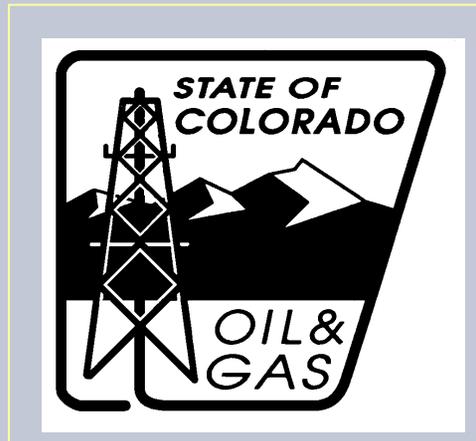


Understanding the COGCC Rulemaking



David Neslin
Director, COGCC

IOGCC Mid-Year Summit
Stepping Lightly: Balancing energy & the environment
May 11-13, 2009
Hotel Captain Cook
Anchorage, AK



OIL & GAS CONSERVATION COMMISSION

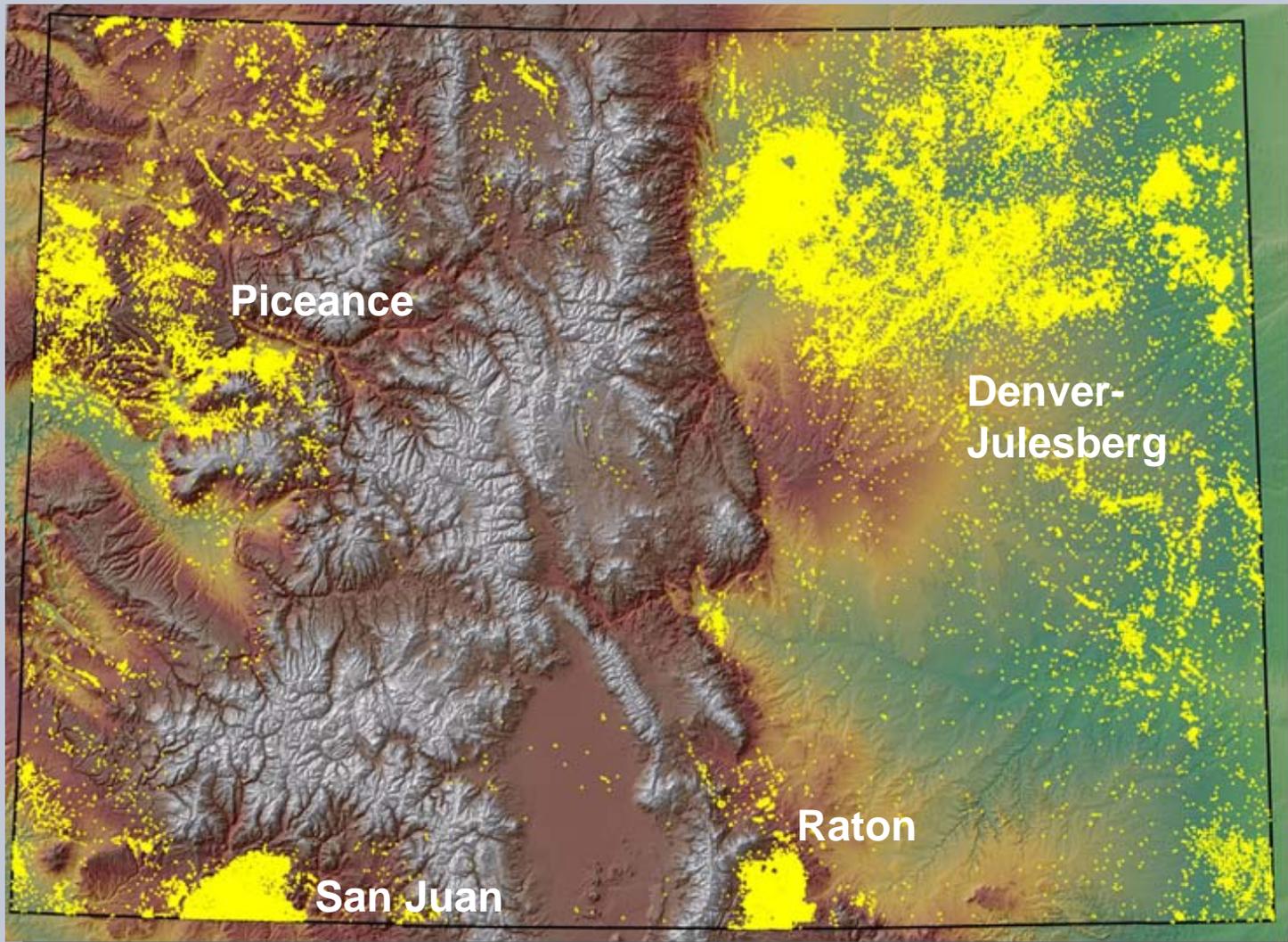
COGCC's mission:

- “...To foster the responsible, balanced development, production and utilization of ... oil and gas ...
- ...In a manner consistent with protection of public health safety and welfare ...
- ...Including protection of the environment and wildlife resources.”

- *CRS 30-60-102 (1)(a)(I)*



OIL & GAS CONSERVATION COMMISSION

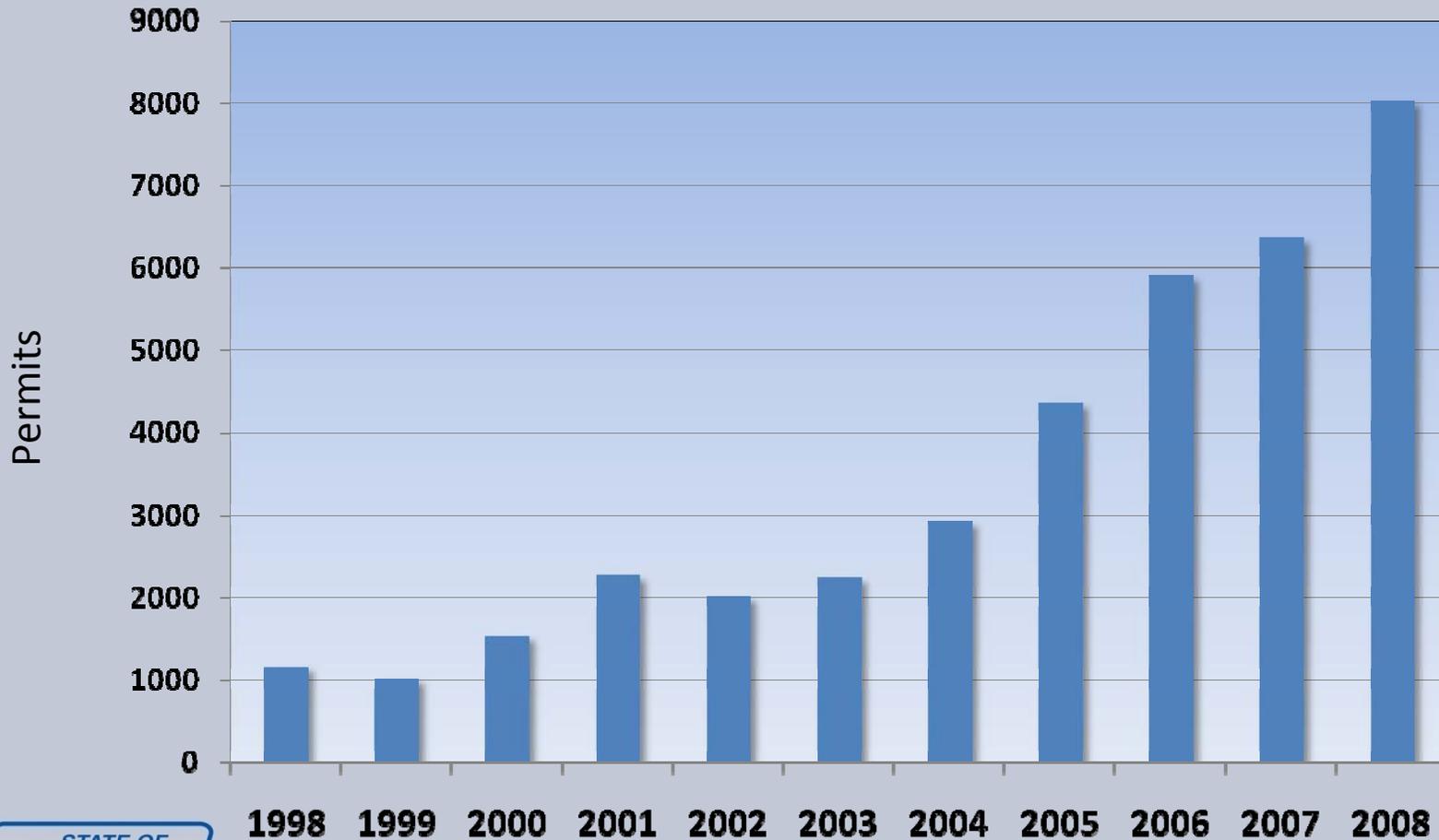


Location of the 78,000+ wells that have been drilled for oil and gas in Colorado.
About 38,000 are currently producing.



OIL & GAS CONSERVATION COMMISSION

In 2008, COGCC issued about 10 times as many permits as in 1998



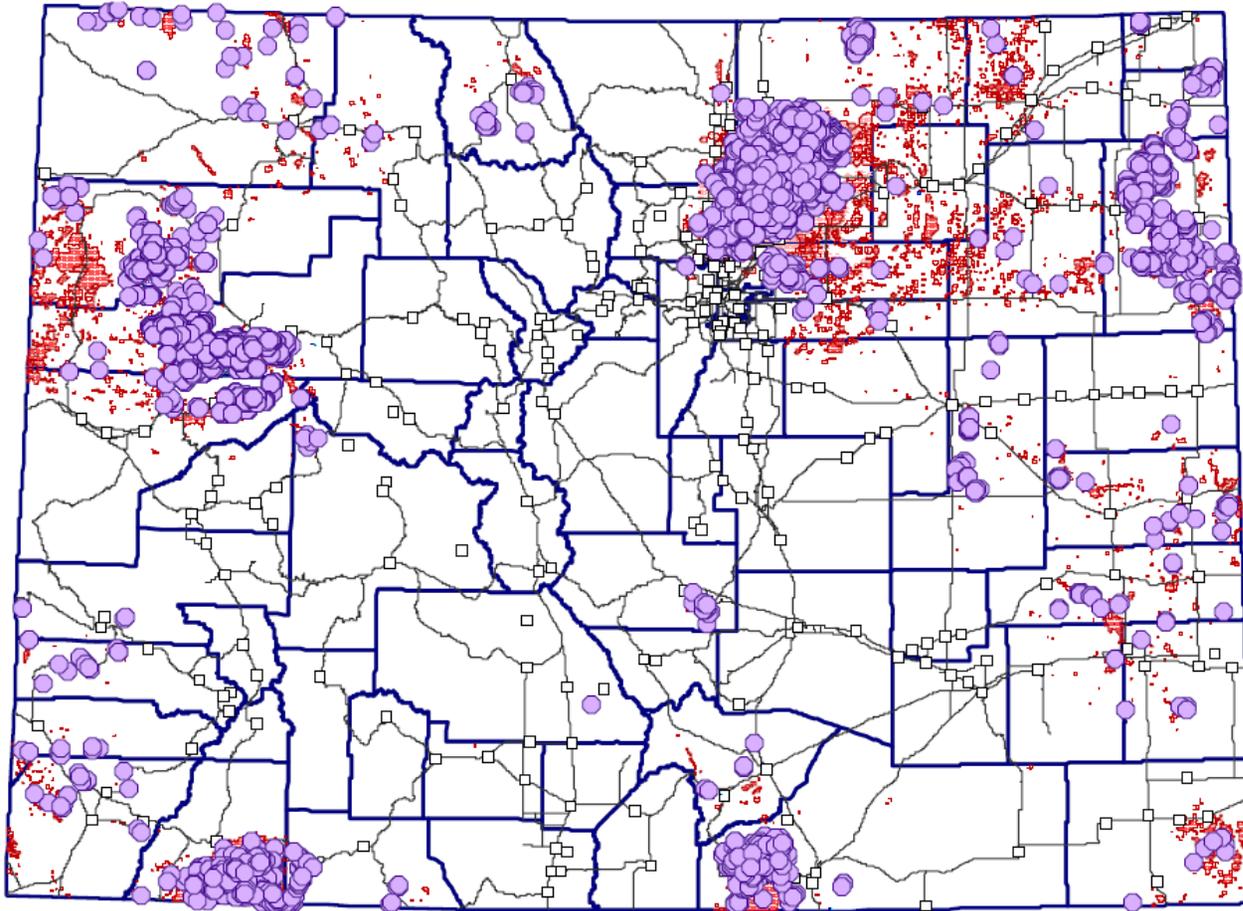
OIL & GAS CONSERVATION COMMISSION

State oil & gas permitting in 2008

- Texas 20,980 permits
- Colorado 8,027
- Wyoming 7,938
- Pennsylvania 7,232
- Oklahoma 6,220
- Kansas 5,926
- Louisiana 2,350
- Ohio 2,300
- New Mexico 2,152

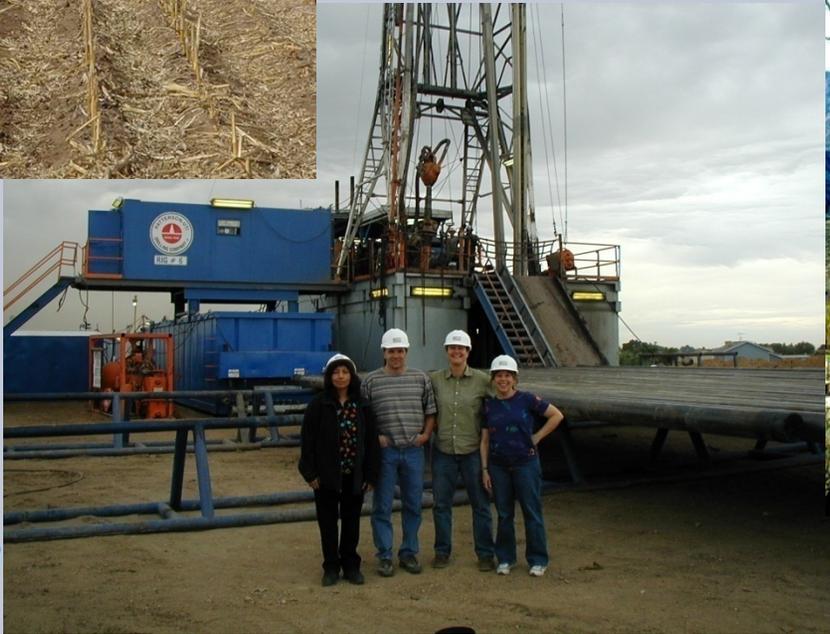
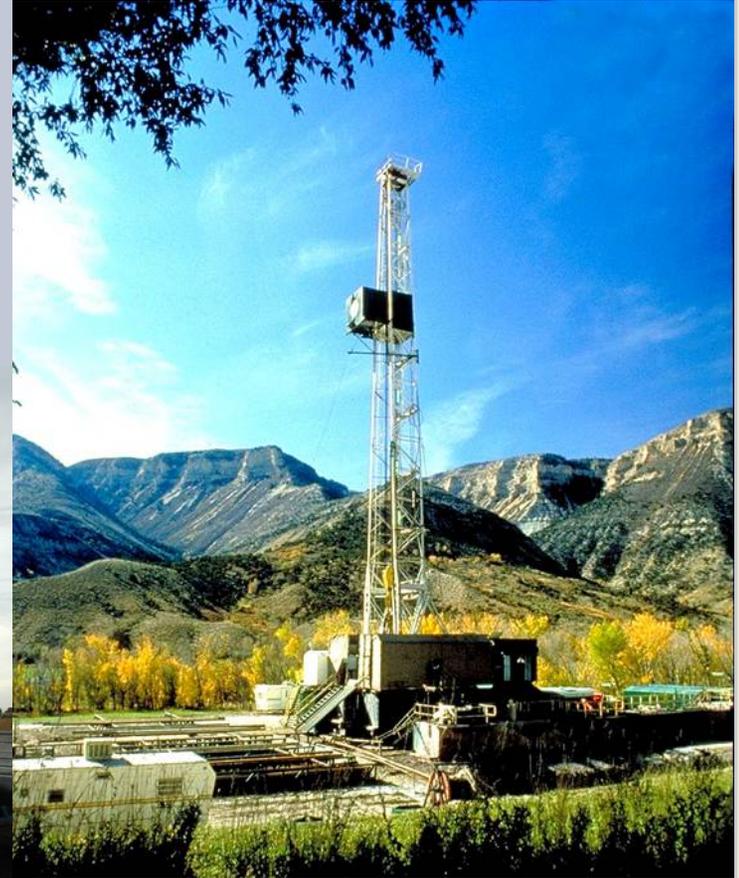


RECENT COLORADO OIL AND GAS WELL PERMITS 04-07-09



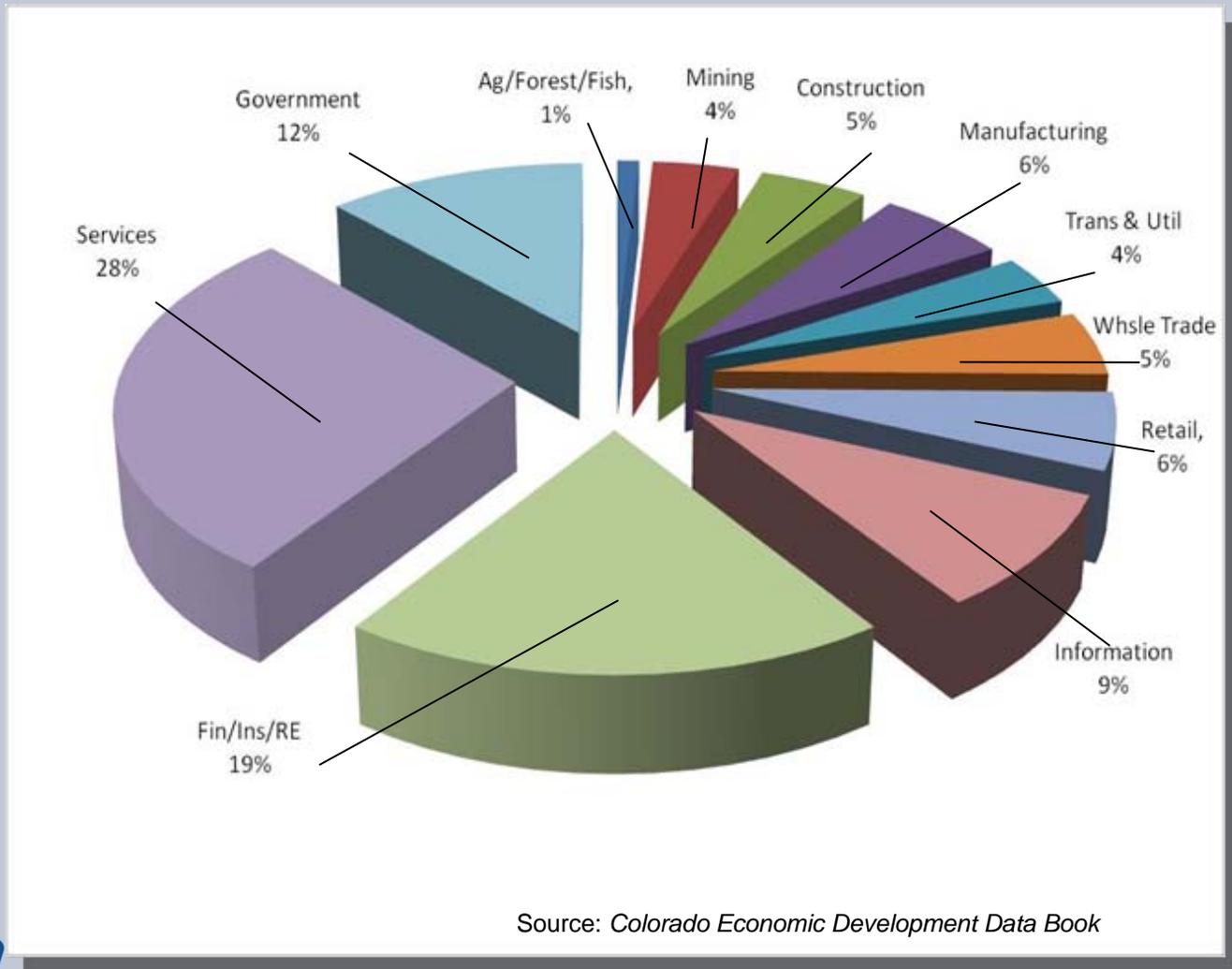
OIL & GAS CONSERVATION COMMISSION

Drilling occurs in many types of settings...



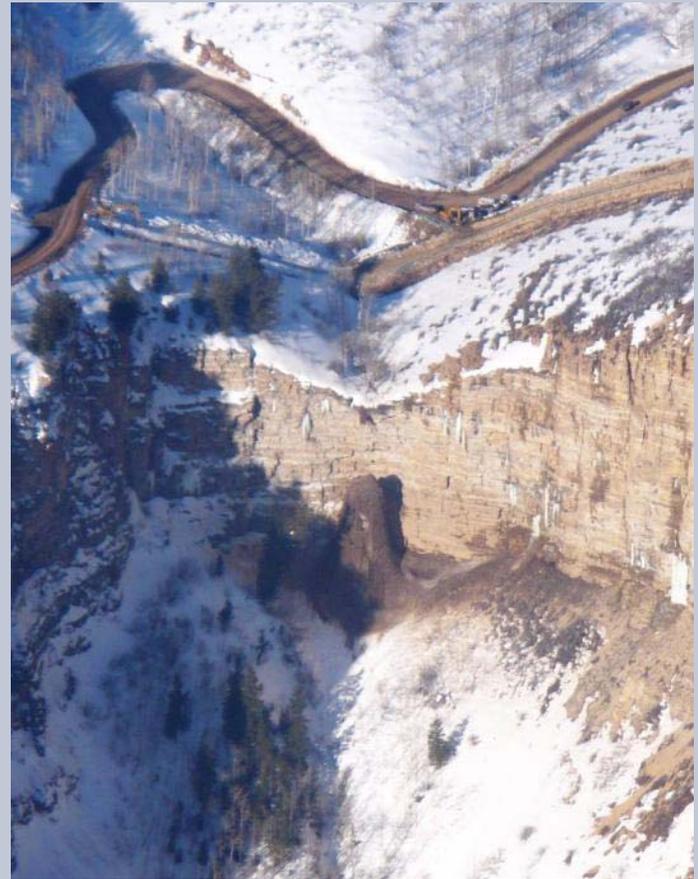
OIL & GAS CONSERVATION COMMISSION

Colorado has a diverse economy



As drilling has increased, so have citizen concerns

- Spills & releases
- Seeps & well contamination
- Stormwater runoff
- Split-estate issues
- Odors
- Cumulative impacts
- Wildlife impacts
- Piecemeal planning



"Mudsicle," Parachute Creek, Colo. 2008 Source: Skytruth



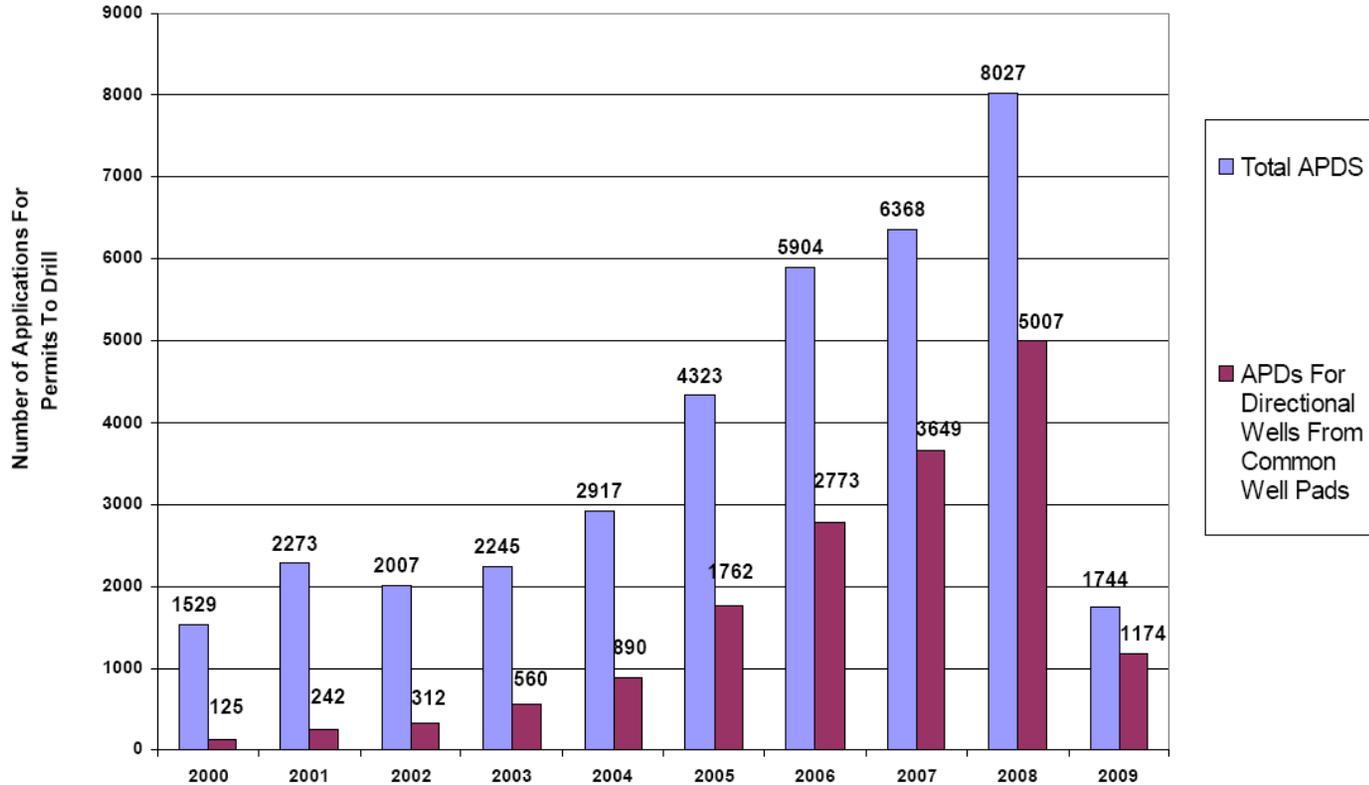
What steps were taken to address rising impacts?

- Technology-driven increase in directional drilling
- Large consolidated projects by some major operators
- Cooperative studies on wildlife impacts



Number of Oil and Gas Well Permits For Wells Drilled Directionally From Common Well Pads in Colorado

04-07-09



Multi-well pads

- Help consolidate development
- But increase duration and magnitude of impacts

One multi-well pad on the West Slope can involve:

- 5 acres of excavation
- 10 to 20 well bores 8,000 feet deep
- 30,000 barrels of produced water discharged during the first year alone
- Odors, dust, noise, light, traffic, and other impacts for a year or more.



In 2007, the General Assembly passed HB-1341 and HB-1298

NOTE: This bill has been prepared for the signature of the appropriate legislative officers and the Governor. To determine whether the Governor has signed the bill or taken other action on it, please consult the legislative status sheet, the legislative history, or the Session Laws.

An Act

HOUSE BILL 07-1298

BY REPRESENTATIVE(S) Gibbs, Benefield, Borodkin, Buescher, Carroll M., Carroll T., Casso, Curry, Fischer, Frangas, Gagliardi, Gallegos, Green, John, Kefalas, Kerr A., Kerr J., Labuda, Liston, Madden, Marshall, May M., McFadyen, McGibon, McNulty, Merrifield, Peniston, Primavera, Riesberg, Roberts, Romanoff, Solano, Soper, Summers, Todd, White, Wirwer, Looper, and Weismann; also SENATOR(S) Tochrup, Boyd, Fitz-Gerald, Harvey, Isgar, Kopp, Mitchell S., Peury, Romer, Sandoval, Schwartz, Shaffer, Spence, Taylor, Ward, Wiens, and Williams.

CONCERNING THE CONSERVATION OF WILDLIFE HABITAT IN CONNECTION WITH THE DEVELOPMENT OF OIL AND GAS, AND MAKING AN APPROPRIATION THEREFOR.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 34-60-102 (1), Colorado Revised Statutes, is amended to read:

34-60-102. Legislative declaration. (1) (a) It is declared to be in the public interest to:

(1) Foster, encourage, and promote the development, production, and

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

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NOTE: This bill has been prepared for the signature of the appropriate legislative officers and the Governor. To determine whether the Governor has signed the bill or taken other action on it, please consult the legislative status sheet, the legislative history, or the Session Laws.

An Act

HOUSE BILL 07-1341

BY REPRESENTATIVE(S) Curry, Gibbs, Borodkin, Buescher, Casso, Cerbo, Fischer, Green, John, Kefalas, Labuda, Levy, Madden, Marshall, McFadyen, McGibon, Peniston, Primavera, Romanoff, Solano, Soper, Gallegos, King, and Wirwer; also SENATOR(S) Isgar, Fitz-Gerald, Kester, Schwartz, Taylor, Tochrup, Tupa, and Williams.

CONCERNING THE COLORADO OIL AND GAS COMMISSION, AND, IN CONNECTION THEREWITH, DIRECTING THE COMMISSION TO FOSTER OIL AND GAS DEVELOPMENT CONSISTENT WITH THE PROTECTION OF THE ENVIRONMENT, WILDLIFE RESOURCES, AND PUBLIC HEALTH, SAFETY, AND WELFARE AND MAKING AN APPROPRIATION THEREFOR.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Legislative declaration. The general assembly hereby declares that nothing in this act shall establish, alter, impair, or negate the authority of local governments to regulate land use related to oil and gas operations.

SECTION 2. 34-60-102 (1), Colorado Revised Statutes, is amended to read:

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.

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HB-1298

- Declares **it is in the public interest to “balance[] [oil and gas] development with wildlife conservation** in recognition of the state’s obligation to protect wildlife resources and the hunting, fishing, and recreation traditions they support. . . .” *Id. at § 34-60-102(1)(a)(IV).*
- Directs the COGCC, in consultation with the Colorado Wildlife Commission, to adopt rules that “establish standards for **minimizing adverse impacts** to wildlife resources affected by oil and gas operations and to ensure **proper reclamation** of wildlife habitat.” *Id. at § 34-60-128(d).*



HB-1298

Requires:

- A timely and effective consultation process with the DOW to minimize adverse impacts to wildlife resources
- Incentives for operators to utilize comprehensive drilling plans and geographic area analysis strategies
- BMPs to minimize surface disturbance and fragmentation in important wildlife habitat in orders and approvals
- Consultation and consent of the affected surface owner on “permit-specific conditions for wildlife habitat protection”



HB 1341

Expands & alters makeup of COGCC board of commissioners

Before: 7 members

- 5 with experience in oil and gas
(2/5: petroleum geology/engineering degree)
- 2 non-industry; ag/enviro/reclamation

After: 9 members

- 3 with experience in oil & gas
(2/3: petroleum geology/engineering degree)
- 2 Agency Executive Directors (*ex officio* voting members) – DNR & CDPHE
- 1 local government official
- 1 royalty owner engaged in ag production
- 1 soil conservation/ reclamation
- 1 environmental/ wildlife protection



OIL & GAS CONSERVATION COMMISSION

HB 1341

Requires:

- “Protection of the environment and wildlife resources” added to agency mission statement
- The COGCC to consult with the Department of Public Health and Environment to protect the health, safety, and welfare of the general public
- The consultation process be timely, efficient and consistent with DOW consultation procedures.



Prerulemaking public process

The rulemaking was preceded by an extensive public input process and outreach, which included:

- Numerous stakeholder meetings
- Publication of an initial “pre-draft” proposal
- Five public meetings across the state
 - ~Intense public interest
 - ~ Attended by 1,700 people
- 37 technical work group meetings
 - ~Addressed 67 issues associated with the proposal
 - ~Attended by 250 stakeholders



COGCC rulemaking process

- One of the most extensive and transparent in state history.
- 24 days of hearings
- 160 witnesses; 80-plus hours of testimony
- Thousands of pages of comments & documents
- Dozens of legal motions
- 80-plus hours of deliberations
- Unanimous approval by the Commission



COGCC rules are tailored & focused

- Wildlife protections: Apply almost entirely to western Colorado
- Drinking water protections: Apply to western Colorado
- Compliance checklist: Applies only in northwestern Colorado
- Odor control equipment: Applies only in northwest Colorado
- Form 2A (location) approvals: Applies in northwest Colorado
- Form 2A info requirements: Less info required in eastern Colorado
- Lining production pits: N/A to eastern Colorado until 2011
- Notification of nearby landowners: N/A in northeastern Colorado
- Stormwater planning: N/A to many sites in eastern Colorado



Final rules adopted industry language:



Evolution of Rule 205: Access to Records & Chemical Inventory

On July 7, 2008, the Colorado Oil and Gas Conservation Commission (COGCC) invited stakeholder groups to submit alternative rule language in response to staff's Draft Rules and amendments. Thirty-one oil and gas companies jointly submitted a response that included alternative language for a variety of rules -- much of which was incorporated into the final amendments adopted by the COGCC by unanimous vote on December 11, 2008. The following chart contains the joint industry proposal for Rule 205 for maintenance of records, including a chemical inventory, and the Final Amended Rule on this subject adopted by the COGCC. Highlighted language appears in identical form in both the industry submittal and in the final COGCC rule.

Industry Proposal (July 30, 2008)	Final Amended Rule (Dec. 11, 2008)
<p>DEFINITIONS:</p> <p>CHEMICAL INVENTORY shall mean a list of the Chemical Products (including material safety data sheets) brought to a wellsite for use downhole at an oil and gas well during drilling, completion and workover operations including fracture stimulations. The Chemical Inventory shall include how much of the Chemical product was used, how it was used, and when it was used.</p> <p>CHEMICAL PRODUCT shall mean any substance consisting of one or more constituent chemicals that is marketed or sold as a commodity. Chemical Products shall not include substances that are known to be entirely benign, innocuous or otherwise harmless such as sand, walnut shells and similar substances.</p>	<p>DEFINITIONS:</p> <p>CHEMICAL INVENTORY shall mean a list of the Chemical Products (including Material Safety Data Sheets) brought to a well site for use downhole during drilling, completion, and workover operations, including fracture stimulations, and the maximum capacity of fuel stored on the oil and gas location during those operations. The Chemical Inventory shall include how much of the Chemical Product was used, how it was used, and when it was used.</p> <p>CHEMICAL PRODUCT shall mean any substance consisting of one or more constituent chemicals that is marketed or sold as a commodity. Chemical Products shall not include substances that are known to be entirely benign, innocuous, or otherwise harmless, such as sand, walnut shells, and similar natural substances.</p>
<p>All producers, operators, transporters, refiners, gasoline or other extraction plant operators and initial purchasers of oil and gas within this State, shall make and keep appropriate books and records covering their operations in the State, including natural gas meter calibration reports, from which they may be able to make and substantiate the reports required by the Commission or the Director.</p>	<p>All producers, operators, transporters, refiners, gasoline or other extraction plant operators and initial purchasers of oil and gas within this State, shall make and keep appropriate books and records covering their operations in the State, including natural gas meter calibration reports, from which they may be able to make and substantiate the reports required by the Commission or the Director.</p>
<p>Beginning November 1, 2008, operators of oil and gas wells shall maintain MSDS sheets for any Chemical Product brought to a wellsite for use downhole during drilling, completion, and workover operations including fracture stimulation.</p> <p>Beginning November 1, 2009, operators of oil and gas wells shall maintain a Chemical Inventory by well for each Chemical Product used downhole in an amount exceeding 500 pounds during any quarterly reporting period for drilling, completion, and workover operations, including fracture stimulation.</p>	<p>Beginning May 1, 2009 on federal land and April 1, 2009 on all other land, operators shall maintain MSDS sheets for any Chemical Products brought to a well site for use downhole during drilling, completion, and workover operations, including fracture stimulation.</p> <p>Beginning June 1, 2009, operators shall maintain a Chemical Inventory by well site for each Chemical Product used downhole or stored for use downhole during drilling, completion, and workover operations, including fracture stimulation, in an amount exceeding five hundred (500) pounds during any quarterly reporting period. Operators shall also maintain a Chemical Inventory by well site for fuel stored at the well site during drilling, completion, and workover operations, including fracture stimulation, in an amount exceeding five hundred (500) pounds during any quarterly</p>

Evolution of COGCC Rule 205: Access to Records & Chemical Inventory

1



Rule 205: Chemical inventory

<p>The 500-pound reporting threshold shall be based on the maximum amount of a Chemical Product present at a wellsite during a quarterly reporting period. Entities maintaining Chemical Inventories under this section shall update these inventories quarterly throughout the life of the well. These records must be maintained in a readily retrievable and reviewable format. The Colorado Department of Public Health and Environment may obtain information provided to the Commission in a chemical inventory upon written request to the Commission.</p>	<p>reporting period.</p> <p>The five hundred (500) pound reporting threshold shall be based on the cumulative maximum amount of a Chemical Product present at the well site during the quarterly reporting period. Entities maintaining Chemical Inventories under this section shall update these inventories quarterly throughout the life of the well site. These records must be maintained in a readily retrievable format at the operator's local field office. The Colorado Department of Public Health and Environment may obtain information provided to the Commission or Director in a Chemical Inventory upon written request to the Commission or the Director.</p>
<p>Where the composition of a Chemical Product is considered proprietary by the vendor or service provider, the operator of an oil and gas well shall only be required to maintain the identity of the Chemical Product and shall not be required to maintain information concerning the identity of chemical constituents in a Chemical Product or the amounts of such constituents. The vendor or service provider shall provide to the Commission a list of the chemical constituents contained in a Chemical Product the composition of which is proprietary upon receipt of a letter from the Director stating that such information is necessary to respond to a spill or release of a Chemical Product or a complaint from a landowner regarding impacts to health, safety, welfare, or the environment. Upon receipt of a written statement of necessity, information regarding the chemical constituents contained in a proprietary Chemical Product shall be disclosed by the vendor or service provider directly to the Commission's Environmental Manager or his or her designee.</p> <p>The Environmental Manager or designee may disclose information regarding those chemical constituents to additional Commission staff members to the extent that such disclosure is necessary in order to allow the Commission staff member receiving the information to assist in responding to a spill, release or complaint, provided that such individuals shall not disseminate the information further. In addition, the Environmental Manager may disclose information regarding those chemical constituents to any Commissioner, or to CDPHE's Director of Environmental Programs upon request by that individual. Any information so disclosed to the Environmental Manager, a Commission staff member, any Commissioner or to CDPHE's Director of Environmental Programs shall at all times be considered confidential and shall not become part of the Chemical Inventory nor shall it be construed as publicly available. CDPHE's Director of Environmental Programs, or his or her designee, may disclose information regarding the chemical constituents contained in a proprietary Chemical Product to CDPHE staff members under the same terms and conditions as apply to the Commission's Environmental Manager.</p>	<p>Where the composition of a Chemical Product is considered a Trade Secret by the vendor or service provider, Operators shall only be required to maintain the identity of the Trade Secret Chemical Product and shall not be required to maintain information concerning the identity of chemical constituents in a Trade Secret Chemical Product or the amounts of such constituents. The vendor or service provider shall provide to the Commission a list of the chemical constituents contained in a Trade Secret Chemical Product upon receipt of a letter from the Director stating that such information is necessary to respond to a spill or release of a Trade Secret Chemical Product or a complaint from a potentially adversely affected landowner regarding impacts to public health, safety, welfare, or the environment. Upon receipt of a written statement of necessity, information regarding the chemical constituents contained in a Trade Secret Chemical Product shall be disclosed by the vendor or service provider directly to the Director or his or her designee.</p> <p>The Director or designee may disclose information regarding those chemical constituents to additional Commission staff members to the extent that such disclosure is necessary to allow the Commission staff member receiving the information to assist in responding to the spill, release, or complaint, provided that such individuals shall not disseminate the information further. In addition, the Director may disclose information regarding those chemical constituents to any Commissioner, the relevant County Public Health Director or Emergency Manager, or to the Colorado Department of Public Health and Environment's Director of Environmental Programs upon request by that individual. Any information so disclosed to the Director, a Commission staff member, a Commissioner, a County Public Health Director or Emergency Manager, or to the Colorado Department of Public Health and Environment's Director of Environmental Programs shall at all times be considered confidential and shall not become part of the Chemical Inventory, nor shall it be construed as publicly available. The Colorado Department of Public Health and Environment's Director of Environmental Programs, or his or her designee, may disclose information regarding the chemical constituents contained in a Trade Secret Chemical Product to Colorado Department of Public Health and Environment staff members under the same terms and conditions as apply to the Director.</p>
<p>The vendor or service provider shall also provide the chemical constituents of a Chemical Product to any health professional who requests such information in writing if the health professional provides a written statement of need for the information and a written confidentiality agreement. The written statement of need shall be a statement that the health professional has a reasonable basis to believe that (1) the information is needed for purposes of diagnosis or treatment of an individual, (2) the individual being diagnosed or treated has been exposed to the chemical concerned, and (3)</p>	<p>The vendor or service provider shall also provide the chemical constituents of a Trade Secret Chemical Product to any health professional who requests such information in writing if the health professional provides a written statement of need for the information and executes a Confidentiality Agreement, Form 35. The written statement of need shall be a statement that the health professional has a reasonable basis to believe that (1) the information is needed for purposes of diagnosis or treatment of an individual, (2) the individual being diagnosed or treated may have</p>



Rule 205: Chemical inventory

knowledge of the chemical constituents of such proprietary Chemical Product will assist in such diagnosis or treatment. The confidentiality agreement shall state that the health professional shall not use the information for purposes other than the health needs asserted in the statement of need and that the health professional shall otherwise maintain the information as confidential. Where a health professional determines that a medical emergency exists and the chemical constituents of a proprietary Chemical Product are necessary for emergency treatment, the vendor or service provider shall immediately disclose the chemical constituents of a proprietary Chemical Product to that health professional upon a verbal acknowledgement by the health professional that such information shall not be used for purposes other than the health needs asserted and that the health professional shall otherwise maintain the information as confidential. The vendor or service provider may request a written statement of need, and a confidentiality agreement from all health professionals to whom information regarding the chemical constituents was disclosed, as soon as circumstances permit. Information so disclosed to a health professional shall not become part of the Chemical Inventory and shall in no way be construed as publicly available.

been exposed to the chemical concerned, and (3) knowledge of the chemical constituents of such Trade Secret Chemical Product will assist in such diagnosis or treatment. The Confidentiality Agreement, Form 35, shall state that the health professional shall not use the information for purposes other than the health needs asserted in the statement of need, and that the health professional shall otherwise maintain the information as confidential. Where a health professional determines that a medical emergency exists and the chemical constituents of a Trade Secret Chemical Product are necessary for emergency treatment, the vendor or service provider shall immediately disclose the chemical constituents of a Trade Secret Chemical Product to that health professional upon a verbal acknowledgement by the health professional that such information shall not be used for purposes other than the health needs asserted and that the health professional shall otherwise maintain the information as confidential. The vendor or service provider may request a written statement of need, and a Confidentiality Agreement, Form 35, from all health professionals to whom information regarding the chemical constituents was disclosed, as soon as circumstances permit. Information so disclosed to a health professional shall not become part of the Chemical Inventory and shall in no way be construed as publicly available.

Such books, records, inventories, and copies of said reports required by the Commission or the Director shall be kept on file and available for inspection by the Commission for a period of at least five years except for the Chemical Inventory, which shall be kept on file and available for inspection by the Commission for the life of the applicable oil and gas well and for five (5) years after plugging and abandonment. Upon the Director's written request for information required to be maintained or provided under this section, the record-keeping entity or third-party vendor shall supply the Commission with the requested information within three (3) business days in a format readily-reviewable by the Commission, except in the instance where such information is necessary to administer emergency medical treatment in which case such information shall be provided as soon as possible. Information provided to the Commission under this section that is entitled to protection under state or federal law, including C.R.S. § 24-72-204, as a trade secret, privileged information, or confidential commercial, financial, geological, or geophysical data shall be kept confidential and protected against public disclosure unless otherwise required, permitted, or authorized by other state or federal law. Any disclosure of information entitled to protection under any state or federal law made pursuant to this section shall be made only to the persons required, permitted, or authorized to receive such information under state or federal law in order to assist in the response to a spill, release or complaint and shall be made subject to a requirement that the person receiving such information maintain the confidentiality of said information. The Commission shall notify the owner, holder, or beneficiary of any such protected information at least one business day prior to any required, permitted, or authorized disclosure. This notification shall include the name and contact information of the intended recipient of such protected information, the reason for the disclosure, and the state or federal law authorizing the disclosure. Information so disclosed shall not become part of the Chemical Inventory and shall in no way be construed as publicly available.

Such books, records, inventories, and copies of said reports required by the Commission or the Director shall be kept on file and available for inspection by the Commission for a period of at least five years except for the Chemical Inventory, which shall be kept on file and available for inspection by the Commission for the life of the applicable oil and gas well or oil and gas location and for five (5) years after plugging and abandonment. Upon the Commission's or the Director's written request for information required to be maintained or provided under this section, the record-keeping entity or third-party vendor shall supply the Commission or the Director with the requested information within three (3) business days in a format readily-reviewable by the Commission or the Director, except in the instance where such information is necessary to administer emergency medical treatment in which case such information shall be provided as soon as possible. Information provided to the Commission or the Director under this section that is entitled to protection under state or federal law, including C.R.S. § 24-72-204, as a trade secret, privileged information, or confidential commercial, financial, geological, or geophysical data shall be kept confidential and protected against public disclosure unless otherwise required, permitted, or authorized by other state or federal law. Any disclosure of information entitled to protection under any state or federal law made pursuant to this section shall be made only to the persons required, permitted, or authorized to receive such information under state or federal law in order to assist in the response to a spill, release, or complaint and shall be subject to a requirement that the person receiving such information maintain the confidentiality of said information. The Commission or the Director shall notify the owner, holder, or beneficiary of any such protected information at least one (1) business day prior to any required, permitted, or authorized disclosure. This notification shall include the name and contact information of the intended recipient of such protected information, the reason for the disclosure, and the state or federal law authorizing the disclosure. Information so disclosed shall not become part of the Chemical Inventory and shall in no way be construed as publicly available.

The Director and the authorized deputies shall have access to all well records wherever located. All owners, drilling contractors, drillers, service companies, or other persons engaged in drilling or servicing wells, shall permit the Director, or authorized deputy, at the Director's or their risk, in the absence of negligence on the part of the owner, to come upon any lease, property or well operated

The Director and the authorized deputies shall have access to all well records wherever located. All operators, drilling contractors, drillers, service companies, or other persons engaged in drilling or servicing wells, shall permit the Director, or authorized deputy, at the Director's or their risk, in the absence of negligence on the part of the owner, to come upon any lease, property, or well operated

Evolution of COGCC Rule 205: Access to Records & Chemical Inventory



Rule 205: Chemical inventory

or controlled by them, and to inspect the record and operation of such wells and to have access at all times to any and all records of wells; provided, that information so obtained shall be kept confidential and shall be reported only to the Commission or its authorized agents.	or controlled by them, and to inspect the record and operation of such wells and to have access at all times to any and all records of wells; provided, that information so obtained shall be kept confidential and shall be reported only to the Commission or its authorized agents.
N/A	In the event that the vendor or service provider does not provide the information required by Rules 205.d, 205.e, or 205.f directly to the Commission or a health professional, the operator is responsible for providing the required information.
N/A	In the event the operator establishes to the satisfaction of the Director that it lacks the right to obtain the information required by Rules 205.d, 205.e, or 205.f and to provide it directly to the Commission or a health professional, the operator shall receive a variance from these rule provisions from the Director.



Rule 317b: Water supply protection



Evolution of Rule 317B: Protection of Public Water Supplies

On July 7, 2008, the Colorado Oil and Gas Conservation Commission (COGCC) invited stakeholder groups to submit alternative rule language in response to staff's Draft Rules and amendments. Thirty-one oil and gas companies jointly submitted a response that included alternative language for a variety of rules -- much of which was incorporated into the final amendments adopted by the COGCC by unanimous vote on December 11, 2008. The following chart contains the joint industry proposal for Rule 317B for protection of public water supplies, and the Final Amended Rule adopted by the COGCC. Highlighted language appears in identical form in both the industry submittal and in the final COGCC rule.

Industry Proposal (July 30, 2008)	Final Amended Rule (Dec. 11, 2008)
<p>DEFINITIONS:</p> <p>CLASSIFIED WATER SUPPLY SEGMENT shall mean perennial or intermittent streams, which are surface waters classified as being suitable or intended to become suitable for potable water supplies by the Colorado Water Quality Control Commission, pursuant to the Basic Standards and Methodologies for Surface Water Regulations (5 C.C.R. 1002-31), except any surface waters which are in ditches or in any other manmade conveyance structure.</p> <p>ORDINARY HIGH-WATER LINE shall mean the line that water impresses on the land by covering it for sufficient periods to cause physical characteristics that distinguish the area below the line from the area above it. Characteristics of the area below the line include, when appropriate, but are not limited to deprivation of the soil of substantially all terrestrial vegetation and destruction of its agricultural vegetative value. A flood plain adjacent to surface waters is not considered to lie within the surface water's high-water marks.</p> <p>PUBLIC WATER SYSTEM shall mean a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least 60 days out of the year. The term "Public Water System" for purposes of this 317B does not include any "special irrigation district" as defined in Colorado Primary Drinking Water Regulations (5 C.C.R. 1003-1), groundwater wells, aquifers, springs or seeps.</p> <p>SURFACE WATER SUPPLY AREA shall mean the Classified Water Supply Segments five (5) stream miles upstream of a Surface Water Intake on a Classified Water Supply Segment. Surface Water Supply Areas shall be identified on the Public Water System Surface Water Supply Area Map or through use of the Public Water System Surface Water Supply Area Applicability Determination Tool described in 317B.a.</p> <p>SURFACE WATER INTAKE shall mean the plant intake of a Public Water System, which shall be the works or structures at the head of a conduit, through which surface water from a source approved by the Colorado Water Quality Control Commission for drinking water supply is diverted from a</p>	<p>DEFINITIONS:</p> <p>CLASSIFIED WATER SUPPLY SEGMENT shall mean perennial or intermittent streams, which are surface waters classified as being suitable or intended to become suitable for potable water supplies by the Colorado Water Quality Control Commission, pursuant to the Basic Standards and Methodologies for Surface Water Regulations (5 C.C.R. 1002-31).</p> <p>ORDINARY HIGH-WATER LINE shall mean the line that water impresses on the land by covering it for sufficient periods to cause physical characteristics that distinguish the area below the line from the area above it. Characteristics of the area below the line include, when appropriate, but are not limited to, deprivation of the soil of substantially all terrestrial vegetation and destruction of its agricultural vegetative value. A flood plain adjacent to surface waters is not considered to lie within the surface waters' ordinary high-water line.</p> <p>PUBLIC WATER SYSTEM shall mean those systems listed in Appendix VI to these Rules. These systems provide to the public water for human consumption through pipes or other constructed conveyances, if such systems have at least fifteen (15) service connections or regularly serve an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such definition includes:</p> <ul style="list-style-type: none"> (i) Any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system. (ii) Any collection or pretreatment storage facilities not under such control, which are used primarily in connection with such system. <p>The definition of "Public Water System" for purposes of Rule 317B does not include any "special irrigation district," as defined in Colorado Primary Drinking Water Regulations (5 C.C.R. 1003.1).</p> <p>SURFACE WATER INTAKE shall mean the works or structures at the head of a conduit through which water is diverted from a classified water supply segment and/or source (e.g., river or lake) into the treatment plant.</p> <p>SURFACE WATER SUPPLY AREA shall mean the classified water supply segments within five (5) stream miles upstream of a surface water intake on a classified water supply segment. Surface</p>

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<p>Classified Water Supply Segment into the treatment facilities.</p>	<p>Water Supply Areas shall be identified on the Public Water System Surface Water Supply Area Map or through use of the Public Water System Surface Water Supply Area Applicability Determination Tool described in Rule 317B.b.</p>
<p>Definitions. For purposes of this Rule 317B only, the following definitions shall apply:</p> <p>DRILLING COMPLETION PRODUCTION AND STORAGE ("DCPS") OPERATIONS shall mean operations at (1) well sites for the drilling and completion of wells or chemical and production fluid storage and (ii) any other oil and gas location at which production facilities are operated. DCPS Operations shall exclude roads, gathering lines, pipelines, and routine operations and maintenance.</p> <p>EXISTING OIL AND GAS LOCATION shall mean an oil and gas location, excluding roads, pipelines and gathering lines, permitted or constructed prior to the later of the effective date of Rule 317B or the date that the oil and gas location becomes subject to Rule 317B by virtue of its proximity to a Classified Surface Water Supply Segment.</p> <p>NEW OIL AND GAS LOCATION shall mean an oil and gas location, excluding roads, pipelines and gathering lines, that is not an existing oil and gas location.</p> <p>NEW SURFACE DISTURBANCE shall mean surface disturbance that expands the area of surface covered by an oil and gas location beyond that initially disturbed in the construction of the oil and gas location.</p>	<p>a. Definitions. For purposes of this Rule 317B:</p> <p>(1) Drilling, Completion, Production and Storage ("DCPS") Operations shall mean operations at (i) well sites for the drilling, completion, recompletion, workover, or stimulation of wells or chemical and production fluid storage, and (ii) any other oil and gas location at which production facilities are operated. DCPS Operations shall exclude roads, gathering lines, pipelines, and routine operations and maintenance.</p> <p>(2) Existing Oil and Gas Location shall mean an oil and gas location, excluding roads, pipelines, and gathering lines, permitted or constructed prior to the later of May 1, 2009 for federal land or April 1, 2009 for all other land or the date that the oil and gas location becomes subject to Rule 317B by virtue of its proximity to a Classified Water Supply Segment.</p> <p>(3) New Oil and Gas Location shall mean an oil and gas location, excluding roads, pipelines, and gathering lines, that is not an existing oil and gas location.</p> <p>(4) New Surface Disturbance shall mean surface disturbance that expands the area of surface covered by an oil and gas location beyond that initially disturbed in the construction of the oil and gas location.</p> <p>(5) Non-Exempt Linear Feature shall mean a road, gathering line, or pipeline that is not necessary to cross a stream or connect or access a well or a gathering line.</p>
<p>a. Applicability Determination.</p> <p>Rule 317B is applicable to DCPS Operations within Surface Water Supply Areas. The applicability of Rules 317B.b and 317B.c will be determined by reviewing the Public Water System Surface Water Supply Area Map, located on the Commission website or by entering the longitude and latitude coordinates into the Public Water System Surface Water Supply Area Applicability Determination Tool, also located on the Commission website. Prior to the effective date of this Rule 317B, the Commission, with assistance from CDPHE, shall ensure the accuracy and completeness of the Public Water System Surface Water Supply Area Map and the Public Water System Surface Water Supply Area Applicability Determination Tool by soliciting information, including location of surface water intakes and classified water supply segments, from operators across the state. After the effective date of this Rule 317B, the Public Water System Source Water Supply Area Map and the Public Water System Surface Water Supply Area Applicability Determination Tool shall not be revised unless and until the Commission undertakes a rulemaking.</p> <p>DCPS Operations at New Oil and Gas Locations within a Surface Water Supply Area will be subject to the requirements in Rule 317B.b based on the zones defined in Table 1 below. DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area at which no new surface disturbance has occurred after the date Rule 317B became applicable to that oil and gas location will be subject to the requirements in Rule 317B.c(1) based on the zones defined in Table 1 below. DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area at which new surface disturbance has occurred after the date Rule 317B became applicable to that oil and gas location will be subject to the requirements in Rule 317B.c(2) based on the zones defined in Table 1 below.</p>	<p>b. Applicability Determination.</p> <p>(1) Rule 317B is applicable to DCPS Operations within Surface Water Supply Areas. The applicability of Rule 317B will be determined by reviewing the Public Water System Surface Water Supply Area Map, attached as part of Appendix VI, or by entering information into the Public Water System Surface Water Supply Area Applicability Determination Tool, also located on the Commission website.</p> <p>(2) The Public Water Systems subject to the protections of this Rule 317B are those listed in Appendix VI. Any additions or deletions to the Public Water Systems listed in Appendix VI or the Public Water System Surface Water Supply Area Map, also located in Appendix VI, shall be by Commission rulemaking, as provided in Rule 529.</p> <p>(3) DCPS Operations at New Oil and Gas Locations within a Surface Water Supply Area will be subject to the requirements in Rules 317B.c, 317B.d, or 317B.e based on the buffer zones defined in Table 1, below. DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area at which no new surface disturbance has occurred after the date Rule 317B became applicable to that oil and gas location will be subject to the requirements in Rule 317B.f(1) based on the buffer zones defined in Table 1. DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area at which new surface disturbance has occurred after the date Rule 317B became applicable to that oil and gas location will be subject to the requirements in Rule 317B.f(2) based on the buffer zones defined in Table 1.</p> <p>(4) For Classified Water Supply Segments that are perennial and intermittent streams, buffer zones shall be determined by measuring from the ordinary high water line of each bank to the near edge of the disturbed area at the oil and gas location at which the DCPS Operations will</p>

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For Classified Water Supply Segments that are perennial and intermittent streams, buffer zones shall be determined by measuring from the ordinary high waterline of each bank to the near edge of the disturbed area at the oil and gas location at which DCPS Operations will occur.

If the disturbed area of an oil and gas location at which DCPS Operations will be conducted is located at least 200 feet from the Classified Water Supply Segment (as measured above) and the well head is located at least 300 feet from the Classified Water Supply Segment, then the DCPS Operation shall be considered to be in the Intermediate Buffer Zone so long as no DCPS Operation, including storage activities, are located within 300 feet of the Classified Water Supply Segment.

The buffer zones shall apply only to DCPS Operations located on the surface. The buffer zones shall not apply to subsurface boreholes and equipment or materials contained therein. The buffer zones shall not apply to DCPS Operations located in an area that does not drain to a classified water supply segment protected by this Rule 317B.

Table 1. Buffer Zones Associated with DCPS Operations

Zone	Classified Water Supply Segments (ft)
Internal Buffer	0 - 300
Intermediate Buffer	300 - 500
External Buffer	500 - 2,640

occur.

- (5) The buffer zones shall apply only to DCPS Operations located on the surface. The buffer zones shall not apply to subsurface boreholes and equipment or materials contained therein. The buffer zones shall not apply to DCPS Operations located in an area that does not drain to a classified water supply segment protected by this Rule 317B.

TABLE 1. Buffer Zones Associated with DCPS Operations.

Zone	Classified Water Supply Segments (ft)
Internal Buffer	0 - 300
Intermediate Buffer	301 - 500
External Buffer	501 - 2,640

b. DCPS Operations Conducted at New Oil and Gas Locations in Surface Water Supply Area(s).

(1) **Requirements for DCPS Operations Conducted at New Oil and Gas Locations in the Internal Buffer Zone.**

- A. DCPS Operations conducted at New Oil and Gas Locations within a Surface Water Supply Area may not be conducted in whole or in part within the Internal Buffer Zone identified in Table 1 until consultation has occurred pursuant to Rules 306.d and a Form 2A or Form 2 with appropriate conditions of approval has been approved, or the Director has accepted a Comprehensive Drilling Plan developed pursuant to Rule 216 that covers the DCPS Operation. In determining appropriate conditions of approval for such DCPS Operations, the Director shall consider the extent to which such conditions of approval are reasonably required to prevent harm to the Public Water System.
- B. The Director shall not deny approval of a Form 2A, Form 2 and shall not deny acceptance of a Comprehensive Drilling Plan on the basis of Rule 317B solely by reason of conducting the construction or commencement of DCPS Operations at a New Oil and Gas Location within the Internal Buffer Zone if:
- the proposed DCPS Operation and/or operator-proposed conditions of approval will result in adequate protection of Public Water System; or
 - conducting the DCPS Operation outside the Internal Buffer Zone would pose a greater risk to public health, safety, or welfare, including the environment and wildlife resources, such as in the case where conducting the DCPS Operation outside the Internal Buffer Zone would require construction in steep or erosion prone terrain or would result in greater surface disturbance due to an inability to use infrastructure already constructed such as roads, well sites, or pipelines; or

c. **Requirements for DCPS Operations Conducted at New Oil and Gas Locations in the Internal Buffer Zone.**

DCPS Operations conducted and Non-Exempt Linear Features located at New Oil and Gas Locations within a Surface Water Supply Area may not occur in whole or in part within the Internal Buffer Zone identified in Table 1 unless a variance is granted pursuant to Rule 502.b and consultation with the Colorado Department of Public Health and Environment occurs pursuant to Rule 306.d and a Form 2A or Form 2 with appropriate conditions of approval has been approved, or the Director has approved a Comprehensive Drilling Plan pursuant to Rule 216 that covers the operation. In determining appropriate conditions of approval for such operations, the Director shall consider the extent to which the conditions of approval are required to prevent impacts to the Public Water System.

- (1) The Commission shall grant a variance if the operator demonstrates that:
- The proposed DCPS Operations and applicable best management practices and operating procedures will result in substantially equivalent protection of drinking water quality in the Surface Water Supply area; and
 - Either:
 - Conducting the DCPS Operation outside the Internal Buffer Zone would pose a greater risk to public health, safety, or welfare, including the environment and wildlife resources, such as may be the case where conducting the DCPS Operations outside the Internal Buffer Zone would require construction in steep or erosion-prone terrain or result in greater surface disturbance due to an inability to use infrastructure already constructed such as roads, well sites, or pipelines; or
 - Conducting DCPS Operations beyond the Internal Buffer Zone is technically infeasible and

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- iii. location of the DCPS Operations at a New Oil and Gas Location outside the Internal Buffer Zone would not permit the cost-effective or technically-feasible recovery of the oil and gas resource; or
- iv. the operator cannot reasonably locate the DCPS Operations at a New Oil and Gas Location outside the Internal Buffer Zone in light of legal, contractual, regulatory, topographical, or surface owner restrictions and any other relevant considerations (e.g., safety).

At a minimum, for any DCPS Operation at a New Oil and Gas Location within the Internal Buffer Zone, the Director shall include as conditions of approval in the Form 2A, Form 2 or the Comprehensive Drilling Plan, the requirements in 317B.b(2).

(2) Requirements for DCPS Operations at New Oil and Gas Locations within the Intermediate Buffer Zone.

The following shall be required for all DCPS Operations at New Oil and Gas Locations within a Surface Water Supply Area and in the Intermediate Buffer Zone as defined in Table 1:

- A. Pitless drilling systems;
- B. Flowback and stimulation fluids contained within tanks that are placed on a well pad or in an area with downgradient perimeter berming;
- C. Berms or other containment devices shall be constructed in compliance with Rule 603.e.(12) around all crude oil, condensate, and produced water storage tanks; and
- D. When sufficient water exists in a Classified Water Supply Segment, collection of baseline water data consisting of a pre-drilling surface water sample collected immediately downgradient of the oil and gas location and follow-up surface water data consisting of a sample collected at the same location three (3) months after the conclusion of any drilling or completion. The sample parameters must include:
 - a. pH;
 - b. Alkalinity;
 - c. Specific conductance;
 - d. Major cations/anions (chloride, fluoride, sulfate, sodium);
 - e. Total dissolved solids;
 - f. BTEX/GRO/DRO;
 - g. TPH;
 - h. PAH's (including benzo(a)pyrene); and
 - i. Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium).Current applicable, EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or national accreditation programs. Copies of all test results described above shall be provided to the Commission and the operator of the potentially impacted Public Water System within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.
- E. An emergency spill response program that includes: employee training, safety and maintenance provisions, and current contact information for any downstream Public Water System(s) with intake(s) within five stream miles downstream of the oil and gas operation.
- F. In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the described emergency spill response program. If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the operator(s) of affected or potentially affected Public Water System(s) immediately following discovery of

prevents the operator from exercising its mineral rights.

- (2) At a minimum, for any DCPS Operation at a New Oil and Gas Location within the Internal Buffer Zone, the Director shall include as conditions of approval in the Form 2A, Form 2, or Comprehensive Drilling Plan, the requirements of Rule 317B.d.

d. Requirements for DCPS Operations at New Oil and Gas Locations in the Intermediate Buffer Zone.

The following shall be required for all DCPS Operations at New Oil and Gas Locations within a Surface Water Supply Area and in the Intermediate Buffer Zone as defined in Table 1.

- (1) Pitless drilling systems;
- (2) Flowback and stimulation fluids contained within tanks that are placed on a well pad or in an area with downgradient perimeter berming;
- (3) Berms or other containment devices shall be constructed in compliance with Rule 603.e.(12) around crude oil, condensate, and produced water storage tanks; and
- (4) When sufficient water exists in the Classified Water Supply Segment, collection of baseline surface water data consisting of a pre-drilling surface water sample collected immediately downgradient of the oil and gas location and follow-up surface water data consisting of a sample collected at the same location three (3) months after the conclusion of any drilling activities and operations or completion. The sample parameters shall include:
 - A. pH;
 - B. Alkalinity;
 - C. Specific conductance;
 - D. Major cations/anions (chloride, fluoride, sulfate, sodium);
 - E. Total dissolved solids;
 - F. BTEX/GRO/DRO;
 - G. TPH;
 - H. PAH's (including benzo(a)pyrene); and
 - I. Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium).Current applicable EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or nationally accredited programs. Copies of all test results described above shall be provided to the Commission and the potentially impacted Public Water System(s) within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.
- (5) Notification of potentially impacted Public Water Systems within fifteen (15) stream miles downstream of the DCPS Operation prior to commencement of new surface disturbing activities at the site.
- (6) An emergency spill response program that includes employee training, safety, and maintenance provisions and current contact information for downstream Public Water System(s) located within fifteen (15) stream miles of the DCPS Operation, as well as the ability to notify any such downstream Public Water System(s) with intake(s) within fifteen (15) stream miles downstream of the DCPS operations. In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the above-described emergency response program. If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the affected or potentially affected Public Water System(s) immediately following



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<p>the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).</p> <p>(3) Requirements for DCPS Operations at New Oil and Gas Locations within the External Buffer Zone.</p> <p>The following shall be required when DCPS Operations are conducted at New Oil and Gas Locations within a Surface Water Supply Area and in the External Buffer Zone as defined in Table 1:</p> <p>A. Pitless drilling systems or containment of all drilling flowback and stimulation fluids as provided in Rule 904; and</p> <p>B. When sufficient water exists in a Classified Water Supply Segment, collection of baseline surface water data consisting of a pre-drilling surface water sample collected immediately downgradient of the oil and gas location and follow-up surface water data consisting of a sample collected at the same location three (3) months after the conclusion of any drilling or completion activities. The sample parameters must include:</p> <ol style="list-style-type: none"> pH; Alkalinity; Specific conductance; Major cations/anions (chloride, fluoride, sulfate, sodium); Total dissolved solids; BTEX/GRO/DRO; TPH; PAH's (including benzo(a)pyrene); and Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). <p>Current applicable, EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or national accreditation programs.</p> <p>Copies of all test results described above shall be provided to the Commission and the operator of the potentially impacted Public Water System within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.</p> <p>C. An emergency spill response program that includes: employee training, safety and maintenance provisions, and current contact information for any downstream Public Water System(s) with intake(s) within five stream miles downstream of the oil and gas operation. In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the described emergency spill response program.</p> <p>If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the operator(s) of affected or potentially affected Public Water System(s) immediately following discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).</p>	<p>discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).</p> <p>e. Requirements for DCPS Operations at New Oil and Gas Locations within the External Buffer Zone.</p> <p>The following shall be required when DCPS Operations are conducted at New Oil and Gas Locations within a Surface Water Supply Area and in the External Buffer Zone as defined in Table 1.</p> <p>(1) Pitless drilling systems or containment of all drilling flowback and stimulation fluids pursuant to Rule 904; and</p> <p>(2) When sufficient water exists in the Classified Water Supply Segment, collection of baseline surface water data consisting of a pre-drilling surface water sample collected immediately downgradient of the oil and gas location and follow-up surface water data consisting of a sample collected at the same location three (3) months after the conclusion of any drilling activities and operations or completion. The sample parameters shall include:</p> <ol style="list-style-type: none"> pH; Alkalinity; Specific conductance; Major cations/anions (chloride, fluoride, sulfate, sodium); Total dissolved solids; BTEX/GRO/DRO; TPH; PAH's (including benzo(a)pyrene); and Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). <p>Current applicable EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or nationally accredited programs.</p> <p>Copies of all test results described above shall be provided to the Commission and the potentially impacted Public Water System(s) within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.</p> <p>(3) Notification of potentially impacted Public Water Systems within fifteen (15) stream miles downstream of the DCPS Operation prior to commencement of new surface disturbing activities at the site.</p> <p>(4) An emergency spill response program that includes employee training, safety, and maintenance provisions and current contact information for downstream Public Water System(s) located within fifteen (15) stream miles of the DCPS Operation, as well as the ability to notify any such downstream Public Water System(s) with intake(s) within fifteen (15) stream miles downstream of the DCPS operations.</p> <p>In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the above-described emergency response program.</p> <p>If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the affected or potentially affected Public Water System(s) immediately following discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).</p>
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<p>c. DCPS Operations at Existing Oil and Gas Locations.</p> <p>(1) Existing Oil and Gas Locations and DCPS Operations at Existing Oil and Gas Locations in Surface Water Supply Areas and within zones specified in Table 1 shall be subject to the following requirements instead of the requirements of Rule 317B.b, provided that no new surface disturbance at the Existing Oil and Gas Location occurs after the later of the effective date of Rule 317B or the date Rule 317B became applicable to the oil and gas location.</p> <p>A. Collection of surface water data from a Classified Water Supply Segment consisting of a sample collected immediately downgradient of the oil and gas operation will occur by the later of May 1, 2009, within six months of the date Rule 317B became applicable to the oil and gas location, or when sufficient water exists in the stream. The sample parameters must include:</p> <ol style="list-style-type: none"> pH; Alkalinity; Specific conductance; Major cations/anions (chloride, fluoride, sulfate, sodium); Total dissolved solids; BTEX/GRO/DRO; TPH; PAH's (including benzo(a)pyrene); and Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). <p>Current applicable, EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or national accreditation programs.</p> <p>Copies of all test results described above shall be provided to the Commission and the operator of the potentially impacted Public Water System within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.</p> <p>B. An emergency spill response program that includes: employee training, safety and maintenance provisions, and current contact information for any downstream Public Water System(s) with intake(s) within five stream miles downstream of the oil and gas operation. In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the described emergency spill response program.</p> <p>If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the operator(s) of affected or potentially affected Public Water System(s) immediately following discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).</p> <p>C. Existing best management practices will be maintained. If a spill or release from an Existing Oil and Gas Location or a DCPS Operation at an Existing Oil and Gas Location impacts a Surface Water Intake or if an inspection identifies a potential threat to the Surface Water Intake, then the Director may require additional appropriate best management practices to protect the Surface Water Intake.</p> <p>(2) DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area for which new surface disturbance occurs after the date Rule 317B becomes effective at or applicable to the oil and gas location within the zones specified in Table 1 shall be subject to the</p>	<p>f. Requirements for DCPS Operations at Existing Oil and Gas Locations.</p> <p>(1) Existing Oil and Gas Locations and DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area and within zones specified in Table 1 shall be subject to the following requirements instead of the requirements of Rules 317B.c, 317B.d, or 317B.e provided that no new surface disturbance at the Existing Oil and Gas Location occurs after the later of May 1, 2009 for federal land or April 1, 2009 for all other land or the date Rule 317B became applicable to the oil and gas location:</p> <p>A. Collection of surface water data from a Classified Water Supply Segment consisting of a sample collected immediately downgradient of the oil and gas operation will occur by the latest of June 1, 2009, within six (6) months after the date Rule 317B became applicable to the oil and gas location, or when sufficient water exists in the stream:</p> <ol style="list-style-type: none"> pH; Alkalinity; Specific conductance; Major cations/anions (chloride, fluoride, sulfate, sodium); Total dissolved solids; BTEX/GRO/DRO; TPH; PAH's (including benzo(a)pyrene); and Metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). <p>Current applicable EPA-approved analytical methods for drinking water must be used and analyses must be performed by laboratories that maintain state or nationally accredited programs.</p> <p>Copies of all test results described above shall be provided to the Commission and the potentially impacted Public Water System(s) within three (3) months of collecting the samples. In addition, the analytical results and surveyed sample locations shall be submitted to the Commission in an electronic data deliverable format.</p> <p>B. An emergency spill response program that includes employee training, safety, and maintenance provisions and current contact information for downstream Public Water System(s) located within fifteen (15) stream miles of the DCPS Operation, as well as the ability to notify any such downstream Public Water System(s) with intake(s) within fifteen (15) stream miles downstream of the DCPS Operations.</p> <p>In the event of a spill or release, the operator shall immediately implement the emergency response procedures in the above-described emergency response program.</p> <p>If a spill or release impacts or threatens to impact a Public Water System, the operator shall notify the affected or potentially affected Public Water System(s) immediately following discovery of the release, and the spill or release shall be reported to the Commission in accordance with Rule 906.b.(3), and to the Environmental Release/Incident Report Hotline (1-877-518-5608) in accordance with Rule 906.b.(4).</p> <p>C. Operators shall employ and maintain Best Management Practices, as necessary, to comply with this rule.</p> <p>(2) Existing Oil and Gas Locations and DCPS Operations at Existing Oil and Gas Locations within a Surface Water Supply Area and within zones specified in Table 1 for which new surface disturbance occurs on or after the later of May 1, 2009 for federal land or on or after April 1,</p>
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Rule 317b: Water supply protection

<p>requirements of Rule 317B.c.(3) instead of the requirements of Rule 317B.b if the new surface disturbance is addressed in a Comprehensive Drilling Plan accepted pursuant to Rule 216 or if the new surface disturbance is addressed in a Form 2A or Form 2 that has undergone consultation pursuant to Rule 306.d, or if</p> <p>A. The new disturbance from the DCPS Operation will not increase the existing disturbed area any more than reasonably necessary to accommodate the proposed DCPS Operation in a safe and technically feasible manner and would result in less additional surface disturbance than if the DCPS Operation were conducted at a New Oil and Gas Location outside of the buffer; and</p> <p>B. The new surface disturbance occurs in a direction away from the stream or no closer to the stream if moving away from the stream would result in more damaging surface disturbance such as location on a steep slope, in an area of high soil erosion potential, or in a wetland area.</p> <p>(3) Where the provisions of Rule 317B.c.(2) apply, the following zone requirements shall apply:</p> <p>A. For all zones, the requirements of Rule 317B.c.(1)(A) and (B), except that the sampling parameters in Rule 317B.c.(1)A, shall occur no later than six months after commencing the DCPS Operations at the Existing Oil and Gas Location.</p> <p>B. For External and Intermediate Buffer Zones: pitless drilling systems or containment of all drilling, flowback and stimulation fluids as provided in Rule 904;</p> <p>C. For Internal Buffer Zones:</p> <ol style="list-style-type: none"> Pitless drilling systems; Flowback and stimulation fluids contained within tanks and placed on a well pad or in an area with downgradient perimeter berming; Berms shall be constructed in compliance with Rule 603.e.(12) around all crude oil, condensate, and produced water storage tanks; 	<p>2009 for all other land or the date Rule 317B became applicable to the oil and gas location shall be subject to the requirements of Rule 317B.f.(3) instead of the requirements of Rules 317B.c, 317B.d, or 317B.e where the additional new surface disturbance is addressed in a Comprehensive Drilling Plan accepted pursuant to Rule 216, or if:</p> <p>A. The new disturbance from the DCPS Operation will not increase the existing disturbed area prior to interim reclamation by more than one hundred (100) percent up to a maximum of three (3) acres, and</p> <p>B. The new surface disturbance occurs in a direction away from the stream or no closer to the stream if moving away from the stream would result in more damaging surface disturbance such as location on a steep slope, in an area of high soil erosion potential, or in a wetland.</p> <p>(3) Where the provisions of Rule 317B.f.(2) apply, the following zone requirements shall apply:</p> <p>A. For all zones, the requirements of Rule 317B.f.(1), except that the sampling parameters in Rule 317B.f.(1)A shall occur no later than six (6) months after commencing the DCPS Operations at the Existing Oil and Gas Location.</p> <p>B. For External and Intermediate Buffer Zones: pitless drilling systems or containment of drilling, flowback, and stimulation fluids with impervious liners, as provided in Rule 904.</p> <p>C. For Internal Buffer Zones:</p> <ol style="list-style-type: none"> Pitless drilling systems; Flowback and stimulation fluids contained within tanks and placed on a well pad or in an area with downgradient perimeter berming; Berms constructed in compliance with Rule 603.e.(12) around all crude oil, condensate, and produced water tanks; and Notification of potentially impacted Public Water Systems within fifteen (15) stream miles downstream of the DCPS Operation prior to commencement of new surface disturbing activities at the site.
<p>d. Variations. An oil and gas operator may request a variance from any of the requirements provided for in this Rule 317B pursuant to Rule 306(d) or Rule 502(b).</p>	
<p>e. Implementation Guidance.¹ Within 3 months of the effective date of this rule, the Commission staff, in consultation with the Colorado Department of Public Health and the Environment, shall develop implementation guidance, including a list of best management practices that may be used to protect Public Water Systems.</p> <p>¹ The Industry Parties would be willing for language similar to this to be incorporated into the Statement of Basis, Specific Statutory Authority and Purpose as opposed to Rule 317B itself.</p>	



Substantial input also received from:

- Local governments
- Property owners
- Conservation & wildlife groups



Permitting amendments

Greater differentiation between downhole and surface issues

Additional information on surface disturbance based on local conditions

Additional notice and opportunity for comment

Consultation with CDPHE and CDOW in defined circumstances

Form 2: Downhole permit

- Application requirements essentially unchanged

Form 2A: Location assessment; must be approved where:

- Location will disturb more than one acre and is sited in Garfield, Mesa, Gunnison, or Rio Blanco counties
- Consultation with CDPHE/DOW required
- Local government requests consultation



More transparency

Notice & comment:

- Entire Form 2A application to be posted on the COGCC web site
- COGCC to notify the local government of the application
- COGCC to notify the CDPHE and CDOW where consultation with those agencies is triggered.
- Operators to provide notice of permit applications to surface owners within 500 feet of the proposed development.
- Permit applications subject to a 20-day comment period.



Drinking water protection

Rule 317b

Minimizes potential for contamination of public drinking water supplies by oil & gas operations by protecting the surface water source

Establishes Internal, Intermediate and External buffer zones

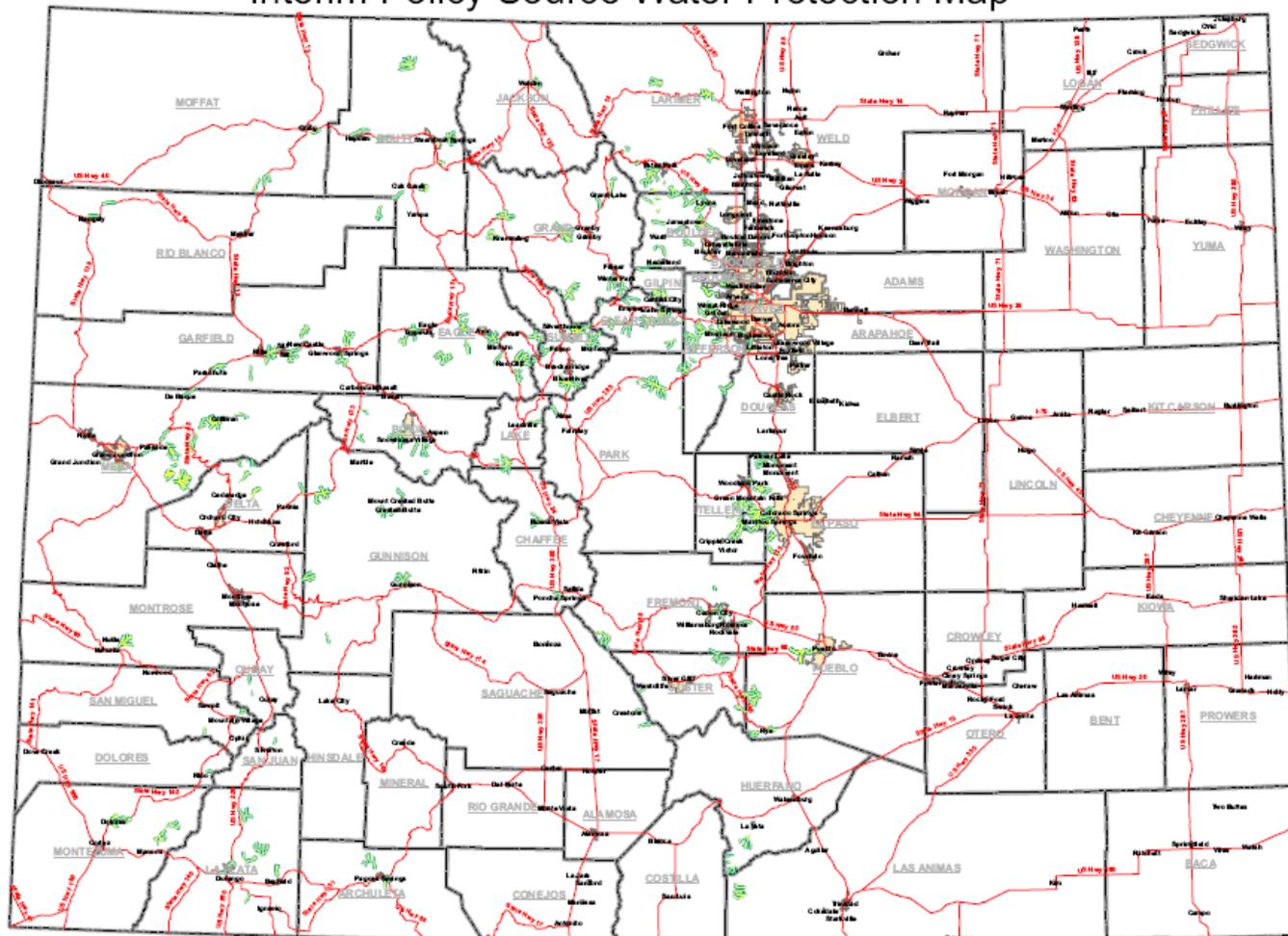
Buffer zones extend 5 miles upstream from public drinking water intake

Applies to surface operations

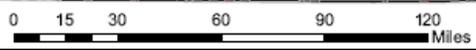
Zone	Distance from ordinary high-water mark
Internal Buffer	0 to 300 feet
Intermediate Buffer	301 to 500 feet
External Buffer	501 to 2,640 feet



Interim Policy Source Water Protection Map



Legend	
	300ft buffer
	500ft buffer
	1/2 mile buffer
	Roads
	Cities
	County Lines



January 1, 2009 version



OIL & GAS CONSERVATION COMMISSION

Chemical inventories

- Operators must maintain adequate records of their operations in Colorado to help state and emergency officials respond to _____ and investigate spills, releases and human exposures to _____ potentially toxic chemicals.
- Inventory by well site for each chemical product in excess of 500 pounds used downhole or stored for use downhole, _____ for each quarterly reporting period. Includes fracking fluids.
- Also required for stored fuel exceeding 500 pounds per quarter.
- Information provided to doctors and emergency responders for aid in patient treatment and/or spill cleanup.



E&P waste

Amended Pit Requirements:

- Additional production and multi-well pits must be lined.
- Lining specifications have been updated.
- Spill reporting requirements have been expanded.
- Soil and ground water standards have been updated.



Odors

Northwest Colorado:

- Condensate, crude oil, and produced water tanks and glycol dehydrators must control air emissions if they could emit more than 5 tons of VOCs annually and are located within ¼ mile of a home, school, or hospital
- Pits that could emit more than 5 tons of VOCs annually cannot be located within ¼ mile of a home, school, or hospital

Statewide:

- Green completion practices are required where feasible



Comprehensive drilling plans

- Incentive to engage in landscape-level planning. Planning ahead will help operators identify efficiencies that will limit costs & avoid unnecessary impacts
- Provides opportunity to assess/mitigate cumulative impacts
- Offers operators opportunity to bundle multiple permit applications with one information submittal
- Individual Form 2As not required if CDP substantially satisfies the informational and procedural requirements for a site assessment
- Site permits covered by a CDP will be good for 6 years, rather than 3
- Operators who complete these comprehensive drilling plans can expect expedited decisions on drilling permits



Multi-year planning certainty with approved CDPs.

Companies Pursuing Comprehensive Drilling Plans (April 2009)

	COMPANY	2008 PERMITS
1	Antero Resources	224
2	Bill Barrett Corporation	195
3	BP America	121
4	Chevron	206
5	ConocoPhillips	71
6	Dejour Energy	-
7	Delta Petroleum	236
8	EnCana	547
9	Energen Resources Corp.	18
10	Exxon/Mobil	211
11	Gunnison Energy **	6
12	Laramie	60
13	Marathon	95
14	Noble	913
15	Orion	94
16	OXY USA	95
17	Petroleum Development Corporation	422
18	Pioneer Natural Resources	238
19	Questar	1
20	SGI Interests	-
21	Williams	912
	TOTAL	4665



Wildlife protections

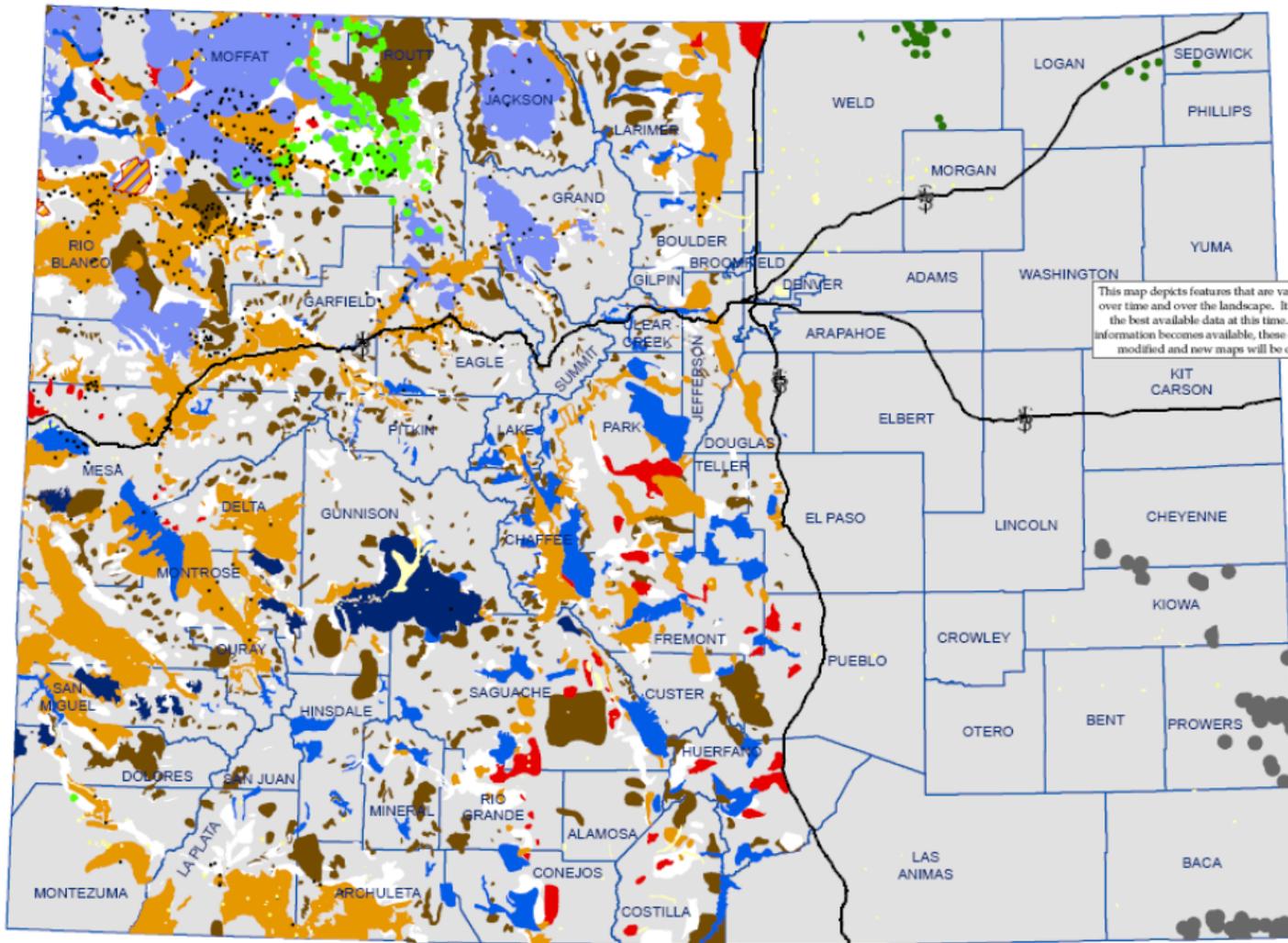
- No section changed more than the proposed wildlife rules
- Mandatory timing restrictions eliminated
- Wildlife survey requirement dropped
- The number of species covered cut by 40%
- Additional flexibility added



Sensitive wildlife habitat

- Consultation between COGCC, operator, DOW & surface owner
- DOW makes recommendations
- COGCC makes decisions





This map depicts features that are variable both over time and over the landscape. It represents the best available data at this time. As new information becomes available, these data will be modified and new maps will be created.

- | | | | | | |
|---|--|-----------------------------------|---|-------------------------------|---|
| Bighorn Sheep Winter Range | Golden Eagle Nest Site | Sensitive Wildlife Habitat | Bald Eagle Active Nest Sites | Bald Eagle Winter Roost Sites | Elk Production Areas |
| Mule Deer Critical Winter Range | Columbian Sharp-Tailed Grouse Production Areas | All Activities | Greater Sage Grouse Production Areas | | Elk Winter Concentration Areas |
| Pronghorn Antelope Winter Concentration Areas | Plains Sharp-Tailed Grouse Production Areas | DRAFT
October 17, 2008 | Gunnison's Sage Grouse Production Areas | | Black-Footed Ferret Release Sites |
| | | | | | Lesser Prairie Chicken Production Areas |



Restricted surface occupancy

- Extremely limited in extent
- ESA listed/delisted/candidates
- Avoid to maximum extent technically & economically feasible
- Can seek to develop alternative mitigation through consultation



Surface owner consent

HB 1298: Surface owners must consent to permit-specific wildlife conditions.

If surface owner does not consent, COGCC will examine alternatives including:

- off-site mitigation
- mitigation banking
- cash in lieu

If surface owner attempts to abuse the right of consent to prevent drilling, COGCC may issue the permit without wildlife mitigation.



Implementation

COGCC is taking steps to ensure the new rules do not deter oil and gas activity

- Grandfathering all permits received by 4/1/09
- Delaying implementation on federal lands
- Increasing staff to speed permitting
- Creating a handbook as an aid to operators
- Conducting training with industry



Colorado's oil and gas rules

- Responsible and balanced
- Comply with legislative directives
- Incorporate substantial industry input into the final language.
- Establish a sustainable framework for industry to grow & flourish.
- We will make certain these rules work.





OIL & GAS CONSERVATION COMMISSION