not prohibit under federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property”).
 3. Notwithstanding these limitations, should federal agencies seek to protect cultural and historic resources on private lands? Should the BLM seek to inventory and protect cultural resources on fee surface as a condition of approval for development on severed federal mineral interests – i.e., in lands patented under the Stock Raising Homestead Act? What about for private lands that are intermixed within federal lands and subject to a single oil and gas or pipeline development proposal?