



Oil & Gas Development Frequently Asked Questions (FAQs)

This Oil & Gas Guide is intended to inform property owners about commonly asked questions regarding the operation of oil and gas facilities on private lands in the City of Greeley. It was prepared by the City of Greeley Community Development Department and it is not intended to provide legal advice.

Questions about oil & gas issues in the City of Greeley may be directed to the Greeley Community Development Department at 970-350-9780, or the Colorado Oil & Gas Conservation Commission at 970-259-1619. There is also a toll free complaint line operated by the COGCC at 888-235-1101.

Greeley's laws governing oil and gas development in the city of Greeley are found in the City's Development Code, Chapter 18.56, which can be found online at www.greeleygov.com and www.greeleygov.com/CityClerk/CityCode.aspx.

1. PROPERTY RIGHTS

Each tract of land contains a set of rights (or "interests") as it relates to use or development. Among those interests are ownership of rights related to the surface, and those to the mineral below the surface of the property. Examples of mineral rights include such resources as oil and gas, as well as sand and gravel; other types of property rights may include water rights or air rights. Such rights can (and often are) "severed" and sold separately. In such cases, the owner of the surface rights may differ from the owner of the mineral rights or the water rights associated with a particular piece of land. Because it is difficult (or impossible) to access minerals once the surface above those minerals is developed, state rules provide certain protections that promote the mineral extraction before surface development occurs. The common use of directional drilling, which drills an underground location from a separate parcel of land, has allowed many previously inaccessible areas to become subject to development once again.

What are the surface owners' rights related to oil and gas extraction?

In general, unless otherwise agreed upon with the mineral owner, the surface owner's (or surface tenant's) rights are limited. Surface owners cannot encroach on the mineral owner's activities or facilities, and may not interfere with the mineral owner's efforts to produce the minerals. However, the mineral owner will typically negotiate a surface use agreement with the surface owner and can only enter the property for the purposes of installing, maintaining, and operating the facilities.

When purchasing property, are the mineral rights included?

Not always. The title commitment, which accompanies a transfer of property, will indicate an exception of mineral rights if they are not included. A mineral certificate can be purchased, which will indicate who owns the mineral rights. It is best to consult an attorney for questions or for specific information.

Are nearby property owners entitled to royalties?

If the minerals of a mineral rights property owner are being developed – even if of a small, urban lot – then some royalty payments are usually made, unless the lease agreement or ownership

provides otherwise. In urban areas where acreages are typically smaller, these rights may be relatively small. Colorado law also allows for property owners' rights to be "pooled" in certain circumstances, so a majority mineral rights owner may be allowed to require participation by a smaller mineral right owner; in these cases, however, that smaller owner is still owed payment.

2. WELL LOCATIONS

How are well locations determined?

The State of Colorado has defined drilling "windows" for each section of land (typically one square mile). Spacing rules for gas wells in each geologic formation vary. Wells drilled into other formations may be spaced at greater densities. Wells must be drilled within the window, unless an exception is granted by the State. Wells may be drilled outside of the window for reasons such as avoiding flood plains, cliffs, or other terrain considerations.

I've heard that cities in the east can limit the number of wells within a square mile. Can Greeley limit the number of wells within the city limits?

The State of Colorado sets the rules for the location and spacing of wells. The number of drilling windows and locations vary by geologic formation, and there are variations from region to region. The area in and around Greeley is within a rich oil and gas reserve known as the "Wattenberg Field" which accounts for the high number of wells drilled in Weld County. In Greeley, within each quarter section of land (160 acres), eight wells can be drilled from five surface locations. This means that if all eight locations are accessed for mineral extraction, at least three of the wells would be drilled "directionally," meaning sharing a surface location with other wells. There are several layers or formations of mineral deposits under the surface of the ground; drilling can occur in any of these formations.

How many oil and gas wells are in Greeley and in the region?

There are nearly 400 active wells within the Greeley city limits. Weld County has over 16,000 wells.

3. APPROVALS TO ALLOW DRILLING

How does drilling approval occur?

In Greeley, all oil and gas drilling must be approved by the Planning Commission under a process called a Use by Special Review. This is a public hearing process and notice is mailed to landowners within 500' of the proposed drilling activity, the property has a sign posted on it and a legal notice is published in the newspaper.

What are the City's drilling requirements?

The City can require certain site improvements, depending upon the location of the well and storage tanks to other structures, roads and geographic areas. Generally speaking, a well and storage tank must be at least 200' away from a habitable building and 150' away from streets. For certain higher impact areas such as assembly buildings (e.g. schools, nursery homes, etc.), oil and gas tanks must typically be set back 500'. There are certain exceptions that can be considered if the intent of the distance separation is achieved in a different way and for low density areas. Depending on the location, the City can impose screening and 'camouflage' requirements to minimize the visual impact of the well and other site equipment. Types of screen fencing and accommodation for wildlife passing through the site can also be addressed.

The City cannot force the co-location of wells nor prohibit the drilling of the wells if the applicant meets all setback and separation requirements. If wells or storage tanks will be located on the surface of the surface owner's property, the oil and gas operator and the landowner should enter into a "surface agreement" to describe how the development and ongoing maintenance

and service of the wells will occur. It may be necessary to set aside an easement on the property to locate an oil and gas pipeline.

Where oil and gas facilities have been developed within the City limits prior to urban development in the area, such as in portions of west Greeley, then new homes and buildings must also meet these setback requirements.

Can the oil and gas operator use my existing road or driveway?

If the operator uses an existing private road or driveway, the operator must pay its share of maintenance. This should be part of the Surface Use Agreement with the operator.

Can I use an access road constructed by the operator?

A land owner must negotiate an agreement with the operator before using their road.

Can the operator install more than one pipeline in an easement?

This depends on the specific language within the easement agreement. Check your property deed to see if this is described in any easements listed. These documents can be found in the County Clerk & Recorder's Office, if it is a recorded easement. If you are working with the operator to describe a new easement, you can limit the number of pipelines in that area if you so choose.

Does the surface owner pay taxes on the property where the well site is located? Does the presence of a gas well affect the assessed valuation of my land?

Yes, the land owner pays taxes on all surface areas of a property, including the well lease site. The assessed valuation of the land may be increased or decreased by the presence of a well, depending on site-specific conditions. This is determined by the county assessor.

How can the surface owner use the land on top of an easement?

This depends on the specific language in the easement agreement. Usually, permanent structures, trees, or shrubs are not allowed in easements.

What is the mandated setback from houses, schools, and public spaces?

As described above, oil and gas facilities must meet local setbacks, as defined in the Greeley Municipal Code, Section 18.56.040. Some types of land uses, such as parks or golf courses, may be designated as an "outdoor activity area" under State regulations; in these instances, larger setbacks may apply.

Do air, noise and visual mitigation requirements apply?

Minimum State regulations exist regarding noise, air quality, and visual impacts. Air quality and emission standards, in particular, are only monitored and governed by the State. Most aspects of potential surface impacts are part of local government regulations.

Has there been a study done on how trucks will impact public roads? Who will pay for the repair work needed on these roads?

Impacts to roads, maintenance of the site, and control of weeds are just some of the potential surface impacts that are regulated through the City's Use by Special Review process. Each case and each site is considered for its unique circumstances. Street damage, for example, might be mitigated by requiring a specific truck route, or by requiring repair work by the oil operator after the road degrades to a certain standard.

Is an Environmental Impact Statement required that would look at potential impacts to water, soil, air, plant life, and wildlife?

Potential environmental effects from proposed oil and gas drilling are managed through a combination of local, state, and federal regulations. In non-urban areas within the City of Greeley, the state Division of Wildlife is consulted on proposed projects so that they can comment on impacts to wildlife; for already urbanized areas, the Division of Wildlife has consistently stated that the impacts are no greater than what already has taken place due to urbanization. In technical terms, an actual Environmental Impact Statement ("EIS") is generally reserved for projects involving federal funds.

Once an oil and gas facility is developed, will the operator manage weeds? How will the City prevent herbicides from running off of the site? What is the mitigation plan for issues such as light pollution and noise pollution?

The Use by Special Review permit granted by the City requires management of the site consistent with City regulations. Weed management, stormwater drainage, lighting standards, and noise limits are all regulated under the Greeley Municipal Code. If a neighbor or the City suspects a violation of these codes, a zoning complaint is investigated and processed through Code Enforcement to ensure compliance.

How will the City regulate air pollution from the dust, vehicles, trucks, compressors, etc.? Who will monitor the pollution?

In general, air monitoring is conducted by the State. The City, however, requires compliance with the Municipal Code and the approved Use by Special Review and would undertake enforcement actions, if necessary.

4. DRILLING ACTIVITY

How does oil & gas mineral extraction take place?

Oil drilling commences with the drilling of a hole in the ground that is 5 to 36 inches in diameter by a piece of equipment called a drilling rig. After the hole is created, a section of tubing, made out of steel, is inserted in the hole. At this point, a drill bit is inserted and begins to cut through the subsurface materials and rock. Fluid is inserted into the tube to help wear down the rock and to move bits of rock that have already been sheared from the surface.

After an oil well is drilled, it must be "completed" in order to generate oil. This occurs when holes are made in the initial tubing. The resulting mixture of oil and rock is pumped into a container to separate and filter out impurities. In general, the pressure is high enough to bring the oil to the surface. Often the well is "fracked" by pushing volumes of a combination of water and sand into the hole.

The actual production of oil is the most important part of the process. Oil production involves siphoning off the oil using a series of valves called the production valves. These valves regulate pressure and the flow rate if modifications are needed. At this point, assuming the pressure is high enough, the oil can be shifted to refineries and other machines that can further filter and process the oil. Older oil pumps may need certain modifications, called workovers, which either modify, clean, or update the machinery to allow for more efficient oil production and extraction.

An explanatory video can be found at <http://www.northernoil.com/drilling.php> .

What activities are normally associated with oil & gas development?

Some noise generating activities associated with drilling and reworking a well are periodical. Other noise generating activities are constant, such as pump jacks and compressors. Vehicle traffic may include large trucks and often involves night time activity.

How long will the well equipment be there?

This varies for each well. The well pump may be removed in several years or remain for decades, depending on production rates & market conditions. Well sites cannot be used for storage of materials and equipment not associated with the operation of the well without a special permit from the City.

How will the presence of wells affect nearby home values? Will home insurance costs increase? What other social or economic impacts may there be?

City staff is not aware of any studies that attempt to measure impacts of nearby oil and gas mining to home values. Home prices are highly variable, particularly in recent years, so isolating one influence is very difficult. Staff is also unaware of any increases in home insurance costs due to neighborhood oil and gas facilities.

Who is responsible for property damage due to the well?

Almost all COGCC reports of damage or leakage affect the property immediately associated with the oil and gas facility. However, mining companies are required to maintain liability insurance, and in the case of off-site damage, the mining company would be responsible.

5. OIL/GAS INDUSTRY OVERSIGHT & OPERATIONS

Who is responsible for regulating oil and gas operations?

The Colorado Oil & Gas Conservation Commission (“COGCC”) has been established by the State of Colorado to be the state-wide agency monitoring oil and gas operations. State law allows the COGCC to develop and enforce rules to protect the health, safety and welfare of the general public in the conduct of oil and gas operations, but it also exists to encourage development of the oil and gas resources. The COGCC can be reached at 970-259-1619. There is also a toll free complaint line operated by the COGCC at 888-235-1101.

What is hydraulic fracturing (or “fracking”)?

Hydraulic fracturing is used after the drilled hole is completed. Hydraulic fracturing uses fluid and material to create or restore small fractures in a geological drill formation in order to stimulate production from new and existing oil and gas wells. Small particulates, typically sand, are forced at high pressure into the drill hole and the adjacent formation. These particles create paths (“fractures”) that increase the rate at which oil and gas can be released or extracted from the reservoir formations.

Are drilling and fracking the same thing?

While fracking often accompanies drilling in Colorado, it is not the same as the drilling process.

How can “fracking” affect water supplies?

To ensure that neither the hydraulic fracturing fluid that is pumped through the well or the resulting oil or gas can enter the water supply, steel casings are inserted into the well to depths of between 1,000 and 4,000 feet. The space between these casings and the drilled hole (“wellbore”) is filled with concrete. Once the concrete has set, then the drilling continues from the bottom of cemented steel casing to the next depth. This process is repeated, using smaller casing each time, until the oil and gas-bearing reservoir is reached, generally at a depth of 6,000 to 10,000 feet.

What chemicals are used in “fracking”?

The hydraulic fracturing consists mostly of water and sand, which make up 98 to 99.5 percent of the fluid. In addition, chemical additives are used. The exact formulation varies depending on the well. A typical fracture treatment will use very low concentrations of between 3 and 12

additive chemicals, depending on the characteristics of the water and the shale formation being fractured. Each component serves a specific purpose. For example, the addition of friction reducers allows fracturing fluids and sand, or other solid materials called “proppants,” to be pumped to the target zone at a higher rate and reduced pressure than if water alone were used. In addition to friction reducers, other additives include biocides to prevent microorganism growth and to reduce biofouling of the fractures, oxygen scavengers and other stabilizers to prevent corrosion of metal pipes, and acids that are used to remove drilling mud damage within the wellbore area. These fluids are used to create the fractures in the formation and to carry the propping agent (typically silica sand), which is deposited in the induced fractures to keep them from closing up.

Is there a way to know which chemicals are used in fracking specific wells?

Colorado oil and gas developers have recently been encouraged by the COGCC to participate in a voluntary registry of specific chemicals that are utilized at specific wells, found at www.fracfocus.org. The COGCC website also contains various resources about the technique and the chemical content of fracking fluids.

Who is responsible for any spill cleanup and decontamination?

There are recorded incidences of oil and gas companies having a spill at a drilling site. By law, companies are required to report these to the COGCC, who then publishes them. Most are small incidents that are confined to the immediate area of the storage tanks or well. The companies are required to conduct all cleanup and environmental mitigation for such incidents.

Are Greeley’s police and fire department trained for a disaster related to a blowout or gas well fire?

All of the Greeley Fire Department personnel are certified by the State of Colorado to the Firefighter II level. This certification requires knowledge and training to mitigate all types of fires, including any associated with oil and gas facilities. Police response would be limited to traffic control and crowd control.

What procedures are in place to protect first and second responders from the chemicals related to oil and gas production?

The Greeley Fire Department is the DERA (Designated Emergency Response Agency) for hazardous materials incidents for all of Weld County and, as such, has a Hazardous Material Response Team with specialized equipment, suits, and training to mitigate all types of hazardous material emergency incidents. All Fire Department members are trained to the Hazardous Materials “Operations” level and Hazmat Team members are trained to the Hazardous Materials “Technician” level. Command officers have all completed training at the highest levels of “Incident Management” offered and required by the U.S. Department of Homeland Security.

Can the city’s medical facilities care for and treat the types of injuries associated with a blowout/explosion/fire?

The Northern Colorado Medical Center (NCMC) hospital has a regional burn unit, where patients are transported to from all of northern Colorado, eastern Nebraska and all parts of Wyoming. Patients are regularly transported to and treated for symptoms such as chemical exposure, respiratory distress, and burns at NCMC here in Greeley. For complete information on the NCMC’s abilities and resources, however, residents may contact the hospital directly, since the City does not own or control the facility.

TYPICAL QUESTIONS FROM THE PUBLIC ABOUT OIL AND GAS DEVELOPMENT IN COLORADO

The following is reproduced from the Colorado Oil and Gas Conservation Commission and can be found at <http://cogcc.state.co.us/General/typquest.html>. It is provided by the City of Greeley as a reference point to state-wide oil and gas issues.

1. HOW CAN WE STOP OIL AND GAS DEVELOPMENT IN COLORADO?

STOPPING OIL AND GAS DEVELOPMENT IN GENERAL

Question 1.a.: I own only the surface and have no interest in the oil or gas underlying my land. How can I stop oil and gas development on my property or in my area of the state? What can the Colorado Oil and Gas Conservation Commission (COGCC) do to stop additional oil and gas development?

Answer 1.a.: Colorado, like all other western states, recognizes separate ownership of the surface estate and the mineral estate and the distinct private property rights associated with each. Often, different parties own the surface and the subsurface, commonly referred to as severed or split estate lands. The different ownership may have been created through the reservation of the minerals to the government when the lands were originally patented, or may result from a decision by a previous landowner to separately sell or lease the subsurface mineral interest.

Because each party has property rights associated with the ownership of their respective estate, oil and gas companies that have purchased or leased mineral rights are entitled to exercise their property rights to develop the resource. Colorado law recognizes that access to the mineral estate from the surface estate is necessary in order to develop the mineral interest. The law provides for access to the mineral estate by allowing subsurface owners "reasonable use" of the surface estate. The COGCC did not create these legal relationships, and it does not have the statutory authority to alter these private property rights. Instead, surface and mineral interests are created or transferred through private party contracts, including deeds and leases.

In contrast, the COGCC is a state regulatory agency created by the Colorado General Assembly to promote development of the oil and gas resources throughout the state, consistent with the protection of public health, safety and welfare. Thus the COGCC may suspend operations if it finds a company is violating COGCC rules, or to protect the public from significant injury, but the COGCC cannot interfere with the private party contracts establishing the surface and mineral owners' rights to the property.

STOPPING OIL AND GAS DEVELOPMENT TO PROTECT AN INDIVIDUAL'S PROPERTY VALUE OR QUALITY OF LIFE

Question 1.b.: If COGCC is obligated to protect public health, safety and welfare, why won't they stop oil and gas development that threatens my property values or my quality of life?

Answer 1.b.: The law that created the COGCC and empowers their regulation of the oil and gas industry provides for the COGCC to promulgate rules to protect the health, safety and welfare of the general public in the conduct of oil and gas operations. The law is intended to keep the general public safe when drilling and development occurs, and is not directed at protecting individual property values or a preferred quality of life.

An example of COGCC rules enacted to protect public health, safety and welfare are the "high density rules" that apply significant restrictions on oil and gas development in areas where there is dense surface residential development on 2 acre or less equivalent lot sizes. In some cases these rules essentially preclude new oil and gas development because of safety concerns.

STOPPING OIL AND GAS DEVELOPMENT WITH RULES FOR PREVENTION AND PROTECTION

Question 1.c.: The COGCC says it has authority and rules to prevent and mitigate significant adverse environmental impacts and to provide certain types of "protection". Why won't the COGCC use those rules to stop oil and gas development?

Answer 1.c.: The COGCC's authority to prevent and mitigate significant environmental harm does not negate its obligation to encourage development of the oil and gas resource. Generally, the COGCC's authority requires it to find solutions that prevent or mitigate significant adverse environmental impacts as well as provide for oil and gas development. The COGCC therefore focuses on environmentally safe operations. In this regard, the COGCC often conditions its drilling permits to include environmental protections, and otherwise enforces its rules to prevent and mitigate significant adverse environmental impacts. In rare cases if there is no identifiable solution to prevent or mitigate significant adverse environmental impacts or to meet its "protection" type charges, the COGCC does prohibit oil and gas development by denying drilling permit application approval or through Commission orders.

2. WHY DOESN'T THE COGCC DO MORE FOR SURFACE OWNERS?

SURFACE OWNER COMPENSATION AND SURFACE DAMAGE BONDS

Question 2.a.: I thought the COGCC was supposed to "balance" oil and gas development with surface development. Why doesn't the COGCC require the oil and gas companies to pay me for the economic loss I suffer when the oil company uses part of my property for oil and gas development? Why does the COGCC grant companies permits to drill on my property when I haven't signed a surface use agreement with them?

Answer 2.a.: An oil company's right to use the surface is created by the oil and gas lease or other contract that establishes the company's right to drill. The COGCC does not create these interests and it is not authorized to interfere with these interests unless it has evidence that the operations are in violation of COGCC rules and regulations.

The law creating the COGCC requires oil companies to post a bond with the COGCC that is intended to protect surface owners from "unreasonable crop losses or land damage from the use of the premises" when a company and the surface owner have not otherwise reached agreement on surface use compensation. The COGCC's statute recognizes the existing law that provides for reasonable surface use to access the mineral estate. Therefore, only if crop losses or land damages are "unreasonable" based on what is needed to access the mineral estate does the law provide for compensation to the surface owner. No surface owners have claimed compensation under a surface damage bond for unreasonable crop loss in several years.

In practice, companies generally pay surface owners for access despite the fact the law permits reasonable access without compensation. The surface use payments companies voluntarily make to surface owners may or may not be equivalent to the economic losses perceived by those surface owners. The COGCC is not authorized however to order companies to compensate surface owners for crop loss or land damage considered "reasonable."

REQUIRING DIRECTIONAL DRILLING OR PITLESS DRILLING SYSTEMS

Question 2.b.: Why doesn't the COGCC prevent or mitigate environmental impacts by requiring companies to spend more money for special equipment and technology such as directional drilling or pitless drilling systems?

Answer 2.b.: The law empowers the COGCC "to regulate oil and gas operations so as to prevent and mitigate significant adverse environmental impacts ... resulting from oil and gas operations to the extent necessary to protect public health, safety and welfare, taking into consideration cost-effectiveness and

technical feasibility." Because of the statutory requirement that the COGCC take into consideration cost-effectiveness and technical feasibility the COGCC has to consider the costs of any condition imposed for environmental purposes. In some rare instances the COGCC has required directional drilling or pitless drilling systems. Generally, the COGCC does not impose these requirements because there has been no showing that the requested method is cost-effective, technically feasible, and necessary to protect the public health, safety and welfare. A surface owner may file an application for Commission hearing to make a showing that directional drilling or pitless drilling systems are necessary to protect the public health, safety and welfare taking into consideration cost-effectiveness and technical feasibility.

REQUIRING MINERAL RIGHTS HOLDERS TO ACCOMMODATE SURFACE OWNERS

Question 2.c.: In its 1997 decision in *Gerrity Oil and Gas Corp. v. Magness* the Colorado Supreme Court discussed the relationship between surface owners and mineral owners and stated that "[t]his 'due regard' concept requires mineral rights holders to accommodate surface owners to the fullest extent possible consistent with their right to develop the mineral estate." How does this decision affect the COGCC's regulatory authority?

Answer 2.c.: The COGCC receives its regulatory authority from the General Assembly. The Colorado Supreme Court Decision does not change the COGCC's statutory grant of authority, nor did the decision reinterpret the COGCC statute as it applies to surface and mineral owners. A legislative change to the Oil and Gas Conservation Act would be necessary to affect COGCC's regulatory authority.

The Magness decision more closely affects the private party contractual relationships between surface and mineral owners discussed above, providing that accommodation concepts be incorporated into the analysis of the reasonableness of the company's access. The decision may also affect the way lower courts decide future litigation between surface owners and mineral rights holders.

Much of the COGCC's existing statutory charge and many COGCC rules are consistent with the Magness decision. It is important to note however that the COGCC statute has not been changed to include authority to regulate the extent to which mineral rights holders must accommodate surface owners.

3. WHY IS THE COMMISSION COMPRISED OF PEOPLE FAMILIAR OR ASSOCIATED WITH THE OIL AND GAS INDUSTRY?

Question 3.a.: Can the Commission makeup be changed to include more environmentalists and surface owners so that it will be more likely to vote to stop oil and gas development?

Answer 3.a.: In 1994 the COGCC's law was amended to provide that the Commission's promotion of resource development is consistent with the protection of public health, safety and welfare. At the same time the General Assembly expanded the makeup of the Commission. The COGCC includes members with experience in the oil and gas industry, agriculture, real estate, range management, land reclamation and other environmental areas. In spite of these changes the Commission is sometimes viewed as unresponsive to surface owners and unwilling to stop oil and gas development.

Since the 1994 legislation the COGCC has promulgated some of the most comprehensive state oil and gas regulations with respect to environmental protection, reclamation, local governmental coordination, and public participation in the United States. The COGCC has acted to the extent of its current statutory authority to address surface owner concerns and control oil and gas operations. Further changing the Commission makeup without fundamentally changing and expanding its statutory authority would not make it more responsive to surface owners, or allow it to stop drilling more often. Accordingly, as long as there is severed mineral interest ownership in Colorado and law which protects the property rights of mineral rights holders to access their mineral estate, and as long as the COGCC's statute charges the COGCC with promotion of oil and gas development, the COGCC will be limited in its ability to satisfy surface owners or to stop oil and gas development, regardless of Commission makeup.

COMMISSIONER INDUSTRY EXPERIENCE REQUIREMENTS AND RELIANCE ON STAFF

Question 3.b.: The COGCC has a staff of specially trained and experienced petroleum engineers, geologists, environmental protection specialists, and field inspectors as well as legal advice from an experienced oil and gas attorney in the Attorney General's office. Why does the Commissioner make up need to include so many industry experienced professionals? Couldn't the Commission be made up mainly of people without professional expertise or industry experience who would rely on staff advice in making technical decisions?

Answer 3.b.: The Commission functions in two types of roles; as a legislative "rule-making" body and as a court-like "adjudicatory" body. Each role requires the Commission to assess complex technical engineering, geologic, legal, operational, and economic oil and gas issues. The Commission must also have a thorough understanding of these issues in order to fulfill its statutory charges. Although staff is available in an advisory capacity, the Commissioners must exercise independent judgment on complex technical and legal issues which requires substantial experience and expertise. Accordingly, it is very typical for the General Assembly to require state boards and commissions to be composed of individuals with experience and expertise in the businesses they oversee. It would be inappropriate and in some instances illegal for staff to substitute its judgment for that of the appointed Commission officials.

COMMISSIONER CONFLICTS OF INTEREST

Question 3.c.: Because there are so many industry-experienced professionals that serve as COGCC Commissioners isn't there a danger of conflicts of interest leading to a "fox guarding the hen house" situation?

Answer 3.c.: All appointed officials are required by law to separate their personal interest from the state interests they represent. In addition, the COGCC has promulgated rules that require very high standards of professional conduct and comprehensively address conflicts of interest which meet and exceed those contained in state statutes. In practice, the Commissioners are thorough and deliberate in disclosing potential conflicts of interest and appropriately removing themselves when relevant matters come before the Commission.

4. HOW DOES THE COMMISSION PROTECT THE SAFETY OF THE GENERAL PUBLIC?

The COGCC applies a multitude of rules and permit conditions to protect the safety of the general public including: safety setbacks from dwellings for wells and production equipment; blowout prevention equipment; well and equipment safety specifications and design standards; security fencing in high density areas; and special operations safety procedures. Copies of the Commission Rules are available at no cost from our web site at www.cogcc.state.co.us or they can be ordered through the mail by calling our main number, 303.894.2100, or sending an e-mail to dnr.ogcc@state.co.us. Moreover, cases of public safety impacts from oil and gas operations are extremely rare and generally non-existent in Colorado.

5. HOW DOES THE COMMISSION'S AIR AND WATER QUALITY REGULATION FIT IN WITH THAT OF THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE)?

The COGCC has broad statutory authority with respect to "...impacts on any air, water, soil, or biological resource resulting from oil and gas operations...". The CDPHE Air Pollution Control Division (APCD) regulates air quality over the entire state to minimize emissions from a variety of sources, and to ensure air quality on a statewide basis meets federal air quality standards. In addition, the COGCC has a few air-related rules specific to oil and gas operations such as flaring gas wells. The COGCC also cooperates and coordinates closely with CDPHE-APCD with respect to oil and gas operations, with the COGCC generally deferring to the expertise of CDPHE-APCD on air quality issues such as emissions and potential health impacts.

With respect to water quality the COGCC coordinates its monitoring and enforcement with the CDPHE Water Quality Control Commission (WQCC) which sets water quality standards and classifications statewide. The COGCC is responsible (and accountable to the CDPHE-WQCC) for implementing those standards and classifications with respect to ground water. The COGCC requires that operators design and construct wells and facilities to protect ground water from contamination during oil and gas operations. If oil and gas operations entail discharges to surface waters the operator must obtain a permit prior to discharging from the CDPHE-WQCC. As an additional safeguard, the COGCC has several rules aimed at preventing unpermitted discharges to surface waters.

6. HOW ARE OIL AND GAS IMPACTS TO WILDLIFE AND AGRICULTURAL LANDS ADDRESSED?

Oil and gas development generally affects relatively small areas averaging roughly 2 acres per well. Therefore, impacts to wildlife habitat and agricultural lands are generally relatively small. The COGCC has reclamation rules that require impacted lands to be restored to their original condition after the well is abandoned. Those rules have recently been expanded and strengthened.

Compared to other forms of land use, such as rural residential development, oil and gas development is relatively benign in its impact on wildlife and agriculture. It is temporary in that after the well is abandoned the lands can be reclaimed for wildlife habitat and agriculture. Rural residential development is generally more permanent. Wildlife biologists from the Colorado Division of Wildlife (CDOW) have advised that there are generally more impacts to wildlife from a typical rural residence than from a typical oil and gas well. State law in Colorado restricts regulation of rural residential land development to parcels smaller than 35 acres. The CDOW wildlife biologists have confirmed that gas wells developed at one well per 40 acres typically have less impact on wildlife than 35 acre ranchette development does. The COGCC considers impacts to wildlife in its regulation, and in certain cases issues orders or applies permit conditions to prevent or mitigate impacts to wildlife. The National Environmental Policy Act (NEPA) provides for a defined "cumulative impacts" analysis for proposed projects classified as "federal actions". Colorado law does not provide for a NEPA "cumulative impacts" analysis for projects proposed on private or state-owned lands. The COGCC can consider cumulative impacts within the limits of its authority under state law. A wildlife policy has been adopted by the oil and gas industry trade associations and many companies operating in Colorado. The CDOW and the COGCC encourage voluntary commitment to measures that prevent and mitigate impacts to wildlife.

7. WHAT IS THE BASIS FOR THE COMMISSION'S SOUND RULES AND HOW ARE THEY APPLIED?

The state noise law specifies levels of sound that the courts use to determine the extent to which the noise constitutes a public nuisance. The Commission has adopted sound rules which incorporate the same levels of sound specified in the state noise law.

The Commission's field inspectors are equipped with sound level meters and frequently take field measurements in response to complaints. If sound levels measured from oil and gas operations exceed those specified under Commission rules, enforcement action is initiated to bring them into compliance.

8. HOW ARE THE COMMISSION RULES ENFORCED?

The Commission staff initiate enforcement actions as a result of alleged violations encountered through inspections and complaints. If the operating company fails to voluntarily agree to appropriate corrective action or an order setting fines, a hearing is scheduled for the Commission to determine if a violation exists and to order appropriate corrective actions and assess fines. From 1994 to 2000, the Commission issued 110 penalty orders assessing one million dollars in fines.